

Live Wagering From Remote Locations:

**EXAMINING ITS POTENTIAL IMPACT
ON REVENUE AND EMPLOYMENT IN
THE ATLANTIC CITY MARKET**

A report prepared by:

PGRG

April 22, 2002

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Executive Summary

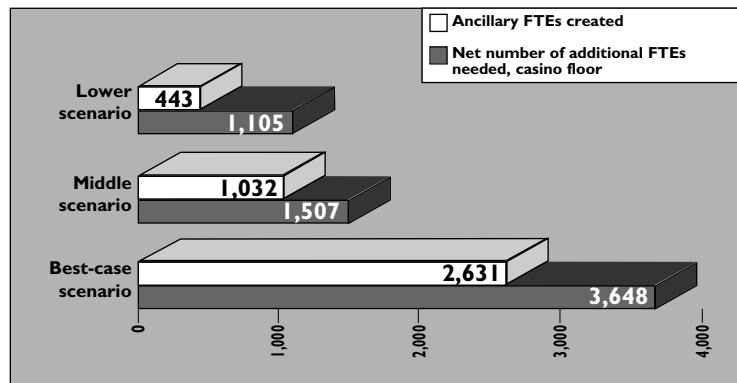
The gaming industry is at a crossroads: It must decide whether to embrace the Internet as an opportunity, or to continue viewing it as a threat. This report will show that this specific form of Internet gaming — in which players bet from remote locations, interacting with live dealers — is far more of an opportunity than a threat.

We believe that live wagering from remote locations offers the opportunity to:

1. Create additional revenue sources, with minimal cannibalization to existing revenues.
2. Create marketing opportunities for participating casinos.
3. Create jobs and generate additional tax revenues.

Our premise that the Internet creates an opportunity for brick-and-mortar casino companies is grounded in two arguments:

- The history of various entertainment industries includes vivid examples of technologies that were first viewed as threats, and later became essential marketing components.
- The nature of the gaming industry shows that Internet gaming, by itself, will not fulfill a basic human need that brick-and-mortar casinos can easily meet: the desire for social interaction.



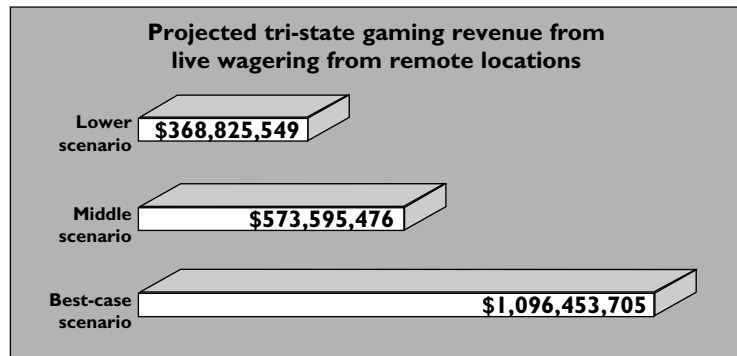
The study concludes that live wagering from remote locations does more than create a new source of revenue for sponsoring casinos. Additionally, it creates a marketing opportunity, a means to find and cultivate thousands of new customers who can be encouraged to become on-site patrons.

Our study examined three potential markets for this technology: the adult populations of New Jersey, New York and Pennsylvania. We looked at the demographics of each county in these states, determined how many adults have a demonstrated interest in gambling as entertainment, and then projected how many would be potential customers of this particular online technology.

By using lottery purchasing patterns as a strong indicator of gaming interest, we determined that roughly 10 percent of the adult population in these three states would be a potential market for wagering on the Internet from remote locations.

We then developed three scenarios, taking a number of variables into account, including:

- How many adults willingly spend \$50 or more per month now on gambling?



- How many adults would be amenable to marketing offers that would encourage them to visit Atlantic City in person?

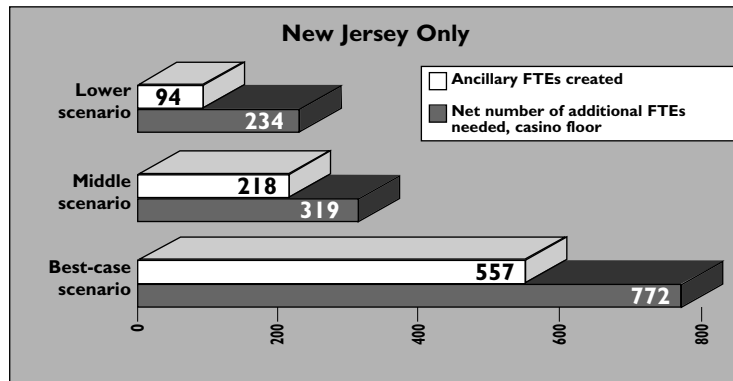
- How much of this additional gaming business would cannibalize existing Atlantic City table revenues, i.e., how many online visits would displace existing in-person visits?

Our results show that the annual gaming revenues from these three states that could eventually be realized range from \$368.8 million to \$1.1 billion. And the number of additional jobs — as measured by full-time-equivalents — that could be created range from 1,105 to 3,648 jobs on the casino floor, and from 443 to 2,631 ancillary jobs that would be created by the additional number of visitor trips to Atlantic City.

These are not first-year estimates. Rather, these are projections that could ultimately be reached in a fully mature market, assuming that licensed, branded casinos in Atlantic City are the source of live wagering from remote locations.

Please note that this study has not been tailored to any particular piece of legislation at either the state or federal levels. It assumes no particular political or regulatory roadblocks would exist to limit participation by any state.

If, for example, state or federal legislation limited this technology to intrastate use in New Jersey, the projected growth in revenue and jobs would be significantly smaller. The chart to the right shows the expected job growth if wagers were limited to New Jersey residents.



Employment in the gaming industry naturally creates an economic boost in other parts of the economy. Live wagering from remote locations would

have an impact on equipment suppliers, those companies that manufacture everything from cards to furniture. Increased wages would also have a beneficial impact on the local economy. Arthur Andersen projected in 1995 that direct employment in gaming has a 3-4 ratio to indirect employment. That is, for every three jobs in gaming, four are created in other industries.

This would mean, for example, that — even if limited to intrastate wagers — live wagering from remote locations could create up to 1,600 jobs outside the gaming industry. If wagers were accepted from the entire tri-state region, that spin-off effect could create up to 8,000 jobs outside the industry.

The report concludes that live wagering from remote locations via the Internet can increase revenues to Atlantic City casinos, while creating the opportunity for growth in on-site visitation. This will create additional jobs, promote the redevelopment of Atlantic City — and ultimately further the goals of the New Jersey Casino Control Act. ■

Introduction

This is not the first time that private industries in the entertainment field have wrestled with the challenges created by new technologies. In the late 1920s and early 1930s, professional baseball — then in its heyday as the national pastime — was faced with the new technology of radio, which was viewed as a threat to the game’s primary source of revenue: ticket sales.

In their book, “Baseball,” authors Geoffrey C. Ward and Ken Burns quote pioneer broadcaster Red Barber:

“When radio came along and began to broadcast some baseball games, some of the entrenched conservative owners said, ‘Wait a minute. Why give away something that you’re trying to sell for your living, to try and keep your enterprise afloat? And especially on days of threatening weather when people would say, ‘Well, it looks like it may rain. I’ll just listen to the radio. I won’t go.’ They did not realize at the time the beneficial effect of radio, that it would be making families of fans.”

A similar pattern emerged in the 1950s, and later in the 1970s and 1980s.

Hollywood film studios viewed television, and later videotape, as threats to their primary source of revenue: ticket sales.

Television quickly became a new market for the studios’ archives of older films, and studios became the leading source of new programming for the new medium. Additionally, television became the primary marketing vehicle to develop awareness of new films. The same pattern emerged with videotape: It became a new market, and a new marketing opportunity.

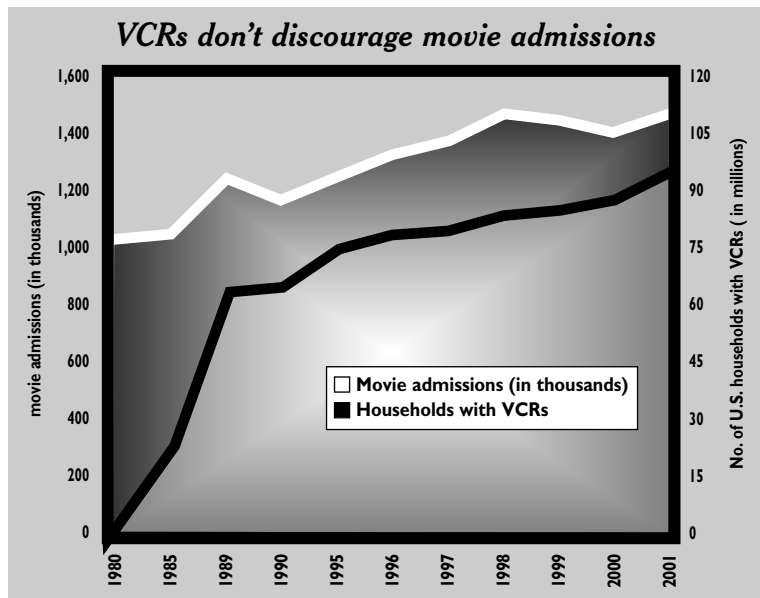
It is no coincidence that baseball’s greatest years of attendance — when top teams could draw 3 million or more fans a season — happened long after the advent of radio and television. Those potential threats laid the groundwork that encouraged that live attendance.

The same phenomenon happened in Hollywood, in which the highest-grossing films — starting with the all-time box office champ, “Titanic” — occurred long after those erstwhile threats had turned into full marketing opportunities.

And the Internet will not adversely impact revenues at brick-and-mortar casinos, any more than the sale of six packs hurts the revenues of taverns.

Two essential traits of human nature will ensure that brick-and-mortar casinos have a permanent home on the economic landscape: One is the thrill of risk-taking.

The other essential trait: Humans are social creatures. They like having fun in crowds. Just because some individuals might like to gamble from home will not change that.



SOURCE: MOTION PICTURE ASSOCIATION OF AMERICA

This report focuses on a very specific technology: the use of live, real-time dealers operating from licensed, regulated casinos. That is an important foundation for many of our conclusions.

We believe that the present state of Internet wagering — while significant — does not, in any sense, represent the potential size of the market, simply because many adults have concerns about the legitimacy of the online provider.

Are the games being run honestly? Will winning wagers be paid promptly, if at all?

Because most of the online entrepreneurs lack the benefits of an established brand, supported by a recognized, public gaming company, they cannot tap that huge market.

Live wagering from remote locations — using human dealers, dealing real cards from real decks, and not relying on computer-generated odds — appears to address those issues.

This study also looks at whether this technology would address certain public-policy concerns or advance any public-policy goals. The chief goal of the New Jersey Casino Control Act, as stated in its preamble, is the redevelopment of Atlantic City.

Efforts to advance Internet gaming in New Jersey have so far been stymied because both regulators and industry leaders have been concerned that online wagering would not promote visitation to Atlantic City and could actually deter trips by existing customers. These concerns clearly parallel the views expressed by baseball executives in the first half of the last century, and by Hollywood executives in the second half.

So, the central goal of this report was to examine whether live wagering from remote locations would promote visitation, as well as revenues, and whether that increased visitation would encourage capital investment and create jobs in Atlantic City.

One guiding principle at work in this study is to be conservative in our various projections. For example, our projected employment numbers do not take into account the necessary slack that casinos would likely employ to make certain that additional tables would be available in periods of high demand. ■

Methodology

How large is the Internet gambling market?

Because live wagering from remote locations would be used in conjunction with one or more licensed casino operators — offering both a recognized brand and the certainty of payoffs and honesty that accompany state regulation — it offers an opportunity to expand the existing Internet gambling market.

Our first step, then, was to try to determine exactly how large that existing market is, and how it can be expected to grow under its current business models.

Bear Stearns, a securities firm that has led the way in research on Internet gaming, estimates that 4.5 million individuals gamble regularly on the Internet, and Americans account for about half that total. In a March 2001 report, Bear Stearns wrote: “Currently, we estimate that there are between 1,200 and 1,400 e-gaming Web sites. As the industry grows, we believe these sites could generate an estimated \$5.0 billion in revenues by 2003, implying a 36.4 percent CAGR for aggregate gaming win.”

Christiansen Capital Advisors, another leading firm in this field, estimates the number of worldwide online gamblers at 7.8 million last year, with 57.7 percent — or 4.5 million — being U.S. citizens.

While CCA’s estimate is significantly larger than Bear Stearns, it is also more recent, which is partly testament to the growing number of Internet gamblers.

Eugene M. Christiansen wrote: “That is a substantial increase (40.6 percent) from CCA’s 3.2 million estimate of the number of U.S. Internet gamblers in 1999.”

<i>Estimated and projected Internet gambler growth (in millions)</i>						
	1999	2000	2001	2002 (EST)	2003 (EST)	2004 (EST)
United States	3.2	3.8	4.5	4.9	5.3	5.8
Western Europe	0.3	0.6	1	1.6	2.1	2.8
Non-Japan Asia	0.3	0.5	1	1.7	2.6	3.9
Japan	0.1	0.3	0.5	0.9	1.4	1.8
Latin America	0.1	0.1	0.3	0.5	0.8	1.1
Other	0.1	0.1	0.3	0.5	0.8	1.1
Internet Gamblers	4.1	5.7	7.8	10.4	13.6	17.4

SOURCE: CHRISTIANSEN CAPITAL ADVISORS, LLC

Clearly, differences also exist between regular users and occasional visitors who surf their way on to gambling sites. In February, 2001, Jupiter Media Matrix estimated that 13.6 million individuals visited gambling Web sites just in

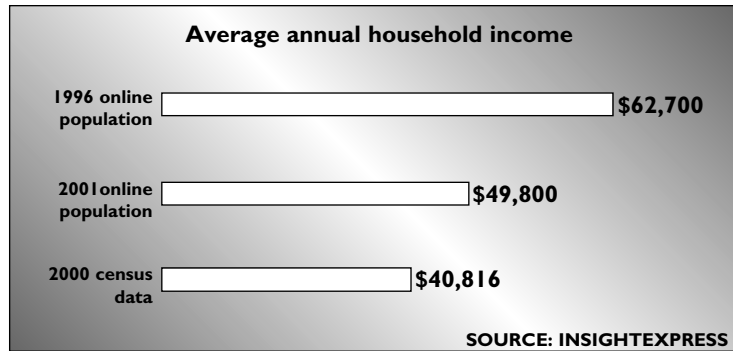
December last year, spending an average of 20.2 minutes at those sites. Notably, Jupiter points out that eight of the 15 most popular sites did not exist one year earlier.

Interestingly, the online industry may have hit a wall in its effort to reach new players — a phenomenon that Bear Stearns predicted last year when it wrote: “Customer acquisition costs have greatly increased due to rising competitive levels associated with consolidation and an increase in the value of brand equity. Moreover, click rates for banner advertisements have steadily declined from an already-low rate, weakening one of the primary sources for marketing power for gaming sites. As such, we have a growing concern that the present uncertainty may raise the cost of acquiring new customers to extremely high levels. In addition, we believe that once a Web site has acquired those customers, retention rates are slowly deteriorating.”

Bear Stearns’ prescient observations have been borne out in more recent statistics that show the online gambling industry is stepping up its efforts to recruit players.

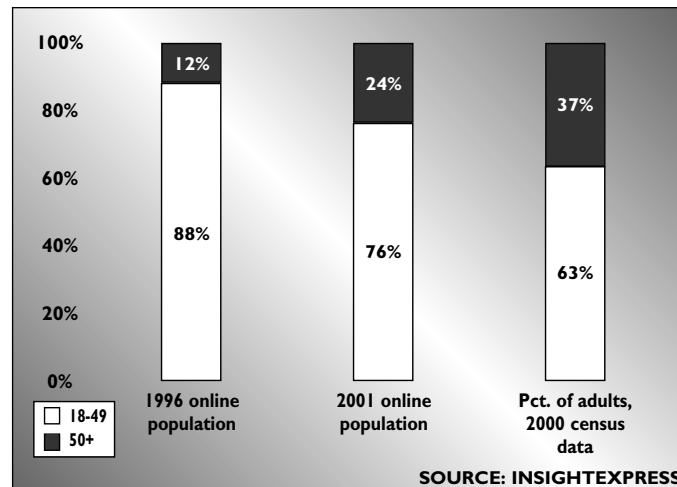
Last year, the number of impressions for online ads for gambling sites grew to 2.5 billion from 911 million, a jump

that catapulted Internet wagering to the fifth largest online advertising segment, according to Jupiter Media Matrix (Reuters, Feb. 20, 2002). Jupiter also noted that 61 percent of online gambling ads last year were on gambling niche sites, with the remainder being hosted on various Internet portals. A year earlier, nearly all of the ads were on gambling sites.



The increase in online advertising mirrors, in part, an effort to reach out to mainstream adults, who are not as technologically oriented as the core gaming customers, but might have larger gaming budgets. Cryptologic CEO Jean Noelting believes that “Internet gaming is moving to mainstream entertainment,” with Cryptologic leading a serious effort to reach “the larger recreational market.”

So, our next step was to examine the size of the Internet audience. According to the United States Department of Commerce, 54 percent of the U.S. population used the Internet in September last year (The Wall Street Journal, February 4, 2002). That works out to 143 million Americans, according to Christiansen Capital Advisors.



CCA compared that estimate to others, including Nielsen/Net Ratings, which projected that 115.2 million users logged on to the Internet in October 2001, a 15 percent increase from a year earlier.

CCA wrote: “Taking the various current estimates of the number of Americans online today into account, CCA thinks there are about 100 million (age 18 or over). The point is that no matter who’s counting and what the final tally is, close to half the U.S. population is now online, even if only on a casual basis.”

Pari-mutuel parallels

The next step in our analysis was to determine the potential size of the Internet gambling audience by trying to determine how many Americans gamble, and estimating how many would be willing to gamble online, assuming they enjoyed full confidence in the integrity of the provider.

A salient statistic comes from the River City Group, which — according to CCA — projects that “30.4 percent of all gamblers who are online (globally, not U.S.) gamble online. “ So, the obvious next step would be to determine if steps could be taken to get adults who are willing to gamble to do so electronically.

We examined the pari-mutuel industry, viewing it as a subset of the gaming universe that offers two important parallels to table games:

Attendance at live racing meets has been in decline for decades due to the effect of competition from other forms of

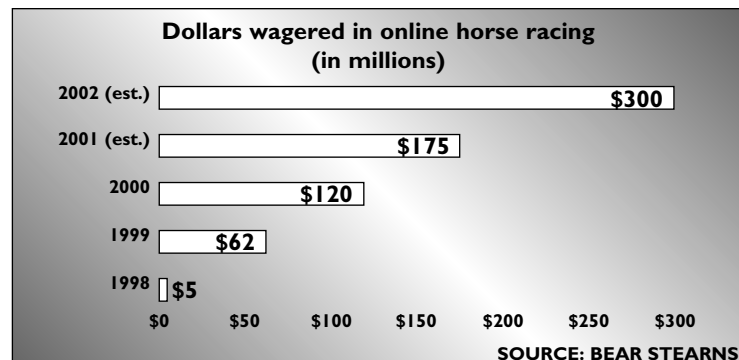
wagering.

Racing fans tend to skew older than the population at large. That is because handicapping is a difficult art to master, taking many years of practice. Similarly, table games — which were the heart of the casino floor at the same time that racing was at its zenith: in the middle of the 20th century — can be intimidating to the uninitiated as well.

Notably, while that decline in attendance at live racing meets continues to drop, the industry’s overall revenues have been growing, thanks to growth in off-track betting. That means that if technology can help grow revenues in one segment of the gaming industry, it can likely do the same in another.

Bear Stearns wrote in a Dec. 2000 report: “While live, on-track attendance is experiencing consistent declines, pari-mutuel handle continues to increase year over year. Total U.S. pari-mutuel wagering handle for all types of horseracing reached approximately \$15.6 billion during the 1998 racing season, a 2.2 percent increase from the previous year, driven mainly by the popularity of off-track wagering.”

According to Bear Stearns, the racing industry evolved quickly from an almost total reliance on on-site activity in 1995 to the point where, as of last year, “nearly 80 percent of all pari-mutuel handle is generated off-track via Off-Track Betting (OTB) outlets, telephone account wagering, and other new media avenues, including the Internet.”



These observations have been confirmed by other sources. The following excerpt is from a Wall Street Journal article of Aug. 27, 2001:

“Looking into the stands at their racetracks, horse-racing executives see two things that bother them: thinning crowds and thinning hair.

They are counting on the Internet to remedy both.

The sport’s total “handle” — the amount bettors wagered — was about \$14.2 billion last year, up from \$8.3 billion a decade earlier. But competition from casinos and an aging fan base have slowed horse racing’s growth in the past two years, and the industry is scrambling to put the sport online in hopes of attracting a young and growing Web-savvy market.

In the past few years, track owners, gambling companies and entrepreneurs have launched a half-dozen major horse-racing Web sites. With names like YouBet.com (www.youbet.com), eBetUSA.com (www.ebetusa.com) and WinTicket.com (www.winticket.com), the sites offer the chance to wager on races at dozens of tracks around the country and watch the races via live video feeds. Some feature prerace commentary from professional handicappers and, for an extra fee, more sophisticated betting advice.

The heyday of horse racing was in the 1950s; since then, the industry periodically has had to find new ways to lure fans and bettors. Off-track betting, on-track simulcasting of races from other venues, and telephone betting all have met with some success. But racing executives have even higher hopes for the Internet.

A federal law bans interstate gambling over phone lines but exempts betting on the ponies. Currently, 41 states allow betting on horse races over the Web. That's not true of casino or sports betting, where the only way to play online is through shadowy offshore casino sites that have sometimes failed to pay winnings.

Racing executives also tout the Web's unrivaled ability to bundle, into one user-friendly format, handicapping information, betting, viewing, and — for the lucky ones — payouts.

Their hope is to simplify the "thinking" side of racing, making the sport's complicated process of studying past performance tables easier to swallow for younger customers who are short on statistical acumen and even shorter on patience.

"This industry has been woeful in luring the younger customer," says Robert Fell, chairman and chief executive of YouBet.com Inc., Woodland Hills, Calif., the first and largest betting Web site. "We need to promulgate the sport to younger people, and if there's ever going to be an opportunity to do so, the Internet and its young user profile are that opportunity."

The technology-fueled growth in pari-mutuel wagering is one important indicator of success for a business model that would be built on live wagering from a remote location. The next step, then, would be to determine how many adults participate in all forms of gambling.

Larger gambling universe: Lotteries

The National Opinion Research Center at the University of Chicago submitted a report (Gambling Impact and Behavior Study, April 1, 1999) to the National Gambling Impact Study Commission, which projected these gambling participation rates for U.S. adults 18 and older:

<i>U.S. gambling participation 18 and older in 1998</i>		
	<i>percent</i>	<i>No. of adults</i>
<i>Lottery</i>	52	102,440,000
<i>Casino</i>	29	57,130,000
<i>Bingo</i>	6	11,820,000
<i>Pari-Mutuel Racing</i>	7	13,790,000

SOURCE: NATIONAL OPINION RESEARCH CENTER AT THE UNIVERSITY OF CHICAGO

The National Opinion Research Center estimated that 63 percent of U.S. adults gambled in 1998, while 86 percent had gambled at some point in their lifetimes. The 13 percent differential between the two estimates essentially comprises adults who had gambled at some point other than in 1998, the survey year.

The number of adult lottery players equates to about 102 million adults, according to CCA, while the number of those who gambled in a casino equates to about 57 million.

Lottery players may offer best indication of size of market for Internet table



play: Their demographics appear to reflect those of the general population. And they have a demonstrated propensity to wager frequently on games of chance that they believe are run by honest operators. Most important, they are swayed by convenience factors.

We looked at various surveys to determine the size of the lottery market. Here are some quotes from GTECH's Eighth Annual National Gaming Survey 2000:

"Lotteries remain America's most played game. Seventy-two percent of respondents report purchasing a lottery ticket in the last year, making lotteries the most widely played form of gaming in the United States. Among lottery players, 28 percent report playing at least once a week and 14 percent more than once a week. Lottery players mirror the population in terms of age, education, on-line access, marital status, children living at home, political ideology and income.

"Americans continue to favor state lotteries by wide margins. Nearly three-quarters of respondents (73 percent-24 percent) favor lotteries. More than eight out of 10 Americans (83 percent) under the age of 35 favor lotteries as do 72 percent of those age 35-54 and 63 percent of those age 55 and older. The 2000 National Gaming Survey results signify the highest support ratings for lotteries in the last five years and the 7th time in eight years that lotteries have enjoyed favorability ratings in excess of 70 percent.

"Support for lottery in non-lottery states also remains strong. Two-thirds of survey respondents (66 percent-32 percent) from non-lottery states would vote for establishing a state lottery if given the opportunity in a statewide referendum. Support for establishing a lottery is solid as 50 percent of respondents would vote 'definitively for' a lottery. These numbers are comparable to 1999's findings when 65 percent said they would vote to establish a lottery and 48 percent were 'definitive' pro-lottery voters."

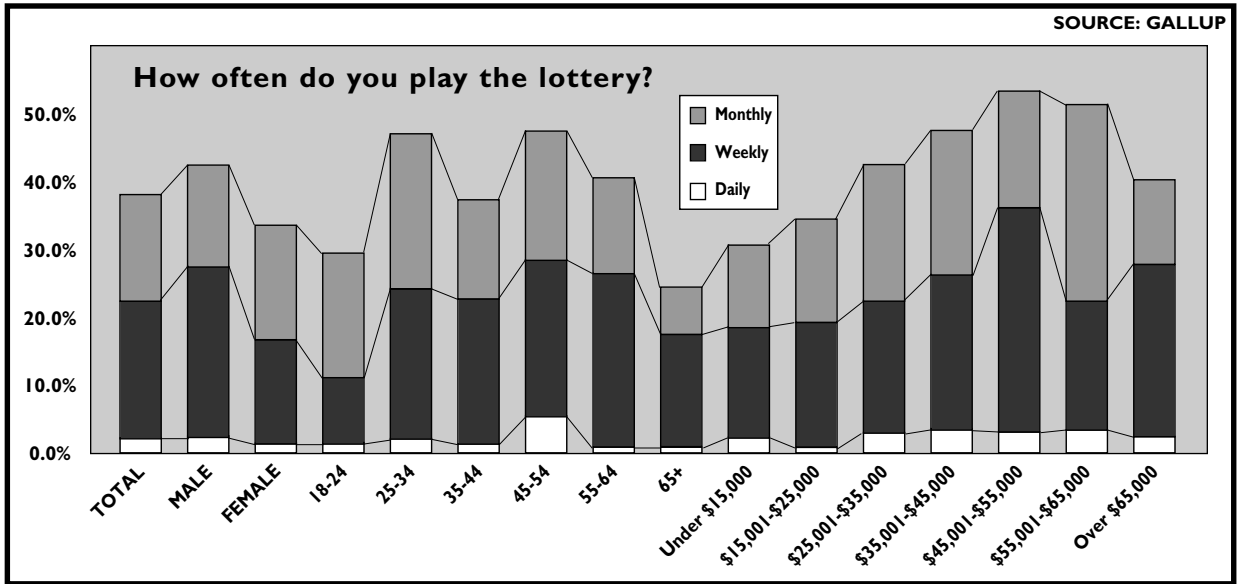
The GTECH report estimates a higher percentage of lottery play among adults than other surveys. We looked at surveys from Gallup, the National Opinion Research Center and Maritz, all of which appear to be at least 10 points lower than GTECH in their estimates.

A Maritz AmeriPoll national survey of 1,003 adults conducted in October, 1997 found, among other things, that:

- About 10 percent of adults spend \$20 a month or more on lottery tickets.
- Of that group, 13 percent reported incomes less than \$15,000. However, none of the individuals in that income group — who comprised 15 percent of the total sample — spent more than \$50 a month on lottery tickets.
- Adults with incomes of \$45,000 or more comprised 43 percent of those who spent at least \$20 a month on lottery purchases.

A Jan. 8, 2001 study conducted by the University of Texas found:

- Nearly nine out of 10 — 88 percent — of all those adults who spend \$205 a year or more on the Texas lottery have at least a high school education, while 57 percent of those spending \$205 a year or more have some college education.
- Adults with incomes exceeding \$10,000 a year comprise 92 percent of those spending \$205 or more a year. Those with incomes greater than \$50,000 a year comprise 30 percent.
- The demographics of Texas lottery players who spend that much reflect the overall Texas population, with whites accounting for 56 percent of the group, African-Americans comprising 11 percent and Hispanics comprising 29 percent.



A 1999 Study by the Minnesota State Lottery, with the assistance of the St. Cloud State University, found:

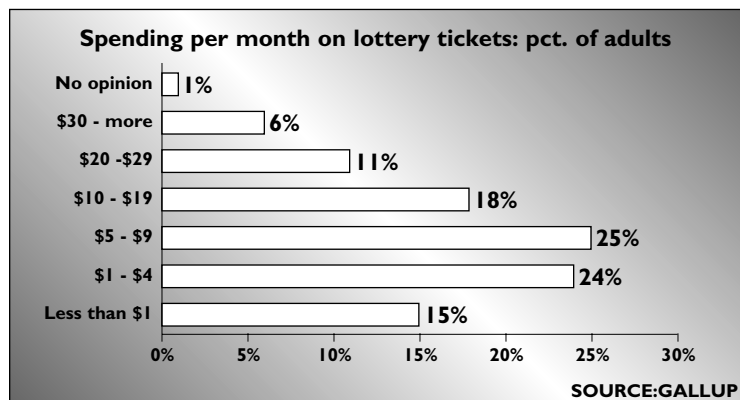
- Of the 20 percent of lottery players who spent the most on tickets, 96 percent had incomes of at least \$15,000, while 32 percent had incomes of at least \$50,000.
- In that high-spending group, 88 percent had at least a high school degree, with more than half having at least some college, a nearly exact mirror of the Texas study.
- Notably, this top 20 percent accounted for 71 percent of all lottery purchases.

So, in many respects the lottery-playing public enjoys many characteristics that would make it a good proxy for table players. It is large, affluent and willing to gamble.

The chart above shows the demographic breakdown of lottery players, and matches those demographics to the frequency of their play.

The chart at right shows the percentage of adults who spend various amounts per month on lottery tickets. While about half the adults who play the lottery purchase between \$1 and \$9 a month in tickets, a significant percentage plays greater amounts.

Interestingly, the numbers of adults who wager these larger amounts tend to have larger incomes, which corroborates many of the studies that we have cited.

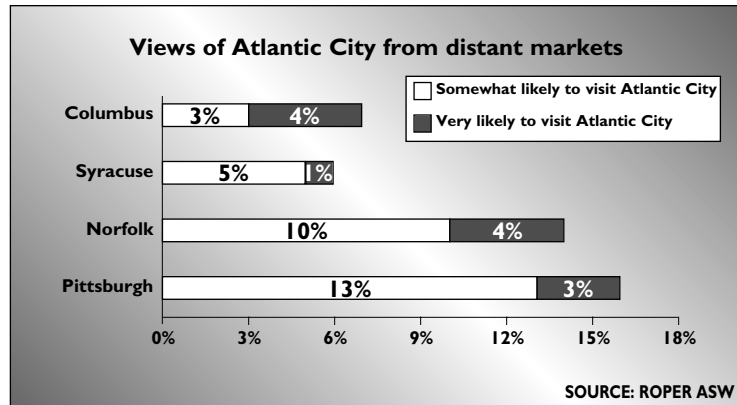


Regional Demographics

Since the primary goal of this report is to determine how many online gamblers, attracted by live wagering from remote locations, can be converted to in-house players, we focused on the adult population in New Jersey, New York and Pennsylvania.

We looked at the demographics at each county within those states, including those at the far reaches of New York and Pennsylvania. For one, even if adults in those regions are only attracted to the Internet, they would still help create jobs on the gaming floor. Another reason, however, is that even adults who live as far away as Pittsburgh and Syracuse have expressed an interest in visiting Atlantic City for 2-3 day getaways.

A recent poll prepared by Roper ASW of Princeton for the Atlantic City Convention and Visitors Authority was conducted with about 200 respondents in each of four target cities: Syracuse, NY; Pittsburgh, PA; Columbus, OH; and Norfolk, VA. The total sample of 804 adults represents an important cross-section of sentiments in distant markets that gauges what people are willing to do, and how far they are willing to travel to have fun.



The results show that every region within these three states represents a potential pool of on-site customers, although clearly the closer the region is to Atlantic City, the greater the likelihood of on-site visitation.

We examined various Census reports to gauge the demographics within these three states, with our strongest focus on adults who presently reside in New Jersey.

The tables on the following pages detail some of these findings.

The first table shows New Jersey's adult population, by age:

Base data 1	Population	25 to 34	35 to 44	45 to 54	55 to 59	60 to 64	65 to 74
New Jersey	8,414,350	1,189,040	1,435,106	1,158,898	423,338	330,646	574,669
Atlantic County	252,552	33,626	43,706	33,872	12,345	10,344	18,232
Bergen County	884,118	117,992	152,636	129,190	48,621	39,077	68,810
Burlington County	423,394	57,677	75,817	60,060	21,755	16,790	29,037
Camden County	508,932	70,516	84,876	69,427	24,613	18,428	32,844
Cape May County	102,326	10,473	15,606	14,354	6,239	5,553	10,662
Cumberland County	146,438	22,089	23,561	19,325	7,056	5,639	9,724
Essex County	793,633	119,423	127,716	102,840	37,352	30,664	48,972
Gloucester County	254,673	32,576	44,902	35,938	12,485	9,253	16,083
Hudson County	608,975	119,073	97,727	72,379	26,702	22,955	36,714
Hunterdon County	121,989	13,846	24,336	21,084	7,462	4,552	6,774
Mercer County	350,761	49,270	58,012	48,990	17,139	12,949	22,603
Middlesex County	750,162	117,105	128,839	100,323	35,040	27,343	48,779
Monmouth County	615,301	75,308	111,681	92,239	32,655	23,580	40,084
Morris County	470,212	63,689	86,465	71,867	27,524	19,403	29,391
Ocean County	510,916	57,098	75,878	63,293	25,587	23,107	54,304
Passaic County	489,049	73,496	79,523	62,592	23,207	18,234	30,093
Salem County	64,285	7,637	10,302	9,383	3,461	2,702	4,671
Somerset County	297,490	42,367	58,297	43,861	15,170	10,908	17,770
Sussex County	144,166	17,501	27,881	23,384	7,945	5,095	7,042
Union County	522,541	75,189	88,398	69,568	25,554	20,381	35,350
Warren County	102,437	13,089	18,947	14,929	5,426	3,689	6,730

The above table shows more detail by age breakdown than was provided in the various lottery surveys, but we were able to match the percentages of adults to the exact breakdown in those surveys to determine the lottery-playing population in each county. The next series of tables shows New York State, in slightly less detail:

Area	25 to 44	45 to 64	65+
New York State	5,644,373	4,062,910	2,429,632
Albany	90,150	61,488	43,202
Allegany	12,534	10,672	7,052
Bronx	360,208	236,048	129,829
Broome	55,631	42,745	32,153
Cattaraugus	23,034	18,367	11,842
Cayuga	25,129	16,824	11,424
Chautauqua	37,472	29,936	21,900
Chemung	26,324	20,155	13,972
Chenango	14,544	11,317	7,344
Clinton	25,320	15,547	9,325
Columbia	18,347	14,768	10,166
Cortland	13,255	9,565	6,060
Delaware	11,719	10,524	8,484
Dutchess	86,416	59,850	32,459
Erie	270,194	208,955	148,132
Essex	11,395	8,548	5,900
Franklin	15,918	10,155	5,787
Fulton	15,145	11,812	8,001
Genesee	17,664	13,360	8,475
Greene	14,638	11,040	7,229
Hamilton	1,291	1,453	1,075

Area	25 to 44	45 to 64	65+
Herkimer	17,387	14,198	10,422
Jefferson	34,422	19,210	11,940
Kings	703,379	463,466	282,103
Lewis	7,708	5,695	3,635
Livingston	19,975	13,571	7,661
Madison	19,911	14,998	8,571
Monroe	223,198	150,599	93,327
Montgomery	13,715	10,726	9,628
Nassau	384,604	331,056	196,634
New York	568,494	370,759	195,533
Niagara	62,256	48,533	34,300
Oneida	66,131	48,575	37,597
Onondaga	138,072	95,724	63,676
Ontario	30,718	21,971	13,237
Orange	107,289	68,475	34,166
Orleans	14,331	9,321	5,440
Oswego	36,725	25,173	13,523
Otsego	15,747	13,081	9,196
Putnam	31,854	22,498	9,295
Queens	641,907	459,704	287,434
Rensselaer	45,672	31,858	20,773
Richmond	131,314	93,083	48,988
Rockland	81,875	72,237	33,932
St. Lawrence	31,425	23,209	14,167
Saratoga	64,945	43,873	22,848
Schenectady	42,574	31,789	24,414
Schoharie	8,844	7,113	4,622
Schuyler	5,460	4,362	2,910
Seneca	9,367	7,188	4,796
Steuben	27,263	22,520	14,546
Suffolk	426,320	329,350	163,323
Sullivan	21,246	15,575	9,599
Tioga	15,496	12,176	6,515
Tompkins	28,820	16,133	9,282
Ulster	53,618	37,393	23,016
Warren	18,263	13,690	8,983
Washington	18,117	13,172	8,327
Wayne	29,489	20,942	11,350
Westchester	278,664	222,222	131,050
Wyoming	14,586	9,050	5,360
Yates	6,864	5,513	3,702

We performed the same breakdown for Pennsylvania:

Area	25 to 44	45 to 64	65+
Pennsylvania	3,515,421	2,701,930	1,898,936
Adams	25,919	19,371	12,376
Allegheny	370,564	288,999	226,468
Armstrong	20,419	16,869	13,163
Beaver	50,020	44,171	33,531
Bedford	13,336	12,284	8,209
Berks	105,157	81,798	55,807
Blair	35,928	30,090	22,208
Bradford	17,334	14,436	9,563
Bucks	190,799	135,402	74,580
Butler	52,103	38,679	23,489
Cambria	41,128	34,824	29,909
Cameron	1,452	1,281	1,117
Carbon	16,239	14,084	10,951
Centre	37,366	23,613	13,584
Chester	138,373	99,053	50,712
Clarion	10,547	9,241	6,018
Clearfield	22,767	18,553	13,399
Clinton	9,394	8,529	6,150
Columbia	16,706	13,953	10,179
Crawford	24,307	20,015	13,694
Cumberland	62,694	47,997	31,988
Dauphin	77,758	54,758	35,379
Delaware	158,923	118,895	86,898

Area	25 to 44	45 to 64	65+
Elk	9,296	8,025	6,032
Erie	79,310	58,056	39,475
Fayette	39,223	33,403	25,940
Forest	1,090	1,232	1,108
Franklin	36,856	30,163	20,387
Fulton	4,005	3,555	2,125
Greene	12,759	8,800	6,259
Huntingdon	13,103	10,231	6,575
Indiana	23,367	18,110	12,511
Jefferson	12,619	10,565	7,969
Juniata	6,362	5,244	3,201
Lackawanna	55,020	47,755	40,845
Lancaster	136,006	96,800	64,845
Lawrence	24,900	22,138	18,147
Lebanon	33,834	26,938	19,514
Lehigh	90,484	67,421	50,397
Luzerne	84,172	74,060	62,436
Lycoming	33,444	26,247	18,449
McKean	12,931	10,777	7,378
Mercer	32,189	28,450	21,823
Mifflin	12,625	11,352	7,756
Monroe	40,767	28,463	15,923
Montgomery	221,950	169,756	118,617
Montour	5,199	3,987	2,790
Northampton	76,972	58,061	39,262
Northumberland	25,502	22,029	17,567
Perry	14,091	9,891	5,188
Philadelphia	419,760	290,852	206,580
Pike	12,648	9,760	6,231
Potter	4,515	4,011	2,851
Schuylkill	41,456	35,139	28,982
Snyder	10,625	8,317	5,188
Somerset	22,920	18,062	14,174
Sullivan	1,452	1,376	1,326
Susquehanna	11,870	9,826	6,564
Tioga	10,754	9,866	6,545
Union	12,443	8,662	5,325
Venango	16,217	13,567	9,456
Warren	12,087	10,628	7,231
Washington	57,225	49,458	36,490
Wayne	12,829	10,413	8,445
Westmoreland	104,596	90,461	67,344
Wyoming	8,417	6,256	3,930
York	118,298	86,872	50,383

Once we completed this detailed examination of the demographics within the counties of these targeted states, we built our economic model. Our model includes numerous variables, including:

- The percentage of lottery players who might become customers of live Internet wagering.
- The percentage of adults in each age bracket who wager certain amounts on the lottery.
- The expected number of online visits to a site that offered live wagering from remote locations.
- The amount wagered per visit.
- The expected percentage of online customers who might become on-site customers.

We then translated this potential business into potential employment. We looked at table games, focusing on

blackjack. Since the technology requires that every player in cyberspace takes up a spot at a table, we calculated the number of dealers and supervisors needed to accommodate these various levels of play.

The three main variables in calculating employment levels were:

- The length of time that each player would remain at a table.
- How much cannibalization of existing play would take place as a result of live wagering from remote locations.
- The number of jobs that would be created as a result of increased on-site visitation.

On the latter point, we examined two benchmarks: One was a 1996 report by Arthur Andersen for the American Gaming Association, which estimated that 13 jobs are created for every \$1 million in revenue.

This conforms with our own calculations undertaken each month. But we were hesitant to use that 13 number, which might be potentially optimistic for two reasons: One is that gaming is generally a fixed-cost business, so that additional revenues do not necessarily create the same number of jobs per million dollars. For example, additional revenues will not necessarily create a greater number of additional management jobs or back-office jobs.

Another reason we did not use the estimate of 13 jobs per million dollars in revenue is that it would result in some double-counting, since many of the new jobs would be in the table-game area, in which we have already calculated the impact of additional revenue.

So, the variable we relied on there was an additional six full-time-equivalents per \$1 million of increased revenue. ■

Findings

We used our model to develop three scenarios. We looked at the three states, and then looked at the “primary market,” which includes just New Jersey, along with the easternmost counties in Pennsylvania and the southernmost counties in New York.

Lower projections, assumptions:

<i>Amount wagered on lotteries each month</i>					
	\$0 to \$5	%5.01 to \$10	\$10.01 to \$20	\$20.01 to \$50	More than \$50
<i>Pct. of lottery players who spend this each month</i>	49.0%	26.0%	12.0%	11.0%	2.0%
<i>Pct. of lottery players who are potential internet gamblers</i>	15%	27%	38%	42%	45%
<i>Potential dollar value per visit</i>	\$80	\$90	\$100	\$110	\$140
<i>Potential no. of annual online visits</i>	0.40	0.50	2.00	3.00	4.50
<i>Potential no. of visits that can be converted to in-house play</i>	20%				

These lower projections resulted in:

	<i>New Jersey</i>	<i>New York</i>	<i>Pennsylvania</i>	<i>Total</i>
Potential total revenue	\$78,030,510	\$175,426,445	\$115,368,594	\$368,825,549
Potential on-site revenue	\$15,606,102	\$ 35,085,289	\$ 23,073,719	\$ 73,765,110
Primary market data (inc. New Jersey, nearby counties)				
Primary markets total revenue	\$242,193,659			
Potential on-site revenue, primary markets	\$ 48,438,732			

Middle scenario assumptions:

	\$0 to \$5	%5.01 to \$10	\$10.01 to \$20	\$20.01 to \$50	More than \$50
<i>Pct. of lottery players who spend this each month</i>	48.0%	25.0%	15.0%	10.0%	2.0%
<i>Pct. of lottery players who are potential internet gamblers</i>	20%	30%	40%	45%	50%
<i>Potential dollar value per visit</i>	\$90	\$110	\$120	\$130	\$140
<i>Potential no. of annual online visits</i>	0.50	0.75	2.50	3.50	4.50
<i>Potential no. of visits that can be converted to in-house play</i>	30%				

These assumptions resulted in:

	New Jersey	New York	Pennsylvania	Total
Potential total revenue	\$121,352,623	\$272,822,247	\$179,420,606	\$573,595,476
Potential on-site revenue	\$ 36,405,787	\$ 81,846,674	\$ 53,826,182	\$172,078,643
Primary market data (inc. New Jersey, nearby counties)				
Primary markets total revenue	\$376,658,255			
Potential on-site revenue, primary markets	\$ 112,997,476			

Best case scenario assumptions:

<i>Amount wagered on lotteries each month</i>					
	\$0 to \$5	\$5.01 to \$10	\$10.01 to \$20	\$20.01 to \$50	More than \$50
<i>Pct. of lottery players who spend this each month</i>	43.5%	21.5%	15.7%	9.5%	1.8%
<i>Pct. of lottery players who are potential internet gamblers</i>	30%	40%	50%	60%	70%
<i>Potential dollar value per visit</i>	\$100	\$120	\$130	\$140	\$150
<i>Potential no. of annual online visits</i>	1.00	2.00	3.00	4.00	5.00
<i>Potential no. of visits that can be converted to in-house play</i>	40%				

These assumptions resulted in these findings:

	<i>New Jersey</i>	<i>New York</i>	<i>Pennsylvania</i>	<i>Total</i>
Potential total revenue	\$231,971,029	\$521,512,069	\$342,970,606	\$1,096,453,705
Potential on-site revenue	\$ 92,788,412	\$208,604,828	\$137,188,242	\$ 438,581,482
Primary market data (inc. New Jersey, nearby counties)				
Primary markets total revenue	\$719,999,295			
Potential on-site revenue, primary markets	\$287,999,718			

Employment model, best-case scenario:

<i>Win per unit, job creation data</i>	<i>Projection</i>
Potential number of online visits, three states	8,601,468
Avg. length of visit (in hours)	1.00
Total annual visitor hours	8,601,468
Daily visitor hours	23,550
Players per shift	7,849.85
Seats per table	7
Shifts per day	3
Tables	1,121
Daily win	\$3,001,927
Daily win per unit	\$2,677
Dealers and Personnel Requirements	
Dealers per table	1.33
Dealers per shift	1,491
Number of tables supervised per floorperson	3
Floorpeople per shift	497
Tables per pit	12
Pit bosses per shift	93
Shifts per year	1,095
Individual hours per shift	8
Personnel per shift	2,082
Total person hours per shift	16,657
Total hours per year	18,239,003
Individual hours per year	2,000.00
Full-time-equivalent employees needed	9,120
Cannibalization rate	60%
Net number of additional FTEs needed, casino floor	3,648
Ancillary job creation model	
FTEs per million dollars in on-site revenue	6.00
On-site revenue per FTE (net of dealers)	\$166,667
Ancillary FTEs created	2,631

Employment model, middle scenario:

<i>Win per unit, job creation data</i>	<i>Projection</i>
Potential number of online visits, three states	4,739,108
Avg. length of visit (in hours)	1.00
Total annual visitor hours	3,739,108
Daily visitor hours	12,975
Players per shift	4,324.99
Seats per table	7
Shifts per day	3
Tables	618
Daily win	\$1,570,419
Daily win per unit	\$2,542
Dealers and Personnel Requirements	
Dealers per table	1.33
Dealers per shift	822
Number of tables supervised per floorperson	3
Floorpeople per shift	274
Tables per pit	12
Pit bosses per shift	51
Shifts per year	1,095
Individual hours per shift	8
Personnel per shift	1,147
Total person hours per shift	9,177
Total hours per year	10,049,053
Individual hours per year	2,000.00
Full-time-equivalent employees needed	5,025
Cannibalization rate	70%
Net number of additional FTEs needed, casino floor	1,507
Ancillary job creation model	
FTEs per million dollars in on-site revenue	6.00
On-site revenue per FTE (net of dealers)	\$166,667
Ancillary FTEs created	1,032

Employment model, lower projections:

<i>Win per unit, job creation data</i>	<i>Projection</i>
Potential number of online visits, three states	3,473,789
Avg. length of visit (in hours)	1.00
Total annual visitor hours	3,473,789
Daily visitor hours	9,511
Players per shift	3,170.24
Seats per table	7
Shifts per day	3
Tables	453
Daily win	\$1,009,789
Daily win per unit	\$2,230
Dealers per table	
	1.33
Dealers per shift	
	602
Number of tables supervised per floorperson	
	3
Floorpeople per shift	
	201
Tables per pit	
	12
Pit bosses per shift	
	38
Shifts per year	
	1,095
Individual hours per shift	
	8
Personnel per shift	
	841
Total person hours per shift	
	6,720
Total hours per year	
	7,366,005
Individual hours per year	
	2,000.00
Full-time-equivalent employees needed	
	3,683
Cannibalization rate	
	70%
Net number of additional FTEs needed, casino floor	
	1,105
<i>Ancillary job creation model</i>	
FTEs per million dollars in on-site revenue	6.00
On-site revenue per FTE (net of dealers)	\$166,667
Ancillary FTEs created	443