FACING THE LOTTERY'S FUTURE:

Implications and Strategies Regarding Internet Sales

Prepared for the Massachusetts Treasurer's Online Products Task Force
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A. Introduction

The Commonwealth of Massachusetts Treasurer's Online Products Task Force ("Task Force") retained Spectrum Gaming Group ("Spectrum," "we" or "our") "to facilitate the Task Force in achieving its responsibilities" concerning the possible implementation of Internet play for the Massachusetts State Lottery. Our recommendations are based on considerable research and analysis and reflect Spectrum's best insights and advice. Our goal is to provide the Task Force with the highest quality information upon which to base its own recommendations.

This introduction provides the necessary basis for the following section of our report, which details a series of recommendations. All of our recommendations have one critical assumption: That Internet gambling is conducted on an intrastate basis, except for perhaps poker and horse racing. If federal law were to permit interstate lottery and casino play, it could dramatically alter all forms of gambling throughout the country and thus require a completely different analysis of the Massachusetts State Lottery's online strategy.

1. Holistic Perspective in Massachusetts

The core theme of Spectrum's report can be summarized in two words: "One Commonwealth." That theme emerged early in our research and analysis regarding whether the Massachusetts State Lottery State Commission should develop an online gambling channel, and if so, how. As our research progressed and we examined a widening array of issues and options, the theme became more pronounced. Upon completion of our analysis, the central role of that theme became obvious.

Massachusetts Treasurer Steven Grossman set forth certain overarching goals that should guide our research:

- Any online gambling efforts that may be considered should enhance and not hurt the 7,400 retailers who presently sell lottery tickets, and who are a major factor behind the success of the Massachusetts State Lottery ("Lottery").
- Any online gambling initiatives should enhance and not diminish the value of the planned casino licenses to be awarded by the Massachusetts Gaming Commission.

Additionally, Treasurer Grossman made it clear that he expected Spectrum to be in full "listen mode" throughout our research, making every effort to hear, understand and address the wide variety of concerns and aspirations of all interested stakeholders.

Indeed, we have endeavored to enthusiastically abide by those precepts, which remain central to our findings. We start by noting that such a broad mandate is rare among lotteries, which traditionally are measured by ticket sales and by how much they return to their respective state treasuries. If a lottery helps a retailer sell more milk, gasoline or other non-lottery products, that is generally not taken into account as to whether a lottery is successful. Moreover, if a

lottery helps its casino industry to attract more capital investment, employ more people or generally be more successful, that does not generally earn plaudits for the lottery.

At the same time, we note that while such mandates may be rare they are also rather productive. A strict adherence to Treasurer Grossman's mandates would not only be good public policy for Massachusetts, but would also fuel continued success for the Lottery itself.

Indeed, we believe that one aspect that sets the Massachusetts State Lottery apart from other lotteries in North America is a culture that is willing to challenge conventional wisdom and question the status quo. That willingness – ingrained into the Lottery's culture – is one reason why this study was commissioned in the first place.

As our research was underway, certain singular aspects of Internet gambling, as well as certain aspects of policy in Massachusetts became clear. Among these are:

- The Lottery has developed a powerful network of more than 7,400 retail agents throughout the State, allowing it to generate $4.75 billion in annual sales. If it were a private company, that level of revenue would nearly place it in the Fortune 500.[1] Yet, despite that scale of operations within a single state, the Lottery – like most of its counterparts across the nation – has little presence on the Internet.
- Internet wagering – despite its success in Europe, Canada and elsewhere – remains something of a "black box" for a state lottery, in that there is no reliable predictor of its impact in terms of revenue or on the State in general. As our report will detail, professionals in the field of problem gambling are concerned that there is little precedent on how the availability of online wagering may impact that vulnerable segment of the population.
- The initiative to study the potential of online wagering occurs at the same time that the Commonwealth is embarking on a significant land-based gambling initiative, with three planned destination casino resorts plus a slots-only casino to be licensed in coming months.

Those three examples are emblematic of the challenges facing this initiative. From the standpoint of Spectrum, we determined to look at all these challenges as opportunities to help ensure the success of any such initiative. With that in mind, we developed the following principles to guide our recommendations and findings:

- The established network of retailers – who have an abiding interest in maintaining a cooperative relationship with the Lottery – should be viewed as an asset that could benefit the Lottery's online initiative, while they benefit in return.

[1] Based on revenue, the 500th company in the Fortune 500 is Molina Health Care, with annual revenue of $4.77 billion. http://money.cnn.com/magazines/fortune/fortune500/2012/full_list/401_500.html (accessed July 29, 2012)

- While the precise nature of how online play would impact the Commonwealth or be embraced by the public is unknown, it is equally true that the nature of online play – in which every important aspect of every transaction will be known, and measured – allows the Lottery to continually fine-tune, refine and adapt to changing circumstances, and to respond to new insights that would be gleaned from the expected stream of data.
- The convergence of an online lottery and casino gambling in the State may create a challenge, but it should also be viewed as an opportunity. In our experience, no other state has had two such simultaneous initiatives with which to grapple, and we suggest that one unified policy can be developed to enhance both initiatives.

Of course, the overarching finding that is at the heart of our research can be summed up thusly: The status quo is not a viable option. This is true, regardless of the equally undeniable finding that many stakeholders have a vested interest in the status quo, and an understandable fear of the unknown consequences of online wagering. The Lottery has historically operated under a business-to-business model ("B2B"), and online wagering is, by definition, a business-to-consumer ("B2C") model. By any measure, this will alter the historic and successful relationship, and retailers fear that their supplier will become their competitor.

Still, we must note that the lottery population is aging, and coming generations of adults cannot necessarily be expected to adopt the same spending habits of their forebears, and this is particularly true as new technologies are quickly adopted and just as quickly replace previous technologies.

The Lottery should be guided by the following:

- By shifting from a pure B2B to a combination of B2B and B2C, the Lottery needs to keep the interests of its business customers in mind, and all reasonable steps should be taken to ensure that online complements, and does not replace, in-store sales.
- The nature of online wagering is such that it will create a torrent of streaming data about customers, which can be analyzed to form a portrait of customer preferences, concerns and problems. No one can accurately or reasonably project how that portrait will be formed and the Lottery must approach online wagering as methodically as possible, learning from each step before taking the next step.
- Additionally, the Lottery must develop and maintain a willingness to identify new policies, as well as to alter or eliminate existing policies once these opportunities and problems surface. That requires an unprecedented level of flexibility in its operations.
- The Lottery should recognize that online wagering in 2018, 2019 and beyond will look far different than it will in 2013 and 2014. New games will have been developed, and new technologies will emerge, while new adults – who are now

adolescents – will come of age, with different preferences, goals and habits than those of their forebears.

2. The Gambling Landscape

Legalized gambling throughout the United States over the last 20 years has evolved to become a major public-policy issue at the state level. The gambling debate and subsequent policy discussions have intensified in many states – including Massachusetts – over the last year, due to the confluence of several critical factors:

- State officials seeking additional sources of revenue to close budget deficits;
- State officials seeking to retain gambling dollars being spent across state lines as casino gambling expands;
- A shrinking pool of new, attractive domestic casino markets;
- Efforts to support the ailing horse-racing industry through the installation of racetrack slot machines; and
- A December 2011 US Department of Justice opinion that allows Internet gambling on an intrastate basis.

The latter bullet point has exacerbated what has become a state-by-state, company-by-company rush to the inevitable. Just as written messages, retail commerce, and research are routinely conducted via the Internet, so, too, will all forms of gambling be available online in the United States – in some states to start, in almost all states ultimately. This has already happened elsewhere in the world, most notably in Europe, where Internet gambling is estimated to be a US$118.2 billion business in 2012.[2]

The experience in Europe – which is the world's largest and most mature Internet gambling market – informs much of our analysis. Europe is also significant because many of the operators and suppliers based in Europe and surrounding regions, including the Middle East, are targeting the United States as a prime market for their goods and services.

That, in turn, leads us to a critical cautionary note: The experience in Europe is of limited value to the US market, including lotteries, because the gambling industry in the United States has already evolved in a way that is markedly different from its counterpart in Europe. The United States is home to two major gambling industries – lotteries and casinos – that are roughly equal in size, at about $60 billion in annual revenue each when US state lotteries are measured by net ticket sales.[3] The size and the nature of these industries demands that online gambling be adopted in the United States with a different approach.

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[2] H2 Gambling Capital estimate of 2012 Internet gross gambling revenue.

[3] La Fleur's 2012 World Lottery Almanac

Notably, that cautionary note is not universally accepted or shared. Many European operators and suppliers with whom we have met, or whose experience we have studied, are clearly under the impression that what works in Europe will likewise work well in the US. We believe that such an approach is short-sighted and represents potential lost opportunities.

3. Competition and Convergence

Online gambling policy within Massachusetts is being developed in coordination with policies regarding other forms of gambling, and with due consideration to what is occurring outside the borders of the state. While the future delivery mechanism of gambling is known, the relationship among – and possibly the integration of – each state's various forms of gambling is unknown. Yet this relationship will be critical to the economic performance of all forms of gambling in a state.

State lotteries will be early adopters of Internet gambling. Ultimately, many states will offer video lottery games via the Internet that will – from a consumer standpoint – be no different than a casino's online slot machine offerings, or significantly from different a casino's physical slot machines, for that matter. How, then does a state ensure that both its lottery and casino industry – forms of gambling in which a state has a large, vested interest – coexist when offering the same product?

Lotteries themselves will confront new, Internet-specific concepts that are largely not present in the lottery world. One concept well known in the casino industry is "time on device." This concept, used to gauge the popularity of a slot machine, is baked into the concept that gambling is a form of entertainment, as much as it is a form of risk-taking. Players seeking entertainment will view the time they spend at a machine, or before a computer screen, as the time they are purchasing with their gambling budget. This concept is foreign to lottery players, who as presently constituted are purchasing an opportunity to win. Lottery players do not purchase "time on ticket."

Recognizing, and ultimately adopting, the new-gambling issues and realities will likely be a factor in whether the Massachusetts State Lottery develops a successful online channel. Such recognition means, for example, that pay tables may have to be tweaked, or that sufficient emphasis has to be placed on the creativity of the player experience. It also ties into the notion that if an online lottery is to be successful it must tap into the desires of adults who do not presently play existing lottery games, i.e., such adults seek a different type of gambling experience.

Such issues become even more challenging to address because no state has a cohesive, overarching policy concerning legalized gambling. Lotteries, commercial casinos, Indian casinos, racetracks, and charitable gambling typically look out for their own good – and typically answer to different authorities. In fact, their competing economic interests are a source of

ongoing friction both among each other and among their supporters in statehouses across the country.

Such interplay is now of great importance for the Commonwealth of Massachusetts, where its highly successful lottery is exploring Internet-based play at the same time that the state is preparing to launch a land-based casino industry in which private companies may be investing $2.5 billion. Operating in largely separate spheres, each form of gambling should provide handsome financial rewards for the Commonwealth. When there spheres overlap – i.e., they offer similar games of chance – there is the potential for harm, or what is widely known in the gaming industry as cannibalization.

Cannibalization of Lottery revenue due to the opening of casinos in the State is not a new issue. Indeed, Spectrum analyzed this extensively in its 2008 report *Comprehensive Analysis: Projecting and Preparing for Potential Impact of Expanded Gaming on Commonwealth of Massachusetts*. We noted, among many issues, that "Lotteries are largely a convenience-driven product, with little social interaction. Casinos – particularly destination resorts – are centered on the entertainment experience. At the same time, studies have shown that the demographics of these two forms of gambling are markedly different."[4]

However, we also noted that certain lottery games such as keno might be more vulnerable to cannibalization since they have social elements not present in more traditional lottery games.

The prospect of Internet gambling makes cannibalization a particularly important issue since the possibility exists that both the Lottery and the forthcoming casinos could both, theoretically, develop online offerings that would compete directly against each other. In such a scenario, cannibalization is a certainty – although it would theoretically cut two ways.

While addressing this internal challenge, the Commonwealth must be mindful that gambling is expanding throughout and around New England:

- Rhode Island is contemplating adding live table games and a possible third, Indian casino.
- New Hampshire is expected to reconsider legislation that would add one or more casinos – one of which could be located at Rockingham Park, just 30 miles north of Boston.
- Maine opened its second casino in June 2012
- Connecticut's two Indian casino resorts are becoming more aggressive in developing online strategies while protecting their brick-and-mortar market share.

[4] "Comprehensive Analysis: Projecting and Preparing for Potential Impact of Expanded Gaming on Commonwealth of Massachusetts," Spectrum Gaming Group, August 1, 2008, p. 124

- A highly successful racetrack operation opened in New York City last fall and the State of New York is now considering legislation that would legalize table games and possibly add more gambling locations.

How Massachusetts responds to the internal and external challenges will shape its gambling-related proceeds for decades. The Commonwealth, through Treasurer Grossman, has taken an important first step with the creation of the Treasury-Lottery Online Products Task Force "to gain a comprehensive, strategic assessment of the current landscape of online lottery products and play throughout the country and its short- and long-term fiscal and societal implications ..."

The Online Products Task Force ("Task Force") subsequently retained Spectrum Gaming Group on March 8, 2012, to assist it in executing its mission. Specifically, Spectrum was retained to "facilitate the Task Force in achieving its responsibilities, including (a) examination of the legal and regulatory frameworks governing online lottery/gaming and advising on the state of the law with respect to Massachusetts; (b) assessing the economic implications of online lottery products and play for Massachusetts taking into consideration, without limitation, such matters as (i) the Lottery's current business, consumers and agents, (ii) the anticipated development of 'brick and mortar' casinos in the Commonwealth, and (iii) other online lottery/gaming initiatives underway globally or under consideration nationally; (c) investigating the prospect for and means to cultivate new technological and business opportunities here in Massachusetts in connection with any expansion into online lottery products; (d) evaluating the human and social issues accompanying online lottery products and play and means for addressing them; and (e) advising as to legislative and regulatory measures needed to position the Lottery for the introduction of online products, while protecting its assets and safeguarding the interests of our citizens."

Among other tasks, Spectrum executives and associates have interviewed myriad stakeholders – from elected officials to lottery retailers – in developing a report that focuses on recommendations designed to help ensure that the Commonwealth develops an online gambling program that advances public policy and addresses the needs of such stakeholders.

4. Cultural Adaptation: New Parameters

The development of an online channel offers the potential to change the Massachusetts State Lottery in profound ways, as it would for any lottery that seeks to implement online gambling in a proper means that protects and enhances the public interest.

First, lotteries that evolve from the existing brick-and-mortar distribution channel by adding an online channel should recognize that such moves will add requirements and pressure to become more of a regulatory agency, which can be a profound change for agencies that have historically focused on the marketing and sales aspects of lottery operations.

Spectrum has worked with lotteries that have evolved into effective regulatory agencies, in such states as Maryland and Delaware, where lotteries were vested with oversight of casino operations. While such examples are not precisely on point with respect to this proposed change in Massachusetts, the transitions have been successful, and we believe that the Massachusetts State Lottery will similarly adapt with ease. In part, becoming more of a regulatory agency requires a focus in such areas as licensing standards and adopting rules that to which vendors must adhere.

Potentially more important, however, is the notion that lotteries must become even more attuned to such issues as underage gambling and problem gambling. We suggest that public pressure may be such that the bar will be higher. For example, lotteries provide instant games based on brands developed elsewhere, from popular movies to comic strips. Such games have largely escaped criticism, but that may not necessarily hold for an online brand. For example, would a "Three Stooges" game – popular with instant games – work as an online brand, or would it be perceived as potentially targeting an under-18 demographic? As another example, the Pennsylvania Lottery had its own mascot, a groundhog named Gus. Would such a mascot work in an online environment, or would it become another Joe Camel, the mascot once used by Camel cigarettes but since abandoned, since it was viewed as targeting underage smokers?

Such questions – and potentially such concerns – should be addressed much earlier in the process, if the Massachusetts State Lottery proceeds with an online offering. We cannot predict precisely how far the bar will be raised on such matters, but we expect that it will indeed be raised.

Similarly, this report makes it clear that moving online will put the Lottery on a path of convergence with casinos, but will also put it on a path of a convergence with the existing games industry (which is not regulated, and does not constitute gambling).

The games industry[5] has developed its own unique concepts, goals and terminology that may prove to be anathema for lotteries that are concerned with not targeting underage gambling and with not exacerbating problem gambling. For example, game designers seek to develop games that grow in popularity by prompting players to continually return to improve their scores and skills, and because they enjoy the experience. That concept is referred to as a "compulsion loop." The concept is summarized well in the following:

> "At the center of a game design are its core compulsions, 'things to do' that, in turn, inform the core game mechanics. Fulfilling these compulsions should yield incremental rewards, in the form of story advancement, new game elements, etc. These rewards

[5] This industry is also known as the "gaming" industry, but we need to make a distinction for purposes of this analysis, to avoid confusion with the gambling industry, which is also known as the "gaming" industry.

should drive the player to continue playing, and unlock further rewards, etc. This cycle is commonly referred to as a 'compulsion loop.'"[6]

While such concepts are perfectly acceptable and non-controversial with respect to games, the very word "compulsion" would likely be alarming if established as a goal for a form of legal gambling.

Moreover, as we note later in the report, while the potential convergence of an online lottery and a games industry offers tantalizing prospects, a variety of challenges need to be considered – including such issues as people who play games at work, as well as the core issues of underage gambling and problem gambling. "Time on device" is an important concept for online play, and indeed time is a valuable commodity that the Lottery can offer to potential players, but such policies should be tempered by the public policies of not encouraging either underage gambling or problem gambling.

[6] "The effect of playing video games: What do designers want?" http://www.oecd.org/edu/ceri/39530650.pdf (accessed August 27, 2012)

B. Executive Summary

Policy Implications

The Massachusetts State Lottery Commission should engage the Internet channel just as the vast majority of businesses across the country and around the world are doing now. Establishing an Internet presence will keep the Lottery relevant and render play more accessible and convenient, while attracting and interacting with a new, younger, more affluent customer demographic which ultimately represents the future customer base. Commercial retail operations ignore the Internet at their own peril and recent US business history is littered with the carcasses of companies that failed to develop an online products strategy. A defensive threat also exists that if the Lottery does nothing, then it cedes the field to other actors who will not be as obligated to provide for the general good of the Commonwealth. The key consideration in any online engagement is for the Lottery is to pursue a carefully articulated strategy and assure that online lottery product sales do no harm to existing stakeholders but rather provide a net benefit to the Commonwealth.

Because the primary goal of the Lottery's original mandate is to provide for the greater benefit of the Commonwealth, the Lottery should be granted the exclusive right to offer Internet games of chance within the state. This will provide maximum benefit for Massachusetts citizens in terms of revenue reinvested in local communities across the state. An important corollary of state lottery exclusivity is that monopolization of the Internet gambling channel will function to minimize the influence of less well-regulated offshore operators and allow the implementation of an online strategy to be conducted with maximum consideration given to social responsibility issues and to ameliorating any potentially negative impacts on the widespread network of traditional lottery retail agents. Absent this official oversight from a trusted and proven state agency, Internet gambling could develop commercially in ways that most likely would not produce the same level of benefit to the Commonwealth as a whole. The Massachusetts State Lottery enjoys widespread brand recognition, high levels of public trust, a widespread network of retail sales agents, and the majority of revenues generated from Lottery sales benefit municipalities across the state. In addition, the Lottery is well positioned and highly motivated to protect the financial interests of its retail agent network during any implementation of online product sales and into the future.

This recommendation – indeed, this entire report – recognizes that two agencies regulate gambling in the Commonwealth. Casino gambling is regulated by the Massachusetts Gaming Commission. If the casino industry is authorized in the future to conduct any form of online gambling, that would clearly fall under the full purview of the Gaming Commission. We are not suggesting that the Massachusetts State Lottery Commission should regulate the casino industry. If, going forward, different entities – including the Lottery – are authorized to conduct online

wagering, we recommend that marketing efforts be coordinated in an effort to optimize the overall benefit to the Commonwealth.

If exclusivity is not granted through enabling legislation, we recommend that joint ventures with, or licensing through, the Lottery be mandated or encouraged for Internet gambling enterprises seeking to operate in Massachusetts. Such combined efforts could include partnering with the Lottery to operate within the state, utilizing a common platform maintained by the Lottery, or providing a percentage of revenue to the Lottery as a condition of licensure. We also recommend that the Treasurer take a strong stand against any federal Internet gambling legislation that would restrict the Lottery from implementing online products in the future, and work with the heads of other US lotteries to protect states rights in the field on Internet gaming.

Finally, in the area of policy, Spectrum recommends that the Task Force strongly support vigorous and effective enforcement of recently enacted H.3765, which regulates the quasi-gambling enterprises known as Internet/sweepstakes cafés. These establishments constitute a potential competitive threat to both retail and Internet Lottery sales as well as to land-based casino operations. Internet cafés offer a gambling-like product that competes directly with legalized gambling and should be closely controlled.

Retail Agent Protections

By engaging the Internet, the Lottery, which has previously followed a business-to-business model by selling exclusively through retail agents, now begins to market directly to consumers. This brings the Lottery into potential competition with its most important asset – the retail sales agents. The Lottery's network of 7,400 retail locations has been essential to the historical success of lottery sales and these small businesses provide employment and support local economies across the Commonwealth. Every effort must be made to ensure that Internet lottery sales will not adversely impact retail lottery sales and to utilize the established retailer network as a potent sales force for new online products that will effectively benefit all stakeholders in Massachusetts. These retailer protections may include but not be limited to the following measures:

- Phased online products implementation strategy
- Scratch games not carried to the Internet
- New online products developed as alternatives
- Lottery pre-paid cards pre-loaded in small dollar amounts for Internet play available for purchase only at traditional retail outlets.
- Retailer commissions earned on the sale of online products via pre-paid cards.
- Expanded advertising to communicate new and traditional sales channels.
- Online promotions that stimulate foot traffic to traditional retailers.

- Annual review to assess impact of Internet sales on traditional sales

Experience in international jurisdictions including Europe, Australia and Canada shows that online products will attract a different type of player than the traditional lottery ticket purchaser. This online product purchaser is generally younger, better educated, and higher income than traditional ticket purchasers. As a result, international jurisdictions show little evidence of online product sales cannibalizing traditional retail sales and multiple instances of retail sales increasing after the introduction of online products. Nonetheless, the Massachusetts lottery market is substantially different from international jurisdictions, most notably in its reliance upon instant games for the majority of ticket sales. The Lottery since its inception has benefitted from the enthusiastic support of a widespread network of retail sales agents; this long-established partnership should be preserved and strengthened in any Internet sales strategy. Therefore, in order to protect traditional sales for the most successful US lottery on a per-capita basis, it will be necessary to provide retailer protections such as those suggested above and to carefully monitor the impact of any online product sales upon brick-and-mortar retail sales to assure that the existing sales network is not impacted.

One of the most effective means for protecting retail sales is the utilization of pre-paid "play cards" for funding online Lottery purchases. These cards would be pre-loaded in small amounts and would be available for purchase only at authorized Lottery retailers. These pre-loaded play cards would fund play through player accounts via a code number input from each pre-paid card. Meanwhile retail agents would receive a commission on the sale of each card sold at that location. Requiring a pre-paid card to fund the purchase account would adversely impact the overall convenience of Internet registration. However, the physical age-verification check performed by the retailer at point of purchase would possibly avoid the need to provide a Social Security Number during the online registration process, which the Task Force's qualitative research has shown to be a barrier to purchasing online products.

Pre-paid cards could be reloaded from lottery winnings or from other sources such as bank account transfers or credit cards, but simply allowing the cards to expire and the player to purchase a new card would drive the most foot traffic to retail locations. There are many other ways that the Lottery can support retail business sales traffic, including the development of promotions for the online-play channel which involve redemption at a physical retail location. The Lottery should continue the current 5 percent commission for retail sales agents on all Internet purchases, with the commission going to the retail location where the play card was purchased. Additionally, the Lottery might consider providing the ability for patrons to designate a preferred retailer during the online registration, as Loto-Quebec intends to do, although this plan may not benefit all retailers as equally as pre-paid cards would.

Phased Implementation

A gradual and phased approach to implementing online products makes the most sense for several reasons. The Massachusetts State Lottery currently has no online products and if it

decides to engage the Internet as a sales channel it will take time to develop the capabilities and products as well as the internal knowledge base to move forward successfully. Furthermore, the Lottery has shown that it will not make such a decision lightly and will carefully weigh the potential impact before acting. For these reasons alone a gradual approach appears to constitute the wisest strategy. In addition, phased implementation of online products will minimize any potential negative impact on retail sales and give the Lottery the time to recognize any such impact and initiate remedial actions.

A phased approach has been followed by almost every lottery that offers online product sales and has proven especially successful for industry leaders such as the Finnish and British Columbian lotteries. For Massachusetts, the early phases should focus on the products most easily translatable to online sales: multi-state lotto and keno. In addition, the Lottery should develop new online products in the casual and social gaming categories such as arcade games. Middle phases can concentrate on adding new types of draw-based games and instant games. While implementing online products, the Lottery should be careful not to simply transfer its existing inventory of games which have proven successful in the brick-and-mortar retail sales outlets to the Internet. Instead, careful attention should be given to developing new types of online products that will not directly compete with retail versions. Finally, as the Lottery becomes more proficient in operating, administering and marketing online products, it can consider a wider variety of online offerings provided that legislative and market conditions as well as public perceptions allow, possibly including casino-style games, poker or even sports betting should it become legal at the national level.

Online lottery, by definition, includes mobile lottery products and the rapid growth in the utilization of mobile devices (smartphones, laptops, tablets, etc.) and associated rapid growth in mobile gaming argues for a strong mobile product strategy in any online product implementation. Many international lotteries are developing new games specifically designed to be played on mobile devices. The Lottery should also prepare for the introduction of a mobile product inventory as an element of its online product implementation.

Implementation Costs

Implementing online products will come at a substantial cost. International lotteries that have successfully entered this market have approached it as a startup venture and spent heavily to launch online product sales. Camelot was allocated a total of $141 million when taking the UK National Lottery online in 2002, including $72 million for operations and technology, $45 million for advertising, and $25 million for rebranding retail locations. The British Columbia Lottery Corporation's capital spending, most of which supported the eGaming venture, exceeded 10 percent of total ticket sales during the most intense phases of online product implementation, approaching $100 million in expenditures, and averaged 7 percent over the past 11 years. The BCLC's online products venture did not reach break-even revenue until four years after beginning investment and two years into offering online products after sales hit $20 million.

While the BCLC's implementation has been successful, generating a total of Cdn. $65.6 million through interactive sales in fiscal 2011-12, substantial investment continues, on the order of $11 million annually to maintain PlayNow.com, and $44 million budgeted for the next fiscal year to install a new customer account management system. The sobering reality is that the Massachusetts General Court must budget significant implementation funds or allow the Lottery to retain profits in order to enter the market for online lottery sales, and ongoing budget will need to be increased to support online product sales.

Vendors

In order to select the most qualified supplier as well as to control implementation costs, the Massachusetts State Lottery should initiate an RFP process to identify a primary technology vendor who will provide the fundamental platform upon which Internet operations will be transacted. We recommend utilizing a single vendor for the operating platform to assure reliability and consistency, but securing multiple vendors for platform associated applications, site content and game development to assure competition and greater innovation in new product development. The Massachusetts State Lottery has previously followed a unique course among US lotteries in retaining control over the management of backend operating systems. This traditional approach should certainly continue, with the Lottery maintaining complete operational control and decision making authority, but with a primary vendor integrating the platform software upon which the online products would run.

The Lottery should require primary technology vendors to be certified or licensed and to undergo background checks as a means to assure working with reputable partners and avoid potential negative surprises. We recommend that Lottery vendors be subject to the same suitability standards as those required by the Massachusetts Gaming Commission. In selecting vendors, the Lottery should also give priority to Massachusetts-based firms in awarding contracts for Lottery-related game and equipment development as an incentive to foster economic growth within the State.

Conclusion

Online play is expanding rapidly, both in the United States and throughout the world. A robust Internet gambling industry currently exists in Europe, boasting global reach and myriad products. This diverse industry is operated by private online casino and land-based casino companies, state lotteries, independent lotteries, and state monopoly casinos. A comprehensive online strategy embracing Internet lottery, casino games, social games, and poker now exists in Canada and it appears that full expansion in the United States is now a question of when rather than if, as more than one state lottery already offers Internet purchase of lotto games.

C. Recommendations

Based on our research, Spectrum makes the following recommendations for the Massachusetts State Lottery:

1. Seek Legislative Approval for Online Play

The US Department of Justice ("DOJ") opinion of December 23, 2011, opens the door to state lotteries providing intrastate online sales, with two caveats. The first caveat is that betting on sports is deemed to remain an unlawful practice under this interpretation of the 1961 Wire Act. Second, state lotteries can offer games that are legal under state laws. In practice this means that each state must pass enabling legislation specifically permitting online Lottery products, as well as any other Internet gambling products.

Following up on this opinion, a legal analysis produced by Greenberg Traurig earlier in 2012 in response to a Lottery request for information determined the answers to three strategic questions summarized as follows:[7]

- The MSLC currently is not authorized to sell products over the Internet based on the DOJ opinion along and will still require authorization by the state legislature in order to do so.
- The DOJ opinion limits the scope of online Lottery product sales to in-state residents over age 18.
- No individual or entity that is not the MSLC is currently authorized to sell gambling products over the Internet or other electronic communications media with the exception of certain horse racing and dog racing enterprises already so empowered.

Based on this legal analysis and our own extensive research on the subject, Spectrum recommends that the MSLC should seek to have enabling legislation approved that would allow the Lottery to sell game play via the Internet. This would allow the Lottery to diversify its product offerings, reach a broader base of customers, and engage new demographic segments. We further recommend that the Lottery be the only entity so permitted to offer online products within state boundaries in order to provide the greatest benefit to the Commonwealth. These recommendations, and others, are discussed below.

[7] Overview of Federal and Massachusetts Law Concerning Internet Lottery Games, Greenberg Traurig, 2012

2. Lottery Should Pursue Online Play

The most fundamental question that this report was designed to address is: Should the Lottery pursue online play? We addressed that question in part by rephrasing it: Should the Massachusetts maintain the status quo in its distribution system?

The issue then is whether the Lottery should expand its distribution channels to use the Internet, or should it be satisfied with the status quo. Our research leads us to the conclusion that maintaining the status quo is not a viable option simply because the status quo will change, regardless of what policies the Lottery elects to pursue, or not pursue. Lottery players are aging, and one fundamental tenet of marketing is that an aging customer base is a telltale sign that new customers are not entering the market in sufficient numbers to replace existing customers as they get older.

Speaking at the recent World Lottery Summit 2012, held in Montreal, Terry Rich, CEO of the Iowa Lottery, noted that traditional lotteries in the United States are an "offline business in an online world." As this report notes in great detail later, the Internet offers a variety of new opportunities that are simply not present in the brick-and-mortar world, while existing opportunities will only diminish in the absence of a material online presence.

The Internet is fundamentally reshaping the business model in numerous industries, for better or worse, from newspapers to hotels to traditional retailers. Coming generations are not likely to be satisfied with a distribution system that does not include a significant online presence, nor can they be expected to embrace an existing lottery distribution in the same way that their forebears did in the pre-Internet era.

In developing this core recommendation, we examined a corollary question: Should the Lottery be an early adopter of online wagering, or should it let other states take the early lead, and then learn from their experience? Clearly, the possibility of letting others move first, which would allow Massachusetts to replicate their effective steps and avoid their mistakes, has enormous appeal. Since state lotteries target sales within their own borders, there is little to no risk of an early adopter grabbing market share among Massachusetts adults.

Still, the benefits of waiting are outweighed by two other factors:

- By adopting online gambling sooner rather than later, the Lottery would play a lead role in developing the Commonwealth's overall gambling policy. Because casinos are still in the planning stage, this creates an opportunity to develop a unified strategy.
- By adopting a highly flexible, carefully calibrated strategy that allows the Lottery to respond to new information and new technologies as they appear, the Lottery can learn quickly from its own experience – as well as the experience in other states – and respond quickly.

- By becoming an early adopter, the Lottery can stimulate economic development by encouraging games developers to locate in Massachusetts.

As noted in our introduction, the development of online play is so pioneering and so new, that no entity can claim to possess an accurate roadmap to the future that identifies all revenues and pinpoints all potential pitfalls and opportunities. Flexibility and adaptability will be key components of a responsible online strategy.

3. Lottery Should Be Sole Internet Gambling Provider in Massachusetts

As the Commonwealth considers a move to offer legal online wagering, the inevitable question is: How many entities should be allowed to offer online gambling?

The situation in Massachusetts is such that the Lottery is best positioned to be the sole provider. As the Commonwealth prepares to license casinos, the ability of these future casinos to offer online gambling will surely be an issue, as it will in every state that offers tribal or commercial casinos. Gaming policies in states are largely shaped by the status quo. Online gambling in states that have casinos but no lottery (such as Nevada) will evolve differently than it will in states that have a lottery but no casinos (such as Georgia), which would be different in states that have lotteries but tribal-only casinos (such as Oklahoma and Connecticut).

Because Massachusetts is currently a lottery-only state, with the planned casinos still in the pre-application phase as of this writing, the Commonwealth has a unique opportunity to shape the status quo, rather than be shaped by it.

Spectrum's recommendation was developed after addressing some fundamental questions:

- Should there be intrastate competition among gambling sites?
- Would intrastate competition create unnecessary complexities and confusion, or would it promote healthy competition?
- Would intrastate competition help or hurt lottery retailers?
- Could online intrastate gambling be sufficiently segmented, so that different providers can offer differing products designed to reach disparate audiences?
- If the Lottery is designated as the sole provider, could that adversely impact the value of casino licenses?

With all those questions in mind, we recommend that the best approach would be a sole-source provider, with the Lottery best equipped to fill that role, for the following reasons:

- Intrastate competition is likely to generate unnecessary confusion among consumers, with few benefits that we can perceive. For example, providers may compete on the

basis of payout percentages, but that would not necessarily advance public policy in that it would likely not increase employment, tax revenue or other policy goals.

- The Lottery is clearly best equipped to make sure that its online offerings are developed with the interests of its retailers in mind. We suggest that the Lottery is also well equipped to protect the interests of the future Massachusetts casino industry.
- While the Lottery made it clear to Spectrum that it wants to protect the value of casino licenses, we also note that the future casinos have an important mandate to protect the value of the Lottery. Indeed, that mandate is written into the casinos' governing statute, which states that "enhancing and supporting the performance of the state lottery and continuing the Commonwealth's dedication to local aid is imperative to the policy objectives of this chapter."[8]
- While the future casinos have a mandate to protect the Lottery, they do not have a mandate to protect the 7,400 retailers who have been, and will remain, key stakeholders in this process.

Thus, we recommend that the best approach to online gambling in Massachusetts would be for the Lottery to take the lead in developing online wagering, with the ultimate goal of coordinating all online gambling policies in the Commonwealth.

The Lottery should begin its online gambling channel independently of casinos, which are still a long way from opening. Once casinos become fully operational and stabilized in their marketing efforts, which would likely occur in 2017 or beyond, the Lottery would have an opportunity to market the casinos to its online database.

The broad brushstrokes of such a marketing strategy would allow casinos to develop offerings for lottery players that could include such rewards as free or reduced rate hotel stays, meals, entertainment or other casino-related offerings. In turn, the casinos would gain access to new players without incurring more traditional marketing costs.

We note that such a strategy could encompass offers to both online and traditional lottery players, thus creating additional benefits for both retailers and their existing customers.

If coordinated effectively, such a marketing effort would:

- Allow the future casino industry to have access to a database of adults with a demonstrated propensity for games of chance.
- Promote visitation at casinos, which would in turn create opportunities for additional employment.

[8] M.G.L. c.23K, section 1(4)

- Lead to a likely increase in online lottery play, since such wagers would have more value; i.e., players can earn points through their online play that would be redeemable at casinos, thus increasing the perceived value of a future loyalty program.

An important caveat: Spectrum believes, as stated earlier, that online play requires significant flexibility going forward, as the Lottery learns more from actual experience, and as rapidly changing technologies, new games and consumer tastes continue to evolve. We do not know, at this writing, what may be negotiated with respect to online gambling between the governor's office and the Mashpee Wampanoag,[9] although we suggest such negotiations consider the interests and goals of the Lottery, with an eye toward coordinating these policies as described here. Similarly, we do not know what the future casino licensees may seek to do in this realm in the future either. However, based on present circumstances, we believe that the Commonwealth would be best served by vesting the Lottery with the sole authority to offer legal online gambling.

This recommendation – indeed, this entire report – recognizes that two agencies regulate gambling in the Commonwealth. Casino gambling is regulated by the Massachusetts Gaming Commission. If the casino industry is authorized in the future to conduct any form of online gambling, that would clearly fall under the full purview of the Gaming Commission. We are not suggesting that the Massachusetts State Lottery Commission should regulate the casino industry. If, going forward, different entities – including the lottery – are authorized to conduct online wagering, we suggest that marketing efforts be coordinated in an effort to optimize the overall benefit to the Commonwealth.

4. Aggressively Fight Threat from Internet/Sweepstakes Cafes

One potential challenge to the exclusivity of both the Lottery and commercial casinos in Massachusetts and nationally are Internet/sweepstakes cafes. Internet/sweepstakes cafes offer games of chance with prizes in conjunction with other services, such as Internet access time, wireless phone minutes, or gift cards. The American Gaming Association opposes these establishments as a threat to land-based casinos, and in June 2011 Massachusetts Attorney General Martha Coakley issued a permanent regulation banning the operation of establishments "where a gambling purpose predominates over the bona fide sale of bona fide goods or services" – in this case, Internet/sweepstakes cafés. The attorney general said that many establishments that offer these services are actually fronts for illegal online gambling, including unlawful lotteries, online slot-machine games, sweepstakes, and other forms of gambling.

[9] "Feds reject casino compact between Mass. and tribe," Associated Press, October 12, 2012 http://www.boston.com/news/local/massachusetts/2012/10/12/feds-reject-casino-compact-between-mass-and-tribe/1M8NyTkrXnqlaq07HCopmK/story.html

House Speaker Robert A. DeLeo, one the state's leading supporters of expanded gambling, recognized the threat of Internet cafes to existing state-sanctioned gambling and last year introduced legislation that would subject anyone running an Internet cafe to a fine of $250,000 per computer terminal or a prison term of 15 years (H.3765). The legislation was approved by the Governor, August 1, 2012. The Task Force needs to be fully cognizant that without proactive enforcement of the statute, these establishments will remain a threat to state-sanctioned gambling, and particularly, expanded gambling in the form of lottery online products. Spectrum recommends the Task Force strongly support vigorous and effective enforcement of recently enacted H.3765.

The issue of Internet cafes cannot be separated from the issue of authorizing legal online wagering. The issue has arisen in other states that are considering legal online wagering, and the same concern has been expressed. Indeed, as we note later in this report under Legal Issues, New Jersey Gov. Chris Christie vetoed legislation that would authorize Internet wagering because it did not address this issue.

5. Issue RFP that Emphasizes Openness, Creativity

A critical first step toward online Lottery play would be to develop a request for proposals ("RFP") that solicits bids from private vendors to develop the platform and associated functions to make online gambling a reality. The RFP should be developed with these core principles in mind:

- The platform should have an open architecture that allows independent game developers to produce new Lottery online games.
- The platform should be developed with maximum flexibility to allow for changes in technology, and shifts in consumer behavior and tastes.
- The provider of this platform should offer a turnkey operation, providing all essential functions including payment processing and all necessary know-your-customer functions, such as identity, age and geolocation verification. Such systems should be state-of-the-art, with the burden on the bidder to demonstrate that its offering includes the best available technology in these areas.
- The provider must work within the framework of the Lottery's existing system and fully coordinate all functions so that the Lottery maintains its requisite level of control. Within that framework, the vendor would provide its expertise in online play, know-your-customer protocols and other aspects unique to online play.

More specifically, the RFP should include the following:

- A responsible-gaming policy that would be independent of, and would enhance, the Lottery's own policies.

- Certification of all systems and functions by a recognized independent testing laboratory.
- Development of hybrid "freemium"[10] free-play sites in which adults can register and play for fun, or for money if they so choose.
- Development of social-gaming strategies and capabilities, including an opportunity for players to communicate with each other, as well as with the Lottery.
- An open architecture system in which a wide variety of game developers can create games to be provided on the Lottery site. Online products so developed can be posted on the site in free play versions for market testing.
- Plans to develop and implement a loyalty program that recognizes and rewards regular customers who play both online and the traditional lottery.

The basic qualifications for consideration should include the following:

- Experience in platform development. Experience in developing gaming platforms could be considered, but should not be viewed as essential.
- Experience in website security, including an ability to address all key security areas, such as fraud detection, hacking, and prevention of distributed denial of service.
- Demonstration of good character, honesty and integrity.
- Ability to maintain and grow the site, based on actual experience and demand growth.
- A history of working cooperatively with clients to produce systems that will provide the maximum flexibility for and benefit to the client rather than the vendor.

A free-play site, developed concurrently with the gambling site, could provide useful testing of new games, as well as an ability to identify new players for potential conversion.

The successful bidder should be compensated based on a percentage of sales. The precise percentage could be part of the bid, which would allow for price competition as well as creativity with the potential for sliding scales. The Lottery, however, should make it clear that this is just one criterion, and the lowest bid would not necessarily be the winning bid, as higher percentages that are part of a more creative overall proposal may result in greater incremental revenue to the Lottery.

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[10] "Freemium" is a relatively new but increasingly common portmanteau. The *New York Times* defined it as offering basic products or services free but charging a premium for advanced features or functionality": "Drilling Down: Does the 'freemium' model really work?' June 11, 2012 http://boss.blogs.nytimes.com/2012/06/11/drilling-down-does-the-freemium-model-really-work/

We recommend that the successful bid should be awarded for a period of at least five years in order to help ensure that the provider would have a sufficient opportunity to recognize an appropriate return on investment. This assumes that a successful vendor would seek at least a 20 percent return on its investment, thus ensuring a full payback, at a minimum.

The successful bidder would, directly or through a sub-contracting arrangement, develop a loyalty program that recognizes and rewards regular customers who play both online and the traditional lottery. Online sales will require registration and establishment of an account on the Lottery website, for the first-time lottery purchasers will no longer be anonymous and many will want to be recognized for their patronage. We recommend that the Lottery issue the RFP with the goal of instituting a loyalty program for online and offline customers that ideally would be implemented in conjunction with the onset of Internet sales. As noted under the earlier recommendation, it should also be developed with the possibility of future cooperation with Massachusetts casinos in mind.

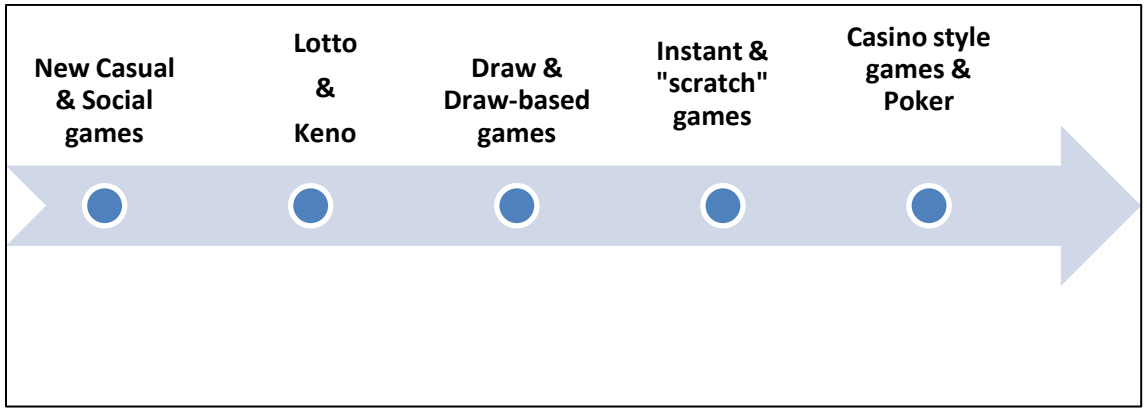
If the Lottery is concerned that such an RFP, as contemplated, would make it too dependent on one vendor, it could issue a different, yet related RFP for the development of the loyalty program. Such a plan would have the added benefit of allowing – and encouraging – firms that specialize in either platform development or loyalty-program development to more readily participate in the process.

6. Pursue Phased Engagement Strategy

Spectrum recommends a phased implementation approach to online lottery sales for two primary reasons. First, to test the public reception for new online products and measure their market performance and, secondly, to allow sufficient time to develop the internal resources necessary to manage and operate fully fledged Internet operations and marketing. While many of the platform providers can quickly implement a full suite of online products, we recommend phasing in products gradually, starting with new games that will not infringe upon the appeal of traditional lottery games sold by retailers while continuously monitoring the online products, fine tuning operations, and assessing public reactions to online sales.

We recommend a five-phased implementation strategy beginning with a gentle initial entry to the market, starting with casual online games and social games that would feature more time on device than traditional transactional lottery products.

Figure 1: Recommended phasing of Lottery online games



Source: Spectrum Gaming Group

a. Phase 1

The games offered in Phase 1 would follow both "freemium" and subscription models by offering of play for fun, play by subscription payment, or play for free with payment for additional levels and capabilities. These new and casual games would present an innovative inventory of new online products designed to have the least amount of substitution versus traditional lottery games. They would also comprise games more likely to attract a new customer to the Lottery. While new casual and social games are the least threatening to traditional retail lottery sales, it is also true that they would generate only limited revenue streams, at least initially.

Bingo is also an option for implementation in Phase 1 because it is a social-style game with a multitude of versions readily available as online products. However, the benefits of implementing Lottery-sponsored bingo should be carefully weighed against the potential for any negative impact on current charitable gambling operations within the State. Bingo is an extremely popular online product in Europe, both for commercial and lottery Internet sites but the Lottery may not wish to compete in this arena with established charitable-gaming interests.

b. Phase 2

Phase 2 would entail online sales for multistate lotto games, which to date has been the default market entry for the small number of US lotteries currently permitting online product sales as well as a more certain and substantial Internet revenue stream. The two US lotteries that have initiated online products – to date Illinois and Minnesota – offer multistate lotto games for sale via the Internet by opening an electronic account using a major credit card. Two of the US lotteries planning to offer Internet sales in the near future, Georgia and Delaware, will also offer multistate lotto and in-state weekly draw games online through electronic player accounts, but the funding mechanism will be a pre-paid card (titled the iHope card in the case of Georgia). Because these products are ideally suited to Internet sales and widely popular across the

customer base, they are immediate candidates for early inclusion in any Internet lottery engagement strategy. The reason that we recommend them for Phase 2 is that they are also, along with keno, products that are more susceptible to cannibalization of retail sales.

The Task Force may feel more inclined to include these products in the first phase of implementation so long as the caveat regarding potential cannibalization is considered. While some traditional lottery customers may find it more convenient to order lotto tickets from home, it is also reasonable to assume that many more players will participate in regular lotto drawings if they can purchase tickets 24/7 and in the final minutes before the drawing. We remain cautious, in that the added convenience of Internet lotto sales could negatively impact foot traffic at Lottery retailers; we advise the Lottery to continue to monitor retail sales in Illinois and other Internet lottery locations. However, utilization of a pre-paid card should assure that local lottery retail agents continue to earn commissions on sales, even those transacted over the Internet.

Keno is also included in Phase 2, because it is well suited to a computer-screen interface. We do not believe that Internet keno will significantly cannibalize land-based keno, based on experience in other online jurisdictions. Instead, we expect Internet keno will expand the market for that game. However, because keno generated 17 percent of total Lottery sales in 2011, implementation of an Internet version should be measured to assess the impacts. Delaware can serve as a possible benchmark when it offers online keno in January 2013.

c. Phase 3

Phase 3 would entail the online implementation of selected in-state draw games as well as the development of new, Internet-only sweepstakes drawings. In addition, this phase would see the implementation of new "draw-based games" similar to those offered in successful overseas Internet lotteries. The UK National Lottery, operated by Camelot, offers (among a wide range of conventional lotto drawings) a full product line of multi-decision-point transactional products that are based upon draw-game logic, similar to pull tabs, but can take five minutes to play and thus provide more of a play experience with time on device than traditional draw products. A good example from the Camelot inventory is Monopoly, based on the popular board game. Customers pay to enter the game, choose a personal piece to move about the board, and encounter a number of separate decision points where they can win. This game does not compete with any traditional lottery games and generates entirely incremental revenue for the UK National Lottery.

The example of Australia shows that online draw games can demonstrate revenue growth in parallel with traditional retail draw game sales. Australian law prohibits instant games on the Internet, and Internet sales reflect a preponderance of draw game gross revenue. Within that environment, online sales grew over the most recent seven-year period at a compound annual

growth rate ("CAGR") of 4.4 percent, while brick-and-mortar sales grew at a CAGR of 3.3 percent.[11]

d. Phase 4

Phase 4 would be reserved for instant and scratch games to become Internet products. However, we would strongly caution against placing traditional instant games on the Internet for two reasons. First, instant games are the major profit center for traditional sales, generating 69 percent of gross revenue for the Lottery.[12] They are the most successful class of products developed by the Lottery. Traditional sales must be protected from any potential online cannibalization. Second, instant scratch games, once transferred to the Internet and viewed on a video screen, may become indistinguishable from virtual slot machines, where a series of symbols are uncovered with the winning outcome determined by the final symbol appearing in the sequence. Internet scratch games also open the potential for increasing problem gambling exposure as the frequency of play is likely to be much higher. Instead, we recommend developing entirely new instant games with more of an experiential component featuring longer time on device similar to the draw based games described above, or else incorporating online video lottery terminals ("VLT") or Internet slot machines into the online product mix.

e. Phase 5

Phase 5 effectively moves online products beyond traditional lottery games and into the realm of casino-style games of chance. In this phase, which the Lottery may choose to execute a full suite of games over the Internet, just as the British Columbia Lottery Corporation and a number of European lotteries currently offer, and which the Delaware Lottery apparently intends to oversee. If the Lottery were to enter this phase, the available products include slot machines, casino-style table games, poker, and any other games of chance played against the house.

This recommended phased rollout is conservative, providing flexibility to accelerate, combine or modify based upon an informed assessment of market conditions and opportunities. Regarding potential timelines, if enabling legislation were passed to allow the Lottery to pursue online sales by the end of 2012, it would be reasonable to expect at least six months for the RFP process to complete and a primary platform provider to be determined. The implementation phases outlined above are notionally estimated to take approximately six months each, beginning in July 2013 and completing roughly January, 2013 but actual implementation of the phases would be at the discretion of the Lottery.

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[11] Bill Thorburn, Chief Executive Tatts Lotteries at Tatts Group, speaking at World Lottery Summit 2012, September 10, 2012

[12] La Fleur's 2012 World Lottery Almanac

f. Other Considerations

Mobile online options should be rolled out as soon as practicable, as mobile gambling will – without question – be a high-growth adoption channel. Mobile-device utilization is growing faster than the rate of Internet utilization, and mobile Internet access is expected to overtake fixed Internet access by 2015.[13]

Our recommended phased approach allows more time to examine and benchmark other state lotteries, such as Illinois, which have implemented online lotto sales. Implementation should include developing test markets within Massachusetts to determine the degree of any substitution behavior that might occur online. Still, by following our recommended strategy that all online Lottery wagering be purchased through a play card obtained only at a retail sales agent, this should reduce the negative impact upon retailers, and if new customers are engaged, there could be a positive financial impact for the retailer. The threat of cannibalization becomes greater if direct online credit card purchases – the most convenient form of Internet commerce – are permitted in the enabling legislation.

Scratch games, once transferred to the Internet, have the ability to closely resemble slot machines, which have dramatically evolved themselves in recent years from offering only spinning symbols to offering far more complex player experiences. On most scratch tickets, the game is played by rubbing latex covering off the underlying symbols or numbers with the winning outcome determined by the final symbol uncovered. Viewed on a computer screen this format will not differ greatly from a video slot machine, and on the Internet the frequency of play is likely to be much higher. The Illinois Lottery is now implementing online draw games but at the time of writing this report does not intend to implement online scratch games.[14] These factors should argue for a measured approach in adding scratch games to the online product selection and also consideration to different payout tables for many instant games.

Poker should be considered for implementation in later phases as a potential product for online Lottery. Poker revenues may be limited due to competition with established offshore sites and their high-powered marketing programs. Experience in British Columbia shows that the Lottery, even when granted an official monopoly on Internet poker play, may expect to generate only a plurality in market share – and this plurality is generally the low end of the market. However, poker, because it is played on a peer-to-peer basis, is fundamentally a social game and its inclusion on the Lottery website will promote community aspects and increase the "stickiness," or length of time spent by visitors to the Lottery website. Experience in offshore gambling sites also shows that Internet poker players often play side games simultaneously with their poker play, thereby generating multiple revenue streams.

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[13] Internet Trends, Mary Meeker, D10 Conference presentation, May 30, 2011, Kleiner, Perkins, Caufield, Byers

[14] Remarks by Michael Jones, Superintendent, Illinois Lottery, European iGaming Summit, October 17, 2012

Casino games and other "red" games of chance where wagers are made against the house should only be considered in the later phases of implementation and included as Lottery games only if demand exists. Consider a play-for-free site in the early phases to evaluate player interest in and public reactions to "hard" games such as casino slots and table games as well as other for money games of chance played against the house.

One wild card in this product implementation is sports betting, an online product that has proven remarkably popular and profitable in European markets. Currently sports wagering is the one gambling area specifically proscribed in the Department of Justice opinion of December 23, 2012 as unlawful under the 1961 Wire Act. However, recent challenges to the federal Professional and Amateur Sports Protection Act ("PASPA") of 1992 by New Jersey and other states appear to be gaining strength and many legal experts in the field, such as I. Nelson Rose, contend that the federal government will face a difficult challenge in defending an existing law that allows grandfathered sports betting in four states in the Union but outlaws the same practice in the other 46 states. Depending upon the outcome of these legal challenges the Lottery should be prepared to consider sports betting as a potential future online product option if it ever becomes legal.

Finally, consider implementing fantasy sports betting in the early phases. Fantasy sport betting is currently a $1 billion industry nationwide, offered as a for-money social game in 27 states, and is legal under the Unlawful Internet Gambling Enforcement Act of 2006 and PASPA.[15] While fantasy sports is a crowded field with competitors including CBS Sports, Yahoo, ESPN and Cantor, there are many platform providers and an opportunity exists for Lottery-branded fantasy competition with cross marketing to traditional Lottery products.

7. Encourage New Games, Themes under 'Lottery' Brand

A critical question is whether the Lottery should make existing games and brands available online, or require new games online so that its offerings – and its customer base – would be decidedly different from the existing customer base for existing draw and instant games.

Initially, the Lottery should be careful in taking steps to protect its retailers by:

- Not offering draw games online, and
- Not using existing brands that are common in instant games for its online offerings.

Scientific Games, in meetings with the Lottery Working Group and in subsequent interviews, has suggested that the use of brands from the library of existing instant games should be encouraged in any online offering. The company – which is the world's largest supplier of instant games – has suggested that the familiarity of existing brands would foster more sales

[15] "Fantasy Sports Becoming Big Business for Cantor, Chris Sieroty," *Las Vegas Review-Journal*, September 15, 2012

online, and would in turn prompt more in-store sales as online customers stop by retailers. Scientific Games also suggests that such a strategy would not promote cannibalization of existing lottery sales.

Such conclusions may be counter-intuitive, since existing Lottery customers would be among those who are most familiar with existing brands. Still, such suggestions should not be dismissed out of hand, since many instant-game brands enjoy familiarity and brand equity elsewhere, from old television shows to slot machines. The latter point would support the notion that such brands can be transferred from one medium or platform to another.

The Lottery, however, is not in a position to take anyone's word for whether transferred brands will or will not cannibalize sales through other channels. The nature of online wagering would allow such theses to be tested scientifically, with controlled and variable elements. Test marketing can be conducted on individually branded games that are co-branded with instant games to determine the precise impact on sales.

The Lottery should pay attention to how the Georgia Lottery (discussed later in the report) is approaching this issue. The Georgia Lottery has determined not to transfer existing brands, viewing that as a potential affront to its network of retailers. Rather, the Georgia Lottery is promoting its own brand and logo – which will be omnipresent to online players. The same logo and brand would then be visible at retailer sites, which will present the possibility of encouraging online players to become retail customers, particularly for draw games with attractive jackpots.

We recommend that the Lottery promote its own brand across platforms, with the offering of new games online that are not co-branded with existing instant games. The Lottery can also test existing brands carefully to determine the level of potential cannibalization.

8. Encourage Responsible Competition, Incubate Massachusetts Businesses

The process for considering and approving new games for online play should give a clear advantage, and place a premium, on firms that have a presence in Massachusetts. This criterion should be an integral part of the approval process when evaluating proposals for new games.

Online play will allow the Lottery to foster economic development by establishing a market for new game development among in-state technology firms. A recent survey by the Massachusetts Digital Games Institute at Becker College in Worcester demonstrates that the State is home to a vibrant game-development industry – 124 companies, a number which has expanded 78 percent since 2009, and directly employs 2,041 people and generates $234 million in salaries alone.[16] The majority of these developers are creating products for mobile devices (51

[16] MassDiGI, MA Digital & Video Game Industry Cluster Census & Econometric Survey Results, September 17, 2012

percent), the fastest growing platform in the game industry, as well as web-based (45 percent), desktop (35 percent), and console (13 percent) platforms.[17] We recommend that the Lottery take advantage of this native resource by encouraging in-state software and game designers to develop new game products and mobile apps for the Lottery through some form of preferential treatment, which could include a greater share of revenue for their game, or a less-costly licensing process.

The Lottery should set certain reasonable standards for game developers that seek to place content on the Lottery's online platform. Such standards should include:

- Developing games that will be popular, but will target adult demographics.
- Avoiding attributes that would encourage compulsive, irresponsible or underage play.

Any proposal for a new game should delineate the target demographic and outline how it would address the responsible-gaming requirements.

Beyond that, Spectrum strongly suggests that the Lottery's online endeavor offers an opportunity to meet another important policy goal: Assisting the formation and development of new or existing private businesses in the Commonwealth. The existing technology industry, fueled in large measure by the presence of and cooperation with major universities and institutes, can be further enhanced by giving preferential treatment to developers that have a physical preference in the State, or promise to have one. This would provide and enhance a virtuous cycle of growth: The existence of a technology industry would fuel the development of new providers, while the development of new providers would enhance the presence and quality of the existing technology industry.

Additionally, the presence of in-state games developers would facilitate easier communication between developers, the Lottery and the platform provider.

9. Develop, Implement Licensing Requirements for Vendors

Spectrum recommends that the Lottery adhere to a strict and comprehensive licensing process for vendors, designed to ensure integrity and to foster public confidence and trust in gambling operations and the regulatory process.

It is axiomatic in the casino industry that a rigorous licensing scheme will effectively promote public confidence and trust while ensuring the integrity of its participants. Of equal importance, the absence of effective controls will have the opposite effect and enable people with disreputable backgrounds to gain a foothold in the industry. Historically, the casino industry attracted the attention of myriad people with unsavory backgrounds and reputations. Gaming regulatory agencies worldwide ought diligently to prevent their infiltration into legalized

[17] Ibid

gambling operations and, by all measures, succeeded. The linchpin of effective regulation is a comprehensive licensing system.

We note that, for most of the existing and potential major lottery vendors, licensing is viewed as acceptable and not burdensome, as these vendors have experience in multiple forms of gambling, and we expect that many of the vendors seeking to do business in this area already have licenses that would meet generally accepted standards. However, that would not be true for all vendors, particularly those whose existing operations are primarily overseas. We suggest that the Lottery would not want to be in a position of doing business with an entity that is later found to have been unlicensable in another gambling market.

The vigilance of regulatory oversight is a continuing and never-ending process. The method universally employed to successfully thwart the entrance of such unsavory persons is an effective licensing system, which necessarily entails strict licensing criteria and thorough background investigations.

The fundamental principle is that those entities and individuals who are in a position to exercise influence or control over casino operations are required to undergo a thorough and rigorous background examination to assess their suitability. Applicants are required to satisfy stringent licensing standards pertaining to an affirmative demonstration of good character, honesty and integrity, as well as financial stability, responsibility and integrity. Significantly, the burden of proof is placed upon the applicants to establish their suitability by clear and convincing evidence. We note that the Massachusetts Gaming Commission, through its comprehensive statute and recently promulgated regulations, will be employing such a licensing scheme.

In our opinion, it is imperative for the Lottery to implement a comparable licensing scheme to those commonly utilized by online gambling regulatory agencies. In this regard, we are mindful that an overriding concern of the Lottery in expanding its regulatory purview to encompass Internet gambling operations is to prevent the intrusion of nefarious and unscrupulous influences. This laudatory objective may only be achieved by implementing a strict licensing system. Absent such a licensing system, the potential entry of such unwanted individuals and entities will be greatly enhanced. Moreover, the public's confidence and trust in the overall regulatory process will be significantly eroded.

We emphasize that the same policy concerns traditionally inherent in the online gambling industry are equally applicable to the Lottery's potential Internet operations. These concerns will be satisfied only if the persons and entities that have the ability to control or significantly influence the business operations and decision-making of the gambling licensees and applicants are subject to strict regulatory scrutiny and oversight.

In practice, all partners, officers, principal employees, directors and shareholders having a greater than 5 percent interest of an entity applying for licensure should be included within the scope of licensing requirements for a particular applicant entity. In addition, holding companies

of the applicant entity and their officers and directors should also be required to demonstrate suitability as part of the license application process. A holding company is generally defined as any entity that owns, has the power or right to control, or has the power to vote any significant part of the outstanding voting securities of the applicant or licensee. There should be effective regulatory oversight over any person having a financial interest in a gambling licensee or applicant or any person able to exercise a significant influence over the management or operation of a gambling establishment or a business licensed by the Lottery.

The Lottery will need to promulgate regulations that support the implementation of a strict licensing scheme. The practical ramifications are that this process likely would take several weeks to complete. Alternatively, the Lottery may endeavor to promulgate emergency regulations that would reduce the time factor and enable the Lottery to proceed expeditiously. Significantly, the regulations should require the applicants to pay a substantial license application fee to cover all administrative costs. In addition, the applicants would be responsible for paying for the costs of the background investigation.

The regulations may allow for a certain degree of reciprocity for those entities and individuals that have received a license or finding of suitability or qualification from an American gambling regulatory agency in the recent past, but we would recommend that no reciprocity be found if the license were granted more than three years ago. In our judgment, such a time gap would necessitate a new examination of the entity's or individual's probity. We note that the Massachusetts gaming statute, M.G.L. c. 23K, allows for some reciprocity with other gaming jurisdictions for gaming vendors.

In addition, if the entity or individual were licensed by the Massachusetts Gaming Commission, reciprocity should apply to avoid a duplicative background investigation. Conversely, if an entity or individual were found unsuitable by the Gaming Commission, such a finding should extend to the Lottery. We note that it would be extremely unsettling to allow for a situation where an entity or individual could be found unsuitable by one agency and nevertheless allowed to participate in a related aspect of gambling by another regulatory agency in the same state.

Next, the Lottery would need to determine if it is appropriate, given present staff limitations, to outsource, through the issuance of an RFP, the conducting of the background investigations to experienced third-party independent contractors who would serve as agents of the Lottery. Alternatively, the Lottery could outsource this service to the Massachusetts Gaming Commission, although that agency's current staffing likely would not be able to provide any needed assistance in the foreseeable future. In this regard, we note that the Gaming Commission has issued an RFP seeking experienced third-party contractors to perform the background investigations of the various applicants for a gaming license. Thus, the Commission would be following the same course of action as its sister agency in deciding to outsource this critical function.

The regulatory costs would include increased staffing for the Commission. However, the substantial investigative costs would be borne by the applicants, as it is common practice to pass these costs along. It is also noteworthy that comprehensive background investigations generally take several months to complete. For smaller vendors, such as game developers, the Lottery could lower the cost and simplify the process by allowing for registrations, which generally are limited to criminal background checks for qualifying individuals.

In summary, it is noteworthy that the newly constituted Massachusetts Gaming Commission will operate through a strict licensing system to accomplish the goals and objectives enunciated in the gaming statute. Similarly, the Lottery should embrace the concept of strict regulatory oversight over Internet operations, through an effective licensing system, to preserve and maintain the integrity of its operations and the public's perception of that integrity. We recommend that the Lottery adopt licensing standards as rigorous as those adopted by the MSLC.

We emphasize that the risk inherent in not implementing such a strict licensing scheme is to allow inroads into the Lottery industry by unsavory individuals and entities. Further, the absence of a comprehensive licensing process may seriously erode public confidence and trust in the Lottery's online efforts, especially when compared directly to the recently enacted online gambling regulatory system.

For more information, see the Licensing sub-section within the Legal Issues section of this report.

10. Require Registration Process that Assures Integrity, Benefits Retailers

Leveraging the Internet will transform the Lottery's relationship with many of its customers because the formerly anonymous purchase process will now require a registration process that will collect personal information and establish an electronic account, for the first time allowing the Lottery to generate knowledge of its (Internet) customer. This knowledge will be invaluable for marketing purposes, for preventing fraud, and in identifying customer needs. Moreover, online product purchasing will create a history of player behavior and product preferences. On the other side of the equation, the Lottery will now be expected to verify that customers actually are who they claim to be and to protect their identities and the privacy of their information. The key to establishing this knowledge base will be the online registration process.

It will be necessary to establish a registration process for each customer account. This process will collect basic customer information and also ensure that online purchasers are of legal age to play Lottery games and that they actually reside in Massachusetts. The registration process should be rigorous enough to assure accurate identification but not so complicated and time consuming as to discourage registration. Ideally, the Lottery will strike a balance between the intrusiveness and complexity of the customer identification and age verification requirements and the convenience of the process. Information required at registration to set up an account

should include customer first name, last name, middle initial, residence location (i.e. street address city, state, and ZIP code), email address, and date of birth. Optional information requirements at registration could include Social Security Number, phone number, and contact approval. Financial institution information would not be required unless credit card usage was permitted under any enabling legislation.

If credit cards are allowed for initial or replenishment purchases, customers could provide this information during the initial registration. If pre-paid cards are used to fund patron accounts – as Spectrum recommends – customers would have to take the extra step of purchasing a pre-paid card at a physical Lottery retail location. Registration could take place either before or after purchase of the pre-paid card. The pre-paid play card purchased at the retailer would fund the account and be drawn down through subsequent transactions. Depending upon the selection of the manufacturer and the determination of the characteristics of the pre-paid card system, a numeric code derived from the pre-paid card may also be needed at logon to activate the funds and link them to the player account for online lottery purchases.

Registration for online accounts could also occur on site at the Lottery retail location, but this may prove problematic given the limited floor space and high volume of foot traffic found at many retail establishments. Online account registration through self-service Lottery terminals could also be considered as an option. Purchase of the play card would require proof of age verification, just as current Lottery purchases are verified at the retail agent location by presenting a valid driver's license or similar identification. Retailers would benefit from the player card in multiple ways. First, the requirement for a player card would drive additional foot traffic through Lottery retail locations. Second, cards could be replenished at the retail location. Third, retailers would receive the normal 5 percent commission on sale of each play card. There could also be consideration for ongoing commissions for the originating retailer on all subsequent purchases for the life of the card.

Purchase of online products would require logging on to the Lottery website to access the customer account by entering a unique password for each prospective online purchaser. Geo-location tools would be employed by the platform provider to assure that the player is currently located within state boundaries. Preliminary age verification would be conducted at the retailer location during card purchase. Additional age verification measures should be added at registration.

Preserving the retail sales network and benefitting Lottery sales agents is a key element of the online engagement strategy. Our recommended registration process provides for continued agent commissions via the pre-paid play cards. An alternative procedure is currently being implemented by Loto-Québec, in which customers will have the option of identifying a preferred retailer when they purchase Internet products. Designated retailers then receive the same commission they would if the products were sold in their store. Even if a customer does not designate a retailer, a percentage of the purchase goes into a pool where all retailers are reimbursed for commissions, pro-rated on the basis of their relative product sales. This system

has proven popular among retailers in Quebec; however, there are disadvantages in this system compared to the pre-paid card option. For example, designating preferred retailers for all ongoing Internet purchase commissions opens opportunities for abuse in the system and even possible corruption. This system also appears to favor retail locations that enjoy greater foot traffic and more corporate resources that the smaller and more local retail establishments.

11. Emphasize Geolocation Accuracy, Minimization of Underage Gambling

As noted elsewhere in this report, Treasurer Grossman and the Task Force have made it clear that priorities for online gambling will include the following:

- Preventing underage gambling
- Making sure that wagers are conducted by adults who are physically within the borders of Massachusetts

Based on interviews with technology providers and based on our own experience, we conclude that 100 percent compliance will be impossible. That said, the Lottery should retain vendors who follow industry best practices for verifying each player's age, identity, and location. The Lottery should address this in four ways:

- Drafting an RFP that requires bidders to provide state-of-the-art technology, and adopt best practices with respect to these issues.
- Require bidders' hardware, software, peripheral devices and communications systems for age, identity and geolocation pass third-party verification testing by an accredited testing company.
- Make clear, as appropriate, in advertising and other forms of communication that the Lottery views these as essential priorities.
- Aggressively pursue all legal avenues to deal with violators – and conspicuously and continuously post notices to this effect.

The latter point would require an independent legal opinion as to whether existing statutes are sufficient or need to be revised to criminalize the act of knowingly allowing or encouraging either underage gambling or wagering across state lines. We not only suggest that all laws be as effective and appropriate as possible, but that prosecutors adopt an aggressive posture toward such acts.

12. Implement Internet Responsible Gambling Standards Adopted by National Council on Problem Gambling, Create Director of Responsible Gaming

Any recommendation regarding responsible-gaming practices must be built on a foundation of commitment by the Lottery. The Lottery's current responsible-gaming program is, in effect, outsourced to the Massachusetts Council on Problem Gambling through referrals, consultations and grants. With the implementation of online play, however, the Lottery will become a gaming operator and therefore should be impelled to become proactive in all matters of responsible gaming.

Accordingly, Spectrum recommends that the Lottery adopt and implement the National Council on Problem Gambling's *Internet Responsible Gambling Standards* ("NCPG Standards"), which the NCPG adopted in April 2012 to address the unique aspects of online play.[18] The NCPG developed the Standards based not only the experience of its staff and state affiliates, but also in consultation with responsible-gaming codes and research from16 international organizations with experience in Internet play. The NCPG in particular noted the work of the Responsible Gaming Council, an independent, progressive and highly regarded organization based in Ontario.

The NCPG Standards are divided into eight categories:

- Operator Policy
- Staff Training
- Informed Decision Making
- Assisting Players
- Self-Exclusion
- Advertising and Promotion
- Game and Site Features
- Research

Spectrum believes that the NCPG Standards are comprehensive, reasonable and, importantly, flexible – from the standpoints of both the operator and the player.

The implementation of responsible-gaming practices is important not only for the direct benefit of players, but also for public confidence in the Lottery and its new online operation. We note that the Commonwealth's Expanded Gaming Act of 2011 (which authorizes casinos) is unusually progressive and thorough in addressing issues of problem gambling, requiring substantial effort by both the Commonwealth and licensed operators in awareness, treatment,

[18] See NCPG Standards, Exhibit #2 in the Appendix

prevention and research. The gaming consultants[19] to the Massachusetts Gaming Commission ("MGC") have recommended that the MGC create a full-time position devoted to responsible gaming and related research; this position would report directly to the MGC executive director.

It is evident that Massachusetts has made responsible gaming an important part of its overall public policy. Spectrum believes that the Lottery, as an online gambling operator, should hold itself to the same or similar standards that the Commonwealth will require of its licensed casino operators. Accordingly, Spectrum recommends that the Lottery also either create a new position of Director of Responsible Gaming or, at a minimum, ensure that such responsibilities are incorporated into another position without compromise.

The Massachusetts Gaming Commission is further required to develop an ambitious, annual problem-gambling research agenda. We recommend that the Lottery cooperate with the Commission in this regard by providing aggregate play data and funding.

Finally, we recommend that the Lottery promote its responsible-gaming standards for online play in various player-facing communications, including a continuously displayed link while on the play page – so patrons are aware of the tools and help available.

13. Enhance Technology Base through Internal Resources and Vendor Relationships

The Lottery published a Technology RFR earlier this year and has recently engaged an advisor in response to that request. The selected candidate will be well qualified to address specific technology issues, but we have recommendations that can be made at this time, including enduring an open architecture, certifying vendors, investing in know your customer technologies such as geo-location and age verification, developing data analytics capabilities, and establishing a mobile strategy.

Engaging the Internet channel will require new technology and substantial investments in hardware, software, and personnel. We recommend selecting a single firm as the primary platform provider and multiple firms as secondary technology and content providers. Any vendor selected as the primary platform provider through the RFP process should have the scope to provide the majority of hardware and software equipment necessary to operate Internet product sales. However, this vendor should also possess the flexibility to scale their technology to the needs and control of the Massachusetts State Lottery which has traditionally been heavily involved in establishing and owning the back end systems which run the Lottery's operations. Secondary providers can be required to deliver the majority of technology required to run their applications through a system operated by the Lottery.

[19] Spectrum Gaming Group and the law firm of Michael & Carroll PC are gaming consultants to the Massachusetts Gaming Commission.

However, it will still be necessary for the Lottery to invest in key technologies and qualified personnel to manage the new online channel as well as assure the integrity of these operations and protect them against fraud. Such hardware investment may require substantial modification or replacement of existing equipment in order to maintain compatibility with the primary online platform and secondary content. It will also be advisable to ensure that the chosen primary platform has an open architecture for easier application development.

Qualified personnel will be required to manage the new channel. Obvious needs for trained personnel will be in the areas of information systems, marketing, and game development. It will be important for the Lottery to acquire a minimum number of key personnel experienced in online operations. Fully developed Internet lottery operations in other jurisdictions include staff positions for an executive level head of the "e-gaming" division, director-level positions for business development, marketing, project management, and operations, and manager level positions for marketing, e-gaming operations, business development, player relations, and data analytics. These key resources can then be used to educate current staff in the new techniques of online operations. With a strong technology industry within the state, qualified personnel and potential vendors and game designers should be available locally. The Lottery can also reach out to educational institutions for current technical expertise and potential future human resources.

Responsible-gaming and verification software will be critical to successful operations in the Internet space and therefore the Lottery should require its vendor(s) to fully invest in the most accurate and effective tools required for player identification, age verification, geolocation, and responsible gaming. For example, the most accurate geolocation products utilize multiple-location technologies including IP, mobile GPS and Wi-Fi, and cell-tower-triangulation capabilities. While the use of multiple technologies is often more expensive, it is also more accurate, reducing the location triangulates to a point instead of a radius.

The profusion of data produced by Internet sales will present opportunities for the Lottery to develop its own internal data analytic capabilities which can support marketing and responsible-gambling efforts. Development of these capabilities will also promote expert management of the vendor technology.

Online product sales will require expansion of the Lottery's mobile capabilities. The usage of mobile devices will soon exceed PCs as the primary mode for Internet access. Experience in other markets has shown that mobile devices are fastest-growing delivery channel for online wagering products. The fastest growing categories in the area of mobile games are the casual and social games recommended for Phase 1 of our implementation strategy. We recommend that Lottery develop a mobile strategy and implement mobile product-purchase options as soon as possible, preferably in the earliest phases of any implementation process.

14. Treat Internet Marketing Differently than Conventional Marketing; Increase Advertising and Conduct Regular Research

Experience in other jurisdictions demonstrates that Internet marketing requires different skill sets compared to conventional marketing. While the basic principles of marketing apply across all sales channels, the products, delivery systems, and measurement metrics will be different online and will require experienced personnel with expertise in Internet marketing techniques, preferably experience in online gambling marketing techniques. Internet marketing staff will also need to conduct regular assessments of online product popularity and performance in order to fine-tune the product mix and identify successful online games.

Experience in European and Canadian venues with Internet lottery play shows that the majority of customers accessing Lottery products via the Internet are entirely new customers, reflecting a younger, more educated, and more affluent demographic that is much more attuned to the Internet and to using mobile devices. Thus, migrating Lottery products to the Internet presents an opportunity to implement new marketing strategies that will engage previously low-frequency customers as well as entirely new customers in playing new online games. Because online lottery is new in the US, little is known about the gaming behavior of these potential new customers and how they may react to new Lottery products. We recommend that the Lottery place high importance on conducting regular research to better understand the wants and needs of these potential new online lottery customers. To maximize the success of an online engagement strategy, the Lottery should establish a budget and institute an ongoing research program designed to explore lottery customer and non-customer characteristics (demographics, psychographics, and technographics) with the goal of better understanding the wants and needs of Commonwealth citizens regarding the Lottery.

Similarly, Internet sales and marketing will require increased advertising expenditures to maximize the effectiveness of the online channel. Budget for increased advertising expense to publicize the Internet channel and create interest in new games and capabilities. Anecdotal experience in British Columbia and multiple European jurisdictions shows that enhanced advertising for Internet lottery products actually increases sales at retail locations, evidently by creating greater awareness of the traditional lottery and putting its products into the consideration set of younger and previously unengaged players.

The Lottery has a small advertising budget relative to its sales. Its FY 2011 media advertising budget was $2.0 million, smaller than all but one of the New England states, and only marginally greater than Vermont's $1.44 million.[20] The lottery advertising budgets of Rhode Island, New Hampshire, and Maine are all larger than Massachusetts, and these are dwarfed by

[20] La Fleur's, 2012 World Lottery Almanac

the ad budgets of Connecticut and New York.[21] When viewed as a percentage of sales, the Massachusetts State Lottery's ad budget is less than one basis point, at 0.0005 percent.[22] In Canada, the average ad budget as a percentage of sales across Atlantic, British Columbia, Quebec, Ontario, and Western Canada is 1.5 percent.[23]

Figure 2: New England lottery advertising budget vs. ticket sales, FY2011

	FY 2011 Media Advertising Budget ($M)	FY 2011 Ticket Sales ($M)	FY 2011 Media Advertising Budget as % of FY 2010 Sales
Vermont	1.44	95.54	1.4%
Massachusetts	2.00	4,416.29	0.0005%
Rhode Island	2.31	230.59	1.0%
Vermont	1.44	95.54	1.5%
New Hampshire	3.20	228.87	1.4%
Connecticut	10.61	136.85	2.1%
New York	92.08	6,758.65	1.4%

Source: La Fleur's

While recognizing that the Lottery's high prize payout structure impacts this comparison, it is evident that advertising expenditures are comparatively low in regard to regional lotteries. A 2009 Frost & Sullivan white paper cited a 2004 increase in advertising expenditures to $5 million for boosting Massachusetts State Lottery revenues to a then-record-setting $4.3 billion in fiscal year 2004.[24] We recommend, at a minimum, doubling the budget for advertising to at least a full basis point (i.e., 1/100th of a percent) of ticket sales for a minimum of three years. At a maximum, increase advertising to a full percentage point, the equal of Rhode Island. There are two reasons for this recommendation: first, to effectively advertise the new sales channel, and second, to bolster traditional retail sales during the implementation period in order.

Internet sales will necessarily require increased Internet advertising to create a presence on the medium. North American lotteries that have established an online presence are planning to spend between 5 percent and 10 percent of their advertising budgets on the Internet. Canadian lotteries that are in the process of moving to online sales, such as Atlantic Canada and Loto-Quebec each plan to spend 7.8 percent of their total advertising budget on Internet advertising.[25] Massachusetts plans to spend $150,000, or 7.5 percent, of its total ad budget on Internet advertising. We recommend keeping that proportion of the advertising budget but increasing the total budget, as stated above.

[21] La Fleur's, 2012 World Lottery Almanac

[22] Ibid

[23] Ibid

[24] Frost & Sullivan, US Lotteries: Achieving Strong Results in a Weak Economy, 2009

[25] La Fleur's, 2012 World Lottery Almanac

Figure 3: Sample lottery advertising

	FY 2012 Ad Budget	% Ad Budget	FY 2011 Ad Budget	% Ad Budget	FY 2010 Ad Budget	% Ad Budget
British Columbia*	416,477	6.4	258,359	1.7	100,000	0.5
Atlantic Canada*	1,016,579	7.8	997,867	7.7	N/A	N/A
Loto-Quebec*	1,992,584	7.8	2,405,495	9.7	2,061,738	6.8
Ontario*	2,766,724	5.5	3,021,622	5.8	2,016,000	3.9
Massachusetts~	150,000	7.5	6,000	0.3	N/A	N/A
Illinois~	4,609,500	10.8	2,375,365	5.4	2,549,152	5.9

Source: La Fleur's *Amounts in Canadian dollars ~Amounts in US dollars

One of the most frequent suggestions documented in our 2012 retailer survey for the Lottery was to increase advertising for lottery products as a means of increasing sales. Many of these suggestions also mentioned including pictures of recent prize winners with the name of the store where the winning ticket was purchased, location, hours of operation, and primary product offerings.

Internet marketing presents multiple opportunities for promoting lottery sales through the online channel by experimenting with Internet promotions to find the most effective marketing programs for lottery players online. We recommend exploring cross-marketing efforts with traditional Lottery partners via the Internet as well as marketing alliances with new Internet-based partners. In addition, as noted earlier, look for opportunities for cross-marketing with new land based casinos. For instance, each casino should host a Lottery retail location, new Lottery games could feature casino brands, Lottery promotions could offer casino tie-ins, and joint advertising opportunities should be pursued. Both industries operate in the gaming space and land-based commercial casinos present opportunities for offering tangible rewards for online play while stimulating traditional lottery sales through casino retail outlets.

D. Leveraging the Internet: Brick-and-Mortar Lottery Retailers are Online Assets

Spectrum's research leads us to the clear conclusion that the Lottery's 7,400 retailers should be considered an asset that can help generate increased online and physical sales, in part by leveraging their locations. That conclusion is based on a number of observations developed during the course of our research, including:

- In various industries, online purveyors increasingly view land-based operations as strategic marketing assets that, if leveraged properly, can increase online sales.
- More and more industries are developing multi-channel marketing strategies. Indeed, state lotteries – often because of concerns regarding legality – are largely an exception to this trend, with most clinging to the traditional single-channel strategy.

Lotteries have much in common with other retail industries that have traditionally relied solely on brick-and-mortar sales, even though a lottery ticket does not fall into the categories of either goods or services, but is rather the purchase of an opportunity. Yet, despite that clear difference, the concerns expressed by retailers who do not want to alter the present arrangement are clearly parallel with concerns expressed by other retailers at a similar point in their evolution from brick-and-mortar to a combination of online and store sales, or what is often referred to as "bricks and clicks."

Notably, the suggestion that a significant physical presence in the retail world is an asset for online sales is growing in acceptance, but is not universally accepted. In one sense, that suggestion is counter-intuitive: Why bother with physical locations, and their relatively high attendant costs, when customers can be reached easily and broadly online? The practical reality, however, shows that a marriage between online and brick-and-mortar can be mutually beneficial by increasing sales in both channels.

Last year, Ron Johnson, a former Apple executive who became CEO of retail J.C. Penney Corp., said in an interview with *Harvard Business Review*: "It varies a lot by category, but only about 9 percent of US retail sales are online today, and that rate is growing at only about 10 percent a year. And a lot of that buying is from the online businesses of physical retailers like J.C. Penney and Apple. In reality, what's growing is physical retailers' extension into a multi-channel world. It's not as though there's a physical retail world and an online retail world, and as one grows, the other declines. They're increasingly integrated. But physical stores will remain the main point of contact with customers, at least for the stores that take the lead in this integrated environment."[26]

[26] "Retail isn't broken. Stores are," December 2011, *Harvard Business Review* http://hbr.org/2011/12/retail-isnt-broken-stores-are/

That sentiment should resonate with lottery retailers. Similarly, lottery retailers are hardly alone in expressing their concerns about the impact of online sales on physical sales. In April 2005, Harvard Business School hosted a Retail and Luxury Goods Conference. Speakers at that event noted the same sentiment that is involved in the issue of online lottery sales: Is it competition or cooperation? Susan Vobejda, senior director of brand management at Gap Inc., told a panel on multi-channel retailing that new online efforts by organizations that previously relied on physical stores are "seen as a competitor by the store merchants." She said, however, that the reality is that, over time, the Internet can drive sales at physical stores.[27]

Lottery retailers – who are understandably concerned about the impact of online lottery sales on their present business model – should ultimately embrace this concept as well, in part because their existing business model faces multiple threats. Such threats range from a general aging of current lottery players to the potential growth of online sales for other products that are now staples for convenience stores and other lottery retailers.

For example, in the UK, which has already established a significant online gambling presence, grocery retailers are moving quickly to sell their products online. Online grocery sales in the UK grew by more than 21 percent in 2010, and are expected to increase at an annual rate of 5.4 percent by 2015.[28]

In the UK, online grocery sales are 2 percent of the annual total for all grocery sales, which is twice the percentage held in the United States. Still, the United States is growing in this segment as well, with major retailers from Wal-Mart to Kroger to Safeway offering services from home delivery of groceries to in-store pick-up.[29] Long-term, that is a real threat to convenience stores as well, which underscores one of our core theses: The status quo is changing, regardless of what the Massachusetts State Lottery elects to do with respect to online gambling.

With that in mind, our analysis rests on the principle that a carefully conceived online strategy could help lottery retailers address these non-lottery challenges while cementing their existing role as a crucial foundation for the Lottery. A variety of trends support that principle.

Our research notes, for example, that an increasing number of online companies are seeking a presence in the real world, in part by adopting what has been termed "pop-up" stores, which give a presence to online retailers, and can serve as promotional and marketing centers, effectively serving as billboards. Trendwatching.com, which claims to have coined the phrase

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[27] "Prosper with multi-channel retailing," April 2005, *Harvard Business Review* http://hbswk.hbs.edu/item/4757.html

[28] "Online grocery sales will double within 5 years," March 11, 2011, *The Telegraph* http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/8374998/Online-grocery-sales-will-double-within-five-years.html

[29] "US online grocery sales pack new punch," September 14, 2010, by Jonathan Birchall, *Financial Times* http://www.ft.com/cms/s/0/46471360-c030-11df-b77d-00144feab49a.html#axzz209rAZpxc

"pop-up retailing," noted this: "From individual designers teaming up, to real estate agents making better use of vacant properties, to big brands looking to add a bit of 'cool' and agility to their otherwise fixed locations and massive flagship stores: Pop-up retail could do the trick. And let's not forget the dozens of online pure-plays dying to get a bit of offline visibility... (How about Amazon.com Christmas stores in Düsseldorf and London?) Expect more pop-up retail appearing in the months to come."[30]

Rena Tom, a retail-industry blogger, crystallized this thought:

> "I love the trend of bringing online shops into brick and mortar storefronts, galleries and other public spaces. 'Present & Correct,' the dreamy online stationery shop, created a temporary collection of items atop cardboard school desks within gallery 'House of Propellors.' Conversely, Playtype is a concept store launched to celebrate the opening of the online type foundry. Also featuring every type of typographical merchandise, the pop-up space provides font files on USB sticks. A clever take on font buying, a transaction that is usually a strictly virtual experience. Both examples show that online stores can easily spring into the real world through collaboration with other storefronts or by dreaming up limited edition concept spaces."
>
> "Another way online shops are embracing the pop-up idea is by creating limited edition products or curated collections. 100 Layer Cake, a wedding blog and directory, is a great example of how an online pop-up can work. From table linens to photography packages to honeymoon deals, the site presents the products beautifully while the countdown creates a feeling of urgency and exclusivity. I think this idea could work particularly well when focused on a holiday like Christmas."[31]

While pop-up retailing is built on the concept that the physical locations are temporary, online merchants are increasingly turning to the real world in a more permanent way, as noted in a recent Bloomberg News story:

> "Dot-com companies including Google and Amazon are reportedly trying out physical retail stores as a way to attract new consumers. Could the shift to bricks-and-mortar stores be a sign of the times to come for online retail?
>
> "Amazon is reportedly opening up a boutique location in Seattle that will sell its line of products, and Google has announced that it will be testing a physical retail location in Dublin. With Apple's retail-focused strategy, it appears that other tech giants might be taking a hint to help mass market its products to consumers.
>
> "'There is a growing realization amongst the leading bricks-and-mortar retailers that the in-store customer and the online shopper are not distinct, siloed groupings – there is a

[30] "Pop-up retail," http://trendwatching.com/trends/POPUP_RETAIL.htm (accessed June 25, 2012)

[31] "Pop-up retail," by Chloe Douglas http://renatom.net/2012/04/11/pop-up-retail/ (accessed June 25, 2012)

very substantial overlap,' said Dr. Windsor Holden, principal analyst at Juniper Research, Hampshire, England.

"'This rather belated recognition has certainly benefited companies such as Barnes & Noble, which is using the mobile device as a hub with which to marry the physical and digital worlds,' he said.

"'So a number of online companies are arguing that the introduction of a physical channel can enable them both to widen their user base and to provide existing customers with an additional purchasing channel.'"[32]

In the case of the Massachusetts State Lottery, while the presence of retailers can prove to be a marketing boon for online sales, this does not provide all the answers needed to address the real, legitimate concerns of existing lottery retailers. A related, essential question is: Can an online presence for the Massachusetts State Lottery have a positive impact on retailer sales?

For that, we look to other examples of how brick-and-mortar retailers have managed to leverage a growing presence on the Internet to increase their overall sales, including sales at physical locations.

1. Using Online to Boost Retail Sales: Examples from Other Industries

Lotteries are not alone in being slow to embrace the Internet as a means of growing sales. Wal-Mart, the world's largest retailer, had been less than eager to embrace online sales (which account for about 2 percent of its overall sales), and is only now beginning to make noticeable strides in that area. One critical factor in that evolution in Wal-Mart's attitude has been the growing competition from Amazon.com.[33] Wal-Mart discovered through a survey that half its customers shop at Amazon, double the percentage from five years earlier.[34]

Armed with such data, Wal-Mart has stepped up its efforts to increase its online presence, and has spent $300 million in acquisitions and has hired 200 people to reach that goal. Jeremy King, chief technology officer at @WalmartLabs said: "Amazon is always in our sights. In the US, Amazon is a very big competitor. My biggest issue is playing a catch-up game."[35]

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[32] "What dot-com companies' move to bricks-and-mortar stores could mean for retailers," by Lauren Johnston, Mobile Commerce Daily, June 19, 2012 http://www.mobilecommercedaily.com/2012/02/15/what-dot-com-companies%E2%80%99-move-to-bricks-and-mortar-stores-could-mean-for-retailers.

[33] "Wal-Mart gears up online as customers defect to Amazon," By David Welch, March 20, 2012, Bloomberg Businessweek http://www.businessweek.com/news/2012-03-20/Wal-Mart-gears-up-online-as-customers-defect-to-amazon.

[34] Ibid.

[35] Ibid.

While retailers such as Wal-Mart may be laggards online, they are discovering that their physical presence is an asset that pure online players cannot duplicate. Sometimes, the success that physical retailers have when they create an online channel can be quick and stunning. Williams-Sonoma, a home-goods retailer, managed to avoid any semblance of cannibalization by growing sales in both channels in 2010, despite a sluggish economy. Comparable-store sales grew by 5.2 percent, while online sales grew by 27 percent.[36] The company's online and store sales for the past three years are illustrated in the following table:

Figure 4: Williams-Sonoma, online and in-store sales

($ in thousands) Net Revenues	2009	% of Total	2010	% of Total	2011	% of Total
Online	$1,224,670	39.5%	$1,452,572	41.5%	$1,632,811	43.9%
In-Store	$1,878,034	60.5%	$2,051,586	58.5%	$2,088,084	56.1%
Total	$3,102,704	100.0%	$3,504,158	100.0%	$3,720,895	100.0%

Source: Williams-Sonoma 2011 Annual Report

Such growth has been driven, in part, by a carefully crafted marketing strategy that focused on areas such as search-engine optimization, mobile applications and social media.[37] Not all retailers, however, can expect such stellar results as they endeavor to move from a single brick-and-mortar channel to a multi-channel strategy.

J.C. Penney has yet to find an online strategy that works. *Internet Retailer* reported:

"Fresh from proclaiming a four year plan aimed at revitalizing its brand by improving the in-store experience, J.C. Penney Co. Inc. yesterday reported another year of stagnant web sales along with declining overall revenue in 2011.

"For the full year ended Jan. 28, J.C. Penney, No. 20 in the Internet Retailer Top 500 Guide posted:

- Web sales of $1.5 billion, representing essentially no change from fiscal 2010. Online revenue has been around $1.5 billion for J. C. Penney since 2007.
- Total sales of $17.3 billion, a 2.8% drop from $17.8 billion last year.
- Comparable-store sales increased 0.2%.

"Internet Retailer calculates that the web comprised 8.7% of total sales in 2011 compared with 8.4% in 2010."[38]

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[36] "Online sales help drive Williams-Sonoma's profit," March 15, 2011, Market Watch, *Wall Street Journal* http://articles.marketwatch.com/2011-03-15/industries/30764060_1_williams-sonoma-online-sales-pottery-barn-kids.

[37] Ibid.

[38] "J.C. Penney treads water on the web," *Internet Retailer*, February 24, 2012 http://www.Internetretailer.com/2012/02/24/jc-penney-treads-water-web.

Still, even such a dismal report regarding overall sales did contain a significant bright spot that could bode well for lottery retailers: Even though J.C. Penney made a clear push to grow online sales, its retail stores did not report a decline in sales, and actually grew by a small amount. J.C. Penney has announced that it will offer free family portraits through November and over the Thanksgiving holiday in an effort to draw more shoppers into its stores.

Increasingly, brick and mortar retailers are finding that they must develop effective web strategies simply in order to compete and survive. Big box stores such as Best Buy are facing extinction due to a growing proportion of shoppers who walk through their stores looking at the products and comparing prices with online merchants. This trend is even more pronounced during the holidays. Forrester Research estimates that online shopping accounts for only 7 percent of US retail sales in 2012, but expects that to grow to 16 percent during the Christmas shopping season.[39] Accordingly, land-based retailers including Macy's Nordstrom, and Target are advertising that they will match online prices this holiday season and all of these retailers are changing their websites from independent sales operations into integrated strategic elements for growing sales across all channels.[40]

2. Developing Multi-Channel Strategy for Massachusetts State Lottery

The Massachusetts State Lottery is nearly a $5 billion industry that has developed based on the strength of only one distribution channel. At the same time, most of its retailers are equally dependent on that one channel. That situation exists in lotteries throughout the United States, yet lotteries are not the only industry that has grappled with this issue. Nor are lotteries the only industry that has faced the difficult question of: Can a multi-channel system be developed without sacrificing sales in any one channel? The answer to that question is particularly relevant to lotteries, which deploy independently owned private operators to serve as agents. A major department store, for example, may be less concerned about cannibalization since it would be merely substituting sales in one channel for another, while sales in either one inure to the benefit of the parent company.

That situation does not exist for the Massachusetts State Lottery, hence the bar is set much higher: A multi-channel solution must be developed that does not cannibalize sales at the existing channel or, better yet, enhances such sales.

Examples can be found in other industries where this question has already been addressed. Scott A. Neslin and Venkatesh Shankar, two marketing professors, drafted a 2007 white paper on this issue that, among other things, suggests the value in developing unified, coordinating marketing programs across channels. They note:

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[39] The War Over Christmas, Businessweek, November 5 – November 11, 2012.

[40] Ibid.

"These programs can take the form of standard integrated marketing communications tactics such as the consistent use of the same logo or value proposition in all the channels. Another promising area is cross-channel promotions. For example, a firm may offer Internet purchasers a discount if they pick up the ordered items at the store. Once in the store, the customer may purchase additional items. An inter-channel cross-selling promotion might entail a coupon offered to Internet users for purchasing an item in a retail store. The objective of such a promotion could be to increase store traffic. Going the opposite way, a retail store may offer a customer at the checkout counter a coupon that can be used for online purchases. The firm's motivation for such a promotion is to migrate the customer to use a lower cost channel, namely, the Web."[41]

That latter point is clearly not a goal of the Massachusetts State Lottery. Here, the goal is to grow overall sales through a multi-channel strategy by some combination of:

- Broadening the demographic base
- Increasing purchases per customer
- Enhancing customer satisfaction and loyalty, which in turn would also increase purchases.

With that in mind, Neslin and Shankar go on to raise the following points:

"What we know is that customers do self-select channels according to their preferences. There is also empirical evidence that multichannel availability may enhance loyalty … although some studies suggest that increased Internet usage may erode loyalty …. If multiple channels enhance loyalty, then using multiple channels as a customer satisfaction and delight strategy may be appropriate because the enhanced loyalty may be derived from customer's freedom to use the different channels.

"What we need to know are answers to the following questions. Do multichannel customers perceive better service and experience greater satisfaction or delight than do single channel customers? Is the multichannel usage and customer satisfaction relationship causal? That is, does multichannel usage beget higher customer satisfaction, or are more satisfied customers naturally willing to use different channels?"[42]

While their paper is well researched, it does not provide satisfactory answers to the questions raised, at least not for purposes of this analysis. Still, this does raise an interesting question for the Lottery: Can a multi-channel system be developed that both enhances loyalty and grows sales, in part by generating more sales through more loyal customers?

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[41] "Key Issues in Multi-channel Customer Management: Current Knowledge and Future Directions," by Neslin and Shankar, submitted to Tenth Anniversary Special Issue of The Journal of Interactive Marketing, Aug. 28, 2007, p. 8.

[42] Ibid. p. 11.

3. Loyalty Programs: Advancing Sales, Public Policy

Loyalty programs have been developed for a variety of B2C (business to consumer) industries over the years, from airlines and hotels to casinos and restaurants. The programs have had varying degrees of success, and created varying degrees of frustration, satisfaction and loyalty among consumers.

Their common elements center on the notion that the most loyal customers (the smaller percentage of customers that generate the largest percentage of sales and profitability) should be recognized, rewarded and encouraged to maintain and enhance their spending and loyalty. Another common element is that the more knowledge that a business can obtain about its customers will allow it to tailor its offerings to that knowledge, whether that entails knowledge about when purchases or made, or knowledge about which goods or service enjoy a strong positive (or negative) correlation in sales.

Effective loyalty programs vest their customers with a sense of ownership, a view that past purchases are a form of savings, a deferred reward that will be collected at a later date. Michael Lewis of Emory University, writing nearly a decade ago in the *Journal of Marketing Research,* crystallized a dilemma facing managers seeking to develop or improve a loyalty program:

> "A special characteristic of loyalty programs is that their attractiveness may change dynamically with a customer's decisions. As purchases are made, both the customer's investment in the program and the customer's likelihood of earning a reward increase. Conversely, when a customer decides not to purchase in a given period, the likelihood of earning a reward decreases, because the customer moves no closer to the reward threshold, and the time left to earn rewards shrinks. The assessment of a program's attractiveness is further complicated because customers usually have imperfect knowledge of their future requirements and of the marketing policies of the firm. These dynamic factors are a challenge in the modeling of customer response to loyalty programs."[43]

Our analysis in this section begins by identifying the key attributes of the present lottery distribution system that offer the potential to build loyalty:

- The Lottery currently has no legal gambling competition within Massachusetts
- The Lottery has an extraordinarily deep distribution system through its 7,400 retailers

[43] "The Influence of Loyalty Programs and Short-Term Promotions on Customer Retention," *Journal of Marketing Research*, August 2004, p. 282.

- The nature of legal online gambling requires and generates detailed, accurate information about players, from their demographics to their playing preferences to their location.

In Spectrum's experience, gamblers are generally promiscuous in their spending habits. Physical casinos in close proximity to each other generally share customers, and customers are often swayed by the value of the offer they receive. So, an absence of online options would inure to the benefit of the Lottery. At the same time, loyalty – whether to the brand, or to the best offer – can be maintained by a combination of limited competition and a robust loyalty program that takes into account the interests of both the lottery and its retailer network.

A 2000 report by McKinsey & Company warns that loyalty programs are not necessarily as profitable as their proponents assume. The report notes that "these programs, despite their number and apparent popularity with customers, often fail to increase customers' loyalty. In fact, 79 percent of customers in casual apparel and 70 percent in grocery say they are always seeking alternatives to their current retailers—percentages that far exceed the percentage of customers actively seeking alternatives in other categories. Nor do consumers who join a loyalty program necessarily increase their spending."[44]

Still, a loyalty program that is based on extensive, accurate customer spending patterns and related data holds more promise for success, based in large measure on our experience in gaming. This conclusion is based on outside research as well. For example, a 2010 report in the *Journal of Interactive Marketing* notes (correctly in our view) that a combination of customized coupons and amassed loyalty points can collectively have a very positive impact on loyalty and spending:

> "Loyalty programs, specifically points programs, seem to have a positive short-term impact on different aspects of customer behavior, including purchase frequency, basket size, lifetime duration and share of wallet … One major finding from multiple studies is that the impact of loyalty programs is more pronounced among light or moderate users rather than heavy users … Studies have also identified that loyalty programs have a long-term effect of increasing customer spending with a retailer, although the long-term effect is still smaller than the short-term effect … .
>
> "Customized coupons differ from points programs in the sense that they are personalized for individual customers, and the retailers do not explicitly communicate to the customers the type of behaviors that are rewarded. Therefore, customized coupon campaigns have the ability to delight customers because of the unexpected nature of the rewards. In addition to rewarding customer behavior, customized coupon campaigns can also allow

[44] "Do you know if your loyalty program is working?" McKinsey & Company, November 2000, by James Cigliano, Margaret Georgiadis, Darren Pleasance, and Susan Whalley.
https://www.mckinseyquarterly.com/The_price_of_loyalty_949

retailers to advertise their products, especially those in their assortment that are differentiated from competition."[45]

The concept of a loyalty program that rewards customers for their level of play has never, in our experience, been fully implemented by lotteries. The concept of an online program, however, lends itself to such a plan, in large measure because all wagers will be recorded.

Additionally, the Massachusetts situation lends itself to a loyalty program because such a program can be coordinated:

- With the forthcoming casinos in Massachusetts, to reward lottery players with free meals, rooms and other amenities.
- With retailers, who can develop their own rewards system to encourage on-site visits.
- The specifics of retailer rewards program need to be customized to the business model of each retailer, or group of retailers, but certain common elements would likely be incorporated:
- Customers could receive offers based on their geographic location
- Spending patterns would also be evaluated to encourage both non-lottery sales, as well as overall lottery sales
- Rewards would be based on encouraging both online and brick-and-mortar sales
- The development and coordination of loyalty programs between the Lottery, casinos and the retailer community should be designed to boost overall sales, as well as to:
- Enhance the potential value of Massachusetts's forthcoming gaming licenses
- Encourage participation by retailers who would then develop plans to encourage in-store visitation.
- Casinos have historically relied on loyalty programs as essential marketing tools to identify and cultivate players.

4. Casino Customer Loyalty Programming

As a component of an overall strategic marketing plan, an effective customer loyalty program provides a means to generate (or improve upon) customer loyalties, gather information, and drive incremental revenue and/or visitation from customers. However, in our experience and with respect to online gambling, a successful customer loyalty program can only be as successful as the delivery of customer service at the brick-and-mortar level of the organization (i.e., data-

[45] "CRM in Data-Rich Multichannel Retailing Environments: A Review and Future Research Directions," *Journal of Interactive Marketing*, 24 (2010), p. 129.

driven processes and customer-service/human-relations go hand-in-hand). This may be a critically important relationship the Massachusetts State Lottery must consider.

This section of the report will show how casino operators view loyalty programs. While clearly different from lotteries, casinos offer valuable lessons in this area because:

- The casino industry has evolved to become heavily reliant on developing and maintaining robust loyalty programs.
- The casino industry in the United States is presently also examining opportunities in online gambling, thus creating possibilities of both competition and/or cooperation with lotteries. This is particularly relevant in Massachusetts as it is simultaneously developing a brick-and-mortar casino industry while examining the possibilities of online gambling for the Lottery.
- Online gambling represents a significant potential departure for the Lottery because it offers the opportunity to broaden its customer base, and create entirely different customer experiences, all of which increases the possibility that its customer base will overlap with that of casinos.

An interactive customer loyalty program can benefit both the provider and consumer. Through effective data-mining, a casino's marketing initiatives can go from one-way (casino to customer) offerings into two-way transactions (where customer tastes, preferences, and overall feedback are directed back to the casino – thus marketing initiatives are tailored to customer wants and needs). According to Gary Loveman,[46] from "Diamonds in the Data Mine" published in the *Harvard Business Review* in May 2003:[47]

> "Harrah's Entertainment [now known as Caesars Entertainment] has the most devoted clientele in the casino industry – a business notorious for fickle customers.
>
> "We've increased customer loyalty, even in the current challenging economy, in two ways. First, we use database marketing and decision-science-based analytical tools to widen the gap between us and casino operators who base their customer incentives more on intuition than evidence. Second, we deliver the great service that consumers demand. In short, we've come out on top in the casino wars by mining our customer data deeply, running marketing experiments, and using the results to develop and implement finely tuned marketing and service-delivery strategies that keep our customers coming back."

From the same article and with respect to customer relationships (i.e., human interaction, brick-and-mortar aspect), Loveman notes:

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[46] Loveman currently serves in three distinct capacities with Caesars Entertainment: Chairman of the Board, Chief Executive Officer and President.

[47] "Diamonds in the Data Mine," by Gary W. Loveman, *Harvard Business Review*, May 1, 2003

"Deep data-mining and decision-science marketing would be worth little in driving same-store sales growth were it not for another simultaneously applied and extremely critical ingredient – an absolute focus on customer satisfaction."

The following are some examples of benefits (to both the casino and customers) that may accrue from having an effective customer loyalty program, along with multiple service-points (i.e., multiple casinos) in a market:

- Hassle-free gambling experience throughout multiple same-market operations
- Simplified experience – ability to interact with one entity (telephone, web-based) while benefitting from having multiple unified casinos in market
- Branding exists, and recognized, in market
- Common database results in common offerings for customers:
- No loss, or cost (real or perceived), to customer by playing at multiple casinos – equivalent benefits accrue from playing at all casinos
- Customer earns rewards from play at all casinos and can redeem at all casinos
- Loyalty – as with airlines and hotels customer loyalty programs, which have various tiers and plateaus resulting from membership, the casino may be able to develop a common system applicable to all casinos, which may then yield incremental visitation (as customer may not split visits or spending to other regional competitors)
- The gambling operator, through the existing database, is keenly aware of market/trade area customer tastes and preferences – this proprietary insight can be seamlessly applied to all casinos in the market:
- Ensures quality level and product offering is at a quality level and attractiveness expected by local residents,
- Loyalty program tailored to local residents designed to increase visitation to all casinos in the market (ensures little incentive for market/trade area residents to expatriate gambling dollars to other jurisdictions)

Again, we believe these aforementioned benefits could accrue to both the casino operator and consumer experience, or adults in the area.

E. Current Situation in Massachusetts

1. Background

Established by the legislature in 1971, the Massachusetts State Lottery provides revenue for all of the 351 municipalities throughout the state. The original weekly drawing, The Game, began in March 1972. In May 1974, Massachusetts introduced the first scratch ticket, Instant Game, in cooperation with Scientific Games, an invention that revolutionized the US lottery industry.[48] Today the Lottery introduces about 25 new instant game products each year.

The Lottery is overseen by a popularly elected official, the State Treasurer, and governed by a five-member commission ("MSLC," or Massachusetts State Lottery Commission) established by the Legislature. The MSLC includes the State Treasurer as Chairperson, the Secretary of Public Safety, the State Comptroller, and two gubernatorial appointees. The Commissioners oversee Lottery operations and provide final approval for the types of games, prices, prize structure, methods of payment, and licensing of sales agents.[49] The Lottery enjoys generally positive public perceptions, with 60 percent citizens indicating a favorable opinion.[50]

2. Success Factors

The Massachusetts State Lottery is arguably the most successful and innovative state lottery in the United States. The strengths of the Lottery include ownership and management of the information technology infrastructure supporting the games, revenues that lead the nation by a wide margin on a per-capita basis; high payout ratios on instant games; innovative and popular instant game offerings; and a highly involved, motivated and supportive network of sales agents. The Lottery is not among the largest lotteries in the nation when measured by total revenue, where it ranks moderately due to Massachusetts' relatively small population of 6.7 million. However, the Lottery generates the highest revenue per player of any lottery nationwide, posting an average of $666 per capita in 2010.[51]

The most important single success factor is instant games. The Lottery relies heavily on instant game products, which currently constitute 69 percent of all sales by revenue, or $3.1 billion out of the $4.6 billion in total revenues generated in 2011.[52] This reliance on instant games has long been a success characteristic of the Lottery and the proportion of revenue

[48] Lotteryinsider.com

[49] Lotteryinsider.com

[50] MSLC Annual Tracking Study, May 8, 2011

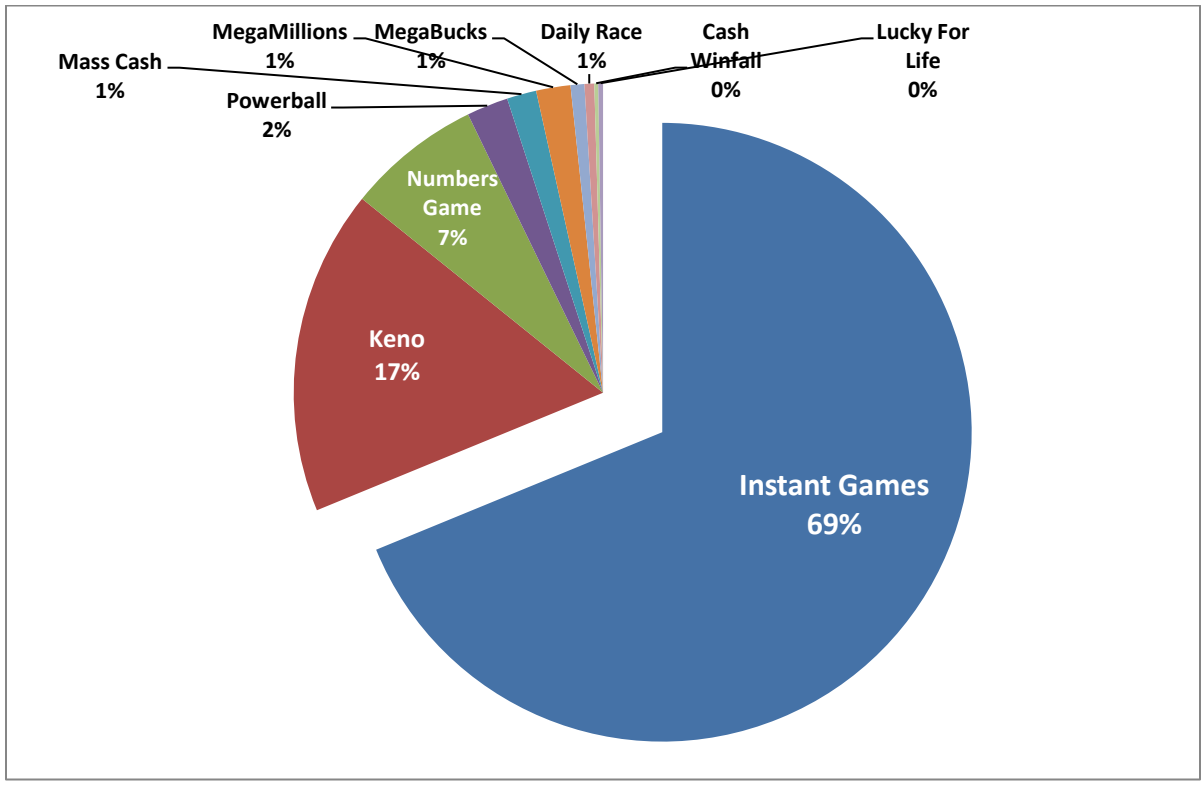
[51] La Fleur's 2010 World Lottery Almanac

[52] Sales data by product, 1st quarter, 2012, Massachusetts State Lottery.

generated by instant game products has remained relatively constant going back at least to 2003.[53]

Massachusetts is the world leader in per capita sales of instant tickets. Only two lotteries in all of Europe make it in the top 25 and one does not encounter an Australian lottery on the list until No. 43. The following chart demonstrates the Lottery product market for 2010-present:

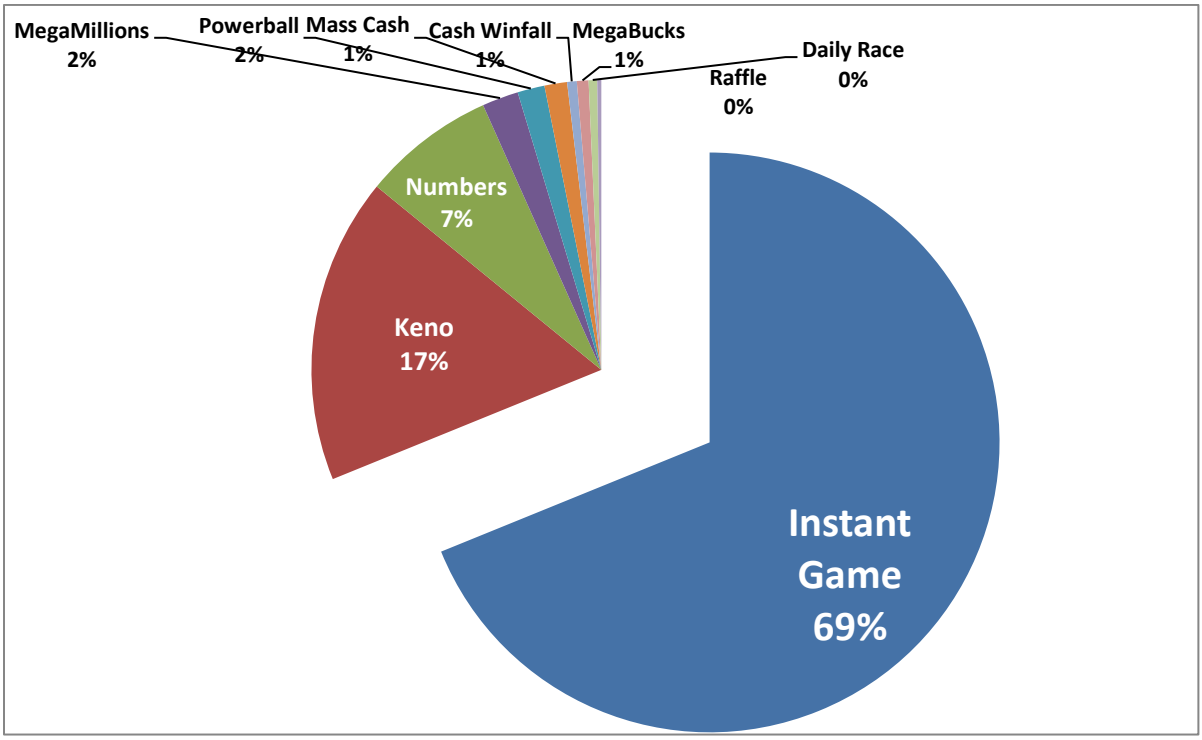
Figure 5: FY 2012 Massachusetts State Lottery sales by product (through September)



Source: Massachusetts State Lottery

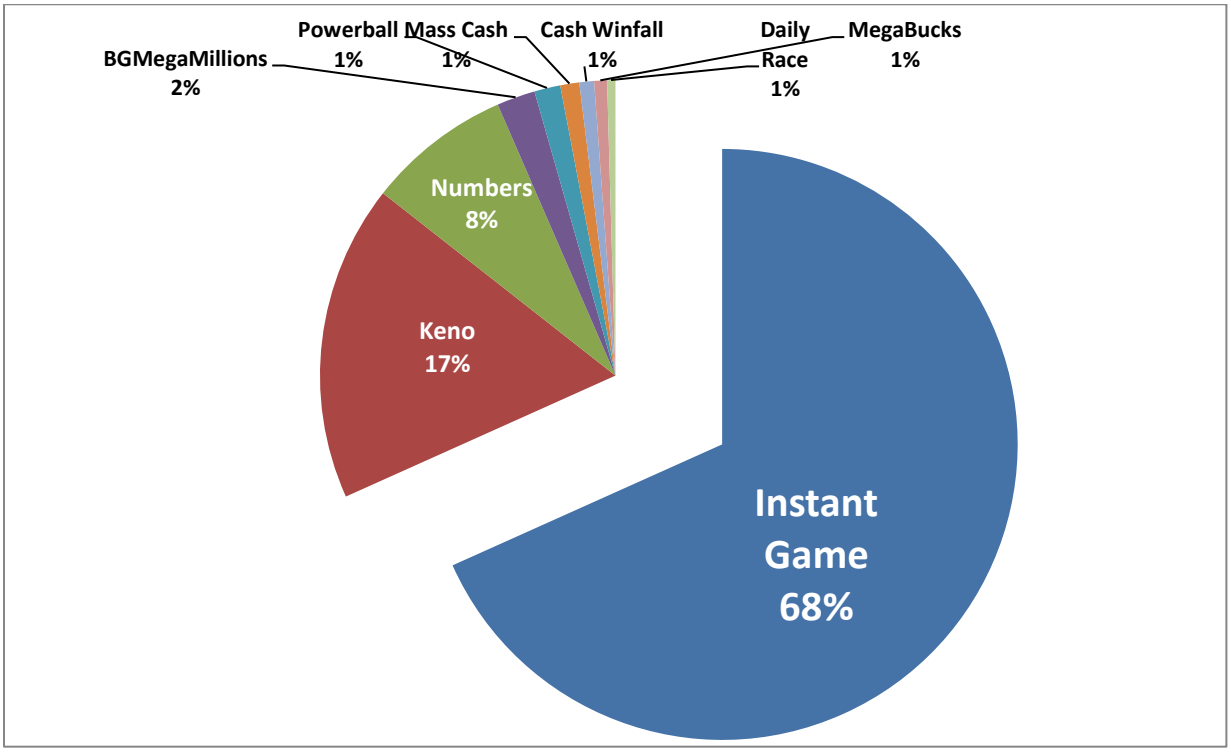
[53] Christiansen Capital Advisors, Analysis and Recommendations for the Massachusetts State Lottery, MSLC RFR Lot #526, 2003

Figure 6: 2011 Massachusetts State Lottery sales by product



Source: Massachusetts State Lottery

Figure 7: 2010 Massachusetts State Lottery sales by product



Source: Massachusetts State Lottery

The reason that instant game products perform so well in Massachusetts is because the Lottery offers higher payouts than its competitors, paying out, on average, $0.72 on the dollar compared to the US average of $0.645 in 2006; some lotteries have payouts in the mid-50s. That Massachusetts enjoys the highest per-capita sales revenue and also offers the highest payouts on instant games of any US lottery are not unrelated. Core players, the key constituency for instant game products, obviously perceive a better deal for the player and this is paying off for Massachusetts in higher Lottery revenues per player. This strategy, although executed in the transactional milieu of instant games, is similar to the low-hold strategy prevalent in casinos, where higher revenues depend upon more time on device. In both situations, lower hold percentages generate higher sales volume which generates greater revenue and also a more frequent and satisfied customer.

3. Overview of Lottery Operations in Massachusetts

A comparative operational study of the Lottery yields several marked characteristics which distinguish the Lottery from its American peers and from those lotteries across the globe which have deployed various lottery Internet sales protocols. "Unique" is an overused term which most lottery administrators invariably apply to their own lottery operations. However, in the case of Massachusetts, the term aptly fits. The facts and the data paint a clear picture of a lottery environment and lottery organization that is quite unlike any other either here or abroad.

The success of Massachusetts has been demonstrated critical measure of per-capita sales where the Massachusetts State Lottery has maintained a dominant lead over more than a decade relative to other state lotteries, as illustrated in the following table, which compares the leading US state lotteries in sales per capita for the fiscal year 2012[54]:

Figure 8: FY 2012 Lottery sales per capita, peer group

	Population (millions)	Lottery sales (billions)*	Sales per capita
Massachusetts	6.6	$4.77	$725
Georgia	8.9	$3.83	$391
New York	19.5	$7.01	$360
New Jersey	8.7	$2.75	$312
Connecticut	3.5	$1.08	$302
Pennsylvania	12.6	$3.48	$273
Michigan	9.9	$2.41	$244
Ohio	11.5	$2.73	$237

Source: La Fleur's *Does not include VLT sales

An interconnected series of bold public policy choices, unique operational priorities and unusually experienced, talented management, all deployed in a jurisdiction where the spotlight

[54] La Fleur's Magazine, September/October 2012.

on lottery and public administration is extremely intense, have together created and defined this Lottery as different and all together more successful than most.

The differences begin with mission. The primary, stated mission of the Lottery is to raise revenue for Massachusetts cities and towns. This in itself is a unique charge for a state-run lottery.[55] Yet as described by various observers and stakeholders, the de facto mission of the Lottery has broadened over time and today the Lottery is understood to serving multi-faceted purposes which include regulatory, entertainment, revenue, and business-development objectives.

Like many of its counterparts in the northeast US, the Lottery is the heir to a long tradition of public and private small-scale gambling activity in the state. Public lotteries authorized by the Commonwealth have been a part of the fabric of Massachusetts since the time of the Puritans. Lotteries were used to finance a number of Massachusetts' most revered civic and institutional landmarks, including development of Harvard College.[56] Later, in the 19th Century, public-sponsored lottery gambling declined and private or "street gaming" – particularly in the growing urban centers – emerged. Illegal and unregulated, street gaming took hold in Massachusetts with a prevalence that, most experts agreed, equaled its Northeastern neighbors and likely far exceeded what was found in most other states.[57]

When "modern" lotteries were created in the 1960s and 70s, their mission was generally understood to be forged from these two historical elements: to raise revenue for a public purpose by, in part, diverting interest and attention away from the private "street" gaming activities.[58]

To achieve these purposes the Lottery embarked on an ambitious program to offer safe, secure and regulated products through as many physical retail outlets as could reasonably be recruited and supported. In the process a partnership with thousands of Massachusetts retailers was created and an additional mission evolved: to serve and support the businesses (most of them individually owned small and medium businesses) who served and supported the growth of the Lottery. Armed with potent tools, including the most generous prize payout of any lottery in the nation, these retailers helped the Lottery created a relationship of trust and loyalty with end players which is widely admired and unlike any other in the industry.[59]

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[55] Teresa LaFleur, ed., *La Fleur's World Lottery Almanac*, (Rockville, MD: 1 TLF Publications 1998), 23.

[56] "State Legislatures to benefit from Mega Millions," an interview with Professor Charles Clotfelter, National Public Radio, 3/2/12

[57] See Dwight Strong, "New England: The Refined Yankee in Organized Crime," *The ANNALS of the American Academy of Political and Social Science* vol. 347 no. 1 (May 1963) 40-50.

[58] Charles Clotfelter, Phillip Cook, *Selling Hope: State Lotteries in America* (Cambridge: Harvard University Press, 1989), 40.

[59] Interview with M. Scott Bowen, Commissioner Michigan State Lottery, (April 30, 2012).

This retailer/player loyalty in turn created yet another mission-like responsibility, one which is keenly felt by Lottery retailers and management: to stay current in an increasingly complex, competitive gambling environment so as to consistently provide players with state of the art products and service.

Today the Lottery represents a Commonwealth asset of tremendous current and future value. This asset has been created by successfully weaving together and serving all of these evolving, diverse mission strands. Understanding each leads to a proper understanding of the uniqueness and the value of the Lottery and helps identify the context and ways in which a properly crafted Internet sales program could best protect and enhance the value of the Lottery as a public asset.

a. Consequences of a Unique Mandate

Massachusetts is the only state that specifically earmarks its profits to be distributed to cities and towns.[60] This produces several operational ramifications which may prove to be relevant with regard to Internet sales.

The cities-and-towns mandate has created concentric rings of Lottery stakeholders and observers who are highly interested in the Lottery program and its success. This is unusual. In most other US states, lottery revenues are directed to the state's general revenue fund, where they are dwarfed by, and mingled with, general tax receipts and then largely forgotten about. In several European jurisdictions private operators retain revenues and the public is benefited in the form of a business operations tax. As far as public interest and awareness is concerned these taxes on lottery operators have no greater significance than a tax collected on any number of general or specific businesses. The result is a general public ignorance or apathy with regard to where the money goes and how the Lottery performs.

The situation in Massachusetts is altogether different. In the Commonwealth, the general public and the playing public are more aware of where the money goes and generally provide more support for the institution no doubt because of this understanding.[61] Lottery revenues can become important topics and factors in budget making in every city and town across the commonwealth. This creates a significant amount of lottery-related discussion in local public discourse and in local and regional news outlets.[62] This revenue-driven interest no doubt leads to more and deeper media coverage of lottery issues than is the case in other states. In most other states lottery is publicly relevant only during times of scandal or extremely high jackpots. In these states choices made by lottery administrators rarely elicit much public interest or comment.

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60 LaFleur, 23.

61 Annual Tracking Survey & Brand Assessment, The Massachusetts State Lottery, conducted by SocialSphere (5/18/11), 4.

62 See e.g. "State counts on Lottery to support Cities and Towns" WCVB Channel 5 Boston, (3/27/12).

By contrast, the lottery decision-making process in Massachusetts generally receives more scrutiny and more coverage in the media.[63]

Likewise, local political leaders throughout the state – whose job in office can be made easier or more difficult depending on Lottery performance – are more apt to have opinions on the Lottery and to share these opinions with their friends and political relations on Beacon Hill. Again this contrasts with the situation in most other states where lottery revenues are irrelevant to local concerns and lottery operational issues less a source of interest to state and local elected officials as a result.

The uniqueness of where the lottery money goes has contributed to making the Massachusetts State Lottery a more localized, "from the ground-up"-oriented organization, characterized by a greater reliance upon (and sensitivity to) grass roots operational factors than is often the case with other lotteries. This orientation has been further solidified by a series of public policy and administrative choices concerning how lottery products are offered to the public and how Lottery products are advertised and promoted. (The significance of these choices is discussed in greater detail below). This ground-up, decentralized orientation is unique and it creates a unique environment in which to consider and apply what have, here to fore, been largely top-down, centralized Internet lottery sales solutions.

Public Accountability

We noted that many lotteries in Europe operate as private entities under license to the sponsoring government. In such an environment lottery leadership is accountable to shareholders and to a regulatory authority which, in most cases is largely distant from and unknown to the larger public. Most North American lotteries are run as direct agencies of government. Some, such as Georgia, Tennessee and Kentucky, operate under special quasi-corporate frameworks which provide somewhat more day-to-day managerial flexibility to respond to market conditions.[64] Yet even in these American lottery "corporations" day-to-day lottery managers are government employees reporting to government-created oversight bodies.

Regardless of organizational structure, the common denominator with regard to oversight and accountability is that absent a miss-step or the occasional large jackpot, lottery operations do not receive significant attention from the press, the public or within government.

In the vast majority of states, lotteries report to and through one of the gubernatorial-directed revenue agencies or to the governor directly. Governors tend to have broader operational portfolios and, as a result tend to focus relatively less interest and attention on lottery operations.

63Interview with Paul Sternburg, Executive Director Massachusetts State Lottery. (March 22, 2012)

[64] The National Gambling Impact Study Commission, *State Lotteries at the Turn of the Century, (*Durham, NC: Duke University, April 23, 1999), 9.

Massachusetts is an exception to this rule. By statute, the Lottery reports to the State Treasurer. Lottery makes up an important part of the Treasurer's operational portfolio. Further, since the State Treasurer is an independently elected political position, this office and the portfolio of responsibilities which reside in it have a larger media and public profile than is the case with appointed Finance authorities in other states. On top of this, the Treasurer and the Lottery in Massachusetts operate in an intense media market, which makes it relatively difficult in our view to develop financial decisions that would not also receive political scrutiny.

The bottom line is that the Massachusetts State Lottery today is arguably the most scrutinized, most accountable, most politically sensitive/responsive – and most profitable – lottery in the nation. This position informs all aspects of lottery operations, including decisions relating to the possible launch of new Internet sales channels.

Operates Own System

In 43 of the 44 lottery jurisdictions in the United States, the day-to-day central gaming network is maintained and operated by a third-party contracted vendor.[65] These networks constitute the heart and soul of a modern lottery operation. In many states the provision of services surrounding the central gaming network has grown to include many standard lottery management functions including field sales support, ordering, warehousing and delivery of tickets. In these situations, it is debatable whether it can be said that the state "operates the lottery," for in fact the majority of operating functions are actually undertaken by a vendor.

Once again, Massachusetts proves to be an exception to the general lottery industry rule. Here the Commonwealth owns, operates and maintains its own central gaming system. This has been the case since centralized lottery gaming systems were first introduced in the late 1970s.[66] According to administrators, this approach saves money but does have some operational drawbacks, particularly involving the ability to stay current with new technologies. States that are served by large vendors have access to the research and development efforts which these companies provide. On the flip side, administrators believe that by operating its own system the Lottery could be positioned to respond more quickly and more precisely to particular marketing imperatives and opportunities that present themselves in the Massachusetts market.[67]

Internet-focused vendors have attested to the benefits of an "open architecture" or "open platform" Internet sales system in which a variety of optimized, customer-facing Internet sales protocols are able to securely connect to a state's centralized gaming system.[68] In this way, the sales approach which the Lottery has utilized to great effect in the physical bricks-and- mortar

[65] LaFleur, 427.

[66] Interview with Paul Mandeville, Assistant Executive Director, Massachusetts State Lottery, (May 1, 2012).

[67] Ibid.

[68] Presentation by lottery industry vendors to Massachusetts State Lottery, (April 19, 2012).

environment (e.g., entering into sales agency relationships with as many entities who can possibly provide an effective contact with an end customer) would be applied to the Internet as well. A grocery store that has developed a robust following with customers on the Internet or an Internet retailer of books and electronics could, under this type of approach, also sell Internet lottery products on behalf of the Lottery, increasing the Lottery's ability to reach and effectively serve Internet-based customers. Variations on this approach, employing affiliate sales development and referral programs have been used successfully for several years in the Australian market.[69]

Traditional lottery suppliers that now offer lottery Internet sales solutions tend to prefer a closed-system approach in which consumers interface only with one Internet site powered by the supplier. They are less likely to support the concept of splitting margins with customer-aggregating retailers or affiliates, maintaining that – in a monopoly environment – there is no need to share the outreach and the profit with any parties other than the Lottery and the supplier.[70] Further, they note that transaction-processing costs that either do not exist or are less expensive in traditional lottery transactions must be taken into account.

Whatever approach may be optimal for all stakeholders, the likelihood is that, given the overall operational dependence of North American lotteries on their traditional suppliers, the operational model favored by the supplier will find an audience and market in North America. Indeed this is the model that has been rolled out in British Columbia and in Illinois, where the company that operates the closed-system Internet protocol is also a majority owner of the new private management company which runs day-to-day operations of the Illinois Lottery.

However, given that Massachusetts is not as dependent on a traditional lottery supplier, the possibility is stronger here than elsewhere that an "open platform" approach favored by others in the industry could be viewed to be an appropriate fit for the Commonwealth.

Payout/Focus on Instant Scratch Product

Over the span of decades, Lottery management established and executed a strategy to raise the prize payout on the instant scratch ticket category significantly beyond that which was routinely offered in other states. The payouts were moved up over time as part of credibly differentiating the games from one another. Each of the scratch products had different levels of top prizes and credible winning-prize amounts. This allowed more scratch games to be merchandised effectively at POS (point of sale) in the retail location and thus helped cross play among games. The scratch game product line did not have a legislative restriction on its payout, as did the draw games, so the payouts were allowed to improve over time as part of the game development and differentiation. In addition to the initial variation in payout across individual

[69] Mike Veverka, Jumbo Interactive Ltd., *Presentation at the PGRI Smarttech Conference*, New York March, 2012

[70] Presentation by lottery industry vendors to Massachusetts State Lottery, April 10, 2012.

scratch products, the payouts/available prizes were also used to differentiate between the price points. There has historically been a differentiation between the payouts of the scratch tickets at each price point; as the mix of product sales has become stronger with the higher priced scratch games (and the $1 game sales are a smaller part of the overall sales mix), the average payout numbers across all scratch games has increased.

This approach formed a foundational pillar of a broader instant-ticket-focused sales and operational strategy, which subsequently transformed the lottery industry in North America. Consider the following: In 1994, instant tickets accounted for only 37 percent of total lottery sales across the United States, with terminal-based draw games accounting for the rest. Sales ratios within individual states during that period reveal an even more dramatic contrast. In Pennsylvania instant ticket sales accounted for 18 percent of total sales, and in New York instant tickets accounted for just 11 percent of sales.[71] At the time, Massachusetts was a lonely pioneer; sales in the instant ticket category accounted for 70 percent.[72]

Fast forward to today, and we see nothing short of a revolution in lottery operations Today, the ratio of instant ticket sales to terminal sales nationally is the mirror reverse of the situation in 1994: 63 percent of traditional lottery sales nationwide are instants, with terminal draw games accounting for the balance.[73]

Over the past decade, Massachusetts has retained and, in fact, intensified its focus on instant tickets, with the sales ratio today standing at 69 percent.[74] The instant ticket product is so different from the terminal product in so many different ways that the ramifications of this extreme sales differential have been felt across every area of lottery operations. Further, this differential has made broad "lottery to lottery" comparisons more suspect and less relevant, until and unless these significant product variations are understood and taken into account

An example would be to compare two traditional tea companies, Lipton and Red Rose. Let us assume that 25 years ago, both tea companies focused on and sold what are effectively the same products: loose and bagged teas. Comparisons between the companies would be apt. However, Lipton subsequently extended its brand into the prepared, bottled beverage market. Today, this product line accounts for the vast majority of that company's sales. Red Rose offers a bottled product but the traditional loose and bagged tea remains that company's focus and the primary driver of that company's sales. Technically, both companies remain tea companies but, with such a wide difference between what each respective "tea company" actually sells, an attempt to meaningfully compare the two or an attempt to predict issues and results for one based on the experience of the other is irrelevant and perhaps even misleading.

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[71] LaFleur, 360-365.

[72] Ibid.

[73] Ibid.

[74] Massachusetts State Lottery Commission, Statement of Operations, September, 2012.

So it is with lotteries. One can only safely characterize and compare one lottery to another in so far as the product sales ratio of those two lotteries are somewhat aligned.

In the case of Massachusetts, the Lottery's intense focus on a particular product line has made it harder to make apples-to-apples comparisons, contrasts and predictions for this Lottery, based on experiences elsewhere. Further, this defining emphasis on one product line has created a series of key operational differences which must be understood and accounted for as new operational paradigms are considered. These include the following salient attributes:

Retailer Network

As noted earlier, the network of licensed lottery retailers within Massachusetts operates and performs in ways which are unlike any other in the industry. It begins with financial considerations. In short, the different Massachusetts approach to the instant ticket has proved to be a tremendous financial benefit to Massachusetts retailers. It stands to reason that since retailers are compensated on the sale and upon the cashing of a ticket, a merchandising strategy designed to stimulate sales churn will work very much to the benefit of the retailer.

In the United States the average lottery retailer operates within a sales territory containing 1,419 potential customers. This average retailer sells $271,001 in lottery products per year. In Massachusetts the average retailer's sales territory is far smaller in population (822), yet from this smaller base the Massachusetts retailer sells $546,660 per year in lottery products, or more than double the US average. For this, the Massachusetts retailer receives an average yearly commission of approximately $37,000,[75] which was more than double the 2010 US average of $16,692.[76]

Aside from direct commission benefits, the Massachusetts approach has also provided derivative financial benefits for Massachusetts retailers. By elevating the relative importance of the instant ticket and by supporting it with more winning experiences, the Lottery has created a product that draws customers to a store at any and all times and encourages them to stay within the retail environment.

Consider the merchandising ramifications of the alternative strategy deployed in those jurisdictions where the terminal-based draw games still dominate. There, the customer is socialized toward a static, confined activity; i.e., the customer purchases a ticket to a draw set for a future date certain, he or she puts the ticket in his pocket, goes home and does not engage or shop again until several days later when that draw is over and a new sales opportunity is available. In contrast, the instant product works around a customer's preference and timing. Rather than one, life-changing, long-odds mega-prize, the instant scratch product is designed to deliver more multiples of smaller winning experiences. All of this works to drive customers to a

[75] Massachusetts State Lottery Commission Information Packet 1972-2012.

[76] La Fleur's, 277.

store, increase the time they spend there and the likelihood that they will purchase other, higher-margin items from the retailer. Indeed research bears this out. A study by the National Association of Convenience Stores found that the frequent lottery customer spends more than twice per store visit as non-lottery customers ($7.07 as opposed to $3.47) and that lottery customers purchased at least one other non-lottery item in 95 percent of their store visits.[77]

Despite the considerable space and labor which a retailer must devote to merchandising scratch tickets, as well as the increased risk of shrinkage from theft, thousands of Massachusetts retailers saw fit to embrace the Lottery's (then-) unique merchandising approach. Successfully executed statewide, this approach enabled the Lottery to create what is widely regarded to be the strongest, most engaged retailer network of any North American lottery.

Less Advertising

The success of the Massachusetts approach has produced billions of dollars for Massachusetts retailers and tens of billions of dollars for the Commonwealth. In addition, the approach has likely indirectly saved the Lottery hundreds of millions in what would otherwise be standard lottery marketing expenses.

US lotteries collectively report spending over a half-billion dollars annually on lottery advertising.[78] In neighboring New York, slightly less than $100 million is spent each year to advertise and support lottery sales.[79] Lotteries are nearly always the largest public advertiser[80] and sometimes the largest overall advertiser in the state in which they operate. In vivid contrast, Massachusetts spent merely $2 million in appropriated Lottery-advertising last year.[81]

The national average ratio of appropriated lottery advertising spending to overall sales is exactly 1 percent.[82] If this national expenditure average were applied to Massachusetts, lawmakers and taxpayers in the state could expect to spend approximately $44 million each year in advertising instead of the $2 million. The $2 million equates to 0.0005 percent of the Lottery's gross sales for fiscal 2011.

In explaining the need for large advertising appropriations, Lottery administrators in other states point to a highly competitive retail environment and the need to "get the Lottery's message out" to consumers via a variety of mass marketing and media techniques. This imperative is no less important or less challenging in Massachusetts. By and large, lottery

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[77] National Association of Convenience Stores, *NACS Lottery Study*, (1997), www.nacsonline.com.

[78] La Fleur's, 301.

[79] Ibid.

[80] Clotfelter, Cook, 201.

[81] La Fleur's, 301.

[82] Ibid.

administrators have risen to the challenge in admirable fashion. Overall neutral/positive consumer awareness of Lottery is an impressive 85 percent, and 70 percent of adults age 34-55 report making a lottery purchase within the last year.[83] What is more impressive is that the Lottery has accomplished this objective by vastly different and all together less expensive approaches.

Third-party comparative research on state lottery advertising approaches is sparse, but it would appear that whereas in most states the lottery player's source of information and contact with the product is from the state directly, in Massachusetts this role is more likely than not fulfilled by a lottery retailer.

Retailer penetration relative to population is deeper in Massachusetts than any other state, and only Vermont comes close to Massachusetts ratio of retailer to population served.[84] As a result there is little chance that a customer looking to purchase a lottery ticket within the Massachusetts would be frustrated in their search.

Site visits (announced and unannounced) by Spectrum executives and associates to Massachusetts retail locations revealed general agent practices that were considerably more robust and developed than is found in most markets in other states.[85] In Massachusetts, the lottery displays at retailers tend to be larger and more prominently located within the store. Signage, both exterior and interior, is more extensively and effectively utilized and often includes materials provided by the Lottery as well as materials devised by the retailer of their own initiative.

Based on our interviews with Lottery officials and our examination of comparable practices in other states, we believe the Lottery's point-of-sale advertising shows signs of being stretched too thin and that an overall ad appropriation of only $2 million may be too small to adequately support the number and type of retailers that the Lottery is mandated to support. However, the combined efforts of the Lottery and retailers in "getting the message out" via retailer locations have helped the Lottery compensate to some, unquantifiable degree for its relatively small advertising budget.

Looking ahead, the Lottery could find itself in an intensely competitive situation in the online space. Should it be offering online products while the state's bricks-and-mortar casinos operators also offer online products (casino or lottery, or both), the Lottery would likely find itself at a substantial competitive disadvantage unless its overall advertising budget were

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[83] SocialSphere, 7, 10.

[84] LaFleur, 279.

[85] Site visits to lottery retailers were conducted in the following communities: Boston, South Boston, Marlborough, Attleboro, Braintree, Revere, Gloucester, Beverly, Newbury, Salem, Salisbury, Methuen, Haverhill, Worcester, Pittsfield, Springfield, North Adams, Great Barrington and Lee.

increased. That possibility lends support to our recommendation that the Lottery be the sole provider of legal Internet wagering in Massachusetts.

Composition of Sales Network

The make-up of the retailer network within the state is highly relevant to the Lottery's success. Lottery managers appreciate that not all lottery retailers will support the program with equal commitment and results. Further, an owner-operated "Mom & Pop" location might offer a more effective sales outlet for lottery than a chain location, despite changing macro demographic and retailing trends that would otherwise advantage the chain location, because an owner-operator might be expected to place more value on the lottery franchise. At the same time, chain operators may be considered less willing to devote considerable resources and attention to lottery product protocols (merchandising, accounting etc.), which are time consuming and which differ considerably from one state to the next. As a result, an owner-operated location, where lottery is a principal product, could be expected to serve as a more comprehensive and effective merchandiser of lottery products.

This presumption appears to be borne out in the numbers. The lists of top-selling retail locations from the top-performing lotteries in the nation show a disproportionate representation of single location, owner-operator locations.[86] Frequently these Mom & Pop locations sell three to five times more in lottery than nearby chain locations, despite the fact that the chain locations operate from newer, higher-traffic locations.[87]

This is illustrated well in Massachusetts. Nine out of the top-10-selling retail locations are owner-operated.[88] Some of the nation's top-selling individual locations are found in Massachusetts, including the top-selling lottery retail outlet in North America, Ted's State Line Mobil in Methuen, which we visited as part of our research. Indeed several locations in non-heavily populated, non-heavily trafficked locations in Methuen, Salisbury and Attleboro routinely sell more lottery tickets per year than high profile lottery sales locations in Atlanta's Hartsfield Airport and New York's Penn Station.

The relative value to the Lottery of a strong base of owner-operator locations is borne out even as one moves beyond the ranks of top-selling locations. Nationally, the percentage of lottery sales realized at locations classified as chains is 53.1 percent. This percentage is growing each year as chain retailers generally continue to expand their reach and footprint. The percentage of sales realized at locations clearly classifiable as owner-operator locations is 42.8

[86] See e.g. Annual Sales reporting from the New York and Massachusetts Lotteries.

[87] Ibid.

[88] Ibid.

percent and shrinking as such Mom & Pop locations succumb to general retail competition from the major chains.[89]

However, the numbers in Massachusetts paint an entirely different picture. By the same classification analysis, sales in Massachusetts from chain-type locations account for only 24 percent of the statewide total while sales from owner-operator locations account for nearly 76 percent of the statewide total.[90]

The benefit to Mom & Pop retailers from such results is obvious. The benefit to the Lottery is found in the retention of the strongest, most motivated type of retailer on the front ranks continuing to present and merchandise the product in the most effective means possible. The benefit to the Commonwealth is found in the productive survival of many small businesses which, had they been operating under conditions commonly found in other lottery states, may not have survived. That this has likely been achieved by creatively and effectively managing and leveraging a state asset is a public-policy success story.

4. The Lottery Play Experience

Historically, Massachusetts State Lottery games have been designed, introduced, and marketed to offer distinctive play experiences and value propositions for players. This has been a critical element of encouraging cross-play and maintaining a high level of engagement in the product mix and limiting cannibalization from new game introductions. In addition, the structure/design of the products has built a high level of respect and trust in the games and the Lottery brand overtime; this is true of both the consumers as well as the retailers.

Each game has a unique value proposition, which encourages cross-play to obtain the different play experiences. Many of the games have a high degree of impulse purchase associated with them; retailers and the Lottery understand this dynamic and have invested in strong POS merchandising of the games as well as placed an emphasis on eye-pleasing scratch ticket designs.

Mega Millions and Powerball offer the chance to "dream" about the impact of a truly life-changing jackpot. These jackpots are understood on a rational level to be "unwinnable," but the ticket price is worth the fantasy value of thinking about winning. There is, however, a core set of players that are loyalists with regular, planned purchases; these are the players that traditionally have specific numbers that they play consistently for every drawing. This core of loyal players has eroded overtime, driven initially by the introduction of quick-pick numbers that made play more accessible to a wider group of players (especially spontaneous players) as well as jackpot fatigue in which higher and higher jackpot levels are required to build excitement. As a result, player interest in these games is dependent on the jackpots and play levels are linked to

[89] See LaFleur, 291

[90] Ibid.

jackpots rather than a stable and loyal play pattern; exposure to the jackpot and purchase stimulation tends to be at retail (especially given the lack of advertising presence and the media's jackpot fatigue which limits free press). These games are attractive to a broad player base and appeals to all demographic segments; most residents have some level of experience with at least one of these games.

The Daily Number has a loyal and more defined player base. Players have established play patterns in terms of style and timing. There is limited spontaneous play of this game and it tends to be fairly intimidating to the uninitiated Numbers player. The player base tends to be more urban, older, male, and appreciate the "complexity"/play options offered by the game. Prizes tend to change your day or week.

The Scratch game offers the players both instant feedback on the outcome of the game as well as a positive and engaging entertainment experience. Traditionally, the experience of playing has been an important part of the ticket value: this experience includes credibility of the game in terms of decent chances of winning a reasonable prize as well as a "scratching experience/play mechanic that delivers good value for the ticket price. Players often have spoken about enjoying the play: seeing an exciting range of prizes that are worth playing to win, varying the scratch pattern/participating in the "play" of the game, the realistic play mechanic that fits the theme and not knowing the outcome until the last scratch. Play tends to be spontaneous and impulsive, with limited "planned/destination" play. The strong retail presence and merchandising as well as word-of-mouth at retail are significant sales drivers. Players have historically had the hardest time estimating their actual play of these games since play levels are so impulse driven and their "schedule of play" varies. It is not unusual for the amount of the total non-lottery purchases to impact the decision to buy a ticket, with players using the change to buy games or a discussion at check-out about the winning experiences of specific games to drive a sale.

5. Sales Agents

Spectrum professionals interviewed Lottery sales agents and retailers in different parts of the state. These interviews – coupled with the results of our survey – provide valuable insights into the role that retailers play with respect to the demonstrated success of the Lottery. Just as significant, we gained insights into the role that the Lottery plays in the lives and aspirations of these retailers.

Many sales agents are first-generations immigrants to the United States. They view retailing in general, and the Lottery in particular, as important rungs on the ladder toward economic success and independence. It is evident that any potential alteration in the relationship between these retailers and the Lottery could represent a threat to their individual aspirations. While we suspect that the present Lottery distribution system was not designed as an economic ladder for retailers and their families, it has nonetheless evolved into precisely that. Removing that ladder would not only prove detrimental to these retailers, but our initial research indicates that such a move is neither necessary nor advisable.

Lottery sales agents occupy a variety of locations, ranging from spots that are easily accessible by car to small locations shoehorned between various other stores that are easily accessible by foot traffic. Lottery players who frequent such locations range from workers in downtown Boston to neighborhood residents. In some locations, the Lottery drives sales of other products, while in other spots the other products – or simply the location – drive lottery sales. In some instances, depending on the size of multistate jackpots, both phenomena take place at the same location.

With all that in mind, we note that the present distribution system has evolved into an elaborate and highly effective marketing system, in which 7,400 locations throughout the state are positioned to reach Lottery customers with a promotional message, at a time and place where such customers are amenable to receiving such messages.

Such a system could clearly benefit online sales as well, as long as online and existing lottery products are designed, marketed and sold as complementary products. The sales agent network should, if at all possible and practical, be strengthened by online sales, rather than have online sales cannibalize and replace retail sales. Many sales agents see little threat to their current lottery sales from any future online capability. These retailers know their regular customers well and see little change in their current purchase behavior, evidently convenience and impulse driven, based upon the availability of Internet ticket sales. Several Lottery sales agents mentioned that they had greater concerns with the prospect of impending online gambling negatively impacting retail lottery sales than they worried about the effect of Internet lottery. However, while little fear of online sales was observed among these sales agents, it was also clear that most can see little upside from the prospect of Internet lottery sales and have yet to conceive of means where this new sales channel could augment incremental revenues.

The sales agent enterprises visited in downtown Boston comprised a range of business types, including small convenience stores, liquor stores, tobacconists, and larger multiline retail shops. Many of these very small businesses depend upon Lottery sales for a substantial portion of their annual revenue, and it also quickly became apparent that a large number of them depend upon a few key local employers, key demographics, or nearby residential establishments in their neighborhood for the majority of their customers. Obviously major shifts in consumer purchase behavior regarding online Lottery tickets would severely impact these businesses.

Interestingly, several of the sales agents interviewed expressed concerns over the negative effects of credit card purchases, which are assumed to be a necessity of Internet lottery sales. Some merchants refuse to accept debit card payment for Lottery tickets – something that is currently legal. They maintain an ambivalent outlook on the ability to use credit cards for lottery purchases, not just due to the added fees that would be charged but out of genuine concern for the financial situations of the purchasers or possible disputes between spouses over purchases made on credit.

6. Commercial Casino Expansion

A major, complicating factor for the Lottery's Internet strategy development is the fact that Massachusetts recently legalized casino gambling, allowing three resort casinos and one slots-only casino. The timing of this development complicates the Lottery strategy for two primary reasons. First, in addition to calculating the effect that Internet sales will have upon traditional Lottery sales, the Lottery must also take into account the impact that commercial online gambling will have upon statewide gambling budgets and how that will affect future lottery revenues. Second, the Lottery must be careful not to do anything in the short term which might negatively impact the value of the casino licenses yet to be awarded. Beyond these near-term complications, commercial online gambling also presents longer term questions regarding how to integrate commercial online gambling into Lottery marketing strategies in order to maximize revenues going forward.

F. Survey of Massachusetts State Lottery Retailers

The Task Force commissioned a survey of retail sales agents in May 2012. This was a self-administered, informal paper survey in which all responses were voluntary. It was quickly organized and distributed by the Lottery's sales network. A total of 3,976 completed surveys – more than half of the state's 7,400 Lottery retailers – were received over the three-month period, far exceeding our expectations. This large sample of the retailer population provided a confidence interval, or margin of error, of 1.06 at the 95 percent confidence level, or 1.39 at the 99 percent confidence level. This was not a scientific survey and many of the questions were subjective or qualitative but the breadth and depth of responses yields an accurate picture of the retailer population and their reactions toward the prospect of online Lottery products.

The majority of retailers responding to this survey are corporations (69.1 percent) and the minority sole proprietorships (21.2 percent) or partnerships (4.6 percent). Five percent list themselves as "Other" types of businesses, which include fraternal associations, public and private membership clubs, and a number of charitable organizations.

Most of the retailers are convenience stores (55.8 percent), followed by liquor stores (23.4 percent), gas stations (10.9 percent), and groceries (9.4 percent). The above categories are restrictive, as many of the retailer locations combine more than one classification, such as gas stations offering convenience stores and restaurants offering bars or package goods. The enterprises illustrate a wide variety of businesses and associations: cafeterias, delicatessens, pizzerias, cafés, coffee shops, ice cream stands, meat markets, pharmacies, tobacconists, newsstands, bakeries, bookstores, bowling alleys, repair shops, phone stores, hotel lobby shops, ethnic grocery stores, herbal product stores, clothing stores, vegetable stands, video stores, dry cleaners, laundromats, hardware stores, appliance stores, taverns, pubs, bars, lounges, motels, social clubs, gentlemen's clubs, check cashing operations, ticket sellers, health clubs and gyms, pool halls, fish markets, wine shops, veterans posts, express delivery stores, post offices, flea markets, car washes, and even golf courses and a yacht club. The number and breadth of small businesses partners retailing Lottery products and their interconnection with local communities across the state is remarkable.

The average length of time that a retailer has been in business is 24.6 years. The most frequent response (mode) among retailers, as well as the statistical median (midpoint) in the data distribution both equal 20 years of operation. The newest businesses began within the past few months while the oldest business was founded long before Revolutionary times. In fact, 41 of the responding Lottery retailers, or 1 percent of the sample, can boast more than 100 years of operation. The average length of time that the current owner has operated the business is 13.8 years, while the median is 10 years and the most frequent response for length of ownership is only two years.

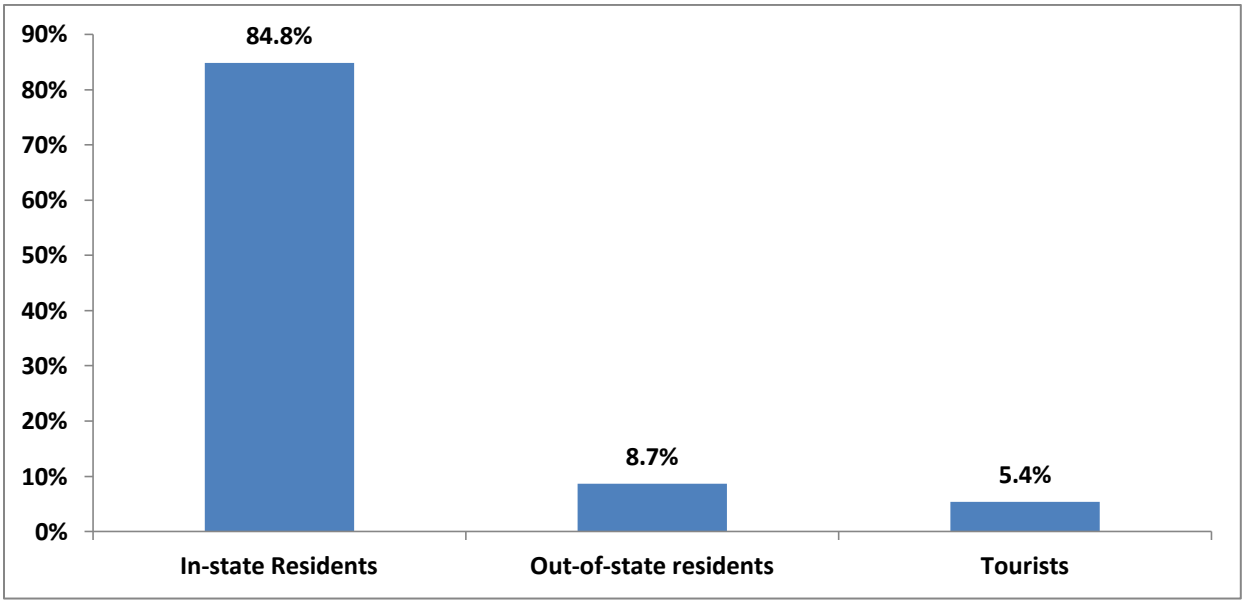
The importance of the Lottery's retailers to the economy of Massachusetts is emphasized by the numbers of people employed by the survey respondents: 19,293 total employees in the sample. This includes 13,555 full-time and 5,676 part-time workers. The average number of workers at a single location is 5.75. The most median number of workers is three and the most frequent response is two. The fewest number of workers at a retailer location is zero, indicating that multiple owners or operators did not count themselves as employees, while the largest number of people working at a single respondent was 400 (at a large convenience store chain). The total number of employees is obviously a conservative figure given that 32.3 percent of survey participants declined to answer this question, which would add at least another 1,283 workers to the already impressive total – and twice that many if multiplied by the median or mode. It would be reasonable to estimate that this sample population of Lottery retailers maintains an employee base of between 20,000 and 25,000 persons.

The importance of Lottery ticket sales to these thousands of small businesses is revealed when we ask retailers to estimate what proportion of their total sales is composed of Lottery sales. While responses indicate that this estimation is somewhat subjective, often stated as a round number or a range with 5 to 10 percentage points difference, it is also a question for which business managers and owners would have a credible answer. There is also some indication that this is a sensitive question for some retailers to answer or that some respondents did not feel qualified to comment as more than half of all completed surveys failed to answer this particular question.

The average (mean) proportion of Lottery sales to total retail sales is 29.8 percent. The median response is 25 percent, and the most frequent response is 20 percent. The smallest proportions of Lottery sales to total business sales reported in the survey were fractions of one percent while 16 percent of all responses estimated Lottery sales at more than 50 percent of total business sales. A very small number of retailers (nine) reported that Lottery sales make up 100 percent of their total revenue, These findings are a powerful illustration of what the Lottery means to the financial health of its retail partners in Massachusetts with more than one-quarter of gross sales being generated by Lottery products.

Responding retailers believe that the majority of customers purchasing Lottery tickets at these locations are Massachusetts residents. On average, 85 percent of customers are in-state residents, 9 percent are estimated to be out-of-state residents who regularly purchase Lottery tickets, and 5 percent are thought to be tourists who are temporary visitors and not regular purchasers.

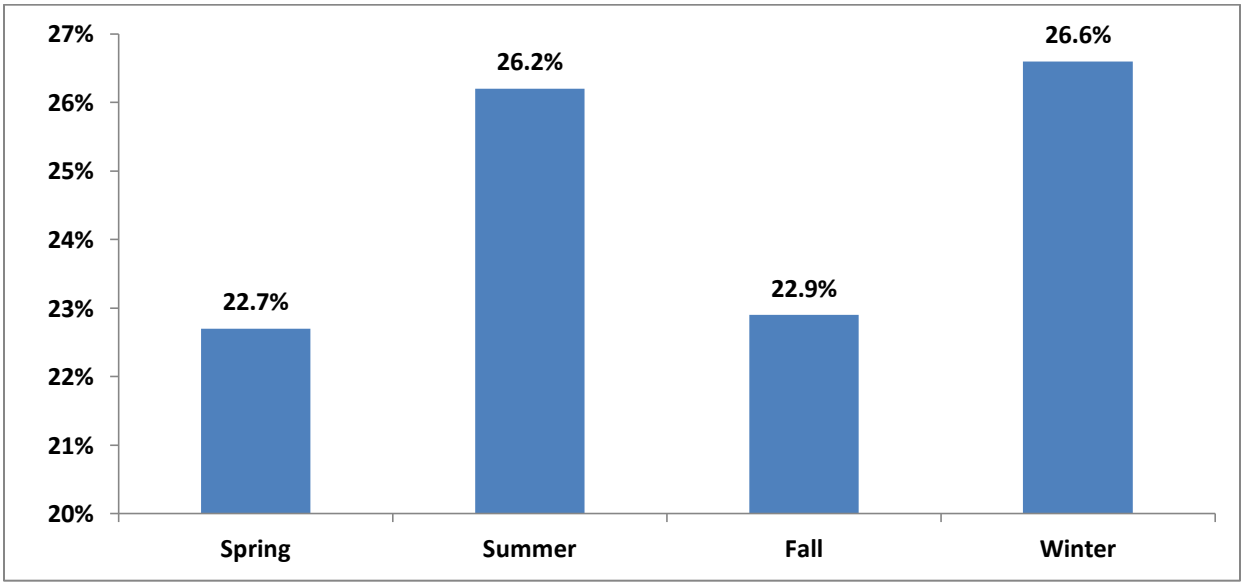
Figure 9: Massachusetts State Lottery sales by residency status



Source: SGG Survey of Massachusett State Lottery Retailers

According to the retailers surveyed, business volume appears to be stronger, on average, in the summer and winter than it is in the spring and fall.

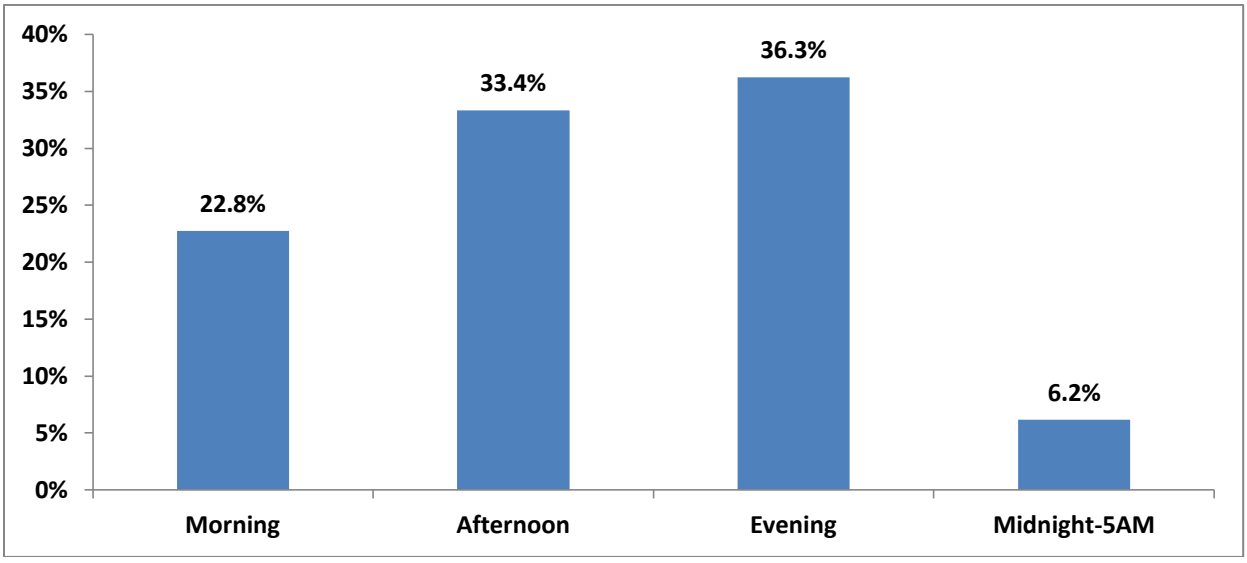
Figure 10: Massachusetts State Lottery retail business volume by season



Source: SGG Survey of Massachusett State Lottery Retailers

On average, the retailers busiest with Lottery sales in the afternoon (36 percent) and evening (33 percent). Morning hours generate 23 percent of volume and early morning hours only 6 percent of business volume.

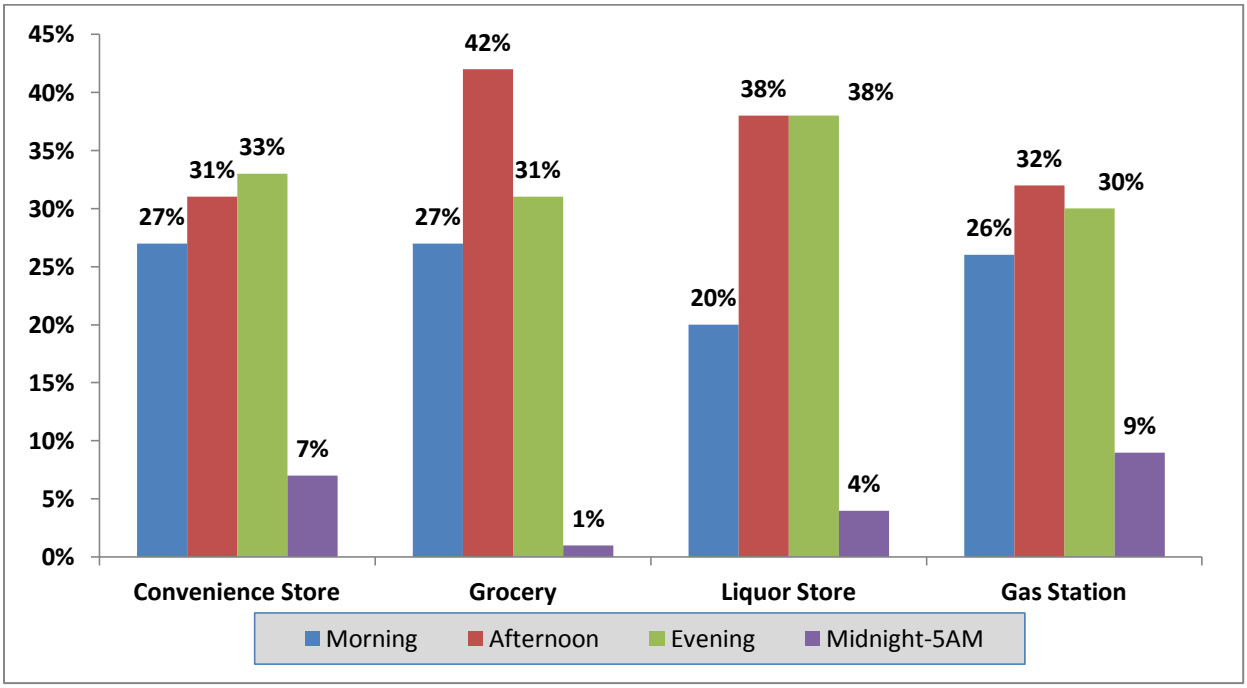
Figure 11: Massachusetts State Lottery retail business volume by time of day



Source: SGG Survey of Massachusett State Lottery Retailers

The volume of sales also varies by the type of business, with restaurants and motels are busier with Lottery sales in the evenings. As shown below, the most numerous retail locations experience their greatest volume of Lottery sales in the afternoon and evening. This is most apparent for groceries and liquor stores, while convenience stores and gas stations sell more tickets in the morning.

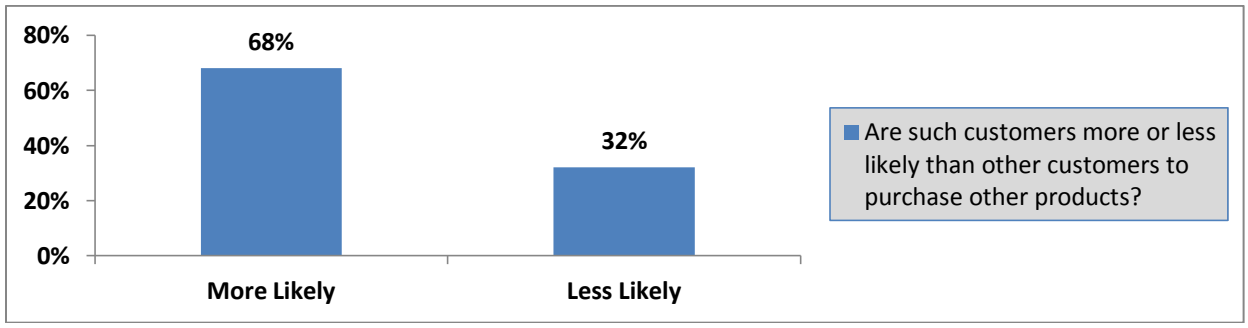
Figure 12: Massachusetts State Lottery retail business volume by time of day, type of business



Source: SGG Survey of Massachusett State Lottery Retailers

More importantly, more than two-thirds of responding retailers say that Lottery customers are more likely to purchase other products when they come into the store. These incremental sales are a vital source of ancillary revenue for the Lottery's retail partners.

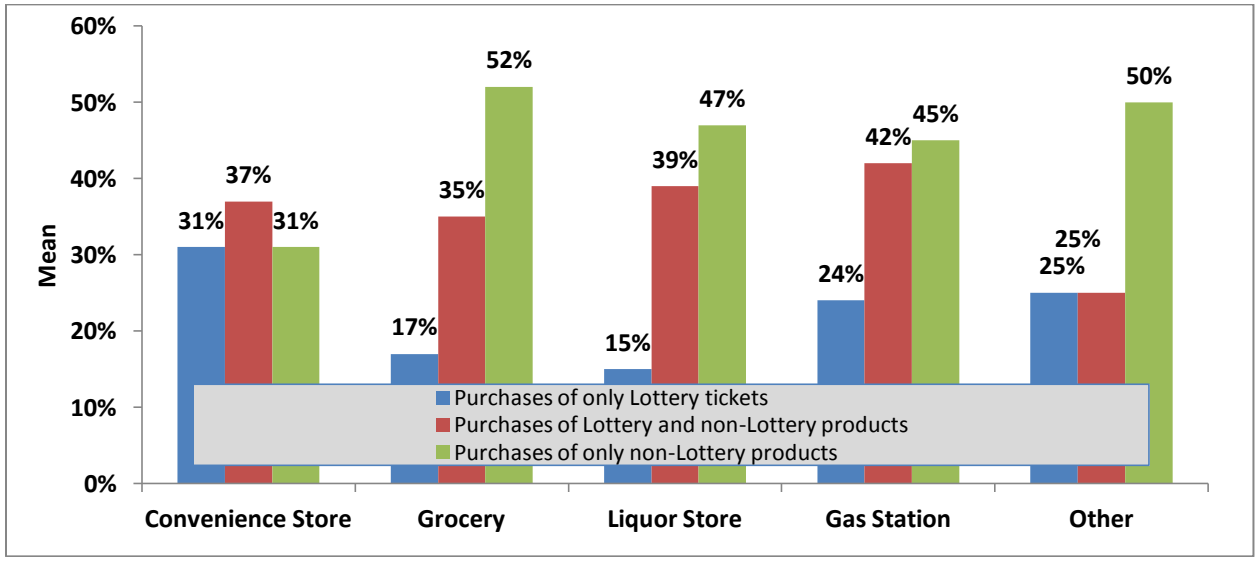
Figure 13: Massachusetts State Lottery customer likelihood to purchase other merchandise



Source: SGG Survey of Massachusett State Lottery Retailers

Queried for greater granularity on this issue, retailers were asked to estimate the proportions of customers who purchase only Lottery tickets during a visit versus the proportion that purchases both Lottery and non-Lottery products, and the proportion that purchase no Lottery products. Responding to this subjective question, retailers across the full survey population report that almost four-fifths of their customers purchase products in addition to lottery tickets during a typical visit. Only 23 percent will purchase solely Lottery products, while 39 percent purchase only non-Lottery products and another 39 percent will purchase both. Looking at Lottery purchase by retailer's type of business shows that convenience stores and gas stations generate the greatest proportion, on average, of exclusively Lottery purchases, while grocery and other establishments (restaurants, taverns, social clubs, etc.) are more likely to experience a higher proportion of exclusively non-Lottery purchases.

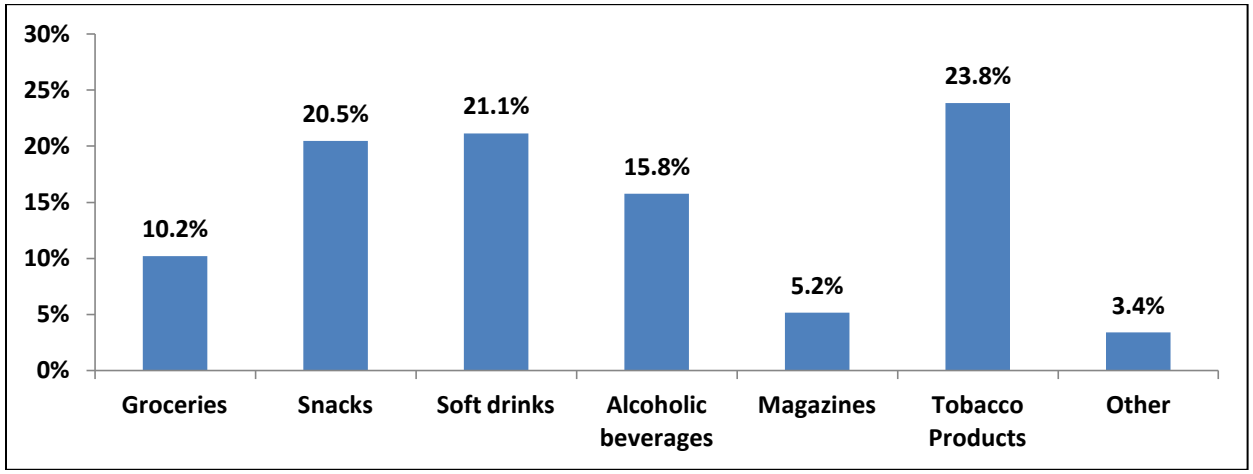
Figure 14: Massachusetts State Lottery customer purchase behavior by type of business



Source: SGG Survey of Massachusett State Lottery Retailers

The types of products purchased along with Lottery tickets are primarily tobacco, soft drinks, and snacks, followed by alcoholic beverages and groceries. Other products include a variety of merchandise specific to the type of business, such as gasoline at gas stations, meals and food items at a restaurant, etc.

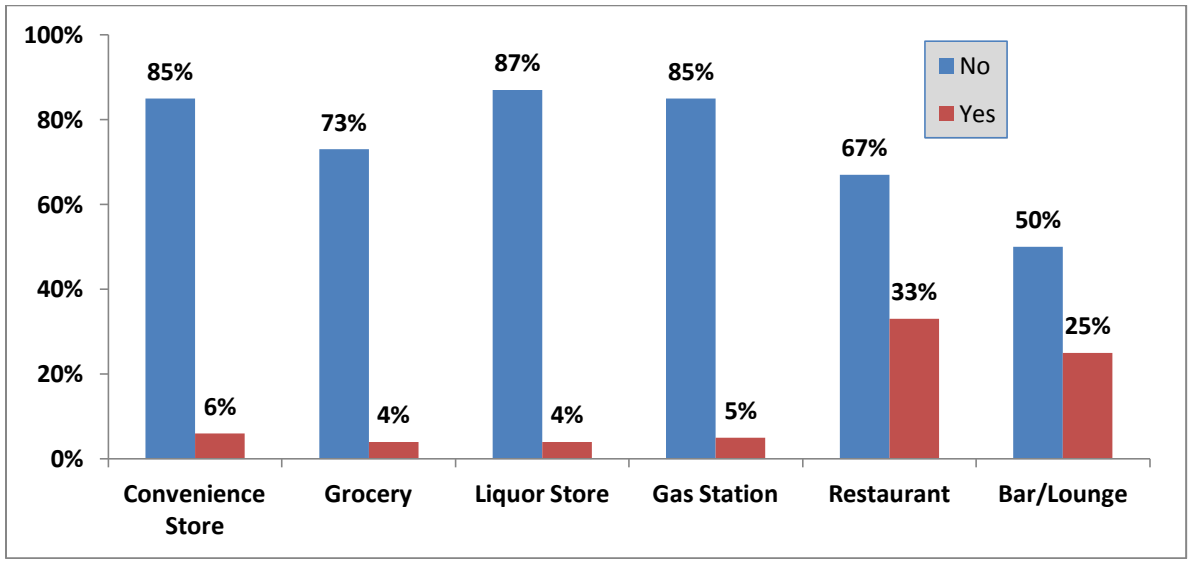
Figure 15: Massachusetts State Lottery customer purchase of ancillary merchandise



Source: SGG Survey of Massachusett State Lottery Retailers

Only 7 percent of retailers responding to the survey report that they have hired employees specifically for the purpose of assisting with Lottery sales. Those businesses most likely to hire dedicated employees to handle Lottery sales are restaurants and bars, followed very distantly by convenience stores and gas stations.

Figure 16: Lottery retailers who hire dedicated employees by type of business



Source: SGG Survey of Massachusett State Lottery Retailers

Among the small minority who have hired additional employees to address Lottery sales, the median number of employees added is two, the average number of hours worked is 30, and the median wage figure is $9.00 per hour.

Other questions asked the retail agents to estimate how often their customers play and what they spend on Lottery purchases. While these are subjective questions and will not yield statistically reliable results, they do offer an insight into how retailers perceive their customers devotion to and investment in the Lottery. When asked to estimate the average purchase value for lottery and non-lottery purchases, retailers gave an average figure of $15 for Lottery tickets only, $26 for purchases of both Lottery and non-Lottery products, and $20 for non-Lottery only purchases. Using these estimated figures as a rough guide, we can postulate that each exclusively-Lottery customer is worth $15 per visit and customers who also purchase Lottery products are worth a $6 premium to retailers.

Figure 17: Lottery customer average spend by purchase behavior

Source: SGG Survey of Massachusett State Lottery Retailers

Retailers estimate that, on average, more than 300 of their customers play the Lottery at least once a week. This average may be somewhat high due to a few high outlier estimates, but the mode (most frequent) response for weekly Lottery customers was 100. Retailers report that weekly customers spend an average of $35.55 on Lottery purchases each week, which translates roughly to $5 per day. Again this result may be influenced by some very large outliers, but the mode response is $20.

The frequency of regular customer play is impressive. More than three-quarters of regular customers (78.6 percent) are estimated to play three times a week or more, while another 19 percent play one to two times per week. Retailers say only 2 percent of their regular lottery customers play less frequently than weekly.

While Lottery retailers are widespread and closely integrated into the fabric of local economies across the state, they do not as a rule enjoy many high-technology benefits. Only 22.5 percent of responding retailers say that they have a website, and the vast majority of these websites are simple placeholders that advertise location, product offerings, and hours of operation. Retailers

who are part of a larger corporation are those most likely to have a website while sole proprietors are much less likely to have one. Similarly, only 11.5 percent of those responding currently have any kind of loyalty program.

The final section of the survey contained open-ended questions related to retailers' role in the Lottery partnership, their perceptions of the Lottery, and any suggestions they might have in regard to Internet lottery sales. Responses to these qualitative questions reveal that most retailers feel a strong responsibility to promote the Lottery, both for their own interests and for the greater good of the Commonwealth, while protecting the Lottery by screening to prevent underage play. Retailers generally perceive the Lottery in a positive light as an industry leader that provides a superior opportunity to win for players and has been a reliable business partner.

Retailers take seriously their social responsibility to ensure that underage persons not be allowed to purchase Lottery products. The majority of responding retailers report that their staff asks for identification on a weekly basis. Actually turning away a minor trying to purchase a Lottery product is only a rare occurrence, but responses clearly show that the vast majority of retailers are strictly enforcing the Lottery's age-verification policies.

Perceptions of the Lottery are generally strongly positive, especially in comparison to other state lotteries. Many retailers describe in favorable terms their working relationship with the Lottery sales representatives. Most will favorably compare the Massachusetts State Lottery to other state lotteries in terms of its games, payouts, and customer service in the retailer relationship.

- "Excellent customer service. Knowledgeable staff."

One open-ended question asked what makes the Massachusetts State Lottery unique compared to other lotteries. Answers to this question most frequently mentioned the higher payouts offered in Massachusetts, as well as the perception that the Massachusetts State Lottery is uniquely successful and a leader among other state lotteries.

- "The Massachusetts State Lottery gives away the highest percentage of winners than any other state!
- "Many people say that Massachusetts lottery has better winning odds than other states."
- "Other states follow Massachusetts."

On the other hand, some retailers believe they are doing much of the work for the Lottery with little return and would like their commissions increased. Others have specific service complaints, usually related to the difficulty in acquiring the equipment they desire to make selling Lottery products more efficient and less of a drain on their limited resources. That being said, negative comments are a small minority of the overall qualitative feedback from retailers.

- "Increase our percentage on commission. It takes my employees away from registers to help lottery."

- "They have no commitment to agents who put their business on the line by having an inadequate system that only benefits the Lottery. Agents take all risk with scratch tickets system. Should be a more secure with machines that disburse tickets and keep track of sales."

One recurring complaint, however, is that the Lottery does not do enough advertising compared to other states. Retailers responding to this question indicate that they want to see more advertising of Lottery products to drive more frequent sales, but many also reveal the desire to advertise their own businesses through the Lottery.

- "Not sure. Don't know enough about other states other than the Ct. State Lottery advertises on TV for everything they do. The only time Mass does is during sports games or the Wheel of Fortune ticket."
- "They are all the same. They do not advertise the new games very well."

Retailers clearly see themselves as key business partners to the Lottery, filling the role of front-line customer representatives, promoters, and instructors in the business of playing the games. Many retailers also see their role as serving their regular customers to the best of their ability, helping them to make informed purchase decisions, and offering them the chance to experience a life-changing win.

- "We are at the center of information for new games (rules), new tickets, mail in promotions, etc. We instruct people how to play, claim winners, etc."
- "I characterize the role we play as very important. We explain each new ticket and each new game that comes out. We advertise everything. We have been told on more than one occasion how people like coming here because they know what's coming up."
- "Always pushing new lottery games and scratch tickets. Let customers know popular games and scratch tickets that are winning more often."
- "They sell themselves for customers who are informed for those that are new or a new game comes out, we are very important."
- "My role is large because I am basically the sales men for lottery I feel that it is my responsibility to increase sales for the lottery."
- "To promote the MA Lottery products by offering customers a chance to change their lives."

Lottery retailers offer many ideas for improving the Lottery as well as numerous requests for specific equipment and more advertising or promotional items. One of the most common requests from retailers was for "more winners" or improved odds that would benefit customers and increase future sales. A subset of that frequent comment is for the Lottery to provide more small wins as well

as big jackpots on draw games and keno. In addition, some retailers question whether payout rates have declined over time.

- "Not sure. Don't know enough about other states other than the Ct. State Lottery advertises on TV for everything they do. The only time Mass does is during sports games or the Wheel of Fortune ticket."
- "At one time payouts were reasonable. Now it is questionable."

Requests for equipment include new Lottery terminals, self-service scanners, touch screen devices, and keno monitors. Promotional requests include signage and advertising.

- "Mass lottery needs to have touch screen which mostly every state has."
- "We have been with the Mass. Lottery since inception. However, we cannot after many, many requests obtain from the Lottery a checking machine for tickets, or a more modern instant ticket machine. We have had numerous service calls which would more than likely have cost less with a new or newer instant ticket machine."
- "By installing keno screen & Internet will be a very big deal."

One of the most important qualitative questions asked retailers for suggestions on how the Lottery can help their businesses through Internet offerings. Here, responses often revealed a profound need for promoting retail businesses through the Internet. Many retailers request assistance from the Lottery in advertising and promoting their own businesses through the Lottery website. Others want to see the Lottery use the Internet to make their local retail operations more efficient through automation and 24/7 access to retailer account information. Additionally, multiple retailers suggest improving the ease of navigation and usability of the current Lottery website.

- "Offer online lottery where agents can advertise their store by punching in store # then play to win."
- "I'm all for making things efficient."
- "It would be great to have a terminal that would take the tickets and the money without having to pay a dedicated employee."
- "Give our location & hours of operation."
- "A better way to navigate through the website. Some customers complain that it is tough to use."
- "Make the site user/elderly friendly."

The last major question on the survey asked retail agents if there is anything else that they wish to add regarding their business and the sale of Lottery products over the Internet. Here the majority of verbatim responses oppose the concept of Internet Lottery sales for the obvious reason that by utilizing the online channel the Lottery changes the traditional partnership relationship by now selling direct to consumers over the Internet and becoming a competitor. Retail agents freely

express their fundamental concerns that the prospect of Lottery B2C sales direct to consumers will adversely impact their Lottery revenue.

- "None. I do not want to see Internet Lottery."
- "This (Internet Lottery) will greatly hurt my business if lottery products can be sold over the Internet. This will hurt all sales in my store."
- "If lottery goes to the Internet for betting it will hurt all of us little stores. It is hard enough to compete with bigger stores as it is."
- "If the Lottery sells over the Internet - we may as well go out of business! No one will need to go to the store anymore!"

A minority of retailers apparently sees the Lottery's migration to the Internet as inevitable and looks for opportunities to increase their business volume when this may happen. Such opportunities include continuing to receive commissions from their customers when they purchase online Lottery products, having the Lottery assist with Internet advertising by posting retailer locations, product offerings, hours or operation, and contact information on the Lottery website. Most importantly, a number of retailers see benefit in advertising on the Lottery site the volume and magnitude of prizes won at their locations. Others want to have Internet access to their Lottery accounts in as a means of better referencing inventory and store sales data.

- "Info on our lottery inventory. Access & accounts."
- "By having the store name on their sites and telling people how much big prizes people won here at our store."
- "Picture of the people who won more than $1,000 with our store name."

These comments heard in the retailer survey, both positive and negative, are entirely consistent with the feedback observed in the Treasurer's Public Forum meetings. A total of 3,855 of these retail agent surveys were scanned into electronic (PDF) format and are available for review of the qualitative comments in detail.

The key findings emerging from this survey are the importance of these small businesses to the Massachusetts economy, the mutually supportive nature of the longstanding relationship between the Lottery and its retailers, they need for continued cooperation and sales support from the Lottery, and the concerns that retailers have regarding the Lottery's investigation of the potential of online products. Retailers want to continue their mutually beneficial relationship with the Lottery and see it continue to prosper in the future. If the Lottery decides to move to online sales, retailers want that migration to happen in a way that will continue to mutually benefit both the Lottery and the thousands of small businesses that comprise its sales network.

G. SocialSphere Research

The Treasurer's Online Products Task Force wanted to fully explore the attitudes and perceptions of Massachusetts residents regarding the question of Internet lottery sales as a crucial element of the process. Treasurer Steven Grossman defined the issue as follows: "I want to know who our lottery customers are and who they are not demographically… And I want to know what they think about all of this." In response to this need to know more about the current attitudes of Commonwealth residents, the Massachusetts State Lottery commissioned primary research through an RFP process. SocialSphere, a Massachusetts based research and political strategy firm, was eventually contracted to conduct the primary research which took place in two phases. Phase one involved initial qualitative focus group research to identify the issues and develop segmentation profiles for the next phase. Phase two involved quantitative survey research, conducted over the Internet, to generate statistically reliable findings that could be projected on to the population state-wide. The results of this research are detailed below.

1. Qualitative Focus Group Research

Four focus groups with Massachusetts residents on the evenings of August 21 and 22, 2012. As a preliminary step, SocialSphere conducted a segmentation analysis on existing data compiled over 10 years of ongoing satisfaction tracking research conducted over the Internet. Results of segmentation analysis on the amalgamated Lottery player database produced behavioral profiles for four general player groups:

- Heavy, Younger Players - Players under the age of 40 who spent at least $17 on the Lottery per week;
- Light, Younger Players - Players under the age of 35 who spent less than $10 on the Lottery per week;
- Heavy, Older Players - Players over the age of 50 who spent at least $17 on the Lottery per week
- Older, Online Game Players - Light and Lapsed Players (have not played the Lottery in the past month) who regularly played some kind of online games.

Participants were selected based upon the four main player profiles noted above and recruited by a focus group facility in Boston. Two sessions were held each evening, one at 5:30 pm and another at 7:30, and all sessions were personally moderated by John Della Volpe, co-founder of SocialSphere. The sessions opened with a brief introduction and explanation of the ground rules, and then explored participants' play behavior and preferences as well as their Internet utilization. Perceptions of the Massachusetts Lottery were investigated as well as perceptions of the concept of online Lottery products and likelihood to participate. Finally, four

potential online product concepts were tested for reactions. Focus group participants received a cash stipend for their attendance.

The broad objectives of the focus groups were listed as follows:

- Understand how current players and key audiences think about the possibility of the Lottery selling products online;
- Understand how current audiences that do not regularly play the lottery think about possibility of selling Lottery products online; and
- Assessing various potential models for Lottery play online;

Four generic concepts were tested in the groups. In the absence of specific, developed concepts for online gaming, SocialSphere used various existing online lottery products available in other jurisdictions and developed by gaming vendors to test player reactions to various potential play options.

Concept one addressed the process of registration for online play in order to generate reactions to information requirements and verification protocols. The stimulus was a slide showing two registration pages for Mega Millions Internet purchase from the Illinois Lottery.

Concept two addressed the process for a mobile PowerBall application from the Iowa Lottery. The stimuli were three pictures illustrating the process for ordering and scanning a mobile Powerball QR code ticket.

Concept three consisted to two images illustrating two different examples of online single-player interactive games and was designed to stimulate discussion of game play.

Concept four comprised an image of an Internet bingo screen supplied by an online lottery supplier and was designed to generate discussion around the subject of online multi-player interactive games.

SocialSphere listed the major findings from the qualitative research in the following paragraphs which are taken verbatim with emphasis included from their report:

- Communication is Key
    - When players - and some non-players found out about the specifics of how lottery products could be sold online, they tended to have a very positive reaction – however, **the concept of "online lottery products" is one that many players had difficultly conceptualizing without further information.** As such, any potential positive reactions to the concept should not be taken as "given" - they must be effectively communicated.
- Funding, Security, and Preventing "Problem Gaming" is a Concern
    - Negative conceptions exist about the dangers of people being able to wager at home, and strong sentiment existed that there is some need for precautions to

be in place. **While players offered up some potential solutions to alleviate some of these concerns, there was some belief that purchasing Lottery products from home could be "too easy,"** and that fraud, children playing, or overdrawn credit accounts may be inevitable if not properly accounted for.

- Mobile May be the "Lowest Hanging Fruit"
    - When talking with players about game play scenarios, **the idea of being able to "play in the doctor's office" or while on the go seemed to be the most intuitive to many players**, and this largely contextualized potential online lottery products into a competitive set (i.e., Bejeweled, Words with Friends) that are used as distractions.
- "Gift Card" Funding Concept has Potential as a means of funding, allowing players to buy cards in stores that can fund accounts attracted both players and non-players.
    - Players liked the fact that such a method of funding would allow them to set explicit limits on how much they play (because funding their account would not be linked to their credit card), and that they would not have to provide significant personal information to play online or via a mobile device. **Additionally, it also has a potential to deal with the issues involving current MA Lottery agents.**
- Idaho Lottery's Mobile Powerball was the Best of the Concepts Tested
    - Of the four potential concepts tested, Idaho's mobile Powerball - in many ways the simplest concept tested - was the one that resonated best with players. **Players seemed to understand both how they would use it and saw a need for it in their current Lottery playing patterns.** While much of the favorable reaction may just be current players substituting their current in store play with online play, the concept was favorably received, and potential exists for it to draw incremental revenue.
- Players were Favorably Disposed to the Concepts Once They Saw the Potential Games
    - **Players, particularly heavy players, had favorable reactions to all the concepts that were presented to them once the games concepts were shown and explained.** For non-players, though, there was very little indication that there would be incremental revenue as a result of showing the various game concepts. In particular, the social interaction aspect of games like Bingo appealed to players.
- Privacy Details During Registration Are a Concern for Some Players

- While players generally trust the Lottery, they are weary of giving up what they feel is highly personal and sensitive information. **In particular, players were very hesitant to disclose their Social Security number during the registration process (as the Illinois model would require them to do).**

- Some Players Would Potentially Play Online Lottery Games "In Addition" to Their Current Play
  - Though many players simply viewed the sale of online Lottery products as a replacement or substitution for their current Lottery play, some saw the sale of online Lottery products as a distinct, new game that they - or other players that they know - would **play in addition to and in different situations from their current Lottery play.**
- Attracting Non-Players and Light Players Will be Difficult
  - In the non-player group, even after being presented with the full game concept, only 2 of 8 participants said that they would consider playing MA Lottery games online. **While there may be potential incremental revenue from current non-Lottery players, projections need to be conservative in their estimates of the likely play levels that will come from current non-players.**
- "Game of Skill" vs. "Game of Chance" Distinction and Barrier Will be an Important One to Understand
  - For many current online gamers (i.e., Bejeweled and Farmville), playing games is attractive because they are "games of skill" and present players with ways and opportunities to either play against other players or actively challenge themselves. **Since lottery games are, by law, games of chance, it is not clear that they can ever attract current online gamers who view skill as a critical part of their gaming experience.**

2. Quantitative Survey Research

Based upon the segmentation profiles developed in the initial qualitative phase, SocialSphere conducted a quantitative survey of 1,000 Massachusetts residents recruited through the Internet. Results of this survey have been reported to the Task Force but to date no written report has been made available for the purposes of this document.

H. Stakeholder Viewpoints

1. The Treasurer's Public Forums: Listening to Stakeholders

The Treasurer's Online Products Task Force held two public forum meetings designed to solicit feedback and guidance from the general public and any interested parties on the pertinent issues regarding Internet lottery. The first public form took place on May 30, 2012, in Boston. The second meeting was held in the Horace Mann Center, at Westfield State University in Westfield on June 28, 2012.

In addition to the Task Force members, approximately 40 people attended the May 30 session in Boston and 20 attended the June 28 session in Westfield. These public feedback sessions were majority-populated with retail store owners and employees and retail association representatives. Others attending these sessions included technology company representatives and problem-gambling professionals. There was strong overlap between the two sessions in terms of both attendance and the opinions expressed.

Treasurer Grossman made it clear to all in attendance that the Lottery was in listen mode during these sessions. At the start of the initial meeting, Treasurer Grossman framed the discussion in his opening remarks, emphasizing that Massachusetts has the "most successful lottery in the United States by almost every metric," with, by far, the highest per-capita lottery sales. If the lottery were a private organization, it would be the eighth largest in Massachusetts. Treasurer Grossman further stressed that the Lottery's success is owed to the 7,400 lottery agents in Massachusetts and said that the most important priority is to protect the Lottery. The Treasurer also said that a new phenomenon in Massachusetts must be recognized: the gaming legislation that was passed in November 2011, in conjunction with the important decision that was issued by the Department of Justice indicating that lotteries can sell lottery products online to instate adults. This has opened a new avenue of competition. While it is not a given that Massachusetts will enter the online marketplace, Treasurer Grossman indicated that "we have a public obligation to explore this avenue". Treasurer Grossman concluded by sharing that this will not be an easy decision as there are issues of concern, including problem gaming and security.

The majority of attendees came to speak in opposition to the Lottery engaging in online sales. These attendees either represented retail store associations such as the New England Convenience Stores Association and the Massachusetts Package Stores Association, or else they owned or are employed by various 7-Eleven, Cumberland Farms and Tedeschi franchises.[91] Among these individuals strong opposition to Internet Lottery sales was heard, especially among the retail agents and their trade group representatives.

[91] Ibid

Problem-gambling professionals as well as a few retail employees expressed grave concern that increased 24/7 access to Lottery products could increase problem gambling incidence but also some optimism that additional tools would be available for intervention and prevention. Tech representatives spoke of significant opportunities for economic development and growth in good jobs as well as the expectation that online Lottery sales would not cannibalize existing retail sales but rather bring in a new and previously unengaged younger demographic.

The speakers were largely comprised of Lottery retailers and their representatives, who generally sought to make it clear that the prospect of online sales appeared to be a potential threat, and that it could undermine the present partnership arrangement by turning the Lottery into a competitor of its own agents. Profound fears and emotional reactions were expressed among multiple retailers that the Lottery might change its traditional relationship as a sales partner and begin to compete directly with small retailers for lottery customers through the Internet. There was an expectation that online Lottery product sales would inevitably lead to decreased traffic in convenience stores and lost sales revenue, but there was also an observable feeling of inevitability that this was going to happen eventually given the directions in which both society and technology are moving.

The comments heard from participants whose voices were raised in opposition to Internet Lottery sales during the meetings can be summarized into the following issues:

- The existing and very successful partnership between the Lottery and its agents would be degraded by the introduction of online Lottery products, and the Lottery would become a powerful competitor to retail agents by selling directly to customers via the Internet.
- The introduction of online products would erode traditional Lottery ticket sales for convenience store owners and liquor store owners. This could result in mass layoffs and a higher unemployment rate. "The introduction of online products could create a jobless casino industry," when the gambling legislation was passed to create jobs.
- Lottery ticket sales are an important element of Massachusetts convenience store sales in, contributing anywhere from 25 percent to 53 percent of their revenue and making Lottery ticket sales the primary or secondary source of revenue for most convenience stores. Lottery ticket purchasers also purchase additional products while visiting convenience stores.
- Many retail agents are concerned that the technology utilized with Internet Lottery sales would be unable to perform accurate age verification or address problem gambling the way these issues are handled in the retail locations through person-to-person interaction.
- Given that Lottery customers' gambling budgets are limited, online products would cannibalize traditional retail sales and commissions, so that the 5 percent commission

formerly earned at traditional retail locations would in future go to online banks or directly to the Lottery instead of the local business owners.

- Concerns that other states offering online products will compete with Massachusetts State Lottery revenue are not credible since only two states have introduced online lottery products to date (Illinois and Minnesota) and online play will be is restricted to in-state residents.

Frank Ansellotti, executive director of the 700-member Massachusetts Package Store Association, summarized and crystallized the concerns for those lottery agents who primarily sell alcoholic beverages: "We understand how the Lottery works. It may not be the most profitable item that a retailer works with, but … it creates spin-off business. We certainly want to see that relationship continue and grow. … I never thought I would see the day where, in my mind, I am thinking that the Lottery as a division of the state becomes a competitor of its agents. That would be my greatest concern." Ansellotti also emphasized that retail clerks are trained to help ensure that all sales are legal, and that all purchasers are of the minimum Lottery age, just as they are with ensuring that purchasers of alcoholic beverages are adults as well.

Steve Ryan of the New England Convenience Stores Association made it clear that his organization is "opposed to the concept of online gaming," which he characterized as a "jobless casino." He noted that the 2,000 convenience stores in Massachusetts generate "$40,000 in commissions alone for the average store, plus ancillary sales."

Dennis Lane of the 7-11 Franchise Owners Association noted that agents are "trained to say good luck when we sell a ticket, and … congratulations when we cash a ticket." Lane emphasized that "a Lottery ticket is a gallon of milk. A lottery ticket is a loaf of bread. A lottery ticket is a candy bar." For his members, it is the "No. 1 or No. 2 source of revenue." He said: "I would feel that after giving them 38 great years, that I was being kicked in the teeth. I would rather see the resources … be spent enhancing the games that we sell on behalf of the Lottery in our stores."

Lane also expressed a view that reflected the sentiments of many in attendance: "A computer does not have a relationship with a customer. … We have a relationship with people who play the lottery." In his experience, a majority of those adults who buy milk will buy a Lottery ticket, while "40 to 50 percent of folks who buy Lottery buy other things."

A number of those who spoke at the sessions, as well as those who engaged in one-on-one conversations with Lottery or Spectrum representatives, expressed the view that the social atmosphere often present when Lottery tickets are sold in person will disappear in an online environment. For example, Steve Boyd, owner of a Tedeschi's franchise in Plymouth who has been selling Lottery tickets for 20 years, said the Lottery experience at his store is often a genuine social interaction. "We have fun with it. We enjoy it. To see those people at home, doing it by themselves, is kind of sad."

A number of similar sentiments were expressed throughout the hearings, with a strong emphasis on the theme that online gambling would hurt the existing, functioning relationship between the Lottery and its retailers. Some of the sentiments expressed were:

- "Please don't try to fix something that is not broken."
- "The Massachusetts State Lottery, for the first time, would become a competitor."
- "How many Massachusetts jobs will be lost?"
- There is "no additional discretionary income out there."
- An online system cannot guarantee age verification, as "the kids are more computer savvy than we are."
- "We're in love right now. Don't fall out of love."
- "We have a personal relationship (with our customers). … That goes a long way."
- When we remodel our stores … we pay close attention to where we place your machines."
- "We sell gasoline, (and) 50 percent of those people who buy gasoline do not even come inside the store." (The Lottery gets them inside the store.)
- "If we cut down the transaction foot traffic within the locations, that is what everything is derived from."
- "Keep the jobs in the communities. There is a camaraderie … we stand to lose that."
- "We understand that growth has to occur … but we want to grow ours as well, and that is through foot traffic that is encouraged by having your products available … in our locations."

The sentiments expressed at the Boston and Westfield forums captured a number of similar views, with an overarching sentiment of concern regarding an unknown, untested business plan that could undermine an existing, working plan. Still, we should note that it would be neither accurate nor fair to characterize retailers or their supporters as unwilling to explore or consider new concepts designed to capture new, younger demographics and/or generate more in-store sales. Some, indeed, suggested using social media such as Facebook and Twitter to create "buzz" surrounding the Lottery at opportune moments, such as during periods of high, available jackpots. Others noted that other brands in disparate fields have not shied away from confronting issues of changing demographics to reach a new audience.

For example, the case study of Harley-Davidson was brought up, as an example of a brand that is unwilling to rest on its previous reputation and demographics. Harley, as has been widely reported, is a brand that is often associated with younger, free-spirited, open-road appeals that are largely male-oriented. Notably, Harley reported a median age of 47 in 2008 (the most recently available year), and its average has been rising by six months per year, for the past 20

years.[92] That formula – in which the average age keeps rising – is a prescription for future irrelevance, as it shows that younger, newer customers are not replacing older ones. It is a phenomenon we have seen in industries such as newspapers, and indeed is an issue that lotteries must confront as well.

Not all voices heard in the public forums were opposed to the concept of the Lottery leveraging the Internet as a sales channel and developing an inventory of new and innovative online products. In the first session in Boston, two of the speakers represented high-tech firms with an interest in developing online products, and these attendees spoke of the potential for economic development, the creation of new high paying jobs, and the necessity for the Lottery to engage new demographic segments with new products delivered electronically.

Tim Lowe, Executive Director of the Massachusetts Digital Games Institute, spoke to the possibilities presented by mobile gambling because there are currently 4 billion mobile phone users and 1 billion smartphone users. Lowe indicated that this represents a strategic opportunity for Massachusetts and that online/mobile gambling can strengthen the existing partnership between the Lottery and the Lottery agents. He suggested selling prepaid online lottery cards or accounts at retail locations. He also indicated that reliable technology has already been developed for age verification, geolocation, and various security issues and is currently in use in other regulated online gambling jurisdictions internationally, including for online lottery products.

Another proponent of online Lottery products who spoke at the initial meeting was Timothy Parilla, Internal Counsel for Cambridge Interactive Development Corporation, an Internet software company based in Massachusetts that currently operates Everest Poker and Everest Casino on European-facing sites. Parilla was able to speak from his own experience about the positive impact of online gambling on the job market, and suggested that the Task Force must consider the job creation that would occur in the technology sector if online products were introduced. New employees would be needed to develop the games, test the integrity of the games, support the platforms, etc. He also countered some of the testimony from Lottery retailers by saying that there is no evidence Internet sales would take business from traditional Lottery agents or land-based casinos, because the Internet player is a new customer who would play at home versus going to the casino or purchasing scratch tickets from lottery agents, while traditional Lottery and casino customers would continue to visit brick and mortar locations.

Paul Sternberg, Executive Director of the Massachusetts State Lottery, closed the first public forum by reiterating that enabling legislation will be necessary for any online products to be sold and that the report being created by the Task Force will include a recommendation as to whether or not an online effort is desirable, but that the Lottery Commission cannot act without legislative approval. With that in mind, we believe that the insights gleaned from participants at

[92] http://business.library.wisc.edu/resources/kavajecz/10_Fall/HarleyDavidson_Presentation.pdf (accessed July 26, 2012)

these public forums – with a particular emphasis on Lottery retailers – point out the basic parameters that the Lottery should work within, and the path it should follow: Protect the interests of retailers by treating them as partners and assets, but do not assume that the status quo can be maintained.

2. Lottery Vendor: Vested Interest Viewpoints

The Treasurer's Online Product Task Force's Working Group conducted meetings with a large number of potential platform and technology suppliers regarding the benefits and disadvantages of online lottery products. Our initial round of interviews with major lottery suppliers reveals common assumptions:

- Online lottery sales will prove to be a significant generator of incremental revenue
- Cannibalization of existing games would be almost non-existent
- Younger demographics will be attracted to the online product
- Retailers can still play a meaningful role in lottery games

The vendors interviewed for this analysis have included revenue projections for Massachusetts State Lottery online play. These projections lack consistency when compared to one another, with wide variation between potential revenue estimates. This is due in part to differing assumptions and timeframes but, viewed in the aggregate, they represent an indicator for future sales. All of the vendor estimates assume maximizing revenues by offering a complete suite of new lottery and casino games online, including bingo and poker. They also assume that the Lottery would move quickly in introducing a host of new online products. Following are highlights of the vendor revenue projections:

- GTECH estimated incremental revenue between $245 million and $551 million in a base case, assuming that Internet sales grew to 10 percent of total lottery sales over five years.
- Scientific Games estimated a total of $924 million in incremental revenue, assuming Internet sales grow to 10 percent for draw games and 15 percent for instant games after three years.
- Intralot estimated $1.72 billion in incremental revenue in a base case after 10 years with the majority ($1.2 billion) coming from instant games offered over the Internet.
- Paddy Power estimated between $220 and $260 million in incremental revenue after three years.
- Betware estimated between $370 and $545 million in incremental revenue with no timeline specified.

Of course, the vendor revenue projections are likely to be overly optimistic in illustrating the potential for Internet sales and do not take into account the Lottery's engagement strategy or timeline for introducing new online products. We provide what we believe are more accurate projections later in this report.

During the interviews, the vendors cited the experience in Europe in supporting some of their assumptions, but Spectrum has some concerns as to the relevance of this data, in part because both online gambling and lottery distribution systems and products are not uniform between the United States and Europe.

Differences, sometimes subtle, can be discerned between how vendors view the future implementation, evolution and policies that could be established in Massachusetts. GTECH, for example, is comfortable with the affiliate system as it has evolved in Europe. Affiliates are effectively online lottery agents, driving players to the lottery's site in return for a commission.

Scientific Games is more skeptical of the benefits of such a system, and believes that in a relatively small, intrastate environment such as Massachusetts, in which the Lottery would hold a presumed monopoly, the advantages of an affiliate system – finding players in an otherwise crowded marketplace – would largely disappear. Moreover, the disadvantages – creating a new set of online agents that would compete with the existing network of land-based retailers – would grow. Further, developing a new commission system for online sales would likely erode margins, as online transactions would incur costs from banks and other processors that need to be taken into account. We concur with that view.

The vendors also pointed to significant demographic differences between land-based and online players, a differential that would support their notion that cannibalization would be minimal to non-existent. That differential, while profound, supports the notion of minimized cannibalization, but also reveals potential future problems, starting in as little as five years. If older, more traditional lottery players do not gravitate toward online in great numbers (as expected) and continue to support the traditional lottery, and if younger, online players do not gravitate toward the traditional lottery as they age, then the traditional lottery – and perhaps its attendant system of retailers – would, by definition, begin to decline and wither.

The vendors have provided interesting and potentially viable suggestions as to how to involve retailers in the online process, including banner ads offering, say, coupons for free tickets available only at retailers. Each such suggestion, however, needs to be evaluated in light of costs to the Lottery, and in light of the level of potential benefit to the retailer. Scientific Games, in particular, pointed out that online games should mirror traditional games to the greatest extent as a way to spur more online sales, and that view makes sense from the standpoint of promoting proven games with proven themes to an audience that may have some existing level of familiarity. However, that suggestion also runs counter to the suggestion that online offerings should differ as much as possible from traditional games as a means of protecting retailers.

Such suggestions need to be fully evaluated, including on the basis of whether vendors such as Scientific Games – which have a significant stake in the status quo regarding instant games – are putting forth suggestions that are independent of their own self-interest.

I. Online Engagement Strategy

1. Implementation Strategy

If it endeavors to implement Internet play, Spectrum believes the Massachusetts State Lottery should pursue this channel in phases. We recommend a soft initial entry starting with new online products and social games. Multistate lotto games (Powerball and Mega Millions) and keno are the products that may be most susceptible to cannibalization of retail sales by online sales. Carefully consider putting these products online and test-market to determine the degree of substitution that will occur upon introduction of Internet sales. Illinois and Minnesota have already initiated Internet sales of multistate lottery products. Benchmark these jurisdictions to gauge the magnitude of potential substitution behavior as well as any lessons to be learned for successful implementation.

The Lottery must be careful to protect the current base of successful and innovative products that have been developed and proven successful over time. Current instant and draw games should not be immediately transferred to online channel. Instead, seek to craft new instant and draw games which may be analogous but will not compete directly with "offline" games but will present Internet purchasers who are current customers with relatively familiar Lottery games. The Lottery should develop completely new types of games that will be games of chance but offer more "time on device" and engage new or infrequent Lottery customers and attract a younger, more affluent, and more mobile demographic. Development of these new draw and instant game versions offers the opportunity to foster economic growth within the state by offering opportunities to game developers.

Poker may be a potential future Lottery game even though it is usually classified as a game of skill. Poker revenue may be limited due to the difficulty for the Lottery to compete with established offshore sites and their lucrative marketing programs. However, poker, since it is played peer to peer, is fundamentally a social game and its inclusion on the Lottery website will promote community aspects and increase the "stickiness," or length of time spent on the site by visitors.

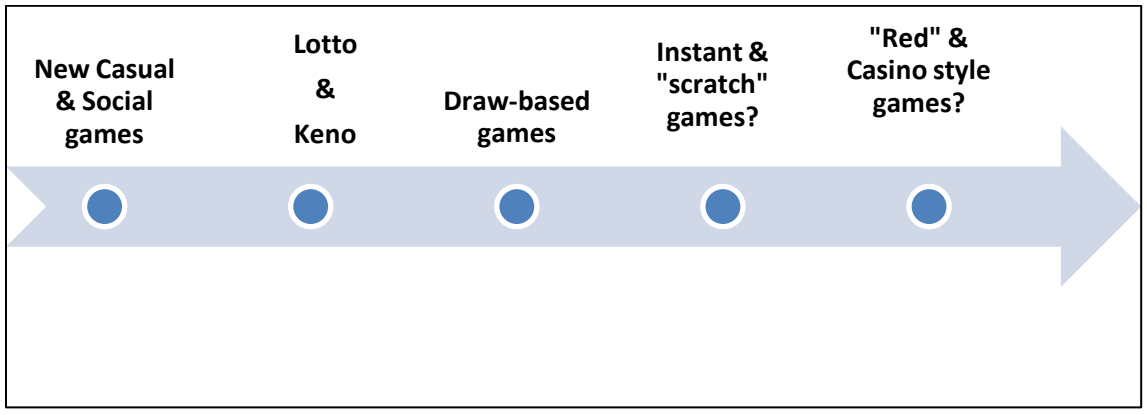
We recommend market testing new games by initially providing play for free versions and encouraging trial of new games by offering free-play versions of for money games. Free play versions could also be used in later implementation phases to evaluate customer interest in, and public reactions to, "hard" games such as casino slots and table games as well as other for money games of chance. Consider casino-style slots and table games for implementation in the later phases of Internet implementation. We also recommend that the Lottery be prepared for the introduction of sports betting if it eventually becomes legal at the federal level. In the meantime, the Lottery can implement fantasy sports as a social game provided that monetization avoids direct betting on team outcomes.

2. Phased Engagement Strategy

Spectrum recommends a phased implementation approach to online lottery sales for two reasons. First, in order to have the ability to test the public's reception for new online products and measure their market performance. Second, to allow sufficient time for the Lottery to develop the internal resources required to manage and operate fully fledged Internet operations and marketing. While many of the platform providers can quickly implement a full suite of online products, we recommend phasing in products gradually, starting with new games that will not infringe upon the appeal of traditional lottery games sold by retailers while continuously monitoring the online products, fine tuning operations, and assessing public reactions to online sales.

We recommend a five-phased implementation strategy beginning with a gentle initial entry to the market starting with casual online games and social games that would feature more time on device than traditional transactional lottery products.

Figure 18: Recommended phasing of Lottery online games



Source: Spectrum Gaming Group

The games offered in Phase 1 would follow both "freemium" and subscription models by offering of play for fun, play by subscription payment, or play for free, with payment for additional levels and capabilities. These new and casual games would present an innovative inventory of new online products that would offer the most minimal chance of substitution versus traditional retail lottery product sales. They would also comprise games more likely to attract a completely new customer for the Massachusetts State Lottery. While new casual and social games are the least threatening to traditional retail lottery sales, it is also true that they would generate only very limited new revenue streams, at least initially.

Bingo is also an option for implementation in Phase 1 because it is a social-style game with a multitude of versions readily available as online products. However, the benefits of implementing Lottery-sponsored bingo should be carefully weighed against the potential for any negative impact on current charitable gambling operations. Bingo is a popular online product in

Europe, both for commercial and lottery Internet sites, but the Massachusetts State Lottery may not wish to compete directly in this arena with established charitable gambling interests.

Phase 2 would entail online sales for multistate lotto games, which to date has been the default market entry for the small number of US lotteries currently permitting online product sales as well as a more certain and substantial Internet revenue stream. The two US lotteries that have initiated online products – to date Illinois and Minnesota – offer multistate lotto games for sale via the Internet by opening an electronic account using a major credit card. Two of the US lotteries planning to offer Internet sales in the near future, Georgia and Delaware, will also offer multistate lotto and in-state weekly draw games online through electronic player accounts but the funding mechanism will be a pre-paid card (titled the iHope card in the case of Georgia). Because these products are ideally suited to Internet sales and widely popular across the customer base, they are immediate candidates for early inclusion in any Internet lottery engagement strategy. The reason that we recommend them for Phase 2 is that they are also, along with keno, products that are more susceptible to cannibalization of retail sales.

The Treasurer's Online Products Task Force may feel more inclined to include these products in the first phase of implementation so long as the caveat regarding potential cannibalization is considered. While some traditional lottery customers may find it more convenient to order lotto tickets from home, it is also reasonable to assume that many more players will participate in regular lotto drawings if they can purchase tickets 24/7 and in the last minutes prior to the drawing taking place. We remain cautious that the added convenience of Internet lotto sales could negatively impact on foot traffic at traditional retail establishments; we advise the Lottery to continue to monitor retail sales in Illinois and elsewhere for evidence of any change in traditional lottery sales for these products. However, utilization of a pre-paid card should assure that local lottery retail agents continue to earn commissions on sales, even those transacted over the Internet.

Keno is also included in Phase 2, because it is well suited to a computer-screen interface. We do not believe that Internet keno will significantly cannibalize land-based keno, based on experience in other online jurisdictions. Instead, we expect Internet keno will expand the market for that game. However, because keno generated 17 percent of total Lottery sales in 2011, implementation of an Internet version should be measured to assess the impacts. Delaware can serve as a possible benchmark when it offers online keno in January 2013.

Phase 3 would entail the online implementation of selected in-state draw games as well as the development of completely new, Internet-only sweepstakes drawings. In addition, this phase would see the implementation of new "draw-based games" similar to those offered in successful overseas Internet lotteries. The UK National Lottery, operated by Camelot, offers, among a wide range of conventional lotto drawings, a full product line of multi-decision point transactional products that are based upon draw game logic, similar to pull tabs, but can take up to five minutes to play and thus provide more of a play experience with time on device than traditional draw products. A good example from the Camelot inventory is Monopoly, based on the popular

board game. Customers pay to enter the game, choose a personal piece to move about the board, and encounter a number of separate decision points where they can win. This game does not compete with any traditional lottery games and generates entirely incremental revenue for the UK National Lottery.

The example of Australia shows that online draw games can demonstrate revenue growth in parallel with traditional retail draw game sales. Australian law prohibits instant games on the Internet and Internet sales reflect a preponderance of draw game gross revenue. Within that environment, online sales grew over the most recent seven-year period at a compound annual growth rate ("CAGR") of 4.4 percent, while brick-and-mortar sales grew at a CAGR of 3.3 percent.[93]

Phase 4 would be reserved for instant and scratch games to become Internet products. However, we would strongly caution against placing traditional instant games on the Internet for two reasons. First, instant games are the major profit center for traditional sales, generating 69 percent of gross revenue for the Massachusetts State Lottery.[94] They are the single most successful class of products developed by the Lottery and traditional sales must be protected from potential online cannibalization. Second, instant scratch games, once transferred to the Internet and viewed on a video screen, may become indistinguishable from virtual slot machines, where a series of symbols are uncovered with the winning outcome determined by the final symbol appearing in the sequence. Internet scratch games also open the potential for increasing problem gambling exposure as the frequency of play is likely to be much higher. Instead we recommend developing entirely new instant games with more of an experiential component featuring longer time on device similar to the draw based games described above, or else incorporating online video lottery terminals or Internet slot machines into the online product mix.

Phase 5 effectively moves online products beyond traditional lottery games and into the realm of casino-style games of chance. In this phase, which the Massachusetts State Lottery may choose to execute, a full suite of all types of online gambling products would be offered over the Internet, just as the British Columbia Lottery Corporation and a number of European lotteries currently offers, and which the Delaware Lottery apparently intends to oversee. If the Lottery were to choose to enter this phase the available products include slot machines, casino-style table games, poker, and any other games of chance played against the house.

This recommended phased rollout is a conservative approach that allows the Lottery a great deal of flexibility to accelerate, to combine, or modify based upon its informed assessment of market conditions and opportunities. Regarding potential timelines, if enabling legislation were passed to allow the Lottery to pursue online sales by the end of 2012, it would be reasonable to expect at least six months for the RFP process to complete and a primary platform

[93] Bill Thorburn, Chief Executive Tatts Lotteries at Tatts Group, speaking at World Lottery Summit 2012, September 10, 2012

[94] La Fleur's 2012 World Lottery Almanac

provider to be determined. The implementation phases outlined above are notionally estimated to take approximately six months each, beginning in July 2013 and completing roughly January, 2013 but actual implementation of the phases would be at the discretion of the Massachusetts State Lottery Commission.

Mobile online product options should be rolled out as soon as practicable, in Phase 1 if at all possible, as mobile gambling will, without question, be a high-growth adoption channel. Mobile device and smartphone utilization is growing faster than the rate of Internet utilization, and mobile Internet access is expected to overtake fixed Internet access by 2015.[95] If the Lottery decides to begin offering online products over the Internet, it effectively enters the electronic gambling business and electronic products can be delivered through any Internet channel, be it desktop PC, smartphone, tables, or other mobile device.

Such a phased approach allows more time to examine and benchmark other state lotteries, such as Illinois, that have implemented online lotto sales. Implementation should include developing test markets within Massachusetts to determine the degree of any substitution behavior that might occur online. Still, by following our recommended strategy that all online Lottery wagering be purchased through a play card obtained only at a retail sales agent, this should reduce any negative impact upon retailers, and if new customers are engaged, there could be a positive financial impact for the retailer. The threat of cannibalization becomes greater if direct online credit card purchases – the most convenient form of Internet commerce – are permitted in the enabling legislation.

3. Products/Games

Instant games make up the majority of Massachusetts State Lottery revenue and it would be prudent not to offer successful existing games through the online channel. Spectrum recommends developing a line of new instant games in order to protect existing revenue and engage new customers. These new instant games can be analogous to the most popular existing games but should not constitute direct copies so as to avoid substituting online games for offline games.

There is an ongoing convergence of non-money games and gambling on the Internet, as sites such as Zynga offer non-cash casino games on Facebook and online casinos offer social and skill games interactively. The Lottery should explore this trend and foster the creation of new social and role-play games that are compatible with the Lottery's charter but are designed to encourage customers to spend time on the site. These games could include social media aspects such as in-game chat and competition between players in order to create an online destination.

Poker should be considered for implementation in later phases as a potential product for online Lottery. Poker revenues may be limited due to competition with established offshore sites

[95] Internet Trends, Mary Meeker, D10 Conference presentation, 5/30/2011, Kleiner, Perkins, Caufield, Byers

and their high-powered marketing programs. Experience in British Columbia shows that the Lottery, even when granted an official monopoly on Internet poker play, may expect to generate only a plurality in market share – and this plurality is generally the low end of the market. However, poker, because it is played on a peer-to-peer basis, is fundamentally a social game and its inclusion on the Lottery website will promote community aspects and increase the "stickiness," or length of time spent by visitors to the Lottery website. Experience in offshore gambling sites also shows that Internet poker players often play side games simultaneously with their poker play, thereby generating multiple revenue streams.

Poker, as an online offering, depends highly on the potential pool of players available for games at all hours of the day, referred to as the "liquidity" of the market. With an adult population of 5.2 million, the prospect of sufficient liquidity is an open question. At this writing, federal legislation is being considered that would allow Interstate online poker, but that is an unknown. A similar unknown at this point is whether different states across different time zones would be able to pool their poker resources, as is being done among certain provinces in Canada.

Casino games and other "red" games of chance where wagers are made against the house should only be considered in the later phases of implementation and included as Lottery games only if demand exists. Consider a play-for-free site in the early phases to evaluate player interest in and public reactions to "hard" games such as casino slots and table games as well as other for money games of chance played against the house.

That, of course, raises an expected question: If the Lottery offers casino-style games, does it mean that the Lottery is competing against casinos directly? Our analysis and experience do not support a conclusion that it would foster undue competition. Rather, we note that the experiences are vastly different – more akin to drinking beer at home vs. drinking beer in a bar or tavern – and it offers casinos another opportunity, through joint marketing, to cost-effectively identify and incent table players

Finally, depending upon the outcome of ongoing state challenges the federal Professional and Amateur Sports Protection Act of 1992, consider the introduction of sports betting provided it becomes legal. Also consider implementing fantasy sports betting in the early phases. Fantasy sport betting is currently a $1 billion industry nationwide, offered as a for-money social game in 27 states, and is legal under the Unlawful Internet Gambling Enforcement Act of 2006 and PASPA.[96] While fantasy sports is a crowded field with competitors including CBS Sports, Yahoo, ESPN and Cantor, there are many platform providers and an opportunity exists for Lottery-branded fantasy competition with cross marketing to traditional Lottery products.

[96] "Fantasy Sports Becoming Big Business for Cantor, Chris Sieroty," *Las Vegas Review-Journal*, September 15, 2012

J. Online Engagement Analysis: Defining Strategy, Identifying Issues

Clearly, the overall US gambling industry is changing quickly. During the past decade, technological developments have enabled gambling to move online, whether governments allow it or not. If Internet gambling is not allowed within a state, people can find opportunities in other states or other countries. The availability of online will continue to expand. Indeed, numerous companies are developing applications for smartphones that enable individuals to play casino games from their phones – from anywhere. States, casino companies, lotteries, etc., will all have to adapt to these types of changes. So the question for a particular state is how to regulate it in a way that ensures safety for its citizens and benefits the citizens the most through an efficient tax framework.

As part of this report, Spectrum was asked to address the question: What if the Massachusetts State Lottery takes no action with respect to Internet wagering, and elects to maintain the status quo? That is indeed the position being taken in multiple jurisdictions that are simply not pursuing the issue. Others are pushing forward while encountering political opposition. Maryland, for example, has some lawmakers opposing such efforts in part because of opposition from retailers.

Maryland Community News reported recently:

> "Maryland state lottery tickets probably won't be sold online this summer, after lawmakers scratched funding from the state budget that would have allowed the expansion to Internet sales beginning July 1.
>
> "Instead, the State Lottery Agency can use $500,000 of its budget to create a proposed platform and regulatory structure for online sales. The final report on those preparations must be submitted to the General Assembly budget committees and the State Lottery Commission by Dec. 15. After the budget committees receive the report, they could release the $167,119 needed for three employees to run the program.
>
> "Gov. Martin O'Malley's (D) budget called for the program to start at the beginning of fiscal 2013 on July 1 and estimated revenue of $2.2 million from online sales for the year. The full revenue figure is still assumed in the so-called "doomsday budget," which was passed after lawmakers failed to agree on a full, three-bill budget package before the end of the session.

"It is the second year in a row that plans for online lottery sales have been delayed by the General Assembly."[97]

Notably, the decision to eliminate funding for online lottery sales came despite a December 2011 report from the Maryland Lottery that argued strongly in favor of an online presence. The report noted:

> "Many well-known brands have successfully integrated an online sales channel with brick-and-mortar locations including Apple, Best Buy, Babies R Us, Verizon Wireless and Under Armour, to name a few. Implementing marketing and sales strategies such as e-coupons, promo codes, daily deals, social gaming, promotional overlays and player loyalty programs can accomplish integration and drive traffic to retailers to not only increase lottery participation and sales but also sales of the retailers' other products. It is a point of emphasis for the SLA to collaborate with brick-and-mortar retailers to launch creative marketing concepts that would help both sales funnels thrive. Digital promotions are slowly replacing weekly circulars, particularly among younger consumers."[98]

While the status quo would clearly have some support in any state, we do not recommend this for Massachusetts because online gambling efforts will be pursued elsewhere regardless of what policy position the Lottery adopts. If online gambling is pursued by Massachusetts casinos, or by lotteries or casinos in nearby or distant states, Massachusetts and its Lottery could be impacted regardless. At the same time, demographics of lottery players and annual sales of traditional lottery products do not illuminate a pathway to growth.

Further, consumer expectations have changed/are changing, in that they expect to be able to use the Internet for purchasing virtually all goods and services to the Internet-practicable extent – from shoes to prom dresses to movie tickets to hotel reservations to theme-park tickets. Businesses that do not adapt to the changing times may be left behind, particularly as the generation raised on the Internet become adults. Clearly, it is practicable to purchase gambling games online.

The crucial challenge for the Lottery in moving to Internet sales is how to enter the Internet space without adversely impacting current retail sales and the agents that depend upon them. Multiple Internet lottery vendors said in presentations to the Working Group this year that the introduction of Internet sales in Europe and Canada had minimal impact on retail sales and, in some cases, had a positive impact. While these assurances from vendors must be assessed carefully, it is evident that by engaging the Internet these gambling operators attracted a

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[97] "Online Lottery Sales Doubtful This Year in Maryland," by Danielle Gaines, Maryland Community News, April 23, 2012 http://www.gazette.net/article/20120416/NEWS/704169954/1007/online-lottery-sales-doubful-this-year-in-maryland&template=gazette

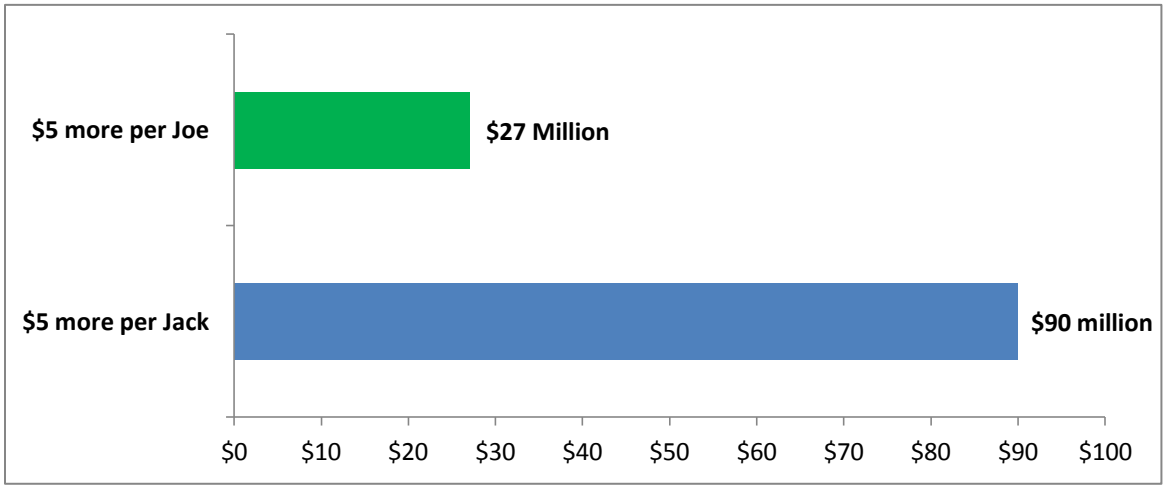
[98] "Maryland Lottery: Report on Plans for Online Sales of Traditional Lottery Games," December 15, 2011, p. 25 http://dlslibrary.state.md.us/publications/JCR/2011/2011_25.pdf

previously under-represented demographic and converted a larger proportion of the total population from non-customer or infrequent customer status to regular lottery play.

The introduction of Internet lottery sales and new types of online games can potentially engage more of the non-players and infrequent players. The difficult question is how much of the core player population will migrate to the online channel and what effect online sales will have on retail sales. As noted earlier, Independent Lottery Research, ("ILR") a marketing research consultancy now branded Independent Gaming Research, was heavily involved in conducting research preceding the Illinois Lottery's market entry. ILR has developed demographic profiles for two major segments of lottery players who they term "Joe" and "Jack." Joe is the core player who regularly purchases lottery tickets while Jack is the infrequent player. While they share similar demographic profiles and each spends roughly the same amount when they play, Joe, the core player, is a much more frequent customer, purchasing lottery tickets about five times more frequently than Jack, the non-core customer.[99]

According to ILR, distribution of these two segments within the player base is analogous to the Pareto rule, with 78 percent Jacks and only 22 percent Joes. ILR maintains that influencing 5 percent of Jacks, the Non-Core players, to spend $5.00 more per week on multistate lotto games can increase sales by $90 million annually while influencing Joes, the Core players, to spend the same amount more will increase sales by less than one-third that amount.[100] Clearly, attracting players who are infrequent or non-lottery customers is the most advantageous path to growing revenues near term. Accessing the Internet channel and offering greater convenience for purchasing traditional lottery products as well as new and different online products which appeal to infrequent players can be an advantageous means for inducing more Jacks to play regularly.

Figure 19: Contribution to sales if 5% of group played $5 more on multistate games per week



Source: Independent Lottery Research

[99] International Lottery Research, Changing Wheels of Fortune – Building A New Player Base, NASPL presentation.

[100] Ibid.

Vendor presentations also mention the issue of liquidity when addressing Internet poker. Liquidity, simply defined, is a term describing the amount of traffic generated by a site, or the number of users on the site at any given time. More broadly, liquidity represents the critical mass of players needed to attract new players to the site. Liquidity is particularly crucial to Internet poker, where a player expects to be able to find an open seat at a table at his preferred price point as soon as he or she logs on and not have to search for an open table or wait for a new table to form. Liquidity is also important for online casino and bingo sites in order to give players the impression that there are other people to play against.

Given the state's relatively small population, many vendors believe that Massachusetts has the minimum liquidity to support one effective Internet poker network. The US Census Bureau estimates the population of the state at 6,587,536 as of 2011, with 21.7 percent under the age of 18.[101] That translates into an adult population of 5,158,041 and applying the Internet poker penetration rate of 1.86 percent used in the Gage Report conducted for the California Online Poker Association[102] yields an active Internet poker player estimate of roughly 96,000 persons in Massachusetts. Several vendors suggested that given the small size of the intrastate pool of players, Massachusetts should look to multistate compacts in order to pool liquidity between multiple state lotteries.

We asked Eamonn Toland, president of Paddy Power North America, to share his views on poker liquidity. He wrote:

> "In terms of population size no-one really knows the minimum for poker. Sweden has been pointed to as a successful market with multiple technologies for 9m people. Leading industry players are not targeting states with a population less than 5m people for poker.
>
> "Certainly for states below that point serious consideration needs to be given to having all licensees on the same poker platform, even if they compete to get players on their respective skins.
>
> "The same constraint does not apply to online casino, and arguably it's a much more lucrative opportunity for a state of any size."[103]

Liquidity will also be an issue for social games. Although not nearly as critical to success as with Internet poker, it will remain important to assure that a sufficient mass of players is available for a pleasing multi-player experience.

Another important lesson from the European Internet gambling experience is the effect on profit margins from a hypercompetitive market. While it is likely that Internet gambling in the US will develop somewhat differently than it has in Europe, the extreme competition for online

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[101] US Census Bureau, Massachusetts Quick Facts, 2011

[102] Fiscal Impact of Legalizing Online Poker in California, January 2011

[103] Email from Eamonn Toland, October 1, 2012

players utilizing myriad affiliates and liberal free-play bonus promotions has had a deleterious effect on player loyalty. Hyper-competition between multitudes of Internet gambling sites has caused the better players to become more "promiscuous" and inflated the costs of player acquisition and retention, consequently narrowing margins and diminishing profits. While undoubtedly competition is a good thing, too much competition in the Internet space has proven costly in European jurisdictions, especially for Internet poker.

K. Payment, Registration and Verification

1. Payment Vehicles

The most efficient and profitable means for funding online product purchases would be to allow credit card purchases directly on the Massachusetts State Lottery website. This method would be the fastest, easiest, and most convenient process for the customer and the most lucrative for the Lottery since the only expense, other than setting up the electronic account system, is from credit card service fees. This is the payment method adopted by the two US lotteries currently offering online play, Illinois and Minnesota. However, this method raises ethical questions regarding the use of credit for gambling purposes which may not constitute good public policy. Furthermore, this system does not provide for cash purchases unless personal debit cards are also included, and it would present problems for identity and age verification.

While straight credit card payments are the standard of the industry in e-commerce and would present the most customer-friendly option to funding purchase of online lottery products, the sheer convenience of credit cards would also represent the greatest potential for substitution of traditional retail lottery with online purchases. Therefore, this payment vehicle may not be the best solution for Massachusetts.

Another US lottery that intends to implement online product sales, the Georgia Lottery, is prohibited by state law from accepting credit cards for any lottery purchases. Georgia's solution, explained by Director Kurt Freedlund, Senior Vice President and General Counsel, will be to utilize a pre-paid debit card, provided by Discover, to fund Internet purchases. This card, named the iHope card, will be available only at existing Georgia Lottery retail outlets and retail agents will realize their standard commission on every dollar of pre-paid card sales. Delaware plans to utilize a similar pre-paid card system when implementing Internet lottery sales in January, 2013.

These pre-paid card payment vehicles offer a number of advantages over credit cards. First, because it is pre-funded there will be fewer issues with customers buying lottery tickets on borrowed money. Second, they can be sold in smaller monetary amounts than credit cards allow and the Lottery can choose to cap the maximum value offered. Pre-paid Lottery play cards could be offered at the retail locations in branded displays and feature a variety of pre-loaded initial values (such as $5, $10, $25, $50). Customers could walk into the retail sales location, purchase a play card, and take it to a computer or mobile device where they could then register and play.

Most importantly, if the Lottery requires funding of online purchase accounts solely through such pre-paid payment vehicles and restricts sale of these cards to registered lottery outlets, then retail agents will continue to earn a commission on the Internet sales. While this requirement will necessarily have an adverse impact on the breadth of sales and will probably retard the rate of adoption of Internet purchases, it will minimize the impact on traditional retail

sales, and retail agents will be protected and their relationship with the Lottery strengthened through the implementation of online product sales.

2. Registration Process

Leveraging the Internet will transform the Lottery's relationship with many of their customers because the formerly anonymous purchase process will now require a registration process that will collect personal information and establish an electronic account, for the first time allowing the Lottery to generate knowledge of their (Internet) customer. This knowledge will be invaluable for marketing purposes, for preventing fraud, and in identifying customer needs. Moreover, online product purchasing will create a history of player behavior and product preferences. On the other side of the equation, the Lottery will now be expected to verify that customers actually are who they claim to be and to protect their identities and the privacy of their information. The key to establishing this knowledge base will be the online registration process.

It will be necessary to put a registration process in place as a first step in setting up an electronic customer account. This process will collect basic customer information and also ensure that online ticket purchasers are of legal age to play Lottery games, and that they reside in Massachusetts. The registration process should be rigorous enough to assure accurate identification but not so complicated and time consuming as to discourage registration. Ideally the Lottery will strike a balance between the intrusiveness and complexity of the customer identification and age verification requirements and the convenience of the process. Information required at registration to set up an account should include customer first name, last name, middle initial, residence location (i.e. street address city, state, and ZIP code), email address, and date of birth. Optional information requirements at registration could include Social Security Number, phone number, and contact approval. Financial institution information would not be required unless credit card usage was permitted under any enabling legislation.

Social Security Numbers may be necessary to perform the age verification process under the most effective software applications. However, initial qualitative research shows that the Social Security Number requirement is perceived as the single most intrusive aspect of the online account registration process and would undoubtedly limit the adoption of online lottery product purchasing. If the pre-paid play card is used to fund all Internet Lottery transactions, then the Social Security Number requirement may be eliminated, provided that age and identity verification are performed at the retail location, just as they are currently for traditional lottery purchases; however, it is impractical to ask Lottery retailers to perform this function.

Completing the registration process would establish a customer account with the Lottery which would have a personal account number as the unique identifier. If credit cards are utilized to fund the customer accounts, customers could set up the funding process at the same time that they establish their online purchase account. If pre-paid cards are used, as Spectrum recommends, customers would have to take the extra step of purchasing a pre-paid card at a Lottery retail location in order to fund the account. The pre-paid play card purchased at the

retailer would fund the account and be drawn down through subsequent transactions. Depending upon the manufacturer and characteristics of the pre-paid card system eventually chosen, a numeric code derived from the pre-paid card may also be needed at logon to activate the funds and link them to the player account for online lottery purchases.

Registration for online accounts could also occur on site at the Lottery retail location but this may prove problematic given the limited floor space and high volume of foot traffic found at many retail establishments. Online account registration through self-service Lottery terminals could also be considered as an option.

Purchase of the play card would require proof of age verification, 18 years or older, just as current Lottery purchases are verified at the retail agent location by presenting a valid driver's license or similar identification. Retailers would benefit from the player card in multiple ways. First, the requirement for a player card would drive additional foot traffic through Lottery retail locations. Second, cards could be reimbursed or repurchased at the retail location. Third, retailers would receive the normal 5 percent commission on sale of each play card. There could also be consideration for ongoing commissions for the originating retailer on all subsequent purchases for the life of the card.

Purchase of online products would require logging on to the Lottery website to access the customer account by entering a unique password for each prospective online purchaser. Geolocation tools would be employed by the platform provider to assure that the player is currently located within state boundaries. Age verification would be conducted at the retailer location during card purchase. Additional age verification measures should be added at logon if the Lottery so decides or if required by the enabling legislation.

Examples of registration processes from other jurisdictions are detailed below. These examples are drawn from the British Columbia and Austria in order to provide some geographic diversity and because these two lotteries post relatively transparent information.

Salient online gambling registration rules for Austria's win2day lottery are as follows:[104]

- The minimum age for registration on win2day is 18.
- On registration, first name, surname and date of birth must be stated. The data are checked via an inquiry agency.
- There must not be more than one win2day account for each combination of first name, surname and date of birth.
- The licensor has made it a mandatory requirement that a bank account must be stated.

[104] http://www.lotterien.at/olg/CS_win2day_GB.htm?sessionID=35972110-1401-583d149-f37e-8f00c2fc8778 (accessed August 17, 2012).

- Player must define their limits in terms of finances and time upon first registration. If limits are raised, the new limits will only take effect after 72 hours of reflection.
- Players may bar themselves from games for a certain period. Self-barring is possible for one, three, six and twelve months.

Additionally, payment options are specified as follows:[105]

- The gambling deposit can be topped up using the Internet or mobile phone. The EuroBon (a pre-paid voucher), which can be bought from all Austrian betting outlets and selected distribution agencies as well as Paybox, a provider independent payment mode for mobile communications and the Internet, are available for that purpose. Payment can also be made using MasterCard (with or without Secure Code), VISA (with or without Verified by Visa) and Diners Club or online banking, Mastro Secure Code and paysafecard.

In the example of the British Columbia Lottery Corporation ("BCLC"), the registration process on the PlayNow.com site requires the following information:[106]

- Before play is permitted on PlayNow.com the user must be a Registered Player. To be a Registered Player:
  - The minimum age is 19
  - Must be a permanent resident of BC and physically located in BC at time of registration
  - Not enrolled in a voluntary self-exclusion program at any BC gambling facility (i.e., any BCLC operated facility)
  - Must have a current Canadian Visa or MasterCard.
- On registration, first name, surname and date of birth must be stated, along with e-mail address, daytime phone number, and credit card information. The data are checked via a credit reporting agency, where credit card information (or credit profile) must validate the other personal information provided
- There must not be more than one PlayNow.com account for each Registered Player
- Registered Player must define their weekly transfer limits upon registration, while Registered Player cannot deposit more than the weekly transfer limit within a seven-day period.

[105] Ibid.

[106] PlayNow.com registration page, https://www.playnow.com/playnow?action=GoRegister.

Preserving the retail sales network and benefitting Lottery sales agents is a key element of the online engagement strategy for Massachusetts. The registration process described above provides for continued agent commissions on Internet product sales via the pre-paid play cards. An alternative procedure is currently being implemented by Loto-Québec where customers will have the option of identifying a preferred retailer when they purchase Internet products. Designated retailers then receive the same commission they would if the products were sold in their store. Even if a customer does not designate a retailer, a percentage of the purchase goes into a pool where all retailers are reimbursed for commissions, pro-rated on the basis of their relative product sales. This system has proven popular among retailers in Quebec, however, there are disadvantages in this system compared to the pre-paid funding card option. For example, designating preferred retailers for all ongoing Internet purchase commissions opens opportunities for abuse in the system and even possible corruption. This system also appears to favor retail locations that enjoy greater foot traffic and more corporate resources that the smaller and more local retail establishments.

3. Know Your Customer

Entry into online games would fundamentally alter the Lottery-customer relationship, in that the Lottery would change from a wholesaler to a retailer. That is, the Lottery would transform into a gambling operator – selling directly to, and communicating directly with, its customers instead of relying solely on retailers for these functions. With this change, the Lottery would assume three new, customer-facing responsibilities born either by the elimination of the retailer or by the very nature of online play itself:

- Geolocation and residence. The Lottery will be responsible for ensuring that online Lottery play is taking place only among people located within Massachusetts' borders and, if legally relevant, by Massachusetts residents. This is an entirely new responsibility, as traditional lottery products may be played anywhere so long as they are purchased in Massachusetts.
- Identify/age verification. Currently the province of retailers, the Lottery will assume the ultimate responsibility of assuring that online players are at least 18 years old and that they are who they say they are; i.e., there is no identify fraud.
- Problem gambling. Currently with a passive role regarding problem-gambling issues among customers (awareness, referral), the Lottery will be in a position to provide online customers with a variety of tools to monitor and restrict their gambling expenditures. Further, the Lottery will be collecting a trove of data that should prove valuable to researchers in the problem-gambling field.

While the first two responsibilities noted above are required by law, the extent to which the Lottery chooses to offer tools to help with problem-gambling issues may be guided by its own policies and goals – as well as emerging best practices from other online gambling operators

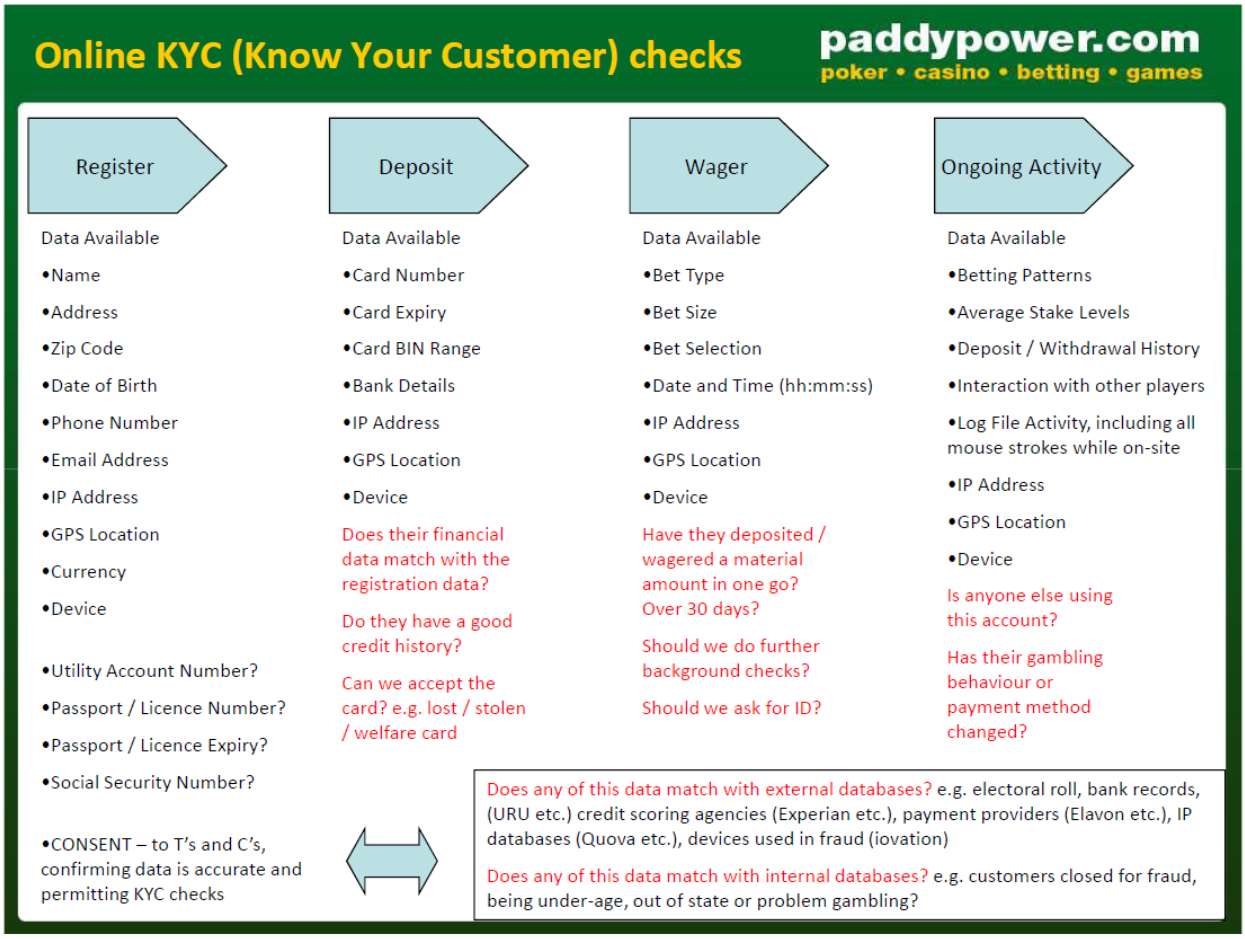
and problem-gambling organizations. (We address that issue in a following chapter of this report.)

Location and age verification, while not one in the same, nevertheless do use similar know-your-customer ("KYC") technology to answer critical questions, including:

- Is the customer who he purports to be?
- Is he a resident?
- Is he located within the gaming jurisdiction?
- Is he of legal gambling age?

The intrinsic, data-driven nature of the Internet makes age and location verification a straightforward and objective process, with multiple checkpoints along the registration, deposit and wagering processes. The following presentation slide from Paddy Power North America, whose parent company is a prominent online gambling operator based in Ireland, provides a useful snapshot of commonly used verification processes and tools.

Figure 20: Representative gaming know-your-customer checks for online gambling



Source: Paddy Power North America, 2012 presentation

Paddy Power, like any credible provider of age, residency and location technology, cautions that no verification system is foolproof. There will always be those seeking to break the law, manipulate the technology, or deceive the system, but the tools available in online gambling systems are generally superior to human judgment (i.e., a lottery retail cashier or casino security) because they rely on – and capture – verifiable data. As Paddy Power advises: "'Perfect' is the enemy of good – put the best possible framework in place and adopt a risk-based approach to issues."

An operator of online play – such as the Massachusetts State Lottery – should employ registration and geolocation processes that meet industry best practices at the time of implementation. At present, customer-identity verification checkpoints include the personal information cited in the figure above. In addition, operators – through their own system or through age- and identity-verification companies – can access government records and/or credit records to cross-check identities. (Credit checks are used for purposes of identification only, not to evaluate a patron's credit history.)

It is important to note that the burden of proof of identification is on the patron – not on the operator. Any credible verification system will reject a patron if the necessary data cannot be verified. If the online checks fail to verify a patron's age, identity or location, the Lottery should have an option of allowing patrons to physically present documents – such as a Passport, driver's license, tax notice or utility bill – at authorized Lottery offices as the proof needed to establish an online-play account.

Further, the Lottery should make it known to patrons – as other online operators do – that they are not free and clear once they have been approve for wagering. The Lottery should reserve the right to request age or identity documentation from a client at any time and to suspend a patron's account until the verification is provided. The Lottery should also reserve the right to void all transactions and return all deposits to anyone who is discovered to be under age 18. The Lottery should establish a framework with the relevant Commonwealth law enforcement department to seek prosecution of those online patrons who commit identity, location or age fraud. The Lottery should post these enforcement warnings conspicuously during the registration process and at each log-on.

It is also important to note that, due to the rapid pace of technology improvements, verification systems currently in use may not necessarily be the industry standard at the time of the Lottery's online-play implementation. In any event, the Lottery should have an abundance of bidders to provide its online-play platform; that competition will, in Spectrum's opinion, ensure that the Lottery will be able to choose from the best providers of age, identify and location verification systems. Importantly, the Lottery should require that the bidders' hardware, software, peripheral devices and communications systems for age, identity and location pass third-party verification testing by an accredited testing company.

With respect to location verification – i.e., that the patron is wagering within Massachusetts' borders – there are two primary methods to identify where the device is located: The IP address and a wireless/satellite signal:

- The IP (Internet protocol) address is a unique number assigned to Internet-connected computer. This address can identify the location of users through any Internet device that has a land-based connection.
- Global positioning satellite signals can be used determine accurate location of mobile devices employing GPS (global positioning system**).** GPS is even more effective when assisted by GSM (Global System for Mobile communication) wireless network data.
- Mobile devices that are connected to a Wi-Fi land connection while also on a mobile-phone network can provide even greater location accuracy through Wi-Fi/cell tower triangulation.

The most effective geo-location products utilize a mix of multiple technologies including all of the above and more to attain the most exact location fix possible and shrink the radius of the circle to a point. Experts, however, caution that location verification is an inexact science. "You're going to get it wrong some of the time," John Summers, a vice president with Cambridge-based Akamai, a global Internet services firm, advised the Working Group in an August 23, 2012, presentation. For instance, Summers said, it is possible that a New Hampshire border resident might be able to play the Massachusetts State Lottery online based upon geolocation alone. Multiple technologies are important, in addition to increasing the accuracy or geo-location, for minimizing the opportunity for fraud because single technologies can be fooled or "spoofed" by hackers. For example, GPS spoofing or hijacking involves broadcasting a stronger GPS signal with misleading location information which overrides or hijacks the legitimate signal and tricks the GPS tracker into believing that the user device is somewhere else. University of Texas researches used GPS spoofing to successfully hijack a drone aircraft in a Department of Homeland Security demonstration earlier this summer.[107]

The intent of any geolocation system is to minimize the margin of error. Two important actions, as noted above, will help to reduce the chance of location error: require location-verification providers to undergo testing by an independent testing laboratory, and engage in a robust identity check to ensure that the patron is a Massachusetts resident. So long as the Lottery engages in the best practices for verifying a patron's identify, age and location, it cannot be reasonably – or likely legally – responsible for those who choose to cheat its stringent controls.

[107] GPS Hijacking Catches Fed, Drone Makers Off Guard, Lorenzo Francheschi-Bicchierai, Wired Magazine, July 19, 2012.

L. Traditional Lottery Sales, Before and After Casinos

In this section, we examine impact to traditional lottery sales following entry of casino gambling in Delaware, Rhode Island, and Pennsylvania. Each of the three states had a well-established lottery in place before casinos. We believe relevant similarities exist (or existed) in each of these three states with respect to the potential casino landscape in Massachusetts:

- Each state's casinos are geographically dispersed.
- Initially, casinos in each of these states had limited gambling offerings (i.e., slots/VLTs only in Delaware and Pennsylvania until live table games became operational during summer of 2010; Rhode Island does not offer table games).
- The Delaware and Rhode Island casinos are direct functions of their lotteries; Pennsylvania's are not.

The casino landscape in each state:

- Delaware has three casinos. The first two opened in late 1995 and the third opened in latter half of 2006. Importantly, at inception (and until 2010) each casino offered only VLTs. The entire population of Delaware is within a reasonable one-hour drive of one or more of Delaware's casinos.
- Pennsylvania has 11 casinos, with the first opening in November 2006. The 11 casinos are located in seven metropolitan statistical areas. The two most populous metropolitan areas (Philadelphia and Pittsburgh) are collectively home to six of the casinos. Some 83 percent of Pennsylvania adults are within a reasonable one-hour drive time of an in-state casino.
- Rhode Island has two casinos, both at pari-mutuel facilities and both commenced operations in 1992. The entire population of Rhode Island is easily within a reasonable one-hour drive of either casino.

1. Delaware

The following table shows total sales results for Delaware Lottery over the last two decades, segmented into five-year periods. The data are for fiscal years ended June 30. The first five-year period (1991-95) show sales exclusively from traditional lottery offerings, as casinos were not operational until FY1996. Each of the three successive five-year periods shows lottery sales inclusive of revenue/impact from VLTs.

Figure 21: Delaware Lottery sales data, 1991-2010

Delaware Lottery	FY	Traditional (Instant/Draw)	Video (VLTs)	Sports Betting & Table Games	Total DE Lottery
Lottery Sales, avg. annual ($M)	*1991-1995*	*$90.1*	*$0.0*	*$0.0*	*$90.1*
	1996-2000	$117.5	$298.1	$0.0	$415.6
	2001-2005	$108.2	$540.7	$0.0	$648.9
	2006-2010	$122.7	$595.2	$2.8	$720.7
Lottery Sales as % of Total	*1991-1995*	*100.0%*	*0.0%*	*0.0%*	*100.0%*
	1996-2000	28.3%	71.7%	0.0%	100.0%
	2001-2005	16.7%	83.3%	0.0%	100.0%
	2006-2010	17.0%	82.6%	0.4%	100.0%
$ per Capita	*1991-1995*	*$129*	*$0*	*$0*	*$129*
	1996-2000	$155	$393	$0	$548
	2001-2005	$132	$660	$0	$792
	2006-2010	$140	$681	$3	$825

Source: Delaware Lottery, Demographicsnow.com

As illustrated, on a per-capita basis traditional lottery sales have been greater with instate casinos than without them. From 1991-1995 average annual per-capita sales were $129; over the first five-year period with casinos operational (1996-2000) average annual per-capita sales from traditional lottery were at $155, or 20.3 percent higher.

Over the last decade, which includes casino competition beginning neighboring Pennsylvania in 2006, on a per-capita basis traditional lottery sales still remain greater than they were without any casino competition (whether in-state or in Pennsylvania).[108] Traditional lottery sales have averaged $142 annually on a per-capita basis over the 15-year period with casinos, or 10.4 percent greater than the five-year period without them.

2. Pennsylvania

The following table shows annual lottery sales and casino revenue over a 10-year period (2002 to 2011), segmented into two five-year periods (i.e., pre-casino and post-casino years). The first two casinos opened in Pennsylvania in the latter half of 2006 (FY2007), while through FY2011 there were 10 casinos in operation.

[108] New Jersey's casinos (all in Atlantic City) have been operational since 1978; Maryland's first casino did not begin operating until September 2010 (Delaware FY2011).

Figure 22: Pennsylvania Lottery sales and PA casino revenue (2002-2011)

Pennsylvania	FY	PA Lottery	Casinos	Lottery + Casinos
Lottery Sales & Casino Revenue ($M)	2002	$1,934.2	$0.0	$1,934.2
	2003	$2,133.0	$0.0	$2,133.0
	2004	$2,352.1	$0.0	$2,352.1
	2005	$2,644.9	$0.0	$2,644.9
	2006	$3,070.3	$0.0	$3,070.3
	2007	$3,076.3	$466.0	$3,542.3
	2008	$3,089.2	$1,503.6	$4,592.8
	2009	$3,088.2	$2,008.4	$5,096.6
	2010	$3,065.7	$2,626.8	$5,692.6
	2011	$3,207.9	$3,415.8	$6,623.7
	2002-2006	*$2,426.9*	*$0.0*	*$2,426.9*
	2007-2011	*$3,105.5*	*$2,004.1*	*$5,109.6*
	Variance	*28.0%*	*n/a*	*110.5%*
$ per Capita	2002	$156	$0	$156
	2003	$172	$0	$172
	2004	$189	$0	$189
	2005	$212	$0	$212
	2006	$245	$0	$245
	2007	$245	$37	$282
	2008	$245	$119	$364
	2009	$244	$159	$403
	2010	$241	$207	$448
	2011	$251	$267	$518
	2002-2006	*$195*	*$0*	*$195*
	2007-2011	*$245*	*$158*	*$403*
	Variance	*25.7%*	*n/a*	*106.9%*

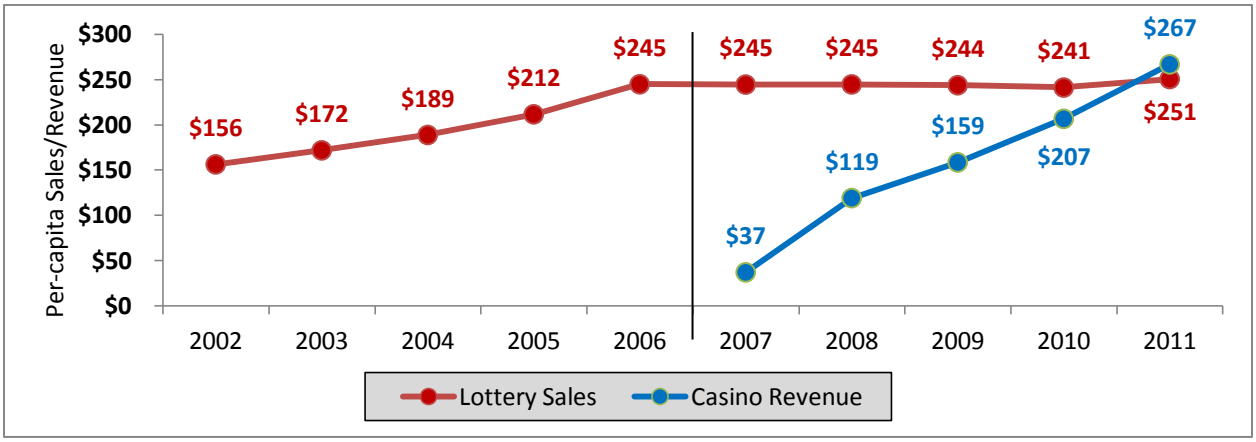
Source: Pennsylvania Lottery, Pennsylvania Gaming Control Board, Demographicsnow.com

As illustrated, on a per-capita basis among the two five-year periods, lottery sales have been greater with in-state casinos than without them. From 2002-2006, average annual per-capita sales were $195; they were $245, or 25.7 percent higher, after casinos opened.

It is important to note that prior to the most recent year presented (2011), the greatest per-capita sales value over the nine-year period occurred in 2006 (at $245), which was the final year of lottery sales before the first casino opened. From this peak, overall per-capital lottery sales were stagnant in 2007-2008 and receded in 2009-2010 before rebounding in 2011. While it is difficult (or may even be impossible) to prove a causal relationship exists among the decline in per-capita lottery sales and growth of casinos, this stagnation/decline in per-capita lottery sales did occur over a four-year period of rapid expansion of casinos in Pennsylvania; however, this was also a period of economic recession.

The following graphic illustrates the 10-year trend/juxtaposition of per-capita lottery sales and per-capita casino revenue in Pennsylvania.

Figure 23: Pennsylvania – per-capita lottery sales and casino revenue, 2002-2011



Source: Pennsylvania Lottery, Pennsylvania Gaming Control Board, Demographicsnow.com

The following table provides the 10-year trend of lottery sales in Pennsylvania compared to lottery sales data in three neighboring states (where casino expansion activities did not occur, were limited, or in the case of New Jersey were operational and well established prior to this period).[109] The red line indicates when the first casino opened in each state, where relevant.

Figure 24: Pennsylvania and select neighboring states lottery sales, 2002-2011

Lottery Sales ($M) / Fiscal Year	Pennsylvania		Maryland		New Jersey		Ohio		MD/NJ/OH	
	Sales	Var.	Sales	Var.	Sales	Var.	Sales	Var.	Sales	Var.
2002	$1,934.2		$1,306.5		$2,068.5		$1,983.1		$5,858.2	
2003	$2,133.0	10.3%	$1,322.2	1.2%	$2,073.8	0.3%	$2,078.2	4.8%	$5,974.7	2.0%
2004	$2,352.1	10.3%	$1,395.4	5.5%	$2,186.7	5.4%	$2,154.7	3.7%	$6,260.9	4.8%
2005	$2,644.9	12.4%	$1,485.7	6.5%	$2,273.8	4.0%	$2,159.1	0.2%	$6,466.0	3.3%
2006	$3,070.3	16.1%	$1,560.9	5.1%	$2,405.9	5.8%	$2,220.9	2.9%	$6,760.5	4.6%
2007	$3,076.3	0.2%	$1,577.3	1.1%	$2,350.9	(2.3%)	$2,259.4	1.7%	$6,753.2	(0.1%)
2008	$3,089.2	0.4%	$1,673.0	6.1%	$2,538.5	8.0%	$2,325.1	2.9%	$7,137.4	5.7%
2009	$3,088.2	(0.0%)	$1,698.1	1.5%	$2,503.3	(1.4%)	$2,417.7	4.0%	$7,216.1	1.1%
2010	$3,065.7	(0.7%)	$1,706.6	0.5%	$2,605.1	4.1%	$2,490.2	3.0%	$7,408.4	2.7%
2011	$3,207.9	4.6%	$1,714.4	0.5%	$2,636.4	1.2%	$2,601.0	4.4%	$7,558.9	2.0%
2006-10	0.0%		2.3%		2.0%		2.9%		2.3%	
2006-11	0.9%		1.9%		1.8%		3.2%		2.3%	

Source: Pennsylvania Lottery, Maryland Lottery, New Jersey Lottery, Ohio Lottery. Red line indicates pre-/post-casino activities.

As illustrated, during its first four years coexisting with in-state casinos, the Pennsylvania lottery had a statistically flat level of sales growth while collectively the three neighboring states depicted experienced average annual sales growth of 2.3 percent. While sales for the Pennsylvania lottery rebounded to a then-record level in 2011, the average annual growth with

[109] New Jersey had casinos in Atlantic City since 1978; while Maryland casinos (VLTs) became operation in FY2011; and no casino opening in Ohio.

casinos (2006-2011) still lags the neighboring states (at 0.9 percent for Pennsylvania compared to 2.3 percent overall for the three neighboring states).[110]

The following table provides the 10-year trend of lottery sales in Pennsylvania compared to lottery sales data in three neighboring states on a per-capita sales basis.

Figure 25: Pennsylvania and select neighboring states per-capita lottery sales, 2002-2011

Lottery Sales ($M) / Fiscal Year	Pennsylvania		Maryland		New Jersey		Ohio		MD/NJ/OH	
	per Capita	Growth	per Capita	Growth	per Capita	Growth	per Capita	Growth	per Capita	Growth
2002	$156		$242		$244		$174		$232	
2003	$172	9.9%	$243	0.3%	$243	(0.2%)	$182	4.6%	$236	1.6%
2004	$189	9.9%	$255	4.6%	$255	5.0%	$189	3.5%	$246	4.4%
2005	$212	12.1%	$269	5.6%	$264	3.5%	$189	0.0%	$253	2.9%
2006	$245	15.7%	$280	4.2%	$278	5.3%	$194	2.7%	$263	4.1%
2007	$245	(0.1%)	$280	0.2%	$271	(2.7%)	$197	1.6%	$262	(0.5%)
2008	$245	0.1%	$295	5.2%	$291	7.5%	$202	2.7%	$276	5.3%
2009	$244	(0.4%)	$297	0.6%	$286	(1.8%)	$210	3.8%	$278	0.7%
2010	$241	(1.1%)	$296	(0.4%)	$296	3.6%	$216	2.8%	$284	2.2%
2011	$251	3.9%	$294	(0.4%)	$298	0.6%	$225	4.3%	$288	1.6%
2006-10	-0.4%		1.4%		1.6%		2.7%		1.9%	
2006-11	0.5%		1.0%		1.4%		3.1%		1.8%	

Source: Pennsylvania Lottery, Maryland Lottery, New Jersey Lottery, Ohio Lottery. Note: red line indicates pre-/post-casino activities.

As illustrated, during its first four years coexisting with in-state casinos, on a per-capita basis, the Pennsylvania lottery had negative sales growth (-0.4 percent through 2010), while collectively the three neighboring states depicted experienced average annual sales growth of 1.9 percent. Although Pennsylvania lottery sales rebounded in 2011, the average annual growth in per-capita lottery sales since casinos still lags the neighboring states (0.5 percent vs. 1.8 percent).

Findings from the Pennsylvania Legislative Budget and Finance Committee corroborate our findings, as explained in this report[111] from Executive Director Philip R. Durgin:

> "... Prior to last year, none of these reports found compelling evidence that the operation of slots facilities had a substantial negative impact on Lottery sales on a statewide basis. Our 2011 report, however, concluded that, based on a comparison of Lottery sales in host counties, counties adjacent to host counties, and non-adjacent counties, the casinos do appear to have suppressed Lottery sales, at least in those counties that host a casino. ..."
>
> "While the rate of sales growth has slowed significantly since the introduction of casino gaming, we attribute the slowdown primarily to unprecedented growth in sales in the

[110] The Pennsylvania Lottery reported sales revenue of $3.48 billion in FY2012.

[111] The Impact of Slots on the Pennsylvania State Lottery, report presentation by Philip Durgin at May 23, 2012 meeting, http://lbfc.legis.state.pa.us/reports/2012/52prs.PDF.

four-year period between FY 2002-03 and FY 2005-06. Various factors, including a substantial expansion of the Lottery retailer network and Pennsylvania's entry into the multistate Powerball jackpot game, led to the rapid growth in Lottery sales during these years."

3. Rhode Island

The following table shows total sales results for Rhode Island Lottery over the last 25 fiscal years ended June 30. There were no VLTs prior to FY1994 (shown by the red line).

Figure 26: Rhode Island lottery sales (total and per-capita), 1998-2012

Lottery Sales / Fiscal Year	Total Sales ($M)			Per-capita Sales		
	Traditional (non-VLT)	Video (VLTs)	Total RI Lottery	Traditional (non-VLT)	Video (VLTs)	Total RI Lottery
1988	$61.3	$0.0	$61.3	$62	$0	$62
1989	$61.0	$0.0	$61.0	$61	$0	$61
1990	$65.8	$0.0	$65.8	$66	$0	$66
1991	$65.7	$0.0	$65.7	$65	$0	$65
1992	$64.5	$0.0	$64.5	$64	$0	$64
1993	$105.1	$0.0	$105.1	$103	$0	$103
1994	$138.5	$27.6	$166.1	$136	$27	$163
1995	$119.2	$57.0	$176.2	$116	$56	$172
1996	$133.6	$86.6	$220.2	$130	$84	$214
1997	$136.4	$112.3	$248.7	$132	$109	$240
1998	$170.0	$131.5	$301.5	$164	$127	$290
1999	$195.7	$155.3	$351.0	$187	$149	$336
2000	$193.3	$194.7	$388.0	$184	$186	$370
2001	$207.0	$229.1	$436.1	$197	$218	$416
2002	$235.7	$281.0	$516.7	$225	$268	$492
2003	$239.0	$314.7	$553.7	$228	$300	$528
2004	$249.4	$358.9	$608.3	$238	$342	$579
2005	$241.9	$399.2	$641.1	$230	$380	$610
2006	$261.1	$416.5	$677.6	$248	$396	$645
2007	$244.8	$416.7	$661.6	$233	$396	$629
2008	$241.2	$477.8	$719.0	$229	$454	$684
2009	$238.5	$460.9	$699.4	$227	$438	$665
2010	$234.6	$467.8	$702.4	$223	$444	$667
2011	$230.6	$492.6	$723.2	$219	$469	$688
2012	$249.5	$527.3	$776.8	$238	$502	$740
1989-93	***$362.1***	***$0.0***	***$362.1***	***$72***	***$0***	***$72***
1995-99	***$754.9***	***$542.8***	***$1,297.7***	***$146***	***$105***	***$251***

Source: La Fleur's World Lottery Almanac 2012, Rhode Island Lottery

In the five full fiscal years before VLTs, per-capita lottery sales were $72 – vs. $251 in total lottery sales in the five years after VLTs. Excluding VLT revenue, traditional lottery sales per capita more than doubled following VLTs – from $72 to $146. We note that two Indian casinos opened in Connecticut in the 1990s, which may help to explain soft per-capita sales results in Rhode Island between FY1993 and FY1996.

4. Conclusion

We believe the examples from these three states render the direct impact of casinos on lottery sales as minimal or inconclusive. This macro-based analysis cannot adequately capture every aspect of impact on lottery sales occurring via externalities, especially the introduction and/or expansion of online gambling in the same jurisdiction. Some externalities may be variations in marketing and/or advertising initiatives, distribution channels, games offered, demographics, macro-economic conditions, competition in neighboring jurisdictions, etc. Additionally, the lottery does not operate in a vacuum so there may be similar externalities impacting other organizations (either complementary and/or competing) that rely upon discretionary income (as does the lottery).

M. Lottery Sales: Online Sales Impact

This section of report illustrates the impact if lottery online sales to traditional lottery sales in two other jurisdictions, British Columbia and Austria. These two examples were chosen because they were both early entrants into the Internet lottery sales market, because they both provide relatively transparent online revenue data, and also to provide geographic variety in taking examples from both Europe and North America.

1. British Columbia

The British Columbia Lottery Corporation ("BCLC") is tasked with conducting, managing, and operating all forms of gambling in British Columbia. BCLC began lottery operations in FY1985 and assumed responsibility for all online gambling in FY1998-99. In FY2004, BCLC introduced PlayNow.com for online play and the purchase of select lottery products. In FY2010, BCLC became the first North American operator of legal, regulated online casino games on PlayNow.com.

The following table shows annual BCLC sales results over its most recent five-year period (FY2008 through FY2012, with each fiscal year ended March 31). Sales data are shown in four distinct categories:

- Retail Network – convenience stores, gas stations, etc. selling lottery products.
- Hospitality Network – lottery products offered via lottery terminals in social settings, such as bars, pubs, restaurants.
- eGaming – lottery transactions through PlayNow.com, which includes both online lottery sales and sports betting (all years presented), as well as online casinos games that commenced in FY2010.
- Casinos and Community Gaming Centers – as of FY 2012 this includes 17 casinos (slots, table games and poker), 17 community gaming centers (slots only), as well as 10 bingo centers.

Figure 27: British Columbia Lottery– total and per-capita sales/revenue, 2008-2012

British Columbia Lottery Corporation	FY	Retail Network	Hospitality Network	eGaming (includes sports betting)	Casinos & Community Gaming centers	Total BCLC*
Lottery Sales ($M)	2008	$709.7	$248.5	$18.7	$1,582.3	$2,559.2
	2009	$710.7	$220.0	$23.5	$1,596.0	$2,550.2
	2010	$691.7	$212.6	$33.6	$1,579.4	$2,517.3
	2011	$807.5	$212.0	$42.9	$1,616.3	$2,678.7
	2012	$789.2	$206.6	$65.6	$1,640.0	$2,701.4
	Annual Growth	2.7%	(4.5%)	36.9%	0.9%	1.4%
Lottery Sales as % of Total	2008	27.7%	9.7%	0.7%	61.8%	100.0%
	2009	27.9%	8.6%	0.9%	62.6%	100.0%
	2010	27.5%	8.4%	1.3%	62.7%	100.0%
	2011	30.1%	7.9%	1.6%	60.3%	100.0%
	2012	29.2%	7.6%	2.4%	60.7%	100.0%
$ per Capita	2008	$312	$109	$8	$696	$1,126
	2009	$306	$95	$10	$688	$1,099
	2010	$291	$90	$14	$665	$1,060
	2011	$336	$88	$18	$672	$1,114
	2012	$324	$85	$27	$673	$1,109
	Annual Growth	0.9%	(6.2%)	34.5%	(0.8%)	(0.4%)

Source: British Columbia Lottery Corporation, BCStats

As illustrated, despite the proliferation of online gambling offerings since FY2010, per-capita lottery sales at retail locations were greater in the two full years with online gambling present (2011-2012) than they were in the two full years immediately prior – at $330 vs. $309 per-capita. However, per-capita sales/revenue within the hospitality network and at casinos and community gaming centers decline when comparing 2011-2012 to 2008-2009.

2. Austria

Casinos Austria and Austrian Lotteries operate online gambling in Austria through a joint subsidiary.[112] Through their online gambling portal www.win2day.at, the range of games includes traditional lottery games and casino-type games, including roulette, black-jack, slots, poker, and bingo. Online gambling began in February 2003. According to a study prepared by Media & Entertainment Consulting Network, through 2010 Internet sales per-capita in Austria were highest of 19 lotteries having comparable/similar Internet sales channels (based on select data from international lottery operators, primarily European, where both 2010 and 2009 data were publicly available for benchmarking purposes).[113]

[112] Casinos Austria, 2010 Annual Report.

[113] Media & Entertainment Consulting Network, "Lottery Benchmarking and Success Factors: Benchmarks, Success Factors, and Best Practices 3rd edition". London/Munich, September 2011.

The following table shows annual sales results for the Austrian Lottery over its most recent five-year period (2006-2010). Sales data are net of VLTs (which are operated through the Austrian Lottery).

Figure 28: Austrian Lottery – total and per-capita sales/revenue, 2006-2010

Austrian Lotteries & Casinos Austria	CY	Total Sales, net VLTs	Win2Day (Internet)	Remainder of Lottery, net VLTs
Lottery Sales ($M)	2006	$2,353.0	$969.7	$1,383.3
	2007	$2,527.3	$1,107.4	$1,419.9
	2008	$3,051.3	$1,398.6	$1,652.7
	2009	$3,168.5	$1,499.9	$1,668.6
	2010	$2,977.4	$1,435.6	$1,541.8
	Annual Growth	6.1%	10.3%	2.7%
Lottery Sales as % of Total	2006	100.0%	41.2%	58.8%
	2007	100.0%	43.8%	56.2%
	2008	100.0%	45.8%	54.2%
	2009	100.0%	47.3%	52.7%
	2010	100.0%	48.2%	51.8%
$ per Capita	2006	$285	$117	$167
	2007	$304	$133	$171
	2008	$366	$168	$198
	2009	$379	$179	$200
	2010	$355	$171	$184
	Annual Growth	5.7%	9.9%	2.4%

Source: Austrian Lottery, Casinos Austria, Statistics Austria. Euros have been converted to US dollars.

As illustrated, lottery sales (including online casino gambling) grew by 4.6 percent on an average annual basis over the five-year period; however, sales through the Internet channel grew by 8.8 percent over this period. On a per-capita basis, despite the surge in Internet sales, traditional lottery sales (i.e., remainder of lottery sales, net VLTs) have grown from 2006 to 2010, albeit at an average rate of only 1 percent per annum.

On a per-capita basis (based on Austria's total population of 8.27 million in 2006 to 8.39 million in 2010) and adjusted to US dollars, Austria's total lottery sales net of VLTs grew from $285 in 2006 to $355 in 2010. This growth has been driven through the Internet channel, as per-capita Internet sales grew from $117 in 2006 to $171 in 2010, which is average annualized growth of 9.9 percent.

Of Austria's Internet lottery sales, through 2010 over 90 percent were attributed to casino games rather than traditional lottery games.[114]

[114] Media & Entertainment Consulting Network, "Lottery Benchmarking and Success Factors: Benchmarks, Success Factors, and Best Practices 3rd edition," September 2011.

N. Substitution and Cannibalization Issues

There is no more hotly debated and more relevant question surrounding lottery Internet sales than whether the new channel might lead to cannibalization of existing products. All suppliers interviewed by the Task Force's Working Group have stated a common, blanket belief that there has been no cannibalization of traditional physical lottery sales in any European jurisdiction that has moved to offer an Internet lottery sales channel. This conclusion has been shared by several US lottery leaders in various testimony or dialogue with legislators and groups representing existing lottery retailers.

Intuitively, the expectation that instant tickets – rather than lotto games – may bear a disproportional substitution-like impact from the introduction of Internet scratch tickets stands to reason. Consider the product attributes of a big-jackpot lotto game. These unique attributes cannot be substituted for by a new electronic version of the same offering. Thus, as far as the impact on lotto games is concerned, the launch of a new Internet sales channel would offer only additional sales opportunities. There would be no category cannibalization because the Internet offers no substitution. However, the product attributes of the traditional instant scratch ticket (low-tier prizes, high payout percentage, and entertaining play styles) can easily be replicated via an electronic version and, in fact, these product attributes can be substantially improved upon in electronic form.

What is the relevance of this possible substitution effect? Consider that over the last 15 years, US lotteries have experienced a merchandising revolution that fundamentally changed and vastly enlarged the lottery business. This revolution has been characterized by the flip in product predominance from online, terminal-based games to instant-scratch games. Where once "lottery" in the United States usually meant lotto-type terminal games, today a US lottery is far more likely to be defined by instant scratch tickets. Twenty years ago most states earned far more from lotto than from instants. Ten years ago that ratio became reversed and today sales of instant tickets exceed sales of lotto games in every state. Massachusetts was at the forefront of this instant ticket revolution.

The focus on the instant ticket – and all of the merchandising, retailing and player-relationship differences which flow from it – is the single-biggest differentiator between the American and European lottery experiences over the last decade. By and large, European and Australian lotteries have been slower to adapt to the instant ticket merchandising revolution. Many European jurisdictions remain largely immune to the trend. The contrasts between the American and European markets are startling. In Massachusetts, sales of instant scratch tickets accounted for 69 percent of overall sales in the first quarter of 2012.[115] Yet in Finland, a European country with a population similar to Massachusetts at 5.4 million, sales of instant

[115] Massachusetts State Lottery sales data

scratch tickets account for only 11 percent of overall sales. The same percentage holds for Danske Spil in Denmark, another European country with population similar to Massachusetts at 5.6 million, and SCML in Portugal, a larger country with a population of 10.6 million, earns only 4 percent of its lottery sales from the instant-scratch product.

To assert with any reasonable confidence that a new product or initiative will perform in Jurisdiction "A" based on the performance and experience of Jurisdiction "B," one must first have a clear and firm understanding of how market and lottery operational conditions in those jurisdictions differ.

If, in fact, there is a substitution effect from the launch of Internet scratch tickets such that the sale of the physical scratch product would not be what they otherwise would be without the substitution, such a situation would have negligible effects on most European lottery operations. The lottery would see a dollar-for-dollar (or, more precisely, a Euro-for-Euro) substitute transaction and would benefit from facilitating the transaction via a more efficient, less expensive channel.

On one hand, the European lottery retailer would be negatively impacted from the substituted sale of the instant product, but that product line only accounted for roughly 10 percent to 15 percent of its overall lottery sales to begin with. Further, the retailer could be placated as its lottery finally deploys elements of the instant ticket merchandising revolution that were earlier deployed with such sales success in the United States. Such an approach would enable the retailer to see overall growth in the instant category even after the effect of Internet substitution was applied. Although this growth from improved merchandising at bricks-and-mortar retailers would likely be less it otherwise would have been without the Internet substitution, all parties are likely to be satisfied for some period.

Because – if draw games were not offered online – substitution would likely only impact instant scratch games, which are, for European lottery operators, a minor product category and because other as yet unused merchandising strategies remained available to mitigate even these small impacts, a European operator would rationally conclude that the opportunities available to the lottery via a direct Internet sales channel should be fully and completely exploited.

However, the impact of a possible substitution effect for most US lotteries would be considerably more significant given that the product line most likely to feel the effects of substitution accounts for such a larger percentage of the lottery's focus and revenue. From a strict revenue perspective, the state would not be impacted and the supplier would actually benefit. Like the European lottery, the state would realize a dollar-for-dollar substitution on the transactions and would derive financial benefit from the more efficient channel. The supplier would benefit to the extent that a portion of the 5 percent sales commission now going to the physical retailer would be redirected to the supplier as a fee for facilitating the Internet based transaction. The big impact of possible substitution in a jurisdiction which features high proportional sales of instant-scratch tickets would likely be felt operationally as customers substitute the newer, more convenient, more engaging form of a product for the older paper

version. Accepting and preparing for the political and operational consequences of such a possible transition would no doubt be one of the largest challenges facing US lottery managers.

1. Substitution Effect in Massachusetts

In November 2011, Governor Patrick signed the Expanded Gaming Act to legalize casinos. Just a month later, the US Department of Justice issued an opinion that effectively gives the right to states to individually regulate online gambling.[116] Several states have already begun drafting legislation to begin offering online gambling.[117] Illinois became the first state to introduce online lottery sales following the catalytic Department of Justice opinion, on March 25, 2012.[118] Although online gambling is by no means new, this new regulatory environment is likely to be a catalyst for a significant increase online gambling availability. Just as Massachusetts begins the process of determining the sites of the future casinos, it must now also consider how to deal with the new opportunity to offer gambling online.

Online gambling has many parallels to the casino debate. Both are cases in which the state government determines whether the industry can exist legally. Both industries have potential costs and benefits, many of which are not fully understood by policymakers and voters. Because the state has the responsibility to act in the best interest of its citizens, and because there are many unknowns, particularly surrounding the impacts of online gambling, a careful examination of the different issues is critical. In this chapter we consider some of the likely impacts if online gambling is introduced in Massachusetts. The major focus is on the "substitution effect" likely to occur with the introduction of online gambling.

a. Previous Literature

Online gambling is a relatively new phenomenon. Its popularity rose dramatically during the past decade, partially due to the popularity of the poker game no-limit Texas Hold'em. Poker tournaments became popular TV material in the 2000s, and as computer technology has advanced, it has facilitated more online gambling opportunities. As with many other issues related to cutting-edge technology, the academic literature lags far behind real-world developments.

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[116] This exempts sports gambling, as the opinion specifies that the Wire Act applies to sports betting. See Virginia A. Seitz (2011), "Whether proposals by Illinois and New York to use the Internet and out-of-state transaction processors to sell lottery tickets to in-state adults violate the Wire Act," Memorandum Opinion for the Assistant Attorney General, Criminal Division, US Department of Justice (issued 12-23-11; dated 9-20-11)

[117] For a brief discussion of likely changes, see Sue Schneider (2012), "Department of Justice deals a new hand in relation to online betting," Gaming Law Review and Economics 16(3): 79-80

[118] Judy Keen, "Illinois to become the first state to allow online lottery sales," *USA Today*, March 22, 2012.

Although there are no reliable revenue data for online gambling at this early date, a previous Spectrum study prepared for the National Indian Gaming Association reported that there were almost 2,700 online gambling sites operating worldwide in 2010.[119] The study reports a sharp increase in online gambling sites from 2001 through 2006. There were roughly 2,900 online gambling websites at the time the UIGEA was passed in 2006. There was then a modest decline for several years, but the trend again turned positive in 2008.

There have been few published studies on the economic impacts of Internet gambling on other industries. However, we review the few studies that have been published or that are in a working stage. As a basis for this discussion, it is useful to review what is known about the inter-industry relationships among more established gambling industries. This can give some insight into the likely impacts of online gambling in Massachusetts.

b. Inter-Industry Relationships

Numerous studies have examined the impacts of one gambling industry on another, but most of these studies are limited in terms of their scope and time period covered. A summary of some of the more relevant studies appears in the table below. The findings are mixed, and they suggest that the impacts on other related industries or state tax receipts depend on the industry and specific market in question.

One message that is clear from the studies summarized in the table below is that the "substitution effect" concern is real. The introduction of a gambling industry in a state can have a negative effect on other industries and even on tax revenues. Two studies that should be of particular interest to Massachusetts are those by Borg, Mason, and Shapiro (1993) and Kearney (2005). The Borg, et al. study shows that, while lotteries may reduce revenues in other industries, the overall tax revenues to states tend to increase with the introduction of lotteries. This makes sense because states typically keep around 50 percent of all lottery ticket sales. The study by Kearney shows that lotteries do not reduce revenues in other gambling industries.

[119] See p. 14, Spectrum Gaming (2010). "Internet Gambling Developments in International Jurisdictions: Insights for Indian Nations." White paper produced for the National Indian Gaming Association

Figure 29: Studies on the relationships among gambling industries

Paper	Years	States/Counties	Findings
Anders, Siegel, and Yacoub (1998)	1990-96	1 county (AZ)	Indian casinos cause a reduction in tax rev.
Borg, Mason, and Shapiro (1993)	1953-87	10 states	Lotteries cause a decline in some other tax rev., but total tax rev. increases
Elliot and Navin (2002)	1989-95	All states	Casinos and pari-mutuels harm lotteries
Fink, Marco, and Rork (2004)	1967-99	All states	Net increase in lottery rev. causes a decrease in state aggregate tax rev.
Kearney (2005)	1982-98	All states	Lotteries do not harm other forms of gambling
Popp and Stehwien (2002)	1990-97	33 counties (NM)	Indian casinos reduce county tax rev.
Siegel and Anders (1999)	1994-96	1 state (MO)	A 10% increase in gambling tax rev. leads to a 4% decline in other tax rev.
Siegel and Anders (2001)	1993-98	1 state (AZ)	Slots harm lottery; horse and dog racing do not affect lottery
Anders, Siegel, and Yacoub (1998)	1990-96	1 county (AZ)	Indian casinos cause a reduction in tax rev.

Source: Douglas M. Walker and John D. Jackson (2008), "Do US gambling industries cannibalize each other?" Public Finance Review 36(3): 308-333

A more recent study (Walker and Jackson, 2008) examined the inter-industry relationships for all states for these industries: casinos, lottery, horse racing and greyhound racing. The findings are summarized in the following table. This study was an improvement on the studies listed above because it was more comprehensive, using data on all industries in all states. But the data used are from 1985-2000. With the expansion of online gambling and the recent wave of commercial casinos in the late 2000s, these relationships could now be different. A final caveat is that, since the model incorporates data from all states during the 1985-2000 period, the specific relationships may not apply to a particular state at a particular time.

The following table indicates that the industry listed in the rows affect industries in the columns in a positive way [+] or negative way [-]. Parentheses () indicate that the results were not statistically significant. For example, the lottery has a negative impact on casinos, and a positive impact on dog and horse racing.

Figure 30: Summary of intrastate industry relationships

Model & Variables	Casino	Dog racing	Horse racing	Lottery
Casino		–	+	–
Dog racing	(–)		–	+
Horse racing	+	–		+
Lottery	–	+	+	
Indian casino sq. ft.	+	(+)	+	–

Source: Walker and Jackson (2008)

Of particular interest, the results above suggest that casinos and lotteries are likely to be substitutes for each other. However, the study by Walker and Jackson (2008) does not provide any information on the degree to which the industries affect each other. These results, in combination with those indicated in the first table above, suggest that the lottery in Massachusetts may be modestly harmed by the introduction of casinos. (Again, the academic

studies are not conclusive on this issue.) However, if there is a substitution effect, the introduction of online gambling may offset the decline in lottery revenues due to the introduction of casinos.

Overall, the academic literature is not in agreement on how different gambling industries affect each other. The literature is not very informative on how online gambling affects other industries. Next we review the few studies that offer some insight on this issue.

2. Online Gambling

The American Gaming Association commissioned a white paper on online gambling in 2011.[120] The paper discusses the legal developments that affect the availability of online gambling and it gives a general overview of the size of the industry. It does little, however, to address any substitution effects that may be relevant to the forthcoming expansion of online gambling in the United States

The paper by Philander (2011) is one of the few published papers that specifically examines the impact of online gambling on another gambling industry (i.e., on the casino industry).[121] The paper is limited to the pre-UIGEA period (pre-2006). The study finds that each dollar increase in online gambling leads to a $0.30 reduction in commercial casino revenues. However, the results also suggest that the introduction of online gambling in a state increases the overall revenues for the state, when considering the effects of the two forms of gambling only.[122] The study does not address the impact of online gambling on other types of spending.

Philander and Fiedler (2012) examine US and Canadian data on online and offline gambling, from 2009-10.[123] Their data indicate that online poker and offline (casino) gambling are complementary, rather than substitutes. The data for this study are more recent and the results are, therefore, perhaps more reliable than Philander's study (2011) which uses pre-2006 data.

A key concern for state lottery officials and lottery retailers is the extent to which the introduction of online gambling would affect traditional lottery ticket sales at retail outlets. This concern is justified because there is little empirical evidence on the impacts of state-sponsored online gambling. As noted earlier, Illinois became the first state to introduce online lottery sales following the revision of the Justice Department's stance on the 1961 Wire Act, in March 2012.

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[120] David Stewart (2011), "Online gambling five years after UIGEA." Washington, DC: American Gaming Association. americangaming.org

[121] Kahlil Philander, "The effect of online gaming revenue on commercial casino revenue," UNLV Gaming Research & Review Journal 15(2): 23-34

[122] Specifically, if a $1 increase in online gambling leads to a 30¢ decrease in casino revenues, then overall gambling revenues increase by 70¢.

[123] Kahlil Philander and Ingo Fiedler (2012), "Online poker in North America: Empirical evidence on its complementary effect on the offline gambling market." UNLV working paper

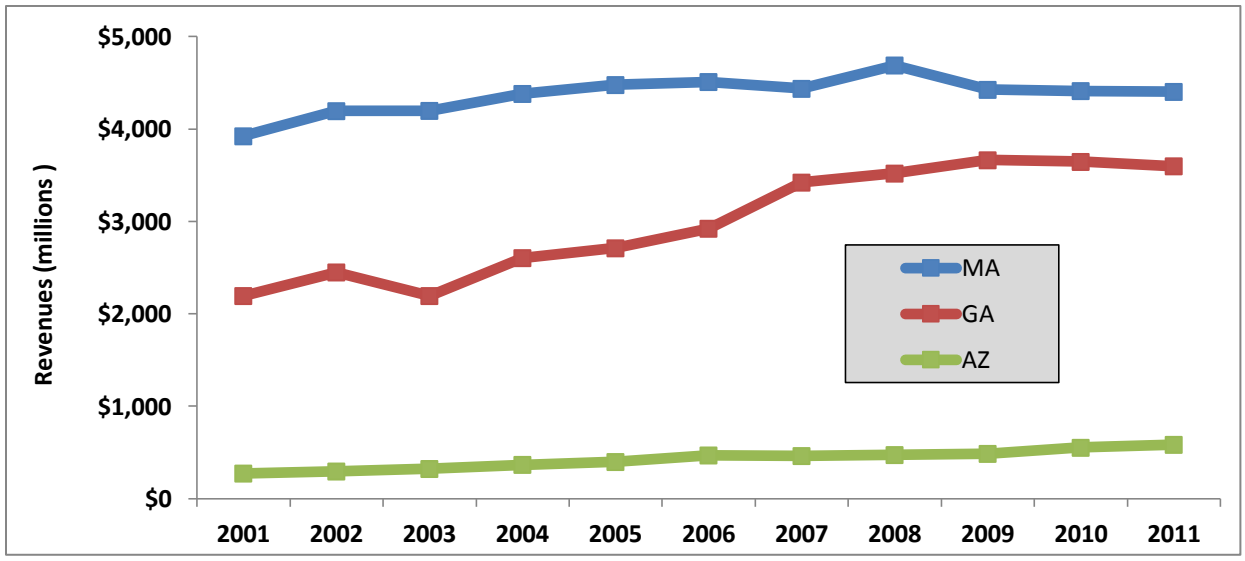
It is still too soon to determine the impact the online offerings have had on traditional lottery sales.[124]

a. Anecdotal Evidence

It is worth examining what anecdotal evidence is available for Massachusetts. Online gambling has been available to US citizens throughout the past decade. The 2006 UIGEA did affect how online gamblers paid and got paid, and the law did force many online gambling websites to move offshore. Nevertheless, citizens in Massachusetts and elsewhere could still gamble online if they wished to. However, the sale of lottery tickets has not generally been available online throughout the country.

One piece of anecdotal evidence to consider is how the Massachusetts State Lottery has performed as the popularity of online gambling has increased over the past decade. The following chart shows lottery revenues in Massachusetts and two other states for comparison.[125]

Figure 31: State lottery revenues, selected states, 2001-2011



Source: La Fleur's

Although Massachusetts has one of the largest lotteries in the US, the figure indicates that revenue has been relatively flat since 2005. Over the entire 2001-11 term, lottery revenues have clearly leveled off. This trend may be due to any number of factors, including the increased availability of casino gambling and other gambling opportunities, other consumption expenditures. The increasing availability of online gambling may also be a factor, but there is no

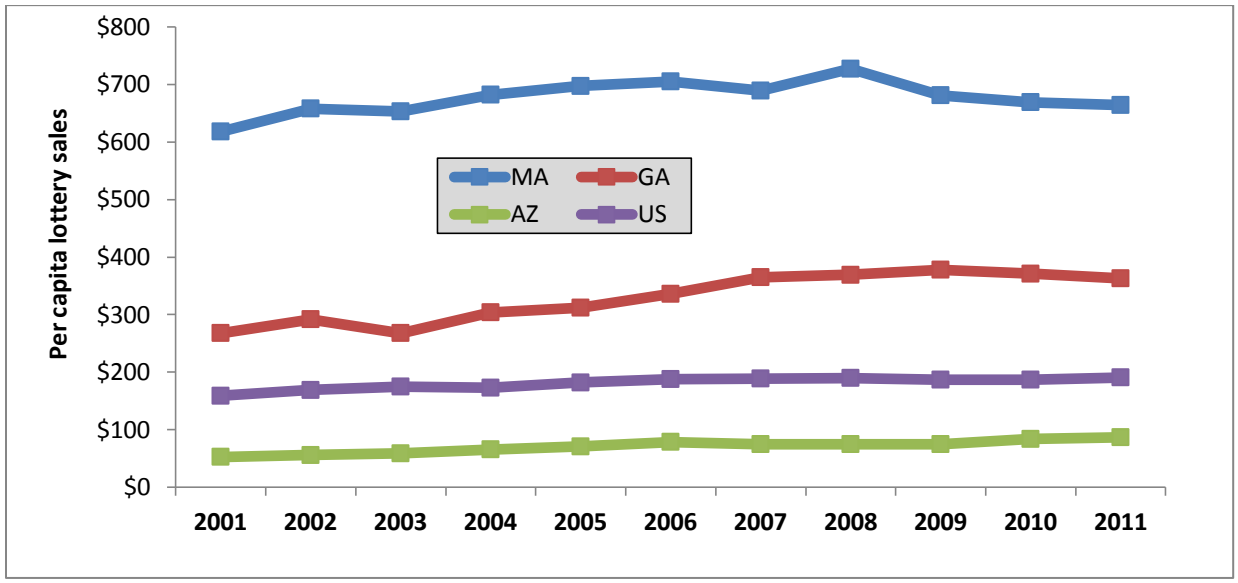
[124] The concern for lottery retailers was highlighted in a recent article. See Alexandra Berzon (2012), "State up the online ante," Wall Street Journal (April 25)

[125] Data source: La Fleur's Magazine annual fiscal reports, various years

indication that the existing availability of online gambling has had a major impact on Massachusetts lottery sales.

The following charts illustrate the same states lottery revenues in per-capita terms. Different states exhibit different trends, but like the US overall, per capita lottery sales in Massachusetts have been somewhat flat over the last decade. Since good online gambling data do not exist, it is difficult to ascertain exactly how online gambling may affect traditional lottery sales.

Figure 32: Per-capita lottery sales, selected states, 2001-2011



Source: La Fleur's

To the extent that online gambling and traditional lotteries are substitutes, we might have expected to see a blip in the data in 2006-07, immediately following the passage of the UIGEA, which presumably had a negative impact on online gambling, at least in the short term. Yet, no clear effect of this sort is noticeable in the data, particularly in Massachusetts. This raises doubt about the extent to which online gambling (in general) and lottery tickets are substitutes.

Since there is not much empirical work on which to base one's expectations about the likely impact of online gambling in Massachusetts on casinos and other businesses there, it is worth dissecting different facets of the economic and social impacts that are possible. Prior to moving on to this discussion, several assumptions are necessary. First, it is assumed that all online gambling that occurs within the state will originate in the state. That is, online gambling will only be allowed from within the state. We also assume that the minimum-age laws will apply and can be enforced. Both of these assumptions can be met with the latest Internet technology.[126]

[126] Dean Takahashi (2012), "Spoof-proof location authentication to help legitimize mobile gambling," Venturebeat.com

3. Experiences in Europe

As noted, evidence from existing Internet lottery jurisdictions suggests that any adverse impact upon conventional sales agents and retailers will be minimal. In the EU market, the introduction of online lottery play actually increased lottery sales in retail locations.[127] This was particularly true in Finland, Italy and the UK, when overall sales and commissions increased after launching an Internet channel.

Internet lottery suppliers and many national and provincial lotteries that now offer online products claim that the demographics of Internet purchasers are significantly different from traditional lottery purchasers and that introducing an Internet channel grows the total market much more than any cannibalization effect on existing sales. While it is obviously in the self-interest of Internet lottery operators and suppliers to make this claim, the wide distribution and consistency of the research strongly indicates that the Internet lottery player is a different person than the traditional lottery player. If this is true for the majority, then online sales will add more new lottery players than they convert from traditional sales channels and Internet sales will be incremental rather than cannibalistic.

GTECH cites several European examples for increased retail sales during and after the introduction of Internet sales. The most convincing example may be Finland, which first introduced online sales in 1997 and has seen retail sales grow by €1 billion since then, with 67 percent coming from traditional retail channels.[128] In Britain, which introduced online sales in 2003, overall lottery sales increased by almost £2 billion and retail commissions increased by more than 8 percent. In a more recent example, Belgium introduced Internet sales in 2010 and since then overall lottery sales have increased 16 percent with 73 percent of the increase coming from retail channels.[129] Scientific Games claims that retail sales grow faster for EU lotteries that have an Internet presence and argues that the online channel engages more players overall, drives many of them back to retail.[130] Paddy Power notes that its retail betting shops continue to flourish even though all of the products they offer can now also be found online.[131] Betware was the only vendor to advocate a strategy for immediately moving all current instant and draw games online, citing extensive previous experience in Europe, beginning in 1996, that confirms no negative impact upon traditional retail sales of the most popular scratch off and draw products.[132]

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[127] MECN Lottery Benchmarking Report; Sciplay Analysis

[128] GTECH presentation before the Treasurer's Online Products Task Force Working Group, April 10, 2012.

[129] Ibid.

[130] Scientific Games, *Massachusetts Connected* presentation, 2011.

[131] Paddy Power, MSLC Presentation, April 19, 2012.

[132] Betware, Response to Topics on Internet Gaming, April 19, 2012.

The key factors in avoiding cannibalization of traditional retail sales appear to be a measured introduction of online products, differentiation between online and offline instant games, and the attraction of a new and younger demographic to lottery play. Another factor is the addition of an entirely new advertising channel to support retail sales. Here again insight is provided from the European experience. Marcus Geiss, Executive Board Director of Tipp24 SE, a German online lottery broker, and a speaker at GiGse 2012, maintains that online advertising works to increase retail sales: "We have much advertising on our sites but only 1 percent click on the banner [advertisement]. A larger proportion, up to 20 percent of those who saw the ads, now go to the convenience store to buy lottery."

Demographic studies of European lottery players demonstrate that Internet players are younger than traditional lottery players and are much more likely to use mobile devices for Internet gambling. These findings are entirely consistent with the body of research comparing Internet gamblers with land-based gamblers in Europe. They are also consistent with research conducted in the United States that profiles players under 34 years old as much more likely to download and play games to their mobile devices.[133]

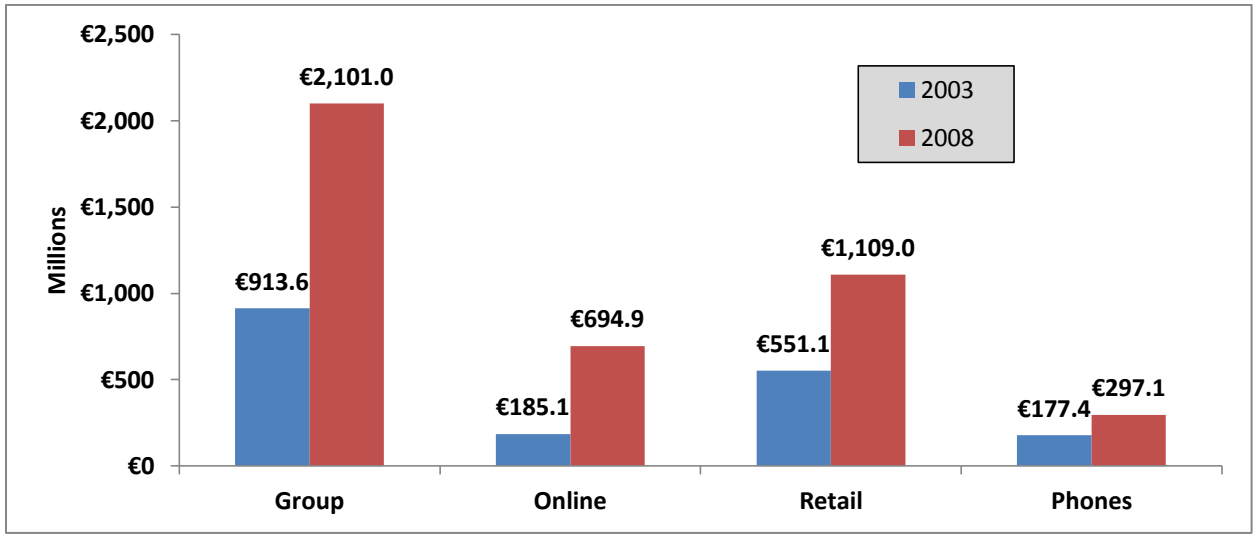
Data supplied to Spectrum Gaming Group by two of the major European online operators support the contention that Internet sales do not necessarily cannibalize traditional bricks and mortar retail sales of the same products. The first example was supplied by Paddy Power, whose 2011 financials show that 79 percent of operating profit was generated by the fast growing online segment.[134] Eamonn Toland, President of Paddy Power North America, provided data concerning the sports betting operation during the years when Internet sales were being implemented across a number of markets but principally in the UK and Ireland. Robust growth was driven by expansion into new markets. During this six-year period turnover, or volume of sales, for the sports betting group as a whole increased at a compound annual growth rate ("CAGR)" of 14.9 percent while gross gaming revenue ("GGR") increased at a CAGR of 15.5 percent. Online volume and sales increased most rapidly, growing at 25 percent and 28 percent, respectively, but retail volume and sales also increased, although at a lower rate, with 12 percent and 13 percent CAGR, respectively. Even traditional telephone volume and sales grew prior to the Great Recession, increasing at a compound annual rate of 9 percent and 8 percent, respectively, at the same time that Internet transactions became available.

Sports betting is well suited to Internet sales, as well as mobile transactions, which makes the sustained growth in retail sales and volume remarkable. The following charts illustrate the growth in sales volume and GGR for 2003-08.

[133] Parks Associates, Trends in Digital Gaming White Paper

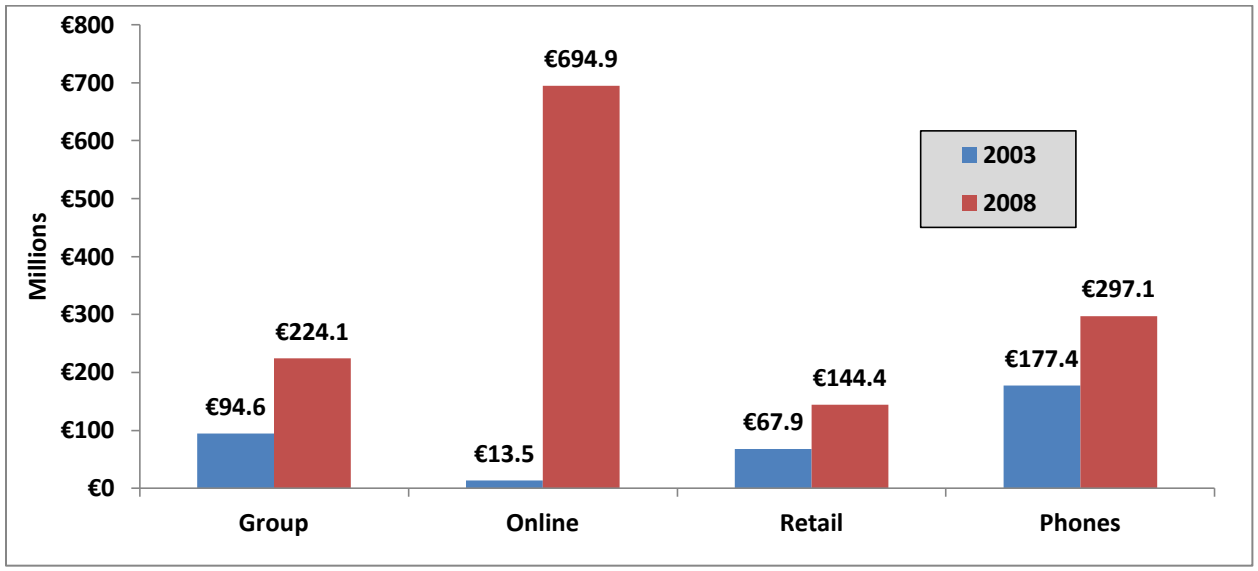
[134] Paddy Power, LLC, 2011 Annual Report

Figure 33: Paddy Power sportsbook turnover (volume) 2003-2008



Source: Paddy Power LLC

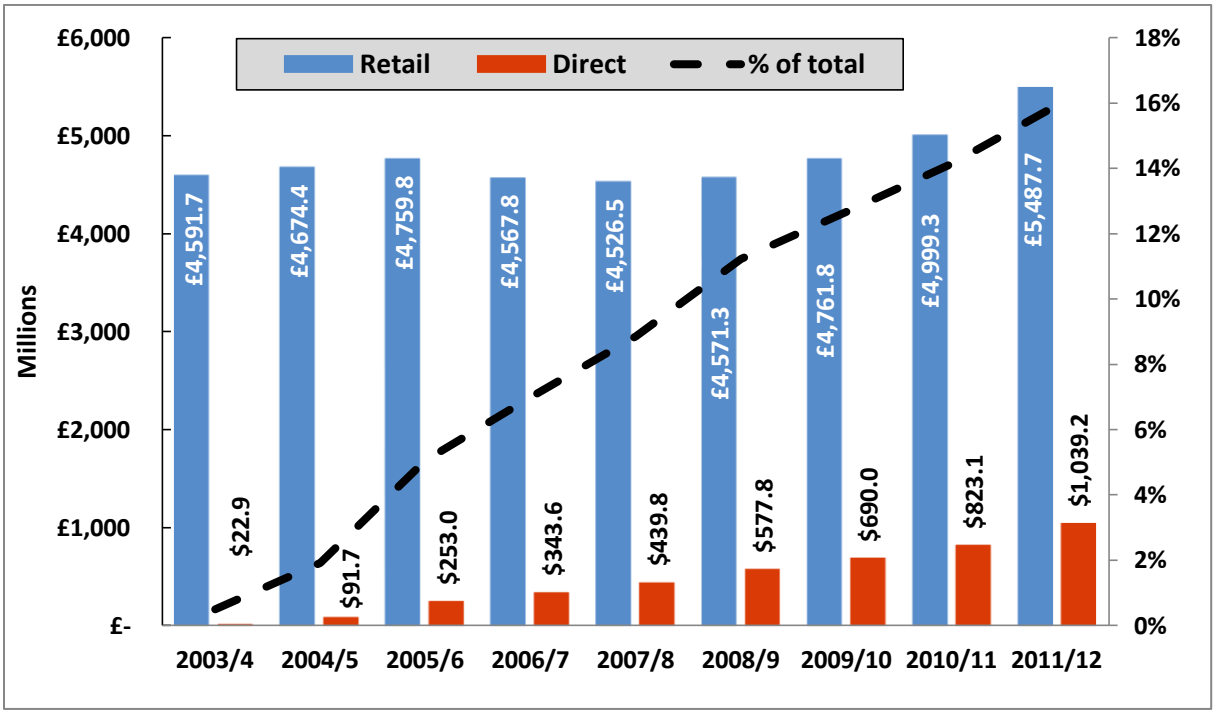
Figure 34: Paddy Power sports book gross gaming revenue (GGR) 2003-2008



Source: Paddy Power LLC

The second example, provided by Alex Kovach, Managing Director of Camelot Global Services, examines Internet lottery sales for the UK National Lottery. These data show a dip in total sales through the recessionary years 2006-09 but growth in the years thereafter. These data strongly suggest that the recession had more of an impact on retail lottery sales than did the implementation of Internet lottery sales. Internet sales have grown from nothing in fiscal 2004-05 to almost 4 percent of total sales in fiscal 2011-12. This chart illustrates that the strongest growth in UK National Lottery's online product sales have occurred in concert with comparable growth in retail sales.

Figure 35: UK National Lottery retail and interactive sales growth 2003/4-2011/12 (£M)



Source: Camelot

4. Substitution Effect: Understanding the Concerns

One of the major concerns about legalizing gambling, whether it is casinos or, now, online gambling, is that any additional economic activity resulting from legalized gambling comes at the expense of other industries. According to this argument, the introduction of online gambling would simply shuffle spending among industries, so that any positive employment or state revenue effects from gambling are offset by losses in existing industries, which see lower sales volumes and decreased employment. This is the "substitution effect" or "industry cannibalization" argument.

Theoretically, of course, this effect is no different than standard market competition that occurs when any new business opens in a market. New firms or industries promote economic efficiency, more variety, and lower prices – all of which are beneficial to consumers. Certainly it is true that casinos and online gambling may lead to reduced consumer spending on other goods and services. At the same time, however, there may be complementary industries that thrive with the introduction of casinos and online gambling. For example, the introduction of online gambling would create a new opportunity for entrepreneurs to create new software and applications for consumers.

Next we consider possible scenarios for how online gambling might affect retailers and casinos in Massachusetts. We limit the consideration of impacts to existing lottery retailers and casinos because these are the firms which are most likely to see a substitution effect because the

products offered online would be potentially competing with the new casinos in the state and lottery tickets purchased at retail stores. Presumably, the introduction of online gambling in Massachusetts would not attract any tourists. Nor would we expect that currently Massachusetts citizens are going out of state to engage in Internet gambling. So unlike the impacts of casinos, the potential impacts of online gambling are limited to the behavior or the existing people in the state.

a. Concern: Online Gambling Expenditures Divert Expenditures Away from Other (Non-Gambling) Industries

Suppose that online gambling expenditures represent spending that would have otherwise been spent on other entertainment, such as movies or bowling, or on other goods, but not at casinos or for purchasing lottery tickets. In this case, there is no substitution effect for other gambling industries. Then, assuming the tax rate applied to online gambling is greater than the general sales tax applied to other goods and services purchased in the state, the introduction of online gambling would represent a net increase in tax revenues for the state. The amount would be the difference in tax rates multiplied by the amount of spending.

The above analysis applies in the unlikely case that 100 percent of online gambling revenues represent diverted expenditures. It is very likely, however, that a substantial portion of the online gambling would represent new expenditures. The larger the proportion of new expenditures, the larger the increase in state lottery revenues or tax receipts will be.

Even to the extent that the availability of online gambling diverts expenditures away from other industries, this is to be expected with the introduction of any new product or service, and does not, in itself, warrant much concern beyond that which would be shown if a new restaurant chain was to open with locations across the state. Generally, more options for consumers lead to greater overall economic well-being.

b. Concern: Online Gambling Expenditures Come at Expense of Massachusetts' New Casinos

If Massachusetts introduces state-regulated online gambling, as many other states are likely to, there is obviously a concern that such an offering would harm the new casino industry in the state. Of course, the state also controls what types of gambling are allowed online and it could minimize any cannibalization of the casinos by not allowing casino games online. Still in this case, realistically, people can access online gambling, legal or not, regulated in the United States or not. One argument, then, is that if people will have access to it anyway, the state could benefit by regulating and taxing it itself. This way the state could ensure that the games are run fairly, meet other regulatory requirements, and pay taxes due.

Since casinos are new, if online gambling were introduced at about the time casinos open in the state, it would be difficult to discern whether or not the online gambling is affecting the

casinos. One recent paper on the issue (discussed earlier in this chapter) indicates that $1 of online gambling reduces casino gambling by 30 cents. If the state's concern is that casino revenues are decreased, then the state could levy a tax against online gambling operators (or a fee on consumers) and use this revenue to subsidize casino owners so that the casino owners were not harmed. However, if the concern is primarily with the state's tax receipts, then, as discussed earlier, online gambling taxes plus casino taxes would be greater than casino taxes alone.

Finally, it is likely that online gambling would be complementary to land-based casinos. Indeed, the paper by Philander and Fiedler (2012) indicates that online and offline gambling (i.e., casinos) are complementary. This suggests that the introduction of online gambling will generate revenues but will also increase interest in casinos. Perhaps some individuals who have never been to a casino try gambling online and decide that a casino visit may be fun. Although there is not much empirical evidence on the issue, what evidence does exists indicates that online gambling probably acts as a complement to casinos.

Casino customers are fairly representative of the US population.[135] Roughly 60 percent of casino visitors are over the age of 50. Presumably the average age of online gamblers is significantly younger. Although 25 percent of the US population claims to have participated in casino gambling in the past year, only 1 percent have participated in online gambling.[136] If online gambling and casino gambling appeal to different demographic groups, then certainly the two industries could benefit each other. Younger people who may get their first experiences gambling online may subsequently decide to try a casino. Conversely, individuals who enjoy casino gambling may decide to try their luck at online gambling too. The limited empirical evidence suggests that the two activities tend to be complementary.

c. Concern: Online Gambling Expenditures Come at Expense of Retail Lottery Ticket Sales

State-regulated online gambling is perhaps most likely to initially offer lottery ticket sales. Since retail outlets which sell lottery tickets receive a commission on their ticket sales, these retail locations may face a loss of commissions if a large proportion of existing lottery ticket sales were to move online. There is little research to guide us in analyzing this issue.

Perhaps the starting point for addressing this possibility is to acknowledge the likely demographic differences between online gamblers and people who buy lottery tickets at retail locations. As noted above, online gamblers are more likely to be young. They are also perhaps more likely to be going to the lottery website specifically to be buying lottery tickets. Whereas, a sizable proportion of retail lottery ticket sales may be spontaneous. In any case, as with casinos,

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[135] American Gaming Association's *State of the States* 2011, pp. 27-37

[136] State of the States 2011, p. 25

online gamblers may largely be a different demographic group that retail ticket purchases. This fact suggests that there will not be a significant substitution effect between online and retail lottery tickets.

From the perspective of lottery revenues, the introduction of online gambling will almost certainly increase the total lottery ticket sales because the introduction of online gambling provides a new opportunity that did not exist before. So the state's total revenues from the Lottery will almost surely increase with the introduction of online lotto.

As with the previous analysis of casinos, one could argue that some people may try lotto online for the first time, and subsequently decide to occasionally buy lottery tickets at retail outlets. In this situation, retailers benefit from the introduction of online gambling. Perhaps equally as likely, however, is the possibility that instead of going to the local gas station, lotto players decide to order their tickets online. This would reduce retail lotto sales and therefore the commissions received by the retailers. There is no good way of estimating the likely degree of substitution between the two options for purchasing lottery tickets.

If there is a great concern that the introduction of online lottery tickets would significantly reduce retail sales of tickets, the state could implement any variety of policies that could offset any losses to retailers. Several possibilities include:

- Increase the commission rate paid to lottery retailers at a rate that meets or exceeds the expected or calculated degree of substitution. This could be done by examining the trend in sales at retail locations to estimate how online sales are affecting retail sales.
- Charge a fee to consumers for online purchases and use the fee receipts to subsidize lottery retailers. This policy would have the additional effect of increasing the relative price of online tickets, which may steer some consumers to purchase from retailers instead of online. However, if the Internet is a convenience compared to going to a retail location, consumers should be willing to pay a small fee for the convenience.
- If the online lottery ticket customer's location can be determined, the lottery could pay a commission to the nearest retail lottery ticket seller (or nearest group of retail sellers) for each online ticket purchase. This policy would presumably eliminate any commission losses borne by retailers.[137]
- Allow consumers to designate a preferred retailer who receives commissions going forward on all online product purchases. For consumers who do not to designate a preferred retailer, use standard commission to create a pool for reimbursing all retailers on a pro-rated basis based on sales of specific products. (Loto-Quebec model)

[137] Russell Sobel, Visiting Scholar, Adjunct Professor, College of Charleston.

- Utilize a pre-paid card available for sale only at Lottery retail locations to fund all online product purchases. (Delaware and Georgia model)

The introduction of any new good or service would, theoretically, lead to an increase in consumer spending. Since lottery tickets and casino games are already offered in the state (or will be soon, in the case of casinos), it is unclear the extent to which the introduction of online gambling will increase overall consumers spending. It is likely to be a positive impact, of course, but it is difficult to estimate the net impact in advance of actual experience.

5. Substitution, Cannibalization: Summary

We have considered some of the positive economic impacts that are typically linked to the introduction of casinos. These impacts are less likely to follow the introduction of online gambling. This suggests that increased tax revenues (or, for the Lottery, profits for local aid) for the state are the likely primary benefit from the introduction of online gambling.

Since other states and jurisdictions are likely to begin offering online gambling, and since such opportunities already exist offshore, the issue is this: Massachusetts can capture tax dollars that would otherwise be going outside the state through the introduction of online gambling. This policy change would be unlikely to have any significant negative impacts on other industries, and would not likely significantly increase the overall amount of gambling in the state.

The introduction of online gambling is going to affect casinos and the traditional lottery. From the state's perspective, the goal should be to optimize tax revenues from the combination of legalized gambling offered in the state. As new technologies are introduced and as markets develop, some firms or industries may see losses, but this is how markets work. Each firm and industry must try to remain competitive to fight for consumers' business.

Online gambling in the United States is still relatively new and presents challenges for existing gambling industries. But the introduction of new goods and services, and newer technologies almost always increases standards of living. So policymakers should not seek to prevent such changes, but rather determine the optimal way to guide them toward the benefit of the citizens.

Given the recent academic literature which relies on the most recent data, we can summarize as follows:

- Different forms of gambling may act as substitutes or complements, depending on the industries and jurisdictions.
- Online gambling has the potential to be complementary to offline gambling. In the worst case, the introduction of online gambling acts as a modest substitute, but leads to a net increase in total gambling revenues.

O. Projecting Massachusetts Lottery Sales

Through FY2012 (fiscal year ended June 30) the Massachusetts State Lottery had annual sales of $4.74 billion, or per-capita sales of approximately $717. Over the last 10 years (2003-2012) average per-capital sales were $689, while over the last five years average per-capita sales were $694. The following table shows total/average annual sales data for the Lottery, along with state population estimates and derived per-capita sales figures over the last 10 years.

Figure 36: Massachusetts State Lottery – total and per-capita sales, 2003-2012

FY	Lottery Sales ($M)	Population (M)	Per-Capita Sales
2003	$4,204.6	6.408	$656
2004	$4,381.8	6.428	$682
2005	$4,482.9	6.447	$695
2006	$4,524.1	6.467	$700
2007	$4,460.8	6.487	$688
2008	$4,709.3	6.507	$724
2009	$4,442.9	6.527	$681
2010	$4,423.7	6.547	$676
2011	$4,428.0	6.578	$673
2012	$4,741.4	6.608	$717
2003-2012	*$4,480.0*	*6.500*	*$689*
2008-2012	*$4,549.1*	*6.554*	*$694*

Source: Massachusetts State Lottery

Next, we show Lottery sales projections annually through FY2017 under three distinct scenarios, along with three cases for each scenario (i.e., low-case, expected, and high-case). The following are the scenarios and a brief description of each:

- **Status-quo** – assumes no lottery Internet sales through 2017. Essentially, total lottery sales are projected for future years based on assumptions related to per-capita sales projections, coupled with inflationary growth.
- **Phased Engagement Strategy** – assumes phased Internet sales initiatives in six-month increments effective FY2014. This includes five phases:
- Phase 1, New Casual & Social Games – effective July 1, 2013 (FY2014)
- Phase 2, Lotto & keno – effective January 1, 2014 (FY2014)
- Phase 3, Draw-based Games – effective July 1, 2014 (FY2015)
- Phase 4, Instant & "Scratch" Games – effective January 1, 2015 (FY2015)
- Phase 5, "Red" & Casino Style Games – effective July 1, 2015 (FY2016)
- **All Internet Initiatives effective July 1, 2013** – assumes launch of the five phases simultaneously, effective FY2014.

Assumptions

We assume the FY2012 sales per-capita value is the benchmark to apply in our forward-looking sales projections (under each of the three scenarios presented). The US Congressional Budget Office forecasts growth in the Consumer Price Index by calendar year, while we utilize this measure as our inflation-adjustment mechanism in projections (i.e., applicable to the FY2012 sales per-capita result). In June 2012 the following projections were issued:

Figure 37: Forecasted CPI growth, through 2017

CY	Growth in CPI (Percent)
2012	1.7%
2013	1.4%
2014	1.4%
2015	1.7%
2016	2.0%
2017	2.2%
2012-17	*1.7%*

Source: US Congressional Budget Office, "The 2012 Long-Term Budget Outlook," June 5, 2012.

We rely on population projections from our demographic software package (Demographicsnow.com) that has projections through 2016, along with US Census population estimates as of 2000 and 2010, while we apply relative growth rates (between 2010 and 2016 figures) to estimate population totals in Massachusetts for 2011-2015 and 2017.

We assume Internet sales initiatives are impacted by a ramp-up period. We assume that the first full year of each Internet sales initiative achieves 70 percent of its potential sales (i.e., discounted), second full year of respective Internet sales are at 85 percent of potential sales, while the third year (and beyond) of respective Internet sales are at full potential.

For all three scenarios, our expected-case projections are primarily based on a fixed set of per-capita sales projections (for both traditional and Internet sales) from running our model through 10,000 iterations for each of three scenarios.[138]

As such, each input-variable in the respective model is assigned a random value (within our pre-determined range of acceptability) in each iteration of our model; therefore, we yield a dynamic result set. The following table illustrates values we utilized for 11 input-variables within our model. Importantly, the distribution of each value is uniform, so all values between the low-case and high-case have an equal chance of occurring in each iteration of model.

[138] To yield dynamic revenue projections, Spectrum applied 'what if' analysis to 11 input-variables (assumptions), which allows for application of a variety of low and high boundaries/ranges to the variable set, the inputs, that we deemed acceptable and then run the model based on 10,000 iterations of our model for each scenario. As such, each input-variable in the respective model is assigned a random value (within our pre-determined range of acceptability) in each iteration of our model. This provides for a comprehensive output range, as well as the most likely outcome (or expected result), along with low-case and high-case results defined by the standard deviation (below and above our expected case, respectively).

Figure 38: Per-capita sales and cannibalization assumptions

Scenario/ Phase	Description	Low case	Expected case	High case
All Scenarios	Traditional Sales (Sales per capita)	$681.58	$717.49	$753.33
Phase 1	New & Social Games (Sales per capita)	$9.00	$10.00	$11.00
	New & Social Games (Cannibalization of traditional sales)	0.00%	0.00%	0.00%
Phase 2	Lotto & keno (Sales per capita)	$22.50	$25.00	$27.50
	Lotto & keno (Cannibalization of traditional sales)	22.50%	25.00%	27.50%
Phase 3	Draw Games (Sales per capita)	$22.50	$25.00	$27.50
	Draw Games (Cannibalization of traditional sales)	22.50%	25.00%	27.50%
Phase 4	Instant & "Scratch" Games (Sales per capita)	$45.00	$50.00	$55.00
	Instant & "Scratch" Games (Cannibalization of traditional sales)	30.00%	33.40%	36.70%
Phase 5	"Red" & Casino Style Games (Sales per capita)	$67.50	$75.00	$82.50
	"Red" & Casino Style Games (Cannibalization of traditional sales)	22.05%	25.00%	27.50%

Source: Spectrum Gaming Group

Cannibalization of traditional sales assumes that the indicated percentage of Internet sales may be cannibalization of traditional lottery sales (e.g., in Phase 5 at expected-case we assume that of the $75 in Internet sales per capita, 25 percent of this amount would come from traditional sales, and thereby reduced traditional sales per capita by such amount). To our knowledge, there is no empirical data, studies, and/or results available that are applicable to this study and our modeling (re: cannibalization effects to traditional lottery sales from introduction of various forms of Internet sales); therefore, the cannibalization rates we apply in our modeling are based on the collective thoughts of the Spectrum Gaming Group team assigned to this project.

1. Lottery Sales Projections – Status-quo

Under the status-quo scenario, the following table shows our Lottery sales projections from FY2013 through FY2017 (along with FY2012 preliminary, actual results), at our low, expected and high cases, along with the compound annual growth rate ("CAGR").

Figure 39: Massachusetts State Lottery sales projections at status-quo

Scenario:	LOW			EXPECTED			HIGH		
(Total Sales $M) Period	Traditional Sales	Internet Sales	Total Lottery Sales	Traditional Sales	Internet Sales	Total Lottery Sales	Traditional Sales	Internet Sales	Total Lottery Sales
FY12	$4,741.4	$0.0	$4,741.4	$4,741.4	$0.0	$4,741.4	$4,741.4	$0.0	$4,741.4
FY13	$4,717.6	$0.0	$4,717.6	$4,859.1	$0.0	$4,859.1	$4,997.7	$0.0	$4,997.7
FY14	$4,805.9	$0.0	$4,805.9	$4,950.1	$0.0	$4,950.1	$5,091.3	$0.0	$5,091.3
FY15	$4,910.4	$0.0	$4,910.4	$5,057.6	$0.0	$5,057.6	$5,201.9	$0.0	$5,201.9
FY16	$5,031.9	$0.0	$5,031.9	$5,182.8	$0.0	$5,182.8	$5,330.6	$0.0	$5,330.6
FY17	$5,166.5	$0.0	$5,166.5	$5,321.4	$0.0	$5,321.4	$5,473.2	$0.0	$5,473.2
CAGR (2012-17)	1.7%	n/a	1.7%	2.3%	n/a	2.3%	2.9%	n/a	2.9%
(Per-capita $) Period	Traditional Sales	Internet Sales	Total Lottery Sales	Traditional Sales	Internet Sales	Total Lottery Sales	Traditional Sales	Internet Sales	Total Lottery Sales
FY12	$717	$0	$717	$717	$0	$717	$717	$0	$717
FY13	$711	$0	$711	$732	$0	$732	$753	$0	$753
FY14	$721	$0	$721	$742	$0	$742	$763	$0	$763
FY15	$733	$0	$733	$755	$0	$755	$776	$0	$776
FY16	$747	$0	$747	$770	$0	$770	$792	$0	$792
FY17	$764	$0	$764	$787	$0	$787	$809	$0	$809
CAGR (2012-17)	1.3%	n/a	1.3%	1.9%	n/a	1.9%	2.4%	n/a	2.4%

Source: Spectrum Gaming Group

As illustrated, under our expected-case scenario we project Lottery sales could grow to $5.32 billion in FY2017, or at a CAGR of 2.3 percent from the FY2012 level, while respective sales per capita could grow to $787 in FY2017, or a CAGR of 1.9 percent.

In summary, we believe it is reasonable to assume that Massachusetts State Lottery sales could grow to approximately between $5.17 billion and $5.47 billion in 2017 (from $4.74 billion in FY2012). This is primarily based on the application of projected population and inflation-related growth to actual FY2012 per-capita sales results (where low-case and high-case is predicated on the standard deviation resulting from 10,000 iterations of our model).

2. Lottery Sales Projections – Phased Engagement Strategy

Under the phased engagement strategy scenario, the following table shows our Lottery sales projections from FY2013 through FY2017 (along with FY2012 preliminary, actual results), at our low, expected and high cases.

Figure 40: Massachusetts State Lottery sales projections under phased Internet engagement strategy

Scenario:	LOW			EXPECTED			HIGH		
(Total Sales $M) Period	Traditional Sales	Internet Sales	Total Lottery Sales	Traditional Sales	Internet Sales	Total Lottery Sales	Traditional Sales	Internet Sales	Total Lottery Sales
FY12	$4,741.4	$0.0	$4,741.4	$4,741.4	$0.0	$4,741.4	$4,741.4	$0.0	$4,741.4
FY13	$4,717.6	$0.0	$4,717.6	$4,859.1	$0.0	$4,859.1	$4,997.7	$0.0	$4,997.7
FY14	$4,797.7	$103.6	$4,901.4	$4,935.1	$108.0	$5,043.1	$5,074.0	$112.5	$5,186.4
FY15	$4,820.1	$427.5	$5,247.6	$4,952.2	$440.6	$5,392.7	$5,085.8	$453.6	$5,539.4
FY16	$4,795.9	$1,015.6	$5,811.5	$4,916.1	$1,045.6	$5,961.8	$5,037.9	$1,075.8	$6,113.7
FY17	$4,879.7	$1,216.7	$6,096.4	$4,998.1	$1,253.3	$6,251.4	$5,118.1	$1,290.1	$6,408.2
CAGR (2012-17)	0.6%	n/a	5.2%	1.1%	n/a	5.7%	1.5%	n/a	6.2%
(Per-capita $) Period	Traditional Sales	Internet Sales	Total Lottery Sales	Traditional Sales	Internet Sales	Total Lottery Sales	Traditional Sales	Internet Sales	Total Lottery Sales
FY12	$717	$0	$717	$717	$0	$717	$717	$0	$717
FY13	$711	$0	$711	$732	$0	$732	$753	$0	$753
FY14	$719	$16	$735	$740	$16	$756	$761	$17	$778
FY15	$719	$64	$783	$739	$66	$805	$759	$68	$827
FY16	$712	$151	$863	$730	$155	$886	$748	$160	$908
FY17	$721	$180	$901	$739	$185	$924	$757	$191	$947
CAGR (2012-17)	0.1%	n/a	4.7%	0.6%	n/a	5.2%	1.1%	n/a	5.7%

Source: Spectrum Gaming Group

As illustrated, under our expected-case we project Lottery sales could grow to $6.25 billion in FY2017, or CAGR of 5.7 percent from the FY2012 level, while respective sales per capita could grow to $924 in FY2017, or CAGR of 5.2 percent. In this scenario the vast majority of sales growth (total and per-capita) is driven by Internet sales, as we project traditional lottery sales would have CAGR of 1.1 percent through 2017, with CAGR for per-capita sales growing by less than 1 percent.

In summary, we believe it is reasonable to assume that Lottery sales could grow to approximately $6.1 billion to $6.4 billion in 2017 (from $4.74 billion in FY2012). In FY2017 we project traditional lottery sales would range from $4.88 billion to $5.12 billion, while Internet sales initiatives would yield from $1.22 billion to $1.29 billion.

The following table shows our projected sales results by fiscal year with sales detail for each phase, under our expected case.

Figure 41: Massachusetts State Lottery sales projections, by type, under phased Internet engagement strategy

(Total Sales $M) Period	Traditional Sales	New & Social Games	Lotto & Keno	Draw Games	Instant & "Scratch" Games	"Red" & Casino Style Games	Total Lottery Sales	*Internet Only*
FY12	$4,741.4	$0.0	$0.0	$0.0	$0.0	$0.0	$4,741.4	*$0.0*
FY13	$4,859.1	$0.0	$0.0	$0.0	$0.0	$0.0	$4,859.1	*$0.0*
FY14	$4,935.1	$48.0	$60.0	$0.0	$0.0	$0.0	$5,043.1	*$108.0*
FY15	$4,952.2	$59.6	$135.8	$122.6	$122.6	$0.0	$5,392.7	*$440.6*
FY16	$4,916.1	$71.8	$166.0	$152.6	$278.2	$377.0	$5,961.8	*$1,045.6*
FY17	$4,998.1	$73.7	$184.3	$184.3	$341.0	$470.0	$6,251.4	*$1,253.3*
CAGR (2012-17)	1.1%	n/a	n/a	n/a	n/a	n/a	5.7%	*n/a*
(Per-capita $) Period	**Traditional Sales**	**New & Social Games**	**Lotto & Keno**	**Draw Games**	**Instant & "Scratch" Games**	**"Red" & Casino Style Games**	**Total Lottery Sales**	***Internet Only***
FY12	$717	$0	$0	$0	$0	$0	$717	*$0*
FY13	$732	$0	$0	$0	$0	$0	$732	*$0*
FY14	$740	$7	$9	$0	$0	$0	$756	*$16*
FY15	$739	$9	$20	$18	$18	$0	$805	*$66*
FY16	$730	$11	$25	$23	$41	$56	$886	*$155*
FY17	$739	$11	$27	$27	$50	$69	$924	*$185*
CAGR (2012-17)	0.6%	n/a	n/a	n/a	n/a	n/a	5.2%	*n/a*

Source: Spectrum Gaming Group

3. Lottery Sales Projections – All Internet Initiatives Effective July 1, 2013

Under the scenario in which all Internet phases are effective July 1, 2013, the following table shows our Lottery sales projections from FY2013 through FY2017 (along with FY2012 preliminary, actual results), at our low, expected and high cases.

Figure 42: Massachusetts State Lottery sales projections, all Internet phases effective July 1, 2013

Scenario:	LOW			EXPECTED			HIGH		
(Total Sales $M) Period	Traditional Sales	Internet Sales	Total Lottery Sales	Traditional Sales	Internet Sales	Total Lottery Sales	Traditional Sales	Internet Sales	Total Lottery Sales
FY12	$4,741.4	$0.0	$4,741.4	$4,741.4	$0.0	$4,741.4	$4,741.4	$0.0	$4,741.4
FY13	$4,717.6	$0.0	$4,717.6	$4,859.1	$0.0	$4,859.1	$4,997.7	$0.0	$4,997.7
FY14	$4,601.4	$861.4	$5,462.8	$4,720.0	$888.1	$5,608.2	$4,838.5	$915.1	$5,753.6
FY15	$4,658.9	$1,058.0	$5,716.9	$4,775.3	$1,090.8	$5,866.0	$4,891.5	$1,123.9	$6,015.4
FY16	$4,728.6	$1,273.8	$6,002.3	$4,842.9	$1,313.2	$6,156.1	$4,957.0	$1,353.1	$6,310.1
FY17	$4,855.4	$1,306.6	$6,162.0	$4,972.8	$1,347.1	$6,319.9	$5,090.0	$1,388.0	$6,478.0
CAGR (2012-17)	0.5%	n/a	5.4%	1.0%	n/a	5.9%	1.4%	n/a	6.4%
(Per-capita $) Period	**Traditional Sales**	**Internet Sales**	**Total Lottery Sales**	**Traditional Sales**	**Internet Sales**	**Total Lottery Sales**	**Traditional Sales**	**Internet Sales**	**Total Lottery Sales**
FY12	$717	$0	$717	$717	$0	$717	$717	$0	$717
FY13	$711	$0	$711	$732	$0	$732	$753	$0	$753
FY14	$690	$129	$819	$708	$133	$841	$725	$137	$863
FY15	$695	$158	$853	$713	$163	$875	$730	$168	$898
FY16	$702	$189	$892	$719	$195	$914	$736	$201	$937
FY17	$718	$193	$911	$735	$199	$934	$753	$205	$958
CAGR (2012-17)	0.0%	n/a	4.9%	0.5%	n/a	5.4%	1.0%	n/a	5.9%

Source: Spectrum Gaming Group

As illustrated, under our expected-case scenario we project Lottery sales could grow to $6.32 billion in FY2017, or CAGR of 5.9 percent from the FY2012 level, while respective sales per-capita could grow to $934 in FY2017, or CAGR of 5.4 percent. In this scenario the vast majority of sales growth (total and per-capita) is driven by Internet sales, as we project traditional lottery sales would have CAGR of one percent through 2017, with CAGR for per-capita sales growing 0.5 percent.

Our modeling indicates that total lottery sales between FY2014 and FY2017 would be $1.29 billion to $1.31 billion greater under this scenario (all Internet initiatives effective FY2014) when compared to our projections under the phased engagement strategy.

In summary, we believe it is reasonable to assume that Lottery sales could grow to approximately $6.2 billion to $6.5 billion in 2017 (from $4.74 billion in FY2012). In FY2017 we project traditional lottery sales would range from $4.86 billion to $5.09 billion, while Internet sales would yield from between $1.31 billion and $1.39 billion.

The following table shows our projected sales results by fiscal year with sales detail for each phase, under our expected-case scenario.

Figure 43: Massachusetts State Lottery sales projections, all Internet phases effective July 1, 2013, by type

(Total Sales $M) Period	Traditional Sales	New & Social Games	Lotto & Keno	Draw Games	Instant & "Scratch" Games	"Red" & Casino Style Games	Total Lottery Sales	*Internet Only*
FY12	$4,741.4	$0.0	$0.0	$0.0	$0.0	$0.0	$4,741.4	*$0.0*
FY13	$4,859.1	$0.0	$0.0	$0.0	$0.0	$0.0	$4,859.1	*$0.0*
FY14	$4,720.0	$48.0	$120.0	$120.0	$240.0	$360.0	$5,608.2	*$888.1*
FY15	$4,775.3	$59.6	$147.3	$147.3	$294.6	$441.9	$5,866.0	*$1,090.8*
FY16	$4,842.9	$71.8	$177.3	$177.3	$354.7	$532.0	$6,156.1	*$1,313.2*
FY17	$4,972.8	$73.7	$181.9	$181.9	$363.8	$545.7	$6,319.9	*$1,347.1*
CAGR (2012-17)	1.0%	n/a	n/a	n/a	n/a	n/a	5.9%	*n/a*
(Per-capita $) Period	**Traditional Sales**	**New & Social Games**	**Lotto & Keno**	**Draw Games**	**Instant & "Scratch" Games**	**"Red" & Casino Style Games**	**Total Lottery Sales**	***Internet Only***
FY12	$717	$0	$0	$0	$0	$0	$717	*$0*
FY13	$732	$0	$0	$0	$0	$0	$732	*$0*
FY14	$708	$7	$18	$18	$36	$54	$841	*$133*
FY15	$713	$9	$22	$22	$44	$66	$875	*$163*
FY16	$719	$11	$26	$26	$53	$79	$914	*$195*
FY17	$735	$11	$27	$27	$54	$81	$934	*$199*
CAGR (2012-17)	0.5%	n/a	n/a	n/a	n/a	n/a	5.4%	*n/a*

Source: Spectrum Gaming Group

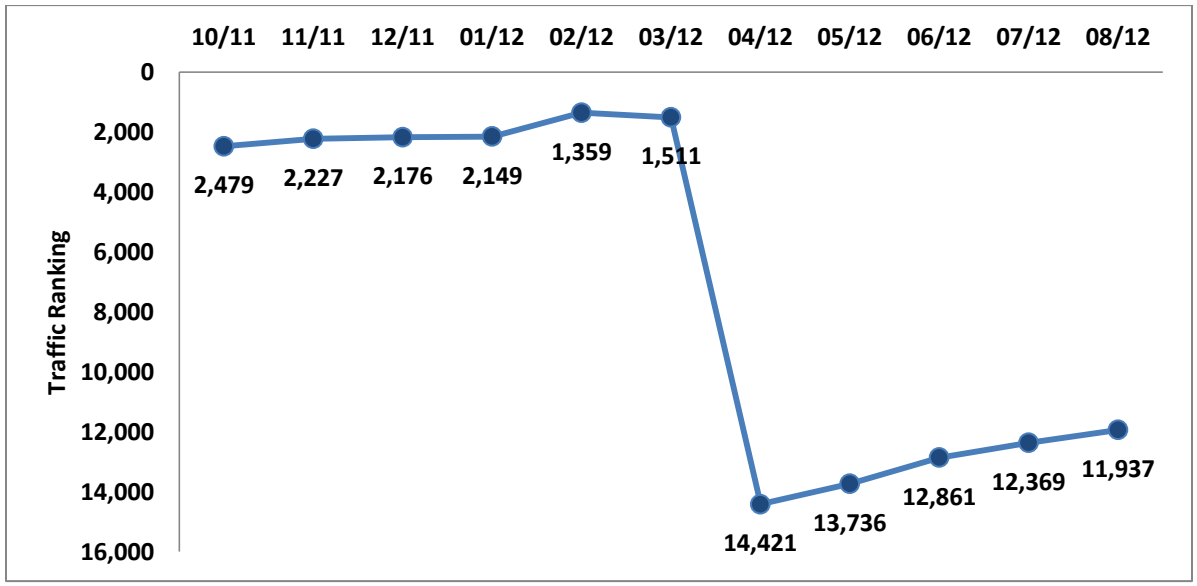
We believe the examples from these three states render the direct impact of casinos on lottery sales as very minimal, or even inconclusive. This macro-based analysis cannot adequately capture every aspect of impact on lottery sales occurring via externalities, especially the introduction and/or expansion of online gambling in the same jurisdiction. Some externalities may be variations in marketing and/or advertising initiatives, distribution channels, games offered, demographics, macro-economic conditions, competition in neighboring jurisdictions, etc. Additionally, the lottery does not operate in a vacuum so there may be similar externalities impacting other organizations (either complementary and/or competing) that rely upon discretionary income (as does the lottery).

P. Online Lottery Products

The key to successfully enter the Internet market will be the attractiveness and quality of online products. This holds true from both revenue and a popularity (or site visitation) viewpoints. Currently, the Massachusetts State Lottery website is popular for checking winning numbers. Lottery sites are among the most frequently visited on the Internet but they also reflect some of the shortest visitation.

For example, the Illinois Lottery site ranked second among the top 100 gambling-related sites worldwide for 2012, largely on the basis of high visitation during the run up to the largest Mega Millions jackpot in history.[139] However, due to the implementation of Internet sales for these lotto products, traffic on the Illinois Lottery, although declining precipitously after the record setting $650 million Mega Millions jackpot hit, traffic rankings have continued to increase every month thereafter since implementing online sales.

Figure 44: Monthly traffic rankings for Illinoislottery.com, October 2011 through August 2012



Source: www.ranking.com

1. Social Games

Social gaming is a broad category with varying definitions. At the Global iGaming Summit and Expo ("GiGse") held in San Francisco in April 2012, one of the questions most frequently asked of panelists in this field was "Can you define 'social'?" Few experts in the field could satisfactorily answer that question. Social games are generally played against others via a social network or on a social media platform. By nature they are multi-player games, and some

[139] iGaming Business North America, data provided by Casino City Press

even massively multi-player online ("MMO") games. Many social games incorporate peer-to-peer competition on contests that could be considered games of skill, but many others clearly constitute games of chance that would be potentially permissible under the Massachusetts State Lottery's charter.

To provide some scope to the size of this market, on October 4, 2012 Facebook said that it had had surpassed 1 billion users[140] and half of them are estimated to play some type of social game.[141] Social media platforms are also actively embracing casino games and poker, although in the United States these games are restricted to free or subscription play. A 2011 study by Information Solutions Group showed that in the United States and the UK alone there are an estimated 118.5 million social gamers spending more than 15 minutes per week playing social games, and two-thirds (81 million) play social games daily.[142] Those figures break out into 98 million active players in the United States and 20 million in the UK.[143] Today, the top five casino games played on Facebook are Double Down, Bingo Blitz, Best Casino, Slotomania, and Texas Hold'em. These five casino-style games on a single platform attract a total of 11,240,000 daily active users.[144] Social casino sites throughout the United States attracted a total of 35.4 million monthly players in 2012.[145] Due to this huge number of players, commercial casino operators and equipment manufacturers have become interested in real-money social gaming, as witnessed by IGT's $500 million acquisition of Double Down Casino in January 2012.[146]

Monetized social games are reliably estimated to be a $1.6 billion dollar industry worldwide in 2012.[147] North America represents the largest single market for monetized social gaming, generating 41 percent of the total, or $660 million in revenue, followed by Europe with 28 percent, or $446 million, and Asia with 19 percent, or $311 million.[148]

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[140] "A Billion Users Raise Stakes at Facebook for Revenue," Somini Sengupta and Nick Bilton, *The New York Times,* October 4, 2012

[141] Social Media Platforms for Gaming and Gambling, Online Casino Reports, October 13, 2012

[142] 2011 PopCap Games Social Gaming Research, Information Solutions Group

[143] Ibid.

[144] Social Media Platforms for Gaming and Gambling, Online Casino Reports, October 13, 2012

[145] SuperData, Social Casino Metrics: Industry Trends & Analyses, August, 2012

[146] "Benefits touted to IGT acquisition of Double Down Interactive," Howard Stutz, *Las Vegas Review-Journal*, January 14, 2012

[147] SuperData, Social Casino Metrics: Industry Trends & Analyses, August, 2012

[148] Ibid.

Figure 45: Social casino global revenues

Source: SuperData

Recent data document robust growth in social gaming behavior, clearly related to the rise in popularity of online social media. According to a 2011 study, 42 percent of Internet users played a social media game in the last three months, up from 28 percent a year earlier.[149] Some 26 percent of the social game players purchased virtual currency with real money.[150] In 2011, Facebook earned $470 million in revenue from the sale of Facebook Credits, its exclusive virtual currency.[151] This rapid growth in social networks and social gaming is expected to continue as smartphone adoption among US consumers continues to increase. Beyond its communication and expression benefits, social media have become an important resource for casual entertainment, offering games that range from virtual farming to zombie eradication and include board games, poker and casino games including tables and slots.[152] Within this emerging field, many intellectual property holders and other entities have sought to create their own social games.

Poker is fundamentally a social game since it is played at a table among friends or competitors, or both. Social casinos such as Zynga and Double Down see some of their strongest participation statistics with Texas Hold'em and other varieties of poker.[153] Social gaming is also

[149] 2011 PopCap Games Social Gaming Research, Information Solutions Group

[150] Ibid.

[151] Getting to 'Game On' for Social Media Developers, Richard Raysman and Peter Brown, NY Law Journal, July, 2012

[152] Ibid.

[153] SuperData Social Casino Metrics: Industry Trends & Analyses, August, 2012.

one of the fastest growing mobile gaming applications, second only to sports betting in terms of mobile penetration. Social gaming also appeals most strongly to the younger and more mobile demographic. A PopCap study documented an increase in social gaming participation for among the 18-29 age group, resulting in a reduction of the average age for a social game player from 43 to 39 years between 2010 and 2011.[154]

Two predominant models have developed in social gaming, both usually associated with a "freemium" site in which multiple free-play games are offered but players can choose to spend real money on the games if they so desire. These sites are also referred to as "free play," or F2P, sites. Play is monetized either through subscriptions, as with Caesars' popular Slotomania site on Facebook, or through the purchase of premium amenities, advanced features, or enhanced functionality designed to convey an advantage in game play, as well as associated premium services.[155] Although playing slot machines for money on Facebook should run afoul of the Unlawful Internet Gambling Enforcement Act of 2006 ("UIGEA"), when a subscription model is utilized the transaction is entirely legal. The user is deemed to be purchasing time on device and does not receive real money for hitting winning outcomes on a wager. According to a 2012 study by the Casual Games Association, F2P revenue is growing at a faster rate than subscription play and F2P revenue exceeded subscription for the first time in 2011 as daily and monthly active users ("DAU/MAU") were incentivized to convert to real-money play.

While participation numbers for social gaming are astronomical, earnings are currently miniscule on a per-player basis. The standard industry metrics of average revenue per user ("ARPU") and average annual revenue per paying user ("AARPU") are almost always below $10 and often below $5, and the conversion rate for "freemium" sites to for money play ranges between 2 percent and 4 percent – and is often below 2 percent depending on the popularity of the site.[156] Thus social casino estimated global revenues of $1.6 billion pales in comparison to Internet gambling sites, which posted more than $32 billion in 2012 worldwide. However, social casinos are in many ways a training ground, or a "farm system," for Internet gambling sites and land-based casinos as well as Internet lotteries.

Social games are important to Internet lottery for a number of reasons:

- They offer the opportunity to vastly increase the popularity of a lottery website.
- They increase the length of time that visitors spend there, changing the lottery website from a place where customers go briefly to find the daily numbers to a destination where customers can also spend time playing more experiential games in a social setting.

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[154] 2011 PopCap Games Social Gaming Research, Information Solutions Group.

[155] Freemium Gaming Metrics 2012, Casual Games Sector Report, Casual Games Association.

[156] SuperData, Social Casino Metrics: Industry Trends & Analyses, August, 2012.

- Free-play versions of online lottery products allow trial play and adoption for new online products.
- Conversion from free play to real-money play adds a new revenue stream for the Lottery.
- Social gaming is one of the fastest growing mobile gambling applications and can readily be transferred to mobile devices.
- Social gaming is most popular among 18-25 year olds, the demographic category least represented among regular Massachusetts State Lottery players.[157]
- The highly experiential nature of social games affords the Lottery one of the best vehicles by which to evolve from solely transactional products to a combination of transactional and experiential online products. The attributes that make social games so much fun to play can be assimilated by game developers into new draw-based games which will remain games of chance while offering a more fulfilling experience, and more time on the game, than traditional draw and scratch products.

[157] Annual Tracking Survey & Brand Assessment, SocialSphere, May 8, 2012

Q. Gaming vs. Gaming: Two Industries Converge

For several decades, two distinct industries have operated in parallel universes, both referring to themselves as the "gaming industry." In one universe, for example, there is the American Gaming Association, a trade organization founded in 1995, which represents the interests of the commercial casino industry. In that same universe are government agencies such as the New Jersey Division of Gaming Enforcement, founded in 1977, which regulates the casino industry in Atlantic City. At the same time, another "gaming" industry – sometimes referred to as the "games" industry – has operated as a provider of everything from video and arcade games to online social games.

The prospect and promise of online wagering, however, has put these two industries on the path of convergence. Technologies and the changing political and legal landscape have been quickly removing the distinctions between these hitherto separate industries.

The clearest example of this convergence can be found in the evolving offerings of Zynga, the leader in the social gaming sphere, which is aggressively developing casino-style games for its non-casino customer base, which is huge by any reasonable standard. Texas Hold'em Poker, a Zynga game on Facebook, has 35.2 million monthly active users.[158] A recent Zynga press release noted: "'As Zynga's second mobile casino game, Zynga Slots brings the thrill of Las Vegas slot machines to the palm of players' hands while introducing social elements for players to share the excitement with their friends,' said Justin Cinicolo, vice president, Zynga Mobile."[159]

At the same time that Zynga is moving into casino-style games, casino operators have begun moving in the opposite direction. Caesars Entertainment and Electronic Arts Inc. have developed a mobile gaming application called the World Series of Poker by EA, leveraging Caesars' World Series of Poker. *The Las Vegas Sun* wrote: "The WSOP app is the latest to join a virtual strip of Las Vegas gaming companies jumping into the social gaming business. Some companies, including the owners behind Station Casinos, are hoping their brands will move into real money games as online gambling laws allow."[160]

While social gaming is demonstrating growth in the number of users, it has not demonstrated a serious challenge to online wagering in terms of dollar value. The following chart, developed by blogger and author Tyler York, who focuses on online games, illustrates this disparity.

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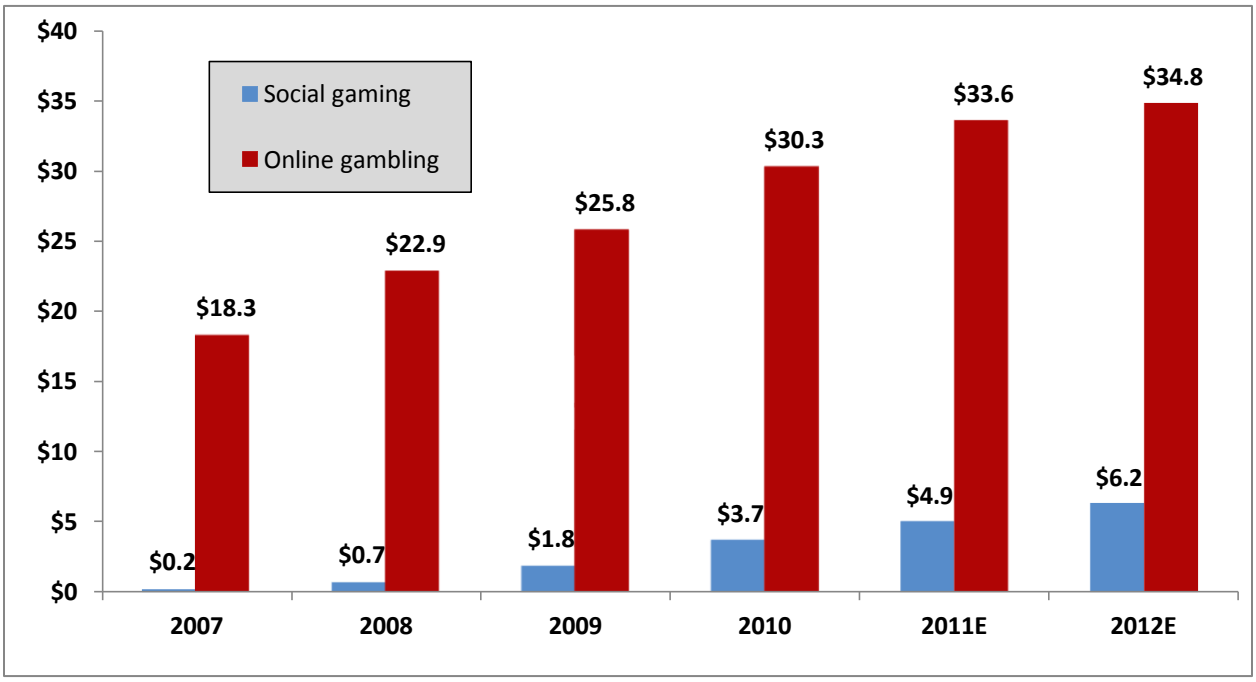
[158] AppData.com.

[159] Zynga Takes Players for a Spin With New Mobile Game for iPhone, iPad and iPod Touch: Zynga Slots, June 15, 2012.

[160] New WSOP app continues social gaming trend, Ron Sylvester, Las Vegas Sun, July 11, 2012.

Figure 46: Monetized social gaming and online gambling growth ($ in billions)



Source: Inside Social Games, H2 Gambling Capital, Casual Games Association

York has identified a serious weakness in the business model of social gaming: "It leaves the user with very little incentive to ever pay, and even today, on average only 2.5 percent of users pay in a casual social game. This is a big part of why social game companies suffer from poor monetization that hamstrings their development and user acquisition budgets."[161] According to York, the disparity reveals a serious weakness in the business model of development and user acquisition budgets. Moving to mobile hasn't helped developers' fortunes. Less than 30 percent of mobile users ever pay for an in-app purchase. This has contributed to a staggering 60 percent of developers that never break even on the iOS app store" (referring to Apple's mobile application store).

That disparity between users and revenue is one reason why companies such as Zynga can be expected to move into legal online gambling within the next several months. Indeed, Zynga has stated it plans to enter this arena, pending regulatory approval, in 2013.

The convergence of gambling and gaming ("gaming" meets "gaming") presents challenges for suppliers on both sides of this divide. For traditional gambling suppliers, it means new, powerful competition. For the non-traditional, game-oriented providers such as Zynga, it means they must pay attention to such issues as licensability.

For the Massachusetts State Lottery, however, it means:

[161] "Social Gaming + Gambling: An Intersection of Opportunity." http://gamasutra.com/blogs/TylerYork/20120711/173932/Social_Gaming__Gambling_An_Intersection_of_Opportunity.php (accessed November 4, 2012)

- Greater competition among suppliers to produce the more creative, attractive games.
- An enhanced opportunity to attract broader, younger demographics.

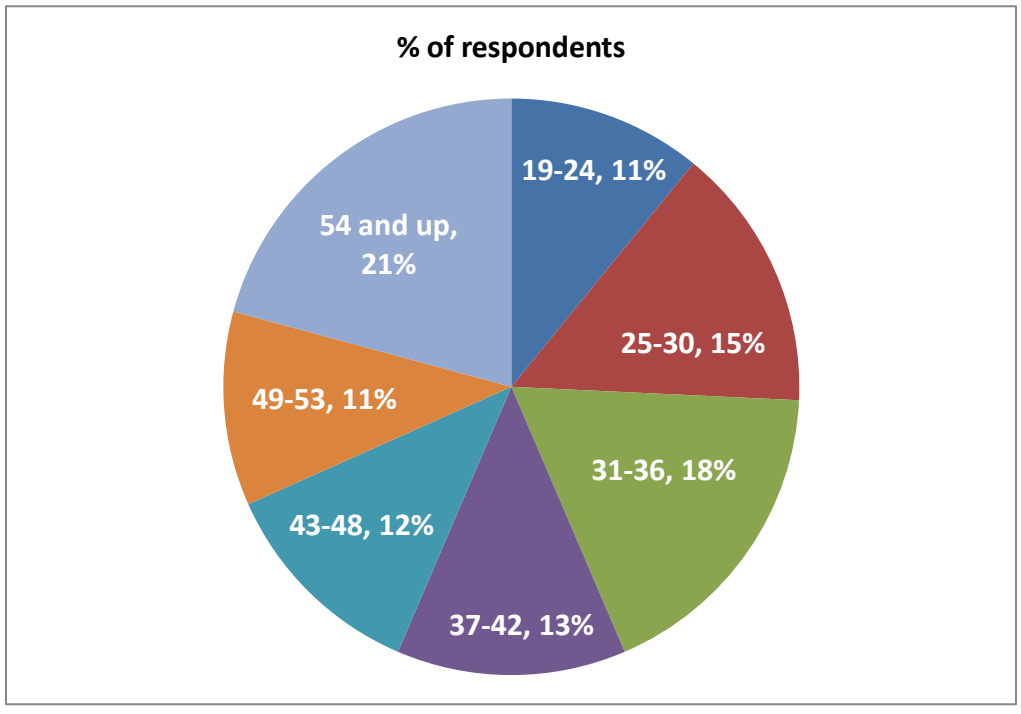
1. Demographics of Gaming

The growing convergence between gambling and social gaming means a likely convergence in the demographics as well, and that is generally good news for the Massachusetts State Lottery, since it increases the likelihood of expanding the demographic reach of lottery products. Inside Network Research released a survey in June of 385 respondents who were qualified to participate on the basis of:

- If they own or have access to an iPhone, iPod Touch, iPad, Android phone or Android tablet.
- If they play games on any of these devices at least once a week.
- If they are 18 or older.[162]

Here is a breakdown of the age of the respondents (who were 50-50 on a male-female breakdown):

Figure 47: Age breakdown of social gamers

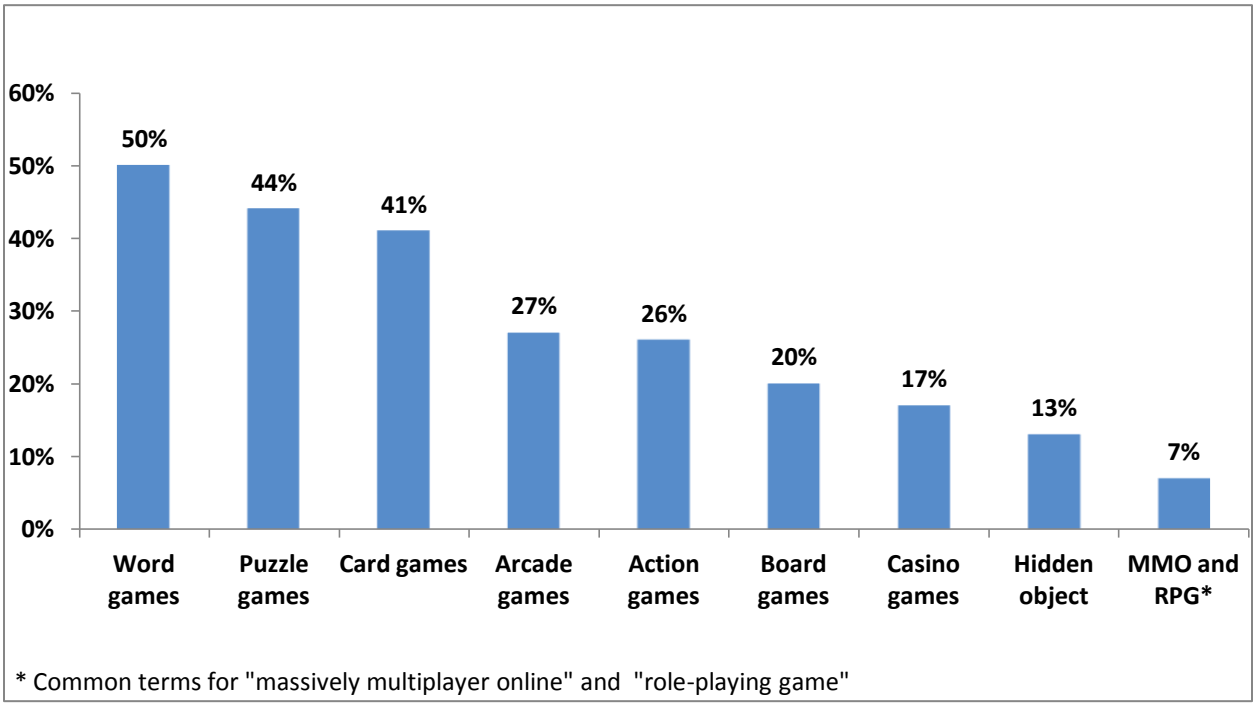


[162] "Inside Virtual Goods: Spending and Usage Habits of the Mobile Gaming Audience –US," by Bonnie Ho, June 30, 2012, Inside Network, Inc.

Source: Inside Network Research

Notably, the breakdown shows a wide range of demographics, with the largest slice being 54 and older. The next chart examines the types of social games played, which helps put that in perspective:

Figure 48: Types of mobile games played (at least once per month)

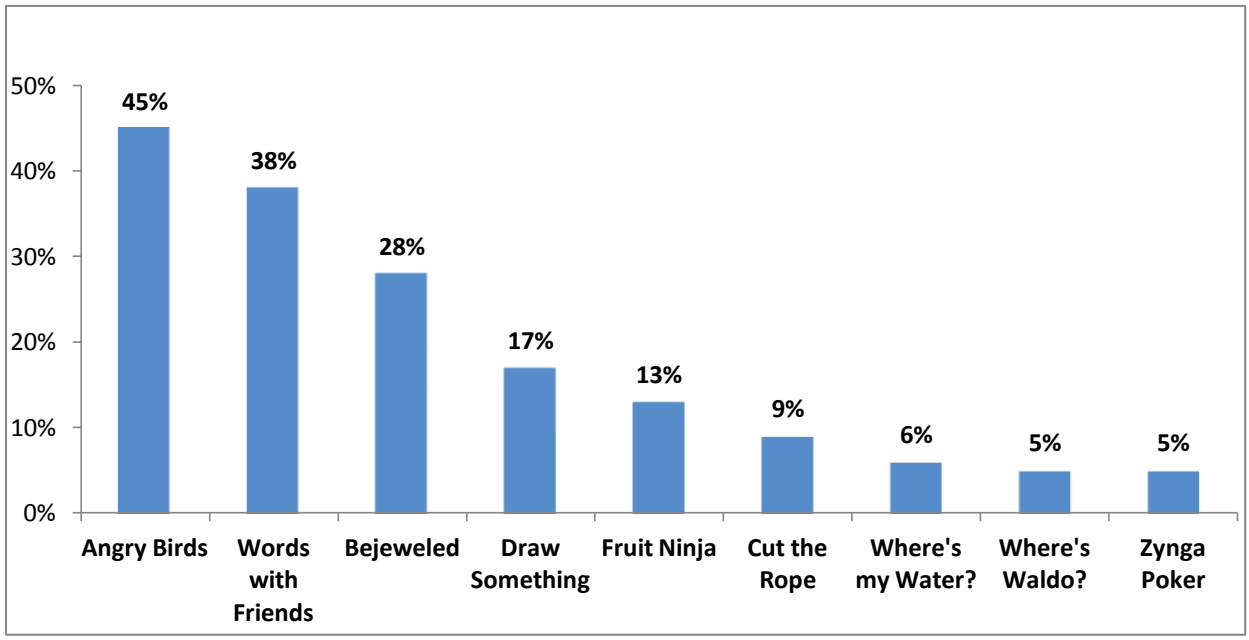


Source: Inside Network Research

Clearly, not all the forms of mobile gaming would lend themselves equally to an online form of wagering. And some forms – such as word games or puzzle games – are likely not appropriate at all, simply because they fail to meet the basic test of randomness that is essential to any form of legal, regulated gambling. We caution against games of skill being part of the online mix – with the possible exception of poker, which is clearly a skill game when in the hands of experienced, serious poker players, but there remains a significant random element to it.

The following chart shows the most popular games being played on mobile devices by this sample. The list is notable in that nearly all of the games are quite new, with little resemblance to classic casino games. This list reinforces one of Spectrum's basic tenets when it comes to online gambling: The most popular games that will be played in the future, to a great extent, have not yet been invented. While we do not profess familiarity with this mix of games, we believe that such games – as well as games to be developed in the future – can be customized to the needs of the Massachusetts State Lottery (as well as other legal entities offering online wagering) to incorporate the essential elements of fairness and randomness.

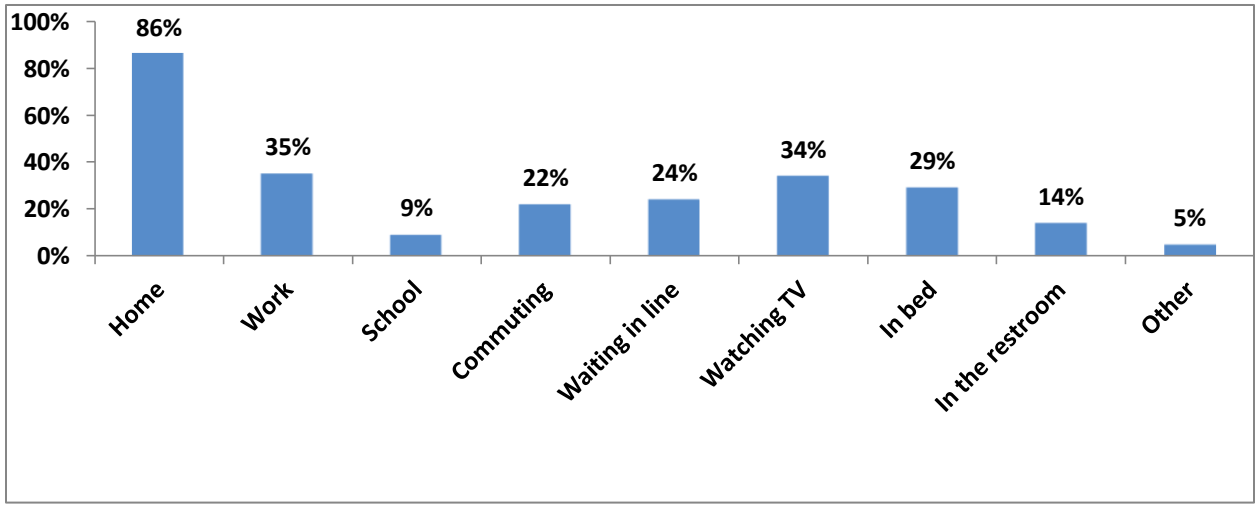
Figure 49: Mobile games played previous 30 days



Source: Inside Network Research

The following chart shows that most mobile gamers – despite the mobility offered by their devices – play at home, but the point that 35 percent play at work and 9 percent play at school should not be lost on policymakers at the Massachusetts State Lottery. The very nature of the Internet – particularly as access to an online site becomes increasingly portable – lends itself to what is arguably inappropriate activity when it comes to wagering money. The downside of such potential play at work or school (which itself implies some potential underage play) must remain an area of concern and can be discouraged as an essential element within any public-service messaging put forth by the Lottery, but it cannot be eliminated.

Figure 50: Mobile game play location



Source: Inside Network Research

The following tables summarize many of the demographic characteristics of these social gamers:

Figure 51: Social game player demographics

	Male	**Female**
Plays with?	Plays by themselves, but plays slightly more with friends	Plays by themselves, but plays slightly more with family
Connect to Social Networks	Neutral	Neutral
Game Discovery	Emphasis on recommendations from friends (Neutral)	Emphasis on recommendations from friends (Neutral)
Download Free or Premium?	60% download only free games; 40% download premium and/or free	66% download only free games; 34% download premium and/or free
Download Decision	Free is the most important consideration when deciding on a game to download; recommendations from friends is also a consideration	Free is the most important Consideration when deciding on a game to download
In-Game Purchase	21% have made in—game purchases	14% have made in-game purchases

	18 to 30	**31 to 48**	**49 and up**
Plays with?	Plays by themselves, But more social with friends in mobile gaming	Plays by themselves, But will play with family too	Plays by themselves
Connect to Social Networks	More apt to connect to social networks to play games	Neutral	Less apt to connect to social networks to play games
Game Discovery	Emphasis on recommendations from friends	Emphasis on both Top Apps in Google Play and recommendations from friends	Emphasis on recommendations from friends
Download Free or Premium?	53% download only free games; 47% download premium and/or free	65% download only free games; 35% download premium and/or free	68% download only free games; 32% download premium and/or free
Download Decision	Free is the most important consideration when deciding on a game to download; recommendations from friends and good ratings are also considerations	Free is the most important consideration when deciding on a game to download, friend recommendation is also a consideration	Free is the most Important consideration when deciding on a game to download
In---Game Purchase	24% have made in-game purchases	16% have made in-game purchases	15% have made in-game purchases

Source: Inside Network Research

By any measure, the demographics of social gaming are broad and represent an opportunity for the Massachusetts State Lottery to capture a new demographic. However, we must issue one additional cautionary note: Any marketing to an online gamer must pay careful attention to avoid even the appearance of targeting an underage demographic. We further caution

that "marketing" must be considered in its broadest sense. Even the very name of a game – particularly if it is associated with a non-wagering game that attracts an underage demographic – has to be a consideration.

This cautionary note is not dissimilar to warnings that were issued to cigarette manufacturers who were cautioned about using symbols such as Joe Camel in marketing campaigns. We recognize – and the Lottery has emphasized – that prevention of inappropriate wagering is a priority, and the marketing of games should be coordinated with the pursuit of that priority.

R. Mobile Gaming

In a 2010 conference at Google headquarters, Mary Meeker, head of Morgan Stanley's global technology research team and the woman once dubbed the "Queen of the Net," presented her latest *State of the Internet* report, which highlighted two trends expected to dominate in the next decade: mobile and social networking. While the ascension of these trends is by no means surprising to the technologically informed, the extensive supporting data illustrate the magnitude and rapid rate of change embodied in these two trends. The main point of Meeker's extensively detailed report was that mobile Internet access will surpass fixed Internet access by 2014. She believes that we are currently in the midst of the next great technology cycle of the past 50 years, the mobile era, which follows the mainframe era of the 1950s and '60s, the mini-computer era of the '70s and the desktop Internet era of the '80s.[163] In the mobile era, "More users will connect to the Internet over mobile devices than desktop PCs," and the ramp-up to smartphones and tablets will occur more rapidly than the onset of any of the previous technology eras.[164] Subsequent *State of the Internet* reports by Meeker have supported this trend with additional data on the growth of mobile traffic as a component of Internet traffic, reaching 10 percent in May 2012 and explored the challenges of mobile monetization.[165]

Indeed, Meeker's 2010 prediction is coming true more rapidly than expected. By the beginning of 2011, mobile broadband subscriptions surpassed fixed broadband subscriptions for the first time, and by 2016, mobile is expected to make up 80 percent of all broadband subscriptions worldwide.[166] Mobile adoption is particularly evident in developing economies, many of which may skip the wired telecommunications phase entirely. Smartphone sales have surpassed PC sales in 2011 and approximately 4 billion smartphones are expected to be sold between 2011 and 2015.[167] This smartphone sales growth illustrates a similar trend where mobile computing will overtake fixed means as the leading platform for computing globally in 2012.[168]

Given ample evidence of this migration trend from fixed to mobile Internet access, major technology companies have developed mobile strategies. Mobile migration builds expectations for substantial growth in e-commerce generated by features such as location-based services, time-based promotional offers, mobile coupons and push notifications. For the gaming (i.e., non-gambling) industry, the move to mobile is even more strongly pronounced and is occurring more

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[163] Mary Meeker: "Mobile Internet Will Soon Overtake Fixed Internet," Matthew Ingram, GiGaOM, April 12, 2010

[164] Ibid

[165] Internet Trends 2012, Mary Meeker, Kleiner, Perkins, Caufield

[166] The Global Information Technology Report, 2012 World Economic Forum.

[167] This figure is the average of data on worldwide mobile devices from Gartner, Strategy Analytics, and IDC, The Global Information Technology Report, 2012 World Economic Forum.

[168] The Global Information Technology Report, 2012 World Economic Forum.

rapidly. Currently there are more than 128,000 active gaming apps available on iTunes[169] and the launch of new and more portable gaming platforms like the iPad Mini with rich graphical interfaces will speed the adoption of mobile gambling applications. Mobile advertising is also more effective than desktop advertising. The effective cost per mille ("eCPM"), or the amount spent per thousand impressions for desktop ads, is $3.50 while the eCPM for mobile is $0.75 on average.[170]

The other trend highlighted in Meeker's report is the social networking phenomenon, where usage has surpassed generic email in terms of both aggregate numbers of users and time spent in the past decade; this growth continues to increase rapidly.

Mobile gaming is now the fastest-growing segment of the gaming (i.e., non-gambling) sector. Console and PC-based video gaming, not long ago the largest non-cash gaming segment, has been steadily declining over the past three years as more people play social and other types of new games on their mobile devices. According to industry tracker NPD Group, the number of Americans playing video games dropped 5 percent last year, from 222.5 million in 2010 to an estimated 211.5 million in 2011.[171] The majority of these people migrating from PCs to mobile devices are found in the category of "light PC gamers" in the NPD study. In addition, the study showed that 23 percent of 5,923 "app gamers" surveyed say that they played games exclusively on mobile devices and nearly 50 percent say they played more mobile games this year compared to 2011.[172] The NPD Group attributes the rapid increase in app gamers to two major factors: free games and convenience.[173]

Monetized mobile gaming (i.e. gambling and subscription or freemium business models) is also growing rapidly. From a global perspective, the mobile casual gaming market is estimated to be worth $2.7 billion in 2011 and is expected to triple to $7.5 billion in sales by 2015.[174]

Asia is currently the largest market for mobile casual gaming with revenues estimated to reach $3.2 billion by 2015.[175] However, Europe shows the fastest growth in mobile gambling revenue and is projected to overtake Asia by the end of 2013 and exceed $4.0 billion by 2015.[176] The strong growth in mobile wagering in Europe is primarily driven by sports betting. For

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[169] App store metrics, http://148apps.biz/app-store-metrics/.

[170] Internet Trends 2012, Mary Meeker, Kleiner, Perkins, Caufield

[171] Business Week, October 8 – October 14, 2012

[172] Mobile Gaming 2012, NPD Group, October, 2012

[173] Ibid.

[174] Mobile Gaming 2012, Casual Games Sector Report, SuperData.

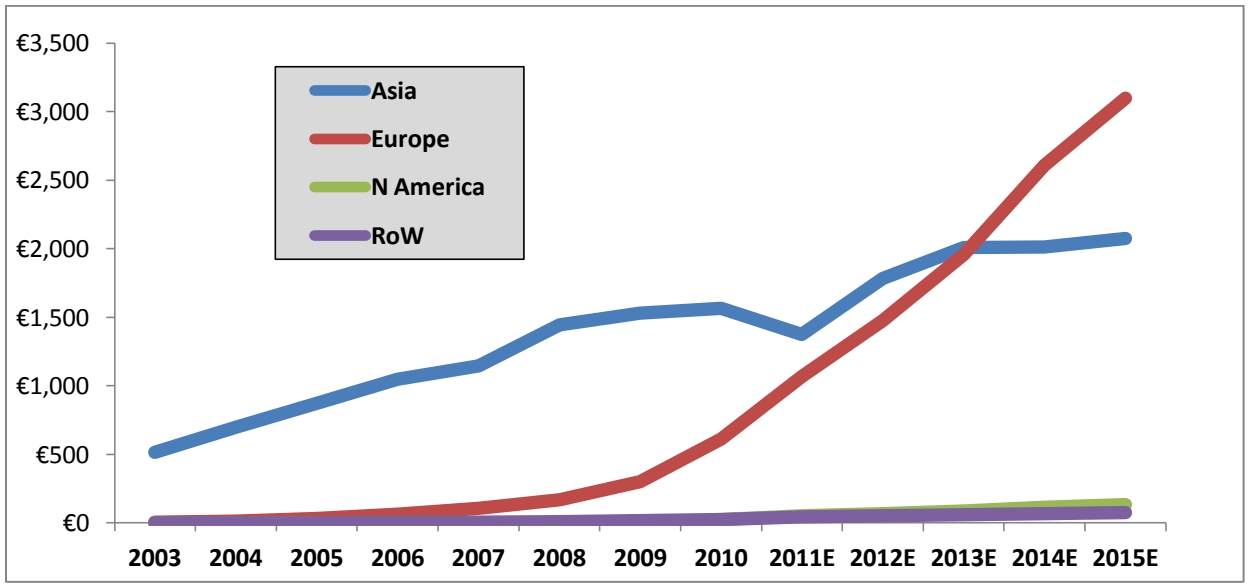
[175] Mobile Gaming 2012, Casual Games Sector Report, SuperData.

[176] Global revenue summary, H2 Gambling Capital.

instance, in the UK, 76 percent of all mobile wagers are sports bets.[177] Globally, mobile gaming in all its forms, including sports betting and lottery sales, is estimated to be approximately $20 billion in 2011 and is expected to exceed $100 billion by 2017.[178]

In the absence of legislation legalizing Internet gambling in the US, North America and the rest of the world are expected to display very slow mobile growth over the next three years,[179] although mobile casual games continues to grow rapidly.

Figure 52: Global mobile gambling revenues 2003 – 2015E (in Euros)



Source: H2 Gambling Capital. (RoW = rest of world)

The majority of mobile casual gaming revenue is produced by the "freemium" model in which players can play for free or decide to purchase premium amenities and features. By way of explanation, LinkedIn offers a familiar example of a freemium model in a business setting. A more appropriate example is the Angry Birds application for Android phones, in which players can turn off the annoying advertisements by paying the Bad Piggy Bank.

According to SuperData's mobile study, freemium sales account for 55 percent of all mobile game revenues, compared to the 6 percent or revenue generated by advertising.[180] Conversion rates for freemium models are relatively low. For mobile casual games between 3.5 percent and 10 percent of users on free play sites convert to paying customers, and the majority spends between $8 and $15 per month.[181] Freemium mobile models allow players to purchase

[177] Ofcom Communications Market Report 2012.

[178] Mobile Gambling Markets: Casinos, Lotteries, & Betting 2011-2015, Juniper Research

[179] H2 Gambling Capital

[180] Mobile Gaming 2012, Casual Games Sector Report, SuperData.

[181] Ibid.

within an application in very small amounts, or micro-transactions, which can add up over time. The 2012 SuperData study found that female gamers ages 25-34 spent an average of $12.92 per month on micro-transactions while males in the same age group spent an average of $5.12.[182] Such "in-app" purchases are steadily increasing in proportion to advertising revenue, the traditional money maker for mobile products as a whole.

The demographics of mobile gamers unsurprisingly mirror smartphone user profiles. A 2012 survey conducted for PopCap games among 1,004 US (602) and UK (402) Internet users owning a mobile device found that 46 percent of respondents use a smartphone, 18 percent own a tablet, and 15 percent own more than one mobile device.[183] Other findings include:

- Internet users in the US who played a mobile game in the past month increased 45 percent compared to 2011.
- Across both US and UK, males and females played mobile games in equal numbers.
- Males are more likely to play on both a smart phone and a tablet.
- Average age of a mobile gamer is 39.5 years compared to 39.3 in 2011.
- 66 percent of mobile gamers are less than 45 years old.
- 16 percent of mobile gamers are 55 or older.
- The average age of those who only play mobile games on a tablet is 44.7.
- Half of a players' total game play time is devoted to mobile devices.
- Mobile phones (33 percent) and desktop/laptop computers (32 percent) are used most often for playing games. Tablets represent 13 percent of total game play.
- Mobile gamer smartphone usage stands at 71 percent, a 16 percent year over year increase.

Another study by NewZoo Research released in April 2012 estimated the number of people in the US playing mobile games at 101 million, more than one-third of the adult population of the country (234,564 over 18 years of age[184]) and an increase of 34 percent over the previous year.[185] More importantly, over one-third of those playing mobile games in the US, 37 million,[186] have paid for the privilege, an increase of 35 percent over 2011.[187] The most

[182] Worldwide mobile gaming revenue could reach $7.5 billion by 2015, Jasmine Maleficent Rea, Venturebeat.com, March 29, 2012.

[183] PopCap Games Mobile Gaming Research - Confidential - Prepared by Information Solutions Group – 2012.

[184] 2010 Census, US Census Bureau

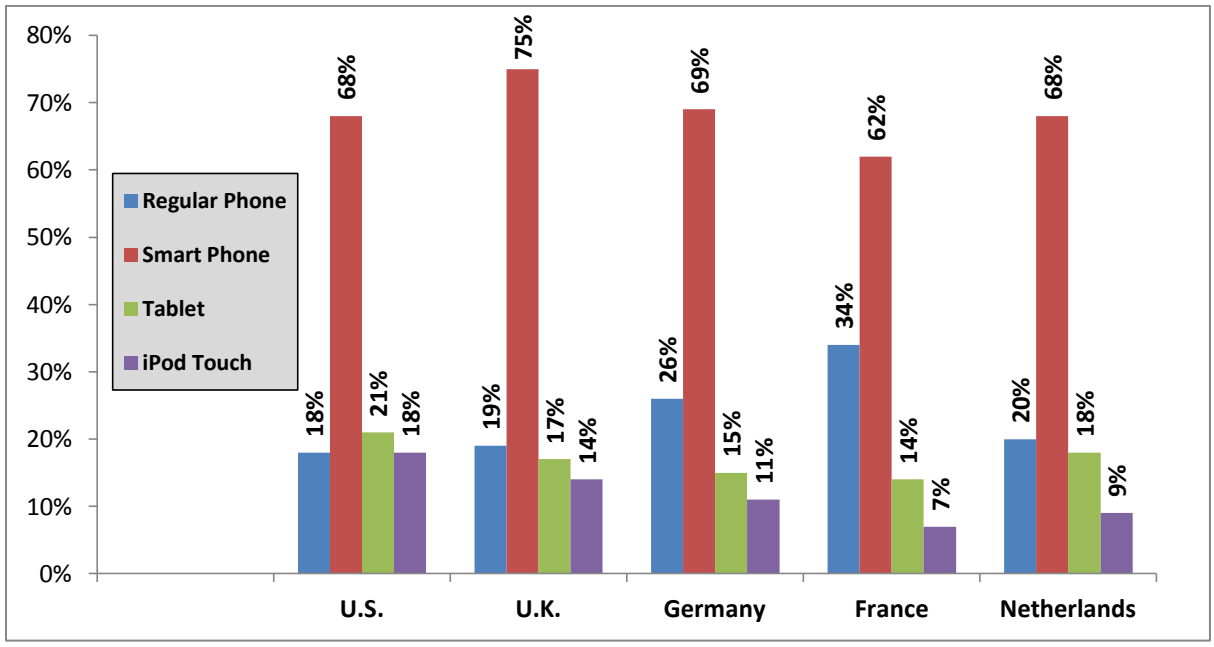
[185] NewZoo 2012 Research and Analysis, April, 2012.

[186] NewZoo 2012 Research and Analysis, April, 2012.

[187] Ibid.

common mobile gaming device is a smartphone, favored by more than two-thirds of mobile gamers, followed by tablet, regular phones, and iPod Touch in the US, although regular phones remain popular mobile gaming devices in many European countries.

Figure 53: Preferred devices for mobile gaming US and European Countries, 2012



Source: NewZoo Research

The NewZoo study also demonstrated the importance of creating a destination gaming portal, or in Apple's case a gaming ecosystem, as the iOS operating system, while holding only a minority share of smartphone operating systems, owns a majority share of US mobile gaming revenues. Android applications generated only 16 percent of the revenue among the top grossing 200 games in iPhone, iPad, and Android app stores while Apple products generated 84 percent.[188] This Apple share breaks out as 54 percent iPhone/iPod and 30 percent iPad. According to the survey, both iOS and Android operating systems make 91 percent of their mobile revenue from in-game expenditures.

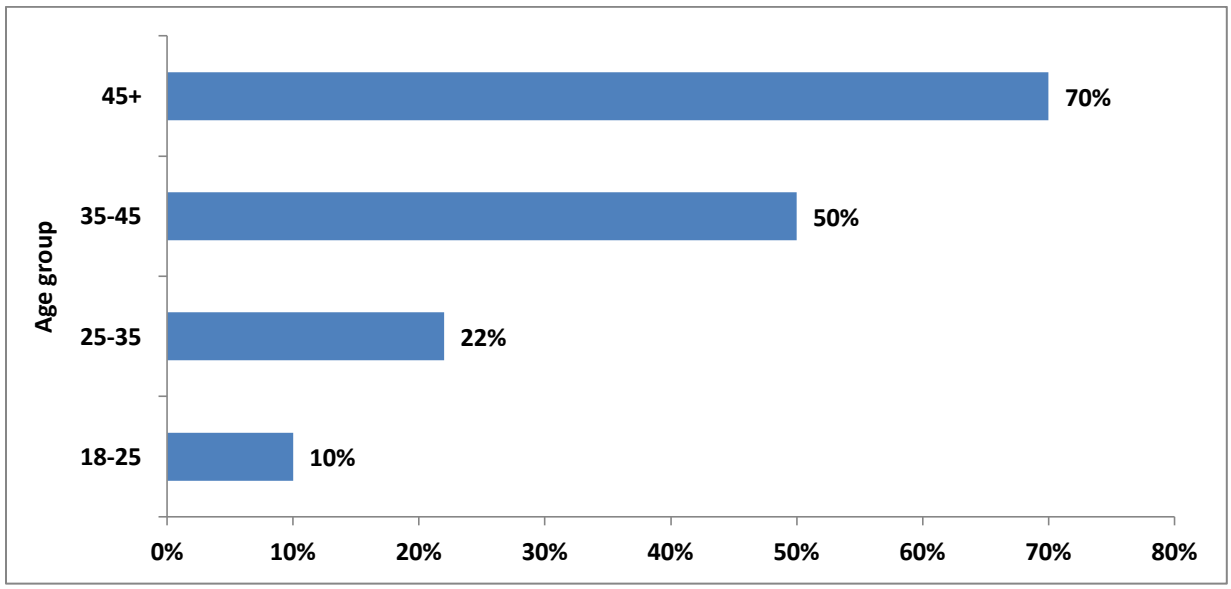
Another study by MocoSpace, the largest mobile gaming community in North America, found that age directly correlates to spending on virtual goods within mobile social games. Younger players spend by far the most time playing but older players spend exponentially more on virtual goods and premium amenities.[189] Over a three-month period between August and November 2011, this study surveyed almost 500,000 gamers drawn from MocoSpace's base of 22 million users. Gamers over 35 years of age, who made up 18 percent of respondents,

[188] NewZoo 2012 Research and Analysis, April, 2012.

[189] New Report Details Demographics of Mobile Gamers Buying Virtual Goods, John Gaudiosi, Forbes, December 20, 2011.

represented 43 percent of all virtual goods spending, compared to 18 to 35 year olds who made up 43 percent of the survey base but represented only 18 percent of virtual goods purchases.[190] This data, while unsurprising given that younger people generally have more time to spend on mobile games while older people as a rule have more money to spend on micro-transactions, does support the conclusion that ad-based revenue models may be more successful with younger customers while freemium model may be more profitable among older players.

Figure 54: Percentage of mobile gamers within age group purchasing virtual goods 2011



Source: MocoSpace

Over the past four years, the number of Americans playing games on the Internet for at least one hour per month has increased 241 percent, from 56 million in 2008 to 135 million in 2011.[191] Free-to-play and social games are converting an increasing number of online gamers to the freemium model due in part to the absence of barriers such as retail cost and subscription fees. In addition, an increasing number of people who do not consider themselves as video game players are playing social or mobile games and spending real money purchasing virtual items and upgrades through micro-transactions. Game developers have already taken notice and are finding that the traditional retail model video game is not as remunerative long-term as freemium based applications.

If the Massachusetts State Lottery chooses to offer online products in the future, it will be essential to develop and implement an articulated mobile strategy offering mobile applications linked to the Lottery website and featuring a suite of online products optimized for mobile platforms.

[190] Ibid

[191] Trends in Digital Gaming: Free-to-Play, Social, and Mobile Games, Parks Associates, 2012.

S. Implementation Costs

While the revenue opportunity presented by online products is attractive in the long term, there is a significant cost to market entry, especially during initial implementation. Any lottery seeking to enter the online market will need to invest in technology, infrastructure, product development, personnel and, most importantly, marketing and advertising. This investment would be even more costly for Massachusetts, which has traditionally operated the back end systems of its lottery and utilized multiple vendors.

There are multiple paths to implementing online lottery products. The least costly road to market entry was followed by Illinois, which privatized its lottery and subcontracted Internet sales to Northstar, a consortium formed by GTECH and Scientific Games for the specific purpose of running lottery operations in Illinois. Other US lotteries, including Delaware, intend to partner with a single vendor to supply the Internet operating platform to be used by licensed private gaming companies, in this case the three racinos operating in the state, to offer lottery and casino games online. If the Massachusetts State Lottery Commission follows its current model, it will need to acquire hardware and software equipment, hire and train new personnel, and undertake extensive new product development. Once launched, Internet products will require advertising and promotion to create awareness and attract new customers. By looking at the cost expenditures of other lotteries that have moved to online product sales we can identify general costs of market entry for Massachusetts.

It is difficult to determine the precise costs of implementing online lottery products, as the available public financial records do not break out spending with sufficient granularity to identify specific spending for equipment, personnel, marketing, product development, etc. as it relates to Internet operations. However, we can illustrate in general terms the magnitude of investment in capital and infrastructure required to begin utilizing the Internet as a sales channel for interactive lottery products.

As a general example, when the United Kingdom National Lottery entered the Internet market in 2002 it engaged Camelot as the primary platform provider and initiated a rebranding and overhaul of the traditional lottery as well as initial implementation of online products such as lotto and keno. Parliament allocated a total of $141 million for this effort in 2002, including $72 million for operations and technology, $45 million for advertising, and $25 million for rebranding retail locations.[192] While this example is not directly applicable to Massachusetts given the greater size of the UK market with 62 million in population and a much larger number of retail locations, it does provide some sobering figures for implementation cost. The move to online products has been highly successful for the UK National Lottery, resulting in interactive

[192] Camelot, UK *Daily Mail*

products producing $30 in per capita sales and contributing 15.6 percent of total lottery sales.[193] However, operational costs remain high and in 2011 the UK National Lottery spent $76 million on operating expenses.

Other more recent examples of spending for Internet lottery products in European countries with populations of similar size to Massachusetts, which has an estimated population of 6.6 million in 2011, include the following:

- Veikkaus Oy (Finland population 5.4 million in 2012) spent $9.3 million on product development and 21.1 million on advertising during 2011.[194]
- Norsk Tipping (Norway population 4.9 million in 2012) spent $31.6 million on advertising during an Internet site revamping during 2011.[195]
- Danske Spil (Denmark population 5.6 million in 2012) spent $6.1 million on marketing for new game development in 2011.[196]

Closer to home in North America the British Columbia Lottery Corporation once again provides a useful example for estimating relative expenditures during implementation of online products. The BCLC staged its implementation in phases, one online product or class of products at a time over a six-year period. We believe that this is the optimum policy for leading lotteries to follow as it spreads the internal investment cost and external retailer impact of new online products over time, provides opportunities to assess progress and react based upon actual results and it allows time to develop the internal skills and knowledge base to assure success in operating, developing, and marketing online products.

The British Columbia Lottery Corp. also utilizes multiple vendors to operate its wide variety of online products while controlling the back end systems behind the main platform. For example, the PlayNow.com website uses PaddyPower the Irish bookmaker and one of Europe's largest sports betting companies, for oddsmaking while OPenBet provides the sportsbook platform software. British Columbia began planning for Internet sales in 2002 and signed a contract with GTECH in 2003 to provide the main operating platform for online product sales.

The phased implementation began in 2004 and initially started with lotto, keno and sports betting offered by the end of 2006. Beginning in 2008 the BCLC started pushing strongly into interactive products with online versions of scratch games being offered. These instant games were analogous to traditional products but not exact copies that would compete directly with the products offered in retail locations. In 2009 the BCLC implemented peer-to-peer multiplayer eBingo as an online product, followed closely by ePacific Holdem poker.[197] In 2010 major

[193] National Lottery Commission Annual Report and Accounts, 2010/11.

[194] Veikkaus CSR Report and 2011 Annual Report 2011.

[195] Norsk Tipping Annual Report 2011.

[196] Danske Spil Profits Soar in a Liberalised market, G3 Newswire, September 7, 2012.

[197] BCLC The New Age of Gaming, presentation by Kevin Gass, VP Corporate Affairs at AGRI Conference, 2011

enhancements were made to online products as the BCLC instituted the PlayNow.com site featuring a full array of social, casino, and poker games, adding more than a dozen new products to their online offerings.[198] This new site integrated all of the online product offerings through a single portal with a single player account management engine provided by OpenBet.

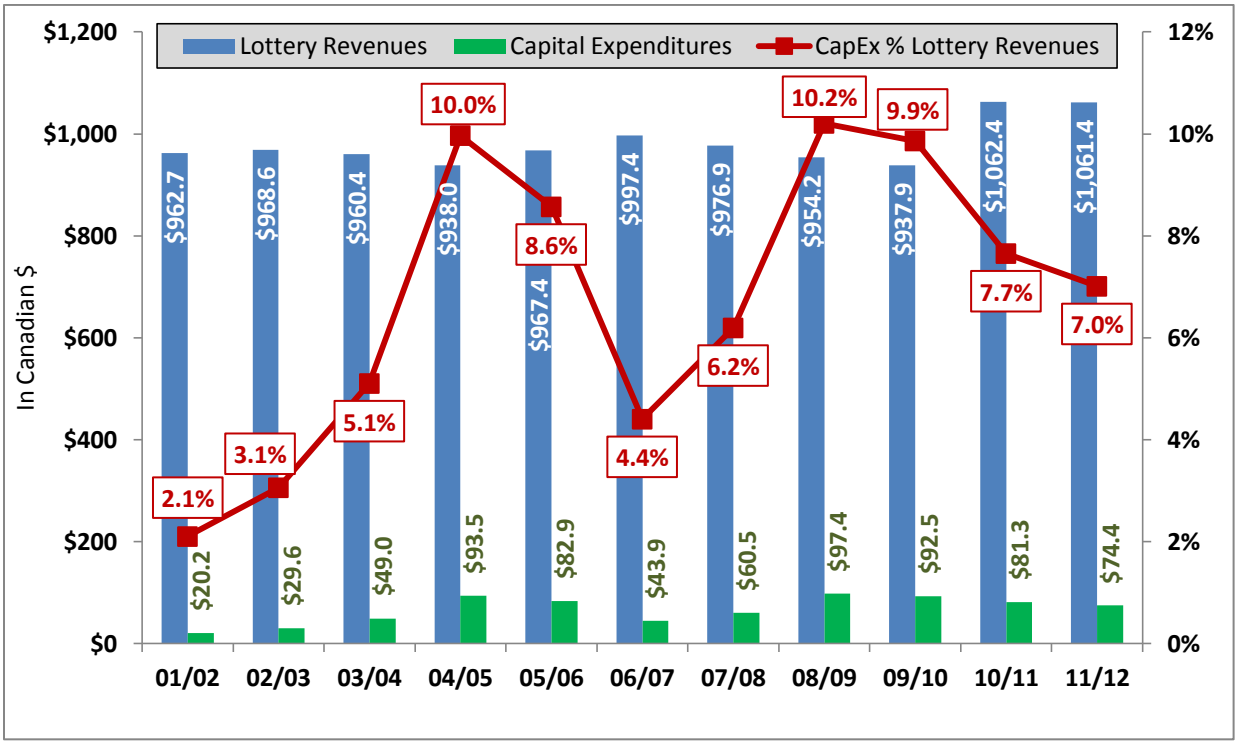
Despite a serious security breach in July of 2010 that led to 134 player accounts being compromised, the PlayNow.com installation has been highly successful. In fiscal 2011/12 PlayNow.com revenue rose 34.6 percent over the previous period.[199] BCLC officials in public remarks at lottery conferences repeatedly state that the online player is for the most part a completely different customer than the traditional lottery ticket purchaser. The majority of newly registered PlayNow.com customers are younger (under 34 years of age) and reflect higher education and income levels compared to traditional lottery customers.

While the BCLC's implementation of online products has undoubtedly proven successful it has also been costly to acquire the technological capabilities. Capital expenditures equaled 10 percent of total lottery revenues at the peak investment periods. Looking at capital expenditures as a proportion of total lottery sales, we can see that the BCLC ramped up spending during the most important phases of its implementation strategy: the initial acquisition of an Internet products platform in 2004, and the conversion of the eGaming operation to PlayNow.com in 2010.

[198] BCLC The New Age of Gaming, presentation by Kevin Gass, VP Corporate Affairs at AGRI Conference, 2011

[199] 2011/2012 BCLC Annual Service Plan Report

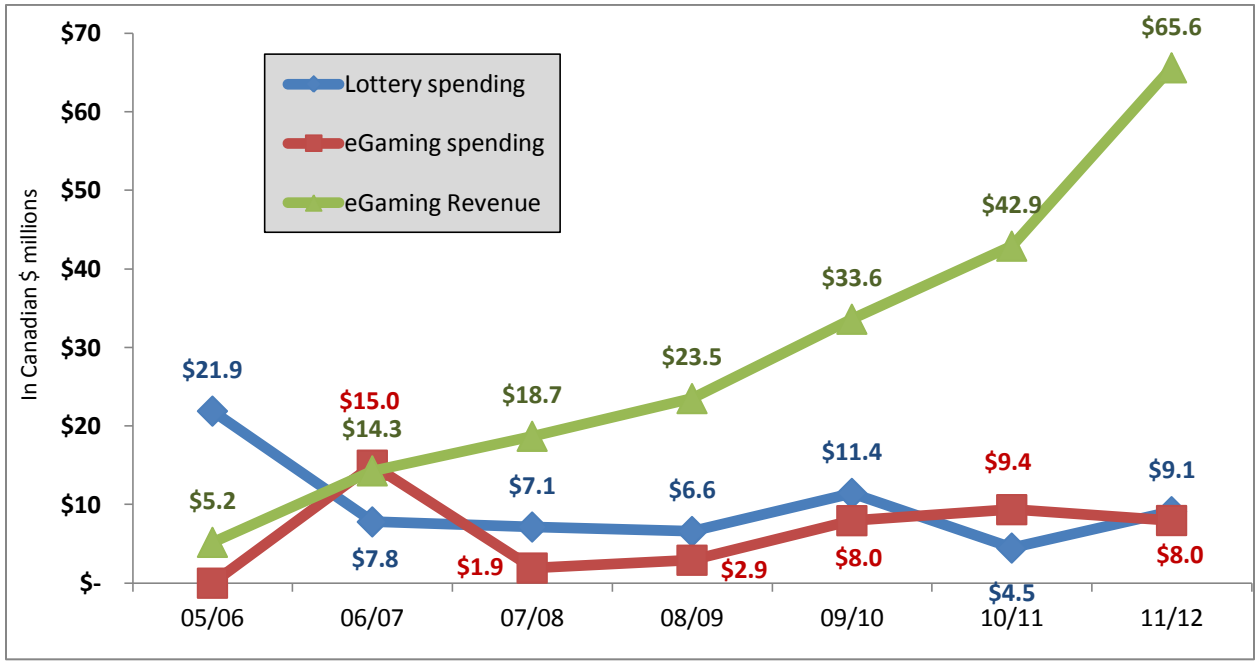
Figure 55: BCLC capital expenditures as a percentage of lottery revenues, 2001-02 – 2011-12



Source: BCLC

A more granular view of the cost of implementing online products can be obtained by charting British Columbia's spending on technology and infrastructure compared to the revenue generated from eGaming, which BCLC began breaking out as a separate line item in fiscal 2006-07. As the following chart illustrates, spending on technology and infrastructure exceeded the revenue generated by online products through the first two years of operation. It was not until revenues approached $20 million that online products could be considered to reach breakeven, a metric common to ecommerce implementations in other industries according to Forrester Research.

Figure 56: BCLC lottery and eGaming expenditures and eGaming revenues 2005-06 – 2011-12



Source: BCLC

Lotteries entering the online products field should think and spend as if they were an ecommerce startup company, at least in the initial implementation period. Beyond startup costs, continuing expenditures will be required to maintain these new capabilities. In fiscal 2010-11 the BCLC spent Cdn $4.4 million Canadian with its primary online products vendor, OpenBet, and increased these expenditures to $5.4 million in fiscal 2011-12.[200] In fiscal 2011-12 the BCLC spent a total of Cdn $11.0 million on the PlayNow.com specifically and another $5.1 million on the Gaming Management System ("GMS"), also provided by OpenBet, maintaining customer accounts on the operating platform, or a combined total of $16.1 million to maintain a full-blown eGaming system offering a wide array of online products.[201] The GMS system is in the early phases of implementation and the BCLC has budgeted $44.2 million for the next fiscal year, or a total of $52.4 million on PlayNow.com as a whole in fiscal 2012-13.

These costs do not include personnel expenditures, which are difficult to separate by operational area when looking at financial statements. It will be essential for the Massachusetts State Lottery to employ a minimum number of key personnel experienced in online operations, gaming and marketing. Fully developed Internet lottery operations that we have examined in other jurisdictions generally include staff positions for an executive-level head of the online products division; director-level positions for business development, marketing, project management and operations; and manager-level positions for marketing, e-gaming operations,

[200] British Columbia Lottery Corporation, Financial Information Act, Fiscal Year Ended March 31, 2012

[201] 2011-12 BCLC Annual Service Plan Report

business development, player relations and data analytics. As a general benchmark for a North American lottery operating a full online product platform, in fiscal 2012 the BCLC spent Cdn. $82.1 million on employee costs, an increase of 7.2 percent over the previous fiscal year.[202]

[202] British Columbia Lottery Corporation, Financial Information Act, Fiscal Year Ended March 31, 2012

T. Legal, Regulatory Issues

Comprehensive oversight and regulation of gambling – already in place in many states and nations – can help ensure that Internet gambling is operated by those who have demonstrated the requisite level of good character, honesty and integrity. And we note that technologies exist to help ensure that it can be regulated in more than name only.

Take, for example, the following excerpt from a December 2009 paper, "Can Internet Gambling Be Effectively Regulated? Managing the Risks," authored by Malcolm K. Sparrow of the John F. Kennedy School of Government at Harvard University:

> "Notwithstanding the current prohibitionist legal and regulatory approach, millions of US residents gamble online through offshore gambling sites. As a result, the United States finds itself in the unfortunate position of incurring all the social costs of online gambling while having no control over the gaming sites that serve US residents. The United States cannot disqualify industry participants from competing effectively for US-based customers or offer its residents any consumer protections. Nearly all states permit some form of commercial gambling, and the industry is large and well-established. Clearly, policymakers have extensive precedent from which to draw strategies to mitigate the potential social harms of gambling. Although some controls used in bricks-and-mortar casinos may not translate well to online gambling, several of the risks we examined become *more* amenable to control online. New technologies can be effective, even for those risks that are more difficult to address online. For example, geolocation and age verification technologies can help turn potentially significant risks into manageable ones."[203]

There are a number of legal issues which must be addressed by the Lottery prior to entry into the online space. First and foremost, the Massachusetts General Court must pass enabling legislation that specifically allows the Lottery to offer products over the Internet. Greenberg Traurig LLP was contracted by the Lottery to study the December 23, 2011, Department of Justice opinion regarding Internet lottery sales and answer three questions:[204]

- "Is the MSLC currently authorized to sell products over the Internet or other electronic communications? If so, what products may it sell or not sell?"
- "Does the DOJ opinion limit its scope to intrastate sales to adults?"

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[203] http://www.house.gov/apps/list/hearing/financialsvcs_dem/sparrow.pdf and http://www.scribd.com/doc/23677373/Can-Internet-Gambling-Be-Effectively-Regulated-Managing-the-Risks-Wired-Safety-12-02-09

[204] Overview of Federal and Massachusetts Law Concerning Internet Lottery Games, Greenberg Traurig, 2012.

- "Is an individual/entity that is not the MSLC currently authorized to sell gambling products over the Internet or other electronic communications in the Commonwealth?"

Greenberg Traurig's response to the first question above is negative. The Lottery is not authorized under current legislation to sell products over the Internet. The DOJ opinion opens the door for future Internet sales but specific state-level enabling legislation must first be passed by the Commonwealth in order to establish legal authorization.

The answer to the second question is affirmative. The DOJ opinion limits sales of Internet lottery products to adults residing within the state.

The answer to the third question is negative. The DOJ opinion does not favor authorizing any entity other than the Lottery to sell gambling products over the Internet, with the exception of certain rights granted to horse and dog racing operators. These responses provide legal assurance that the Lottery can in future offer lottery products over the Internet without violating federal law, provided that such sales become clearly legal under state law. While the DOJ opinion removes the longstanding threat of federal challenges to Internet lottery sales under the 1961 Wire Act, new legislation would be required in order to do so and such legislation would have to specifically authorize Internet lottery games, address issues such as the use of credit cards, and establish age and location verification safeguards to ensure that only in-state adults are allowed to participate. The Legislature can authorize the Lottery, as well as commercial operators to offer Internet poker and casino games but it cannot authorize non-Lottery commercial entities to offer Lottery games.

Beyond enabling legislation, the Lottery must also consider a variety of additional issues. These include the following:

- Freedom of Information Act (FOIA) issues
- Privacy protection
- Credit cards
- Aggregating play for tax purposes
- Security
- Minority (age) issues
- Geolocation
- Registration process
- Play-per-day cap safeguards
- Data protection/security
- Mobile and hand held devices
- Licensing issues

Freedom of Information Act issues are a particular concern for lotteries due to the desire for privacy among players and especially large jackpot winners. In addition, because players will register for online games and all electronic gambling activity is tracked in real time by customer, Internet lottery games operations would provide perfect data regarding individual and aggregate play. This information, were it to be made public, could be utilized to compile loss records for individual players or reverse engineered to determine payout percentages for individual products.

Privacy protection is essential both as a player obligation and from a public policy standpoint. Players are unlikely to register for online play if there is any uncertainty regarding the security of their personal information.

1. Licensing issues

As online gambling, lotteries, casino gambling and social gaming converge, one issue that is evolving is the question of who should issue licenses, and by what standards?

Spectrum has performed several licensing investigations for domestic lotteries, and has assisted lotteries and gambling regulatory agencies in the establishment of regulations and staffing related to the control of this process. We note from our experience that traditional lotteries are not set up to investigate entities, nor to issue licenses based on probity standards that are common in online gambling, such as the establishment of an applicant's good character, honesty and integrity.

At the same time, it is clear that European licensing agencies – based in such locales as Malta, Gibraltar, Guernsey, and the Isle of Man – have standards for licensure that might be considered inadequate by US standards. We base that conclusion on the simple fact that the European operators caught up in "Black Friday" – when the DOJ handed down indictments against multiple operators who had taken bets in the United States – were all licensed in Europe.

Notably, at least some of these locales have focused on becoming regulatory centers, in part, because that entails its own economic benefits for these regions. Consider the following summary from the *Financial Times* of London:

> "Online gambling has become a rapid growth sector on Guernsey and the Bailiwick has capitalised on the reputation of the regulatory regime established more than a decade ago on its tiny neighbour island Alderney.
>
> "According to a report from accountants KPMG, the online gambling industry contributed £50m ($80m) to Guernsey's economy in 2009, up from £7m in 2007. Moreover, KPMG predicts further growth of 40 per cent in the next couple of years.
>
> "While still a small sector compared with financial services, online gambling is seen as a welcome diversification that puts Guernsey alongside other offshore jurisdictions such as Gibraltar, Malta and the Isle of Man, which have lured gaming companies and bookmakers away from the UK mainland.

"Sportingbet is the largest employer in the sector, with 100 staff on Guernsey and nine on Alderney, while Virgin Games has also established a presence.

"The Alderney Gambling Control Commission has issued about 45 licences to companies including Rank, Gala Coral and Blue Square, with most operating through Guernsey.

"'Regulation is probably the key,' says Bob Dutnall, Sportingbet managing director. 'You need stability and robust regulation and Alderney is at the forefront of that across the world.'

"André Wilsenach, chief executive of the Alderney Gambling Control Commission, the sector's regulator which oversees companies on both islands, says: 'We are one of the longest established online gambling authorities. Alderney is leading the online gambling world in terms of regulation.'

"That regulatory position 'didn't just happen', he adds. Alderney sought to capitalise on the growth of telephone betting in the late 1990s but quickly realised the future was online."[205]

Contrast that with the evolution of gambling regulation in the United States, when agencies such as the New Jersey Casino Control Commission, the Nevada Gaming Control Board and others – including the Massachusetts Gaming Commission – were established for reasons that range from the need to prevent organized crime infiltration into gambling to the need to maintain public confidence in the integrity of the process.

We expect such contrasts to become more evident as casinos, lotteries and foreign operators converge in the United States. One question remains open: Will lotteries and other government agencies – including tribal – establish and/or maintain high licensing standards, or will there be pressure to adopt the lowest common denominator?

Notably, different groups can be expected to press for differing standards, depending on which position fortifies their present competitive stance. For example, some European operators – and, possibly, with the support of their US clients or partners – would be more likely to seek standards that allow them entry into the US market. Such standards could be set based on specific criteria, such as whether or not they accepted or facilitated wagers in the United States before or after April 2006 (when the Unlawful Internet Gambling Enforcement Act was adopted).

By contrast, other groups – such as existing vendors that supply the domestic gambling and lottery markets – which have already been licensed by US standards would be expected to push for higher standards, effectively using those standards as barriers to entry to develop or maintain competitive advantages.

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[205] Online Gambling: Islands Bet on High-Tech Industry for Jobs and Growth, Bob Sherwood, Financial Times of London, November 17, 2010.

One notable characteristic of the present European online gambling market is the rise of affiliates – which can be thought of as either online junket operators, or online lottery agents. Such affiliates effectively provide links to online gambling sites in exchange for some remuneration based on the level of play received. By most US standards, affiliates would likely face a requirement to meet high licensing standards since they do participate in the sharing of gambling revenue. That is largely an unfamiliar concept in Europe, where affiliates effectively fly under the licensing radar.

We cannot accurately assess at this early stage how US regulators may address the issue of licensure for affiliates, but one indicator is how Nevada is approaching the issue. According to Mark Lipparelli, chair of the Nevada Gaming Control Board, regulators there are leaning toward a "call forward" system in which affiliates can operate without the expense and risk of licensure. However, if regulators receive intelligence or other actionable information that an affiliate may not meet the state's standards for good character, honesty and integrity, investigators can call that affiliate forward to require they apply for, and receive, a license from the state.[206]

2. Internet/Sweepstakes Cafes

One of the more recent developments that bridges both land-based and online gambling operations is the rise of Internet/sweepstakes cafes, often known as cyber cafes, across the United States. *Bloomberg Businessweek* estimates that there are between 3,000 and 5,000 of these facilities operating nationwide and, while none of them report public earnings, current revenue estimates approach $6 billion annually.[207] Up to $1 billion alone is thought to be generated in Florida by a total of up to 1,500 Internet café sites.[208]

These storefront operations are often located in strip malls and suburban areas close to residential neighborhoods. They operate on the subscription model, with customers paying for blocks of Internet time during which they can play games that look like electronic slot machines for points and prizes such as additional Internet time or pre-paid telephone cards. Because no money is wagered at the machines and no cash is transferred on winning, the subscription model is not characterized as gambling but rather a form of "sweepstakes promotion."

According to *Businessweek*, this is a high-cash-flow, high-margin business in which a single terminal at a successful cafe can generate $1,000 to $5,000 per month in gross revenue. This implies that a moderate facility with 100 machines could produce approximately $250,000 a month in "handle," or roughly $3 million a year. Businessweek suggests that in less than 10

[206] Interview with Mark Lipparelli, January 2012

[207] "The Casino Next Door," *Bloomberg Businessweek*, April 25, 2011

[208] Marc W. Dunbar, Esq, speaking on April 19, 2012

years of operation, Internet/sweepstakes cafes in the United States have grown into a collective $10 billion to $15 billion industry.[209]

Most of these Internet/sweepstakes establishments operate in gray area in local, state and federal law. Legal challenges are ongoing at the various level of the legal system as current statutes are contested in dozens of states across the nation. Spectrum carefully examined whether the legalization of Internet-based state lotteries could lead to the establishment of Internet cafes. Our research indicates that the integration of Internet-based state lotteries and Internet cafes is a remote possibility, based on the legal implications and public policy issues surrounding the controversial Internet café industry.

In June 2011, Massachusetts Attorney General Martha Coakley issued a new permanent regulation banning gambling at these sweepstakes casinos, citing evidence that illegal gambling was going on at "Internet cafés" throughout the state. The regulation bans the operation of establishments "where a gambling purpose predominates over the bona fide sale of bona fide goods or services" – in this case, cyber cafés and phone card video game terminals. The attorney general contends that many establishments that offer these services are actually fronts for illegal online gambling, including unlawful lotteries, online slot-machine games, sweepstakes, and other forms of gambling.

In Florida, as part of their marketing research, many savvy Internet café operators have filed freedom of information requests with the state lottery seeking to obtain lottery data regarding the highest-grossing lottery retailers in a particular area. The Internet café operators then try to locate an Internet café site within a close proximity of the lottery retailers. The Internet café operator's marketing research indicates that the lottery "scratch-off" player is also a "typical Internet café" patron. This interaction between the these two forms of gambling has given rise to the view that that state-sanctioned lottery games, including legalized online gambling, and Internet cafes could lead to "a merger of the two" in some jurisdictions.

Historically, as a legal matter, enabling legislation for the operation of state lotteries has not specifically been extended to Internet cafes. There are no examples in the history of lottery gambling in which a state lottery has incorporated Internet cafes as part of its business model. State lottery statutes would have to be amended to permit a state-operated lottery to extend its existing lottery agent network to provide a lottery retailer license to an Internet café operator. The authorization of Internet gambling as an addition to a state lottery's gambling options would have to specifically grant Internet cafes the capacity to become a legal lottery retailer.

The very legality of Internet cafes and the challenging public policy issues surrounding this controversial form of gambling make the possibility of the integration of Internet cafes and online lottery remote. The state-sanctioned combination of Internet cafes and online lottery play would be subject to complaints from existing lottery retailers, many of whom have voiced

[209] "The Casino Next Door," *Bloomberg Businessweek* , April 25, 2011

objections to online gambling in general. The direct threat to existing physical lottery retailers presented by the integration of Internet cafes into existing lottery operations is a matter that lottery retailers would very strongly oppose.

The political efforts of Internet cafe operators to be included in any move to authorize Internet lottery could prove to be a difficult undertaking given the legal gray area that most of these establishments operate within. Absent any specific mandate to the lottery that it must include Internet cafes as part of authorizing online gambling, the merger of the two forms of gambling is improbable.

One example of how the dynamics of this issue may be argued is the establishment of the New York Lottery in 1977. The popular "numbers runners" in many urban New York neighborhoods were not incorporated by the new state-sanctioned lottery business model and were virtually replaced by legal lottery retailers. In 1995, when the New York Lottery authorized Quick Draw keno, the gray area "joker poker" machines in New York City were not made part of the legal lottery retail network.

The issue of Internet cafes has been a concern in multiple states, as noted in a veto last year by New Jersey Gov. Chris Christie of legislation that would authorize Atlantic City casinos to offer Internet wagering.

The *New York Times* reported in January 2011:

> "Mr. Christie vetoed the bill in part over concerns that it would undermine his administration's efforts to prop up Atlantic City, whose gambling revenues have suffered as neighboring states have opened casinos. In his veto message, Mr. Christie noted that 'nothing contained in the legislation would prohibit commercial establishments outside Atlantic City such as nightclubs, bars, restaurants, cafes and amusement parks from offering Internet gambling opportunities.'
>
> "But this month (January) Mr. Christie said that 'given the Justice Department's go-ahead,' the state should move forward with its plans. 'I think New Jersey should be in that business, I think we should be an epicenter for that business, but I want to do it right' he said."[210]

The revised legislation addresses the issue of Internet cafes by prohibiting such facilities from advertising.[211] As of this writing, the revised legislation has not been voted on by either the full Assembly or the Senate in New Jersey.

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[210] "As States Weigh Online Gambling, Profits May be Small," by Michael Cooper, *New York Times*, January 17, 2012 http://www.nytimes.com/2012/01/18/us/more-states-look-to-legalize-online-gambling.html (accessed May 5, 2012)

[211] Email from William J. Pascrell, Princeton Public Affairs Group. May 7, 2012

U. Technology Issues

Most lotteries and gambling regulatory agencies were established in an era when policies were simpler, as was the gambling technology. The testing of video lottery terminals and controls involved with instant lottery games have never needed to confront such issues as age verification, geolocation, online collusion and other issues that are central to online gambling. Moreover, online gambling is emerging in the United States at a time when technology testing is increasingly being outsourced to a handful of qualified firms. While, for example, regulatory agencies in Nevada, New Jersey and Pennsylvania could find it cost effective to establish their own in-house testing laboratories for slot machines, that is increasingly less practical in an online world.

Spectrum interviewed several technology firms for this report. One such firm, which oversees financial transactions, is Prelytics, based in Las Vegas. CEO Dan Ives noted the following: "This (trend toward outsourcing testing) is compounded dramatically by the fact that the gaming ecosystem has evolved from closed, proprietary hardware and firmware based systems to open, standardized technology based systems in which substantial understanding of the technology capabilities, security and communications methods are as in important as, if not more important than, the elements of the game itself."[212]

Because of the unique nature and heightened requirements governing online gambling, however, the importance of testing has not been diminished. An important role for regulators, then, is to recognize the need for outsourcing to qualified firms while establishing the parameters for testing that meet their jurisdiction's specific policy needs.

Ives noted:

> "By the very nature of online gaming, the scope of the policy considerations will inherently increase. As an example, when moving from a terminal based system into which one applies cash or cash equivalent payments, online systems by definition will likely require other forms of funding. By definition this implies a provision for personal payment information which now expands the scope into payment processing regulations and potential privacy considerations as both personal information and potentially personal geolocation information may be required to enable gaming sessions to occur.
>
> **The Online Gaming Ecosystem**
>
> "In the traditional gaming and lottery environment of the 1990s and 2000s, the ecosystem has typically been a closed system – or private network-based environment in which cash equivalents are used for payment and games are generally provided in non-modifiable form on proprietary platforms and in controlled physical environments. The very essence

[212] May 4, 2012 email from Dan Ives to Spectrum

of online systems of any type dictates that these fundamental facts be reversed. Hence, policy considerations pertaining to such a deliverable take on a far greater scope. The very reason the Internet has been able to so dramatically impacted world economies is because the core technologies have been standardized to such a great degree that nearly anyone can development, deploy, manage or exploit these systems. And so, the gaming ecosystem now takes on all of the characteristics and inherent exposures of any other public-facing, online-based financial system. But the core policies and requirements pertaining to gaming don't change. Age and location, regulation of the game itself and control of the transaction remain critical to the policies and outcome.

The Games – Not Just a Program Anymore

"By definition, the scope of the gaming environment is evolving to include not only the games themselves but the elements of communications, security and identification within the eco-system. This evolution was initiated with the advent of networked games and then server based gaming. But, in the online world, this now implies that millions of sophisticated users and developers are highly familiar with the very underpinnings of the core technology and methods under which the games are created and operate. By definition, the standards that have enabled this distributed, highly accessible world are the same factors that must be considered in testing, securing and operating these games. Ultimately, testing and systems assurance become far more complex and mandate greater knowledge and scrutiny of the technology and the entire eco-system not only on issuance or deployment but on an ongoing, real-time basis.

Emerging Critical Technologies

"Affordable technologies are fast emerging that can assist in the application of policies and assurance of online gaming systems. Low-cost, integrated bio-metrics, geo-positional products, multi-faceted authentication methods and new security technologies all are impacting how activities can be transacted online in simple and more secure ways. These technologies ultimately provide regulators more options for assuring the application of their policies, but the costs can be greater and the scope of policy potentially increased. As an example, the use of biometrics continuously during an online gaming session might assure that the participant continues to be a person of the appropriate age, but regulators might now have to consider how that biometric information is stored, by whom, where it is maintained and what elements of privacy might apply in its use, storage and security."

Regulators need to ask certain questions that technology providers – and independent testing laboratories – must answer. Such questions include:

- How reliable is the technology?
- Where is it working?

- What are the anomalies and problems that have occurred thus far and how are they being addressed?
- How is the ecosystem now secured?
- Are systems self-aware and self-auditing?
- How can regulators maintain real-time awareness of system compliance?
- Can regulators settle for less than 100 percent accuracy in testing?

The latter question is particularly important, for example, in issues related to player identification and geolocation. If a player is making online wagers at or near a physical border – which divides the line between acceptable and unacceptable betting – what is the likelihood of an error? Furthermore, what is the likelihood of fraud – or spoofing – such that the geolocation is intentionally altered? Policymakers will have to make determinations as to acceptable levels of errors in such areas, recognizing that they must strike a balance between rejecting a certain level of legitimate play vs. accepting a certain level of illegitimate play.

The Massachusetts State Lottery is asking the essential question: Should its technology be upgraded or replaced? That question is being addressed through the issuance of an RFR. We respectfully suggest that the attendant policy questions posed here are no less important.

As stated above, one of the distinguishing characteristics of the Lottery is that it maintains its own database and information technology infrastructure. While this is an advantage in fostering the independence and innovativeness of the Lottery, it also comes with a cost in terms of supporting and regularly updating those in-house systems.

Internet lottery sales and potentially new online product lines will likely exceed Lottery capabilities, given current hardware and software systems. Similarly integrating systems with Internet gambling vendors/suppliers will tax current systems and likely require substantial equipment upgrades. Internet gambling will undoubtedly increase system utilization loads and add a variety of security issues. The Lottery is currently out for bid for a consultant to assist it in preparing an RFR for the development of a new system to support all future technology needs, including Internet capacity, should the Lottery be directed to pursue that course of action.

V. Public Policy Issues

Based on our global observations of the state of online gambling, we suggest that many views of the future tend to be rather myopic, and do not account for one fundamental characteristic of the Internet: Its ability to change rapidly. Consider that, in five years, today's 13-year-olds will be legally allowed to play the Lottery. Will they be satisfied with current games, or will they gravitate to new offerings designed with them in mind? Clearly, the latter scenario is more likely. That means, in part, that many of the games that adults will be playing online in five years have not, as of this writing, been invented yet.

The Massachusetts State Lottery thus has an opportunity to develop new offerings and enhance its independence by developing a system that encourages new game developers to adhere to certain requirements:

- Games must meet all standard requirements for lottery offerings, including requirements related to fairness, chance, pay tables and other requirements.
- At the same, time, however, developers should be required to demonstrate that a new offering holds a reasonable chance of reaching new, younger demographics.

The latter goal could be achieved, in part, by testing games out in other settings, such as play-for-fun sites, through focus groups or other means. Such issues will be explored as this research and analysis continues. By developing such criteria, and opening opportunities to a variety of potential developers, it would encourage individuals, small businesses and other firms to become lottery suppliers. This assumption is based on the observation that the development of a new game has low financial barriers to entry. Cost is secondary to creativity.

With respect to the relationship between future land-based casinos and the Lottery, the following factors need to be considered:

- Cross-marketing efforts should be considered that would allow casinos and the Lottery to develop more attractive offerings. For example, by allowing casinos to offer complimentary items – ranging from meals to show tickets to room nights – to lottery players would make the Lottery offering more attractive while also allowing casinos a low-cost means of identifying and cultivating loyal, profitable customers.
- The online policies and programs of the Lottery and the casinos should be effectively coordinated to eliminate, or reduce, potential problems that could result from both entities offering similar online games.
- Casinos will be required to be Lottery agents under the Expanded Gaming Act of 2011, but we suggest that they be encouraged to be enthusiastic, effective Lottery agents, taking advantage of their position as attractions to out-of-state gamblers.

We recognize that some existing retailers might prefer that casinos not offer Lottery products, but that is neither realistic nor justified. In states such as New Jersey, casinos are traditionally among the best-performing lottery agents without having any discernible impact on other retailers.[213]

[213] Comprehensive Analysis: Projecting and Preparing for Impact of Expanded Gaming on Commonwealth of Massachusetts, Spectrum Gaming Group, August 1, 2008, p. 137-138

W. Problem Gambling

Warning: Gambling involves risk. By gambling on this website, you run the risk that you may lose money or suffer psychological injuries.

– Notice on sportingbet.com, a London-based Internet gambling website

1. Background

Various studies and organizations put the prevalence of pathological gambling at up to 1 percent of the US adult population, or up to roughly 2 million people, in a given year. The National Council on Problem Gambling ("NCPG") estimates that another 2 percent to 3 percent, or between 4 million and 6 million, have problem gambling, meaning they "meet one of more of the criteria and are experiencing problems due to their gambling behavior."[214] The Massachusetts Council on Compulsive Gambling ("Massachusetts Council") estimates that between 85,000 and 185,000 of Massachusetts adults have experienced disordered gambling (see definition below) in their lifetimes.

There are various professional and general terms used in assessing gambling problems, and they are often used interchangeably. The following definitions are provided by Massachusetts Council:[215]

- **Pathological gambling:** The American Psychiatric Association classifies pathological gambling as an impulse control disorder and defines it as the "persistent and recurrent maladaptive gambling behavior that disrupts personal, family or vocational pursuits" "Compulsive gambling" is the original lay term for pathological gambling.
- **Sub-clinical pathological gambling (i.e., problem gambling):** Gambling behavior that does not necessarily meet the criteria for pathological gambling but results in harmful effects to a gambler, his or her family, significant others, friends, co-workers, and others.
- **Disordered gambling:** Used to describe the combination of pathological and sub-clinical pathological gambling.

For purposes of this report, we use the popular term "problem gambling"[216] throughout as an umbrella term that includes pathological, compulsive and disordered gambling activity. The NCPG defines "problem gambling" as follows:

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[214] NCPG, http://www.ncpgambling.org/i4a/pages/Index.cfm?pageID=3315; accessed October 18, 2012

[215] http://www.masscompulsivegambling.org/stuff/contentmgr/files/47ef8aeda7ca662202dd1196f5dcb77c/download/mass_council_fact_sheet_general_2011_v1.pdf

"Problem gambling is gambling behavior which causes disruptions in any major area of life: psychological, physical, social or vocational. The term 'Problem Gambling' includes, but is not limited to, the condition known as 'Pathological,' or 'Compulsive' Gambling, a progressive addiction characterized by increasing preoccupation with gambling, a need to bet more money more frequently, restlessness or irritability when attempting to stop, 'chasing' losses, and loss of control manifested by continuation of the gambling behavior in spite of mounting, serious, negative consequences."

The personal consequences of problem gambling can include bankruptcy, criminal action, suicide, divorce, family fighting, job loss, medical problems and emotional issues. The societal consequences include increased need for social services, law enforcement and judicial services.

The standard clinical tool used to determine pathological gambling uses criteria established in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (commonly known as "DSM-IV"). The criteria are as follows:

- Persistent and recurrent maladaptive gambling behavior as indicated by five (or more) of the following:
    1. Is preoccupied with gambling (e.g. preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)
    2. Needs to gamble with increasing amounts of money in order to achieve the desired excitement
    3. Has repeated unsuccessful efforts to control, cut back, or stop gambling
    4. Is restless or irritable when attempting to cut down or stop gambling
    5. Gambles as a way of escaping from problems or of relieving a dysphoric mood (e.g. feelings of helplessness, guilt, anxiety, depression)
    6. After losing money gambling, often returns another day to get even ("chasing" one's losses)
    7. Lies to family members, therapist, or others to conceal the extent of involvement with gambling
    8. Has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling
    9. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling
    10. Relies on others to provide money to relieve a desperate financial situation caused by gambling
- The gambling behavior is not better accounted for by a Manic Episode.

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[216] The term also commonly used in the Massachusetts Expanded Gaming Act of 2011.

Gamblers exhibiting three or four of the above criteria are deemed to be problem gamblers (as opposed to pathological). The NCPG advises gamblers who answer "yes" to even one of 10 similar questions that it poses to seek professional help.

Kathleen Scanlan of the Massachusetts Council provided the Working Group with a another measure of the prevalence of problem gambling, showing four levels of gambling behavior along a wagering continuum:

Figure 57: Gambling-behavior continuum

Gambling Behavior	Description	Population %
Level Zero	Never gamble	20%
Level One	Healthy gambling	77%
Level Two	Unhealthy/Problem	0.9 – 2.3%
Level Three	Compulsive/Pathological	0.4 – 0.6%

Source: Massachusetts Council on Compulsive Gambling

The figures cited for dangerously compulsive gambling by the Massachusetts Council appear to be relatively consistent across international borders, types of betting games, and distribution channels for gambling products. The 2010 British Gambling Prevalence Study used two different methods to assess the rate of problem gambling among adults in the UK. The first method estimated suggested it is 0.7 percent and the second 0.9 percent. In the 2007 survey, both methods indicated a rate of roughly 0.6 percent.[217]

Problem gamblers often have other disorders as well, or what clinicians call "comorbidity." A 2005 study by Department of Psychiatry at the University of Connecticut Health Center found that "almost three quarters (73.2%) of pathological gamblers had an alcohol use disorder, 38.1% had a drug use disorder, 60.4% had nicotine dependence, 49.6% had a mood disorder, 41.3% had an anxiety disorder, and 60.8% had a personality disorder."[218] Researchers therefore say it is difficult to isolate gambling as the primary source of an individual's addiction; it could also be the result of another addiction.

2. Problem Gambling and the Internet

Any discussion on the introduction of Internet gambling to a new jurisdiction raises the specter of increased problem gambling issues and poses new questions regarding gambling and social responsibility. Because the appeal of the Internet is based fundamentally on the greater convenience of being able to do things from the comfort and privacy of one's own home, it is often assumed that greater convenience and 24/7 access will concomitantly bring with it greater additive gambling behavior.

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[217] British Gambling Prevalence Study, 2010

[218] National Center for Biotechnology Information, US National Library of Medicine; http://www.ncbi.nlm.nih.gov/pubmed/15889941

Researchers have found that existing studies of Internet gambling are of limited value in determining whether the availability of Internet gambling increases either severity or likelihood of problem gambling. Authors Debi LaPlante, et al.[219] in 2012 cited several studies from 2001-09 that reported a higher prevalence of problem gambling among Internet players, adding an important caveat:

> "Unfortunately, most of the early research focusing on the prevalence of Internet gambling and disordered Internet gambling is not necessarily representative of the population at-large or the subgroups of the general population to which they should generalize. Furthermore, the empirical data collected were self-reported: the guiding methodological approach for this period is the use of recalled data. Though relatively valid for basic prevalence estimates, self-report data are vulnerable to a variety of biases that limit their usefulness for inferring causality or temporal sequence, including faulty memory, self-deception, other deception (e.g., impression management), and simple reporting errors. Nonetheless, these studies ushered in the current period of 'normal science' for Internet gambling research. The guiding conceptual view for this period includes the assumption that Internet gambling is an especially dangerous form of gambling predominantly characterized by excess."

They added:

> "... These studies champion a clarion call to researchers and policy makers for more research that uses actual Internet gambling data."

Rachel Volberg, president of Northampton-based Gemini Research Ltd. and a widely respected problem-gambling epidemiologist, believes the self-reported data can be of great value, noting that "Some ways of asking about such behavior are better than others."[220]

Perhaps the most useful study of actual Internet gambling behavior is *The bwin.party DOA research collaborative*. The bwin.party DOA collaborate involves a major international Internet gambling operator – bwin.party digital entertainment PLC of Gibraltar – and the Division on Addiction ("DOA") at Cambridge Health Alliance, a Harvard Medical School teaching affiliate. The collaborative began in 2005 and has generated a series of studies that have established benchmarks not only for problem gambling but also for normative, or healthy, gambling behavior.

Through the course of the study, bwin.party has provided anonymous data on over 100,000 customers,[221] and the initial case study was conducted on 49,000 online players covering

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[219] Debi A. LaPlante, Sarah E. Nelson, Richard A. LaBrie and Howard J. Shaffer, "The bwin.party division on addiction research collaborative: Challenges for the 'normal science' of Internet gambling," In R. J. Williams, R. T. Wood, & J. Parke (Eds.), Routledge International Handbook of Internet Gambling, pp. 161-179; 2012.

[220] Interviewed October 30, 2012.

a more than three years of activity, making it the largest longitudinal study of its kind ever conducted. The DOA publishes its research in scientific journals after a peer-review process. In addition, the data upon which the results were based are made available online as part of the Transparency Project, allowing other independent experts to verify the findings and to complete their own scientific research.

On March 22, 2012, the Task Force met with Kathleen Scanlan and Jim Wuelfing of the Massachusetts Council, where findings of from the bwin.party DOA collaborative were presented. Among the findings from the bwin.party DOA collaborative:[222]

- Problem gambling rates on the Internet are not significantly different from problem gambling rates observed with other forms of land-based gambling.
- Problem gambling indicators are less associated with magnitude of betting or volume of transaction but more with indiscriminate betting across multiple and diverse products.
- Self-imposed limits are a stronger identifier of problem gambling than site-imposed limits.
- Tracking software and data analytics can be used to identify potential problem gamblers early on for remedial action.

More specifically, in a 2008 report using bwin.party data, authors Richard A. LaBrie, et al, provided revealing, data-driven findings

> "The sample included 4,222 gamblers who played casino games. Results: The median betting behaviour was to play casino games once every 2 weeks during a period of 9 months. Subscribers placed a median of 49 bets of €4 each playing day. Subscribers lost a median of 5.5% of total monies wagered. We determined a group of heavily involved bettors whose activity exceeded that of 95% of the sample; these players bet every fifth day during 17.5 months. On each playing day, these most involved bettors placed a median of 188 bets of €25. Their median percent of wagers lost, 2.5%, was smaller than that lost by the total sample.
>
> "Conclusion: Our findings suggest that Internet casino betting behaviour results in modest costs for most players, while some, roughly 5%, have larger losses. The findings also show the need to consider time spent as a marker of disordered gambling. These

[221] National Center for Responsible Gaming, NCRG Conference: Responsible Gaming on the Internet – The Bwin.party Case Study

[222] Massachusetts Council on Compulsive Gambling, Treasurer Grossman's On-Line Products Task Force presentation, March 22, 2012

findings provide the evidence to steer public health debates away from speculation and toward the creation of empirically-based strategies to protect the public health."[223]

In their 2012 report, LaPlante, et al. examined three forms of online gambling – sports betting, poker and casino games – but not lottery. In fact, the word "lottery" does not appear in their 2012 report, perhaps underscoring the lack of lottery online-play research available. This certainly would be true among US players, where the only operating online lotteries are in Illinois and Minnesota, which are relatively new and have limited online products.

With little or no relevant research available, it is uncertain what effect – if any – the availability of online Lottery games would have on problem gambling in Massachusetts. Based on our interviews and review of research, we believe the impact will be negligible in the early phase(s) of our recommended introduction of online Lottery games. Gemini Research's Volberg said the "likelihood is relatively low" that merely having tickets for sale online will exacerbate problem gambling. [224] Keith Whyte, the NCPG Executive Director, said he believes that Internet gambling in general may not increase the prevalence, "but may exacerbate some existing problems."[225] Marlene Warner, Executive Director of the Massachusetts Council, noted that lottery play is the No. 1 reason gamblers call her organization for help – "scratch tickets, with casinos not far behind."[226]

The observations of Warner and others underscore our belief that the incidents and/or exacerbation of problem gambling online is more likely to increase (but not necessarily) when (or if) Lottery online play becomes faster-paced with such games as instant scratch-offs, video lottery terminals, etc.

Indeed, a 2010 report from the bwin.party collaborative concluded "that gamblers characterized by high intensity and frequency of gambling and by high variability of wager sizes during their first month of gambling were at higher risk than other gamblers to report gambling-related problems upon closing their accounts."[227]

LaPlante, et al. note in their bwin.party report that the <u>form</u> of gambling does not drive an addiction:

"[I]t is important to note that the isolation of a single type of gambling as inherently addictive is inconsistent with contemporary models of addiction (Shaffer, LaPlante et al., 2004;

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[223] Richard A. LaBrie, Sara A. Kaplan, Debi A. LaPlante, Sarah E. Nelson and Howard J. Shaffer, "Inside the virtual casino: a prospective longitudinal study of actual Internet casino gambling," *European Journal of Public Health*, April 23, 2008, p. 410.

[224] Interviewed July 30, 2012

[225] Interviewed August 1, 2012

[226] Interviewed August 6, 2012

[227] Julian Braverman, Howard Shaffer, "How do gamblers start gambling: identifying behavioural markers for high-risk internet gambling," *The European Journal of Public Health Advance Access*, January 27, 2010

Shaffer, LaPlante, and Nelson, in press). Such models indicate that the object of addiction does not drive the development of addiction. Instead, addiction emerges because of a complicated interaction between individuals, their environment, and the objects with which they interact. Consequently, what might eventually emerge as a primary object of obsession and/or addiction for one person might be completely uninteresting to another. Empirical studies of gambling-related involvement support the proposition that specific objects play a minor role in the development of addictive behaviour (LaPlante, Nelson et al., 2009). If objects themselves were inherently addictive, such inter-individual variance would not occur. It's just not that simple."

3. Massachusetts Policy

The issue of problem gambling takes on newfound importance for the Lottery with both the implementation of online play and with the legalization of casinos in Massachusetts.

First, as noted earlier, online play would transform the Lottery from a distributor of tickets into a gambling operator. The extent to which the Lottery will be a gambling operator will be determined by the number and types of games it will offer online. That is, will the Lottery's online play be more transactional (i.e., merely buying a draw ticket online) or will it be more experiential (actually playing and gambling online)? In Spectrum's opinion, the more experiential Lottery play becomes, the more responsibility it carries to address problem-gambling issues.

Second, the Commonwealth has established – through the passage of the Massachusetts Expanded Gaming Act of 2011 (the "Gaming Act," which authorizes four casinos) – a comprehensive and progressive responsible-gaming policy. Although the Gaming Act applies only to the fledgling casino industry, the Lottery – or perhaps the Commonwealth itself – must decide to what extent the Lottery's online play should follow the spirit of the responsible-gaming measures required of the state's licensed casino operators.

Among other things, the Gaming Act requires the following of the Massachusetts Gaming Commission or casino licensees with respect to responsible gaming:

- "Applicants for gaming licenses and gaming licensees shall demonstrate their commitment to efforts to combat compulsive gambling and a dedication to community mitigation, and shall recognize that the privilege of licensure bears a responsibility to identify, address and minimize any potential negative consequences of their business operations; ..."
- "An agreement that the applicant shall mitigate the potential negative public health consequences associated with gambling and the operation of a gaming establishment, including: ... (ii) providing complimentary on-site space for an independent substance abuse and mental health counseling service to be selected by the commission; (iii)

prominently displaying information on the signs of problem gambling and how to access assistance; ..."

- "Taking additional measures to address problem gambling including, but not limited to, training of gaming employees to identify patrons exhibiting problems with gambling and prevention programs targeted toward vulnerable populations;"
- "Keep conspicuously posted in the gaming area a notice containing the name and a telephone number for problem gambling assistance; provided, however, that the commission may require the gaming licensee to provide this information in more than 1 language;"
- "Provide a process for individuals to exclude their names and contact information from the gaming licensee's database or any other list held by the gaming licensee for use in marketing or promotional communications;"
- "A gaming establishment offering a cashless wagering system shall allow individuals to monitor and impose betting limits on their cashless wagering. The gaming establishment shall allow individuals to set betting limits on their cashless wagering including, but not limited to, per bet limits, hourly limits, daily limits, weekly limits and monthly limits. An individual may lower limits and increase limits; provided, however, that the individual shall not increase betting limits more than once in a 24-hour period. The gaming establishment shall issue to each patron who has been issued a rewards card or who participates in a cashless wagering system by the gaming establishment a monthly statement, mailed to the patron at the patron's physical mailing address, which shall include the patron's total bets, wins and losses; provided, however, that a patron shall be given the opportunity to decline receiving a monthly statement at the time the rewards card is issued or during initial participation in a cashless wagering system; provided further, that a patron may later opt out of receiving monthly statements by providing a written request to cease monthly statements to the gaming establishment.
- The Massachusetts Gaming Commission shall undertake "a baseline study of the existing occurrence of problem gambling in the commonwealth; provided, however, that the study shall examine and describe the existing levels of problem gambling and the existing programs available that prevent and address the harmful consequences of problem gambling; provided further, that the commission shall contract with scientists and physicians to examine the current research as to the causes for problem gambling and the health effects of problem gambling and the treatment methods currently available in the commonwealth; provided further, that the commission shall report on the findings of the baseline study and provide recommendations to the house and senate committees on ways and means, the joint committee on economic development and emerging technologies, the joint committee on mental health and

substance abuse and the joint committee on public health relative to methods to supplement or improve problem gambling prevention and treatment services."

The NCPG's Whyte said of the Expanded Gaming Act, "I think the Massachusetts problem-gambling and responsible-gaming regs are the best effort yet, taking promising practices from across the United States and around the world. It remains to be seen in the long run if the arbitrary level of funding is adequate to build a comprehensive problem gambling services system, and ultimately whether that system can mitigate the impact of expanded gaming and eventually reduce the severity and/or prevalence of gambling problems."[228]

In light of the responsible-gaming policy established by the Commonwealth for casino operators, Spectrum believes the Lottery could face an erosion of public trust and/or goodwill if it does not take similar steps in the areas of problem gambling. As noted above, we believe such steps should be taken at that point Lottery players are gambling online, as opposed to merely purchasing a draw ticket online.

4. Standards for Online Play

At this point, there is no independent, widely accepted responsible-gaming standard for Internet gambling. We note that neither the North American Association of State and Provincial Lotteries nor the World Lottery Association has such online-play standards. The Responsible Gaming Council in Ontario has developed *Responsible Gambling Standards for Internet Gambling*, an extensive code that remains in draft form.

Spectrum recommends that the Lottery follow the NCPG's *Internet Responsible Gambling Standards,* adopted in April 2012. The NCPG developed the Standards based not only the experience of its staff and state affiliates, but also in consultation with responsible-gaming codes and research from 17 international organizations with experience in Internet play. The NCPG in particular noted the work of the Responsible Gaming Council, an independent, progressive and highly regarded organization. It is noteworthy that the NCPG Standards, while addressing Internet play, do complement the responsible-gaming requirements in the Massachusetts casino law.

The NCPG Standards are divided into eight categories:

- Operator Policy
- Staff Training
- Informed Decision Making
- Assisting Players
- Self-Exclusion

[228] Interviewed October 23, 2012

- Advertising and Promotion
- Game and Site Features
- Research

Spectrum believes that the NCPG Standards are comprehensive, reasonable and, importantly, flexible – from the standpoints of both the operator and the player. (See Appendix for the NCPG Standards.) As one example, in the Policies section of Assisting Players the NCPG advises:

> "Clear policies are in place for assessing and handling situations where a player indicates they are in distress or experiencing problems. There is a procedure in place to address third party (e.g., spouse, relative) concerns about players gambling behavior."

Note that the NCPG does not suggest what the policies should be, just that they should be established.

In yet another example, this one directed toward player controls, the NCPG encourages players to set – either online or through a customer-service representative – weekly or monthly limits on their time or amounts wagered, with the following options. Note that the NCPG does not suggest what the settings should be, but only that they should be in place:

- "Players have the option of setting daily, weekly or monthly limits on the size of deposits.
- "Players have the option of setting a system-wide loss or time limit.
- "Players have the option of setting individual loss or time limits of for each type of game offered by the site.
- "Players may lower a limit at any time from their account or with a customer service agent. This will take effect immediately. Players may request increases in or removal of their limits. After a delay of 24 hours, the player must reconfirm their request for the limit to be changed."

When the Lottery establishes its responsible-gaming standards for online play, they should be communicated prominently to players – including a continuously displayed link while playing – so they are aware of the tools and help available. We further recommend that the "help" feature include a live-chat button that instantly connects to Massachusetts Council problem-gambling counselors (assuming cooperation from the Massachusetts Council, of course). Warner said that such a live-chat feature may help problem gamblers before they reach a crisis stage.

5. Opportunity for Research, Tools and Treatment

Both the NCPG Standards and the Gaming Act call for extensive problem-gambling research and for tools – both by the regulators and players. We note that the Gaming Act requires

the Massachusetts Gaming Commission to "develop an annual research agenda in order to understand the social and economic effects of expanding gaming in the commonwealth and to obtain scientific information relative to the neuroscience, psychology, sociology, epidemiology and etiology of gambling." The research agenda, which is ambitious and comprehensive, concerns the field of problem gambling generally; i.e., it does not restrict the research to casino gambling. Therefore, it would be in the best interests (financially and professionally) of both the Lottery and the Massachusetts Gaming Commission for the two gambling-related agencies to cooperate on such research, with the Lottery contributing detailed, aggregate wagering data and funding.

The Gaming Act further requires casino licensees to collectively pay at least $5 million annually to into the Public Health Fund[229] "for the costs of service and public health programs dedicated to addressing problems associated with compulsive gambling or other addiction services." The $5 million assessment can be used to help fund the research agenda noted above. We believe the Lottery should also contribute to the Public Health Fund, in an amount commensurate with the volume of its online play; the amount can be better determined after the Public Health Fund programs are established.

We note that that unlike traditional lottery play, and even a significant amount of casino play (i.e., that which is not captured through player-loyalty cards), all personal gambling activity conducted via the Internet is digitally captured. As such, gambling via the Internet will give operators, regulators, clinicians, treatment professionals and researchers – as well as gamblers themselves – an unprecedented amount of quantifiable, verifiable and timely data about players' gambling expenditures and behaviors. In Massachusetts, the combination of tracked casino play (among patrons who do not opt out) and Lottery online-play data has the potential to provide problem-gaming professionals with perhaps the most detailed and comprehensive gambling-activity data set ever collected in this country.

Such data can be used not only for research, but also for patrons and operators to track and regulate patrons' play – either by the patrons, by the operators or by the regulators. LaPlante, et al. underscores this point in their 2012 report of the existing research on Internet gambling – with a caution:

> "Because of the amount of individualized gambling-related information collected, web-based gambling companies can intervene in ways not possible for land-based gambling. Specifically, using advanced algorithms, companies can operate automated risk-detection systems that provide early warning messaging to site subscribers who are at risk for the development of gambling-related problems. However, if such algorithms rest on faulty assumptions, their potential for false positives and false negatives is great."

[229] A Commonwealth fund created in the Gaming Act, overseen by the Executive Office of Health and Human Services.

Gemini Research's Volberg noted that one such promising tool is Playscan,[230] which analyzes a player's behavior and, when combined with questions the player has answered, can issue warnings that might indicate a gambling problem. Playscan AB, based in Sweden, said the Swedish lottery Kombispel will be the first lottery in the world where players can use Playscan from day one; previously, the program had needed six months of data before providing results to players.

As per both the NCPG Standards and the Gaming Act, players should be able set time and dollar limits on their wagering. A key decision for the Lottery – especially if one day it chooses to engage in instant/fast-paced games only – would involve the initial settings. That is, will players be required to set limits in the first place – perhaps even starting with a default setting, or will players merely have the option of establishing them in the first place (as is now required of casino licensees)?

Another tool is self-exclusion, which is common in the land-based casino industry. Self-identified problem gamblers can put themselves on an exclusion list that denies them the ability to enter casinos, or receive promotional material. While such lists could be extended to online offerings, the program needs to be developed to address multiple sites. In the land-based world, in most markets, exclusion lists can be easily extended to multiple properties, but in online gambling, if different sites are regulated by different agencies or if some are not regulated at all, what value would an exclusion list offer?

At the same time, problem-gambling experts seek to ensure adequate funding for treatment and other programs, while they are exploring any possible advantages to be offered by the nature of online gambling, which – unlike in land-based casinos or traditional lotteries – player patterns and activities can be readily identified.

The treatment of problem gambling is, in practice, a state-level public policy issue typically handled by a health or social services agency. In Massachusetts, it is the Department of Public Health, Bureau of Substance Abuse Services, which oversees problem-gambling treatment through one of 13 centers throughout the state. The Department of Public Health also contributes a substantial portion of funding to the Massachusetts Council, which also receives funding from the Lottery. The Council further provides counseling through its 24-hour helpline, referrals to state outpatient treatment centers, referrals to organizations such as Gamblers Anonymous, and resources on its website.

Gambling funding and treatment varies by state. The NCPG's Whyte said more than half of the states have no public funding of treatment and that 80 percent of private insurers refuse coverage for pathological gambling. Problem-gambling experts say some clinicians are sometimes able to work around the insurance issue by instead diagnosing patients with a covered

[230] More information at http://www.playscan.com/pages/product#.UIaAzIbF0UU

disorder; as noted earlier, problem gamblers typically have another disorder or mental-health issue.

6. Conclusion

Our research and interviews with experts in the problem-gambling field yielded two overarching themes:

- Problem gambling needs to be addressed through a combination of proactive programs and adequate funding.
- Internet gambling is so new and unproven in its impacts that public officials and problem-gambling experts need to be fully flexible in identifying and implementing policies designed to address this issue.

Problem gambling is a complex and deep subject, itself worthy of a far more comprehensive examination than we can present within the confines of this report on the overarching subject of online Lottery play. Fortunately, Massachusetts has three outstanding problem-gambling resources that may be of service to the Task Force:

- Division on Addiction at the Cambridge Health Alliance. Contact: Howard J. Shaffer, Ph.D., Director; (781) 306-8600
- Gemini Research Ltd. in Northampton. Contact: Rachel Volberg, Ph.D., President; 413-584-4667
- Massachusetts Council on Compulsive Gambling. Contact: Marlene Warner, MA, Executive Director; (617) 426-4554

X. Economic Development

1. Massachusetts as Games-Development Hub

In addition to the primary benefits to the Lottery of expanding onto online play, there are potential economic-development synergies – particularly in regard to the opportunity for Massachusetts to license Internet Lottery games to other jurisdictions and to increase statewide high-technology employment by becoming a hub of Internet gambling development.

As noted earlier, Internet lottery is now in its infancy. Therefore, this entire industry appears to be a classic "blue ocean" market space. The term "blue ocean" was first highlighted in the 2005 business book *Blue Ocean Strategy* by W. Chan Kim and Renee Mauborgne and was used to describe how enterprises can generate "high growth and profits … by creating new demand in an uncontested market space."[231]

Enterprises that are able to create demand in blue ocean territory enjoy significant benefits associated with being first to market. Deborah Ettington of Penn State University's Smeal College of Business astutely compared first-mover advantage to the familiar phrase of the "early bird getting the worm." Essentially, entities that are the first to market or early leaders in providing a new product or service are often rewarded with market dominance, technology leadership and control of resources.[232]

Massachusetts could profit by leading the nation in the introduction of online Lottery play. We note that the Lottery already has distinguished itself in creating innovative games. Unleashing this creativity in the realm of online lottery products, particularly new types of monetized social games, can create new employment opportunities for game development firms in Massachusetts.

As new jurisdictions seeking to introduce their own Internet Lottery offerings find the technical, staffing and other hurdles to building these capabilities internally to be daunting, they would be encouraged to instead license finished games software or the underlying platform code from Massachusetts – offering the Lottery an incremental revenue opportunity.

Perhaps most importantly, the technology leadership aspect that would be provided through the early adoption of Internet Lottery technologies could provide incremental software programming jobs for current state residents as well as encourage external programmers to gravitate to Massachusetts to be closer to the epicenter of this growth.

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[231] W. Chan Kim and Renée Mauborgne (2005). Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant. Boston, MA: Harvard Business Review Press.

[232] Deborah R. Ettington, "First Mover Advantage," http://www.referenceforbusiness.com/management/Ex-Gov/First-Mover-Advantage.html

There are Massachusetts companies at work today in the Internet gambling space, although in the absence of legalized Internet gaming in the United States it is difficult for them to survive. For example, one local tech firm, Cambridge Interactive Development Corporation ("CIDC"), recently voiced support for the Internet poker legislation proposed by State Rep. Daniel Winslow, R-Norfolk and a member of the Treasurer's Online Products Task Force. CIDC is a Massachusetts-based software developer for online poker currently doing business overseas in legalized European and Asian markets supplying operators such as Everest Poker and BetClic Poker. CIDC was founded 15 years ago in Cambridge, and has employed more than 200 people worldwide, 150 of whom were, until recently, located in Massachusetts.[233] Tim Parilla, Internal Counsel for the firm, also spoke at the first of the Treasurer's Public Forum meetings, describing the economic benefits that Internet game development could bring to the Commonwealth. Unfortunately, in a development reminiscent of the collapse of Kurt Schilling's 38 Studios video gaming venture in June of this year, CIDC officials on July 12, 2012 informed the Massachusetts Division of Career Services that it was closing its office at 150 Cambridge Park Drive and laying off 120 employees.[234]

Massachusetts is already a thriving hub for video game software development. When comparing video game software development and lottery or casino game software development, Monty Sharma, Managing Director of the Massachusetts Digital Games Institute ("MassDiGI"), noted that the "skill sets are extremely similar." MassDiGI has identified an existing "cluster" of game development in Massachusetts (particularly around the Boston area), allowing it to ideally support an extension of services into lottery or casino game development.

The existence of business "clusters" were first described by Harvard Business School Professor and popular business author Michael Porter. In his book *The Competitive Advantage of Nations*, published in 1990, Porter described clusters as "geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions (e.g., universities, standards agencies, trade associations) in a particular field that compete but also cooperate."[235] A classic example of a geographic cluster like that described by MassDiGI is California's Silicon Valley, the renowned epicenter of information technology. Far from being a mere phenomenon, Porter highlighted that clusters offer significant benefits in that they enhance not only productivity, but that they are also "key drivers of job growth, wage growth, new business formation, and innovation."[236]

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[233] CIDC press release, Massachusetts Gaming Software Developer Supports Internet Poker Amendment, April 25, 2012

[234] July 12, 2012 letter from CIDC to Division of Career Services. http://www.scribd.com/doc/109109337/New-CIDC-Delaware-Corp-7-13-12-Cambridge (accessed November 4, 2012)

[235] Michael Porter, "Location, Competition, and Economic Development: Local Clusters in a Global Economy." Economic Development Quarterly, Feb2000, Vol. 14 Issue 1

[236] Michael Porter, "Clusters and Economic Policy: Aligning Public Policy with the New Economics of Competition." Harvard Business School, ISC White Paper, November 2007

The scale of this existing gaming development cluster in Massachusetts was quantified by MassDiGI on September 17, 2012, when it released the results of its MA Digital & Video Game Industry Cluster Census & Econometric Survey, in which 124 entities responded. These survey participants included "game development and publishing companies of all sizes, from publicly traded game companies to small independent game development studios, interactive media companies, colleges and universities, middleware/tools developers, professional services, investors, freelancers/independent contractors, retailers, event organizers and other game community organizations."[237]

MassDiGI reported that the 124 participants in the survey currently employ 2,041 people. Considering that the Entertainment Software Association ("ESA") reports that the average salary for video game developers is $89,781, the industry would represent total statewide compensation of over $234 million. MassDiGI further estimates that the salaries and benefits helped to support an additional 5,307 indirect jobs.[238]

In addition, while overall nationwide economic growth is stagnant, with the Bureau of Economic Analysis reporting gross domestic product growth from June 2011 through June 2012 of just 2.1 percent, it is notable that the MassDiGI survey also concluded that "over the span of just three years, the state's digital and video game cluster has expanded at 78 percent" in terms of direct employment and that 39 percent of survey participants were planning on hiring in the upcoming 12 months.

So while a gaming software development cluster clearly exists in the state and video game development is growing throughout the region, Albert Reed, CEO of Demiurge Studios Inc. in Cambridge, nonetheless noted a worrisome employment trend: "There's a constant drain from the East Coast to the West Coast. That's partly because cities like Los Angeles, San Francisco and Seattle are home to some of the world's largest video game publishers like Activision Blizzard, Inc., Microsoft Corp., Nintendo of America, and Electronic Arts Inc." He added, "We do not have a very large anchor developer or publisher here right now. As a result, when local companies try to recruit talent, we're swimming upstream a little bit."[239]

While the lack of an anchor company in Massachusetts may be a factor in this migration, it may also be the simple irony that the supply of new programmers being produced in the state is actually significantly outpacing the currently strong growth of the industry. According to Sharma of MassDiGI, there are currently 1,000 game-development students in the state. Even if the recent industry job growth continues at the annual 26 percent rate that has been realized over the past three years, that would leave over 450 gaming software programming graduates who will be

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[237] http://www.massdigi.org/wp-content/uploads/2012/09/massdigisurveysummary91712.pdf

[238] Massachusetts Digital Games Institute, "MA Game Industry Experiences 78% Growth in 3 Years, September 17, 2012; via http://www.massdigi.org/wp-content/uploads/2012/09/massdigifinalreleasesurvey91712.pdf

[239] Hiawatha Bray, "Video game industry a bright spot in Mass," *The Boston Globe,* September 17, 2012.

forced to leave the state each year (a phenomenon that is not unique to gaming software development, as Sharma noted that in terms of overall IT students, approximately 10,000 to 12,000 have to leave the state annually following graduation to find employment). In economic terms, those 450 migrating jobs represent over $42,000,000 in taxable income that would be lost to other states such as California, Texas, Washington and New York – the four states that lead Massachusetts in video game software developer employment, according to the ESA.

Expanding the Lottery with new, Internet-based digital games can be reasonably projected to further enhance this existing cluster because of the similarities – and potential similarities – between video game software development and casino/lottery game development. This would increase high-technology and high-wage employment opportunities and reduce the current "brain drain" of knowledge workers who need to leave the commonwealth to pursue their careers.

While the Lottery moving into online play would be beneficial in numerous ways, it will not in and of itself be a panacea for economic development in the regional software development space. Additional actions would need to be undertaken to fully cultivate this growing industry.

The Commonwealth has already taken some steps to promote this industry – most notably the aforementioned Massachusetts Digital Games Institute, which was "designated by the Commonwealth, for academic cooperation, economic development, and job creation across the Massachusetts digital and video games ecosystem"[240] Other states, however, are doing much more. In fact, Stephen Riden, a Boston lawyer, noted in a recent article that "at least 20 states have enacted legislation to provide tax incentives to interactive media companies. Typically, the tax incentives take the form of credits, grants, and exemptions."[241] According to Mr. Riden, these incentives include:

- Alabama – "A qualified production company shall be entitled to a 25% rebate of all state certified expenditures and 35% of all payroll paid to residents of Alabama for the state certified production. Production expenditures for a project must equal or exceed at least $500,000 but must not exceed $20,000,000."[242]
- Arkansas – "Rebates of fifteen percent (15%) of qualified costs in connection with the production of a state-certified film project; and an additional ten percent (10%) of the payroll of below-the-line employees who are full-time residents of Arkansas."[243]
- Colorado – "The new Colorado Film Incentive program offers a 20% cash rebate for production costs taking place in the state. The incentive program covers feature films,

[240] http://www.massdigi.org/about-us/

[241] Stephen D. Riden, "Tax Incentives for Video Game Companies," October 2010 / Updated June 2011

[242] http://www.alabamafilm.org/2010/filmmakersincentives2.shtml

[243] http://www.arkansasproduction.com/arincentives_state.php

television pilots, television series (broadcast and cable), television commercials, music videos, industrials, documentaries, video game design and creation, and other forms of content creation."[244]

- Connecticut – "In 2006, the Connecticut General Assembly established a tax credit program to encourage the production of digital media and motion pictures in the State of Connecticut. The legislation makes it possible for eligible production companies to receive a tax credit on a sliding scale of up to 30% on qualified digital media and motion picture production, pre-production and post-production expenses incurred in the state."[245]
- Florida – Florida provides a 20% tax credit, plus an additional 5% for Family Friendly content as well as an additional 5% Digital Media Facility Bonus.[246]
- Georgia - The Georgia Industry Investment Act of 2008 provides Georgia companies developing games and digital media with a 30% tax credit on qualified Georgia expenditures.[247]
- Hawaii – Hawaii provides a tax credit of "15% per cent of the qualified production costs incurred by a qualified production in any county of the State with a population of over seven hundred thousand; or 20% per cent of the qualified production costs incurred by a qualified production in any county of the State with a population of seven hundred thousand or less."[248]
- Kentucky – Kentucky provides qualified productions the option of taking advantage of either a sales tax refund incentive or an income tax credit of up to 20% of approved expenditures.[249]
- Louisiana – "The Digital Interactive Media and Software Development Incentive provides a tax credit of 25% of qualified production expenditures for state-certified digital interactive productions in Louisiana and 35% tax credit for payroll expenditures for Louisiana residents."[250]

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[244] http://www.coloradofilm.org/incentives/index.html

[245] http://ct.gov/ecd/cwp/view.asp?a=3880&q=454834

[246] http://www.filminflorida.com/ifi/incentives.asp

[247] http://www.georgia.org/industries/entertainment-industry/digital-entertainment/Pages/default.aspx

[248] http://www.capitol.hawaii.gov/hrscurrent/Vol04_Ch0201-0257/HRS0235/HRS_0235-0017.htm

[249] http://filmoffice.ky.gov/incentives/

[250] http://www.louisianaeconomicdevelopment.com/incentives--programs/digital-interactive-media-and-software-development-incentive.aspx

- Maine – Companies may "receive tax rebates equal to 12% of qualified wages paid to Maine residents working on a certified production and 10% of nonresident wages." They may also receive "tax credits equal to 5% of the non-wage production expenses."[251]
- Michigan – Michigan provides funding of 27% of direct Michigan expenditures an extra 3% for expenditures at a qualified facility or post production facility, 32% for Michigan Personnel and 25% for Non-Michigan Personnel.[252]
- New Jersey – "New Jersey offers a tax credit in an amount equal to 20% of qualified production expenses, available to production companies meeting certain criteria, chiefly: (1) At least 60% of the total expenses of a project, exclusive of post-production costs, will be incurred for services performed and goods used or consumed in New Jersey."[253]
- New Mexico - New Mexico offers a 25% Film Production Tax Credit as well as a 25% Refundable Tax Credit for post-production services rendered in New Mexico.[254]
- North Carolina – North Carolina provides "a 15 percent tax credit for employers 'developing interactive digital media."[255]
- Ohio – "The Ohio Motion Picture Tax Credit provides a refundable tax credit that equals 25 % of in-state spend and non-resident wages and 35% in Ohio resident wages on eligible productions."[256]
- Rhode Island – Rhode Island provides a tax credit of "25% of state certified production costs incurred directly attributable to activity within the state."[257]
- Texas – "The Texas Moving Image Industry Incentive Program offers qualifying productions the opportunity to receive a payment of 5% to 17.5% of eligible Texas spending or 8% to 29.25% of eligible wages paid to Texas residents, depending on budget levels and types of productions, upon completion of a review of their Texas expenditures. Texas also offers up-front Sales Tax Exemptions on most items rented or purchased for direct use in production; refunds of the 6% State Occupancy Tax on

[251] http://www.filminmaine.com/files/mafi_explained.pdf

[252] http://www.legislature.mi.gov/(S(uzfpcovijqxy2our1rl2awen))/mileg.aspx?page=getobject&objectname=mcl-125-2029h&query=on

[253] http://www.njfilm.org/Incentives.htm

[254] http://www.nmfilm.com/Incentives.aspx

[255] http://www.newsobserver.com/2010/07/23/593855/video-games-get-tax-break.html

[256] http://www.ohiofilmoffice.com/Incentives.html

[257] http://www.film.ri.gov/taxinfo.html

hotel rooms occupied for more than 30 consecutive days and refunds on Fuel Tax paid on fuel used off-road."[258]

- Virginia - Tax credits in Virginia begin at 15 % of all qualifying expenses, including wages. If the production is shot in an economically distressed area of the state as designated by the Virginia Economic Development Partnership, the base amount increases to 20%. An additional 10-20% can be added for the payroll of workers from Virginia, and each first time film industry employee is eligible for an additional credit of 10%.[259]
- Wisconsin – "Wisconsin offers a 25% Production Services Tax Credit for accredited productions."[260]

Due to these extensive incentives available elsewhere, Sharma estimates that it costs as much as 30 percent more to develop a video game in Massachusetts than it does in other jurisdictions. Due to the unique nature of the video game business, these added costs are an even greater barrier to investment than they would be for other industries. For example, with motion pictures, even movies that are unsuccessful at the box office have the potential to recoup their investment through DVD sales and other commercial opportunities. For video games, however, the risks are dramatically higher as a game that does not become a hit in its initial release will most likely be a financial failure for the production company. As a result, venture capitalists and other traditional funding sources are generally not available to video game production companies as these types of firms will invest in technology, but not in content or content development. So with a major means of traditional startup and ongoing funding not available to game-production companies, governmental incentives become much more important to their business model and a much greater influencing factor on where to locate and to invest.

While these above-listed states extend many, if not all, of the same economic incentives available to the film industry to video game developers, this is not the case in Massachusetts. While the Commonwealth offers a "25 percent production credit, a 25 percent payroll credit, and a sales tax exemption"[261]for filmmakers, legislation filed in the Massachusetts House of Representatives to extend these incentives to video game developers has not been passed and is currently not available.

Aside from tax credits, according to Sharma, when game development studios are considering a location, "the biggest other consideration is talent." Massachusetts already possesses solid infrastructure in this regard. "Mass has a great educational system, so we have

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[258] http://governor.state.tx.us/film/incentives/overview

[259] http://www.film.virginia.org/incentives/tax-emptions/

[260] http://www.filmwisconsin.net/incentives/overview-of-state-incentives/

[261] http://www.mafilm.org/production-tax-incentives/

the raw material needed to staff a large sector," he said. Numerous Massachusetts colleges in the feature video game design programs and, in fact, two of *The Princeton Review*'s top 10 undergraduate schools to study video game design for 2012 are in Massachusetts: Massachusetts Institute of Technology and Becker College, as well as two additional colleges that received Honorable Mention status: Northeastern University and Worcester Polytechnic Institute.[262]

Should the Lottery seek to expand into online play, it should prove to be a major lift to game developers throughout the state and generate not only direct economic benefits, but significant ancillary benefits as well. However, to maximize these benefits, the Commonwealth may want to consider additional actions to further stimulate growth, such as the extension of tax credits to game developers and perhaps the extension of MassDiGI's services to include more traditional business-incubation services.

2. Tourism

One argument for casinos is that they can draw in tourists and tax revenues from out-of-state. A casino near Boston, for example, may attract tourists who might not otherwise visit Boston. The casino adds an additional entertainment option for tourists. Of course, casinos within the state also benefit the citizens of the state who would like the option of visiting a casino close to home. In the case of Massachusetts, it is likely that the main economic benefit of casinos will come not from drawing tourists, but rather, from keeping its people at home.

The introduction of online gambling is not likely to have a large tourism impact. It is difficult to imagine people driving or flying to the state in order to buy Lottery tickets or play casino games online. Such options are generally widely available, and so the conservative expectation is that online gambling will do nothing to increase tourism in the state. It is possible, of course, that, while in Massachusetts, some tourists may decide to gamble online. But it would be surprising if this effect was very large.

Another benefit from the introduction of casinos is that the building of casino resorts creates jobs that might not otherwise exist. Casino operations are labor-intensive, and this means that casinos provide a long-term employment opportunity. During a recession or recovery, this prospect is especially attractive to voters and politicians.

The introduction of online gambling, unlike the opening of a casino, is not likely to create a large number of direct jobs. Yes, there may be some jobs at state regulatory agencies and the private or public organizations that offer online gambling. But for the most part, there is no new infrastructure that must be developed to offer online gambling. So whether online gambling comes to Massachusetts or not, we would not expect a significant impact on employment and wages in the state.

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[262] http://www.princetonreview.com/game-design-press-release.aspx

Y. Internet Gambling: Background

1. Early Development

The Internet became a viable option for gamblers in the mid 1990's as the new medium became more reliable, realistic, and graphically attractive and as robust transaction processing was established. However, due to the inability of US legislators to decide whether wagering over the Internet was legal, an industry developed in the United States – and used by US players – grew rapidly and prospered outside of US borders.

A watershed in the early development of Internet gambling occurred in 1994, when the tiny nation of Antigua and Barbuda passed the Free Trade & Processing Zone Act. This effectively created a free-trade zone allowing US bookmakers to base in Antigua and take bets by phone for horse racing and sports events protected from US anti-gambling laws.[263] Antigua's new law authorizing legal bookmaking offered potential application to Internet gambling and soon licenses were being granted to operate online casinos.[264] However, while this law established a licensing authority, no meaningful regulation or enforcement was concurrently enacted.

Two key software innovations set the stage for the rapid growth of Internet wagering.[265] The first was the development of fully integrated Internet gambling software in 1994 by Microgaming, which provided the initial means for playing casino games over the Internet. The second was the development of encrypted communication protocols in 1995 by Cryptologic, which for the first time established a robust foundation for secure online monetary transactions.[266] Other early Internet gambling software developers soon followed, including the Canadian company Starnet Communications and the Swedish software developer Boss Media, which was acquired in 2008 by GTECH, now a division of Lottomatica Group.[267]

US-based software developers, while clearly interested in new Internet applications, could not participate in this incipient industry because at that time Internet gambling was considered illegal under the 1961 Wire Act. This law was originally passed as an element of US Attorney General Robert Kennedy's efforts to defeat organized crime and was designed to "cut the wire" connecting bookies to sports events.

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[263] Robert T. Wood, Robert J. Williams, *Internet Gambling: Past, Present and Future*, 2007

[264] Antigua & Barbuda Investment Authority, www.investantiguabarbuda.org

[265] Robert J. Williams and Robert T. Wood, *Internet Gambling: A Comprehensive Review and Synthesis of the Literature*, University of Lethbridge, Alberta, Canada, August 2007

[266] The History of Internet gambling, 777.com, Online Entertainment, Ltd.

[267] onlinecasinoarchives.com, November 15, 2008

2. Proliferation Offshore

Soon after the first legal jurisdictions were established, the first operational online casinos began play-for-fun operations and by the close of 1995 web-based casino games were available for the first time, although money wagering was not. These casinos were soon followed by Internet sports betting operations, including Interops, Sports Book and Ladbrokes. Early sports betting websites were only marginally interactive, listing odds and providing toll-free telephone numbers for placing bets. The first instance of real money being wagered over the Internet by a member of the general public, according to Williams and Wood's review of the literature, was actually a lottery transaction, the online purchase of tickets in a manual drawing by the International Lottery in Lichtenstein Foundation that occurred on October 7, 1995.[268] (We discuss the history of Internet lottery operations later in this chapter.)

Multiple operators contend for the distinction of being the first online casino, including The Gaming Club and Intercasino, but the first money wager on casino games is generally attributed to Antigua-based Intercasino in January 1996.[269] Intercasino was a Cryptologic venture that originally offered 18 online games and access to the National Indian Lottery. Once the first Internet wagers were taken, a period of rapid expansion began and online casinos proliferated.

As competition grew among offshore operators, technology continued to evolve and both game inventories and user interfaces steadily improved. Between 1996 and 1997 other Caribbean islands (Netherlands Antilles, Turks & Caicos, Dominican Republic, Grenada, and St. Kitts & Nevis) and several Central American countries (Belize, Costa Rica, Panama) began hosting online wagering sites. Early Internet gambling operators preferred to base operations in such small countries in order to enjoy the legal protective legislation brought about by their positive influence on such small economies. The prosecution of software provider Starnet Systems in 1999 by Canada, a developed country that clearly prohibited Internet gambling, accelerated this trend.[270]

In 1997 Starnet had initiated the business model of licensing its software to casino operators in return for a percentage of earnings, using those funds to establish its own betting site, WorldGaming.net. The Internet gambling industry continued to expand online content as Microgaming released the first progressive online slot machine, Cash Splash.[271] The first Internet bingo site offering cash prizes online was established in 1998.[272] The first Internet poker room

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[268] Robert T. Wood, Robert J. Williams, *Internet Gambling: Past, Present and Future*, 2007

[269] David G. Schwartz, *Roll The Bones*, 2006

[270] Robert T. Wood, Robert J. Williams, *Internet Gambling: Past, Present and Future*, 2007

[271] Internet Gambling History, Online casino Project. http://onlinecasinoproject.com/Internet-gambling-history.html

[272] Williams and Wood

also went online in 1998 at planetpoker.com. Farther abroad, Eurobet in the United Kingdom began offering online sports and race betting in 1996.[273] Centerbet, in the Northern Territory of Australia, began offering online sports betting in 1996 and three more sports books were in operation by the end of 1997.[274] First Nations tribes in Canada entered the online gambling industry in 1996 when the Kahnawake Gaming Commission was established as a licensing and regulatory entity based in the Mohawk Territory of Kahnawake, located on the south shore of the St. Lawrence River near Montreal.[275]

By 2001, the estimated number of patrons who had gambled online neared 8 million and Internet gambling became a global phenomenon.[276] Licensing jurisdictions and offshore operations sprang up in Argentina, the Caribbean, Central America, the Isle of Man, Alderney, Malta, and Gibraltar. In Africa, Sun International Hotels used Boss Media software to build an online version of its casino, licensed and operated out of the Isle of Man. Successful European online casino operators quickly recognized the potential for expansion in Asia and began actively marketing to the region. Cassava Enterprises, operating the popular Casino-on-Net site from Antigua since 1997, incorporated in Gibraltar and set up a new subsidiary in 2003 titled 888.com after the luckiest number in Chinese culture.[277] This company soon became the world's highest-spending advertiser among online casino operators.

Internet gambling experienced explosive growth beginning in 1997, increasing from an estimated 15 sites in 1996 to more than 200 by 1997, to more than 700 by 1998, 1,800 by 2002, and eventually reaching a high point of 2,926 online casinos by 2006.[278] Internet gambling revenue grew apace, with more and more sites processing real-money wagers in several currencies and producing annual revenues estimated between $835 million and $1 billion, with US players contributing an estimated two-thirds of the total revenue. By the end of the millennium, the total revenue figure had grown to an estimated $2.2 billion, although the contribution from US players declined as online gambling proliferated offshore.[279] By 2001 revenue estimates had tripled to more than $3 billion globally, more than doubled by 2004 to $8.2 billion, and by 2006 had reached an estimated total of $10.9 billion worldwide. By June 30, 2010, this industry has grown to an estimated 42.8 million unique, real-money Internet-gambling

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[273] Eurobet, 2007

[274] *Netbets: A review of Internet gambling in Australia,* Report for the Select Committee on Information Technologies. Senate Information Technologies Committee, March 2000

[275] *Kahnawake*, Murray Marshall Internet Gambling Report, Fifth Edition.

[276] PRNewswire, March 22, 2001

[277] 888Holdingsplc.com

[278] David G. Schwartz, *Roll The Bones*, 2006

[279] R.D. Hammer, Does Internet gambling strengthen the US economy? Don't bet on it, 2001

Federal Communications Law Journal, 54(1), 103.

accounts worldwide and 2,679 Internet gambling sites in operation.[280] Global Internet gambling revenue for non-US companies was estimated to be $5.9 billion in 2008 from players in the United States and $21.0 billion from players worldwide.[281]

Due to the quasi-criminal status of online gambling in the United States, the lack of any large established land-based casinos in the small countries where it first proliferated, and the potential threat to licenses of those small casinos that did exist, the Internet gambling industry developed as an online-only play and has largely remained that way up to now. All of the initial Internet casinos were exactly that – online storefronts with no ties to land-based operations. As a result, credibility was a major issue; reputation became one of the most important attraction attributes for Internet gambling websites, as many early players never collected their winnings. As the industry matured, the more reputable sites gained traction through attentive customer service, registration with multiple jurisdictions, and certification by large accounting houses such as PricewaterhouseCoopers.

Land-based casinos were relatively late to enter the Internet gambling market. The first was in 1999, when an Australian casino operator, Lasseters in Alice Springs, Northern Territory, began offering games over the Internet. UK operators William Hill and Ladbrokes took their sports betting online shortly afterward in late 1999 and early 2000, respectively.[282] Certain other land-based operators have made attempts to enter the online gambling space over the years but for these companies, which include MGM Mirage, Aspinalls, and Kerzner International, the risk of potentially compromising their land-based licenses usually outweighed the rewards posed by the prospect of online operations.

3. Legalization in the United Kingdom

The path to European legalization of Internet gambling was paved in the United Kingdom, where opposition to online betting was not as strident as in the United States. In 2001 the British Channel Island of Alderney legalized Internet betting and established itself as a licensing jurisdiction. The Isle of Man followed and these two tiny Crown dependencies became popular as legitimate gambling jurisdictions for the licensing and participation of US land-based gambling companies, while providing much needed economic stimulus for the small Channel Islands.

The Isle of Man went a step further than the Caribbean and Central American jurisdictions by introducing not simply licensing but also seeking to protect customers through Internet gambling regulation, testing and enforcement. This approach attracted MGM Mirage to become the first US land-based casino company to launch an Internet gambling business. The

[280] H2 Gambling Capital

[281] *Internet Gambling Fact Sheet*, American Gaming Association, 2010.

[282] Robert T. Wood, Robert J. Williams, *Internet Gambling: Past, Present and Future*, 2007

MGM Mirage site focused exclusively on legal markets in Europe and abroad with support from the Nevada Gaming Control Board. Although MGM Mirage eventually withdrew from the Internet gambling market, along with its US software supplier, the venture proved that US companies could also participate in the rapidly expanding market while also complying with US land-based regulators.

Alderney's Gambling Control Commission, established in May 2000 and led by André Wilsenach, a former South African land-based regulator, modeled its regulatory and licensing infrastructure after the Nevada and South Africa land-based regulatory models. MGM Mirage's software provider, WagerWorks, a US-based systems developer now owned by International Game Technology, was Alderney's first licensee. Other publicly traded companies quickly followed, including BSkyB, World Poker Tour, Virgin, Rank Group and Paddy Power, as licensees operating online casinos. Alderney firmly established itself as an attractive European gambling jurisdiction by creating a credible regulatory infrastructure, player-protection policies and favorable tax structure which lured many of the largest Internet operators to license there. In 2011, however Alderney was widely criticized in the press and by land-based operators for failing to identify a $300 million fraud issue with Full Tilt Poker, although it remains one of the top Internet gambling jurisdictions from a regulatory standpoint.

Britain continued down the path to normalization of Internet gambling, releasing the Gambling Review Report in 2001. This carefully constructed assessment supported legalization of all types of Internet gambling in the United Kingdom. This eventually led to the UK Gambling Bill, a comprehensive measure legalizing Internet gambling while allowing more land-based casinos and betting operations. Culture Secretary Tessa Jowell played a major role in revising the bill and imposing strict regulations and high standards for all UK gambling operations.

The culmination of this legalization process was approval in April 2005 of the UK Gambling Act,[283] which established Internet gambling as a legitimate industry within the European Union and highlighted the United Kingdom as a model for other jurisdictions contemplating Internet gambling. The Gambling Act of 2005 has three principal objectives:

- "Preventing gambling from being a source of crime or disorder, being associated with crime or disorder or being used to support crime.
- "Ensuring that gambling is conducted in a fair and open way, and
- "Protecting children and other vulnerable persons from being harmed or exploited by gambling."[284]

[283] UK Gambling Act, Office of Public Sector Information, National Archives

[284] Gambling Act 2005, Part I, Section I

The Act created the UK Gambling Commission to oversee all regulation enforcement in the areas of licensing online casinos, preventing underage gambling and problem gambling, keeping out organized crime, and ensuring gaming fairness through software testing and accreditation, and the publication of game odds and monthly payout percentage reports.

In addition to issuing and monitoring operating licenses, the UK Commission issues codes of practice, investigates and prosecutes illegal offenses, and advises the Secretary of State for Culture, Media and Sport. Under the UK Gambling Act, both Alderney and the Isle of Man were "white listed" as it applied to remote gambling, enabling their licensees (many of whom are UK-licensed online sports books and land-based operators) to continue to operate from those jurisdictions and market their services to the UK. Unlike the situation in the United States, legalization enabled existing gambling operators with operations in the online sector, including such firms as Eurobet, William Hill and Ladbrokes, to bring their online operations onshore into the United Kingdom, Alderney, or the Isle of Man.

4. Prohibition in the United States

Although the technology that enabled Internet gambling was first developed in the United States and the great majority of early players were Americans, the issue of its legality was never debated openly in Congress. As a result, the legal status of Internet gambling in the United States has remained in limbo for more than 15 years. This unresolved legal situation has prevented the development of any major US-based operators and prevented domestic land-based commercial casino companies from entering the market. As a result, a vibrant and innovative industry has arisen internationally, centered in Europe, while potential operators and suppliers in the United States have remained at a technical, product and operational disadvantage relative to international operators.

US authorities had long maintained that Internet gambling is illegal under the 1961 Interstate Wire Act,[285] originally passed as one of Attorney General Robert Kennedy's anti-racketeering efforts. The Wire Act made it illegal to place wagers on live events across phone lines, and for more than a decade lawyers have argued whether it could also be applied to Internet wagering. The majority of legal opinions held that it could not and the US Court of Appeals for the Fifth Circuit ruled in November 2002 that the federal Wire Act prohibits electronic transmission of information for sports betting across telecommunications lines but affirmed a lower-court ruling that the Wire Act "'in plain language' does not prohibit Internet gambling on a game of chance." The Department of Justice ("DOJ") relied on its interpretation of the Wire Act to establish its position that all Internet gambling is illegal – despite the Fifth Circuit ruling – up until the passage of UIGEA in 2006, although it never tested that position

[285] US Code, Chapter 50 - Gambling, Legal Information Institute, Cornell Law School

with a case in open court. Reinterpretation of this position by the DOJ in a December 23, 2011, opinion has reversed this stand. (This matter is discussed in depth later in this report.)

Opposition to Internet gambling grew stronger after 2000, partly in response to the explosive growth of this new phenomenon, and Congress pressured US-based search engines to stop advertising for Internet gambling companies. The online industry responded in a suit by Casino City Inc. claiming its First Amendment rights to free speech were violated, but the case was thrown out after multiple appeals.[286] Internet advertising for casino sites currently appears in a wide variety of online and traditional media and also at land-based casino events such as the World Series of Poker. These ads, however, are carefully couched not to promote the dot.com real-money sites but rather the dot.net sites that are free-play mirror sites.

The Nevada Gaming Commission explored regulating Internet gambling on an intrastate basis beginning in 2001, working with the Nevada Gaming Control Board to adopt regulations governing licensing and operation of Internet gambling within state boundaries. The law required Nevada regulators to study Internet gambling systems and determine if whether current security technologies were sufficient to prevent access by minors and other abuses. While the Nevada Gaming Commission found that Internet gambling could be adequately controlled, it also was required to determine if it could be operated in compliance with federal law. In 2002, the US Department of Justice advised Nevada of its longstanding view that federal law prohibits gambling over the Internet, including casino-style gambling. As a result, Nevada put its regulatory efforts on hold. Nonetheless Nevada gaming and regulatory authorities have remained focused on legalized Internet gambling and in December, 2011 approved the first official US regulations for the authorized operation of intrastate poker.[287]

While Nevada explored potential regulation, other states without commercial casino operations strengthened anti-Internet gambling measures, with Illinois, Indiana, Louisiana, Massachusetts, Oregon, South Dakota and Utah passing laws banning Internet gambling within their borders. Additionally, attorneys general in Florida, Kansas, Minnesota, Oklahoma and Texas issued opinions that Internet gambling is illegal within state borders.[288]

a. Unlawful Internet Gambling Enforcement Act

The Unlawful Internet Gambling Enforcement Act[289] ("UIGEA") became law in October 2006. It was passed as a rider to the Safe Port Act, an essential piece of homeland security legislation which was presented in the final minutes of the session and never debated on the floor of Congress. UIGEA did not make Internet gambling illegal but it was effective in reducing the

[286] *Internet Gambling History*, Online casino Project, 2007

[287] The Wall Street Journal, Nevada Sets Framework For Internet Poker, Alexandra Berzon, December 22, 2011

[288] American Gaming Association website, Industry Information Fact Sheets: Internet Gambling, 2010

[289] H.R. 4411:Internet Gambling and Enforcement Act, Govworks.com

volume of financial transactions to fund the practice. UIGEA also has dampened the prospects for eventual federal-level (interstate) legalization in favor of state-by-state (intrastate) legalization efforts.

This law was designed to suppress Internet gambling by targeting the payment mechanisms used to make deposits, place bets and withdraw funds on all the thousands of offshore wagering sites. UIGEA did not address the legality of online gambling, restrict the operation of offshore sites, or render illegal any form of wagering that had previously been legal. Its intent was to establish a means for enforcing existing federal law under the Wire Act by making it illegal for banks, credit card companies and similar institutions to process financial transactions for Internet gambling sites. UIGEA effectively prevented credit card companies and banks from processing fund transfers for Internet gambling transactions. Importantly, there are specific issues related to Internet gambling that UIGEA does not address. It does not update the federal Wire Act to specifically apply to any forms of Internet gambling; it does not resolve the dispute between the US Justice Department and the Fifth Circuit Court on whether the Wire Act applies to all forms of Internet gambling; it does not resolve whether the US horse racing industry is entitled to a legal exemption from the ban on Internet gambling; and it does not resolve whether Native American nations and tribes retain the right to operate Internet gambling sites regardless of federal regulations. UIGEA maintained the ambiguity of federal law regarding Internet gambling by not clearly defining the legality of online wagering and leaving the question open as a state's-rights issue.[290]

After UIGEA passed, publicly traded Internet gambling operators voluntarily withdrew from the US market and excluded US residents from real-money wagering on their sites through the use of geographic-location software. The immediate loss of US player revenues adversely impacted the financial results of these publicly held companies, primarily 888.com and Party Gaming. However, it did not succeed in forcing all US players out of the market, as many simply migrated to less-scrupulous offshore providers still willing to take bets from US players. PokerStars and Full Tilt Poker are two examples of companies that chose to stay in the US market, and as a result became for a time the two most dominant poker networks in the world.

While the law remained ambiguous on the question of legality for Internet casino and poker, the DOJ intensified an ongoing crackdown on sports betting operators and alternative-payment providers and imposed sanctions on offshore gaming companies participating in these activities which were now interpreted as clearly illegal. This prompted Antigua and Barbuda to take their case to the World Trade Organization ("WTO"), which ruled in its favor, denying US appeals and judging the US government to be in noncompliance with WTO trade policy because the legislation retains carve-outs for Internet gambling, including lotteries, horseracing and fantasy sports betting.[291]

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[290] American Gaming Association, Industry Information Fact Sheets: Internet Gambling, 2010

[291] Interactive Gaming Council, World Online Gambling Law Report

UIGEA went into effect in mid-2007, following a 270-day grace period to allow financial institutions to develop enforcement policies and procedures. Major sports organizations including the National Football League supported this legislation because it did not specifically target fantasy sports, but was opposed by the banking industry, which was obligated to provide the prevention mechanisms and undertake the financial burden of enforcement. Sports organizations had previously championed their own legislation, passed in 1992, the Professional and Amateur Sports Protection Act, which made sports betting illegal.

Reaction to UIGEA abroad was generally negative and many European authorities and industry experts viewed the act as a form of trade restriction. The European Parliament[292] observed that "the Act has a remarkable genesis in that it was (a) never debated by the Senate before being passed into law, and (b) was constructed as a late addendum (Title VIII) to a completely unrelated piece of legislation, namely the Safe Port Act." Professors Robert Williams and Robert Wood of Lethbridge University, Alberta, Canada, noted that in practice, the UIGEA targets providers rather than consumers,[293] and that Internet gambling continues because only 50 percent of all Internet gambling sites refused to take wagers from players located in the United States after full enforcement of the law in 2007. Regardless of international reactions, UIGEA has been successful in suppressing demand for Internet gambling in the United States, and recent enforcement actions in 2011 and 2012 have had a large financial impact on Internet poker.

UIGEA enforcement efforts by the Justice Department gathered momentum in 2011, culminating in the April 15 crackdown on the leading online poker operators popularly known as "Black Friday," when indictments were unsealed in the Southern District of New York against the owners of the three most popular offshore poker sites: Full Tilt, Absolute Poker, and Poker Stars. The DOJ seized domain names in the United States, and froze player accounts to prevent the withdrawal of deposits. The Justice Department's aggressive enforcement actions under UIGEA have continued into 2012, including the February indictment from Baltimore against Bodog.com founder Calvin Ayre.[294]

5. Evolution of the Online Lottery

The National Lottery of Finland claims the distinction of being the first lottery to fully leverage the Internet, although this claim is contested by the Icelandic lottery vendor Betware. Finland's lottery was granted a license to operate online in 1996[295] and the Coeur d'Alene Tribe in Idaho opened an online lottery in 1997. Scandinavian countries led the original movement of

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[292] Robert Young and Jonathan Todd, "Internet gambling, Focusing On Integrity And A Code Of Conduct For Gambling," European Parliament, Policy Department, Economic and Scientific Policy, November 2008

[293] Williams and Wood

[294] www.calvinayre.com

[295] R. van der Gaast, "Finland: Internet gambling Update," September, 2001

state lotteries online and continue to lead the industry in many categories. Swedish operator Svenska Spel opened an e-commerce website in May 1999, and progressively expanded its online product inventory by introducing a series of state-run lottery firsts: Oddset sports betting, lotto and keno in 2000; online instant ticket sales in 2003; probability games in 2004; and Internet poker in 2006.[296] By fiscal 2010, Internet sales represented 16 percent of Svenska Spel's total lottery revenue of SEK3.1 billion.[297] Danish operator Danske Spil followed Sweden online in 2002, now selling almost all traditional lottery products online and also offering Internet gambling using Betware's platform. In 2010 Danske Spil's online sales grew 13 percent, generating DKK1.8 billion, or 21.1 percent of total lottery sales.[298] The leading Internet lottery operator in Norway is Norsk Tipping, where more than 10 percent of its total sales are generated via mobile devices.

The Scandinavian lotteries have traditionally been the leading innovators for Internet sales in Europe; the average proportion of Internet sales to total sales in Europe is 10 percent.[299] Finland, the first to offer Internet sales, generated 30 percent of its total revenues from the Internet in 2011.[300] Denmark is close behind with 17 percent, while other long-term online lotteries such as Sweden and Norway hover around the European average.

In the UK, Internet gambling boasts a 20 percent penetration rate, the majority of which is sports betting, while the Internet lottery penetration rate is somewhat lower at 16 percent of the adult population. Southern European countries generate a much smaller proportion of their lottery sales through the Internet, usually less than 5 percent, but this is due in large part to the lower Internet and broadband penetration rates in Southern European countries. Northern European countries, particularly Scandinavian countries, universally reflect Internet penetration rates higher than the 79 percent US average while Southern European states generally display lower rates of Internet availability.[301]

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[296] La Fleur's Magazine, March/April 2011

[297] Ibid.

[298] Ibid.

[299] GTECH

[300] Veikkaus Oy 2011 Annual Report

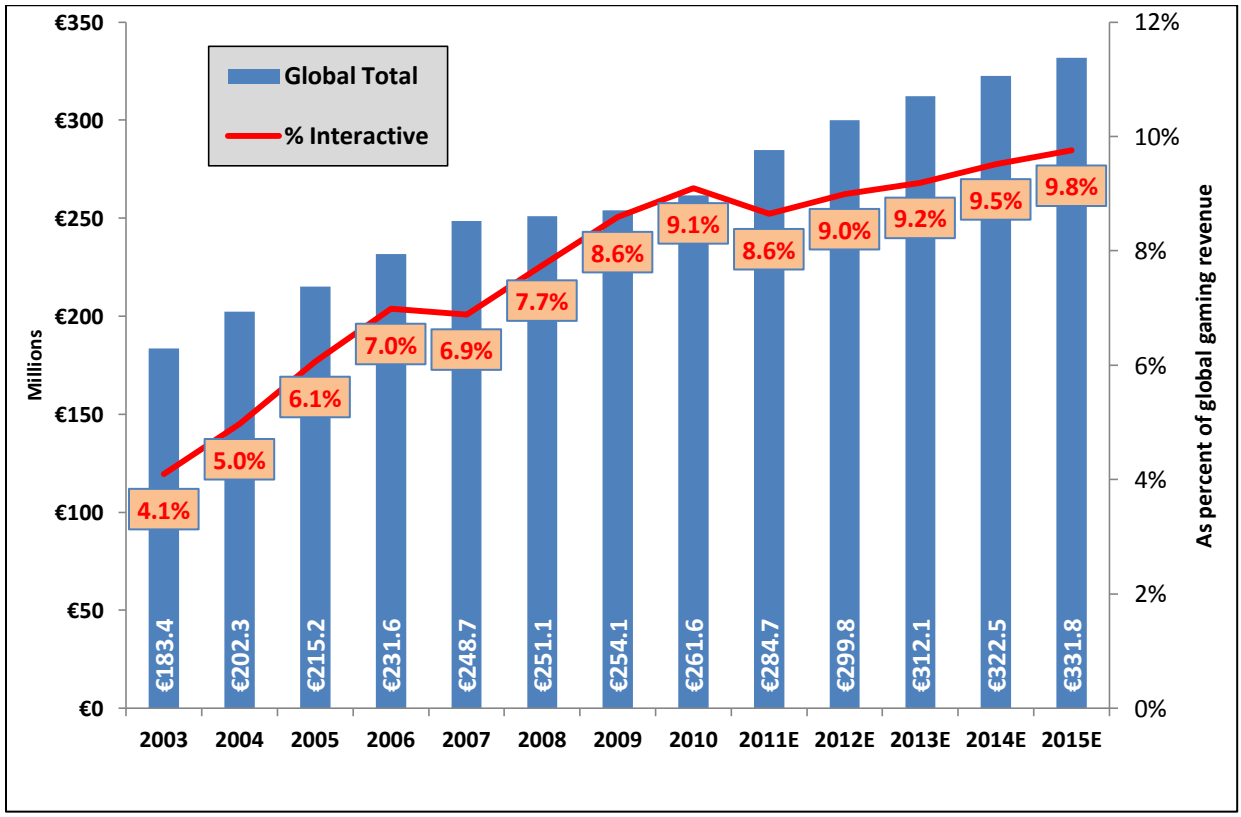
[301] Internet World Stats

Z. Current State of Online Play: International

1. Global

Internet gambling is a thriving offshore industry that developed overseas in the absence of any regulated market in the United States. Globally, Internet gambling currently represents about 8.6 percent of the gross revenue from all forms of gambling, a total estimated to be almost €300 billion ($410.7 billion) by the end of 2012. The proportion of Internet gambling to overall gambling has grown from 1.7 percent in 1998 to 7 percent in 2009, and it is conservatively estimated to reach almost 10 percent of €332 billion ($420 billion) in gross gaming revenue ("GGR") by 2015.[302] These figures translate into an estimated global Internet gambling revenue total of €32.5 billion ($42.7 billion), by 2015.

Figure 58: Internet (or "interactive") gambling as a proportion of global GGR



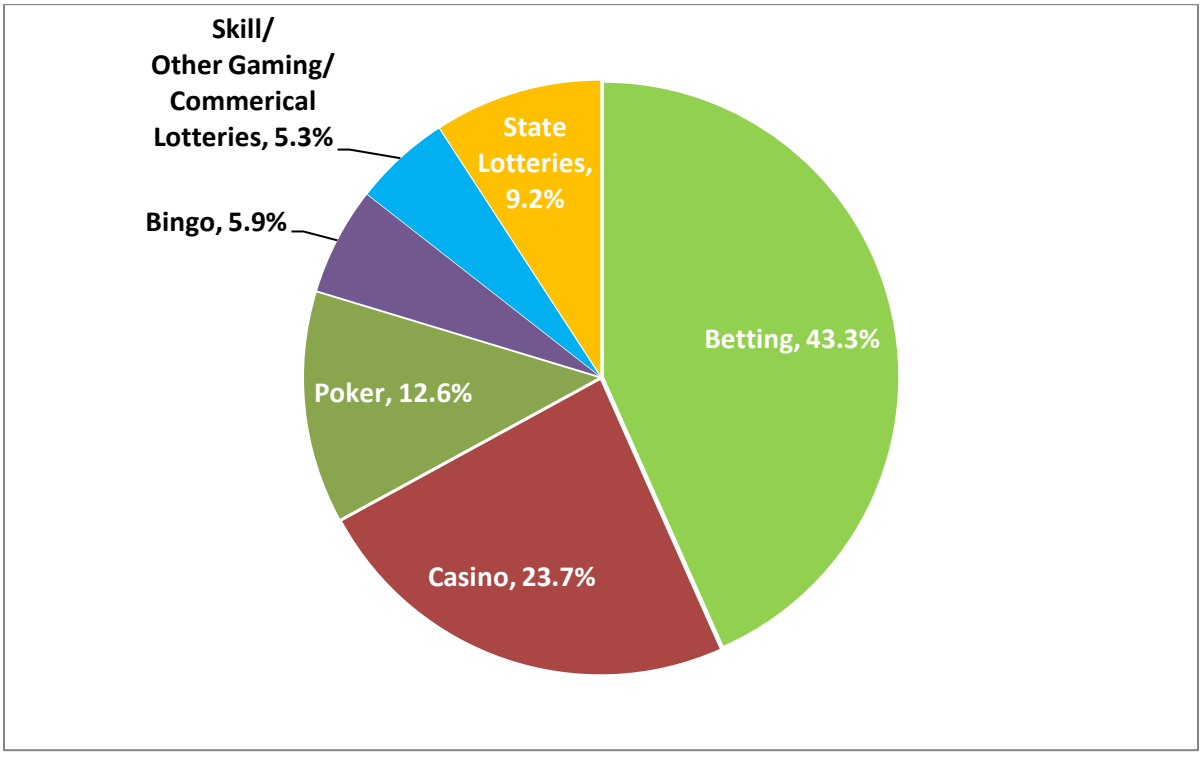
Source: H2 Gambling Capital

As shown in the following chart, sports betting is by far, the largest revenue segment of Internet gambling. These 2011 estimates display markedly lower relative contribution from Internet poker than in 2010 due in large part by the US DOJ enforcement actions against

[302] H2 Gambling Capital

international companies operating offshore, US-facing sites. H2 Gambling Capital estimated that poker revenues in 2010 comprised 14.4 percent of global Internet GGR; the 2011 estimates contribute only 12.6 percent to global online revenues. That said, sports betting revenues continue to grow globally and constitute one of the fastest growing elements of mobile gambling.

Figure 59: Global Internet gross gambling revenue breakdown by product type, 2011



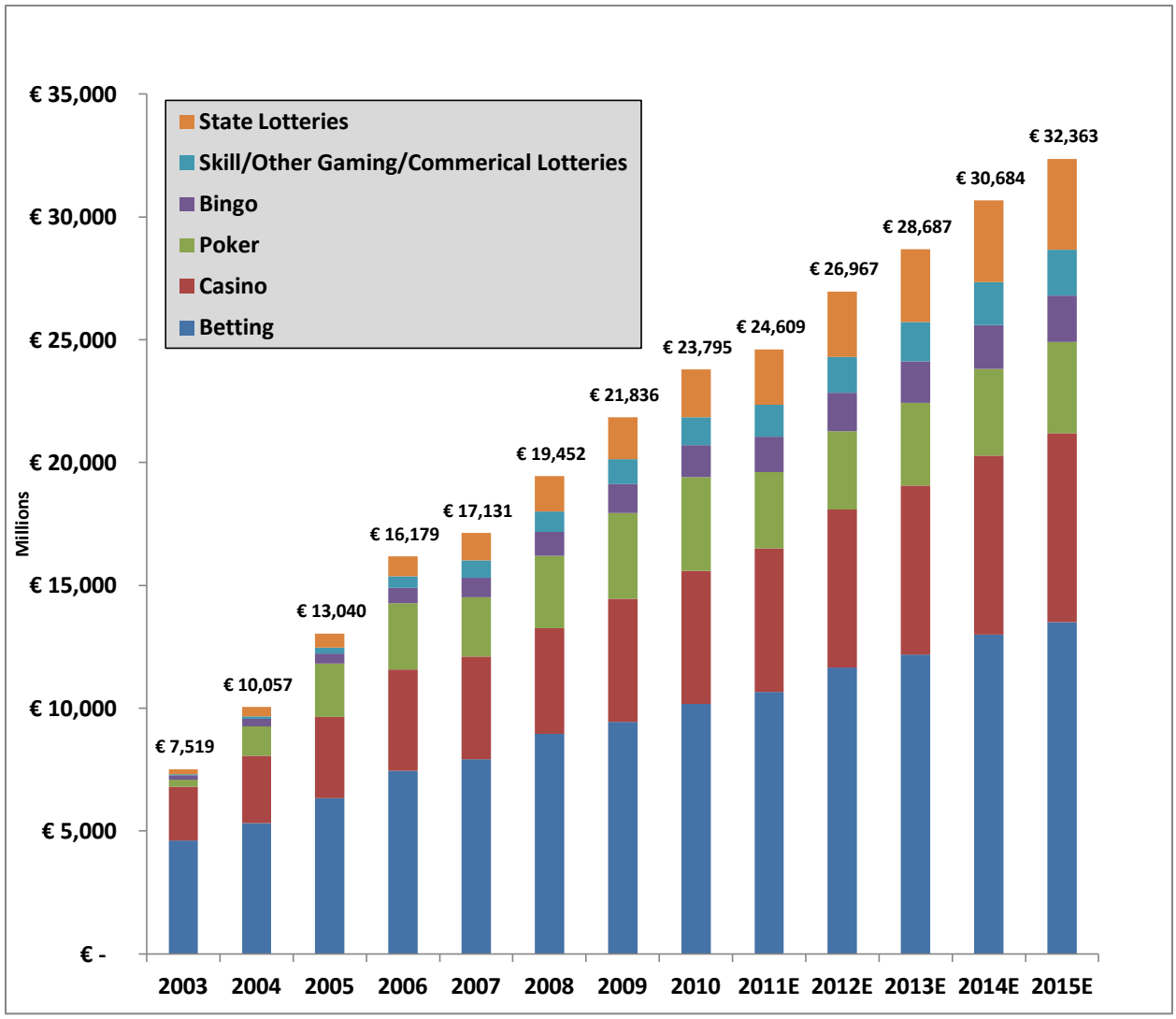
Source: H2 Gambling Capital

Examining the trend, it is evident that sports betting revenue has shown the fastest growth, followed by equally strong growth casino revenue, while poker has grown more slowly and displayed slow growth globally since 2006.[303] As the above chart illustrates, sports betting is the largest single component of Internet gambling revenue on a global basis, and it is by far the most active element in gambling conducted from mobile devices.[304] However, as the DOJ's legal opinion of December 23, 2011, states, sports betting remains the one form of gambling specifically prohibited by the 1961 Wire Act and barring new Federal legislation, sports betting will not be a component of any potential US Internet gambling initiatives.

[303] H2 Gambling Capital, 2011 data set

[304] H2 Gambling Capital

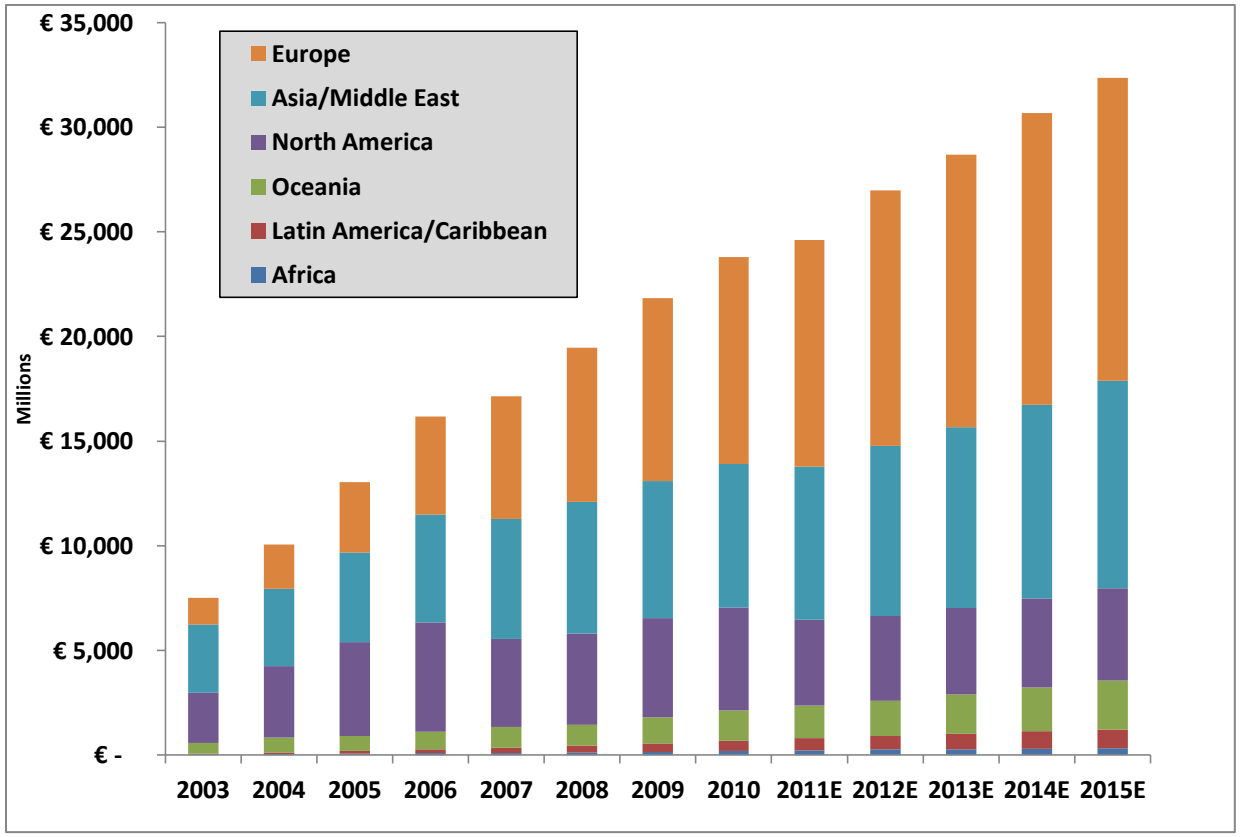
Figure 60: Global Internet gross gambling revenue trends, by product type



Source: H2 Gambling Capital

An analysis of global Internet gambling by region shows that the strongest growth over the past decade has been in Europe, now the world's largest Internet gambling market, followed by Asia and the Middle East. North American GGR declined after UIGEA passage, which curtailed US Internet gambling, and revenues currently remain below their highest level observed in 2006. This finding indicates a substantial degree of suppressed demand in the US market due to the semi-prohibition of play since UIGEA.

Figure 61: Global Internet gross gambling revenue, by region

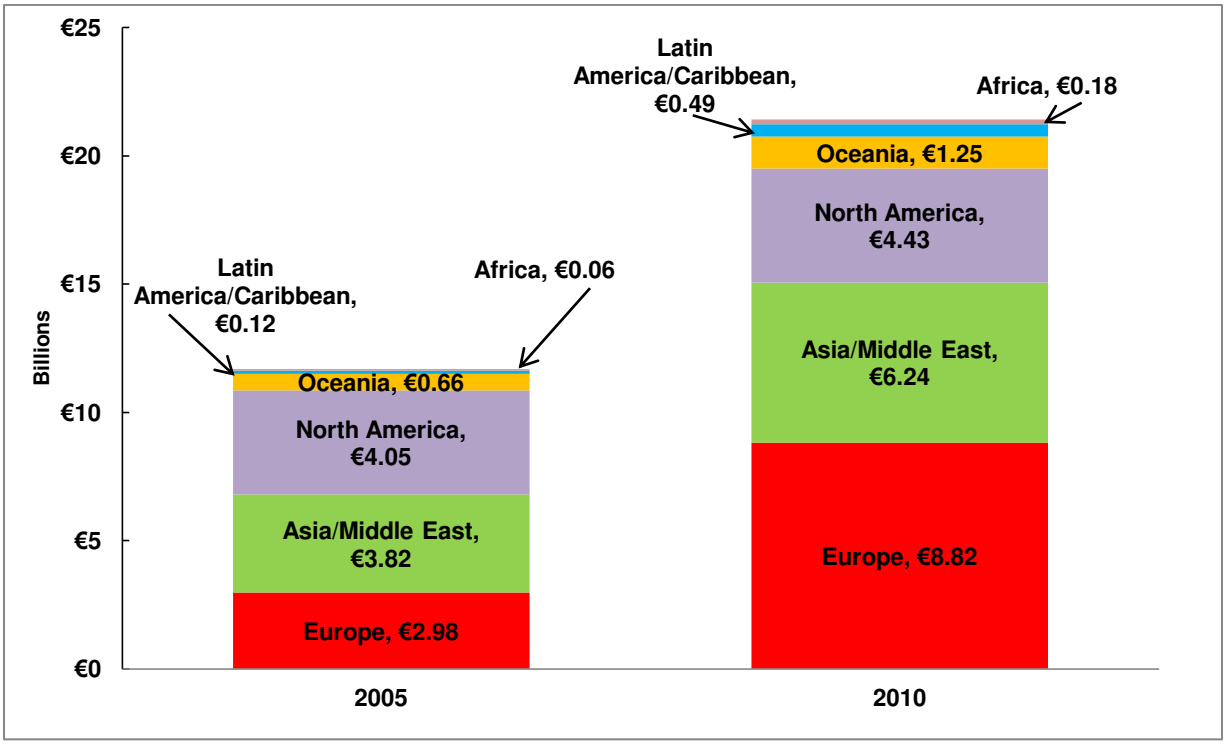


Sources: H2 Gambling Capital

By region, Europe experienced the greatest magnitude of growth in the latter portion of the past decade (although Africa and the Caribbean posted higher growth rates, they constitute only a small portion of the total worldwide revenue). North America, in contrast, grew less than 2 percent due chiefly to UIGEA enforcement. Similarly, the fastest growing Internet product category was skill games, bingo, and state lotteries. Sports betting, the largest single revenue component grew 10 percent, and casino games grew 11 percent, while Internet poker grew 12.7 percent over the same period.[305] Importantly, this growth was driven primarily by new European jurisdictions coming online, particularly Italy and France, while the US market declined post-UIGEA.

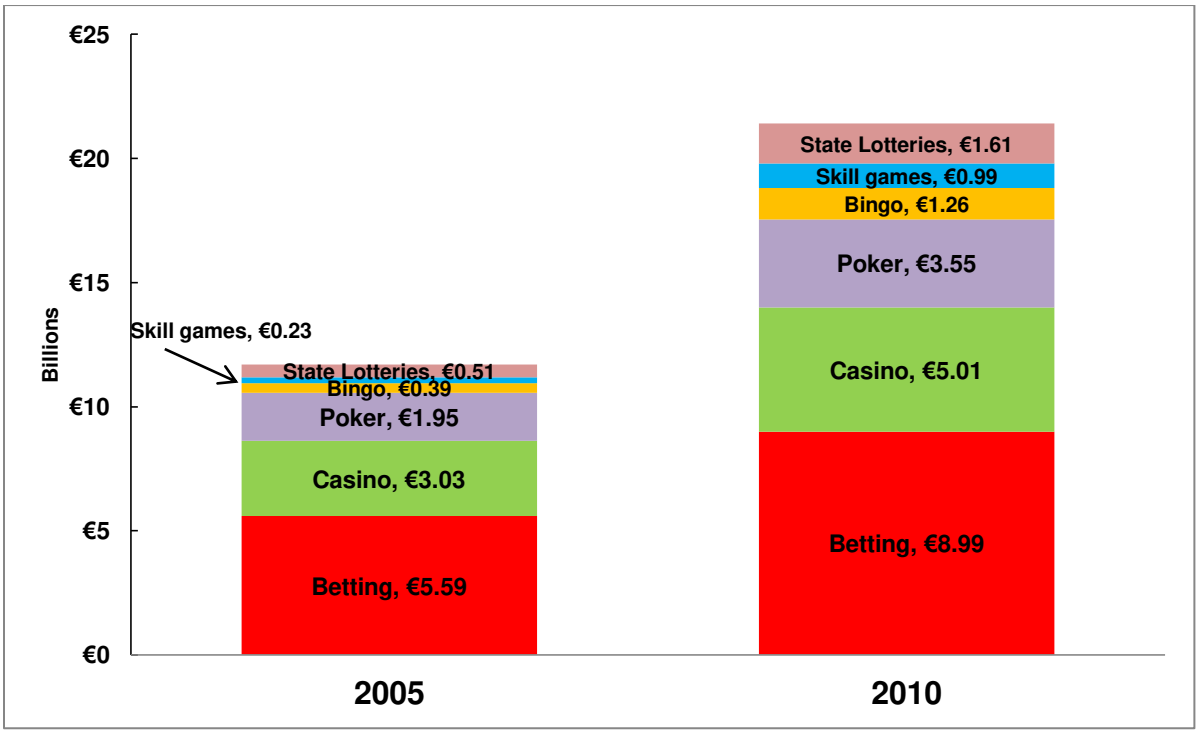
[305] H2 Gambling Capital

Figure 62: Global Internet gross gambling revenue growth 2005-10, by region



Sources: H2 Gambling Capital

Figure 63: Global Internet gross gambling revenue growth 2005-10, by product type

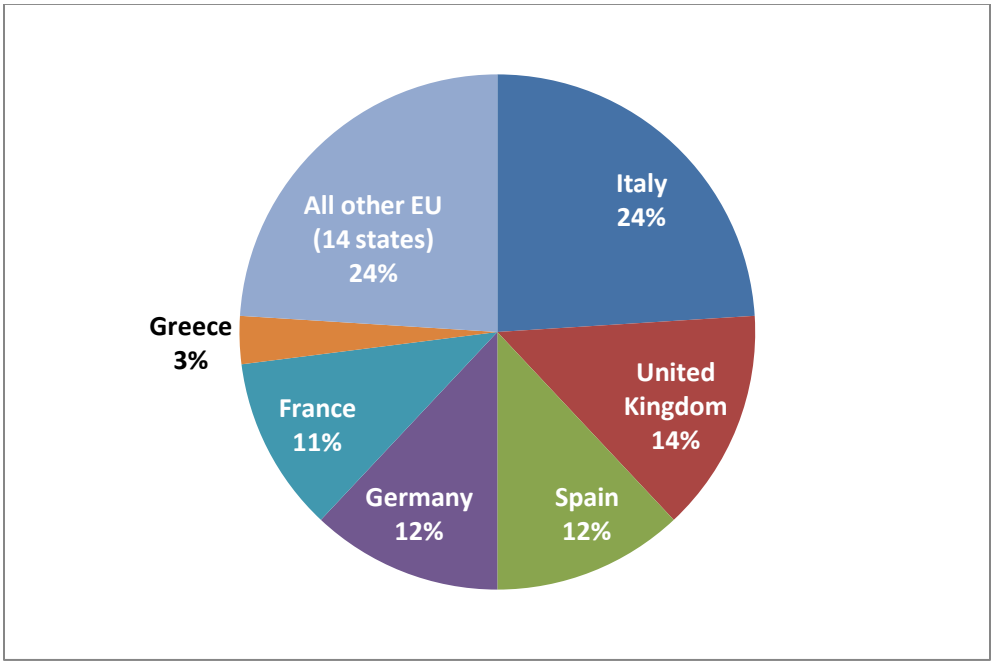


Source: H2 Gambling Capital

2. Europe

In Europe, where the majority of states actively or passively permit Internet gambling, the five largest countries contribute almost three-quarters of total revenue, and the most recently legalized national markets also exhibit the highest growth.

Figure 64: European Internet gambling revenue contribution by country



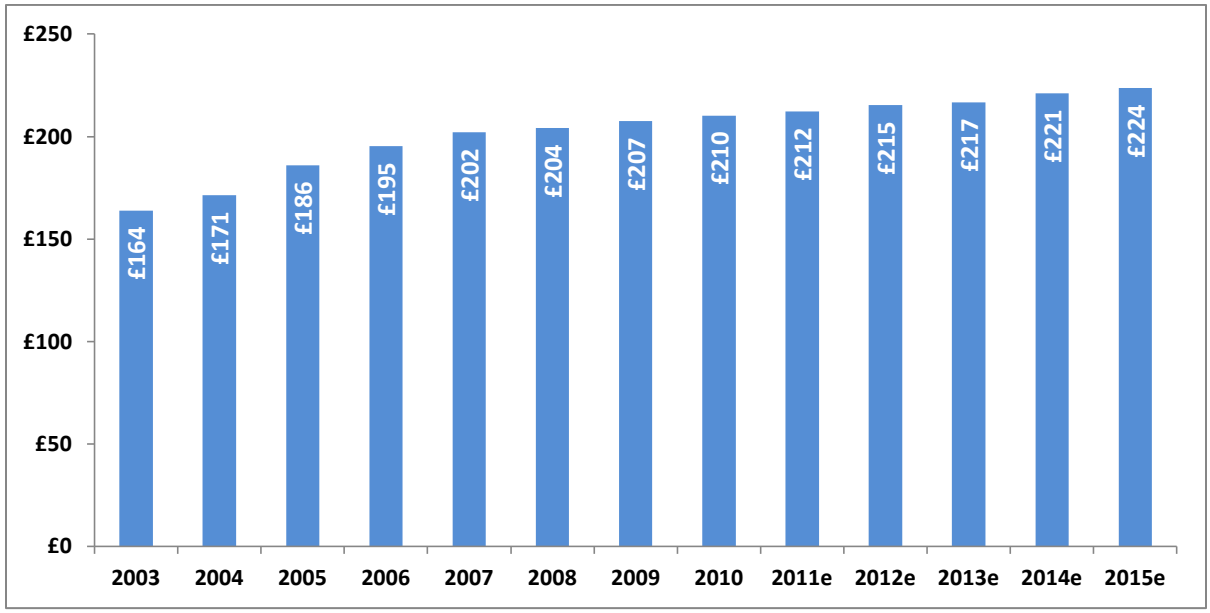
Source: H2 Gambling Capital

The European market contains a mix of national markets including relatively mature markets such as the United Kingdom and newer markets such as Italy and France. In the UK, growth rates for all online products have been steep historically but are now leveling off. Internet gambling penetration has leveled off at slightly more than 20 percent of the adult population, and the average loss per adult was £210 annually in 2010 ($330) and forecast to remain stable.[306] In Italy, by comparison, Internet gambling penetration is substantially lower but growing more rapidly, as are revenues for all product types, and the per-person loss is higher at €333 annually in 2010 ($437) and forecast to continue increasing.[307]

[306] H2 Gambling Capital

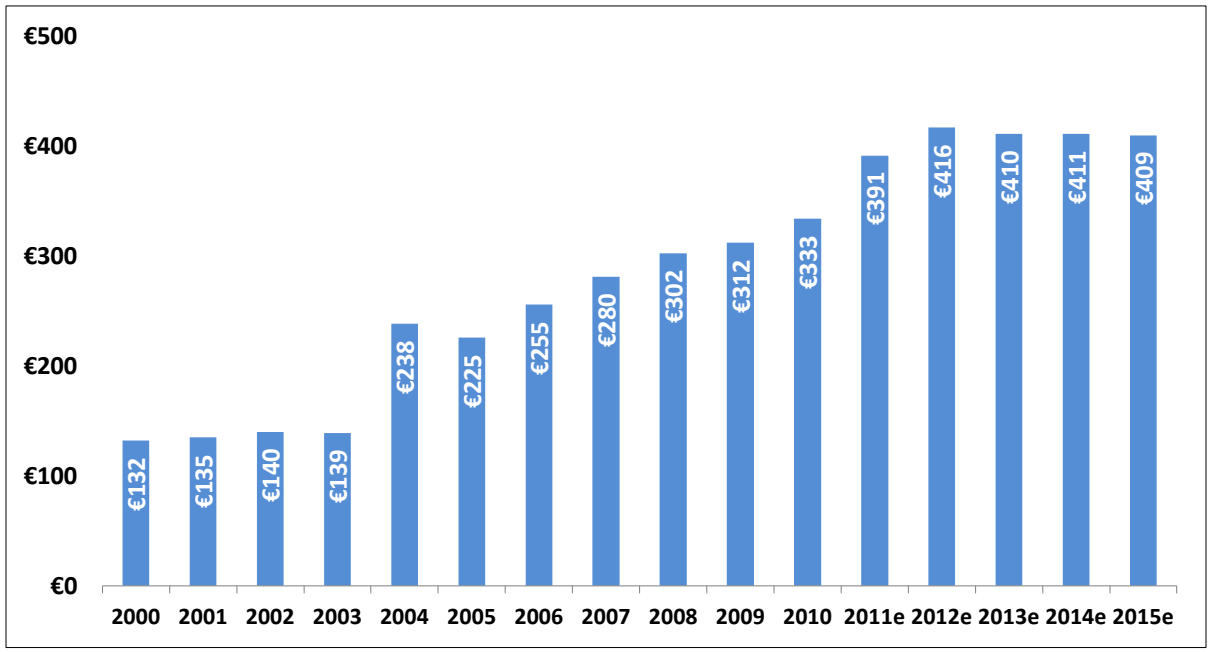
[307] Ibid

Figure 65: UK Internet gambling expenditures per capita (£)



Source: H2 Gambling Capital

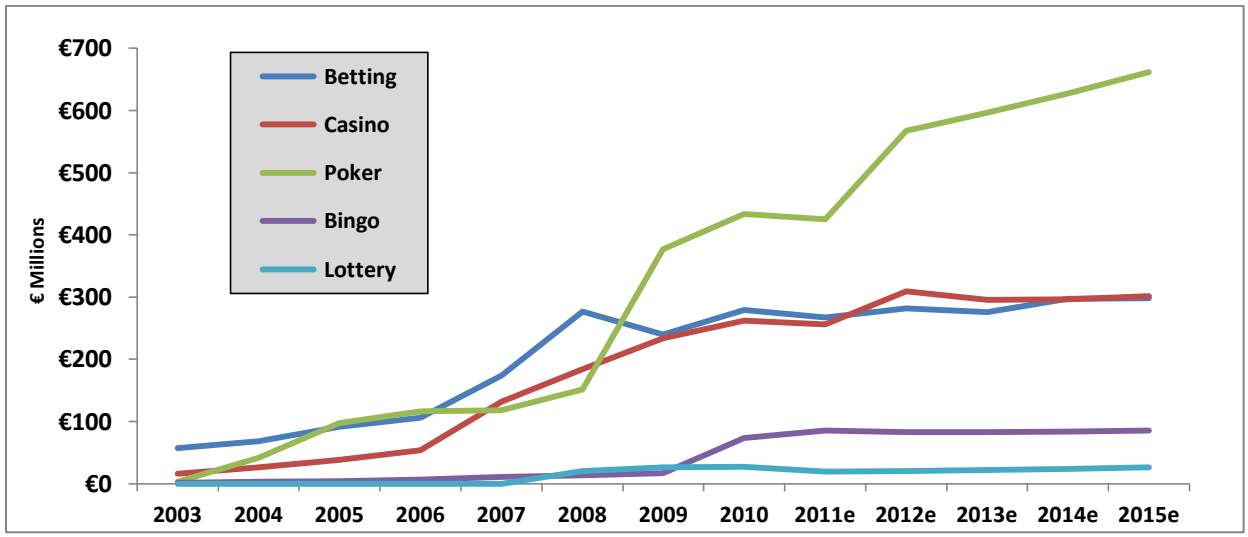
Figure 66: Italy Internet gambling expenditures per capita (€)



Source: H2 Gambling Capital

Italy also shows the rapid growth of Internet poker, which saw a dramatic increase after legalization in 2008 relative to other online gambling products and which is expected to continue this increase through 2015.[308]

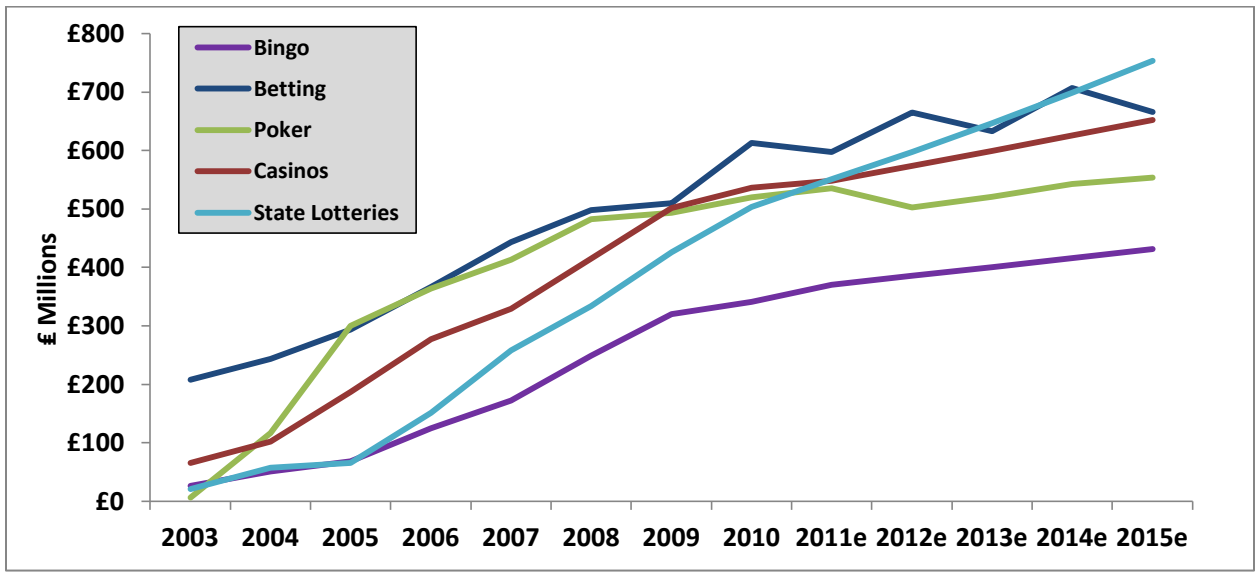
Figure 67: Italy Internet gambling product trends



Source: H2 Gambling Capital

In the UK, by comparison, poker revenue growth has not been as dramatic as in Italy but it has been sustained and it has been paralleled by all other Internet gambling products including Internet lottery.

Figure 68: UK Internet gambling product trends

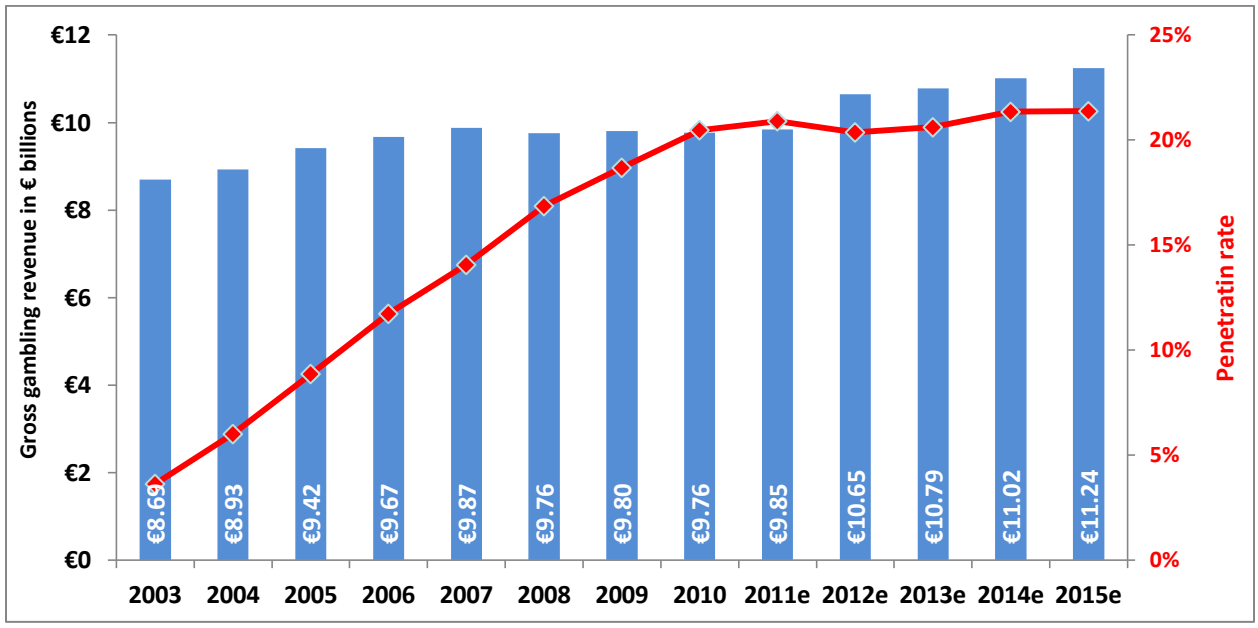


Source: H2 Gambling Capital

[308] H2 Gambling Capital

The UK represents one of the largest and most developed Internet gambling markets in Europe. As such it appears to have reached a plateau in terms of Internet gambling penetration, stabilizing at roughly 20 percent of all interactive gambling in the UK.[309]

Figure 69: UK Internet gambling revenue vs. penetration rate



Source: H2 Gambling Capital

While some of this stabilization may be due to the effects of the global economic recession, the recently stable UK penetration ratio is highly consistent with the 19.5 percent observed for Finland's online lottery penetration and may serve as a current benchmark for Internet gambling penetration in the most developed local markets. Mobile-device penetration of Internet gambling participation is also growing in Europe. According to data compiled by the UK Gambling Commission, mobile gaming penetration grew from 10 percent in 2007 to almost 14 percent by the end of 2010, and continues to increase rapidly.[310]

Market barriers to Internet gambling in Europe continue to erode and the number of countries permitting the practice in Europe continues to grow. Over the past three years more European Union members have begun to open their markets to Internet gambling and to license operators at the national level. In 2012 Denmark and Spain opened their markets to Internet gambling and Cyprus, Greece, Ireland and Portugal are all in the process of changing their current regulatory models, as is the German state of Schleswig-Holstein.[311] The following map illustrates changes in European regulatory frameworks over the past four years.

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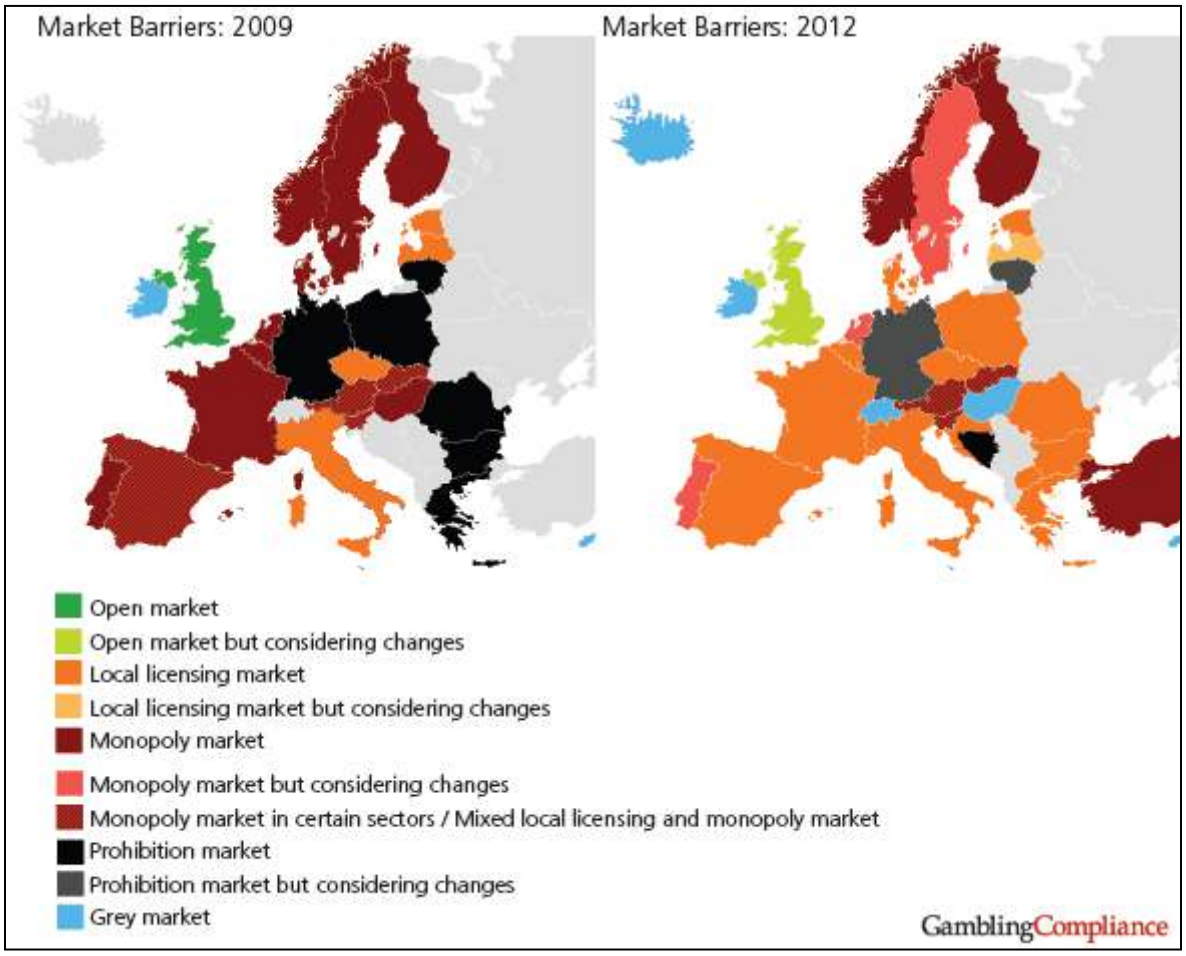
[309] H2 Gambling Capital

[310] UK Gambling Commission, June, 2011; iSuppli

[311] Market Barriers – A European Online Gambling Study 2012, Gambling Compliance

Figure 70: European online gambling regulatory changes 2009-2012



Source: Gambling Compliance

b. International Lottery

Until recently, European lottery operators have been the most innovative and trend-setting regarding Internet wagering. Scandinavian and Icelandic lotteries led the industry in moving online more than ten years ago. The Scandinavian lotteries have also been the leaders in innovation, deploying new types on online products and utilizing multiple interactive channels to reach customers. Several northern European operators now derive one-fifth or more of their total revenue from online sales. Successful European online lottery providers include Lottomatica, Intralot, NeoGames, SciPlay and Betware.

The Scandinavian lotteries have led the world in deploying Internet lottery capabilities. The northernmost European countries were the first to field interactive lottery channels and have traditionally been leaders in innovation regarding interactive sales and online products. The most successful Internet lottery is the Finnish operator, Veikkaus Oy, which recently released figures showing that 30 percent of total sales were generated through interactive channels.

Across the globe, lottery organizations have come to embrace the Internet as a new and effective channel of communications and sales. Today virtually every lottery in the world uses the Internet to communicate with its retailers and players and use of the Internet to sell lottery products is now a significant – and growing – focus of several of the world's leading lotteries.

In some continental markets – Europe and Australia in particular – Internet lottery sales have been a reality for more than a decade.[312] In other regions, development of Internet sales channels has lagged for several reasons. Jurisdictions that do not have high levels of overall Internet penetration have not seen widespread adoption of Internet lottery sales programs. Other technological and political factors which have limited lotteries in some areas (such as Africa and Central America) from keeping pace with traditional, state-of-the-art lottery distribution and sales systems have also inhibited development of widespread Internet lottery sales solutions.

An examination of global lotteries can identify the ways in which the European experience may be relevant and helpful to US policymakers and can illuminate differences which may call for an Internet lottery solution more precisely tailored to the unique Massachusetts market.

c. European Internet Lottery Adoption

Europe is a leader in the adaption of new Internet sales technology and in the revenue which has been derived from lottery Internet sales. The National Lottery of Lichtenstein claims to have been the first lottery in the world to sell a manual lottery ticket via the Internet, in October 1995. This was followed by a succession of Internet sales initiatives undertaken by several European operators including Veikkaus Oy in Finland (1996), the Austrian Lottery (1998), Lotto Bayern of Germany (2001) and Norsk Tipping of Norway (2001).

Scandinavian lotteries have also expanded to include multi-country networks with the establishment of Viking Lotto, a partnership of five Northern Europe lotteries founded in 2000. This network includes Denmark (Dansk Tipstjeneste), Finland (Veikkaus Oy), Iceland (Islensk Getsp), Norway (Norsk Tipping), and Sweden (AB Tipstjanst). Since founding, Viking Lotto has grown to include smaller Northern European countries such as Estonia (Eesti Loto).

After the turn of the century, larger operators such as Camelot (United Kingdom) and La Francaise des Jeux (France) also moved to establish Internet sales channels. Today most of the European lotteries recognized by the World Lottery Association offer some form of Internet and/or mobile sales channel for the sale of lottery products.

A variety of Internet sales approaches are utilized by different lotteries throughout Europe. Some lotteries use the Internet only as an additional sales channel for the lotto-type jackpot games which dominate the European market while others utilize the Internet to offer

[312] The European Lotteries, *A Brief History of Lottery in Europe,* www.european-lotteries.org/communication/games_brief_history.php

electronic versions of virtually all the products offered at bricks-and-mortar stores, including electronic versions of instant scratch tickets. Some lotteries offer a suite of games and play styles which can only be found on the Internet.

Generally, European lotteries have chosen a direct B2C (business to consumer) sales interface which bypasses the physical bricks-and-mortar lottery retailers. There appears to have been very little controversy over this choice, a fact that might surprise some American lottery analysts but which reflects significant operational, market and political differences in Europe, which are discussed in greater detail below.

At least one major European lottery utilizes an affiliate system in which Internet traffic from other websites and operators who are proficient in aggregating would-be customers is redirected to the lottery sales site. A variation on this affiliate model is found in several Australian provinces. There, the customer interface and Internet transaction is managed and processed by the affiliate and the transaction information is then securely relayed to the Lottery's gaming system.

Different lotteries use different supplier structures and relationships to support their Internet sales offerings. Sales and revenue results from the various operational models deployed throughout the continent vary, with the French lottery, La Française des Jeux, utilizing perhaps the most complex Internet sales program.

One particularly salient point jumps out: lottery operators in Europe have readily adopted Internet lottery sales channels while their counterparts in North America have taken a more cautious approach. What has been enthusiastically embraced there has been met here in the US with ambivalence, resistance and, in some cases, deliberately constructed legal roadblocks.

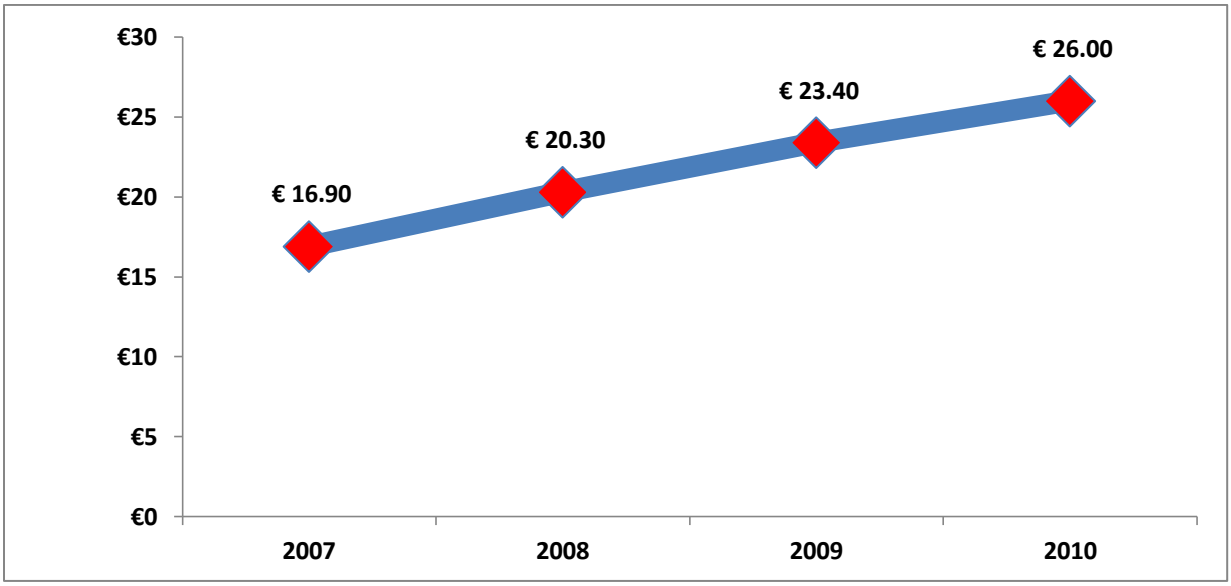
European lotteries have been tremendously successful with traditional retail and Internet sales channels and offerings. Gross gaming revenue from all state-licensed and controlled lotteries in the European Union totaled €34.6 billion in 2011, a 4.3 percent increase over the previous year.[313] The majority of this revenue comes from draw games (Lotto, Euromillions, Joker) 67 percent, and the second largest proportion is generated by instant games, representing 18 percent of total GGR.[314] According to the European Lotteries trade association, Internet lottery sales grew at an average of 11 percent during 2010. According to La Fleur's, growth has been even stronger in 2011, with leading European lotteries growing Internet sales by 15 to 30 percent.[315]

[313] European Lotteries' report on Lotteries in the EU and in Europe in 2011, Lausanne, Switzerland, May 2012.

[314] Ibid

[315] La Fleur's 2012 World Lottery Almanac

Figure 71: European average interactive sales per capita, 2007-2010



Source: MECN

Per capita lottery spending in the European Union ranges from a low of €3 in Latvia (US$3.84), or €6 in Lithuania (US$7.69), to more than €100 (US$128) in Cyprus, Greece, Italy, Spain and the Nordic countries as measured by the European Lotteries in 2012.[316] The average per capita spending on lottery products across the European Union was €69 (US$88.42) in 2011.[317] For the 78 reporting lotteries, private and state-owned/operated, across the entire continent the corresponding figure for per capita spend was €44 (US$56.39).[318] This figure includes the Russian Interlot, Orglot and Ural Loto lotteries serving a population of almost 143 million and spending at €0.5 (US$0.64) per capita.

European Union lottery sales, as measured by four categories of draw based games, instant games, sports games with pari-mutuel, and fixed odds, were €76.9 billion (US$98.5 billion) in 2011, representing a 4.2 percent increase over the previous year.[319] The 52 reporting lotteries in the European Union gave back to worthy causes a total of €23.4 billion (US$30 billion), a 5.1 percent increase compared with 2010. On average, a state licensed lottery in the EU gives back to society 68 percent of every Euro earned.[320]

[316] European Lotteries' report on Lotteries in the EU and in Europe in 2011, Lausanne, Switzerland, May 2012.

[317] Ibid

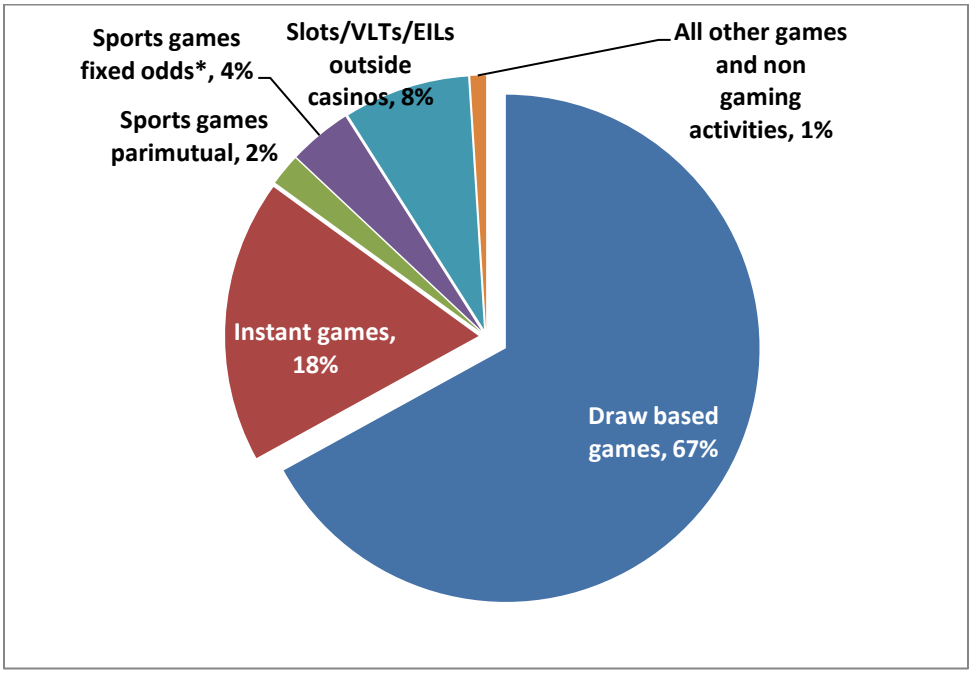
[318] Ibid

[319] European Lotteries' report on Lotteries in the EU and in Europe in 2011, Lausanne, Switzerland, May 2012.

[320] European Lotteries' report on Lotteries in the EU and in Europe in 2011, Lausanne, Switzerland, May 2012.

The game mix for European lotteries is markedly different from US lotteries in general and the Massachusetts State Lottery in particular. European state-owned or operated lotteries depend primarily on draw-based numbers games for generating the majority (67 percent in 2010) of their revenues while US lotteries[321], and especially Massachusetts, rely on instant games for more than two-thirds of the revenue produced in FY2013 through September, 2012.

Figure 72: European state-owned lottery average game mix 2010

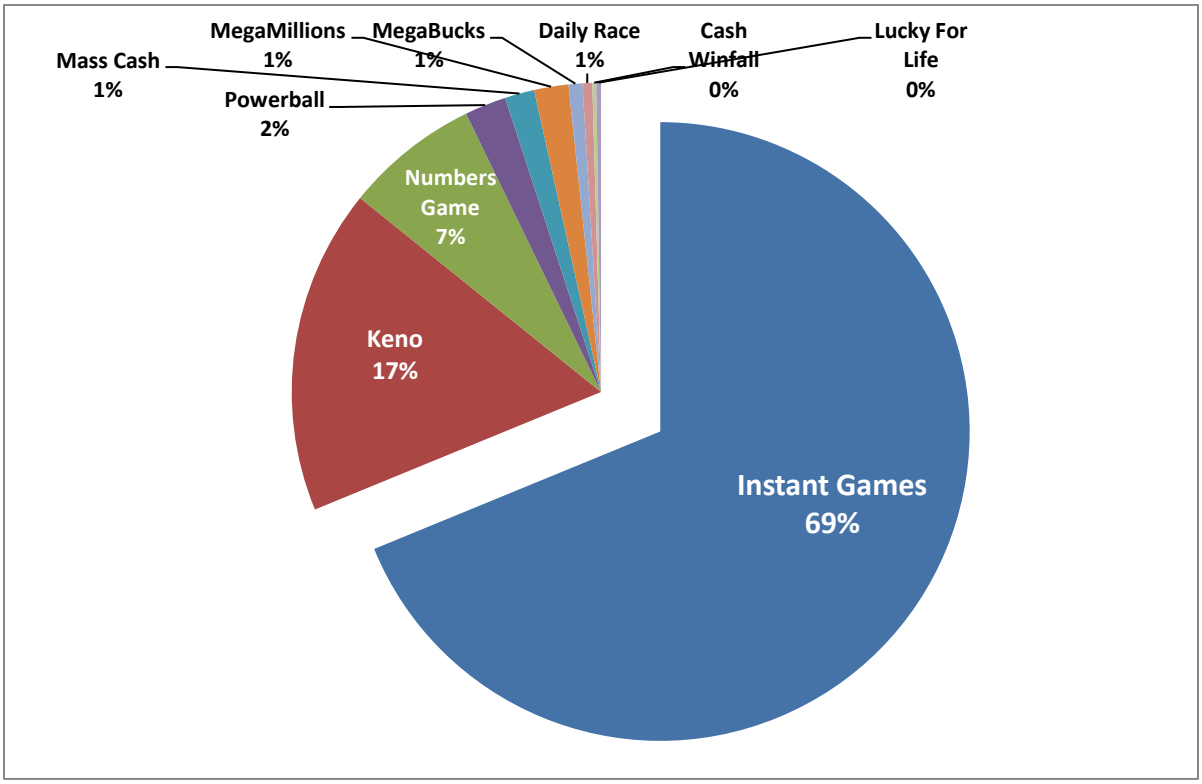


Source: European Lotteries

By way of comparison, The Massachusetts State Lottery relies on instant games for the bulk of its revenue. Through September, 2012, FY 2013 sales revenue breaks out primarily by instant games (69 percent), followed by Keno (17 percent). The relative proportions for instant games in Massachusetts and draw-based games in Europe are almost identical, as shown in the chart below (a duplicate of Figure 5).

[321] European Lotteries' report on Lotteries in the EU and in Europe in 2011, Lausanne, Switzerland, May 2012.

Figure 73: FY 2012 Massachusetts State Lottery sales by product (through September)



Source: Massachusetts State Lottery

Interestingly, this fundamental difference between European and American lottery's game mix may be starting to change as the more innovative European lotteries begin experimenting with their game mix and more strongly promote instant and social games. For example,the Finnish lottery, Veikkaus Oy, is a trendsetter for online products and one of the most successful intereactive lotteries in the world today. In 2011 Veikkaus' Internet product sales exceeded the half billion Euro mark ($690.9 million) and surpassed 30 percent of total sales (30.1 percent) for the first time. Veikkaus has traditionally relied on draw games for the bulk of their online product revenue but 2011 represented the first full year of interactive bingo, launched in September, 2010, which generated $70.4 million, and saw the revenue from instant games increase to $46.4 million, a gain of 4.8 percent year over year.[322]

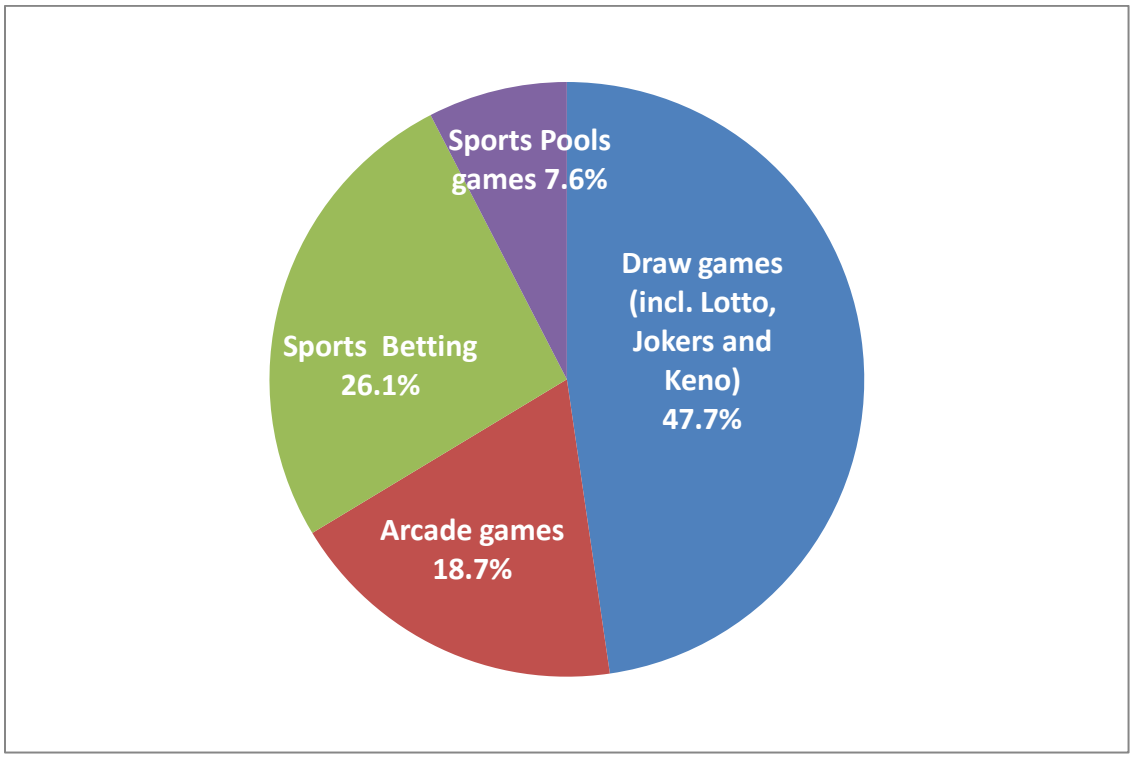
The most popular online products offered on Veikkaus.fi in 2011 were Lotto, Keno, and "fixed odds betting" which is divided into two categories: sports betting and sports pools. Revenue from these four categories totaled €541 million ($690.8 million), with almost half coming from draw based games, one-quarter from sports betting, and one-fifth from arcade games, a new category that posted 78 percent growth over the previous year.[323] Keno also saw

[322] Veikkaus CSR Report and Annual Report 2011.

[323] Ibid.

strong growth in Finland for 2011 and surpassed sales of fixed odds betting in the month of April, 2011 due to the introduction of televised daytime drawings.[324] This contributed to a growth rate for draw based games of 17 percent compared to the previous year.[325]

Figure 74: Revenue share by product type, Finland lottery FY 2011



Source: Veikkaus Oy

The Finnish lottery's leverage of television as a sales channel via the Veikkaus TV network has also succeeded in increasing sales, particularly for real-time Live Betting, which grew from $0.64 million to $7.28 million during 2011 thanks to the introduction of elite sports broadcasting.[326] Veikkaus has also made significant progress in identifying and rewarding customers through the use of a loyalty card, a practice that began in 1997 as a requirement for registering online players but has expanded beyond online products to include traditional ticket sales since 2006. In 2011 there were 1,368,000 Veikkaus Card holders in Finland, an increase of 11.9 percent over 2010.[327] Of these cards, 30 percent register online players and 17 percent register retail players, which means that only 52 percent of lottery play in Finland is unregistered while Veikkaus has registered nearly half of all lottery players and can now collect information about their play habits and offer targeted marketing communications and promotions.

[324] Veikkaus CSR Report and Annual Report 2011.

[325] Ibid.

[326] Ibid.

[327] Ibid.

3. Europe, North America: Noting the Differences

a. Different Culture/Organizational Models

US policymakers are now being asked to consider adapting European models to the American lottery market. In Europe, lotteries and lottery products have long been understood to be in the normal channel of consumer commerce. Some lotteries, such as SNS in the Netherlands and the Austrian lotteries have been operating continuously for well over 200 years. Over time, optimal organizational structures have been created or reworked so that today the predominant European operational model is a privately managed lottery operating under license from the government. Thus it can be generally said that in Europe lotteries are run as private businesses within an overall economy in which a large role for government is otherwise familiar and expected.

This is in direct contrast to the American experience. Here, lottery activities are run directly by government within an economy in which government plays a comparatively lesser role and in which direct government operation of a consumer-facing business is largely unheard of.

These differences reflect different deeper cultural assumptions about the underlying activity. The traditional, predominate American attitude toward lotteries is that they constitute an activity which by its inherently compelling nature can and should only be offered via strict and direct governmental direction and control. This presumption is not widely shared by European consumers, operators or policymakers.

In general, it can thus be said that in Europe businesses run lotteries for the benefit of themselves and the governments, whereas in the North America governments run lotteries for the benefit of themselves and businesses, notably the retail agents.

The cultural differences with regard to lottery operation manifests itself most clearly in different lottery structures (government run vs. privately run) but it also reflected in different approaches to general sales opportunities which these structures might exploit, including Internet sales. In Europe, where the presumption is that lottery products warrant no differential treatment than most other consumer products, the question of whether to partake in new merchandising and sales opportunities such as a new Internet channel is, by and large a question of business priorities and logistics. Once the numbers were there to justify the effort and expense the lottery operator would and could move to create a new Internet sales channel.

For instance, in most European countries, using a credit card to purchase lottery products is, and has always been, a non-issue. European operators and regulators saw little or no reason to treat a lottery transaction any differently than any other retail transaction.

In contrast, in the United States – where the presumption is that lottery products require differential and more controlled treatment – the question of offering lottery via the Internet becomes predominately a question of public policy and law. The various questions which tend to dominate the discussion of the issue amongst American lottery managers – Is it legal? Is it appropriate? How will it impact various political stakeholders? – are not and were not as relatively important for European lottery operators.

b. Different Competitive Threats Driving Lotteries to Internet Sales

In Europe, licensed lottery operators are forced to contend with close physical proximity between sovereign operators and, until 2009, a murky, common market legal landscape which was more conducive to unwelcome, Internet-based, cross-border gaming sales from private operators. Increasingly, lottery operators in a particular jurisdiction were seeing ever-larger numbers of their in-market customers responding to Internet-based entreaties from other lottery and private gaming operators. Highlighting the problem as it existed circa 2000: a government report in one early-moving jurisdiction noted "it is possible [for residents] to take part in a large number of lotteries and games of foreign origin on the Internet in addition to our authorized lotteries." [328]

A year later in advocating for the ability for its lottery to offer Internet sales channels, the Norwegian Ministry of Cultural Affairs reported: "International money games will increasingly become a threat to the national money game [i.e., Lotto] unless the national games are awarded competitive conditions."[329] Clearly, the perceived need to respond to competitive intrusions was an initial driving factor which led the pioneering Scandinavian lotteries to begin to offer their own Internet-based sales channels. Until a 2009 decision of the European Court of Justice effectively clamped down on cross-border poaching by private Internet gambling operators, virtually every authorized lottery operator in Europe felt the impact of cross-border Internet intrusion and sought to protect their commercial interests by offering a robust Internet sales channel of their own. A similar situation was encountered and still exists today in Canada, where gray-market private gaming operators pose a considerable commercial threat to provincial lotteries. In British Columbia, the need to respond and to offer a competitive alternative via a lottery Internet sales channel is recognized as the driving force which lead the lottery to move to create and regulators to approve a new lottery Internet sales channel.

In the United States, the situation was and is quite different. Here, federal laws, including the Wire Act of 1961 and the Unlawful Internet Gambling Enforcement Act of 2006, served to effectively bar private operators from using the Internet to create a competitive intrusion on each State lottery. Other laws, as well as effective interstate cooperation amongst the 44 state-run

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[328] http://www.gamingandlotteryfiles.com/novamediafile.php?file=Viking%20Lotto.htm (accessed November 4, 2012)

[329] http://www.gamingandlotteryfiles.com/novamediafile.php?file=Norway.htm (accessed May 5, 2012)

monopoly lotteries, have further served to effectively eliminate the threat of electronic cross-border poaching of customers. High-profile, effective prosecutions by the DOJ of illegal Internet operators are generally acknowledged to have significantly diminished the prevalence of illegal Internet gambling across the nation. As a result the poaching conditions in Europe, which drove first-moving lotteries to offer their own Internet sales channels, are not today a major, driving concern for US lottery managers and decision makers.

c. Different Treatment of Laws with Regard to Internet Lottery

Laws are a reflection of societal preferences, so it should not be surprising that the uniquely American perspective with regard to controlling lotteries should be reflected in unique legal frameworks governing the activity. In Europe, most law is silent with regard to whether a lottery may sell via the Internet. Some government regulations speak to specific aspects of Internet-based sales (sales to minors, etc.) but by and large, European statutes and lawmakers were and are relatively indifferent to whether Lotteries should or could sell lottery products via the Internet.

The environment in the United States is strikingly different. As is characteristic of our federal system, different cultural values and priorities among the population of the several states are reflected in different statutory and regulatory treatment of lottery sales, including sales via the Internet. On one end of the continuum some states – such as Utah, Mississippi and Hawaii – outlaw all lottery activities. Others such as Michigan and Wisconsin provide for a lottery – but only if run directly by the state and under a series of relatively restrictive operational mandates. On the other end of the continuum, several states including New York, West Virginia and Delaware apply an expansive, proactive treatment to their lottery directing it to maximize market growth across a host of different, non-traditional lottery gaming operations such as keno or video lottery (i.e., slots) operations. At least one state (Illinois) has seen fit to outsource the day-to-day operation of its lottery to a private operator under an operational framework that is closer in practice to the European operations model.

This diversity of operational preferences is also reflected in different statutory treatments relating to Internet sales. The statutes of several states specifically prohibit their state lotteries from selling lottery products via the Internet. In other states, a web of indirect state statutes, regulations and administrative rules work to essentially bar the same activity.

Over most of the period in which Internet sales have been technologically possible, the generally perceived position of the federal government had been that use of Internet technology to facilitate a lottery transaction was contrary to federal law. This added yet another significant layer of legal obstacles which, taken with a host of other factors, served effectively to check the development of Internet sales initiatives by US lotteries.

However, as courts interpreted the federal statutes relating to the issue, it was becoming increasingly clear to astute observers that the ambiguity surrounding the position of the federal

Government was about to be clarified. In 2010, New York and Illinois, whose lotteries operate on the more expansive side of the lottery operations continuum, asked the DOJ to opine on the legality of plans to offer lottery products for sale via the Internet. Laws in both states allowed for their lotteries to sell via the Internet (in Illinois case, state law actually required that the lottery do so). In late December 2011, the DOJ affirmed this view in a letter ruling, opining the federal government's position that the prohibitions of the 1961 Wire Act pertained only to betting on sporting events. As far as the federal government was concerned, states were free to offer Internet-based gaming within their jurisdictions.

In light of what had been a decade or more of uncertainty about federal treatment of Internet lottery sales it is not surprising that by the time the DOJ offered this clarification only one state – Illinois – was in a practical position to become an early mover into the Internet sales space and actually begin offering sales via the Internet sales channel. Despite this, some commentators predicted that the DOJ opinion would set off a frenzy of movement toward lottery Internet sales. However, as noted in most jurisdictions, with the notable exception of previous early entrant Minnesota, state-level statutes and regulations continued to bar lottery Internet sales. A more detailed discussion of current Internet lottery developments in the various states is found in section herein.

d. Differences in Organizational Structure of Operators

The cultural differences between how Europeans and Americans view lottery are further reflected in the different types of business structures utilized to operate lottery organizations. These different organizational differences influence how respective lottery organizations approach the issue of whether and how to adapt lottery Internet sales solutions.

In the United States, day-to-day operations of 43 of the 44 authorized lotteries are run by governmental entities, with Illinois being the lone exception. Some America lotteries such as Georgia, Connecticut and Tennessee, carry the identifier "corporation" following their name but this does not mean that they are private, for-profit organizations. Rather these are government-owned, government-managed public-benefit corporations which, while having somewhat more flexibility than most state agencies and departments, are nevertheless very much governmental entities.

In contrast, most lotteries outside the United States are operated by private, for-profit companies under a license issued by a governmental authority. In Europe a handful of government-run lotteries survive but by and large most lottery organizations are run by private, for-profit operators. Almost all of the lotteries created in the modern lottery era (i.e., 1980-present) were set up and operated as private, for-profit businesses and several formerly state-run operators have been converted to private companies, including Stichting National in the Netherlands, the Austrian Lottery and FDJ in France. The venerable Irish National Lottery, traditionally run by that nation's semiprivate Post Office, is now being put up for bids to be taken private.

Private lottery operators in Europe have become highly successful – and very big business concerns. Two private companies dominate the Italian market and one of them, Lottomatica, is so successful that it purchased and now controls the dominant American-based lottery industry technology company, GTECH of West Greenwich, RI. In the United Kingdom, the National Lottery is run by Camelot Ltd., a privately held company now owned by the Ontario Teacher's Pension Plan.

It stands to reason that the management orientation, perspective and decision-making processes of the government employees and political appointees who manage American lotteries differ from that of their European colleagues. These different perspectives color a variety of operational issues and choices, including specifically the understanding of the differing risks and rewards associated with Internet sales initiatives.

e. Profit Motive, Shareholder Expectations

Most private lottery operators understand themselves to be in keen competition with other privately run, for-profit gaming operators as well as with other private marketers of fast-moving consumer goods. In this context, Internet sales represent a new, more effective and efficient sales channel. Energy and resources can, thanks to an Internet sales channel, now be focused on a more efficient, direct and powerful channel. The relationship with the end consumer, which was formerly subject to a large, sometimes unwieldy and hard-to-manage network of physical retailers, can be directly managed via the Internet.

Lottery managers who operate in a private management context are beholden primarily to their corporate board and shareholders who, of course, are primarily interested in a profitable return on their investment. It is true that these managers are also responsible to government regulators, pursuant to the terms of their license, but in practice this reporting relationship tends to be less direct than the responsibility which the manager feels toward his or her corporate decision makers. In addition, the lottery manager's compensation is likely to be related to corporate performance which is, first and foremost, a financial metric.

Such motivations and operational realities are highly relevant to a private lottery company's decision as to whether and how best to pursue new opportunities, including Internet sales solutions. From the perspective of shareholder expectations, a failure to position one's private company to take advantage of the operational efficiencies and opportunities for overall revenue growth that a lottery Internet affords would be akin to management malfeasance.

In contrast, the expectations and demands on US lottery managers are quite different. As direct or semi-direct political actors, the primary mandate for a US lottery manager is to balance a diverse menu of ever-shifting variables, one of which (but only one) is sales and revenue growth. Financial performance metrics are important but not dispositive. Rarely is financial performance a relevant determinant to the manager's personal compensation or job security. Ironically, despite being paid significantly less, on average than their private European

counterparts, the American lottery manager is significantly less insulated from risk. The European manager operates in an environment where lottery and gaming are less controversial issues. Even in this regard, the European manager is separated from direct political retribution by several layers of corporate and licensing authorities. In contrast, his American counterpart is more often than not directly on the front line, directly responsive to political decision makers and thus and exposed to the displeasure of a governor or legislators who may be aggrieved by the managers' choices.

This results in at least two recognized management consequences which, in turn, relate to whether and how US lotteries embrace major operational changes such as adopting Internet lottery sales channels. The first turnover among top decision makers within the US lottery industry is significantly higher than in Europe. It is common in various states for lottery directors to enter and depart with a new political administration and even within the life of one political administration (e.g., four to eight years). This level of turnover potentially impacts the type of research and development, preparation and managerial confidence that is required to support a major, potentially transformative new initiative. In Europe, it is not at all unusual to see the same management team serving the same private operator for years and sometimes decades at a time.

The second management consequence flowing from the differences in European and American management structures is that decision making within most US lotteries is characterized by extreme caution, deliberateness and a significant reliance on the private gaming systems vendors to provide both operational innovation and, often, the internal and external political support needed to support major innovation. If a particular initiative or market opportunity is not one which the vendors see as being in their interests, it is extremely difficult for a lottery manager in the United States to move the initiative forward.

Since they serve private companies, European lottery leaders can, and do leverage their security, longer tenure and access to resources to create their own credible, successful management and sales solutions. Indeed, in moving forward with an Internet sales solution all of the first moving European lotteries and most of the follow-ups have developed their own, in house proprietary technology and sales solutions for their Internet channels. These include Svenska Spel (Sweden), Norsk Tipping (Norway) Veikkaus (Finland), France, Austria, Slovakia and others. A far smaller number, including Iceland, Spain and Denmark, have used an outside vendor (Betware) that focuses exclusively on lottery Internet solutions. The traditional lottery vendors (GTECH, Scientific Games and Intralot), which between them service every lottery in the United States, have developed Internet sales solutions, but the number of European lotteries utilizing them is fractional.[330]

The management structures found in most European lotteries have enabled those lotteries to move forward boldly and aggressively in pursuing the various opportunities that the Internet

[330] Presentation by Lottery industry vendors, (April 2012).

affords. Shareholder pressure, individual performance incentives, management confidence, in-house research and development capabilities and a permissive regulatory environment have all played a role in shaping and driving the European experience with Internet lottery. Equally apparent is the fact that few, if any, of those same driving variables are found in the American lottery environment. Thus, it should be less surprising that the European Internet model has not found widespread success in the American lottery market.

AA. Current State of Online Play: North America

From the perspective of an American player, Internet gambling became much less reputable and much more difficult to pursue post-UIGEA. After the legislation was signed into law, all publicly traded Internet gambling operators withdrew from the US market and for US players Internet gambling migrated to the only available outlets: privately held offshore firms. Attendance at the Main Event in the World Series of Poker peaked in 2006 and has not returned to similar levels recently.[331] For the 2012 World Series of Poker Bluff Magazine reported that in the 22 events of 2012 that are directly comparable to 2011 events attendance was down 8.9% compared to the previous year, and the WSOP 2012 prize to date was only $44.9 million, down almost 15 percent from 2011.[332]

This transition to privately held operators also worked to suppress enthusiasm among US players as the industry's reputation suffered from revelations of cheating scandals and later prosecution efforts by the US Department of Justice ("DOJ") culminating in the April 15, 2011, "Black Friday" indictments against Full Tilt, Absolute Poker, and Poker Stars. After US domain names were seized and player accounts were frozen, play habits changed in the United States with players making smaller deposits and not allowing funds to reside in player accounts overnight.

Another great shock to US Internet poker players was administered by the DOJ when on September 20, 2011, that agency filed suit against Full Tilt Poker on charges of fraud. Full Tilt was one of the largest poker sites on the Internet at the time and one of the most heavily advertised. The Justice Department's suit claimed that the site was operated as a Ponzi scheme, in which funds deposited in player accounts were used to pay executive salaries, operating and marketing costs, and the contracts and expenses of celebrity poker stars including Howard Lederer, Chris Ferguson and Rafael Furst.[333] This had a tremendous impact on the thousands of US citizens playing on the site but the wider effect was to create distrust of many offshore operators and dampen enthusiasm for Internet poker in the United States.

The DOJ's aggressive enforcement actions under UIGEA since 2011 have had an evident negative effect upon online gambling behavior in the United States, particularly in regard to Internet poker. In 2006 poker made up 20.5 percent of all Internet gambling revenues. By 2009 this figure had fallen to 18.3 percent, by 2010 poker it had fallen to 14.4 percent and in 2011 had

[331] www.pokerblackfriday.com.

[332] WSOP by the Numbers, Year-Over-Year Attendance, Ryan Lucchese, Bluff Magazine, June 16, 2012.

[333] "US Alleges Poker Site Stacked Deck," Alexandra Berzon, *The Wall Street Journal*, September 22, 2011.

declined to 12.6 percent[334] Contrarily, Internet casino revenues made up 21.6 percent of Internet gambling revenues but climbed to 23.7 percent by the close of 2011.[335]

1. Commercial Gaming

Legalized Internet gambling was initially opposed by commercial gaming operators as a threat to the carefully cultivated expansion of land-based casino gambling that has occurred over the past 35 years. This long-term expansion from a Las Vegas-centered industry in the 1970s to the present situation where 42 states offer casino-style gambling in some form and two have legalized online gambling but yet to commence operations. Today the land-based casino industry, with a few notable exceptions that include Las Vegas Sands, has reversed its previous position and now support federal legislation of Internet poker and casino games. Not surprisingly. The land-based casino industry has lobbied for specific legislation that would benefit commercial casinos through varying degrees of exclusivity at the expense of state lotteries and Indian tribes.

Most leading US commercial casino companies in the United States have in some way positioned themselves to take advantage of Internet gambling. Caesars Entertainment (formerly Harrah's) has invested significant resources in establishing an online presence with the creation of Caesars Interactive Entertainment, which is currently a Europe-facing site but can easily be offered to US players should federal level legalization occur. Other US commercial casino operators and slot manufacturers have added free online games to their customer offerings in preparation for potential legalization. Boyd Gaming opened its loyalty program to free social gaming on its B Connected website in April 2012; its rewards program members can now compete against each other for points and badges and see their scores tallied on a leader board.

2. Indian Gaming

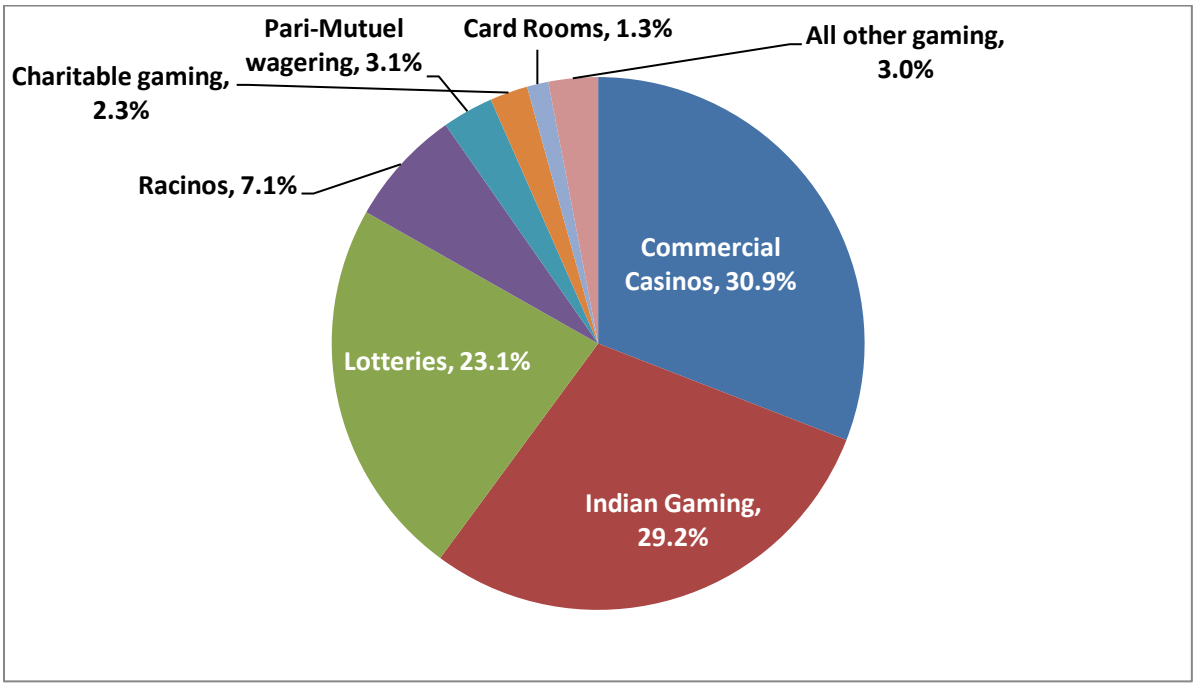
Indian gaming generates almost as much land-based casino gambling revenue (29 percent) as commercial casinos (31 percent) do, and together with land-based state lotteries (23 percent when measured by net proceeds to the states) they make up more than three-quarters (83 percent) of all gambling expenditures in the United States. Legal US gambling of all types (excluding Internet) generated total revenues of $90.43 billion in 2009, the most current year for which data are available in all segments including tribal gaming. Broken down by segment: commercial casinos $34.3 billion, Indian gaming $26.39 billion, lotteries $20.87 billion, pari-mutuel wagering $2.83 billion, charitable gaming $2.07 billion, card rooms $1.21 billion, other

[334] H2 Gambling Capital.

[335] Ibid.

gaming (including cruise ships, convenience gambling and non-racino video lottery terminals) $2.75 billion.[336]

Figure 75: US legal gambling industry market share by segment, 2009



Sources: Casino City's Indian Gaming Industry Report 2011, Christian Capital Advisors

Five states produced 61 percent of the total Indian gaming revenue: California, $6.78 billion, or 25.4 percent; Oklahoma, $3.23 billion, 12.1 percent: Connecticut, $2.14 billion, eight percent; Florida, $2.06 billion, 7.7 percent and Washington, $2.03 billion, 7.6 percent.[337] Indian gaming revenue on the whole rose 1.3 percent in 2010, although in California revenues fell 2.5 percent compared to the previous year due to the struggling economy, and over the past three years have fallen from a high of $7.34 billion in 2008 to $6.78 billion in 2010 a 9 percent decline. Therefore it is no surprise that in California Indian gaming is taking the lead in legislation to legalize Internet gambling, specifically Internet poker.

As of 2010 there were 448 Indian gaming facilities nationwide, and Indian casinos were found in 28 states, operated by 239[338] of the 562 federally recognized tribes.[339] A total of 24 states operate some form of Class III gaming and four states offer only Class II games.[340]

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[336] Casino City's *Indian Gaming Industry Report*, 2011 Edition

[337] Ibid.

[338] Ibid.

[339] 500 Nations.com

[340] Casino City's *Indian Gaming Industry Report*, 2012 Edition

One of the fundamental divisions in Indian country is whether to support Internet gambling legislation at the federal or state level. Tribes from states where tribal gaming is the primary segment of casino gambling are poised to enter the Internet space. Successful tribal gaming operators from states with large population bases, such as California, often favor the intrastate model because it offers the quickest and most direct path to dominating the in-state Internet poker market. Smaller tribes often favor the interstate model, believing that the federal government will do a better job of respecting tribal sovereignty and offer more opportunity for smaller operators due to existing treaty obligations and the ability to market across the country rather than within the boundaries of a single state.

Due to this internal division, leadership in the National Indian Gaming Association ("NIGA") leadership has been cautious in establishing an official position in favor of legalization, while simultaneously recognizing the importance of the Internet channel to Indian gaming. Twin fears are driving this cautious stance on backing the interstate model. First, there is apprehension that legalization at the national level would unduly favor commercial casinos and possibly lead to marginalization of Indian gambling operations. This apprehension is amplified by the fact that previously crafted legislation for interstate gambling (both the Reid and Barden bills) has clearly favored commercial casino interests. Second, there is also apprehension that legalization at the national level would negatively impact sovereignty and lead to increased taxation of tribal gaming by the federal government. The intrastate model also generates apprehension that Indian gaming operations might be marginalized by state lotteries entering the Internet gambling space by offering casino games and poker directly to consumers via online channels. Even worse for Indian gaming is contemplating the prospect that individual states could dispense with existing gaming compacts and seek to monopolize all potential gambling revenues under state auspices.

A NIGA resolution on legalization of Internet gambling was agreed to at the Mid-Year meeting at Shakopee, MN, in October 2010 and remains in force today. The six points of that resolution, listed below, emphasize equal opportunity for tribal gaming, respect for sovereignty, tax-free status, and the inviolability of the federal Indian Gaming Regulatory Act ("IGRA") and existing tribal-state compacts.[341] No position is staked out on the preferred model for Internet gambling.

- Indian tribes are sovereign governments with a right to operate, regulate, tax, and license Internet gambling, and those rights must not be subordinated to any nonfederal authority.
- Internet gambling authorized by Indian tribes must be available to customers in any locale where Internet gambling is not criminally prohibited

[341] National Indian Gaming Association, NIGA MY-001

- Consistent with long-held federal law and policy, tribal revenues must not be subject to tax
- Existing tribal government rights under Tribal-State Compacts and IGRA must be respected
- The legislation must not open up the Indian Gaming Regulatory Act for amendments
- Federal legalization of Internet gambling must provide positive economic benefits

Notably, tribal leaders throughout the United States are largely unsure as to how they might ultimately participate in Internet gambling, and what opportunities or challenges they will face. In October 2011, Spectrum Gaming Group Managing Director Michael Pollock testified before the US Senate Indian Affairs Committee. His comments included the following:

> "I have spent significant time in recent months meeting with tribal leaders both in Washington and throughout the United States. The common question I hear is: What will Internet gaming mean for our tribe, our casinos, our future?
>
> "I suggest that, with the politics of this issue in such a state of flux, such a question is impossible to answer with any degree of certainty. A more relevant question then is: What should Internet gaming mean for our tribe, our casinos, our future?
>
> "That question is more easily addressed because we know the business model that most Indian and commercial casinos follow, and we know the potential of Internet gaming.
>
> "Internet gaming represents a significant revenue stream for government. What is less readily apparent is that Internet gaming also represents a significant marketing opportunity for Indian casinos. Internet gaming offers the ability to reach customers easily at low cost, to identify customers' potential, to cultivate customers and reward them through the ability to earn visits at their brick-and-mortar casinos.
>
> "If Internet gaming is allowed to develop as simply a revenue stream, then I suggest the United States has squandered a once-in-a-century opportunity.
>
> "In Europe, for example, Internet gaming has developed largely as an independent revenue stream. The European model, however, has limited applicability in the United States, largely because Europe does not have anything close to the brick-and-mortar infrastructure that has developed throughout the United States.
>
> "Hundreds of billions of dollars have already been invested in casinos across the country, in part because authorizing governments sought to create more than tax revenues. They sought to create jobs, to invigorate downtowns, to spur tourism and to assist many Indian nations develop sustainable business models to create career opportunities for their members and their communities.

"Those goals assume that gaming and non-gaming adults alike will generate real, not virtual, visits to casinos. That is how you generate employment, and how you generate sufficient returns on all that invested capital."[342]

For many tribes, that crystallizes the concern: Will online gambling benefit their land-based operations or compete against them?

For state lotteries, Indian gaming could be considered a potential competitor since tribal authorities are sovereign entities under US law. Whatever gambling delivery systems or products may eventually become legal through state legislation, recognized indigenous Indian tribes will be free to compete unless limited by a compact with the state. For the Massachusetts State Lottery it should also be noted that, while commercial casinos have been bound by legislation to be licensed by the Lottery and sell MSL products, Indian tribes as sovereign nations are under no such obligation.

3. Lottery

The US Department of Justice's December 23, 2011, landmark opinion was rendered in response to specific inquiries from the New York and Illinois lotteries regarding the possibility of conducting Internet sales in future. The most recent development is the Illinois Lottery offering online ticket sales for lotto games as of March 25, 2012 – providentially in time for the largest Mega Millions jackpot drawing ever.

While new, technology-based sales solutions are being embraced in other countries, it has been a slow, uneven embrace of these solutions in North America which, arguably, is the world's most advanced and sophisticated lottery market and which features high Internet penetration rates and overall technological capabilities.[343] The reasons for this are multiple, varied and complex.

Some observers have focused on legal uncertainty as the primary, root cause explaining North America's slowness in adopting Internet lottery sales. They conclude that the removal of much of this legal uncertainty by recent clarifying opinions from the Department of Justice will now lead to a frenzy of activity and rapid and widespread adoption of Internet sales channels by North American lottery operators.[344]

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[342] Testimony of Michael J. Pollock, US Senate Indian Affairs Committee, October 6, 2011 http://www.indian.senate.gov/hearings/hearing.cfm?hearingID=0bd5589287f5bbb3d229c1850f6ff999 (accessed May 1, 2012)

[343] Internet penetration in North America is estimated to be 87%, compared with 77% in Europe. IWS, *Internet Users in North America,* (March 2011), http://www.Internetworldstats.com/stats14.htm

[344] Paul Lauzon, Internet Gambling goes wireless in US: Meeting with Perception , *Lottery Insights*, (April 2012), p. 25

Such a simplistic, single issue perspective ignores the salient fact that Canadian lotteries – which were never subject to DOJ restrictions or uncertainty – have, like their US counterparts, been far slower than European lotteries to embrace Internet sales channels. Those who believe that ambiguity over a single federal statute has been the impediment to widespread and quick adoption of Internet lottery are missing the deeper point. Such a perspective is mistakenly based on the presumption that legal frameworks are an organic cause of public policy, when in reality they are better understood as a constructed reflection of underlying preferences and values.

No single factor can control how a particular lottery jurisdiction relates to Internet opportunities; a multitude of factors explain why and when a lottery may or may not embrace these opportunities. Disparate adoption indicates that there are particular and unique factors at play in the North American lottery environment which differ from those lottery markets in Europe and Australia, which have more readily embraced lottery Internet solutions.

[See "Legalization Efforts" in preceding chapter for listing of online lottery status by state.]

4. Poker: Emerging as Point of Entry

Internet poker lagged several years behind Internet casino applications due to the greater complexity involved in creating an effective real-time, peer-to-peer game, and large poker networks, known as "massively multiplayer games," have taken even longer to develop. The first Internet poker room, planetpoker.com, opened in 1998, but it took until 2003 for online poker to experience the kind of tremendous growth which had previously been observed with online casino games. Poker rapidly became a craze in the United States, when live poker tournaments were televised and poker celebrities were created by winning televised tournaments. The parallel craze took place online and because the social aspects of poker suited it well to the Internet. In many ways poker is the ideal application due to its social aspect, in which players are content playing against one another rather than playing against the house. This social dimension has also shaped the way in which the game has developed online, in that greater volumes of players on a site generate critical mass, allowing for larger tournaments and prizes and assuring that a handful of top ranking sites dominate the industry.

PartyPoker pioneered online poker tournaments in 2001, generating highly successful events that have been emulated by competitors ever since. Due to this early success in attracting players, PartyPoker quickly established a position as the dominant site in the Internet poker market prior to UIGEA.[345]

In late 2001, ESPN televised the World Series of Poker ("WSOP") nationwide[346] and in 2002 the World Poker Tour ("WPT") made its debut on the Travel Channel.[347] Televising these

[345] www.partypoker.com

[346] wsop.com

events generated widespread interest in tournament poker by creating broad consumer awareness and online buzz. This popular appeal gave the offshore poker sites an advertising platform enabling them to reach tens of millions of people. As a result, those sites offering the biggest money tournaments began to experience exponential increases in player participation. The poker wave began to crest when Chris Moneymaker, until then an unknown poker player who learned to play on – and qualified via – the Internet, won the $2.5 million main event in the 2003 WSOP.[348] This event, broadcast nationwide by ESPN and promoted by PartyPoker through heavy advertising, began a three-year efflorescence of poker popularity which supported the growth of the game online as more people played over the Internet for business and pleasure. The WSOP, WPT and ESPN legitimatized poker as a sporting competition and, together with massive advertising spend by the top Internet poker sites, powered tremendous improvement in the public image of the game.

That phenomenon coincided with the expanse rise of broadband access, and was further fueled by the concomitant rise in availability of live poker in commercial and Indian gaming states. Gambling Compliance, for example, noted that the percentage of adults with broadband access rose from 3 percent in 2003 to 25 percent in 2006,[349] which is clearly no coincidence as it was contemporaneous with the rise of poker's popularity.

Poker has been a quintessentially American game, and the original Internet poker sites were strongly focused on US players. The poker wave soon washed over European and international shores as the game's popularity expanded beyond US borders. As European players discovered the poker craze, a multitude of international poker sites sprang up primarily focused on Europe, beginning with Ladbrokes in 2002[350] and including an increasing number of betting companies. Most of these new poker sites operated under the network model, in which the network provider aggregates play from multiple sites under a central umbrella software platform, thereby generating the greatest number of active players possible through a single portal while simultaneously offering this large player base open seats immediately at the widest variety of games and price points, tournaments and prizes – the essence of "liquidity."

The race to maximize liquidity sparked new entries into the market sharply focused on Internet poker and spending heavily on advertising and promotions. One of the most successful of these was Full Tilt Poker, launched in 2004, and promoted by some of the best-known names in poker, including Chris Ferguson and Howard Lederer, who were also consulted in developing the software.[351] Full Tilt successfully pursued this strategy of involving professional celebrity

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[347] worldpokertour.com

[348] Poker News Daily

[349] Chris Krafcik, speaking at GiGse, April 25, 2012

[350] pokerplayer.co.uk

[351] www.gamblingsites.com

players with televised endorsements and soon rose to the top rank of online poker sites. By 2005, a handful of dominant poker sites and networks had emerged that accounted for the great majority of global Internet poker revenue prior to UIGEA passage.

The question of the legality of Internet poker was hotly debated in the United States, with legal proponents staking the position that poker is a game of skill played against other players rather than the house. Opponents, however, included the US Department of Justice ("DOJ"), which continued to maintain that the game was illegal when played over the Internet and prosecuted many of the leading poker sites as offenders. For example, PartyGaming reached a "non-prosecution settlement" with the DOJ in 2009, in which the company agreed to pay a $105 million fine to escape prosecution for having taken bets from US players prior to UIGEA;[352] other firms including payment processer Neteller reached similar undisclosed agreements to escape prosecution.

UIGEA passage in 2006 forced the exit of PartyPoker, 888.com, Paradise Poker, Cryptologic and others from the US market and left a vacuum, which privately held companies still willing to assume the risk of taking bets from US players were quick to fill to their advantage. PokerStars and Full Tilt Poker, privately held firms financially backed by US residents, soon emerged as the dominant providers for US poker players. In spite of UIGEA, at least 2.5 million Americans continued to play on offshore sites, betting an estimated $30 billion annually in the years immediately following UIGEA passage.[353]

This situation began to change after 2010 as the DOJ stepped up enforcement actions under UIGEA. Widely publicized prosecutions dampened enthusiasm for Internet gambling among US players. Additionally, the transition to privately held operators worked to suppress enthusiasm among US players as the industry's reputation suffered from revelations of cheating scandals and later prosecution efforts by the DOJ. The most important single UIGEA enforcement event was the April 15, 2011, Black Friday, in which indictments were unsealed in the Southern District of New York against the owners of the three most popular offshore poker sites: Full Tilt, Absolute Poker, and Poker Stars. Domain names were seized in the United States, and player accounts were frozen. The Justice Department's aggressive enforcement actions under UIGEA have continued into 2012, including the February indictment from Baltimore against Bodog.com founder and former *Forbes* magazine billionaire cover man Calvin Ayre.[354]

As a result of the DOJ enforcement actions, today many US players are discouraged from playing online and those who still do so generally make smaller deposits and do not allow their funds to remain uncollected on the site. Data compiled by the American Gaming Association suggest that UIGEA may have dampened participation in all poker play, whether face to face or

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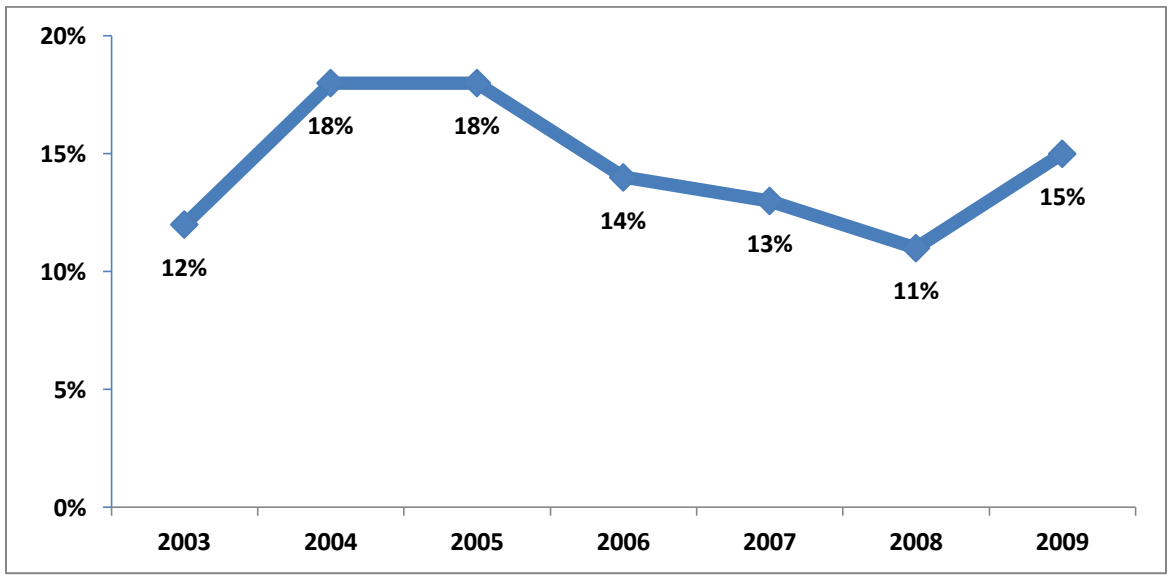
[352] *The Economist*, April 23, 2011

[353] American Gaming Association white paper, Online Gambling Five Years After UIGEA, David O. Stewart, 2011

[354] www.calvinayre.com

online. The AGA's 2010 *State of the States* survey found that poker participation, whether land-based or online, reached a peak of 18 percent of the sample in 2004 and 2005 and then fell for the next three years to a low of 11 percent in 2008 and rebounded to 15 percent in 2009. A key question which may only be answered by eventual legalization is how much of the decline in US Internet poker since 2005 has been due to falling popularity of the game and what proportion is due to UIGEA enforcement and its results.

Figure 76: United States poker participation rates, 2003-2009



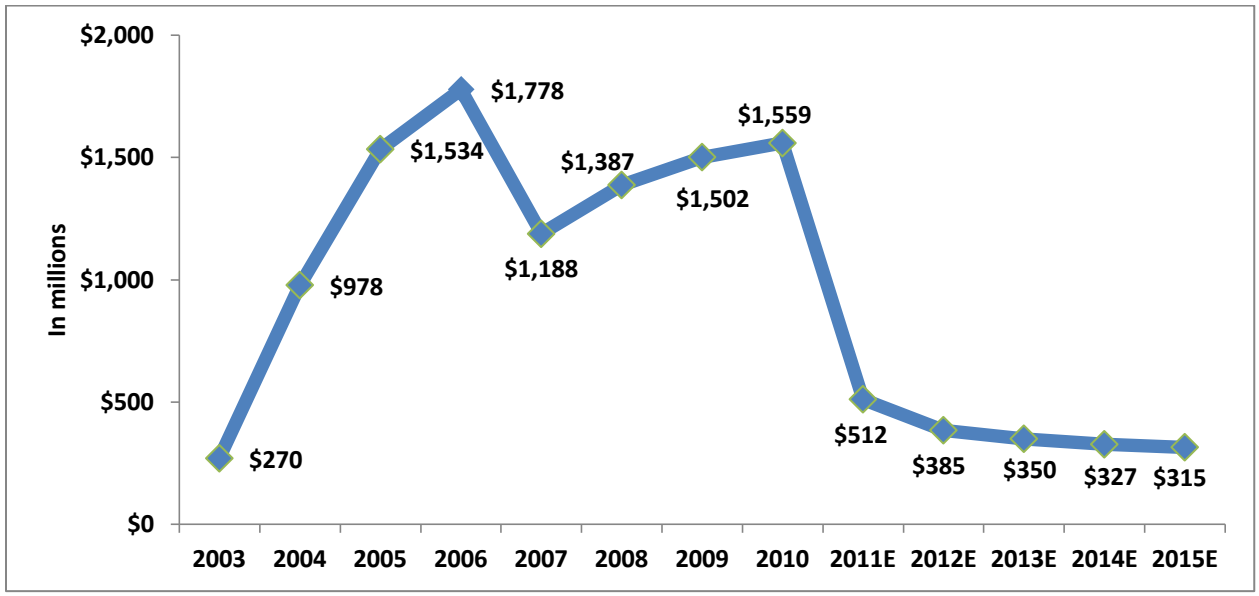
Source: American Gaming Association, 2010 *State of the States*

These developments have had the effect of reducing financial projections for global Internet poker revenues and consequently suppressing the magnitude of future projections for the US Internet poker market. While the Full Tilt-DOJ settlement has restored some confidence in offshore Internet poker, the current global situation reflects a declining market. Our belief is that, once legalized, Internet poker will once again achieve the popularity experienced prior to UIGEA passage but we do not expect this to occur overnight and it may take several years for the domestic market to fully recover.

John Connelly, VP Business Development for gaming equipment maker, and Internet gambling provider Bally Technologies, summed up the difficulty making a profit from Internet poker in a recent interview for Casino Journal: "Now that they've slowed down and thought about this and done the analysis that you would normally do when you have the time, quite frankly poker is not where the majority of the money is being made by these international operators. Five years ago the rake was 15 percent and the cost to keep a player loyal to you was £100. Fast forward to today and the rake is around 5 percent and it can cost £3,000 to retain a

player. The bottom line profitability is not attractive for a lot of companies. The majority of profit is coming from the casino side which is slot play and table games."[355]

Figure 77: North American Internet poker revenues, 2003-2015E



Source: H2 Gambling Capital

According to H2 Gambling Capital, the US poker market accounts for only 8 percent of the total revenue generated by Internet poker players worldwide.[356] That is a far cry from the majority (more than 50 percent) of global Internet poker revenue that once came from US players in the early days on Internet gambling and a testimonial to the effectiveness of UIGEA enforcement actions as well as the reduced credibility of offshore poker sites. However, legalized Internet poker may once again return to its former US dominance. H2 estimates that if the 12 largest states enter into legalized Internet poker, the US share of global Internet poker revenue will increase to 28 percent over a five-year period and could eventually exceed European online poker revenue in a best-case scenario.[357]

a. Poker Considerations

The concept of online poker has important characteristics driving its consideration by policymakers. Indeed, we note that gaming legislation that has been introduced at the federal level and in states such as California often focus on poker. It is either viewed as a profit center in and of itself, or as an entry point that would ultimately lead to other forms of online gambling. We have observed indications that initial projections within states regarding poker participation

[355] Mapping the Future, Casino Journal, October, 2012.

[356] H2 Gambling Capital, US Interactive Gambling Report, April, 2012.

[357] H2 Gambling Capital, US Interactive Gambling Report, April, 2012.

are being revised downward. Witness, for example, a report from the Iowa Racing and Gaming Commission that revised annual revenue projections from online poker downward from $35 million to between $3 million and $13 million.[358]

We suggest, based on numerous interviews with leading political and online professionals, that one driving force is that poker is seen as politically expedient, i.e., that elected officials view it as a safe means of moving to online wagering that would not encounter significant political opposition. While we cannot vouchsafe the veracity of that view – we suggest that no one truly knows, beyond political intuition, whether poker is more politically palatable than other forms of online wagering – we can point to two observations that are supportable:

- Poker, as a legal form of online wagering, is being touted and pushed by European operators and others who have a vested interest in it. Such vested interests range from existing brands to significant databases of active players to working models and operating systems. Spectrum cautions that the presence of such vested interests could distort their arguments.
- Poker, whether in its online or land-based form, does not promise to be a major profit center, based on margins, in contrast to other casino offerings.

Revenues are generated in the form of a "rake," which is the house take from each pot, and there is significant market pressure from players to keep the rake small in order to make the pots more competitive with other games and more attractive to players. Atlantic City casinos, for example, limit the size of the rake to 10 percent, up to a maximum of $4.

The Press of Atlantic City noted that, "Despite the growing popularity of poker, fueled by nationally televised tournaments and celebrity players, the game generates relatively little revenue for casinos through the 'rake,' the fee or small percentage of the pot collected by the house. Poker is seen more as a complement to the slot machines and more lucrative table games, such as blackjack. 'With poker rooms, in general, the money is minimal,' (Golden Nugget poker room manager Keith) Richman said. "Poker, for us, is a complementary accommodation.'"[359]

The same would hold true for online poker, as the same pressures and cost structures would be present. Still, poker as an online offering must be considered, since it has strong political and industry adherents, and because it offers some insight into the potential size of the online market in the United States.

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[358] "Iowa Report Doubts Intrastate Poker's Revenue Potential," gamblingcompliance.com http://www.uni.edu/csbr/sites/default/files/Iowa_Report_Doubts_Intrastate_Poker__s_Revenue_Potential.pdf (accessed May 6, 2012)

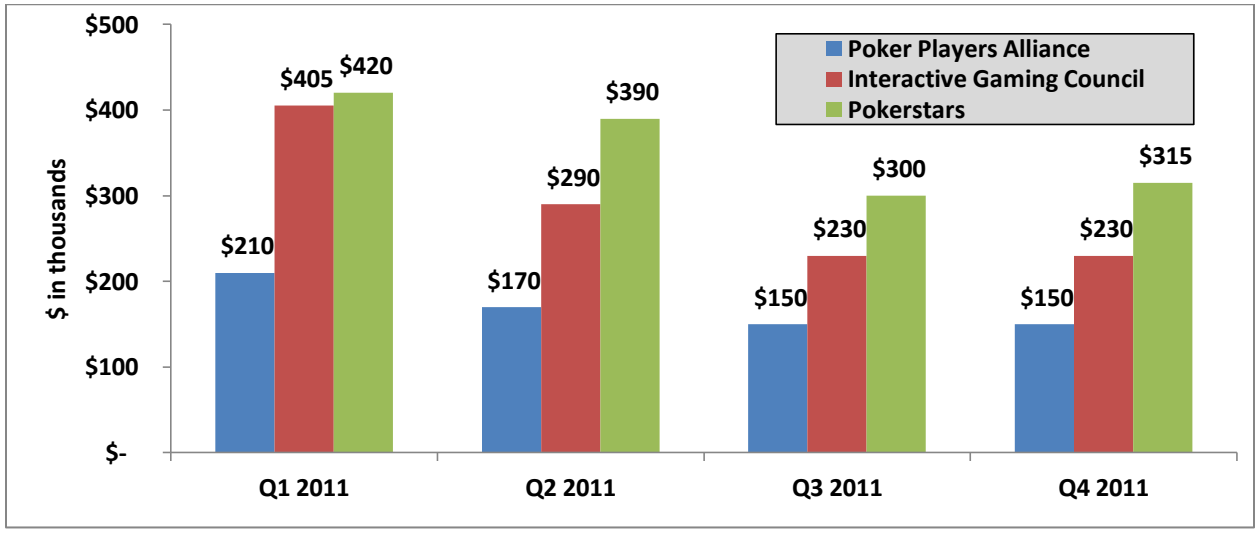
[359] "Tournaments, casino promotions highlight opening of Golden Nugget Atlantic City's upscale poker room," Press of Atlantic City, February 18, 2012. (http://www.pressofatlanticcity.com/communities/atlantic-city_pleasantville_brigantine/tournaments-casino-promotions-highlight-opening-of-golden-nugget-atlantic-city/article_f1833a9c-59ef-11e1-abe7-0019bb2963f4.html (accessed May 6, 2012)

A succinct summary of poker in the United States was offered by GamblingCompliance at the 2012 Global i-Gaming Summit & Expo in San Francisco:

> "In the annals of American Internet poker, the six-year period between November 2006 and April 2011 is remembered as belonging to the tandem of PokerStars and Full Tilt. The two businesses aggressively pursued market share in the United States via televised advertising campaigns, tournament sponsorships, player-sponsorship deals and free-to-play, or dot-net, Internet poker sites. They are thought to have amassed several billion in Internet poker revenues during that time.
>
> "At the height of PokerStars and Full Tilt's commercial and political power in 2011, both businesses were lobbying aggressively for legislation that would expressly permit them to operate on an intrastate or interstate basis in the United States Moreover, that year, PokerStars and Full Tilt had entered into agreements with Nevada-based gaming companies to, among other things, lobby for Internet gambling legalization on Capitol Hill.
>
> "On April 15, 2011, federal prosecutors in New York indicted the founders of PokerStars and Full Tilt Poker, along with nine other individuals, on charges including bank fraud and money laundering. Shortly thereafter, PokerStars and Full Tilt stopped accepting money deposits from customers in the United States"[360]

The following chart shows the amount spent by some poker lobbies before and after that April 15 date.

Figure 78: Poker-lobbying expenses in the US

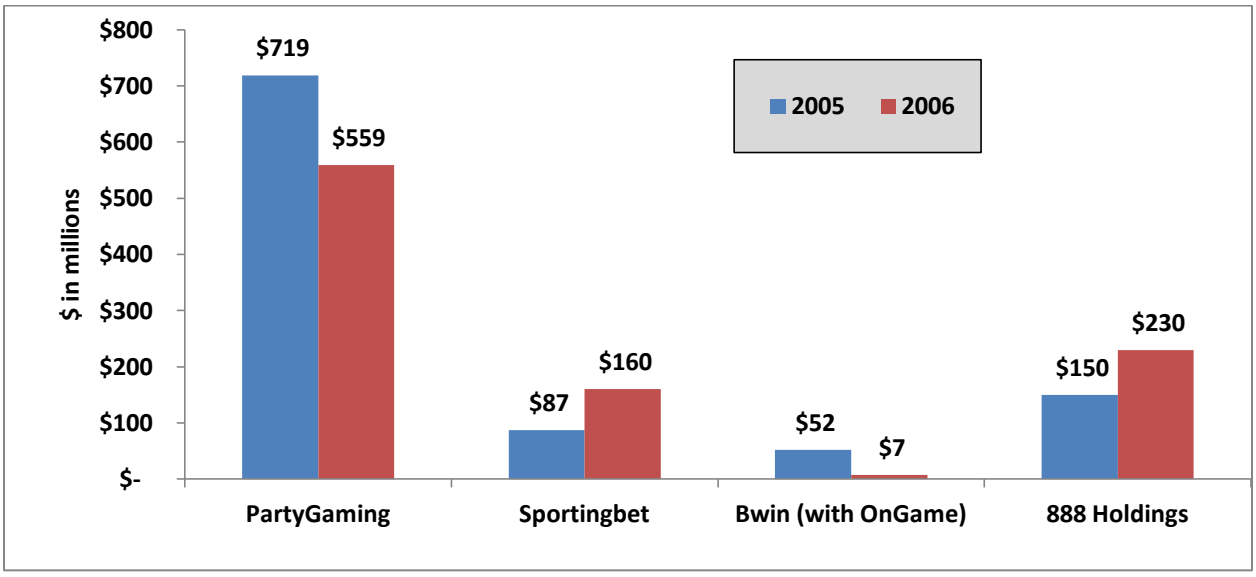


Source: GamblingCompliance.com

[360] Andrew Gellatly, Editorial Director, Gambling Compliance, speaking at GiGse, April 24, 2012

Gambling Compliance developed projections as to the size of the US market, based in part on the data provided by these operators:

Figure 79: US poker revenue reported by four major providers, 2005-6



Source: Gamblingcompliance.com

The chart above shows that these four operators generated at least $920 million in annual business from the United States, excluding smaller, non-reporting operators. Clearly, we support estimates that the total was $1.5 billion to $2 billion in that period prior to the establishment and enforcement of the UIGEA.

This analysis also demonstrates the growth of poker in Europe, and European operators' ability to penetrate the US market. Notably, while poker is a major online game in Europe, there is no discernible "poker culture" in Europe, unlike the United States, where poker has long been a popular gambling pastime. This would indicate that online poker could generate more play in the United States than it does in Europe. European operators expect that, unlike in Europe, online wagering in the United States will have a limited number of licenses, which translates into much lower marketing costs. Marketing will be much easier, with an audience that operators believe is desperate for the product.

Marketing costs for European operators tend to be around 25 percent of revenue, while startups seeking to develop a brand will be closer to 50 percent.[361] One reason for such high marketing costs is the proliferation of wagering sites, and the difficulty that such sites face in reaching potential viewers through search-engine optimization and other marketing tools.

Additionally, the proliferation of sites makes it easy for players to switch sites. In the United Kingdom, online poker "churn" (a term that defines the movement of players in and out

[361] Anton Bell, Gaming Edge Associates, speaking at GIGSE, April 26, 2012

of sites) averages between 10 percent and 13 percent per month, meaning that customers stay on the site for about seven months.[362]

Still, the political realities in the United States during that period – exemplified by the 2006 UIGEA passage – created opportunities for foreign operators to tap the US market. Indeed, it must be noted that the European online gambling market evolved differently than it would have in the United States, in part because of the presence of a large, land-based casino industry in the United States that first viewed online gambling as a threat, coupled with licensing standards in the United States that are far different, and arguably more stringent, than they are in Europe or elsewhere.

b. Players' Other Games

US Gaming Survey.com ("USGS") conducted an online survey of poker players during the last three weeks of December 2011. Respondents invited to take the survey were members of the Poker Players Alliance and more than 8,000 completed the survey. Results showed that 72 percent of all respondents play for stakes under $100 per week.[363] For players who are actively wagering over the Internet today, presumably on US-facing offshore sites, a great majority (89 percent) would readily move to a US licensed and regulated website if one were available.[364] This survey also collected information regarding lottery play by Internet poker players, 53 percent of whom also play land-based lottery games. Among this sub-group, 54 percent – or more than one-quarter of the total survey population – appear to be casual lottery players spending less than $5 per week on lottery tickets and 81 percent spends $10 or less on the lottery.[365] These findings indicate that Internet poker players are not likely to be core frequent lottery players.

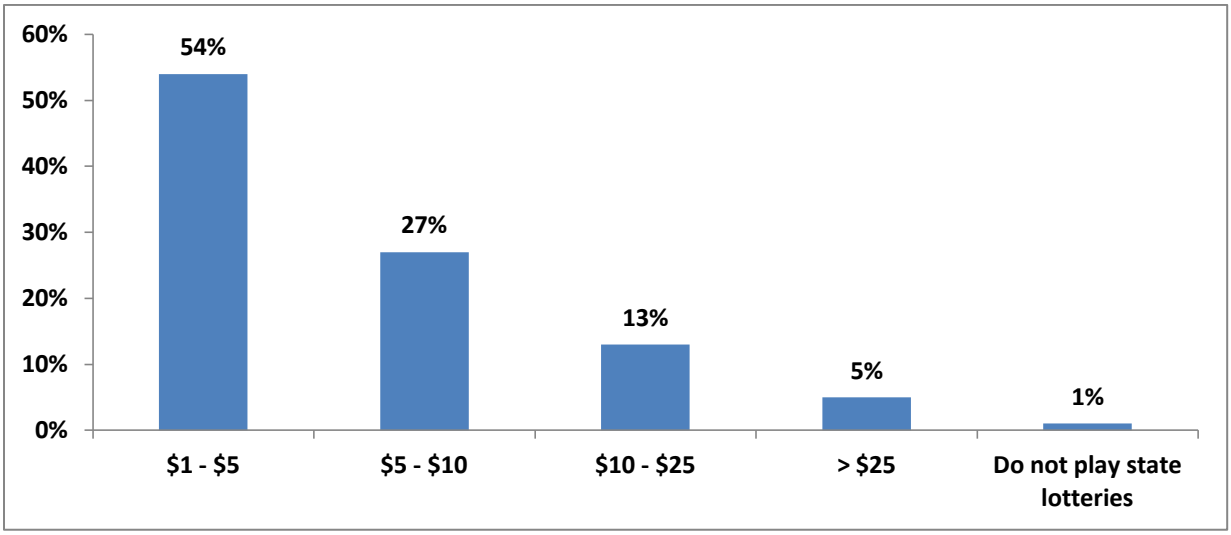
[362] Malcolm Graham, PKR, speaking at GiGse, April 26, 2012

[363] US Gaming Survey, US Online Poker Survey 2012

[364] US Gaming Survey, US Online Poker Survey 2012

[365] USGS Online Poker Survey 2012

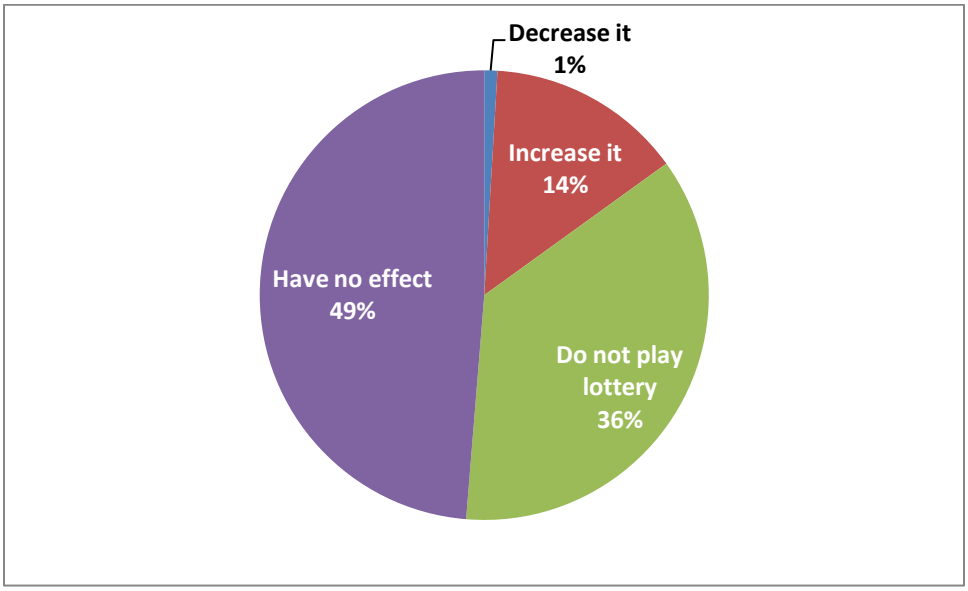
Figure 80: Internet poker player weekly lottery spend



Source: US Gaming Survey.com Online Poker Survey 2012

Internet poker players who also play the lottery were further asked in the USGS survey whether, if legal online poker and lottery were both available in conjunction with one another, they expected their weekly lottery purchase to be affected. Some 49 percent said they would expect online lottery availability to have no effect on their current weekly purchase behavior while 14 percent would expect online availability to increase their weekly lottery purchase. Only 1 percent expected their weekly lottery purchase to decrease.[366]

Figure 81: Expected effect of Internet poker availability on lottery purchases



Source: US Gaming Survey.com Online Poker Survey 2012

[366] USGS Online Poker Survey 2012

Similarly, an earlier USGS survey of Internet casino players found that an even stronger majority – 55 percent of males under age 50 and 52 percent of men over age 50 – expected online casino games to have no effect on their visitation of land-based casino properties. A substantial proportion of online players, 20 percent of males under age 50 and 16 percent of men over age 50 expected their land-based casino visitation to actually increase.[367]

Poker, as an online offering, depends highly on the potential pool of players available for games at all hours of the day, referred to as the "liquidity" of the market. With an adult population of 5.2 million, the prospect of sufficient liquidity is an open question. At this writing, federal legislation is being considered that would allow interstate online poker, but that is an unknown. A similar unknown at this point is whether different states across different time zones would be able to pool their poker resources, as is being done among certain provinces in Canada.

5. Legalization Efforts

Numerous efforts were made in Congress to delay or defeat UIGEA prior to passage and to repeal the legislation after passage none have met with any success. House Financial Services Committee Chairman Barney Frank spearheaded efforts to delay or defeat UIGEA after passage, drafting the Internet Gambling Regulation and Enforcement Act ("IGREA") in April 2007, as well as a series of similar bills culminating in HR 2267 – the Internet Gambling Regulation, Consumer Protection, and Enforcement Act – designed to license and regulate Internet gambling and allow states and tribal governments to assume jurisdiction. A companion bill, the Internet Gambling Regulation and Tax Enforcement Act of 2009, was introduced by Representative Jim McDermott; this bill required any licensee under IGREA to pay a 2 percent fee (i.e., federal tax) on all deposits, as well as increasing protections against tax cheating. Despite the promise these legislative efforts offered for legalizing Internet gambling and the potential for a regulated industry producing $42 billion in tax revenue over 10 years, by 2010 Congress had effectively killed both bills. These pro-Internet gambling measures did succeed in making some state and federal legislators rethink their positions regarding Internet gambling.

Additionally, these legislative efforts generated support from US commercial and tribal gaming interests and assisted reversing the land-based industry's general opposition to Internet gambling. The American Gaming Association, a trade group for the US commercial casino industry, has evolved its stance with regards to Internet gambling from one of opposition to one of outright support. This sea change in the position of the domestic casino industry has been brought on by the evident success of the Internet gambling industry internationally, the establishment of robust player protection, age verification, and geolocation systems to assure social responsibility and security, as well as the industry's own efforts to position their

[367] USGS, National Online Wagering Survey 2011

companies to defend the Internet space against foreign competition and prepare for what they see as eventual but inevitable legalization.

The most recent efforts to pass a Federal legislation have focused on the legalization of Internet poker. On July 26, 2012, Eugene Johnson, a Spectrum Gaming Group executive, testified before the US Senate Committee on Indian Affairs, in an oversight Meeting on the subject of the Regulation of Tribal Gaming: From Brick & Mortar to the Internet chaired by Senator Akaka, Democrat from Hawaii. At that time there were two bills circulating in the US Senate with the potential to become law, Senator Akaka's bill, which was considered friendlier to tribal gaming, and Senator Reid and Senator Kyl's bill, which is considered more advantageous to the commercial casino industry. The plan had been to attach one of these bills, undoubtedly the Reid/Kyl version, to a must-pass piece of legislation, in this case the Cyber Security Bill. In the event that must-pass legislation never made it to the Senate floor and the prospect of federal interstate legalization of online gambling has evaporated for the remainder this Congressional session and most probably for the next twelve months. Most political commentators on this issue believe that the chances for federal legalization will be better under a Democratic administration in the White House than they may be under a Republican administration.

Federal legislation, depending upon the details of any particular bill that may be passed, could prohibit state lotteries from participating in Internet gambling or restrict them to offering only traditional lottery games online. The latest released summary of the Reid/Kyl bill, tentatively titled "Internet Gambling Prohibition, Poker Consumer Protection, and Strengthening UIGEA Act of 2012" legalizes Internet poker but explicitly prohibits other forms of Internet gambling, including by state lotteries. Under this draft Internet poker bill, state and tribal lotteries could offer online lottery ticket sales but could not offer Internet games that are similar to slot machines or casino games. As such, this bill constitutes a legislative threat to unrestricted state lottery online products. As drafted, this bill would invalidate Delaware's passed legislation authorizing Internet gambling through the state lottery. It also prohibits tribal casinos from offering Internet gambling if their states choose not to opt into the federal scheme, although a second online poker bill titled Tribal Online Gaming Act of 2012 released by the Senate Indian Affairs Committee would be much friendlier to tribal gaming. Both of the current draft bills would place regulatory oversight of Internet gambling with the Department of Commerce.

In the absence of effective interstate legislation, several states have moved aggressively to fill the vacuum. A summary of recent legalization activity notes the following states could implement Internet wagering as early as the end of 2012:

- Nevada has already legalized intrastate Internet poker and awarded the first two Internet gambling licenses awarded in the US on June 21, 2012. Regulation 5A governing the licensing of Internet poker operators and service providers was adopted in December 2011. Operator licenses can only be granted to companies that already hold non-restricted Nevada gaming licenses but service provider licenses are less

restricted. On September 20, 2012 the Nevada Gaming Commission approved Regulation 5.240 which established three new service provider licensing sub-categories for geolocation, patron identification, and payment processing.

- Delaware became the first state to legalize lottery Internet gambling when on June 28, 2012 Governor Jack Markell signed into law HB 333, sponsored by Representative John Viola, Chair of the House Gaming & Pari-mutuels Committee. This measure allows the state's three existing racetrack casinos to offer online lottery games through co-branded websites using a central platform operated and promoted by the Delaware Lottery. The law also expands the number of outlets that can host keno and sell sports lottery (parlay betting) tickets. Revenue from Internet lottery sales will be rolled into current benefits distribution except that the first $3.75 million will be retained by the Delaware Lottery to ensure that the initiative is revenue neutral to the state. The Lottery Director will have discretion over which games will be permitted but it is expected that lottery tickets, video lottery, and casino style table games will all be offered online. Only persons physically present in the state will be allowed to participate. Pre-paid debit cards will be used to fund electronic Internet gaming accounts and these cards must be purchased at current lottery retail locations.

- New Jersey has passed several bills in the Assembly approving Internet gambling, mobile wagering, and sports betting. At the federal level New Jersey Representative Frank LoBiondo has sponsored a bill in the US House of Representatives, HR 3797, which would legalize sports betting in the 46 states which are not grandfathered under PASPA. At the state level, New Jersey has passed legislation legalizing Internet gambling, mobile betting, and sports betting. At the state level two bills, one in the Senate, S1565 sponsored by Senators Ray Lesniak and Jim Whelan, and one in the Assembly, A2578 sponsored by Assemblymen John Burzichelli, Vincent Prieto, Ruben Ramos, and Lou Greenwald have both passed in committee. These two bills would grant Internet gambling licenses to casinos currently operating in Atlantic City. License fees are estimated to be at least $200,000 with a $100,000 renewal fee plus 20 percent tax on annual gross revenues and an annual fee of $150,000 per license to fund compulsive gambling programs. All hardware supporting Internet gambling must be located within Atlantic City. In addition mobile betting at casinos has already been signed into law on August 8, 2012 with the regulations becoming effective on October 8, 2012. Bills S2236, sponsored by Senator Robert Gordon in the upper house and A2160 which passed in the Assembly on May 24, 2012 will allow mobile betting at racetracks in New Jersey. Finally, a bill permitting sports betting, P.L.2011, Chapter 231 was signed into law on January 17, 2012. This bill has been opposed by the NFL, NBA, MLB, NHL, and NCAA sports associations who have cooperatively filed suit to block it under the Professional and Amateur Sports Protection Act (PASPA). The state has moved forward with the Division of Gaming Enforcement

publishing final regulations on October 15 and set to begin awarding licenses on January 9, 2012.

- California has had several bills attempting to legalize in-state Internet poker in the legislature over the past two years but none has made it to the floor due to opposition from tribal gaming interests on the basis of potential licensees and tribal sovereignty issues. The current bill, SB 1463, sponsored by Senate President Pro Tem Darrell Steinberg and Senator Rod Wright, would grant 10-year, $30 million Internet poker licenses to in-state gambling enterprises which have been under state regulation for at least three years, including California Indian tribes, card rooms, horseracing associations, and advance deposit wagering ("ADW") operators. Licensed Internet poker operators would pay a 10 percent tax on monthly gross revenues which could be deducted from the license fee for the first three years. A second bill legalizing sports betting, SB1390 sponsored by state Senators Rod Wright and Joel Anderson, would authorize the same licensed entities to offer wagering on professional and collegiate sports excepting those that take place in California or in which any California college team participates. This bill also appears dead at least for the remainder of this year.
- Illinois proposed an Internet gambling bill, HB 4148 sponsored by Senate President John Cullerton, which would permit the state lottery to sell $5 million affiliate licenses to private operators including casinos, race tracks, and advanced deposit wagering enterprises utilizing the state lottery's website but the measure died on the floor of the state senate.
- Iowa had an Internet poker bill, SF 2275 sponsored by Senator Jeff Danielson passed by the state Senate on March 13, 2012, but the session ended before the measure came up for consideration in House. This bill authorized online poker only and required service providers to partner with existing land based riverboat and racetrack casinos currently licensed by the state.
- The District of Columbia City Council, after exploring and then rejecting Internet gambling last year, introduced legislation on September 19, 2012, to form a study committee to explore potentially legalizing all forms of gambling including online gambling.
- Hawaii saw two bills introduced in the legislature to authorize casino gaming, a state lottery, and Internet gambling but neither bill advanced during the 2012 session.
- Massachusetts saw an amendment to the state budget authorizing Internet gambling introduced and then withdrawn early in the 2012 session.

A number of other states are now considering some form of legalized Internet gambling, including Florida, Georgia, Mississippi, Pennsylvania, and Rhode Island, subject to passage of

enabling legislation and resolution of potential legal challenges. Once one state legalizes Internet gambling, it is likely that other states will quickly follow, creating additional momentum for state by state legalization while applying additional pressure for the movement of federal legislation.

BB. Internet Player Demographics

1. Demographics – the North American Internet Gambler

The 2011 Active Gambler Profile, produced by MMGY Global for the casino equipment manufacturer WMS, surveyed more than 3,800 gamblers in the United States, Mexico, and Canada and found that 13 percent of US respondents have visited an online gambling site, compared to 22 percent of Canadians and 41 percent of Mexican respondents. These penetration rates strongly support the intuitive conclusion that legalized and regulated Internet gambling generates higher penetration rates than illegal gambling. Poker is the most popular online game in every North American country, followed by slots, table games, and bingo.[368]

The majority of online gamblers spend less than one hour per visit per site, but many do visit more than one site during a gambling session. Earlier research conducted by London-based e-Commerce and Online Gaming Regulation and Assurance ("eCOGRA") in 2006 with some 10,800 Internet gamblers benchmarked typical Internet gambling sessions at 1-2 hours and play frequency two to three times per week on average.[369] The primary motivation for playing online is convenience, expressed as the ability to multitask and control the place and time that gambling takes place, and secondary reasons include privacy, comfort, relaxation, and the influence of marketing incentives.[370]

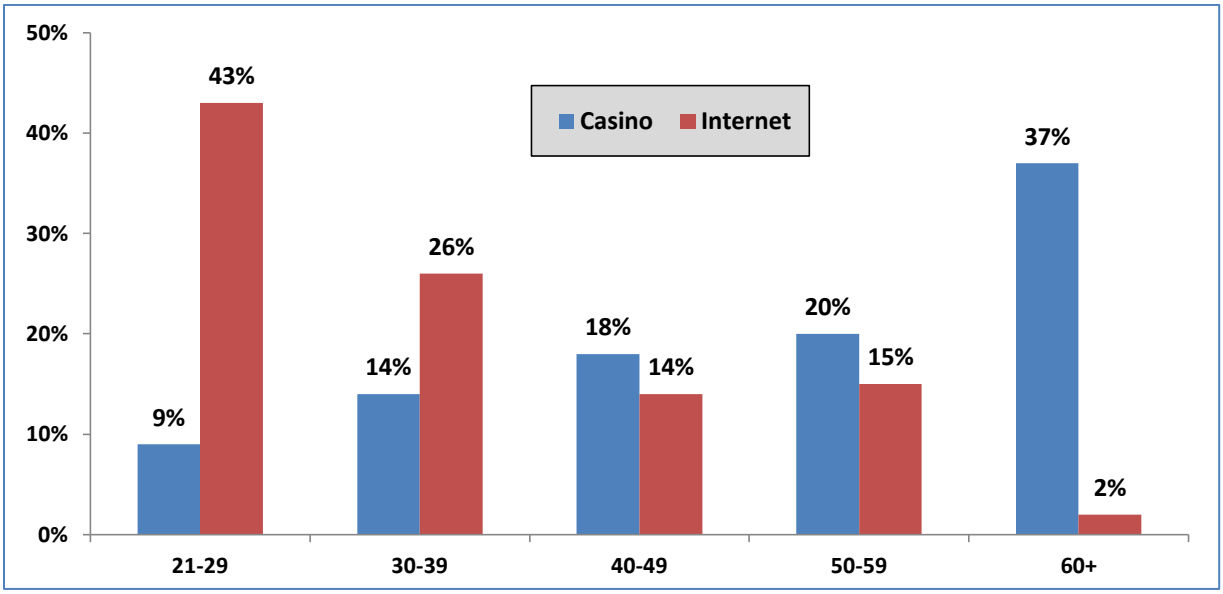
The American Gaming Association ("AGA"), as reported in its 2006 *State of the States*, undertook a special survey in which it provided some comparisons of Internet gamblers and traditional casino gamblers. The 2006 AGA study found that Internet gamblers are more strongly male than traditional casino gamblers: 68 percent vs. 53 percent, respectively. More importantly, this survey found that Internet gamblers are significantly younger than traditional casino gamblers, as shown in the following chart:

[368] YPartnership, 2011 Active Gambler Profile

[369] eCOGRA 2006 Global Online Gambler Report

[370] YPartnership, 2011 Active Gambler Profile

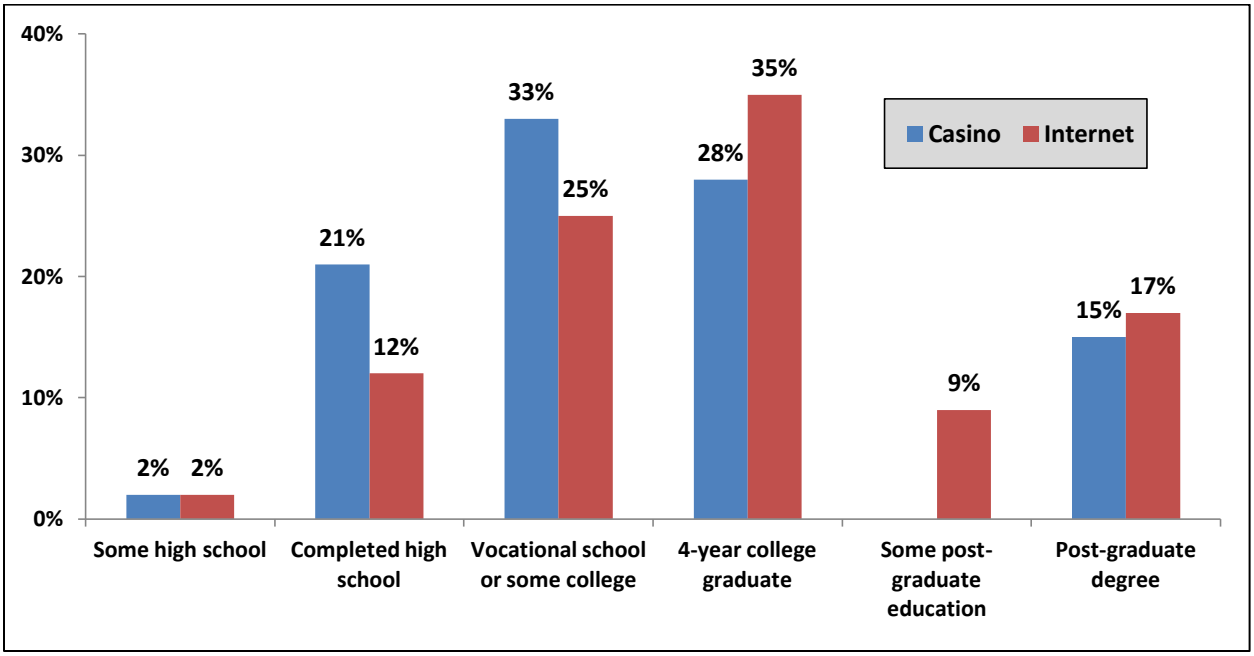
Figure 82: By age group, Internet gamblers vs. traditional casino gamblers



Source: American Gaming Association State of the States 2006

Internet gamblers are also generally better educated than traditional casino gamblers, with Internet players significantly more likely to have a four-year college degree or higher level of education.

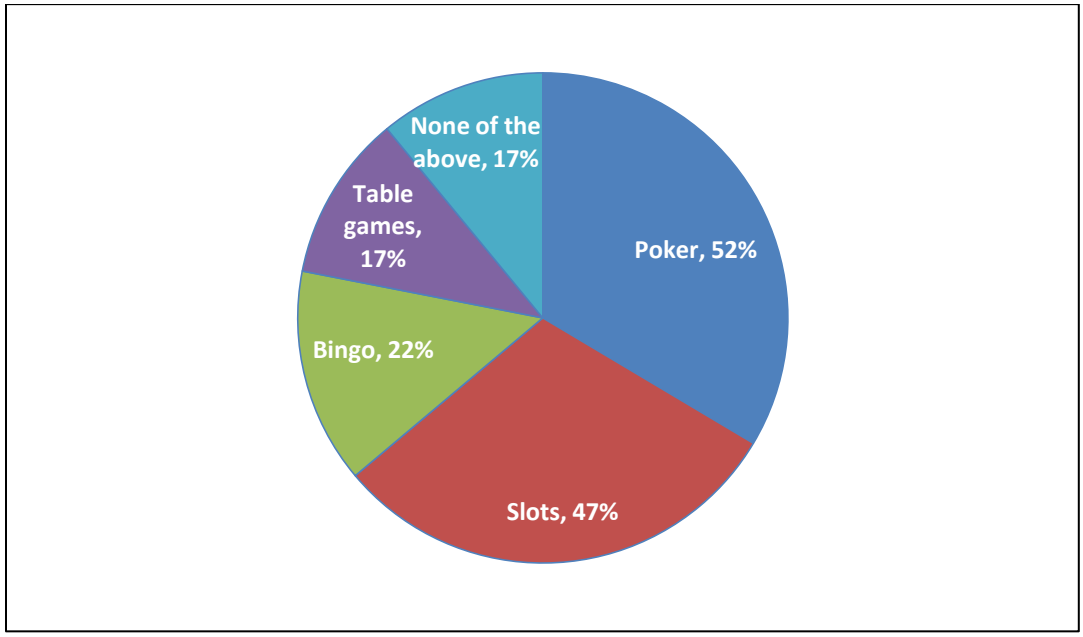
Figure 83: By education level, Internet gamblers vs. traditional casino gamblers



Source: American Gaming Association State of the States 2006. Note that the survey for traditional casino gamblers did not include an option for "some post-graduate education."

Internet gamblers in North America play more frequently than traditional casino gamblers but they play for smaller stakes per session. YPartnership (predecessor to MMGY Global) found in its 2010 Active Gambler study that the median (excluding zero) amount spent on gambling per day-trip North American "active gambler" to a casino was $200 per trip. The same study found that the mean (i.e., average) amount bet per online session by North American Internet active gamblers was $90.10. In North America, 35 percent of active gamblers visited an Internet gambling site during the previous 12 months.[371]

Figure 84: Types of online games played among North American Internet gamblers

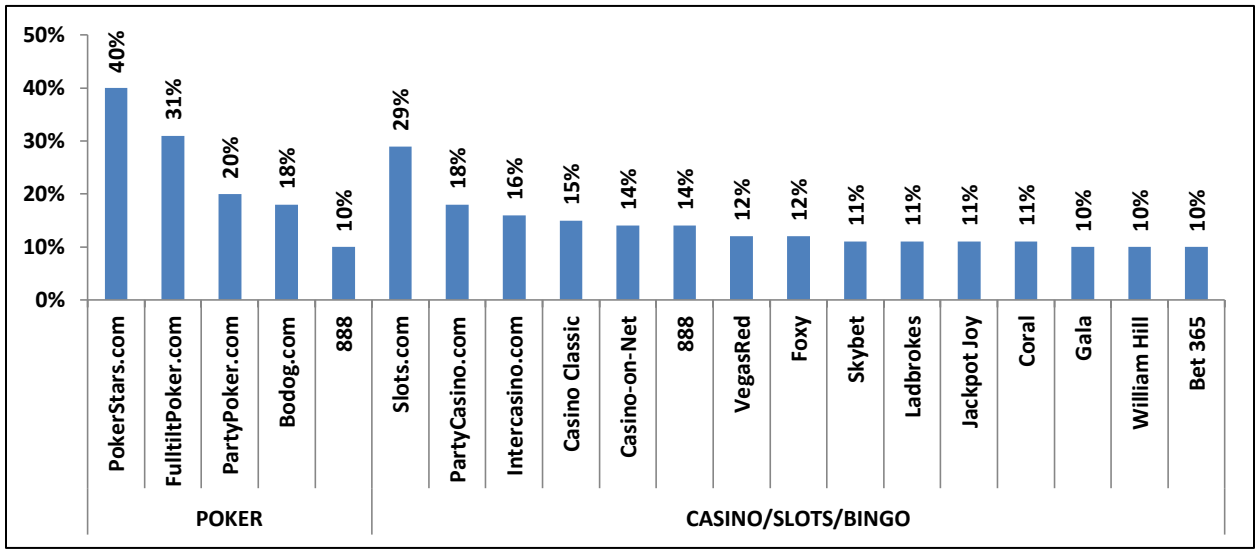


Source: YPartnership, 2010 Active Gambler Profile

Internet gamblers' preferences for poker are further illustrated in the next chart, which shows the most frequently visited Internet gambling sites by all active gamblers, prior to the Black Friday indictments, segmented by poker and casino/slots/bingo games. This chart demonstrates that a small number of the most popular Internet poker sites – those with the greatest liquidity, or active users playing on the site, (i.e., PokerStars and Full Tilt Poker) dominate the online industry. For the Internet casino sites, market share is much more evenly distributed, with Slots.com having the greatest individual share.

[371] YPartnership, 2010 Active Gambler Profile

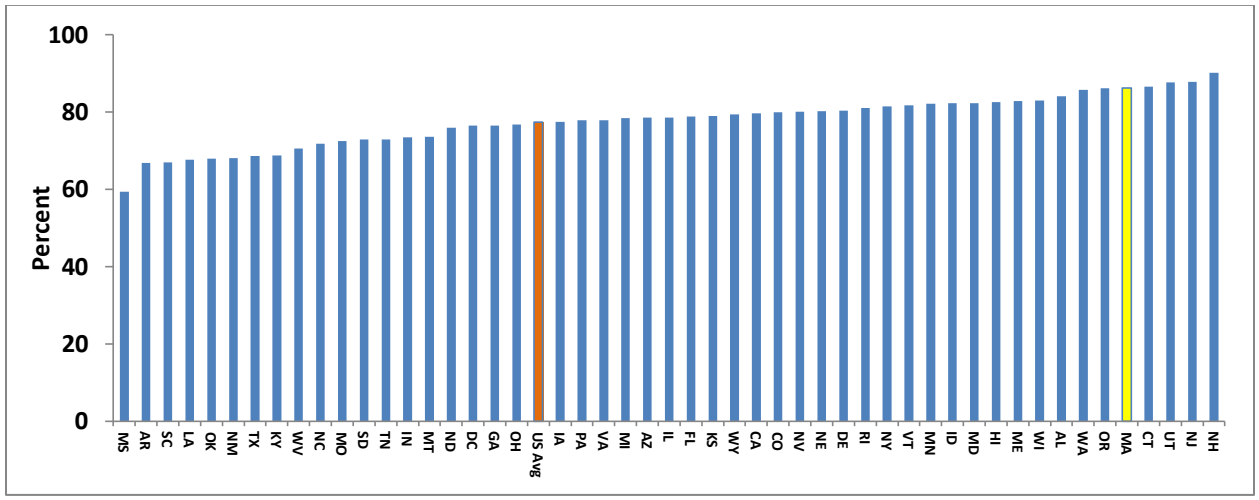
Figure 85: Most frequently visited Internet gambling sites by all active gamblers



Source: 2010 Active Gambler Profile

Massachusetts appears well positioned for the introduction of Internet-based lottery sales, ranking as the fifth-most wired state in the nation, ranking behind only New Hampshire, New Jersey, Utah and Connecticut. The state enjoys a higher proportion of Internet users than the nation at large, boasting an Internet penetration rate of 86.2 percent as of June 2010, compared to 77.3 percent for the United States as a whole.[372] Most importantly, more than 70 percent of Internet users nationwide also make online purchases.[373]

Figure 86: US Internet penetration rates by state – June 2010



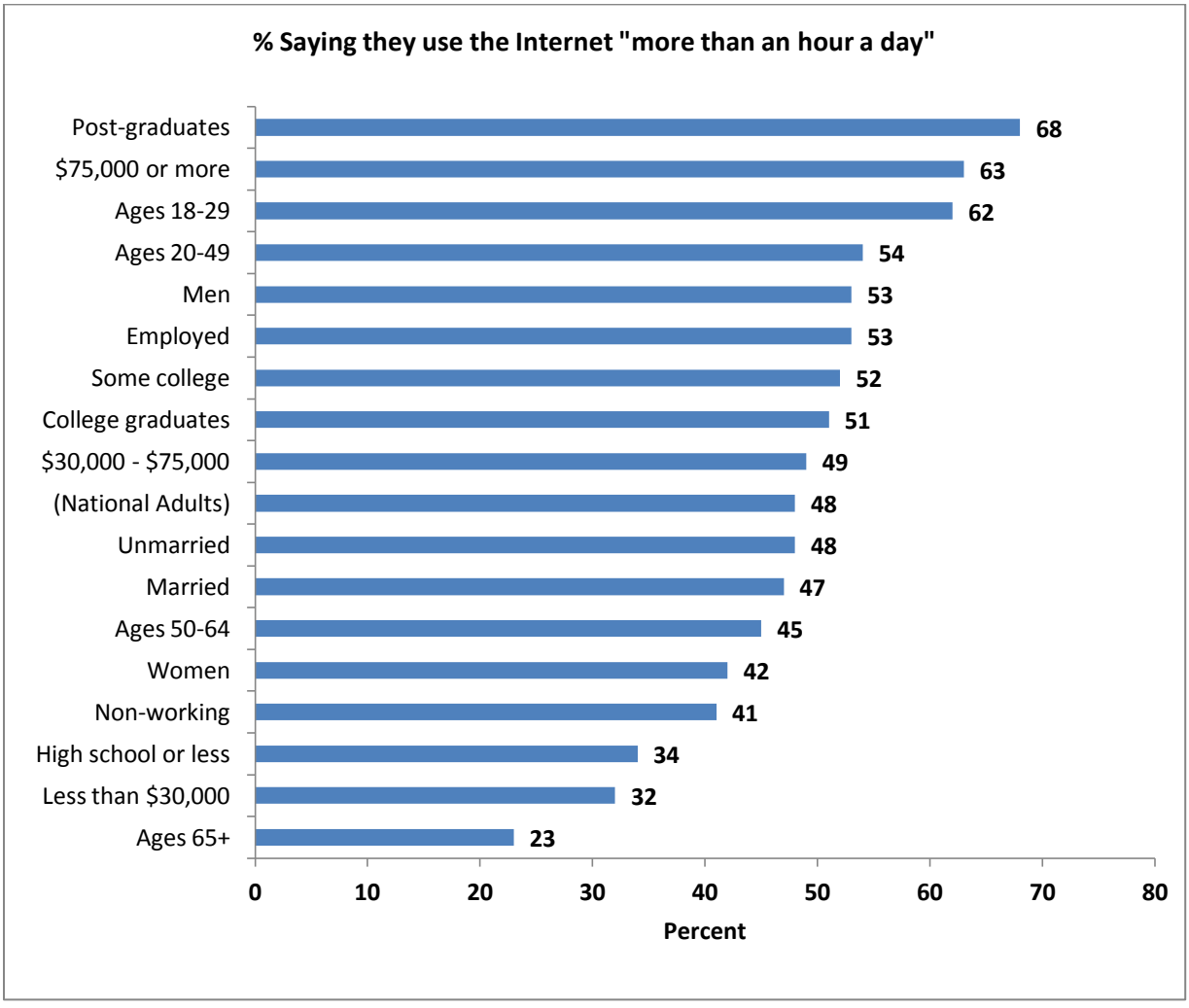
Source: Internet World Stats, International Telecommunication Union

[372] InternetWorldStats.com

[373] Ernst and Young, Is There A Future for Lottery in Retail?, presentation at La Fleur's 2012 Lottery Symposium, April, 2012

Regular and frequent Internet users are demonstrably younger than the population as a whole. National surveys on the frequency of Internet usage find consistently that people in the younger demographic ranges are the most frequent users. For example, a 2008 Gallup Poll found that, on a nationwide basis, respondents below the age of 30 spent the most time online (62 percent spending more than one hour per day), followed by the next-youngest segment surveyed, people 30 or older but under the age of 50 (54 percent spending more than one hour per day).[374] Moreover, the frequent Internet user is more likely to be better educated, higher income, and fully employed than other population segments. In short, the Internet demographic represents many of the potential customers who currently do not participate regularly in lottery games. Engaging this demographic is not only a means for increasing sales by involving a wider pool of players, it is also a strategy for assuring the supply of customers for the future.

Figure 87: Internet usage frequency by demographic group - 2008



Source: The Gallup Poll, December, 2008

[374] Gallup Poll, 2008

2. Lottery Demographics

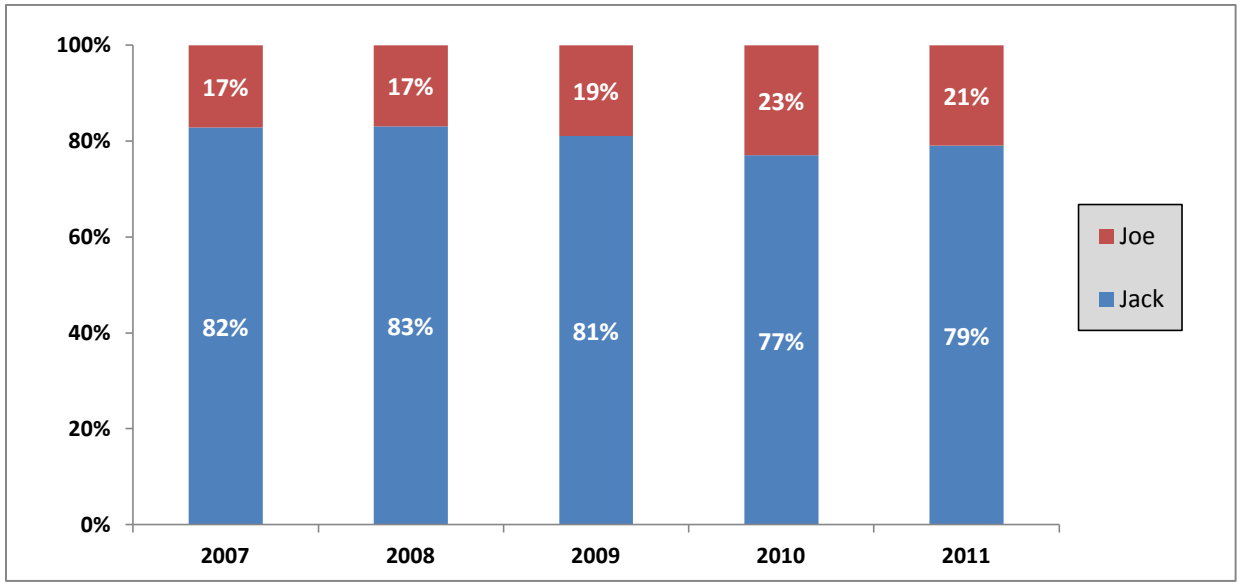
For most lotteries, there are two primary types of players: frequent (core) and infrequent (non-core) players. As is also observed in the commercial casino industry, the great majority of revenue is provided by frequent, or core, players. In addition, infrequent players are often younger and more female than frequent players. Encouraging infrequent players to purchase lottery products more often is the clearest avenue to growing revenue as well as solidifying the future player base. The Chicago research firm Independent Gaming Research ("IGR"), formerly Independent Lottery Research ("ILR"), conducts a tracking study polling about 450 consumers each month that illustrates this issue and terms these two segments "Joe" (core) and "Jack" (non-core). Joe, who plays the lottery five times more than Jack, is 37, married, with an annual income of $52,000. Jack, the occasional (non-core) lottery player, is 38, married with one child, and slightly beats Joe in the income category: $53,000. Jack is the target audience for lotteries — as he comprises 51 percent of the adult population, vs. Joe's relatively paltry 14 percent.[375]

According to IGR, both segments spend relatively the same amount per purchase, but core players play five times more frequently than non-core players.[376] Most importantly, non-core players outnumber core players by 78 percent to 22 percent. While both segments report that their spending has been adversely impacted by the economic recession, Joes generally display a more favorable impression of the lottery than Jacks. On average, Joes are more likely (on a scale of 1-9) than Jacks to say they like the lottery (7.3 Joes, 5.5 Jacks), that lottery games are fun to play (7.0 Joes, 5.8 Jacks) and that money spent on the lottery is put to good use in the states that have them (6.1 Joes, 5.2 Jacks).

[375] International Lottery Research, Changing Wheels of Fortune – Building A New Player Base

[376] International Lottery Research, Changing Wheels of Fortune – Building A New Player Base

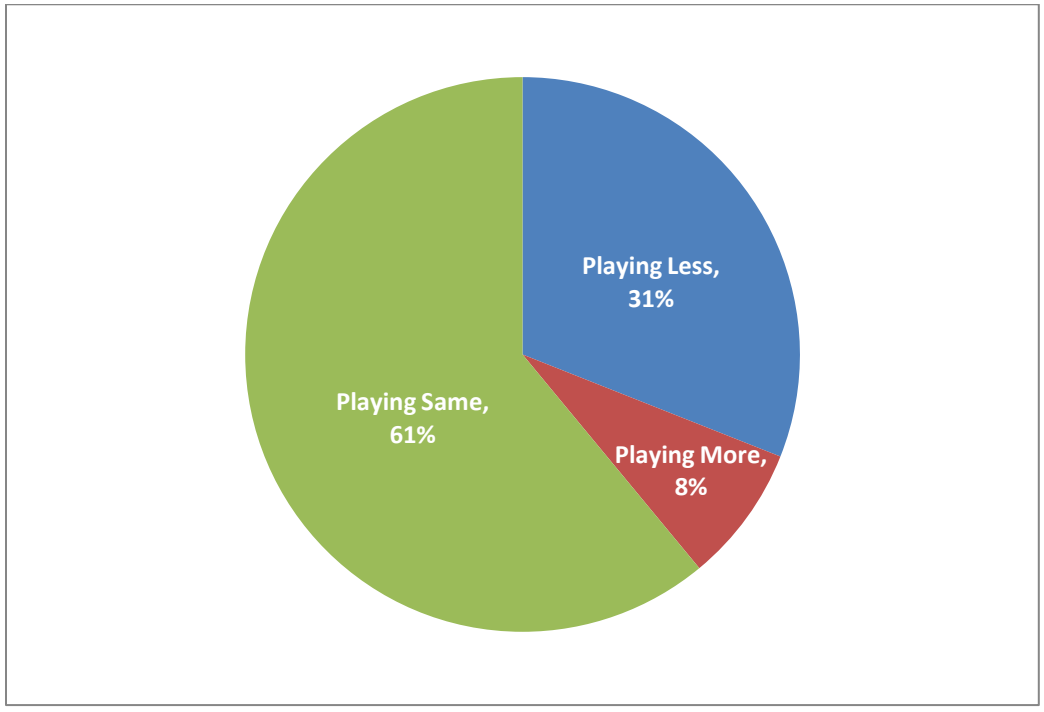
Figure 88: Proportion of Core ("Joe") lottery players to Non-Core ("Jack") players



Source: Independent Lottery Research. See definitions of Joe and Jack in preceding paragraph.

Nationally, 33 percent of the eligible population (over 18 years of age) never plays the lottery, 50 percent play infrequently, while 14 percent are frequent players.[377]

Figure 89: Lottery play currently vs. one year ago among those who play lottery



Source: Independent Lottery Research

[377] International Lottery Research, Changing Wheels of Fortune – Building A New Player Base

A 2006 survey of 2,250 adults across the nation – including 1,473 who had gambled within the previous year – illustrates the demographic differences among participants in different forms of gambling:

Figure 90: Profile of gamblers in the United States, 2006

	Any type of gambling	Bought lottery ticket	Visited casino	Bet on sports**	Played cards for money
All adults	67%	52%	29%	23%	17%
Gender					
Men	72%	56%	31%	32%	25%
Women	62%	48%	27%	15%	10%
Race/Ethnicity					
White	68%	53%	30%	23%	18%
Black	62%	45%	24%	24%	14%
Hispanic*	62%	47%	22%	16%	12%
Age					
18-29	71%	48%	30%	30%	32%
30-49	69%	56%	30%	25%	17%
50-64	68%	55%	31%	22%	11%
65+	58%	43%	22%	13%	10%
Education					
College graduates	65%	48%	31%	25%	15%
Some college	71%	55%	32%	23%	21%
H.S. grad or less	66%	52%	27%	22%	17%
Family income					
$100,000+	79%	57%	40%	39%	24%
$50K-$99k	74%	60%	37%	27%	22%
$30K-$49k	67%	54%	27%	22%	21%
Less than $30k	59%	44%	21%	16%	11%
Region					
Northeast	77%	63%	31%	26%	20%
Midwest	64%	52%	26%	23%	18%
South	62%	48%	24%	21%	15%
West	68%	47%	38%	23%	17%
Religion					
Protestant	61%	48%	24%	19%	13%
Catholic	77%	62%	39%	30%	23%
Secular	72%	52%	29%	24%	23%
White Protestants					
Evangelical	50%	40%	19%	14%	11%
Mainline	73%	58%	29%	24%	17%

*Hispanics are of any race

** Betting on sports includes professional sports, college sports or an office pool

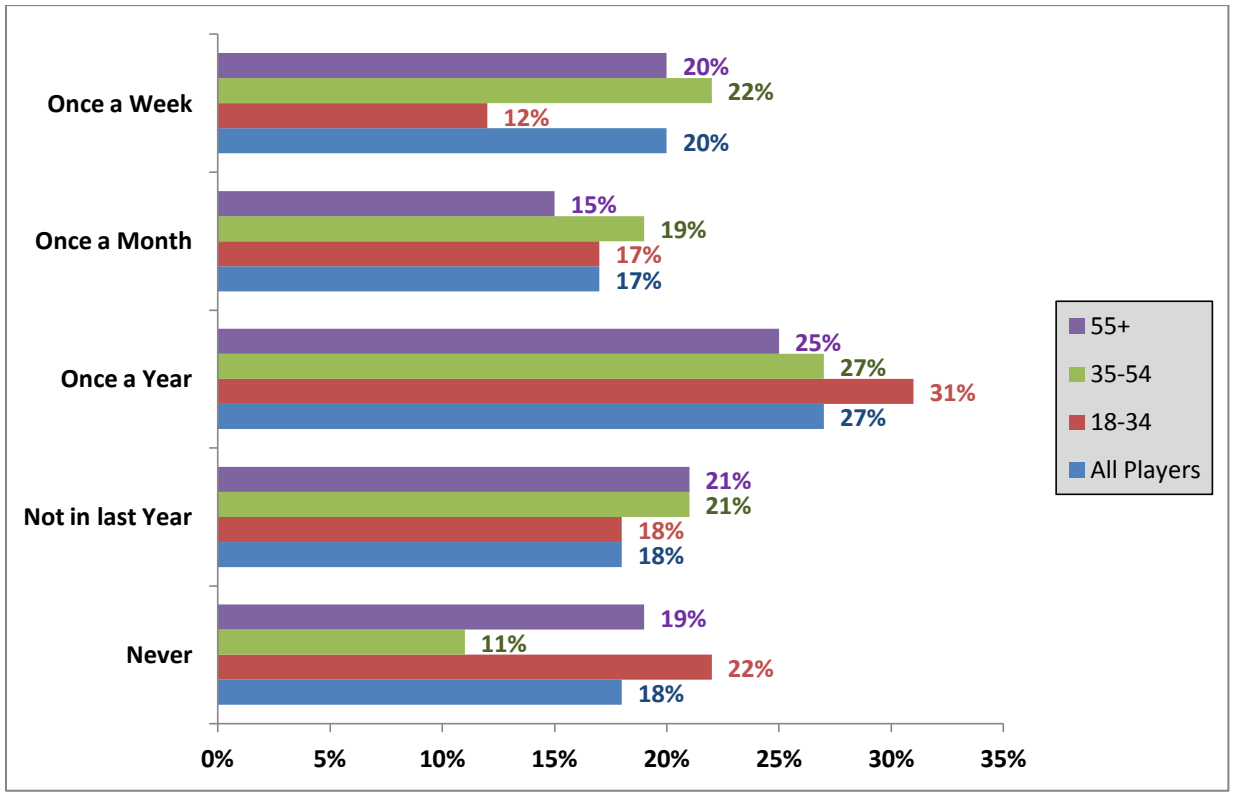
Source: Pew Research Center

3. Massachusetts State Lottery Player Demographics

Frequency of play for Massachusetts State Lottery players as shown by the SocialSphere tracking study reflects the national averages for core players with 20 percent of all players purchasing lottery products at least once per week. Massachusetts State Lottery players as a whole are primarily female (58 percent), age 35-54 (39 percent), Catholic (37 percent), and evenly split between those making more and less than $50,000 annually (46 percent each category).[378] More than half of Lottery players (56 percent) are Facebook regulars.

The key age demographic for the Lottery is the 35-54 bracket, which posts the highest representation among weekly and monthly players. The least engaged segment is the youngest age demographic, 18-34, who are most strongly represented in the once a year and never response categories.[379]

Figure 91: Massachusetts State Lottery frequency of play by age group



Source: Massachusetts State Lottery Annual Tracking Survey & Brand Assessment, May 2011

For analysis purposes, the Lottery segments its customers primarily by play frequency and status, and the SocialSphere Tracking Study develops a demographic profile for each segment based on age, gender, income and education, and spending statistics, as well as several

[378] Massachusetts Lottery Annual Tracking Survey & Brand Assessment presentation by SocialSphere, May 18, 2011

[379] Ibid.

other behavioral characteristics. Full demographic profiles are available in the SocialSphere presentations, but for the purposes of this report, we provide an overview.

Weekly players are the most active and highest value segment. Some 83 percent of weekly players play instant games, spending an average of $92 monthly and $1,107 annually, 41 percent of which is spent on instant games. Weekly players are also more likely to be older, Catholic, and readers of the *Boston Herald*.

Monthly players are worth much less: $24 per month on average and $290 per year and play all lottery products with less intensity than weekly players, although instant games are a strong interest with 73 percent playing every month.

Infrequent yearly players are the least valuable segment, spending an average of $52 per year, the majority of which (70 percent) is spent on instant tickets.

Positive perceptions of the Lottery are important to player spending behavior. Respondents surveyed in the annual tracking study who rate the Massachusetts State Lottery at the top end of the factor perceptions scale spend significantly more on lottery products than others.[380] Regular Lottery players have increased their frequency of play in recent years but spending has remained relatively constant, indicating that the core customer base is fully engaged and it appears that further revenue increases will be sparked by an improving economy short term and/or converting more of the non-core, less-frequent players into Lottery customers.

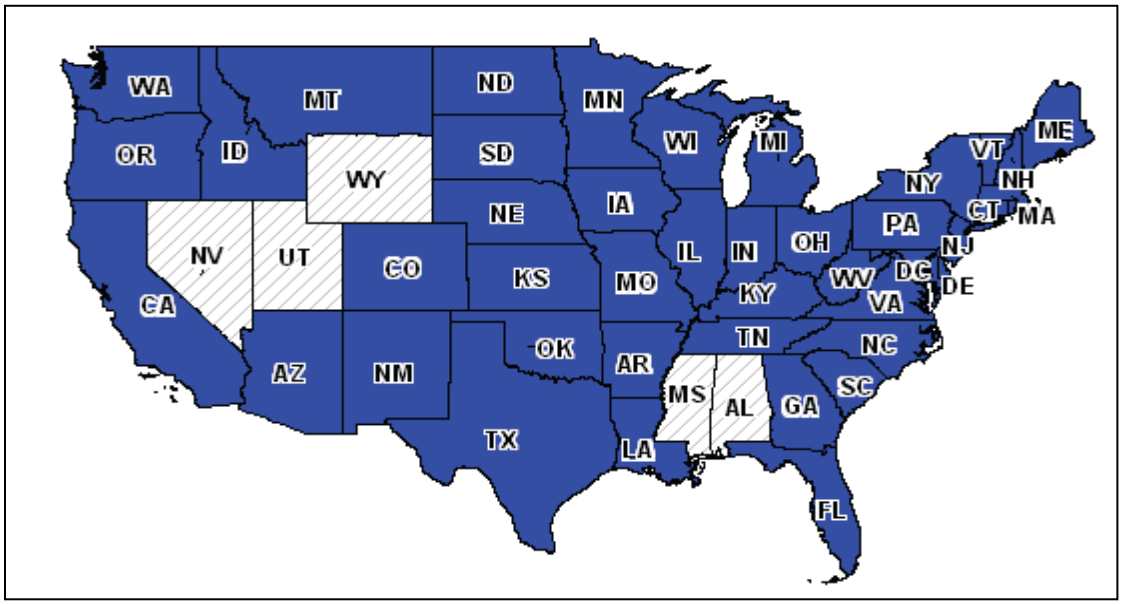
[380] MSL Annual Tracking Survey & Brand Assessment presentation by SocialSphere, May 18, 2011

CC. US Lottery Outlook and Adoption of Internet Sales

The history of US lotteries has been a story of boom and bust. Lotteries have played an important role in the history of this nation, helping to finance the establishment of original English colonies and funding public works efforts during our formative years.[381] At the time of the American Revolution multiple lotteries were operating in all 13 colonies. The religious re-awakening beginning in the 1830s along with an outrageous scandal in the Louisiana lottery in the 1870s led to the prohibition of lotteries at the state level. The federal government outlawed interstate mail for lottery purposes in 1890 in 1895 invoked the Commerce Clause to forbid shipments of lottery materials across state lines, effectively ending all lotteries in the US[382]

No commercial lotteries existed in the US for thereafter until 1964, when New Hampshire successfully re-established the intrastate lottery. Inspired by this success other states began re-introducing lotteries as a means for generating additional revenue for worthy causes. New York followed suit in 1966; New Jersey in 1970, and 10 other states by 1975. Currently 43 states in the continental US have state lotteries, as does the District of Columbia.

Figure 92: Map of US lottery states



Source: Minnesota State Lottery 2011 Overview. Note: Alaska and Hawaii (not shown) do not have lotteries.

Another lottery resurgence is dawning, with the advent of Internet gaming, online products, and Internet ticket sales.

[381] National Gambling Impact Study Commission

[382] Ibid.

Spectrum Gaming Group executives conducted in-depth interviews and obtained conference presentations and information from directors from approximately 20 North American lotteries over a 60-day period. This base comprises almost half of all the US state lotteries, and our research provided consistent feedback in terms of expectations regarding the adoption of the Internet sales channel. There is a universal belief that the Internet as a lottery distribution channel is inevitable, but that the timing will be dictated by the political environment. In terms of drivers, all cited the adoption of web-based product and service delivery by all business sectors, the high and growing penetration of Internet usage across demographic groups, and the desire to keep pace with consumer expectations.

In addition, most lottery directors initially expect moderate sales impact and no negative impact on the bricks-and-mortar retailers, based on the existing European data, initial reports from Illinois and vendor insight.

1. Current Plans/Offerings

For the most part, states have limited current usage of the Internet to offering a website, having some form of second chance drawing and/or a players club, and offering subscription lotto game sales. The states are all hopeful that they will have Internet-based play in the future, although many do not foresee immediate plans; they believe timing could be accelerated if there were good experiences in other states.

Several states reported that the primary issue is the existing political climate in their state, which was frequently described as conservative and not inclined to be first to market. Most anticipated a soft-launch strategy, to test the channel and then build as appropriate. Plans were generally described as an initial launch with the lotto products only and then expanding to the scratch products, with the hope to eventually introduce true Internet play. It was expected that the introductions would be a quiet, low impact roll-out of Lotto games to test the channel; several also noted that subscription sales have been available online as a niche offering with no negative impact to retailers or public relations.

Virtually all expected that when they launched online, the Lottery would provide the platform working directly with one of its vendors; few were entertaining the option of licensing online retailers or franchising the online channel to a third party. There was a strong and consistent belief that lotteries are trusted, credible organizations with strong brands; the risk was too great of damaging this equity by outsourcing a third party to be a lottery channel and losing control over the brand/brand experience. Lottery directors consistently expressed a desire to have an open platform that would allow developers to build games for this channel; there was a widespread acknowledgement that it is not clear what types of products will ultimately be most relevant in this channel and the platform should be able to adapt to opportunities that they equated with the "Angry Birds lottery game." A few projected a full rollout of all lottery products as soon as allowed. The challenges of creating the platform were not considered to be

significant, particularly as some vendors have done significant work in this area; the RFP process however was anticipated to be a significant time issue for some.

Most expected that all current products would be the first phase, followed by other more interactive scratch products; a long-term vision of the role of updated current scratch products vs. new products was not clear.

2. Barriers to Launch of Internet Channel

Several states reported that the primary issue is the existing political climate in each state, which was frequently described as conservative. Many had the expectation that the concern level would dissipate if other states had positive experiences and/or there were competitive pressures to enter. Interestingly, legal readiness in terms or whether regulatory relief was required to offer Internet game sales did not appear to be the driving factor in terms of launch timing; all said they would obtain some level of legislative/executive branch approval prior to launch, even if it was not required.

Some indicated that the lotteries are charged with "maintaining" the lottery vs. achieving growth; there is no pressure or desire to aggressively pursue growth options, particularly if they could be met with public or political resistance. In addition, there was a strong impression that there is little to no tolerance for lotteries "to make a mistake," so having the benefit of waiting and learning from other states is significant.

Many cited the fact that legislators are concerned about key security-related issues that reflect on public policy: age verification, geographic/location verification, social issues/problem gambling, etc. Lottery directors believe these issues are easily addressed based on vendor feedback.

Concerns about the retail channel were mixed, primarily driven by the response of the channel to date. All lottery directors acknowledged the value of the retailers to the success of the lottery and the strong relationships that exist; lottery licenses have a high value to retailers and the availability of online games is not expected to damage that value. States were mixed, however, in terms of the retailer response to the concept of online lottery games: Several had not received any pressure from the retailers despite exposure to national lobbying in their state, while others received strong negative feedback from the retail community. The states that are not experiencing retailer resistance believe that proactive reporting and dialog about industry data demonstrating the lack of negative impact/opportunity for positive impact has been valuable; in addition, some retailers were seen as less concerned because they know it is not an imminent issue in the state. Some lotteries cited that the introduction of online play was designed to respect the retail channel while establishing a presence online: Lotto games are not seen as likely to impact retailers where they tend to be spontaneous purchases stimulated by jackpot signage in store. In addition, a few states stated that they were likely to hold off on the "planned purchase" games like pick 3/pick 4.

There was limited concern about player data/lack of anonymity and Freedom of Information Act issues. A few lotteries believed they would need legislation to ensure privacy of the date while several currently have protections in place that they believe would apply to this type of database.

3. Role of Casinos in Internet Adoption

Interestingly, there were strong differences among state lottery interviewees regarding the perceived impact of in-state online gambling on lottery products overall and the specific impact of online games on casinos. The states that have casinos reported no concern about the impact of casino sales on lottery sales; their experience has been that lottery sales do not suffer as a result of casino presence and believe that the player is seeking a different, more social experience than the lottery game experience. These states reported a positive and cooperative relationship with the casinos in their market; these states have experienced a natural and positive coexistence, which they acknowledge is likely driven by both product mix and regulatory structure. They have not met any resistance from in-state casinos to the concept of online lottery product sales; they did acknowledge that casinos may have a strong interest in peer-to-peer/casino style games if they were to be permitted online. For the most part, this class of Internet-based game is not seen as imminent in terms of governmental approvals or launches; some of the lotteries expected that these types of games would more naturally be branded by the casinos.

Among states that are just implementing casinos or do not have casinos, there is a belief that lotteries and casinos compete for limited "entertainment" or "gaming" dollars and there is a need to proactively launch Internet games. This belief is strengthened by potential legislation in the Congress that would award exclusivity for Internet gambling to commercial casino interests. A current US Senate bill sponsored by Senate Majority Leader Harry Reid and Senator Jon Kyl would legalize Internet poker but outlaw many other forms of online gambling, including lottery ticket sales, which have been underway in Minnesota on a subscription basis since 2010, and in Illinois via ecommerce since March 25, 2012.[383] iPoker lobbyist Jon Porter was quoted in the article commenting, "Now the states are moving rapidly and the federal government is saying, 'time out.'"[384]

The Internet was consistently seen by state lottery executives as a new distribution channel as opposed to a new product, offering convenience and access for players. The revenue impact was projected to be very limited in the near term and revenue was not being viewed as a significant benefit of the channel for lottery. Many of the lotteries believe the Internet is important for the maintaining the health of the lottery. There is an apparent belief among them that the online sales are an important and expected part of staying relevant, although it is not

[383] Alexandra Berzon , *The Wall Street Journal* , April 25, 2012

[384] Ibid.

necessarily expected to be a significant source of sales until key products are introduced: mobile-devise play, true gambling products, and faster-action games such as keno. Specific issues cited included: opportunity to grow the player base among the younger players where lotteries have traditionally struggled, need to be available in the channels where people expect to see you, ability to offer more entertaining/interactive experiences, opportunity for players to learn the games.

Several lottery directors see the online channel as allowing a more approachable, less intimidating environment to learn how to play the games/ they cited player feedback in research that the primary barrier to play is "intimidation" and lack of knowledge about how to play. The online channel is seen as offering the opportunity for these consumers to learn the games and then building confidence to play in the retailer location also. Many lotteries cited vendor data that online sales have a halo effect on the bricks-and-mortar sales.

There are several hypotheses about the profile of the players that will use the online channel but no states were aware of specific consumer research in the United States about potential adoption levels. Hypotheses included younger players (especially if mobile is available), as well as older players; many cited behaviors such as Facebook, online banking, etc. as evidence that the older generations are more computer savvy than the stereotypical expectations. Having more channels will increase the social acceptability of lottery play which will improve spending on the games

Although the online channel was seen as offering convenience, it was not expected to replace current sales. The lack of anonymity in gaming online was seen as an advantage in terms of responsible gaming controls – for both the lottery and the player.

4. US Lotteries and the Internet in 2012

Since the Department of Justice issued its opinion on December 23, 2011, reversing its long held position that the 1961 Wire Act barred state lotteries from participating in online gambling, Delaware and Nevada have legalized (but not yet implemented) Internet gambling. Nevada has authorized Internet poker and begun awarding licenses to vendors and operators. Delaware has passed legislation permitting online ticket sales and online casinos. In addition, at least seven states – California, Delaware, Hawaii, Iowa, Illinois, Mississippi, and New Jersey – have introduced legislation authorizing some form of legal Internet gaming in their states. Conversely, Utah has passed legislation specifically prohibiting any form of Internet gambling, while Michigan and Colorado have specifically banned Internet lottery sales. Maine has altered its gaming statute in response to the DOJ ruling, and Pennsylvania has introduced legislation to increase awareness of the risks of internet gaming. Vermont has authorized a study on the potential impact of Internet lottery ticket sales.[385]

[385] 2012 Legislation Regarding Internet Gambling or Lotteries, National Conference of State Legislatures.

Currently, lotteries in New York, Minnesota, New Hampshire, North Dakota, and Virginia offer some form of online subscription sales for lotto tickets. Illinois is the only US lottery at this time to offer same day sales of lotto tickets over the Internet. Several US lotteries allow third party sites to sell their tickets via the internet similar to mail order purchases where physical tickets are purchased via the Internet and held in reserve for the player. These lotteries include California, Florida, Indiana, and New York. This is not strictly considered Internet gambling because it is not an instantaneous transaction with an electronic product being delivered to the customer.[386] Other US state lotteries offer "e-games" which are downloadable products which can be played on computers. One example is the New Jersey Lottery, which introduced Cyber Slingo in February 2004 and Tetris in November 2004.[387] These games should be considered computer games and not truly Internet games. In the New Jersey example, the two games have since been retired and are no longer available on the lottery website.

a. Illinois Lottery

The Illinois Lottery initiated Internet same day sales of lotto tickets on March 25, 2012. Proving the maxim that timing is everything, this launch coincided with the largest Mega Millions jackpot in history and initial sales were robust. Michael Jones, Superintendent of the Lottery, speaking at the GiGse conference one month after implementing Internet sales, recounted the Illinois Lottery's efforts to move online:

> "We basically had a Legislature that passed a specific law that directed the Department of the Lottery to begin a test. That was four years ago when this began. … All of this technology was still kind of in the ether, of a test of very specific products, our broadest base products, the ones that have very large prizes and potentially could attract the largest number of people to play: Lotto and Mega Millions, and the test was very specific. It said it could take place in a 36- to 48-month period. You have to have controls in place … both the geo-control and age control."

Following that statutory authorization, various legal opinions within Illinois – including opinions from the lottery's chief legal counsel, and the governor's legal counsel – gave assurances, according to Jones, that "It was legal on its face."

The Illinois Lottery sent a letter to the DOJ, informing it of the Lottery's intent and of the legal opinions, seeking comment from that federal agency. "For two years, we really heard nothing from the Department of Justice, other than having a couple of very amicable meetings with them. But again our point of view was clear, that this was legal and we were going to do it," Jones said.

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[386] WinTrillions.com.

[387] New Jersey Lottery, http://www.state.nj.us/lottery/about/6-0_about.htm.

That request from the Illinois Lottery led in large measure to the highly publicized December 23, 2011, DOJ opinion. Following that opinion, the Illinois Lottery began moving toward implementation, according to Jones, who was recently appointed to a second, non-consecutive term as superintendent.

Jones' view is: "Let's get this thing started. It is a fantastic way to broaden the lottery's base, to become relevant to the people of the state of Illinois who support the lottery but don't participate in it. And (it is) a great way to make money for our capital development projects."

Working with the lottery's private manager, Northstar, Jones began creating an interface. He noted one issue early, based on his experience in the lottery and working in a state that offers both lottery and casino games. "The casino industry and the lottery industry don't know very much about each other. Especially, the casino industry can't really get a feeling for what makes someone participate in the lottery, or what lotteries do," he said.

According to Jones, "A well-run lottery is one in which a lot of people play a little bit – to the same people playing a lot. We try to attract the broadest group of people to participate in what is a monopoly. We don't have competition, other than normal competition of what people do with their disposable dollars. … Our goals are pretty simple. As a monopoly, as the only entity that is selling Mega Millions, Lotto and hopefully Powerball tickets in the state of Illinois to the 9 million adults in the state of Illinois over the Internet, we try to urge a design of the most intuitive, easy interface possible. One that would have these controls for age and geography in place, and to make it as simple as possible and so the jury is still out."

Jones said the Lottery resisted urges to move to poker, and focused instead on lottery products. In large measure, that focus was driven by internal surveys that showed, among other things, that 80 percent of adults in Illinois are in favor of the lottery, "while only 9 percent to 12 percent of our adults play," he said.

According to Jones, the surveys indicated that online players would be "mostly young adults," and a much higher percentage of women than currently play the lottery. He said that "for a prize of $100 million or more, research indicates … that between 600,000 and 1 million people would come to our website and participate, by buying a Mega Millions ticket and hopefully a Powerball ticket."

Jones also addressed the issue of the potential opposition and intransigence of lottery retailers: "We did an extensive amount of research on this (and determined that) the key thing that is happening to the lottery industry over the last 25 years is, basically, profit stagnation. There have been sales increases, (and) these are almost all fueled by instant ticket prize percentage payouts. But the total number of people playing the lottery is getting older. It's almost following the same paradigm as horse racing after World War II. … The young adults very rarely play the lottery. If they do, they play it when the prize is big and then they go away."

He coupled that observation with research that showed "almost 100 percent of all the adults in every lottery state walk through a lottery retailer every week. It is probably the most

varied, fantastic retail network of any product sold in the United States. But only a small percentage of them actually play any lottery game."

Qualitative research conducted in Illinois utilizing an ethnographic technique known as "street talk" was cited by Jones, who said he observed a remarkable phenomenon: "Literally, we have videotapes of people standing with a lottery retailer logo behind their shoulder and, when asked 'Did they buy a lottery ticket?' They would say: 'They don't sell lottery tickets there.' We are irrelevant to them. We are invisible to them."

So, the goal in part was to convert some of these same people into lottery customers.

"What you are basically doing is using the retail channel that everybody uses these days," he said, referring to the Internet. Jones, noting his own experience in stints working for the Illinois Lottery, said "It was shocking to come back and run a lottery in 2011 and find the exact same products sold in exactly the same way as they were sold in 1985, with very little differentiation. But the world has changed since then."

Again, noting that non-lottery players, who indicated they would play online with prizes exceeding $100 million or more, were asked if they would then purchase lottery tickets from retailers. Jones said that "71 percent of people said, 'You know, all of sudden, I would understand. I wouldn't be intimidated by the jargon. I wouldn't be intimidated by the huge number of games that are available."

Yet, despite such opportunities, the notion of selling lottery games online generated "immediate pushback … by the retail merchants of various stripes. I couldn't understand why."

Much of that was based on misunderstanding, with a false assumption that jackpot games would only be available online, and that retailers would not be participating.

"Once that was cleared up … they (retailers) supported our effort to pass a bill to allow us to sell Powerball. ... They finally understood that, if we were going to generate 600,000 or 1 million new players, that would have an effect on them. They finally understood that it was mostly their task to convert these people who were walking through these retailers and were not playing into people who did play."

As Jones summarized the issue: "The brick-and-mortar vs. Internet discussion, at least in Illinois, was solved by information and by research and by pointing out the obvious."

He added, "You certainly can make a public policy case and a good business case for having lotteries move to the Internet with their existing products. You get into a little bit of a fuzzy area if you take all the products from brick-and-mortar onto the Internet without any plans to involve brick-and-mortars."

In looking at other North American lotteries and their approach to the Internet, Illinois is unique in being the first and only US state lottery managed by a private company and thus is probably not an appropriate model for Massachusetts. Illinois hopes to realize increased revenue streams through the semi-privatization with Northstar Lottery, a management consortium formed

by lottery technology vendors GTECH and Scientific Games. Illinois signed a 10-year-agreement with Northstar in which the state retains full ownership of lottery assets and control over all aspects of the operation, including approval of annual business plans, while Northstar is responsible for sales, marketing, game development, technology and support services acquisition.[388] Northstar earns yearly management fees to cover overhead and supplier costs and receives an annual compensation incentive of up to 5 percent of net income but must pay penalties of up to 5 percent for failing to meet revenue targets.

From an overall perspective it appears that Illinois' early entry into online products is succeeding, although it is currently falling short of planned revenue goals. On July 24, 2012, the Illinois Lottery reported that sales for the fiscal year ending June 30 have increased dramatically, rising to $2.67 billion, with more than $708 million going to public school education and other worthy causes in the state.[389] These unaudited results represent an increase from fiscal year 2011 of 17.9 percent with most of the growth coming from a 27 percent rise in instant ticket sales to a total of $1.62 billion.[390]

Jones attributed the increased sales to a change in the lottery's image as well as placing added emphasis on specialty games such as Veterans' Cash and Ticket for the Cure and increased marketing for the re-launch of Little Lotto as the Lucky Day Lotto.[391] While these three month top-line results are impressive, they still fall $100 million short of the projections for net revenue made by Northstar. According to a *Chicago Tribune* analysis, Northstar brought in $726 million in net revenue instead of the predicted $825 million.[392]

At this juncture it is difficult to determine how much of that increase is attributable to the introduction of Internet sales in Illinois, how much is due to the fortuitous timing of the Internet sales introduction, and how much is due to the marketing and product changes introduced by Northstar. It is equally difficult to determine with any granularity whether there have been any adverse effects upon traditional retail sales caused by sales generated through the online channel and the degree to which they may be affected. Jones has stated repeatedly in public appearances at industry conferences that there have been no signs of cannibalization of retail sales following Illinois' move online but no public data have yet been provided to support these claims and because the lottery's engagement strategy included no systemic protections for retail agents it remains to be seen what the actual impact will be on traditional lottery sales.

Online product sales through the Illinois Lottery require registering and setting up a customer account, which can then be funded through credit cards or linked to a checking

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[388] The Semi-Private Lottery, Stateline, Pew Center on the States

[389] The Semi-Private Lottery, Stateline, Pew Center on the States

[390] The Semi-Private Lottery, Stateline, Pew Center on the States

[391] Associated Press, July 24, 2012

[392] Lottery manager misses revenue goal by about $100M, Matthew Walberg, Chicago Tribune, July 31, 2012

account. Accounts can be funded in amounts between $1 and $2,500 and winnings in amounts less than $600 are automatically deposited in the player's account.[393] Winnings in excess of $600 must still be processed by the Illinois Lottery Claims Department but online purchasers receive an email notifying them to initiate the process. Illinois will also provide players with an Illinois Lottery Visa Debit Card which functions as a storage vehicle for credited winnings from the player's account and can be used for general non-lottery purchases just like a conventional debit card.

b. Delaware Lottery

The Delaware Lottery is the first US lottery to introduce online gambling beyond the sale of lotto tickets or pull-tabs over the Internet. The Delaware Gaming Competitiveness Act of 2012 authorizes the Lottery to offer traditional lottery games over the Internet. The Act further authorizes Internet gambling on casino style games through the control and operation of the Delaware Lottery.[394] The state's three racetrack casinos currently operating video lottery terminals and casino table games through the lottery will be permitted to take those products online through co-branded websites using a central platform operated by the Delaware Lottery.

The Delaware model is unique compared to European models – representing new type of online gambling in which the state lottery controls the platform and allows commercial racetrack casinos to operate within that ecosystem. This legislation opens the door for the state lottery to offer its complete inventory of lottery products over the Internet as well as a full suite of casino through the lottery's racino partners including table games such as blackjack, roulette, and craps, slot machines in the guise of video lottery terminals, and poker. In addition, the state lottery will maintain the exclusive right to provide interactive gambling products within the state, permitting the addition of new types of games developed in future. Most importantly, the legislation also allows the state to explore compacts with other states to allow interstate wagering, a major consideration for a small state with a population of less than 1 million (897,934 according to the 2010 census) ranked 45th in population among the 50 states.[395]

The Delaware Lottery's rapid move into online gambling was motivated largely by increased competition from new casinos in Pennsylvania and Maryland, which is negatively impacting the gambling revenue at its three racetrack casinos, which shed 15.9 percent of their employees last year, the largest loss of casino jobs in the nation.[396] Delaware estimates that

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[393] Illinois Lottery website FAQs, https://www.myillinoislottery.com/en-us/footer/help.html#subscriptionCard.

[394] 2012 Legislation Regarding Internet Gambling or Lotteries, National Conference of State Legislatures.

[395] 2010 Census, United States Census Bureau, Department of Commerce.

[396] Michael Cooper, "States Up the Ante in Bid to Lure Other State's Bettors," *New York Times*, August 2, 2012.

competition from neighboring states will drive gambling revenues downward from $248.8 million in the 2011 fiscal year to $206.4 million in the fiscal year beginning in July 2012.[397]

The law requires the lottery to employ geolocation and age verification technology to ensure that only adults residing within the state borders are allowed to gamble over the Internet. Proceeds from the Internet operations will be used to allow these racinos to reduce their collective licensing fees by $7.75 while remaining revenue neutral to the state. Internet gambling will be supplemented by an expansion of existing keno and parlay sports betting into more locations and Delaware expects these measures to produce $3.75 million over six months after implementation, currently scheduled for January 2013.[398]

c. District of Columbia Lottery

The District of Columbia had ambitions to become the first Internet lottery jurisdiction in the nation, planning to implement online products five months prior to the DOJ reversing its position on the legality of Internet lottery sales.

Antar Johnson, former assistant general counsel for the DC Lottery, noted at the GiGse conference that his agency took a decidedly different strategy from Illinois: "At the DC Lottery, we actually took a different approach. … We have a base for our lottery games and we also have a lot of agents that depend on revenue from those lottery games. … I could tell you that, initially, we were already comfortable with where we stood on the legal basis. … DC, being a small jurisdiction, we decided to go very aggressive. We changed our enabling statute … which was a very old one, a 30-year-old lottery. Simply what I did was change it from 'games of chance' to 'chance and/or skill.'"

Johnson said that change "allowed us to offer non-traditional lottery games." So, while Illinois was endeavoring to expand its traditional lottery games online, the District of Columbia focused on new offerings such as poker and random-number-generated games, which are akin to online slot machines. "We didn't want to take money away from our agents, and we didn't want to cannibalize our games," Johnson said.

"We were actually ready to go in July 2011, and we came real close to pulling the trigger, but there are a lot of lessons that people can learn from the DC lottery," he said, with the chief lesson being that "the anti-gaming establishment," which fought the effort, proved to be formidable. Consequently, the enabling legislation that set the stage for the district to be a pioneer in the industry was repealed in February 2012.

DC faced what could undoubtedly be described as the most difficult situation in the world for geolocation technology. Due to the small size and urban nature of the District's environs and

[397] Ibid.

[398] Alexandra Berzon, "Delaware Lawmakers Clear Online Gambling," *The Wall Street Journal,* June 27, 2012.

its position astride the borders of Maryland and Virginia, implementing Internet sales within the boundaries of the District of Columbia presented huge challenges for precisely locating purchasers. The technology available at the time was insufficiently accurate in defining location within the desired 25-yard radius – and new technology had to be created in order for precise geolocation to work.

d. Minnesota Lottery

The Minnesota Lottery is the stealth player in online products. It has quietly been selling lotto tickets over the Internet on a subscription basis since November 2010, when a "Buy Online" tabs appeared on the lottery website. At the 2010 Lottery Expo in Las Vegas, the lottery's executive director at the time, Clint Harris, explained that this "soft launch" was conducted without any promotion or advertising to customers in order to avoid the appearance of competing with retailers.[399] Acting Director Jenny Caufield, who was operations director in 2010, spoke at the same conference saying that the move was prompted by a St. Cloud State University survey documenting that ticket sales to younger players in the 18-36 age bracket had declined sharply. The survey showed that only 38 percent in 18-24 age bracket had purchased a ticket in 2009, compared with 73 percent in 1998, and that only 56 percent in the 25-38 age bracket had purchased lottery in 2009 compared with 70 percent in 1998.[400] This decline in lottery purchase among younger customers convinced management at the Minnesota Lottery that it was necessary to expand beyond traditional channels for reaching players and engage the Internet.

The Minnesota Lottery is comparable to the Massachusetts State Lottery in that a similar majority of sales are generated by scratch games in both lotteries – 68 percent in Minnesota in 2010 and 69 percent in Massachusetts in 2011.

The Minnesota Lottery has also demonstrated similar innovation in the industry by being the first US lottery to permit mobile game play for worthy causes. On May 14, 2012, Governor Mark Dayton signed a bill that enabled charitable "pull-tab" style scratch products to be played on mobile devices. Instead of pulling off a paper pull tab, players can now touch a button on iPads supplied by bars and restaurants that conduct charitable gaming.[401]

This groundbreaking step was predicated by the need to finance a new $975 million stadium to house the Minnesota Vikings football team. Proceeds from the mobile and video pull tabs will fund bonds to finance stadium construction. Initial revenue figures have exceeded expectations at $40 to $45 per day per device but the rollout is still in progress and the novelty

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[399] Minnesota Lottery Looks to Goose Online Sales, Steve Karnowski, Yahoo Finance, November 22, 2011

[400] Gambling in Minnesota, Minnesota State Lottery and St. Cloud State University, Minnesota State Lottery Overview, 2011.

[401] Tony Batt, "iPad Gaming Arrives in Minnesota," Gambling Compliance, September 28, 2012

may eventually wear off.[402] Minnesota will receive 5.4 percent of the revenue from electronic pull tabs to help pay the approximately $350 million state pledge for stadium construction while 85 percent of the payout will go to players.[403]

One vendor, Acres 4.0, is currently ready to launch a mobile application that with a new range of games developed specifically for the enabling legislation.[404] According to John Acres, founder and CEO of Acres 4.0, Virginia, Michigan, California and Kentucky have also expressed interest in offering electronic pull-tabs via mobile devices.[405]

At the same time that the legislature approved iPad gaming it also approved plans for electronic charitable sports "tipboards" for parlay betting. However, the Minnesota Gaming Control Board in June chose not to adopt the measure, citing the 1992 federal Professional and Amateur Sports Protection Act that restricts sports betting to four grandfathered states and prohibits the practice in the other 46 states.

e. Georgia Lottery

The Georgia Lottery is moving quickly to create an online offering, and we expect it to launch shortly. We interviewed lottery officials and found, not surprisingly, that they are grappling with many of the same issues that the Massachusetts State Lottery is confronting. Such issues include ensuring that retailers are not hurt, and that problem gambling is fully addressed.

The Georgia Lottery – barred by statute from accepting credit cards or checks – will rely on debit cards. Retailers will be authorized to sell debit cards (although buyers are not required to purchase them from lottery retailers), which would be sold with no transaction fee for lottery purchases. Players redeeming winning tickets from the retailer would have the option to take their payouts as an increment loaded on the debit card, which would require no cash out from the retailer's register and incent the agents to promote card usage.

Initially, the hope is that many players who go to retailers now to cash in tickets – say a Cash 3 winning ticket for $500 – would be offered a non-registered card, similar to a standard gift card, which is a cash equivalent. Players would be encouraged to register that card, which would be embossed with the player's name and have both a magnetic strip and a bar code, through their bank account. Registration offers the lottery an opportunity to know their customer for the first time, while offering the player the security of having their money safely in an account in case they were to lose the card.

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[402] Ibid.

[403] Ibid.

[404] Minnesota Provides Launchpad for iGaming, iGaming Business North America, October 2012

[405] Tony Batt, "iPad Gaming Arrives in Minnesota," Gambling Compliance, September 28, 2012

From the player's standpoint, such cards are a convenient, cashless means of collecting winnings and playing more. One of the most attractive features of these debit cards is that players who have opened an account can then add their favorite numbers to their profile and then simply present the card at a retail outlet and ask the agent to "play my favorites."

Players can also register for a card through the lottery's website. Among the incentives for players who register their in-store purchases with the website are instant access to information and auto-notification of winning numbers through text messaging or email. Such auto-notification win messaging would be received within 15 minutes of a drawing.

Retailers would effectively serve as bank tellers to help players set up such accounts, although it must be emphasized that players need not go through a retailer to set up an account, which would be linked to a standard, FDIC-insured bank account. There are some drawbacks to these accounts. Due to Patriot Act regulations, customers are restricted to $1,000 maximum, one-time loading of their cards; however, they can continue to add their winnings to the debit card an unlimited number of times.

The Georgia Lottery believes that one way of protecting retailers is working to ensure that the product mix is sufficiently differentiated. No daily numbers games would be offered online, ensuring that retailers retain access to their core Cash 3 and Cash 4 players, among others, who are often essential to visitor traffic at stores.

The Georgia Lottery envisions a phased approach to implementing online lottery sales. In the first phase, the most popular draw games such as Mega Millions, Powerball and the instant lotto game Fantasy 5 would be sold online, while keno and online instant games would be developed in a subsequent phase. The online instant games, which the Georgia Lottery refers to as "e-instants," would be a significant move, effectively opening the possibility of slot-like games, as well as other games, that would have pre-determined outcomes yet would have the ability to offer players more "time on device."

Introduction of online lotto and "e-instants" is expected to engage new and infrequent customer segments, such as middle-aged women who currently seldom enter convenience stores to purchase lottery products. The Internet presence is clearly expected to strengthen the Georgia Lottery brand both online and offline as a new channel is leveraged to offer new products designed for a new audience.

The Georgia Lottery unequivocally rejects the suggestion that instant-ticket brands should be extended online. Rather, the goal is to create new brands online to capture a different, younger demographic. Instead, the Georgia Lottery hopes to develop its own brand – the "Georgia Lottery" – with a logo that would be ubiquitous online, and would be effectively coordinated with in-store marketing and signage. The goal would be to help encourage a new pool of online players to buy tickets in stores.

The Georgia Lottery is also exploring the possibility of a loyalty program that would reward players, and is working with retailers to develop additional promotions. Loyalty program

concepts include 1 percent cash back on the debit card, the iHope card from Discover, which could be converted into lottery coupons for redemption at retail outlets. Moreover, players using their debit card for purchases such as gasoline at a lottery retailer, could be sent push text message advertisements via their mobile phones reminding them that the Mega Millions top prize just reached X number of dollars. In addition, the data generated by player registration and tracking lottery purchases offers great potential for future marketing and product development initiatives.

We also note that the Georgia Lottery shares our view that an online lottery should be developed carefully, with maximum flexibility to respond to new information as it arrives.

a. Maryland Lottery

The Maryland Lottery has tried and failed to have enabling legislation passed in 2011 and again in 2012, largely because the market entry strategy offered few protections for retail sales agents which fueled opposition in the legislature. The Maryland Lottery has offered subscription sales for its Mega Millions and Mega-Match games for years on a quarterly basis.

The Maryland Assembly's Joint Chairmen's Report for 2011 requested the State Lottery Agency ("SLA") to report on the sale of traditional lottery games over the Internet. The first report, issued December 15, 2011, touted the promise of online sales by citing the growth of Internet and mobile connectivity, increasing use of the SLA website by customers, and the evolution of ecommerce nationwide.[406] The report also illustrates how the Maryland Lottery depends upon an aging, predominantly white core demographic while smartphone and Internet offer the opportunity to engage Hispanic and African American customers who have traditionally been under-represented customer segments. Importantly, this report also cites the experience of the UK National Lottery as an example of how Internet sales and retail sales can grow in conjunction without cannibalization, mentioning that Internet sales grew from nothing in 2003 to £677 million in 2009, exceeded 13 percent of total sales, while retail commission grew from £229 million to £268 million, an increase of 8.2 percent over the same period.[407]

Despite the strong advocacy for online products displayed in this report, the State Legislature withheld funding from the budget in April, 2012 that would have allowed Internet lottery sales to commence July 1st but did fund creation of a platform and regulatory frame work for online sales and requested a second report describing progress on those preparations.[408]

On September 19, 2012 the Maryland Lottery submitted a second report outlining the proposed program to the state Senate budget committee and the House of Delegates

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[406] Report on Plans for Online Sales of Traditional Lottery Games, Maryland Lottery, December 15, 2011.

[407] Ibid

[408] Online Lottery Sales Doubtful this year in Maryland, Danielle E. Gaines, Gazette.Net

appropriations committee.[409] This report cites the importance of interactive sales in bringing a variety of new demographic segments into the lottery, including younger persons and minorities, specifically African Americans and Hispanics who participate in the lottery at lower levels than white Marylanders. Internet purchases could be funded through using a debit card, linked to a checking account through automated clearing house (ACH) transfer payments, or via a physical voucher from an existing lottery retailer.[410] The most important aspect of the Maryland Lottery's report are its plans for immediately implementing mobile sales channels and the inclusion of scratch-off, instant, and keno games in the initial phase.[411] Also interesting is the Lottery's projection to realize $2.2 million in revenue from online sales within the first 12 months.[412] However, because these plans offer no concrete protections for traditional retail sales, and do offer the possibility for migrating traditional instant and scratch games directly to the Internet, the Lottery faces strong opposition from retailer associations including the National Association of Convenience Stores ("NACS").

[409] Maryland online lottery sales plan draws fire from retailers, Jack Lambert, Baltimore Business Journal, September 27, 2012.

[410] Scratch Offs on Your Smartphone?, The Baltimore Sun, September 26, 2011.

[411] NACS Online, October 1, 2012.

[412] Maryland Lottery Plans Expansion to Online Sales, The Examiner, November 20, 2012.

Figure 93: North American Internet lottery/gaming comparison grid

State/Province	Internet Status	Online Products	Funding Mechanism
Illinois	Operating online same day sales	Lotto tickets (Powerball, Mega Millions)	Credit Card or Bank Account
Minnesota	Operating subscription sales & mobile pull-tabs	Lotto tickets (Powerball, Mega Millions) pull-tabs	Credit Card
Nevada	Legislation passed Licenses issued	Poker (No lottery sales)	Credit Card
Delaware	Legislation passed Planned for early 2013	Lotto tickets (Powerball, Mega Millions) Lottery tickets VLT's Casino games	Pre-Paid Card
Georgia	Planned for 2013	Lotto tickets (Powerball, Mega Millions, Fantasy 5)	Pre-Paid Card
Maryland	Planned for 2013	Lotto tickets (Powerball, Mega Millions) Keno Instant games Scratch games Mobile games	Debit Card, bank account ACH, or retail voucher
British Columbia	Operating	Lottery tickets Casino games Poker Sports betting Bingo	Credit Card
Quebec	Operating	Lotto tickets Lottery tickets Casino games Poker Sports betting Bingo	Credit Card
Atlantic Provinces	Planned for late 2012		Credit Card
Western Canada	Planned for early 2013		Credit Card

Source: Spectrum Gaming Group

5. Canadian Internet Lotteries

Canadian lotteries have been offering Internet ticket sales since 2004.

a. Atlantic Lottery Corporation

Atlantic Lottery Corporation, the for-profit lottery provider for New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland, initiated Internet sales for lotto tickets on August 24, 2004. The products offered online were Lotto 6/49, Atlantic 49, Lotto Super 7, TAG, Atlantic Pay-Day, Pro-Line, and Over/Under were the same that were being sold concurrently at conventional retail locations. Residents of the four provinces had to first set up an account on the PlaySphere site and then fund it with a check, bank transfer, or voucher with an identification code purchased at the lottery retailer. Other Canadian lotteries followed quickly with Ontario, British Columbia, and Loto-Quebec all entering the market for Internet lotto sales within the next three years.

The British Columbia Lottery Corporation entered the market most aggressively with a full range of gaming products introduced in phases over time. Loto-Quebec and Ontario have only introduced full scale casino style games and poker in 2012. Today the Western Canada Lottery Corporation – representing Alberta, Manitoba, and Saskatchewan, with the Yukon and Northwest Territories as associate members – is also planning to enter the Internet sales market with consulting guidance provided by the BCLC.

b. British Columbia Lottery Corporation

One of the best examples for the Massachusetts State Lottery of a lottery moving into the Internet space is the British Columbia Lottery Corporation ("BCLC"), which offers lessons for Massachusetts for several reasons:

- British Columbia is geographically close to the United States and shares many of the characteristics of US state lotteries.
- The BCLC is heavily reliant upon instant games for its lottery revenues.
- The BCLC coexists with online gambling operations within the province.
- Despite some initial missteps, the BCLC has succeeded in developing and implementing an Internet strategy that continues to grow revenues both for the provincial government as a whole as well as for the individual lottery retailers.

One additional reason to view the BCLC as a model is its receipt in 2011 of the Best Overall Responsible Gaming Program from the World Lottery Association, an international trade group with over 140 member-jurisdictions.

The BCLC maintains a diverse distribution network of 2,900 retail sales agents, 1,000 hospitality locations, 15 casinos, 2 racetrack casinos, 17 community gaming centers, and 10

commercial bingo halls. Internet gambling is conducted through a single portal, PlayNow.com.[413]

One of the most important lessons from the BCLC is the advantage of a gradual, phased approach to implementation. The BCLC first began Internet sales operations in 2004, starting with a limited number of products and gradually introducing additional games over time. The first sales moved to or initiated on the Internet were keno, sports betting, and lotto games, and a two year period passed before the next games – bingo and single game poker – were offered online. BCLC did have the advantage of being able to offer sports betting as the initial online product in its phase implementation, introducing Internet purchasing with Sports Action games on the BCLC.com site in October 2004.[414] This early entry into the online lottery market registered 30,000 users in its first year of operation.[415]

Financial results confirm that there has been simultaneous growth in Internet and retail sales during and after the introduction of full-blown Internet gambling. As the following chart illustrates, retail sales suffered during the recession but have recovered strongly in the two most recent most recent fiscal years. Retail sales did see a moderate decline in the most recent period after strong positive growth in the previous period, which may have more to do with a brand rejuvenation campaign and the introduction of new pricing strategies than substitution as a result of the growth of eGaming revenues.[416] This strong growth over the past two years coincided with the introduction of a full suite of casino style games on what is now branded the PlayNow.com site in British Columbia.

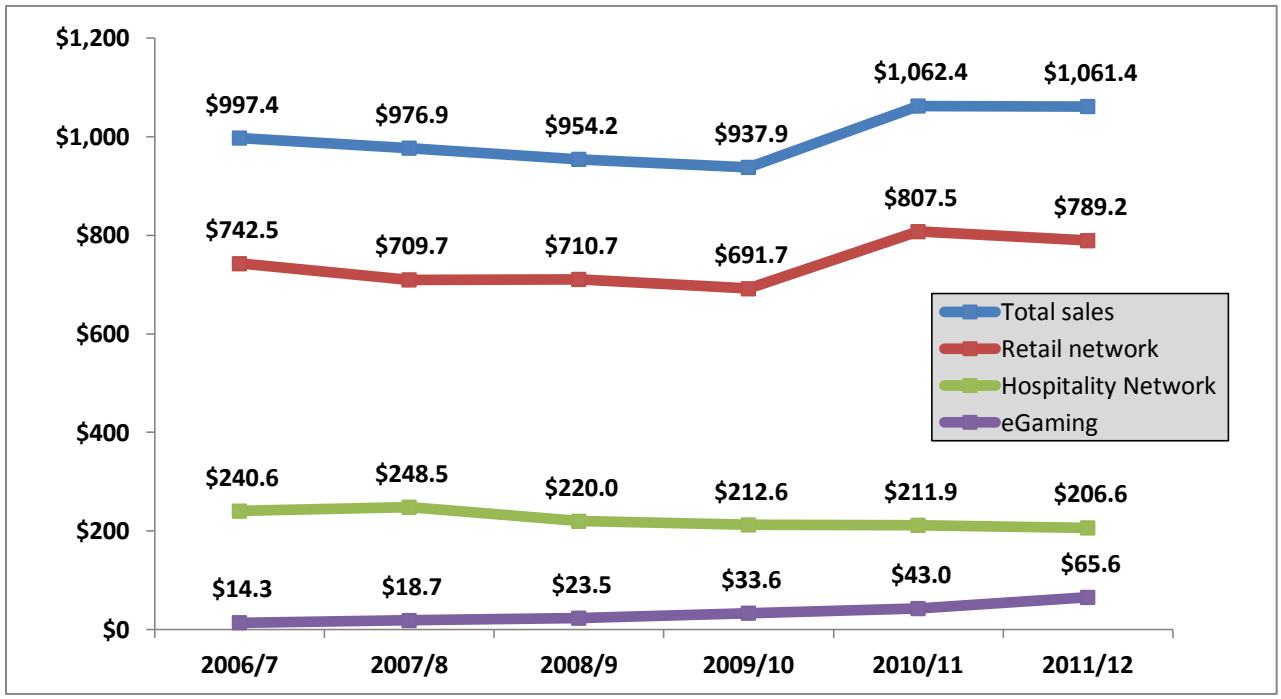
[413] BCLC Service Plan 2012/13-2014/15.

[414] LaFleur s 2011 World Lottery Almanac.

[415] BCLC Service Plan 2004/5-2006/7.

[416] 2011/2012 BCLC Annual Service Plan Report.

Figure 94: British Columbia Lottery Corp. retail sales trends 2006 - 2012



Source: BCLC Annual Service Plan Report 2011-12

The BCLC offers one of the most useful examples of online wagering in North America, having evolved with nearly a decade of experience, starting with the inauguration of online sports betting in 2004. It since added lottery and keno products online (2005), interactive online (effectively "scratch and win" tickets) and peer-to-peer e-bingo (2008) and, as of 2010, has been offering full casino and e-poker products.

One of the most noteworthy aspects of the BCLC experience is: Different forms of gaming can be used to bolster and strengthen each other, and are not in competition with each other. Still, we note that it is paramount that the essential differences between British Columbia and Massachusetts be identified. Such differences include:

- BCLC offers sports wagering, albeit in a form (similar to the requirements imposed on sports wagering in Delaware) that requires parlay bets in which wagers can only be made on two distinct outcomes.
- BCLC oversees all forms of legalized gaming in the Province, thus affording it the ability to quickly and easily develop cross-marketing strategies that are designed to increase overall profitability.

While BCLC oversees the gaming operations at casinos – including making all purchasing decisions regarding slot machines – the actual management of such casinos is in the hands of private operators who own the facilities and manage the marketing of the casinos. Within the US, Delaware would offer somewhat of a parallel. The Delaware Lottery purchases

and oversees the gaming machines and table games, but the actual casinos are owned and managed by private operators, who function as high-end lottery retailers.

c. Loto Quebec

The Quebec Lottery, managed by Loto-Quebec, claims to actually be the first legal Internet lottery in North America, when its subsidiary Ingenio and Oberthur Gaming Technologies launched Cyberslingo, the first downloadable lottery, in New Jersey on March 29, 2004. The ownership of that ephemeral title notwithstanding, Loto-Quebec was an early mover into Internet lottery, launching Tresors de la Tour, the world's first multimedia lottery on CD-ROM beginning in 1999.[417] In 2007 this was replaced with Loto-Clic for online purchase of lotto tickets.[418]

Loto-Quebec caught up with the BCLC and implemented a wide range of online products on August 27, 2012, by unveiling a newly updated gambling website, Espacejeux, which offers lottery tickets, poker, slots, and casino style table games, and a line of monetized casual games. Players will be able to purchase from a home computer, smartphone, or tablet device through a fully integrated mobile application. This follows Loto-Quebec's successful launch on the Mise-o-Jeu sports betting site on the Internet in March 2012.

One of the more innovative aspects of Loto-Quebec's entry into the Internet gambling market has been its inclusion of retailer input in its engagement strategy. The outcome is a so far unique concept where consumers can choose a "designated retailer" at the time of purchase and the so designated retail outlet will receive the same commission as traditional sales every time the customer purchases an online product. When customers fail to designate a preferred retailer a percentage of their purchase value is still transferred to a pool from which all retailers will be compensated annually on a pro-rated basis based upon their sales of the specific products contributing to the pool funds.[419] The company plans to offer a three-month promotional contest to encourage customers to designate a preferred retailer when they purchase online products for the first time.

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[417] La Fleur's 2012 World Lottery Almanac.

[418] Ibid

[419] Loto-Quebec press release, August 9, 2012, http://lotoquebec.com/cms/corporatif/en/loto-quebec-and-you/press/press-releases?annee=2012&mois=-1&cat=0&motsCles=&idCommunique=loteries-en-ligne_2012-08-09.

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 potentially future clients.

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

In Massachusetts, we are presently engaged by the Massachusetts Gaming Commission, and we have previously performed work for the Office of the Governor, for the Massachusetts Joint Committee on Bonding, Capital Expenditures, and State Assets and for the office of Speaker Robert DeLeo.

Our public-sector clients have included the Atlantic City Convention and Visitors Authority, the Connecticut Division of Special Revenue, Delaware Lottery, Georgia Lottery, Maryland Lottery, Georgia Lottery, the New Jersey Casino Reinvestment Development Authority, Ohio Casino Control Commission, Ohio Lottery, West Virginia Lottery, the Puerto Rico Tourism Company, and the Singapore Ministry of Home Affairs.

Private-sector clients have included Caesars Entertainment, Carnival Corp., casino Association of Indiana, casino Association of New Jersey, Hard Rock International, Genting, National Indian Gaming Association, Revel Entertainment, Seneca Gaming, and Wynn Resorts.

Our principals have testified before the following government bodies:

- Georgia Joint Committee on Economic Development and Tourism
- Illinois Gaming Board
- Indiana Gaming Study Commission
- International Tribunal, The Hague
- Massachusetts Joint Committee on Bonding, Capital Expenditures, and State Assets
- New Hampshire Gaming Study Commission
- New Jersey Assembly Tourism and Gaming Committee

- National Gambling Impact Study Commission
- New Jersey Senate Legislative Oversight Committee
- New Jersey Senate Wagering, Tourism & Historic Preservation Committee
- Ohio House Economic Development Committee
- Ohio Senate Oversight Committee
- Pennsylvania Gaming Control Board
- US House Congressional Gaming Caucus
- US Senate Indian Affairs Committee
- US Senate Select Committee on Indian Gaming
- US Senate Subcommittee on Organized Crime

Spectrum and its sister company, Spectrum OSO Asia, maintain a network of leading experts in all disciplines relating to the gaming industry, and we do this through our offices in Atlantic City, Bangkok, Guangzhou, Hong Kong, Macau, Miami and Tokyo.

Disclaimer

Spectrum Gaming Group ("Spectrum," "we" or "our") 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.

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

APPENDIX

These reports appear on the following pages:

1. National Council on Problem Gambling, Internet Responsible Gambling Standards
2. Spectrumetrix US iGaming Watch, November 20, 2012
3. Senate Testimony: The Regulation of Tribal Gaming: From Brick & Mortar to the Internet