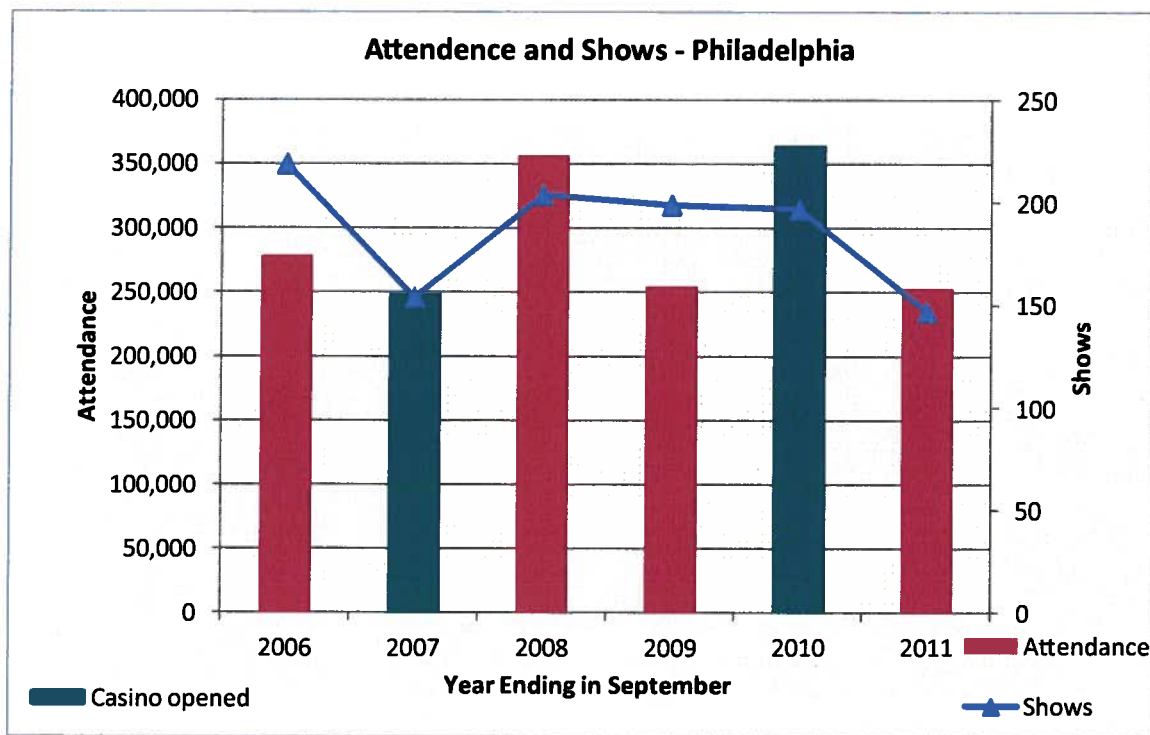


and the level of attendance. This would suggest that entertainment in this market is supply driven rather than being limited by demand. This in turn suggests that the relatively few concerts sponsored by the casino and the limited seating will have a minimal impact on the overall citywide entertainment market.

## Philadelphia

In Philadelphia we looked at five venues, ranging in types of entertainment from theatre to high profile headliners to low profile college-rock. Specifically, we aggregated historical data from the Trocadero Theatre (seats 1,200), Keswick Theatre (seats 1,300), Festival Pier (seats 5,500), the Liacouras Center (seats 10,000), and the Mann Center for Performing Arts (seats 14,000).



Source: Pollstar Pro, Custom Research, October 16<sup>th</sup>, 2012

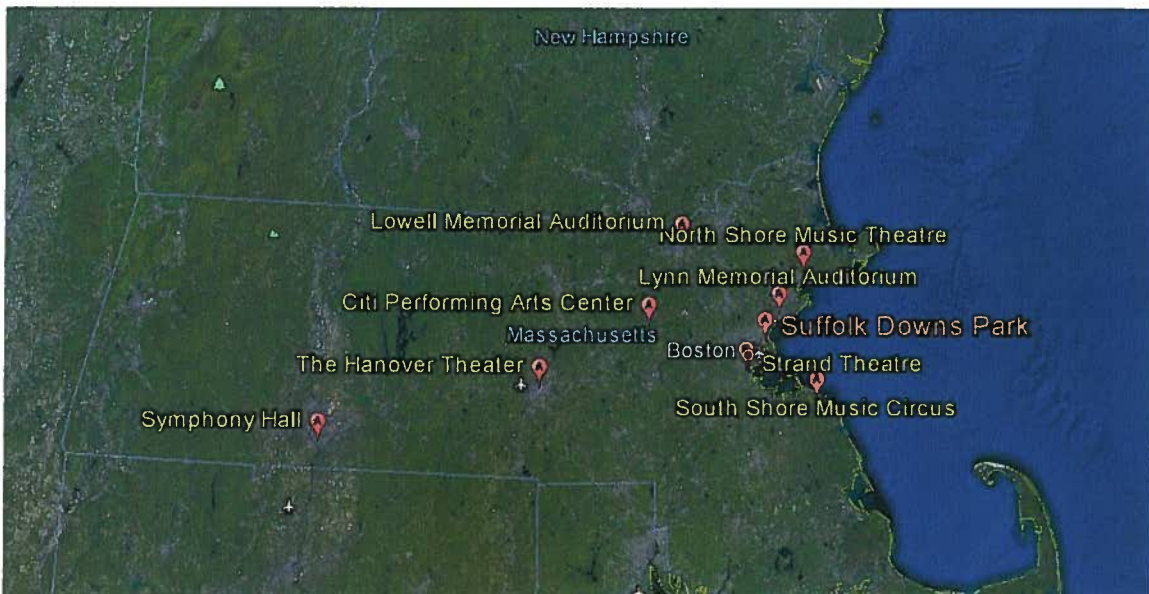
Harrah’s Chester Casino (now Harrah’s Philadelphia), which is approximately 15 miles south of downtown Philadelphia in the town of Chester, opened in January 2007, while Sugar House Casino opened in September 2010.

The chart above indicates that apart from two years—one of which being the year that Sugar House Casino opened in downtown Philadelphia (September 2010), attendance at Philadelphia shows has been relatively stable at around 250,000. In 2008 and then again in 2010 it shot up above 350,000 however this cannot be attributed to the casinos but is likely due to the number, type and quality of the shows in those years.

## *Potentially Impacted Venues in the Boston Area*

The entertainment market in Boston is as robust as Philadelphia's and, based on size of concert venues, is more robust than that of Pittsburgh. Like most major entertainment markets, Boston is home to a large variety of venues in terms of their size, type, and schedule of shows. However, the Massachusetts legislation defines an impacted venue as a not-for-profit or state-owned institution. The following description of potentially impacted venues is therefore limited to not-for-profit or public venues.

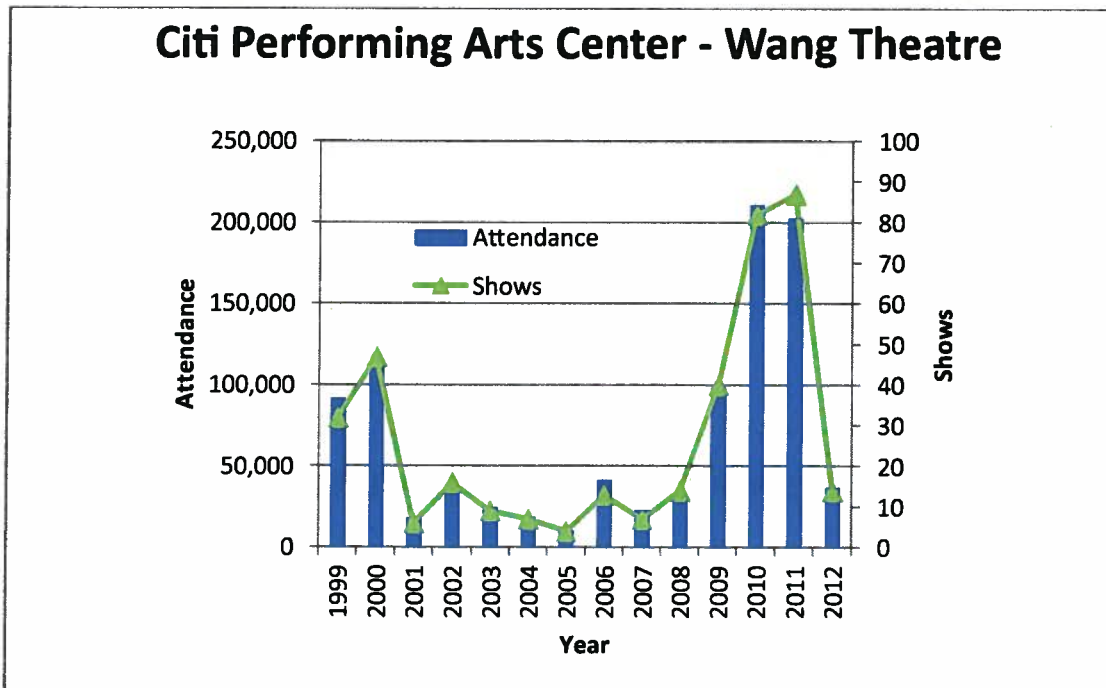
The map below depicts where each venue is located relative to Suffolk Downs Park. A description of each venue and a brief summary of the available data on shows and attendance follows. This data provide a baseline of the Boston entertainment market as well as a description of the types of venues that may qualify as "impacted," under Massachusetts gaming legislation.



### **Citi Performing Arts Center, Boston, MA**

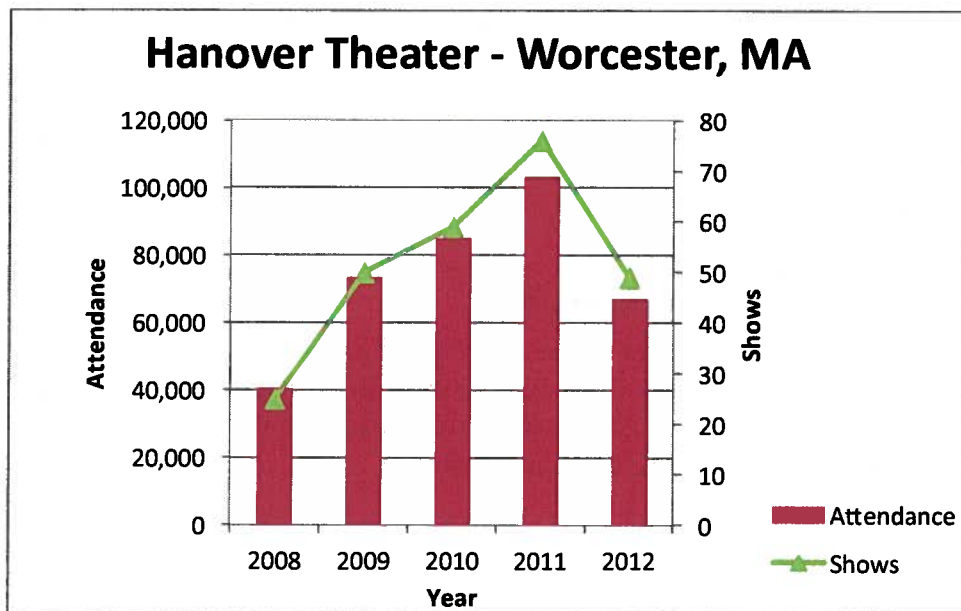
The Citi Performing Arts Center is a non-profit venue complex in Boston's historical Theatre District that includes the Wang Theatre (seats 3,600), Emerson Colonial Theatre (seats 1,700), and the Schubert Theatre (seats 1,500+). The Citi Performing Arts Center is the self-proclaimed "largest cultural venue [in New England]," and it strives to "honor all aspects of the performing arts, offering theatre, opera, classical and popular music, one-night engagements, international sporting events, and Broadway musicals."<sup>31</sup> Recent examples of their acts include Fiona Apple and Crosby, Stills, Nash and Young in the summer of 2012, with *Chicago the Musical* and the opera *Madam Butterfly* headlining in autumn 2012. Although data for the smaller Emerson and Schubert theatres are not publicly available, the chart below depicts reported shows and attendance at the Wang Theatre.

<sup>31</sup> <http://www.citicenter.org/about/>



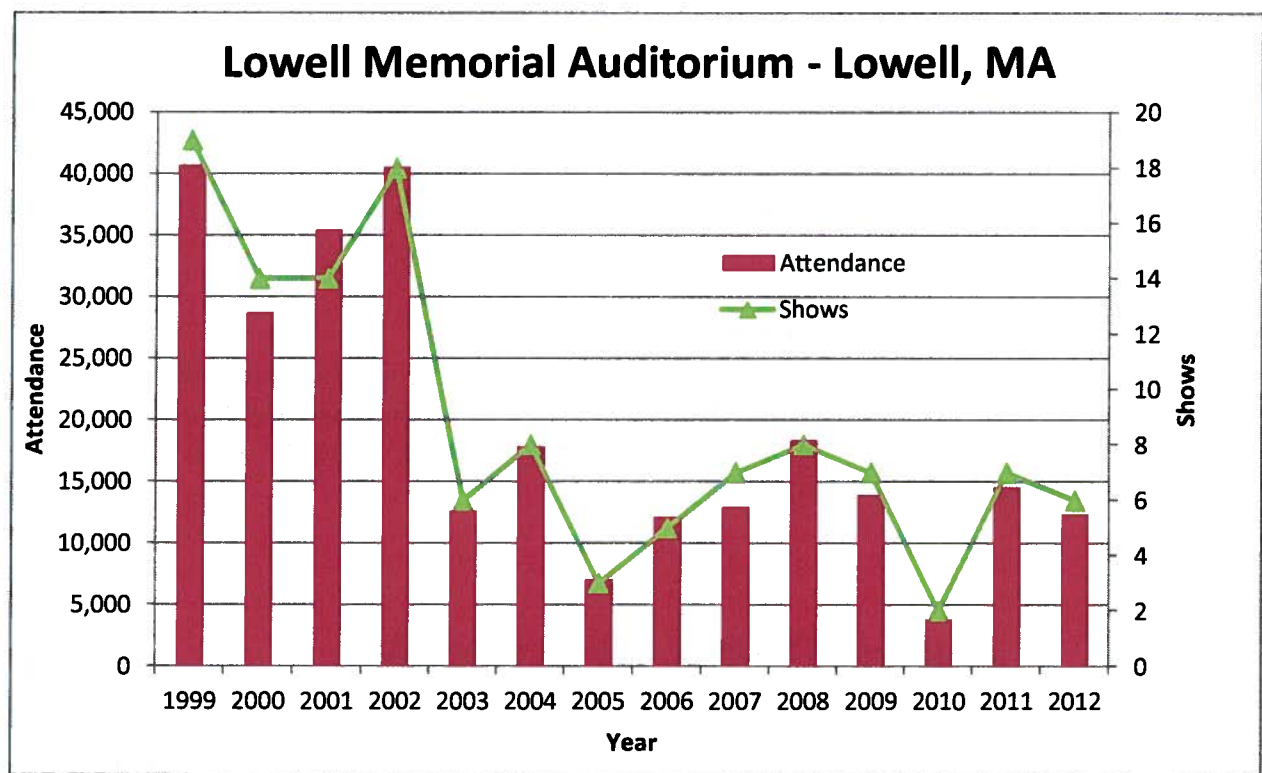
### Hanover Theatre, Worcester, MA

The Hanover Theatre is 2,300 seat performing arts center located in Worcester, MA 47 miles away, or a little over an hour's drive from Suffolk Downs Park. A non-profit theater since 2008, the Hanover Theatre hosts an array of performers including comedy acts, Broadway performances, musical artists, and plays.



## Lowell Memorial Auditorium, Lowell, MA

The Lowell Memorial Auditorium in Lowell, MA hosts musical artists, dance performances, specialty shows, and the occasional play or musical. The auditorium, which is located 34.5 miles away, or about a 45 minute drive from Suffolk Downs, at the entrance to Historic Lowell was originally a World War I monument that was revitalized and restored for use in 1979.<sup>32</sup> Today, it hosts the likes of Styx, Kenny Rogers, the Dark Star Orchestra, and the Pink Floyd Experience. A map depicting its location relative to Suffolk Downs and a chart illustrating the number of shows and attendance per year are shown below. The Lowell Memorial Auditorium seats 2,800.



## South Shore Music Circus, Cohasset, MA

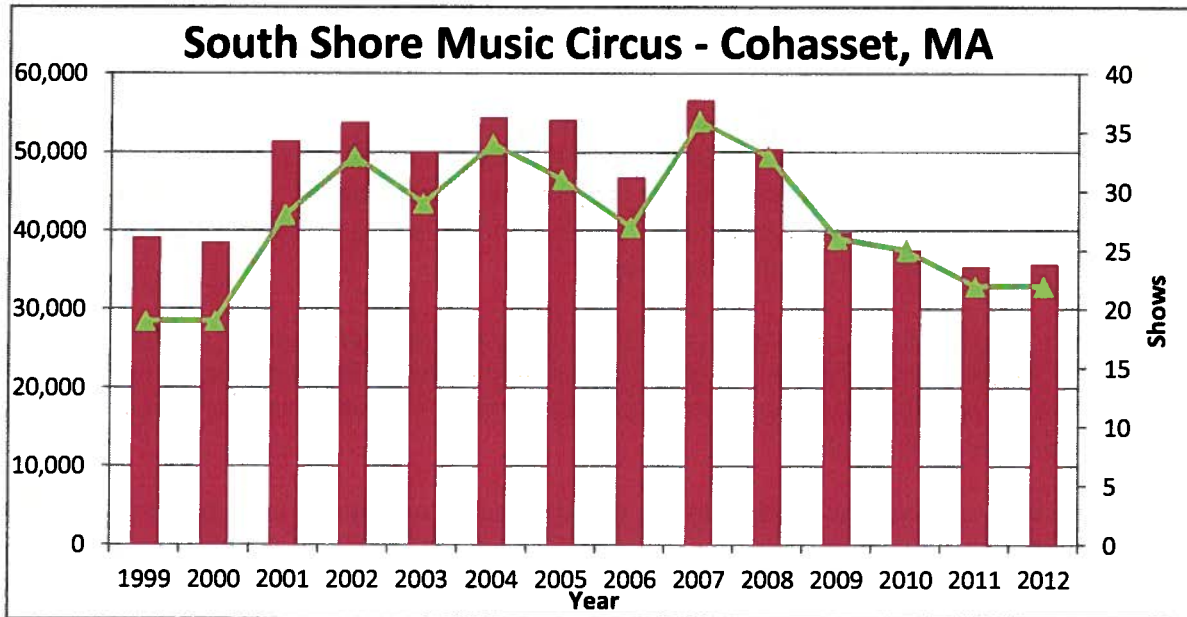
South Shore Music Circus and its sister venue, the Cape Cod Melody Tent are both owned and operated by the non-profit South Shore Playhouse Associates. Located 25 miles away, or about a 45 minute drive from Suffolk Downs, the South Shore Music Circus was built back in 1950 and up until 1990 it was home to a resident theatre company.

Today the 2,300 seat venue hosts mainly musical performers of world-class caliber.<sup>33</sup> It is one of

<sup>32</sup> <http://www.lowellauditorium.com/historyofthelma.html>

<sup>33</sup> <http://www.themusiccircus.org/>

only two tent-covered venues in the nation and attracts an audience from all along the Massachusetts coast.



### Lynn Memorial Auditorium, Lynn, MA

The Lynn Memorial Auditorium in Lynn, MA is a little under eight miles (a 15 minute drive) from Suffolk Downs. The 2,112 seat venue’s attendance data is not publicly available, but generally the venue is “known for classic rock concerts featuring headliners like Kansas and Foreigner,” but it also hosts comics, including Bill Cosby and Howie Mandel, community dance recitals and family movie nights.

The auditorium is closed during the summer months due to a lack of air conditioning, but it has played an important part in downtown Lynn’s revitalization. The city has put funds and time into revitalizing the auditorium in hopes that visitors will come for the shows and stay for Lynn’s other amenities. As the community development director, James Marsh put it:

“We’re right on the water; Lynn Woods is bigger than Central Park; we’ve got the Rock Hill Observatory; there’s a brand new sporting facility at Manning Field; and we have one of the best golf courses in Massachusetts.”<sup>34</sup>

<sup>34</sup> <http://lynnauditorium.com/about.html>

## **CityStage & Symphony Hall, Springfield, MA**

City Stage and Symphony Hall are two mutually owned and operated performing arts venues in downtown Springfield about 95 miles, or a two hour drive, from Suffolk Downs Park. Symphony Hall presents touring Broadway musicals, concerts and educational series, while CityStage is home to Off-Broadway musicals and comedies. Symphony Hall, which is also home to the Springfield Symphony Orchestra and hosts a variety of local events such as town meetings and graduations, can seat 2,611 individuals.<sup>35</sup> Across the street, the smaller CityStage seats 479 in its Blake Theatre.<sup>36</sup> In addition to musicals, plays, and symphony performances, CityStage and Sypmphony Hall also host a variety of quirkier shows such as wrestling matches, jugglers, and magic shows. Together, the two venues are responsible for bringing substantial economic activity and visitor spending to Springfield. In fact, contributing Western Massachusetts's economic growth is part of their mission statement:

“Mission: To consistently deliver high quality professional entertainment for all the citizens of Western Massachusetts thereby enhancing the quality of each life, increasing awareness and patronage of the performing arts, and actively contributing to the long-term economic growth and prosperity of our community.”<sup>37</sup>

Although CityStage and Symphony Hall do not report baseline revenue or attendance to PollStar, the venues themselves estimate that they host an average of 250 events while open from September to June.

## **North Shore Music Theatre, Beverly, MA**

The North Shore Music Theatre is a 1,500 seat venue featuring musicals, specialty shows, and musical artists. This non-profit theatre is located 20 miles up the coast from Suffolk Downs and has been in operation since 1954. While a detailed history of attendance and shows is not available after 2008, some upcoming performers include Beatlemania, LeAnn Rimes, and Weird Al Yankovitch. In addition to hosting musicals and musicians, the North Shore Music Theatre also hosts comedians such as Bill Cosby who will be performing at the theatre in January 2013.<sup>38</sup> A map depicting the theatre's location relative to Suffolk Downs Park is below.

## **Strand Theatre, Dorchester, MA**

The Strand Theatre is non-profit community arts center located just 8.8 miles south of Suffolk Downs Park in Boston's Upham's Corner. Originally an early 20<sup>th</sup> Century vaudeville theatre and movie house, Strand Theatre shut its doors in 1968 due to declining ticket sales. In the 1970s, however, the surrounding community of Dorchester mobilized to re-open the theatre. With federal and state funding the City renovated the theatre, leasing it to the M. Harriet McCormack Center for the Arts for a dollar a year beginning in 1979. Although management has changed hands since then, the Strand Theatre remains a City owned, nonprofit-operated venue. The Strand Theatre hosts a variety of events, from big name shows such as Aerosmith to, after school

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<sup>35</sup> [http://www.symphonyhall.com/pages/about\\_us.html](http://www.symphonyhall.com/pages/about_us.html)

<sup>36</sup> <http://www.symphonyhall.com/pages/Rentals.html>

<sup>37</sup> [http://www.symphonyhall.com/pages/about\\_us.html](http://www.symphonyhall.com/pages/about_us.html)

<sup>38</sup> [http://www.nsmt.org/index.php?option=com\\_content&task=view&id=25&Itemid=2237](http://www.nsmt.org/index.php?option=com_content&task=view&id=25&Itemid=2237)

## CONCLUSION AND RECOMMENDATIONS

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Overall there is no evidence to suggest that local entertainment or cultural institutions will suffer declines in visitation as a result of the advent of casinos. However, it is recommended that the casino take an active role in integrating itself into the community through positive actions to support local entertainment and cultural intuitions.

There are certain steps that the local community and the developer can take to ensure that the introduction of a casino benefits local cultural institutions and entertainment venues. In light of Caesars history of engaging with local cultural and entertainment venues, and given the unique concerns of the Boston cultural and entertainment business leaders and legislative representatives, we have developed the following recommendations.

For example the casino should:

- Work to actively promote area amenities via on-site concierge to the Museum of Fine Arts, the Museum of Science, and the Citi Performing Arts center or additional/other cultural and entertainment venues as deemed appropriate.
- Provide on-property advertising and refer customers directly to these and other attractions.
- Provide funding to the arts through donations and grants.
- Provide expertise to non-profit organizations through casino executive participation on governing bodies or as requested.
- Encourage employee volunteerism.
- Establish a cooperative scheduling arrangement with major local entertainment venues.
- Purchase tickets to local non-casino entertainment venues for valued casino customers.

# APPENDIX A

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## *Differing Motivations*

While there is no existing literature regarding competition between museums and casinos, both industries and academics have produced demographic and motivational research regarding who visits casinos and museums respectively, and why. A short review of this literature provides the basis of a comparison between the two markets segments.

### **Casinos**

WMS Gaming's 2009 Active Gambler Profile found that the top 10 leisure activities for gamers are:

Top Ten Leisure Activities of Active Gamblers	
Activity	Percent
Gone shopping at the mall	85
Bought something online	81
Gone to the movies	68
Played video games	47
Gone to a concert	37
Visited a museum	36
Attended a professional sporting event	35
Watched a pay-er-view movie or special event on TV	28
Gone fishing	21
Visited a spa	20

\*Data from WMS Gaming Active Gambler Profile Report 2009, pg. 71

Through surveys and focus groups with individuals who visit casinos regularly, WMS found that gamblers go to casinos primarily in order to experience “me time” and are looking for a highly personalized experience.<sup>41</sup> WMS calls this phenomenon “iTime” and advises casinos to capitalize on this motivation among their clients.

Concordant with the idea that individuals visit casinos as a personal indulgence, casino-goers ranked “Family Attractions” well within the bottom half of important attributes when asked to choose the casino attributes that are most important in deciding where to gamble,. Likewise, Productions Shows and concerts were also ranked in the bottom half, while Art Exhibits were nowhere to be found on the list.<sup>42</sup>

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<sup>41</sup> WMS Gaming. *2009 Active Gambler Profile Report*. pg. 129

<sup>42</sup> WMS Gaming, pg. 79



While 36 percent of regular gamblers also rank visiting a museum in their top activities as indicated in the table above, gamblers have very specific motivations for visiting a casino. The section below indicates that these motivations are distinct from those involved in museum-going.

## **Museums**

Aside from a small group of highly educated individuals who view museum-going as a personalized form of recreation, most people who visit museums do so with the expectation that they are educating themselves and importantly, their children<sup>43</sup>

One study has found that museum-goers often have family based motivational values for visiting museums; in other words, many consider it something that “the family can do together” and feel a “sense of accomplishment,” for having taken their children to a museum<sup>44</sup>.

The occasional museum visitor lists “zoos, picnic areas, outdoor art, festivals and museums when special exhibitions or events were scheduled,” but not casinos, as places he or she is likely to visit.<sup>45</sup>

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<sup>43</sup> Prentice R., Davies A., Beeho, A. (1994). “Seeking generic motivations for visiting and not visiting museums and like cultural attractions.” *Museum Management and Curatorship* 16:45-70.

<sup>44</sup> Thyne, M. (2001). “The importance of values research for nonprofit organizations: The motivation-based values of museum visitors.” *International Journal of Nonprofit and Voluntary Sector Marketing* 6(2):116–130.

<sup>45</sup> Slater, A. (2007). “‘Escaping to the gallery’: understanding the motivations of visitors to galleries.” *Int. J. Nonprofit Volunt. Sect. Mark.* 12:149-162.

## Disclaimer

Certain information included in this report contains forward-looking estimates, projections and/or statements. The Innovation Group has based these projections, estimates and/or statements on our current expectations about future events. These forward-looking items include statements that reflect our existing beliefs and knowledge regarding the operating environment, existing trends, existing plans, objectives, goals, expectations, anticipations, results of operations, future performance and business plans.

Further, statements that include the words "may," "could," "should," "would," "believe," "expect," "anticipate," "estimate," "intend," "plan," "project," or other words or expressions of similar meaning have been utilized. These statements reflect our judgment on the date they are made and we undertake no duty to update such statements in the future.

Although we believe that the expectations in these reports are reasonable, any or all of the estimates or projections in this report may prove to be incorrect. To the extent possible, we have attempted to verify and confirm estimates and assumptions used in this analysis. However, some assumptions inevitably will not materialize as a result of inaccurate assumptions or as a consequence of known or unknown risks and uncertainties and unanticipated events and circumstances, which may occur. Consequently, actual results achieved during the period covered by our analysis will vary from our estimates and the variations may be material. As such, The Innovation Group accepts no liability in relation to the estimates provided herein.

# **EXHIBIT 13**



## Emergency Services Available

The Mohegan Sun Massachusetts (MSM) destination resort will be located entirely in the City of Revere (the City), which is admirably served by the men and women of the Revere Police Department and the Revere Fire Department. The resources of those departments and the mitigation of MSM's impacts on their operations are discussed in detail below.

### Revere Police Department

The City of Revere Police Department (Revere PD) is led by Chief Joseph Cafarelli from a recently built, state-of-the-art headquarters located fewer than 1,000 feet from the entrance to MSM. Revere PD also has a new substation just off of Broadway in the business district.

The police force comprises 90 uniformed personnel, including Chief Cafarelli, an Executive Officer, a Senior Captain, three Captains, 12 Lieutenants, 17 Sergeants, and 55 patrol officers. Revere PD also employs 16 civilian personnel. For the current fiscal year ending June 30, 2014, the Revere PD budget is \$9,058,364. Attachment 5-38-02 is an organization chart for the Revere PD.

The current deployment plan for the Revere PD calls for a supervisor and 7 cars during day and evening shifts and a supervisor and 6 cars on the overnight shift from midnight to 8:00 a.m.

Revere PD resources will not be required to address criminal activity relating to the operation of MSM's gaming establishment or relating to games or gaming that occur inside MSM, as the Gaming Act gives exclusive jurisdiction for those items to the Gaming Enforcement Unit of the Massachusetts State Police (MSP) as set forth in G.L. c. 23K, § 6(f). As to all other policing matters, the Revere PD has concurrent jurisdiction with the MSP Gaming Enforcement Unit.

The Revere PD has expressed its intent to exercise its jurisdiction over the destination resort's property. It remains for the Revere PD and the Gaming Enforcement Unit to negotiate and agree upon the memorandum of understanding (MOU) contemplated by the Gaming Act (at G.L. c. 23K, § 6(f)) that will set forth procedures and responsibilities with respect to areas of shared jurisdiction. Topics that remain to be resolved in the MOU include procedures involving (i) first responder calls from MSM; (ii) emergencies occurring within MSM, including in the gaming area; and (iii) criminal investigations involving employees or patrons of a gaming establishment. The Gaming Act invites host community law enforcement to the place officers with the Gaming Enforcement Unit, and the Revere PD has expressed its intent to do so.



Beyond the officer to be assigned to the Gaming Enforcement Unit, the additional demands upon the Revere PD remain somewhat undetermined in advance of opening and operations of MSM, due in part to the fact that the MOU with the MSP has not been completed.

One factor that mitigates the potential for additional police work caused by incidents at the resort is the seriousness with which MSM's operator, the Mohegan Tribal Gaming Authority, approaches security. Many of the members of its security force are former law enforcement or military personnel. MTGA prides itself on having well trained employees who proactively interact with patrons to deescalate and resolve difficult situations. They are also trained to recognize the situations that require police involvement and do not hesitate to bring them in. A sense of the scope of MTGA's detailed planning for incident and emergency response can be gained from the Table of Contents to MTGA's Emergency Preparedness Plan, which is Attachment 5-38-03.

MSM has not asked Revere to take its commitment to public safety and security on faith. Through the Host Community Agreement, MSM is obligated to go far beyond the emergency response plan required by the Gaming Act (at G.L. c. 23K, § 25(j)) to reduce its impact on the public safety services of the City. Specifically, MSM is required to develop, implement and fund a plan that provides any necessary on-site security, fire and life safety services, including on-site emergency medical technicians. In addition, MSM must ensure that all of the on-site security, fire and life safety personnel, and its emergency medical technicians, ambulance services, and emergency management services, work closely with appropriate City departments and agencies. These obligations are set forth in Section 2.D.4 of the HCA, which is Attachment 5-04-01.

Beyond the property boundary, the Revere PD will face some additional demands due to the traffic passing through the City heading to and returning from MSM. This will include responding to traffic accidents involving MSM patrons and conducting anti-OUI operations. The impact of additional resort generated vehicle trips will be mitigated by the millions of dollars MSM will spend on infrastructure improves, as detailed in Section 2.A of the HCA. MSM has further committed to establish a Guaranteed Ride Home program at the resort to complement the extensive training of beverage servers, security, valet attendants and other personnel, which along with liquor service shut-off controls and other best practices, are designed to minimize the hazards of potentially intoxicated persons at the resort. The Guaranteed Ride Home program will help ensure that patrons who may be impaired do not operate a motor vehicle. MSM will prominently advertise and sponsor this service.. This obligation, as set forth in Section 2.L of the HCA, will further mitigate the traffic patrol related demands on the Revere PD.

The additional policing impacts of the MSM destination resort are stipulated to and addressed in the HCA, Section 1.A.3 of which provides (emphasis added):

The Project may have an impact on public safety in the City and is expected to require additional expenditures by the City in order to provide police services to the Project and the areas located near the Property. In addition to the relevant sections of Chapter 23K that address the provision of



state and local police services to the Project, the Developer's payments to the City under this Agreement will provide the City with adequate resources to mitigate any such impacts.

The payments from MSM to the City are set forth in detail in Section 2.B of the HCA. They include up to \$33 million of Initial Payments due in annual installments of \$6 million or \$9 million prior to MSM's opening. Upon opening, the City receives the Community Impact Fee, which will never be less than \$25 million per year. Section 2.b.4 of the HCA sets forth the City's intent to use portions of the Community Impact Fee to mitigate the impacts of the project, including an appropriation of \$2 million for the Revere PD in the first year of MSM operations.

## Revere Fire Department

As stated on its website, the mission of the Revere Fire Department (RFD) is to "provide high quality emergency and life safety services within the confines of the City of Revere, by maintaining a specialized expertise in and placing highest priority on emergency response to all life safety situations, as well as proactive customer safety services."

The RFD accomplishes this mission through its 102 members, including seven staff positions (Chief of Department Gene Doherty, a Senior Deputy Chief, and five Deputy Chiefs), 32 Officers (13 Captains and 19 Lieutenants) and 63 firefighters. For the current fiscal year ending June 30, 2014, the Revere FD budget is \$8,377,444. Attachment 5-38-04 is an organization chart for the Revere FD.

This force is deployed from four active fire stations, including one fewer than 1,000 feet from MSM's main entrance. This station on Revere Beach Parkway houses both an engine company and a ladder company as well as a Deputy Chief. The Revere FD's other equipment includes three additional engine companies and another ladder company housed at the other three stations. Line operations are conducted through four groups, each of which is led by a Deputy Chief as officer in charge and includes 23 or 24 Officers and firefighters per shift.

The Revere FD is a member of MetroFire, an association of fire departments in the metropolitan Boston area, through the Revere FD has mutual aid relationships nearby municipalities and the Massport Fire Department to provide necessary support or coverage in the event of a major fire event at MSM.

The principal impact of MSM operations on the Revere FD will be with respect to medical calls. While ambulance service in Revere is provided through a contract with the Cataldo Ambulance company, the Revere FD sends an engine company to all ambulance calls. Data reported to the Massachusetts Fire Incident Reporting System indicate that about two-thirds of the department's 8,500 calls each year are rescue or emergency medical services calls.

However, MSM-related emergency medical calls to which the Revere FD will be required to respond will be limited to those occurring away from the resort itself, such as in automobile accidents involving MSM patrons. As noted above, the HCA requires MSM itself to provide on-site life safety services, including emergency medical technicians.



Moreover, as with policing impacts, MSM and Revere have stipulated in the HCA that development and operation of the destination resort is expected to require additional expenditures by the City for public safety and municipal services such as fire and emergency medical responses. In Sections 1.A.3 and 1.A.4 of the HCA, the City has stipulated that MSM's payments under the HCA "will provide the City with adequate resources to mitigate any such impacts." With specific respect to the Revere FD, and pursuant to Section 2.b.4 of the HCA, the City intends appropriate \$2 million for the department out of the Community Impact Fee that MSM will pay the City in the first year of operations. As noted above, the Community Impact Fee will never be less than \$25 million per year.

## Revere Ambulance Service

As noted, the City does not have its own ambulance corps. Like many North Shore cities and town, it utilizes a private firm, Cataldo Ambulance, to provide any necessary ambulance services. As reported by Fire Chief Doherty, the City's contract with Cataldo requires the company to respond to calls within 8 minutes. Cataldo directly bills the patient (or his or her insurance company), and the city incurs no cost. In addition, as seen above, the HCA requires MSM to provide on-site EMTs and to arrange ambulance services. Accordingly, there is no fiscal impact on the City as a result of additional ambulance service calls arising out of MSM operations.

# **EXHIBIT 14**





**DANIEL RIZZO**  
Mayor

# The City of REVERE, MASSACHUSETTS

POLICE DEPARTMENT  
Joseph Cafarelli • CHIEF OF POLICE  
400 REVERE BEACH PARKWAY, REVERE, MA 02151

(781) 286-8326 FAX (781) 286-8328

January 23, 2014

Mitchell Etes  
Mohegan Sun Massachusetts, LLC  
One Mohegan Sun Boulevard  
Uncasville, CT 06382

RE: Mutual Aid – Revere Police Department

Dear Mr. Etes:

As provided by Mass. Gen. Laws ch. 40, section 8G, the City of Revere Police Department is a party to a number of mutual aid agreements with neighboring municipalities, including an agreement with the City of Everett. Public safety services can be greatly enhanced through a mutual aid agreement, the obvious benefit of which is assistance from outside police departments should the need arise.

However, it is my opinion that no increase in mutual aid assistance from any of Revere's neighboring municipalities is to be expected because of the opening of the proposed gaming facility at Suffolk Downs in Revere. The expected financial resources available to the City, as provided in the Host Community Agreement with Mohegan Sun, should adequately support the public safety demands associated with the gaming facility. Assuming the allocation of these financial resources to address public safety needs, I have no reason to anticipate any increased demand for mutual aid once the gaming facility is open to the public.

If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Joseph Cafarelli  
City of Revere Police Chief

# **EXHIBIT 15**



DANIEL RIZZO  
Mayor

# The City of REVERE, MASSACHUSETTS

## FIRE DEPARTMENT

EUGENE W. DOHERTY • CHIEF OF DEPARTMENT

400 BROADWAY, REVERE, MA 02151

781-286-8365 • FAX 781-286-8375

January 23, 2014

Mitchell Etess  
Mohegan Sun Massachusetts, LLC  
One Mohegan Sun Boulevard  
Uncasville, CT 06382

**RE: Mutual Aid – Revere Fire Department**

Dear Mr. Etess:

As provided by Mass. Gen. Law's Ch. 48, section 59A, the City of Revere Fire Department and its counterparts in neighboring communities provide and receive mutual aid assistance. Revere is a party to the MetroFire, Inc., mutual aid agreement. Fire safety and emergency services can be greatly enhanced through mutual aid, the obvious benefit of which is assistance from neighboring fire departments should the need arise.

However, it is my opinion that no increase in mutual aid assistance from any of Revere's neighboring municipalities is to be expected because of the opening of the proposed gaming facility at Suffolk Downs in Revere. The expected financial resources available to the City, as provided in the Host Community Agreement with Mohegan Sun, should adequately support the demands on fire and emergency services associated with the gaming facility. Assuming the allocation of these financial resources to address fire and emergency service needs, I have no reason to anticipate any increased demand for mutual aid once the gaming facility is open to the public. Moreover, although Revere and the City of Malden share a fire station with separate and distinct facilities on the north side of Revere, I do not anticipate any increase in mutual aid assistance from the City of Malden from the shared station due to the proposed gaming facility at Suffolk Downs.

If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Eugene W. Doherty  
Chief of Department

# **EXHIBIT 16**

# Casinos and Crime

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**Prepared By: The Innovation Group**

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# Casinos and Crime

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## Executive Summary

The most authoritative statement on the relationship of casinos and crime was made in independent research conducted as part of the National Gambling Impact Study in 1999, which was commissioned by the U.S. Congress:

First, the casino effect is not statistically significant for any of the bankruptcy or crime outcome measures..... This is not to say that there is no casino-related crime or the like; rather, these effects are either small enough as not to be noticeable in the general wash of the statistics, or whatever problems that are created along these lines when a casino is built may be countered by other effects.

In fact, the balance of the evidence suggests that citywide crimes are unlikely to increase. The strongest example of this can be found in Atlantic City where crime rates decreased after casinos were developed. It is highly likely that any crimes associated with casinos are either offset by the economic benefits brought by casinos or the level of crime is so small as to be overwhelmed by other more significant factors, such as the economy.

It can be concluded that, on a citywide basis, the development of Suffolk Downs is unlikely to increase crime rates, and in fact there is the potential that crime rates will actually decline. The mechanism underlying this potential decline is related to increases in employment which removes the monetary impetus for the commission of some crimes. As the January 2005 report by the Rappaport Institute for Greater Boston and the John F. Kennedy School of Economics at Harvard University states:

In sum, casinos are **not** associated with general increases in crime rates.

While the evidence shows that crime rates are generally unaffected in a measurable way at the city- or county-level, there is the concern that crime would increase at the neighborhood level where the casino is located. This is based on the proposition that if there is a substantial increase in suitable targets, then there is the potential that criminals will focus on this area.

However, casinos are acutely aware of that potential and therefore devote considerable resources in providing adequate security to deter on-site crimes. Based on the data, there is no evidence for large increases in crimes within adjacent casino neighborhoods. In an urban setting where sufficient on-site security is provided, and with supplemental police patrols provided in the surrounding neighborhoods, major criminal activity can be minimized and increases in crime can be effectively eliminated.

As it relates to the development of a casino at Suffolk Downs, we find that there is no evidence to support either an increase in citywide or neighborhood crimes.

To ensure that the impact on the neighborhood is minimized, the following actions should be considered:

1. Ensure that the casino has more than adequate on-site security in the building and especially within the parking lots or garages.
2. Ensure a prominent level of security off the premises provided for by casino-sponsored additional police patrols in the local neighborhoods.
3. Implement pro-active monitoring of problem gambling at the facility through self-exclusion programs.
4. Develop an information package to address citizens' concerns regarding the true facts in relation to casinos and crime.
5. Recommend that the current crime reporting system be reviewed to ensure that it will adequately capture and identify casino related crimes.

## Review of the Research

In assessing the issue of casinos and crime, we have examined the following:

- First, a broad examination of national studies and key methodological debates.
- Secondly, a review of secondary research and qualitative studies at the local level.
- Finally, primary research conducted by the Innovation Group of neighborhood-level impacts.

## National Studies and Methodology Discussion

A number of broad studies of the social and economic impact of casinos have been conducted in the United States. In the late 1990s, prompted by the expansion of casinos throughout the United States, mainly in the form of riverboat casinos, Native American casinos, and racetrack slot parlors, Congress set up the National Gambling Impact Study Commission (NGISC). Its findings were released in 1999.

The Commission retained the National Research Council (NRC) to review the existing research on the socio-economic impacts of casino development. The NRC concluded that the existing research on the subject was inadequate:

The NRC project involved a review of all existing and relevant studies by representatives of a variety of scientific fields. In the end, NRC recommended that further study be initiated. Study of the benefits and costs of gambling "is still in its infancy." Lamenting past studies that utilized "methods so inadequate as to invalidate their conclusions," the absence of "systematic data," the substitution of "assumptions for the missing data," the lack of testing of assumptions, "haphazard" applications of estimations in one study by another, the lack of clear identification of the costs and benefits to be studied, and many other problems, NRC concluded the situation



demands a "need for more objective and extensive analysis of the economic impact that gambling has on the economy."<sup>1</sup>

The Commission then retained the National Opinion Research Center (NORC) to undertake said "objective and extensive analysis" concerning crime impacts. The NORC came to the following conclusion:

First, the casino effect is not statistically significant for any of the bankruptcy or crime outcome measures..... This is not to say that there is no casino-related crime or the like; rather, these effects are either small enough as not to be noticeable in the general wash of the statistics, or whatever problems that are created along these lines when a casino is built may be countered by other effects.<sup>2</sup>

Despite the Commission's authoritative findings, some researchers continue to claim that casinos cause crime. However, there are three major flaws in much of this research:

1. Much of the research that attributes an increase in crime to casinos has ignored the temporary population increases brought about by casino visitation. When crime rates are calculated not accounting for the influx of visitors, there appears to be an increase in crime. While this may be true in absolute terms, it radically overestimates the increase in likelihood of a residents being victims of crime.
2. Further to #1, some research applies crimes such as on-site thefts of casino visitors to the local population, leading to an invalid increase in the local crime rate.
3. The crimes rates are not studied over a sufficient period of time and therefore temporary increases or long term trends attributable to more primary causal factors are not always recognized or are misinterpreted.

One of the earliest examples of flawed research related to Atlantic City. The **number** of crimes tripled after casinos opened in 1978, and some researchers applied the increase to the local resident population, which in the resulting invalid calculation resulted in a tripling of the crime **rate**. However, most of the increase related to thefts within the casinos, which did not impact the local population. A valid calculation of the crime rate has to include the visitation base.

Some early researchers realized the importance of accounting for visitor influx. In 1998 Douglas Seay reported on the crime figures for Atlantic City before and after the casino openings.

When the gross numbers of crimes (based on the FBI's Uniform Crime Report Index [UCR]) in Atlantic City before and after the opening the first casinos in 1978 are compared, there is little dispute that there was an immediate and substantial increase in virtually all categories of crime.

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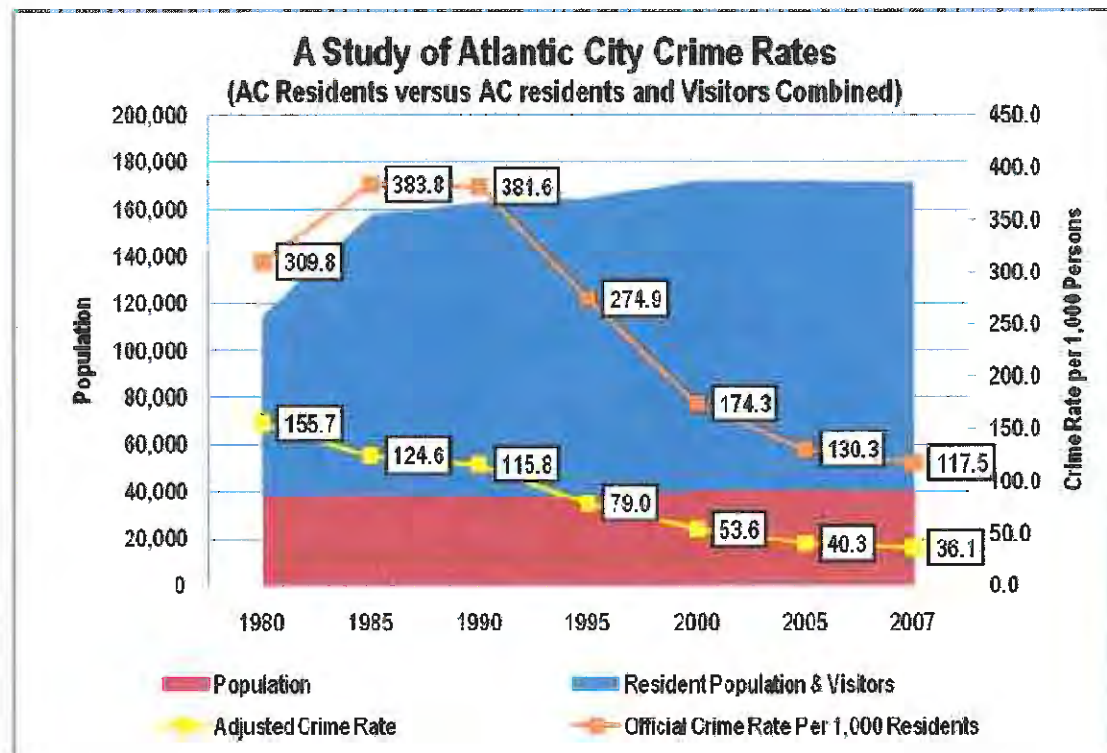
<sup>1</sup> National Gambling Impact Study, Chapter 7. 1999. *Gambling's Impact on People and Places*.

<sup>2</sup> The National Gambling Impact Study Commission, "National Gambling Impact Study" (1999).

.... There may be more crime, but it may be entirely commensurate with the larger tourist-padded population base, with the net impact on individuals being more or less benign.<sup>3</sup>

As gaming in Atlantic City expanded and matured during the past two decades, the crime rate continued to decline. Factors likely include an increase in casino employment and law enforcement resources, safer infrastructure with well-lit garages, and an increase in general tourism activity. According to the latest available annual data, this decline in crime rates per 1,000 residents continued through 2007 to a rate of 36.1 per thousand residents. The chart below illustrates crime rate trends since 1980.<sup>4</sup>

In actuality, therefore, there has been a *decreased* chance of being a victim of crime since casinos were developed in Atlantic City.



The Rappaport Institute for Greater Boston and the John F. Kennedy School of Economics at Harvard University (Baxandall and Sacerdote 2005) in a national, county-level study of Native American casinos found a slight decrease in crime rates after casinos opened. In the total sample group of 156 counties, the Rappaport study found a decrease of 3 reported crimes per 1,000 residents.

<sup>3</sup> Seay, D. (1998). *Gambling and crime*. National Gambling Impact Study Commission.

<sup>4</sup> Margolis, J. & Altheimer & Gray. (December 1997). *Casinos and crime: An analysis of the evidence*. American Gaming Association. <http://www.americangaming.org/assets/files/studies/Crime.pdf>

Two studies performed in the last decade purported to show a correlation between crime and casinos. In a statistical analysis of all U.S. counties, Grinols and Mustard (2000; updated 2004) estimated that a statistically significant proportion of violent and property crimes in casino counties could be attributed to casinos. In a study of Native American casinos, the National Bureau of Economic Research (NBER) found a measurably smaller increase. Unlike the NBER study, the Grinols study did not control for upward trends statewide, and thus came up with a higher estimate (i.e. crime was rising in the area at large, and not specifically at the casinos).

In sorting out the discrepancy between the Rappaport study and the Grinols/NBER, one critical difference in methodology is at work: the Rappaport study looked at what happens on the casino premises versus within the local community, whereas Grinols and NBER do not distinguish between on-site and off-site crimes.

For instance, the Rappaport study looked at crime trends in Ledyard, Connecticut (which hosts the Foxwoods casino) from 1991 to 1998. They found that crimes outside the casino increased from 214 in 1991 to 364 in 1998. In subsequent years, State Police data show that off-casino crimes in Ledyard fell below pre-casino levels. As with Ledyard, the number of crimes reported in Montville "remained relatively constant," which the authors conclude is "surprising since the sheer increase in activity around these towns might have led to greater crime."<sup>5</sup>

Furthermore, Grinols and NBER use "undiluted" crime rates. In other words, casino visitors are not included in the base population, which inflates the crime rate relative to the local population. In the Ledyard experience, for example, there were approximately 1,000 crimes committed on the premises (mostly minor thefts, traffic violations, DUI and disorderly conduct related crimes) of the casino by an estimated 6-8 million visitors to the casino (minus crimes committed by employees). Applying those crimes to the local resident population only would of course result in an alarming increase in crime rates.

Baxandall and Sacerdote responded directly to the NBER study and the use of undiluted rates in the following statement:

Our analysis shows that while total crime can be expected to increase when casinos open, the increase is due to increased population, not to a casino-created crime wave. Looking at FBI indexed crimes per resident in all [156] counties; we find that introducing a casino is associated with a decrease of 3 reported crimes per 1,000 people. The introduction of a casino, however, had no statistically significant effect on per-capita crime rates in either large-population casino counties or in large-casino counties. The per-capita crime rate in the 9 large-population counties that also hosted large-capacity casinos dropped 6 crimes per 1,000 residents, however.<sup>6</sup>

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<sup>5</sup> Baxandall, P. & B. Sacerdote (January 2005). *The Casino Gamble in Massachusetts: Full Report and Appendices*. Rappaport Institute for Greater Boston, John F. Kennedy School of Economics, Harvard University. Page 14.

<sup>6</sup> IBID. As summarized in their 2008 report, "Betting on the Future: The Economic Impact of Legalized Gambling."

From their total sample of 156 casino counties, the Rappaport study isolated out 57 counties with large casinos and relatively low population and nine counties with both large casinos and large populations to see if there were statistical differences in terms of community impacts. The following table shows their results:

**Rappaport Study Results**

	All casino-counties	Large -capacity casino counties	Populous casino counties
Population growth (%)	<b>+5*</b>	<b>+8.6</b>	<b>+8.1*</b>
Total employment (%)	<b>+6.7*</b>	<b>+14.9*</b>	<b>+5.7</b>
Unemployment (%)	-0.3	<b>-1.2*</b>	<b>+0.5</b>
House prices	<b>+\$5,869</b>	<b>+\$8,924</b>	<b>+\$7,083</b>
Crime (per 1,000 people)	<b>-3</b>	<b>-6</b>	<b>-1</b>

Statistically significant results are in bold (95% confidence interval). Asterix denotes higher levels of statistical significance (99% confidence).

Baxandall and Sacerdote conclude that:

In sum, casinos are not associated with general increases in crime rates. The total number of crimes can be expected to increase with the introduction of casinos, but only because casinos are associated with population increases which are far larger than any possible decrease in the number of crimes per resident.

Grinols acknowledges that casinos can reduce crime in the first two years by increasing employment, which thus would cause a decline in the population of individuals who might be financially motivated to commit crime. In addition, increases in police services as a result of casino funding temporarily depress crime. He claims, however, that by year three or four, the impact of problem gambling begins to take effect, and that crime begins to rise as problem gamblers run out of assets or credit and turn to stealing to support their addiction (i.e. "time lag" or "intertemporal" shifts in crime impacts). As we discuss in a later section, however, the impact of problem gaming on crime rates and bankruptcies is also highly contentious.

In summary, there is no evidence from this gross level data that the advent of casinos have a measurable impact on city-wide crime rates in general. It is highly likely that any crimes associated with casinos are either offset by the economic benefits brought by casinos or the level of crime is so small as to be overwhelmed by other more significant factors such as the economy.

From this it can be concluded that while the number of crimes reported on-site at Suffolk Downs will likely increase, overall crime rates will likely decline when gaming visitation is accounted for. Furthermore, the number of crimes in the surrounding area is unlikely to increase, or may even decrease as a result of increased employment and law enforcement presence.

## Local Studies and Qualitative Research

There is a plethora of local studies and expert witness opinion supporting the Rappaport and National Gambling Impact Study Commission findings.

Two separate studies on the impact of crime in Joliet (1994 and 1997) reported no increase in crime from riverboat casinos. The first study was performed by the Criminal Justice Information Authority and included both quantitative analysis of the Illinois Uniform Crime Report and calls-for-service data from October 1988 to August 1993 and interviews with local law enforcement officials. The second study, prepared for the American Gaming Association, showed the crime rate decreasing from 1993 to 1996.

Altoona, Iowa, Chief of Police John Gray specifically monitored the caseload resulting from casino operations at the Prairie Meadows Racetrack and Casino for ten years. He states with confidence that the law enforcement impact is negligible. Although the nightly attendance at the venue is typically between eight and ten thousand people, the impact on policing in the town of thirteen thousand residents is between 8 and 12 percent of the cases per month. He notes occasional complaints about lights used for night racing and noise associated with concerts from the two subdivisions closest to the track. Both of these issues are unrelated to slots.

In Gretna, Louisiana, host to Boomtown Casino and an OTB video-poker facility, both the mayor and the police chief report no problems associated with either venue. In fact, the chief of police, crediting the internal security provided by the facilities, says that more calls for service are received from Home Depot and low-cost hotels in area than from the OTB parlor or Boomtown.

Similarly, in Bossier City, Louisiana, the police department has not observed any adverse community impact associated with casino operations in their jurisdiction. According to Bossier City Police Chief Mike Halphen:

" We heard there would be prostitution, but we get more prostitution off of Craigslist than we do from the casinos.....Most of the stuff we've had at the casinos is someone's had too much alcohol....."<sup>7</sup>

Citywide since 1994, the year riverboats opened the numbers of homicides, robbery, thefts and burglaries have declined dramatically in Shreveport/Bossier<sup>8</sup>, total crime is down over 30%. In 2008 the riverfront district in which the casinos are located had the lowest total crime rate of any district in the city. As can be seen in the table below, the decline in total crime in Shreveport/Bossier between 1995 and 2007 was 11 points greater than experienced nationally, and in some specific crimes categories such as murder and non-negligent homicide and larceny/theft the declines were in excess of 21

<sup>7</sup> Shreveport Times April 10, 2009 "Shreveport-Bossier City casinos' take tops \$9.7 billion. Local economic outlook was dire before riverboats opened 15 years ago"

<sup>8</sup> Shreveport Bossier is home to six casinos grossing \$850 million in 2008 from 8,900 gaming positions.

points greater than the national rate of decline. While these declines cannot be accredited directly to the advent of casinos (although their positive impact can be implied as a result of the increase in employment that the casinos have generated) it is also apparent that there has been no negative impact from casino development.

**Declining Crimes in Shreveport/Bossier Versus National Crimes 1995-2007**

	Shreveport/Bossier City 1995-2007 Percent Change in Crime	National Rates 1995-2007 Percent Change in Crime	Differential
<b>Murder and Non-negligent Manslaughter</b>	-43.28%	-21.65%	-21.64%
<b>Robbery</b>	-23.58%	-23.32%	-0.26%
<b>Property Crime</b>	-35.32%	-28.91%	-6.41%
<b>Burglary</b>	-23.65%	-15.99%	-7.66%
<b>Larceny &amp; Theft</b>	-39.44%	-17.87%	-21.57%
<b>Total Crime</b>	-30.10%	-18.83%	-11.27%

Source: FBI Uniform Crime Reports

In a 5-year statistical report for Riverboat gambling in Indiana the following was provided:

“According to Gary’s Chief of Police, Majestic Star’s presence has not contributed to any additional criminal activity in the neighborhood surrounding the riverboat. According to Hammond Police Department, crime in the area around the riverboat (Horseshoe) has not risen since the boat opened; in fact, it has fallen in most categories when compared to before the boat opened.”<sup>9</sup>

A similar statement was also made by the Evansville Police Department which is home to Casino Aztar,

“Crime in the area around the riverboat has not risen since the boat opened; they indicated that they have more runs to the local mall than to the riverboat area.” “The casino has not produced the negatives expected, like increased traffic and crime.” “I have no reason to cut Aztar a break or anyone else a break.

A study of two urban casinos in New Zealand by the Australian Institute for Gambling Research at the University of Western Sydney corroborates these findings.

General crime incidents have occurred within and around the casino premises in Christchurch and Auckland, but the incidence has been no more than normally occurs with inner city entertainment venues of comparable size. . . .

<sup>9</sup> Center for Urban Policy and the Environment at Indiana University-Purdue University (in coordination with the Indiana Gaming Commission) (July 2001) <http://www.in.gov/gaming/reports/evaluations/majestic-5.pdf> and <http://www.in.gov/gaming/reports/evaluations/horseshoe-5.pdf>

There has been no overall increase in crime in the Christchurch Casino precinct, and a decrease in some crimes (sexual attacks, liquor offences, burglary and fraud). . . .

In Auckland there was an increase in public disorder offences in the casino precinct during the first few months of operation. Alcohol was a major factor in these crime incidents. Collaboration between the police and casino management resulted in a change in alcohol service policies and reduced these offences.<sup>10</sup>

The study credited the lack of impact to the following measures:

Effective casino management and crime prevention strategies contributed to an effective regulatory regime and minimization of crime. Casino management introduced preventative crime measures, including adequate site lighting and surveillance, a door policy to enforce dress and behavior standards, recruitment of ex-police officers to train and manage security and surveillance staff, and the application of trespass notices to remove offenders. Each casino also has an 'exclusion' policy to allow patrons to self-bar if they so choose. Both casinos have established close liaison and cooperation with the local police.<sup>5</sup>

The argument and counter argument for the impact of casinos on neighborhood crime is directly addressed in an article about crime and casinos in Detroit:

From the steps of the historic Second Baptist Church, the Rev. Kevin M. Turman sees people stream into the Greektown Casino across the street. It's a sight the pastor was once loath to accept. "I thought they set the wrong moral tone," Turman said. "I thought they were a magnet for crime. I thought they were economically counterproductive." The fact that the casinos are paying taxes on their income has helped the city at a time when it needed help. "While they aren't a panacea for all the city's ills, the casinos have hushed many critics, including Turman, who thought they'd bring only more crime and blight.

Soon after the first temporary casino opened eight years ago, downtown crime decreased, while development and redevelopment increased. The casinos were never expected to revitalize neighborhoods, but their prosperity has been good for the region, a spokesman for the mayor said.

From 2001 to 2005, crime incidents in downtown Detroit dropped from more than 3,000 to 2,025. More than half were larcenies, a Wayne State University study shows. "The casinos have been a bit of a stabilizing force," said Don Holecek, a Michigan State professor and former head of the school's travel and tourism resource center.<sup>11</sup>

In a December 2008 in a radio interview the mayor of Michigan City, Indiana (host to Blue Chip casino) stated that crime was down since the advent of the casino but there was more traffic, more accidents, and more DUI arrests.

The Center for Urban Policy and the Environment at Indiana University-Purdue University has prepared 5-year evaluations of riverboat licensees for the Indiana Gaming

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<sup>10</sup> McMillen, J. (1999). *Study of the social and economic impacts of New Zealand casinos*. University of Western Sydney.

<sup>11</sup> USA Today.Com 2007

Commission which contain section on community impacts. The following are excerpts from these reports with respect to police and fire protection.

"According to the Evansville Police Department, crime in the area around the [Casino Aztar] riverboat has not risen since the boat opened; in fact, in 1999 it even fell when compared to the previous year."

"According to Gary's Chief of Police, Trump's presence has not contributed to any additional criminal activity in the neighborhood surrounding the riverboat."

"According to the Hammond Police Department, crime in the area around the [Horseshoe Hammond] riverboat has not risen since the boat opened; in fact, it has fallen in most categories when compared to before the boat opened."

"According to a phone interview with the chief of the Rising Sun police, the main increase in crime in the area that can be attributed to the [Grand Victoria] riverboat is an approximately 25 percent increase in alcohol-related crimes, (driving under the influence, public intoxication, etc.). He also pointed out that they have had an approximately 400 percent increase in traffic through the area. Given that level of traffic, the increase is not as much as might have been predicted."

"According a phone interview with the Lawrenceburg Police Department, Argosy-related arrests for public intoxication, DWI, and minor theft, as well as traffic accidents in the area have increased slightly each year from 1997 to 2000. Lawrenceburg has added two police officers since the boat opened to deal with the increased caseload."

"According to a phone interview with East Chicago's police department, the neighborhood surrounding the [Harrah's] riverboat has not experienced any additional criminal activity that can be attributed to the riverboat's presence. Crime in East Chicago has decreased substantially over this time period due to increased cooperation with federal agencies, community policing and increased staffing. Traffic to the rest of the city has not increased because of the direct access from the highway to the casino."

"According to a phone interview with Michigan City's chief of police, the neighborhood surrounding the riverboat has not experienced additional criminal activity that can be attributed to Blue Chip's presence."

Several other sources cite examples of the minimal impact of crime in casino communities.

"Segarini, president and CEO of Tuolumne County Chamber of Commerce and a member of the board of directors of the Tuolumne Economic Development Co. 'I haven't heard any negative remarks from anyone at this point,' Segarini said of the Black Oak Casino that opened in Tuolumne in 2001. 'There were some fears by some of the neighbors in the area that with the construction of the new facility and the bringing in of alcohol that there would be some problems they had not had previously. But if there are any problems, they have been very minor.'"<sup>12</sup>

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<sup>12</sup> "New gold rush sweeps Lode: Casinos pour millions into sleepy towns. But such riches can come at a price: drugs, crime, crippling gambling addictions." *Record* (Stockton, CA), Sept 30, 2006:



"According to data compiled from the FBI's Uniform Crime Reporting programme, Las Vegas has a lower crime rate and is safer than virtually every other major American tourist venue. The crime rate in Atlantic City, New Jersey has fallen dramatically since 1991. Joliet, Illinois, is experiencing its lowest crime rate in 15 years. Crime rates in Baton Rouge, LA have decreased every year since casino gaming was introduced."<sup>13</sup>

"In 1998, 24 sheriffs from various states in the USA met to explore the issue. They concluded that they could identify "no connection between gaming and crime" in their jurisdictions, some even pointed to a decrease in crime in their communities. A March 2000, report by the Public Sector Gaming Study Commission, stated that "...the majority of the information collected during the past decade indicates there is no link between gambling, particularly casino-style gambling and crime."<sup>14</sup>

"Foxwoods Resort Casino opened in southeastern Connecticut, the area has not observed a significant increase in crimes against property. Traffic-related crimes and accidents have increased however, creating a need to expand the police force."<sup>15</sup>

"Officials in Chester and Bensalem say they have seen no uptick in crime in their communities that can be attributed to Harrah's Chester and Philadelphia Park, whose slots parlors opened in January 2007 and December 2006, respectively."<sup>16</sup>

"In a Gallup poll...67 percent of those surveyed said they believe that opening a casino helps a community's economy and three-fourths said they approve of state lotteries."<sup>17</sup>

## Case Studies, Neighborhood Impacts

While the evidence clearly shows that crime rates are generally unaffected in a measurable way at the city- or county-level, there is the concern that crime would increase at the neighborhood level where the casino is located. This is based on the proposition that if there is a substantial increase in suitable targets, then there is the potential that criminals will focus on this area.

A report to the Pennsylvania Gaming Control Board by Price Waterhouse Cooper and the Bureau of Investigation and Enforcement indicated typical security incidents around casinos in jurisdictions it studied were purse snatching, disorderly conduct, counterfeiting and coin bucket theft.<sup>18</sup> Coin bucket theft would obviously be eliminated if a coinless (ticket in/ticket out) system is used at Suffolk Downs.

<sup>13</sup> "Casinos and crime: A new myth based on an old reality." *The America's Intelligence Wire*, August 24, 2003.

<sup>14</sup> "Casinos and crime: A new myth based on an old reality." *The America's Intelligence Wire*, August 24, 2003.

<sup>15</sup> Browne, M. Neil and Nancy K. Kubasek. "Should we encourage expansion of the casino gaming industry?" *Review of Business*, Spring 1997 Volume 18 Number 3 (9).

<sup>16</sup> "Slots, sleaze & slippery slopes: Sure, casinos have crime. But is it really bad enough to worry about?" *Philadelphia Daily News* (Philadelphia, PA), August 18, 2008.

<sup>17</sup> "Study finds one sure bet: Casinos bring higher crime." *The Atlanta Journal-Constitution* (Atlanta, GA), June 17, 1999.

<sup>18</sup> Pennsylvania Gaming Control Board Web site, May 18, 2005

However, casinos are acutely aware of that potential and therefore devote considerable resources in providing adequate security to deter on-site crimes. This is not only driven by responsibility to their patrons but also from a profit perspective. In a survey conducted for the Philadelphia Gaming Advisory Task force (PGATF) in 2005 as part of a study directed by the Innovation Group safety and security perceptions of the casino site played a paramount role in the process of deciding which casino to visit.

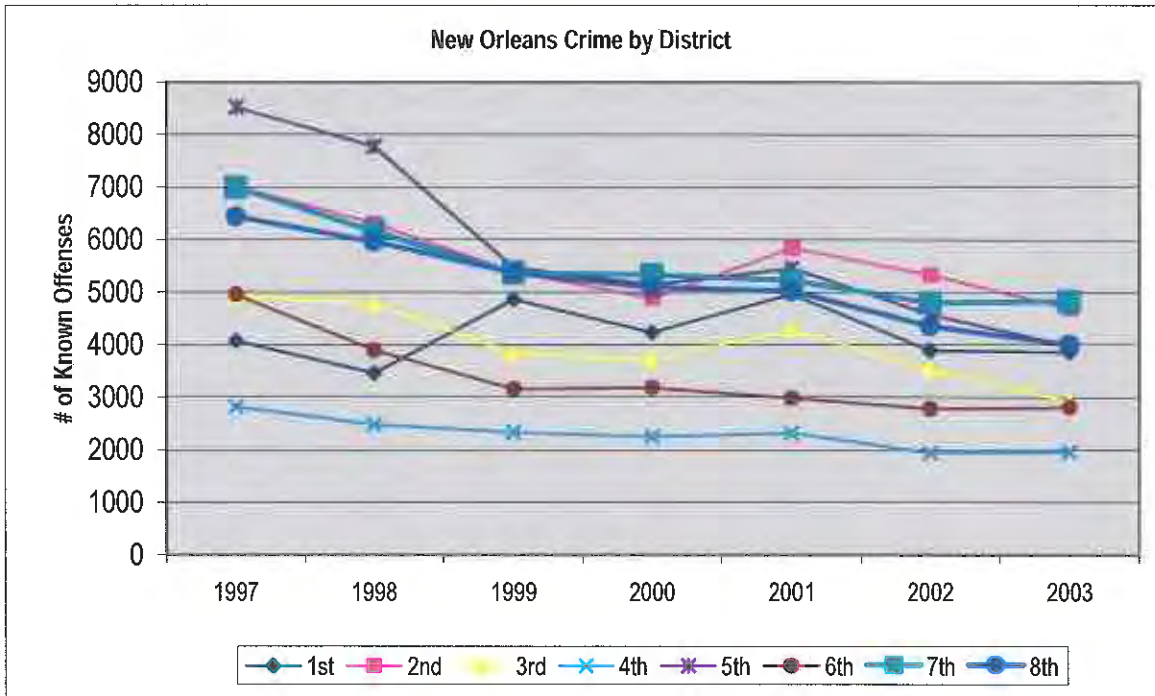
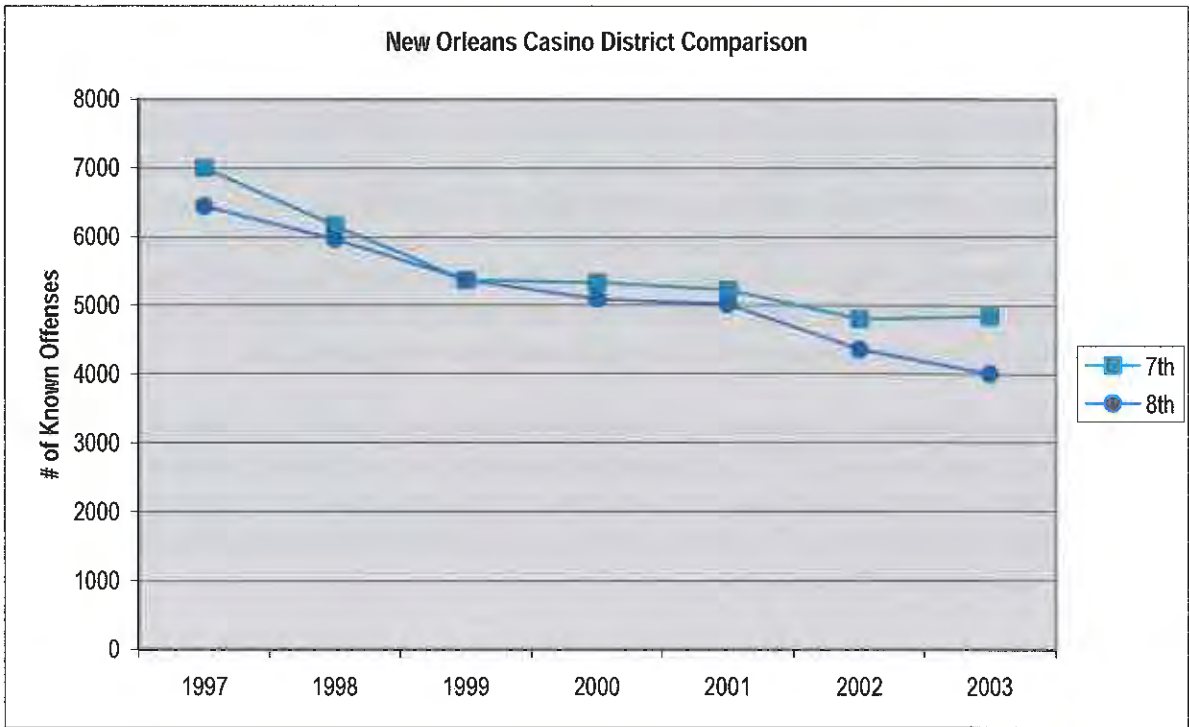
As discussed below, the data and the anecdotal evidence available suggest that crime at the neighborhood level does not appear to be a major problem when sufficient resources are committed to provide the required level of casino security and increased police patrols.

### **New Orleans, Louisiana**

In New Orleans, based on district-level crime statistics, crime rates and traffic offenses declined between 1997 and 2003<sup>19</sup> in the 7<sup>th</sup> district (Harrah's opened in the 7<sup>th</sup> District in October of 1999) and 8<sup>th</sup> district (Bally's). These declines have been consistent year over year compared to the first second and third districts where this general decline was interrupted by a slight upward increase in 2001. Significantly, crime such as robberies and thefts declined in these districts.

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<sup>19</sup> Data by district is unavailable after 2004 and would be unrepresentative due to the disruption caused by Hurricane Katrina.



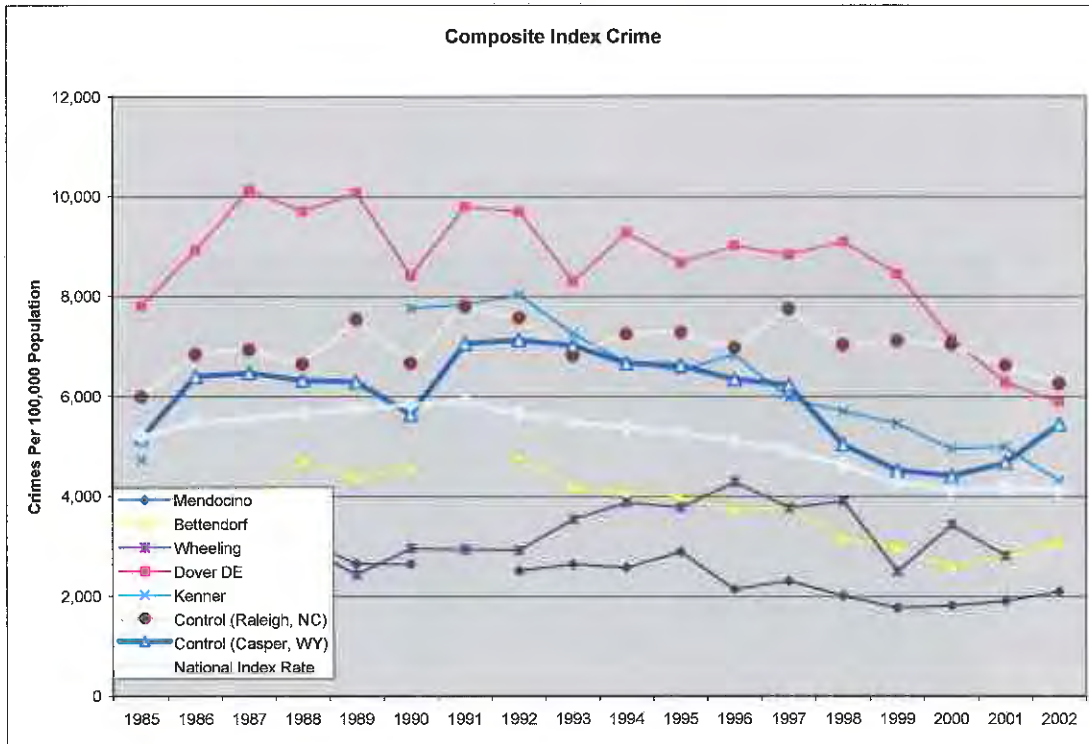
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## Casinos in Residential Areas

The vast majority of casinos and racinos in the country are located in rural areas or in commercial or industrial districts. However, we identified two that are close to residential neighborhoods: Wheeling Island racino in West Virginia and the Black Bart Casino in Willits, California. In addition, the Downs at Albuquerque is located in a residential in-fill neighborhood, and the Isle of Capri riverboat casino in Bettendorf, Iowa is located across a major thoroughfare from a historic riverfront neighborhood. Dover, Delaware (host to the Dover Downs slot racino) and Kenner, Louisiana (host to the Treasure Chest riverboat casino) were also studied. In addition, law enforcement officials in the New Orleans area, Louisiana, and Iowa were surveyed.

Crime data research consisted of telephone interviews with local law enforcement officials supplemented by crime statistics compiled by the federal Bureau of Justice Statistics or local police stats. It should be emphasized that the crime statistics are undiluted (not adjusted for casino visitors: crimes per 100,000 permanent residents only) and include on-site crimes.

For comparison, the national crime index rates and the rates for Raleigh, North Carolina and Casper, Wyoming, which are very far from any gambling venues while being normative cities (i.e., no unusual rates of crime), were tabulated and graphed with the subject communities. The national rates, which indicate a steady decline for the period, fall squarely in between the various communities, as would be expected of aggregated data; most of the communities with gambling have lower crime rates than the national rates. This supports the conclusion that slots are not affecting an overall reduction in crime reported for the communities considered.

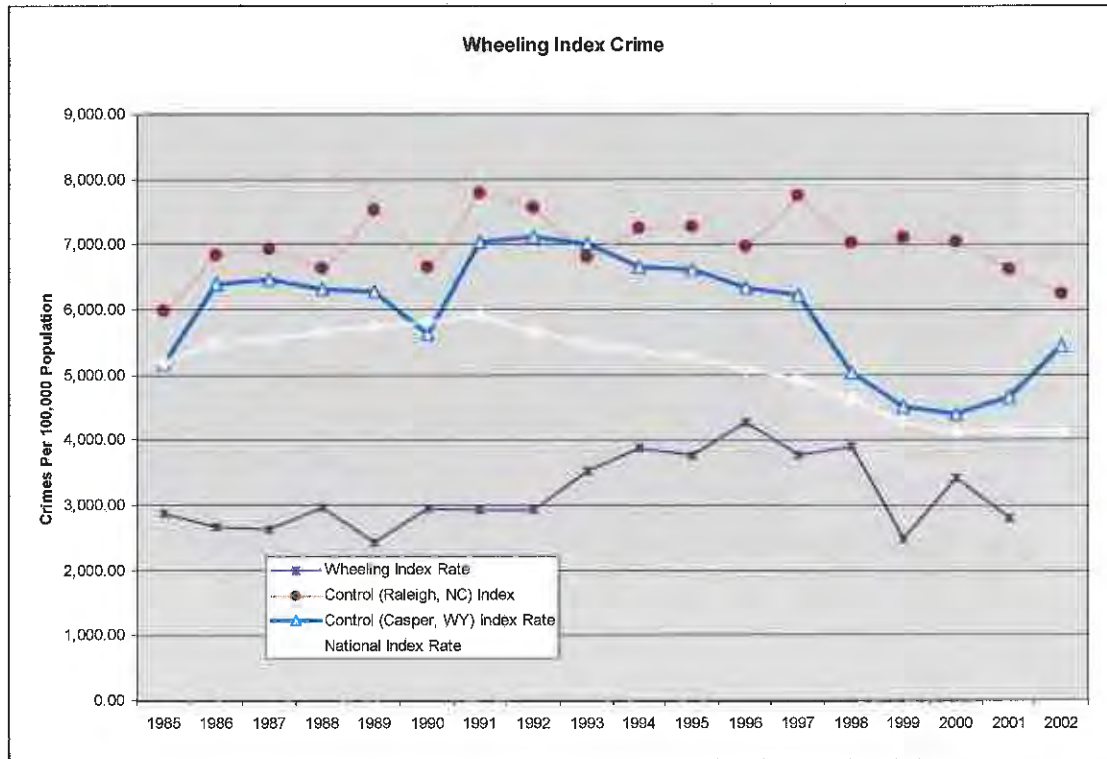


### Wheeling, West Virginia

Wheeling Island is a slot racino located within a residential neighborhood. To access the facility requires driving approximately one mile through a traditional residential neighborhood, and there is housing directly across the street from the parking lot of the facility. The racino opened in September 1994 with 400 video lottery terminals, with 200 additional devices added in late 1995. Reel slot machines were approved in 1999, and by 2000 Wheeling had just over 1,000 machines.

Undiluted crime statistics for the city of Wheeling shows slight increases in 1996 and 2000. The first slight increase could show support for Grinols' time lag theory, or it could be the result of increased activity at the facility as a result of the expansion in late 1995. The second slight increase would appear to be related to the expansion of the facility for reel slot machines and the dramatic increase in patronage. Wheeling Island receives the vast majority (upwards of 90 percent) of its patrons from out of state, including Pittsburgh and Columbus, Ohio, and thus the daily population is far larger than the permanent resident population of approximately 34,000. West Virginia does not track casino admissions; however, in 2000, based on our knowledge of the market and a calculation of reported gaming revenues divided by a win per admission, we would conservatively estimate that casino patrons increased the daily population by 19 percent over the resident population of 31,419. This would bring the 2000 crime index

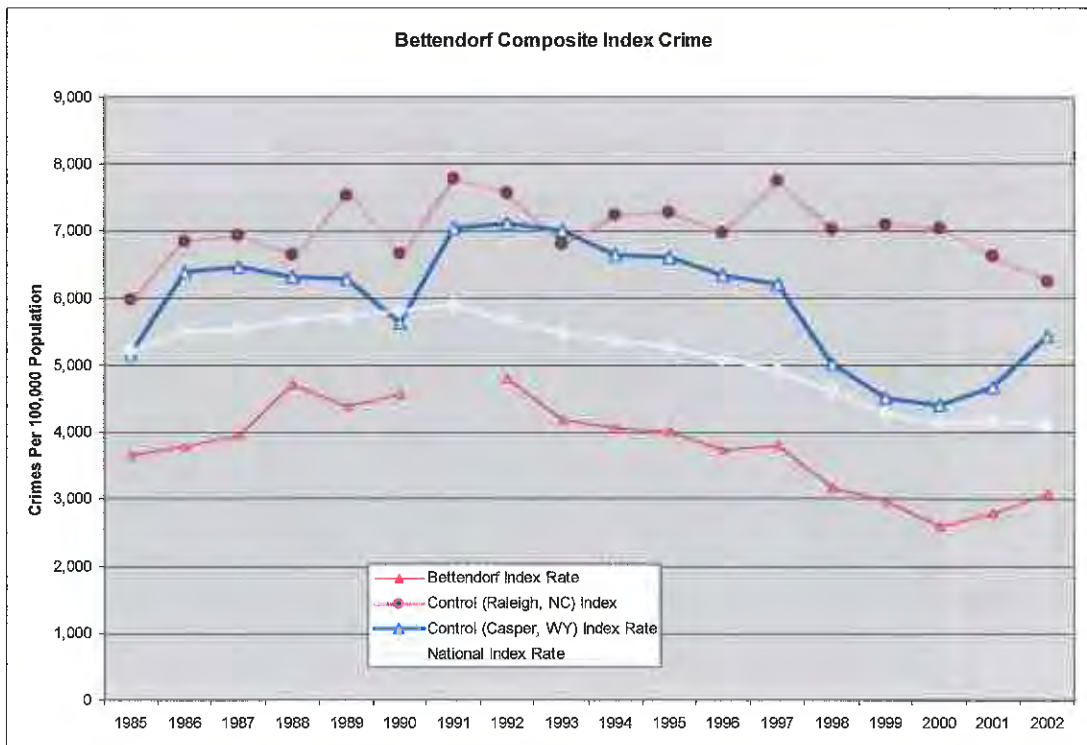
down to 2,765, below the pre-racino level of over 2,900 (1990-1992) and well below the 1993 slight increase of 3,529.



Since these data do not distinguish between on-site and off-site crimes, we contacted the local sheriff's department to find out whether the surrounding neighborhood had been affected by the racino. *The chief deputy of the Ohio County Sheriffs Department said that as far as he was aware, there had been no increase in crime in the community or increased burden to local law enforcement.*

### Bettendorf, Iowa

Bettendorf is host to the Isle of Capri Casino, which opened in April 1995. There is no apparent impact on crime, either an immediate bump from an increased daily population or a delayed slight increase based on a Grinols' time lag. Crime declined in 1995 and 1996; although there was a slight increase in 1997, the rate was still below the 1995 level. In 1998, 1999, and 2000, when a Grinols' time lag increase should be appearing, instead saw further declines. It is also interesting to note that two other casinos opened in the area in mid-2001 and a third in mid-2002, but their impact is also not apparent, with a downward trend beginning in 1993 (unfortunately, data for 1991 was unavailable).



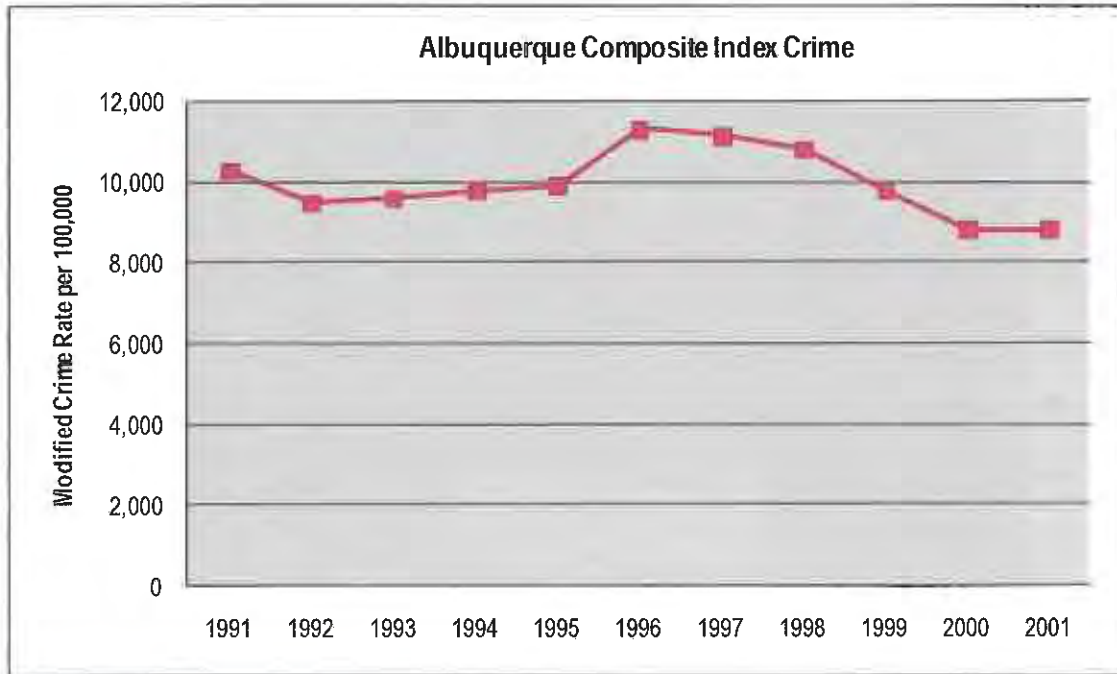
### Albuquerque, New Mexico

The Downs at Albuquerque opened in late 1999 with 300 machines. The Albuquerque Police Department compiles crime statistics that are available beginning in 2000. Given the availability of the data, it is impossible to do a before-and-after analysis. However, for 2001 through 2003, crime has declined in the police beat (333) which contains the Downs. This is especially notable compared to Albuquerque as a whole, which showed an increase in 2001 and smaller declines in 2002 and 2003. Traffic crimes have been excluded.

<b>Albuquerque Non-Traffic Crime</b>				
	2000	2001	2002	2003
<b>Beat 333</b>	3,560	2,974	2,609	2,390
<b>Change</b>		-16.5%	-12.3%	-8.4%
<b>Albuquerque</b>	130,872	133,520	128,608	119,752
<b>Change</b>		2.0%	-3.7%	-6.9%

Earlier crime data is available for the city as a whole based on federal Bureau of Justice Statistics, as shown in the following chart. Crime in Albuquerque peaked in 1996, and

declined steadily through 2000, thus there is no evident impact from the Downs in the rate for 2000.



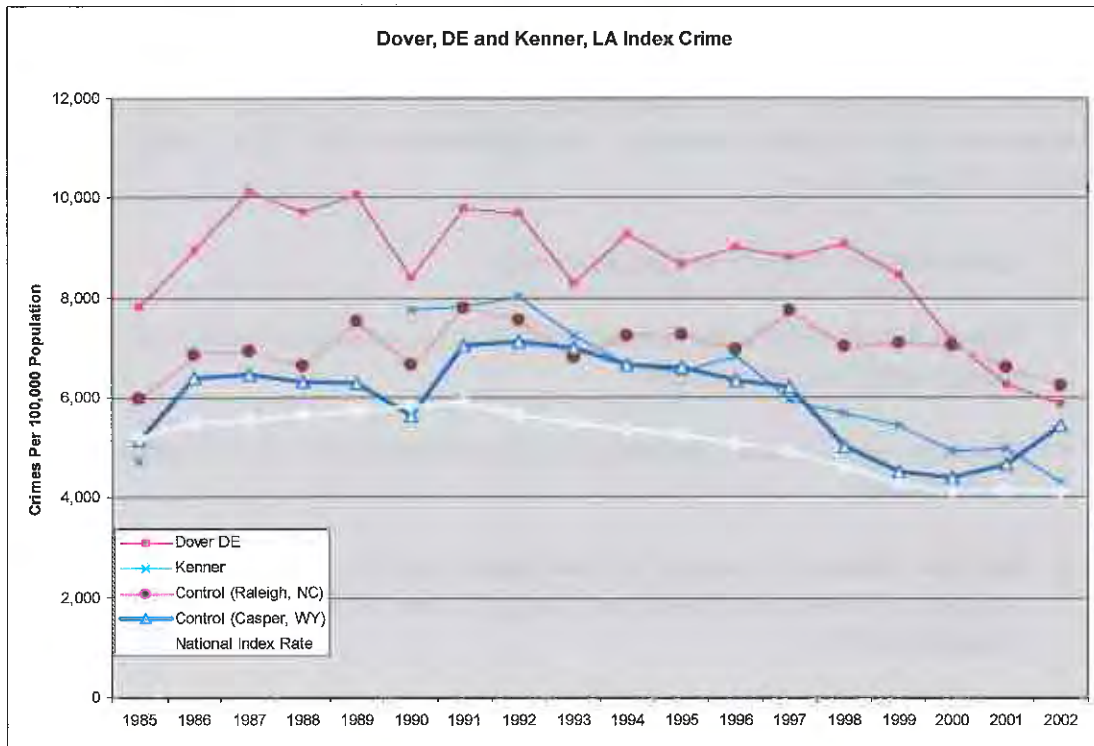
### Other Host Communities

Two other casino communities were analyzed for federal Bureau of Justice Statistics:

Dover Downs opened in December of 1995 with 620 slot machines, growing to 1,000 machines in 1997 and 2,000 machines in 2000. The crime rate for the city of Dover was relatively steady for 1996 through 1998, but then began a steep decline in 1999 that lasted through 2002.

Treasure Chest in Kenner opened in September of 1994, and except for a slight increase in 1996, the crime rate in Kenner has declined at a faster rate than the national average or the two controls.





## Summary

Based on the data, there is no evidence for large increases in major crimes within the adjacent casino neighborhoods. In an urban setting where sufficient on-site security is provided, and supplemental police patrols provided in the surrounding neighborhoods, major criminal activity can be minimized and increases in crime can be effectively eliminated.

Other activity related to public disorder, traffic violations, DUI, etc. may increase but no more so than any other entertainment venue which attracts large numbers of visitors. Cheating in the casinos, passing bad checks are two other unique areas where arrests are likely to occur. For the most part these impact only the casino, and are largely dealt with through casino security, surveillance and credit departments, with local or police only called in to make the arrests when appropriate.

## Public Safety and Crime Prevention Initiative

There are some proactive steps a community in concert with a casino developer can take that will help minimize crimes in the neighborhood of a casino. Some of these initiatives are listed below.

- **Collect data** to measure mitigation effects.
- **Include benchmarking** the number of crimes in selected categories to measure changes after operations begin.
- **Assemble and maintain** an accurate data collection from comparable gaming jurisdictions.
- **Monitor changes in crimes by sub-region** and continue to monitor crime statistics on a long-term basis to measure success of the gaming-related crime mitigation efforts;
- **Increase law enforcement presence** in the casino areas.
- **Encourage a close working relationship between security personnel at the casino properties and the city's law enforcement personnel.**
- **Monitor increases in emergency services** related to gambling. Emergency services include a wide array of significant incidences at casinos such as panic attacks by gamblers, medical emergencies due to gamblers failing to take their meds, cardiac episodes brought upon by increased stress and other similar significant incidences.
- **Provide accurate data information** in fact sheets on gambling and crime.
- **Maintain** accurate gambling-related crime information on City's Web page.
- **Study government services** to determine costs for additional personnel and other issues needed to implement this initiative.
- **Build community collaborations** by enlisting the media in conveying an accurate message about crime and gambling.
- **Maintain a crime prevention page** on issues related to gambling on the City's Web site.

- **Develop a speakers' bureau to discuss gambling-related crimes and/or relationship of crime and the new casinos.**
- **Review some of the more innovative initiatives in varying jurisdictions in addressing problematic gambling behavior and crime.** Specifically, it is suggested that the model of gambling therapeutic treatment courts in Amherst, New York should be considered if the government wants to discourage reoccurrences of crimes by problematic gamblers or the diversion system developed by the Attorney General of Louisiana to redirecting problematic gambling criminals from the criminal justice system into the state's treatment program. Minnesota state laws for example mandates that problem gambling assessments be conducted for certain categories of crime also should be studied to see if such would be of benefit in Boston.
- **Work with government officials** to effect changes in the law to adopt innovations on problematic gambling behavior or responsible gaming practices throughout the state.

## Baseline Crime around Suffolk Downs

To provide a baseline for future analysis the table below presents the baseline crimes for Boston Police District A-7 East Boston which incorporates Suffolk Downs for the first six months of 2007 versus the same period in 2008. This data shows that for the area around Suffolk Downs reported crimes fell between 2007 and 2008 by 24 percent.

Baseline Crimes around Suffolk Downs		
Crime	Year	Crimes
Homicide	07	1
	08	0
Rape and Attempted	07	8
	08	6
Robbery and Attempted	07	59
	08	57
Aggravated Assault	07	151
	08	119
Burglary and attempted	07	103
	08	75
Larceny and Attempted	07	388
	08	311
Vehicle theft and attempted	07	118
	08	62
Total	07	828
	08	630
Change 2007-2008		-198
% Change 2007-2008		-23.91%

Source: City of Boston Police Department, Office of Strategic Planning and Research

Notes:

January 1st - July 20th, 2007 data are tabulated according to the reporting criteria established by the FBI's Uniform Crime Reporting program.

January 1st - July 20th, 2008 data are preliminary and therefore have not been verified by the Boston Police Department.

## Recommendations and Conclusions

This analysis has addressed the research-based claims for the impact of casino development on crime. It is our conclusion that:

1. There is no evidence for city wide increases in major crimes either property or violent. It is likely that these are affected by larger economic and societal variables
2. When there is an adequate level of police presence and casino security there is no evidence of an increase in major crimes, whether violent or property related, in the immediate neighborhood of the casino. It is in the casinos interest to provide added levels of security given the importance this plays in the consumers' choice of casinos to visit.
3. Past research has been flawed in that it has failed to account for the differences between casinos located in low population, low crime rate rural areas and those in high population high crime rate urban areas. Past research has also failed to account for the influx of visitors in developing and applying crime rates. Some studies have failed to consider trends over a long enough periods and have failed to identify larger more important causal factors at work in the economic and social realms. These flaws have tended to exaggerate the impact of casinos on crime in major urban areas.
4. The fact that a significant proportion of patrons in the general market area of Suffolk Downs already visit casinos (i.e. in Connecticut and Rhode Island) on an annual basis suggests that any increase in level of crime associated with problem gambling, or major crimes, will be incremental, and relatively small in comparison to an immature market with no prior access to gaming.
5. The major increase in crime is likely to be related to public disorder, drunkenness, and traffic violations but no more so than any other major entertainment venue of this size and attraction. These occur predominantly on-site or in the parking lot and furthermore can be effectively mitigated.

Based on the available research, actions that will help prevent crime:

1. Ensure a prominent level of security off the premises provided for by casino sponsored additional police patrols in the local neighborhoods
2. Ensure that the casino has more than adequate on-site security in the building and especially within the parking lots or garages.
3. Pro-active monitoring of problem gambling at the facility through self-exclusion programs
4. Develop an information package to address citizens concerns regarding the true facts in relation to casinos and crime.
5. Recommend that the current crime reporting system be reviewed such to ensure that it will adequately capture and identify casino related crimes.

## Problem Gambling and Bankruptcy

As discussed previously, Grinols claims that by year three or four, the impact of problem gambling begins to take effect, and that crime begins to rise as problem gamblers run out of assets or credit and turn to stealing to support their addiction. But there is little evidence outside of his studies to support such a theory.

An early study in Biloxi would tend to corroborate the first part of Grinols' theory. Chang (1996) found a decrease in crime the first full year of casino development, while the second year saw crime rates return to pre-casino levels.<sup>20</sup> However, a 2000 study on bankruptcy found that bankruptcy rates actually decreased in Biloxi with the advent of casino development. The study attributed the cause to the destination nature of Biloxi and the infusion of visitor spending to the Biloxi economy.<sup>21</sup>

A U. S. Department of Treasury report found that "no connection between state bankruptcy rates and either the extent of or introduction of casino gambling." In preparing its analysis, the Treasury Department examined existing literature on gambling and bankruptcy and conducted new research. According to the study, much of the earlier increase in the national bankruptcy rate has been attributed to the changes in the bankruptcy law of 1978 ... and higher levels of debt relative to income, increasing availability of credit through general purpose credit cards and the reduced social stigma of declaring bankruptcy.<sup>22</sup>

This issue was also examined by the National Opinion Research Center (NORC) in their report to the National Gambling Impact Study Commission in 1999. They noted:

Pathological gamblers have clearly elevated rates of indebtedness, both in an absolute sense and relative to their income. Indebtedness per person is 25-percent greater than that of low-risk gamblers and about 120-percent greater than that of non-gamblers. However, the disparity is even greater when debt is compared to income: pathological gamblers owe \$1.20 for every dollar of annual income, while low-risk and non-gamblers only owe \$0.80 and \$0.60, respectively. In accord with their higher debt, pathological gamblers have significantly elevated rates of having ever declared bankruptcy: 19.2 percent, versus 5.5 percent and 4.2 percent for low-risk and non-gamblers. Again, for problem gamblers the story is not as clear. Their average level of indebtedness is actually the lowest of any type of gambler; however, they still have an elevated rate of bankruptcy (10.3 percent), but this is only marginally statistically significant when compared to the rate among non-gamblers. On average, excess lifetime losses involved with bankruptcy are about \$3,300 for pathological gamblers and \$1,600 for problem gamblers.

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<sup>20</sup> Chang, S. (1996). "Impact of casinos on crime: The case of Biloxi, Mississippi." *Journal of Criminal Justice*, 24 (5), 431-436.

<sup>21</sup> Nichols, Mark W., B. Grant Stittb and David Giacompassic, "Casino gambling and bankruptcy in new United States casino jurisdictions," *Journal of Socio-Economics*, May 1, 2000.

<sup>22</sup> Department of the Treasury, A Study of the Interaction of Gambling and Bankruptcy, July 1999 as posted on the American Gaming Association web page, [www.americangaming.org](http://www.americangaming.org).

Almost 19 percent of pathological gamblers have ever declared bankruptcy, versus an expected 10.8 percent, given their personal characteristics. For problem gamblers, their 10-percent rate compares to an expected rate of 6.3 percent.

There are, of course, multiple reasons for bankruptcy filings other than gambling debts. Research by Harvard Medical and Law Schools, for example, found that approximately half of the bankruptcies in the jurisdictions selected for their study were filed because of overwhelming medical expenses.<sup>23</sup>

There is some uncertainty to the degree that casinos cause increases in bankruptcy. Many of the facts are disputed on both sides of the issue, for example the American Gaming Association on its web site provides the following:

Other data also refutes a connection between casinos and bankruptcies. In 2002, Utah, the only state with no legalized gaming, ranked first in bankruptcies per household. Of the 15 states with the highest bankruptcy rates at that time, only one, New Jersey, had commercial casino gaming. Seven of the then nine states with commercial casinos had a lower rate of increase in bankruptcies than the national average during the slight increase in bankruptcy filings between 1989 and 2000. Additionally, despite the fact that commercial casinos opened in Colorado in 1991, Colorado was the only state to record a drop in bankruptcy rates during the 1990s.

Statistics confirm that there is no link between the rate of bankruptcy filings and the presence of casinos. According to data maintained by the Administrative Office of the U.S. Courts and population statistics from the most recent census (2001), Utah and Tennessee were ranked first and second respectively in 2002 in terms of the number of bankruptcy filings per household. Utah is one of only two states with absolutely no form of legalized gambling whatsoever, and Tennessee had no legalized gambling at that time (but has since added a state lottery).

Total annual bankruptcy filings nationwide grew by 84 percent between 1989 and 2000. During this time, a total of nine states decided to legalize commercial casino gaming. If critics' assertions were correct, all of these states would have seen increases in bankruptcy filings that were disproportionately high following the introduction of casinos to these communities. Yet, in seven out of the nine states that legalized commercial gaming during the 1990s, the bankruptcy filing growth rate remained below the national average. Michigan and Missouri are the only exceptions, while Colorado, Illinois, Indiana, Iowa, Louisiana, Mississippi and South Dakota all had smaller growth in bankruptcy filings than the United States as a whole over the decade.

If one looks at the growth rate in bankruptcy filings in each of the 50 states during the 1990s, the lack of a causal relationship between casino gaming and bankruptcy becomes even more apparent. Consider the following facts:

- Colorado, where commercial casinos opened in 1991, is the only state in the country during the 1990s that actually recorded a negative growth rate in bankruptcy filings.
- Of the top 15 states with the highest rate of increase in bankruptcy filings, only one (New Jersey) is a commercial casino state.
- Seven of the 11 commercial casino states fell below the national average in terms of bankruptcy filing growth rates during the 1990s.

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<sup>23</sup> NORC, —Report to the National Gambling Impact Study Commission, 1999, p. 46.

Given the apparent relationship between problem and pathological gambling it would seem appropriate to address the issue of bankruptcy within the realm of treatment for problem and pathological gamblers.



## **Disclaimer**

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