

The State of the Region

HAMPTON ROADS 2015

CENTER FOR ECONOMIC ANALYSIS AND POLICY | OLD DOMINION UNIVERSITY



October 2015

Dear Reader:

his is Old Dominion University's 16th annual State of the Region report. While it represents the work of many people connected in various ways to the university, the report does not constitute an official viewpoint of Old Dominion, or its president, John R. Broderick. The report maintains the goal of stimulating thought and discussion that ultimately will make Hampton Roads an even better place to live. We are proud of our region's many successes, but realize that it is possible to improve our performance. In order to do so, we must have accurate information about "where we are" and a sound understanding of the policy options open to us.

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The 2015 report is divided into seven parts:

Running in Place? Our "So-So" Regional Economy: 2015 has been another "Goldilocks" year – not too hot, not too cold – economically speaking. We grew faster than the rest of Virginia, but slower than the U.S. It appears that 2016 will reprise this scenario.

Defense Expenditures in Hampton Roads: Digging Deeper: While defense expenditures are decelerating, in FY 2015, Newport News (dominated by Huntington Ingalls) received \$1.13 billion in new defense contract awards, while Virginia Beach received \$838 million, Norfolk \$774 million and Hampton \$166 million. Atlantic Diving, headquartered in Virginia Beach, was our second-largest contractor with \$206 million.

The Port of Virginia: A Primer: The economic importance of the Port of Virginia has increased as it is handling record cargo volumes and now is recording positive net operating income. The Port is challenged to find ways to deal effectively with congestion and logistical problems in and around the Port as well as to secure the funds necessary to modernize its infrastructure and equipment.

The Third Economic Sector: Nonprofit Organizations in Hampton Roads and the United Way: A total of 2,009 nonprofit organizations in Hampton Roads filed tax returns with the IRS in 2012. This does not include most churches. Collectively, these organizations are big business: their revenues approached \$9.6 billion.

Early Childhood Care and Education: Should They Be Our No. 1 Economic Development Strategy? Investments in early childhood care and preschool programs generate higher rates of return on public dollars than investments in conventional economic development programs that emphasize either attracting new firms, or public-private partnerships to build arenas and hotels.

Is Hampton Roads Facing a Shortage of Nurses? Our region does not face a debilitating shortage of nurses. With a few tweaks to our policies, we will have a sufficient number of nurses to meet our needs in the years to come.

The Economics of Casino Gambling in Hampton Roads: The experience of other cities tells us that casino gambling would not have a large economic effect upon Hampton Roads. Further, casino gambling brings with it a variety of other costs that must be considered. The net effect may be close to zero.

The Strome College of Business and the university continue to provide support for this report. However, it would not appear without the vital backing of the private donors whose names appear below. They believe in Hampton Roads and the power of rational discussion to improve our circumstances, but are not responsible for the views expressed in the report.

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Vinod Agarwal	Chip Filer	Wolfgang Mairinger	Douglas M. Walker
Barbara Blake-Gonzalez	Tim Komarek	Alice McAdory	Luke Watson
Chris Colburn	Feng Lian	Katrina Miller-Stevens	Shara Weber
Vicky Curtis	Sharon Lomax	Janet Molinaro	
Steve Daniel	Cheng Luo	Gary Wagner	

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Sincerely,

Janus V. Korh

James V. Koch

Board of Visitors Professor of Economics and President Emeritus

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The Economics Of Casino Gambling In Hampton Roads



THE ECONOMICS OF CASINO GAMBLING IN HAMPTON ROADS

ince the 1990s, legalized gambling has spread across the United States, with a majority of state governments sponsoring lotteries and hosting commercial or tribal casinos. Despite concerns of "market saturation," the casino industry continues to expand, particularly in the Northeast. In 2014, commercial casinos earned revenues of around \$39 billion, while tribal casinos netted another \$29 billion (David Schwartz, Center for Gaming Research, University of Nevada, Las Vegas).

Virginia is among those states that have not taken the casino plunge. However, with casinos well established nearby in West Virginia, Maryland, Delaware, Pennsylvania and New Jersey, many Virginians have easy access to legalized gambling venues. However, Virginia also sits at the northern edge of a region in which casinos are rare. Very limited opportunities for legal casino gambling exist in Kentucky, Tennessee and North Carolina. Consequently, concerns over "market saturation," perhaps illustrated by the closure of four casinos in Atlantic City in 2014, are not necessarily relevant to the issue of potential casinos in Virginia.

In recent years, there have been discussions of bringing casino gambling to Virginia; the most common proposal has been to build a casino in Hampton Roads. Despite the recent failure of a proposal in the state Senate to create a gaming commission, there is likely to be continuing discussion focusing on the introduction of casinos in Virginia.

Background

The introduction of casinos nearly always is a controversial topic. Despite apparent economic benefits, such as tax revenues and employment, there are also potential costs, including problem gambling, increased crime and negative impacts on competing industries. Many of these issues were addressed in a 2013 report jointly authored by the Hampton Roads Transportation Planning Organization and the Hampton Roads Planning District Commission.

The HRTPO/HRPDC report relied upon a variety of sometimes questionable assumptions concerning how many customers would be attracted to a new Hampton Roads casino and debatable assumptions concerning likely spending per patron, estimated casino revenues and casino taxes. The report also provided estimates of the number of jobs that a casino would create, plus the contribution of a new casino to gross regional product and regional personal income. The report further estimated that there were approximately 500,000 potential customers for a Hampton Roads casino and they would spend an estimated \$210 million to \$600 million per year in and around the casino. Using a mid-range estimate of \$375 million in casino revenue and a moderate casino revenue tax rate of 30 percent, the study estimated casino tax revenues of about \$113 million per year.

The HRTPO/HRPDC study additionally estimated that a casino operation in Hampton Roads that employed 2,000 people could increase overall regional employment by 2,000 to 2,500 jobs, and supplement regional gross product by between \$78 million and \$107 million per year. Such estimates are based on previous studies of casinos in similar regions, but there is little evidence of how reliable the estimates are.

The Regional Casino Market

Casino gambling is available in many states to the west and north of Virginia. Racetrack casinos exist in West Virginia, and five casinos have opened in Maryland since 2010. In 2016, a new casino, MGM National Harbor, will open in Prince George's County, Md., which will be very convenient to residents of Northern Virginia. Figure 1 locates the casinos that currently operate in the mid-Atlantic region. The Hampton Roads area, represented by the star, is relatively isolated from casino gambling opportunities. The closest casino is the Ocean Downs racetrack casino at Berlin, Md. (about 130 miles from Virginia Beach).

A casino located in Hampton Roads would serve residents of the immediate area and possibly Richmond. Richmond is about 105 miles from National Harbor and 60 miles from Newport News. It is difficult to predict which casino might be more attractive to Richmond residents. On one hand, the MGM National Harbor casino would be bigger than a casino in the Hampton Roads region, but perhaps traffic would be less of an issue for a casino in our region.

Table 1 lists the casinos and racetrack/casinos from Figure 1 that are within 250 miles (roughly a maximum four-hour drive) of Portsmouth. The table also lists the number of machine and table games available at each location. Given the location of Hampton Roads relative to Richmond, it further shows the distance of each casino to Richmond. A casino in Portsmouth would be about 90 miles from Richmond, or about a 90- to120-minute drive.

While there are casino gaming opportunities north of Virginia, the opportunities to the south and southwest are limited. Because of this, opportunity does exist for a casino in southeast Virginia to attract patrons from North Carolina and South Carolina.



FIGURE 1

MID-ATLANTIC CASINOS



Source: D.M. Walker, College of Charleston

				TABLE 1				
CASINOS AND RACETRACKS/CASINOS WITHIN 250 MILES OF HAMPTON ROADS								
Property Name	Location	Racing Type	Number of Gaming Machines	Number of Table/Poker Games	Distance from Hampton Roads (miles)	Drive Time from Hampton Roads	Distance from Richmond (miles)	Drive Time from Richmond
Colonial Downs	New Kent, VA	Harness, Thoroughbred	n/a	n/a	74.3	1 h 17 m	26.4	27 m
Ocean Downs	Berlin, MD	Harness	800	n/a	138	2 h 27 m	221	3 h 37 m
Harrington Raceway	Harrington, DE	Harness	1,800	51	176	3 h 9 m	198	3 h 5 m
MGM National Harbor	Oxon Hills, MD	n/a	3,600	150	195	2 h 58 m	107	1 h 37 m
Rosecroft Raceway	Fort Washington, MD	Harness	n/a	n/a	200	3 h 3 min	109	1 h 39 m
Dover Downs	Dover, DE	Harness	2,600	58	200	3 h 33 m	205	3 h 16 m
Maryland Live	Hanover, MD	n/a	4,332	177	227	3 h 30 m	137	2 h 10 m
Horseshoe	Baltimore, MD	n/a	2,500	147	237	3 h 38 m	146	2 h 17 m
Hollywood	Charles Town, WV	Thoroughbred	2,700	124	237	3 h 49 m	147	2 h 30 m
Delaware Park	Wilmington, DE	Thoroughbred	2,540	88	241	4 h 5 m	211	3 h 17 m
Sources: www.casinocit Note: The Greenbrier is	y.com; MGM National Ha within 250 miles and has	irbor expected data from v a casino. However, one r	www.worldcasinodirector nust be a quest to play th	y.com ere.				

Economic Impact Of Casinos

The most commonly discussed economic impacts of casinos include earmarked tax revenues, impacts on employment and wages, and effects on other firms and industries.

TAX REVENUES

One of the most important reasons that policymakers are attracted by casinos is potential tax revenue. Let's review the literature to see what we might anticipate in Hampton Roads.

While the available evidence suggests that, on average, the introduction of a casino will lead to increases in overall tax revenues, the relationship is not as strong as one might

imagine. Many regions have experienced only modest net increases in overall tax revenues because spending in casinos often displaces spending that would have occurred for other goods and services. In other words, although overall tax revenues may increase because of the introduction of a casino, we should also expect certain other sectors of our economy to be negatively impacted by a casino. However, these negative effects would be smaller if a casino attracted a large percentage of its patrons from outside Hampton Roads.

Why are politicians often adamant in their support for casinos as a tax revenue tool? One possible explanation is that casinos provide a large political benefit to policymakers. It may be easier to increase casino taxes than it is to raise income, sales or property taxes.

The introduction of casinos in a state may also result in "import substitution." This boils down to casinos keeping Virginia money in Virginia. Rather than spend money out of state, Virginians spend that money within the Commonwealth.

Whatever the actual economic impact of casino taxes, they are the major argument used by the industry and supporters in promoting the legalization and expansion of the casino industry. As casinos have spread across the country, some states (examples include Delaware and Indiana) actually have been considering lowering the tax rates on casino revenues due to increasing regional competition. Thus, it is unclear whether casinos in any particular state will continue to have the fiscal stimulus effect they may have had in the past. Some regions of the country are approaching saturation in terms of the number of casinos.

It is difficult to estimate how much revenue a Hampton Roads casino might earn each year. The amount depends on the local population, the volume of tourism, the size of the casino, and how much individuals spend at the casino, among other factors. However, we can provide a rough estimate by looking at a similar market – Kansas City, Missouri.

The population of the Kansas City metropolitan area is about 2 million people. Total casino revenues in Kansas City were just above \$700 million in 2010. Annual per capita casino spending was roughly \$350. Clearly there are differences between Kansas City and Hampton Roads (for example, Kansas City has several casinos and they have been operating for several decades). Nonetheless, if we assume conservatively that a Hampton Roads casino would result in per capita spending of \$250 per person, then with a regional population of about 1.7 million, the annual estimated casino revenues for a casino here would approximate \$425 million.

To the extent that residents from outside our region (for example, from North Carolina or Richmond) might be interested in gambling at a Hampton Roads casino, actual revenues would be higher.

It is relatively simple to predict casino tax receipts. Table 2 provides tax revenue estimates for Hampton Roads under different assumptions. Most states apply tax rates ranging from 20 percent to 30 percent of casino revenues, although there is great variance – some as low as 6 percent and some as high as 70 percent.

TABLE 2 ESTIMATED ANNUAL CASINO TAX RECEIPTS **Annual Casino** Tax Rate on Casino Revenues Revenues 20% 30% 40% \$350 million \$70 million \$105 million \$140 million \$425 million \$85 million \$127.5 million \$170 million

\$150 million

\$200 million

Source: D.M. Walker, College of Charleston

\$500 million

A reasonable estimated range of casino taxes that might be raised from a Hampton Roads casino is \$70 million to \$150 million. This range assumes modest casino revenues and average casino tax rates.

\$100 million

Nonetheless, to the extent that casino expenditures reduce other expenditures, we must subtract lost sales tax revenue because of decreased spending on other goods and services. If a dollar spent at the casino represented one dollar less spent at the Patrick Henry Mall, or at the Virginia Beach oceanfront, then there would be no net new tax collections at all. The key, then, would be to attract gamblers from outside of Hampton Roads.

EMPLOYMENT AND WAGES

Casino proponents point to local employment as one of the key economic benefits of casinos. It is true, of course, that a large casino resort is labor intensive to build and to operate. Hence, it would be surprising if casinos did not have a positive impact on local employment. If casinos create enough jobs to stimulate demand in the local labor market, then they could also have a positive impact on wages.

As with casino taxes, one concern about the employment impacts of casinos is whether casino jobs come at the expense of other local businesses. Several studies have examined this "substitution effect" with empirical evidence. The majority of studies have found at least modestly positive employment and wage effects from casinos. One study on employment and payrolls in several Mississippi counties found that ...

"the legalization and subsequent development of casino gaming did not drive all the local restaurants out of business. Casinos did not cause the predicted drop in the number of businesses, nor the drop in people employed, nor the drop in payroll. In fact, just the opposite occurs."¹

However, a recent Canadian study warns:

"The evidence presented in this paper suggests that a skeptical approach be taken regarding the use of employment and earnings gains to justify the legalization or expansion of casino gambling within a locality. Any expectations of new jobs or earnings enhancement should be considered short-term and narrowly-focused within the gambling and hospitality industries. Broad employment and earnings gains in other local industries outside of gambling and hospitality should not be expected."²

University of Connecticut economist Chad Cotti has produced the most comprehensive and authoritative study published dealing with the employment and wage impacts of casinos in the United States.³ He found positive employment impacts of casinos, but very small or insignificant wage

The "Casino Jobs Machine" sometimes works in reverse. The declining popularity of gambling in Atlantic City, N.J., resulted in a loss of 8,000 casino and related hotel employees by summer 2015.

– USA Today (June 10, 2015)

¹ K. Hashimoto and G.G. Fenich (2003). "Does Casino Development Destroy Local Food and Beverage Operations? Development of Casinos in Mississippi," *Gaming Law Review*, 7, p. 101-109. Other studies that examine the employment and/or wage effects of casinos include: E.P. Morse and E.A. Goss (2007). *Governing fortune: Casino gambling in America*. Ann Arbor, MI: University of Michigan Press.; T.A. Garrett (2004). "Casino Gaming and Local Employment Trends," *Federal Reserve Bank of St. Louis Review*, 86(1), 9-22.; B.R. Humphreys and J. Marchand (2013). "New casinos and local labor markets: Evidence from Canada." *Labour Economics*, 24, 151-160.

² B.R. Humphreys and J. Marchand (2013). "New Casinos and Local Labor Markets: Evidence from Canada," *Labour Economics*, 24, 151-160.

³ C. Cotti (2008). "The Effect of Casinos on Local Labor Markets: A County Level Analysis." Journal of Gambling Business and Economics, 2(2), 17-41.

impacts. In a moment, we will use Cotti's estimated employment and wage effects to predict the likely impact of casinos in Hampton Roads.

Cotti collected employment, wage and operating firm count data for 28 quarters (1990-1996) on all counties in the United States, except those in Nevada and New Jersey. There were 161 counties that had casinos open within their borders during this sample period. No distinction was made between tribal casinos and commercial casinos.

Cotti's estimates focused on two types of county-level data. He analyzed "All Industries" in the counties, as well as a subset of industries, categorized as "Leisure and Hospitality." The leisure and hospitality industries include two subsectors, "Arts, Entertainment, and Recreation" (NAICS 71) and "Accommodation and Food Service" (NAICS 72). The former classification includes:

"(1) establishments that are involved in producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) establishments that preserve and exhibit objects and sites of historical, cultural, or educational interest; and (3) establishments that operate facilities or provide services that enable patrons to participate in recreational activities or pursue amusement, hobby and leisure-time interests."4

The Accommodation and Food Services sector includes "establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption."⁵ One important factor in estimating the likely employment and wage effects of a new casino is the casinohosting county's population. A casino resort would represent a large business in a county that has a small population, such as a rural county in Virginia. In such a case, the estimated county-level impact of casinos on employment and earnings would be relatively large. Alternatively, a casino resort would represent a relatively small component of the economy in a very populous county (or city), such as one in Virginia Beach, and would therefore be expected to have a small impact on employment and earnings, in percentage terms. Cotti's results bear this out.

TABLE 3

ESTIMATED LARGE-POPULATION COUNTY **EFFECTS OF CASINOS**

Sector	Employment Effect	Earnings Effect
All Industries	+ 0.28%	- 0.12%
Entertainment (NAICS 71)	+17.6%	+ 7.89%
Hospitality (NAICS 72)	+ 0.65%	+ 1.1%
Weighted Average		
of Entertainment and	+ 3.61%	+ 2.28%
Hospitality Sectors*		
Source: Chad Cotti (2008, p. 34)		

When controlling for county size, Cotti found much smaller impacts for largepopulation counties. The potential casino locations considered in this report for Virginia were Virginia Beach, Portsmouth and Newport News/Hampton. All fall into the large-population county group. The estimated impacts Cotti found for large-population counties are shown in Table 3. These are the estimated employment and earnings effects that would apply to a casino opening in Hampton Roads.

Table 3 reveals that the likely overall impacts on employment and earnings from a Hampton Roads casino are relatively small. However, there would be a modest positive impact on the entertainment/hospitality sector of our economy. These results echo those of the Canadian study quoted earlier.

It is important to note that, according to Cotti's results, there would not likely be any significant employment or wage effects on neighboring counties to the casino county. This means that the modest employment and wage effects shown above are assumed to be confined to the particular county hosting the casino.

Tables 4 and 5 show the projected employment and earnings effects of opening a casino in Newport News/Hampton, Portsmouth or Virginia

⁴ http://www.bls.gov/iag/tgs/iag71.htm (accessed March 25, 2015). ⁵ www.bls.gov/iag/tgs/iag72.htm (accessed March 25, 2015).

			TABLE 4				
	PROJECTED "ALL INDUSTRY" CHANGE IN EMPLOYMENT AND EARNINGS WITH CASINO OPENING						
Jurisdiction	Jurisdiction Employment Effect (Number of Jobs) Earnings Effect (Weekly Wages)						
	No Casino (2015Q3)	With Casino (2015Q3)	Est. Change	No Casino (2015Q3)	With Casino (2015Q3)	Est. Change	
Newport News/ Hampton	150,972	151,395	423	\$877.75	\$876.69	-\$1.06	
Portsmouth	44,098	44,222	124	\$932.47	\$931.35	-\$1.12	
Virginia Beach	172,136	172,618	482	\$744.60	\$743.71	-\$0.89	
Source: D.M. Walker							

TABLE 5

Jurisdiction	Employr	nent Effect (Number	· of Jobs)	Earnings Effect (Weekly Wages)		
	No Casino (2015Q3)	With Casino (2015Q3)	Est. Change	No Casino (2015Q3)	With Casino (2015Q3)	Est. Change
Newport News/ Hampton	15,206	15,754	548	\$288.09	\$294.66	\$6.57
Portsmouth	2,792	2,893	101	\$285.31	\$291.82	\$6.51
Virginia Beach	30,508	31,609	1,101	\$328.67	\$336.17	\$7.50

Beach. Computed by Douglas Walker of the College of Charleston, these estimates are based on Cotti's weighted average estimates in Table 3 and are shown for the overall city of interest (labeled "All Industry") and for the "Entertainment and Hospitality" sector in each city. Since the most recent city data available are for the second quarter of 2014, the projections assume a casino opened in the third quarter of 2014, and there is a one-time casino effect on employment and wages.

Tables 4 and 5 make it clear that there likely would be a very modest impact on employment – mainly confined to the entertainment and hospitality industries. Plus, there might be a very small earnings effect from a new casino.⁶ Most of the job expansion in the entertainment and hospitality sectors would likely come at the expense of other industries. Nevertheless, the new employment would be a benefit.

INTRA-INDUSTRY IMPACTS

Whenever a state or locality is considering the expansion of legalized gambling, it should consider the likely impact a casino will have on other gambling industries. This is because, from the consumer's perspective, one

⁶ The projections use each variable's trend, based on average quarterly change from 2003-14. Future values were projected by taking the last same-quarter observation and adding the trend. So, if employment increased at a 0.5 percent rate, and the 2014Q2 employment was 10,000, then we predict the 2015Q2 employment at 10,050, calculated as 10,000*1.005.

type of gambling may be a good substitute for another. That is, a person who routinely purchases lottery tickets now may decide to frequent a new casino rather than buy lottery tickets. Such an effect on a large scale could have a real impact on the state's tax receipts. In Virginia, the only other significant form of legal gambling is the state lottery.

A variety of studies have examined the relationships among different gambling industries, particularly between lotteries and casinos. Most of these studies indicate that there is, in fact, a "substitute" relationship between gambling industries. In particular, the introduction of casino gambling is likely to have a negative impact on lottery ticket sales.

The most recent, and perhaps more "micro-level," analysis of the impact of casinos on the lottery was done in Maryland.⁷ The analysis used ZIP codelevel monthly lottery sales data in Maryland to determine the impact that casinos have had on lottery sales. It concluded that casinos in Maryland had a negative impact of about 2.75 percent on annual lottery sales. Two additional casinos that will be opening in Maryland are forecast to cause another 2.6 percent decline in lottery sales. Altogether, the six Maryland casinos are predicted to cause a reduction in lottery sales of around 5 percent.

If a casino were to open in Hampton Roads, there likely would be some negative impact on local lottery sales, perhaps a decline in the range of 2 percent to 5 percent. However, the total impact likely would not be as large as that in Maryland. This is because Maryland has casinos located throughout the state; therefore, most of the state's population has easy access to gambling venues. A single casino in Hampton Roads would only impact local lottery sales, which would not be huge with respect to the state's total lottery sales. It is worth noting, however, that the casino coming to National Harbor, a short distance from Northern Virginia, likely will dampen Virginia sales near it. Some believe this is a reason in favor of Virginia opening casinos.

The lottery in Virginia has been relatively successful in a national context. Graph 1 reports lottery sales for fiscal years 1993 to 2013, uncorrected for price inflation. Since the Great Recession, the Virginia lottery has seen a strong increase in sales – from about \$1.37 billion in 2009 to \$1.69 billion in 2013.



⁷ See D.M. Walker and W.E. Cummings (2015). "The Effect of Casino Proximity on Lottery Sales: Zip Code-Level Evidence from Maryland." College of Charleston working paper.

GRAPH 1

NOMINAL LOTTERY SALES, FISCAL YEARS 1993-2013*



Source: D.M. Walker and W.E. Cummings (2015), "The Effect of Casino Proximity on Lottery Sales: Zip Code-Level Evidence from Maryland," College of Charleston working paper * Data include traditional lottery sales only.

Social Costs Of Gambling

Casinos can be beneficial to a local economy because they provide an additional entertainment option for consumers, may attract tourists and may stimulate local employment and tax receipts, as discussed above. Yet, casinos are not a panacea for economic woes. As noted earlier, some of the benefits of casinos may be offset by losses in other industries. In addition, one of the key arguments against casinos is that they may be responsible for significant social costs.

The social costs of gambling have received a lot of attention in the literature, especially during the 1990s when casinos were first beginning their spread across the United States. Most of these costs, which we shall describe in more detail, are attributable to individuals who develop a gambling problem, akin to alcohol or drug abuse. That is, problem gamblers are individuals who gamble to an extent that it disrupts their personal or professional life, or causes them financial stress or ruin.

Problem gamblers often engage in antisocial behavior. Studies that have attempted to measure the social costs of gambling have included negative impacts, including crime, political corruption, bankruptcy, drunk driving, suicide, divorce, incarceration and problem gambling treatment.

Although several studies have attempted to provide monetary estimates of the social costs attributable to problem gambling, most of them are seriously flawed. Most of these studies generate social cost estimates that are based upon arbitrary assumptions.⁸

COMORBIDITY AND PROBLEM GAMBLING

Virtually all social cost estimates in the literature are difficult to accept because they do not take into consideration that pathological gambling, more often than not, occurs simultaneously with other disorders ("comorbidity"). This means that individuals who have a gambling problem often have other disorders, such as alcohol or drug abuse, or compulsive shopping. One study estimated that 73 percent of pathological gamblers also have an alcohol use disorder.⁹ In addition, the researchers found that 38.1 percent of problem gamblers have had a drug use disorder at one point or another in their lives. Mood disorders affected roughly 50 percent of pathological gamblers, 41 percent had anxiety disorders and almost 30 percent had obsessive-compulsive personality disorder. Other studies find similar results.

Compulsive gamblers, then, are not a cross-section of the American population and many suffer from a variety of physical and social ills unconnected to gambling. Hence, one cannot attribute all of their problems to compulsive gambling.

PREVALENCE RATE

Approximately 0.5 percent to 2 percent of the general public is thought to be afflicted with a gambling disorder. This rate does not seem to vary by region or through time. Although there is some evidence that the introduction of a new casino may lead to at least a short-term increase in the rate of problem gambling, evidence indicates that this rate falls back to around the previous rate as time passes.¹⁰

Hampton Roads is home to 1.7 million people, so it is safe to assume that there are already between 8,500 and 34,000 problem gamblers residing in our region. The number might rise somewhat if a casino is introduced, but would return to about these levels in the long run, based upon the experience of other regions.

CASINOS AND CRIME

As noted earlier, pathological gamblers may engage in criminal activity to finance their gambling activities. They also may be more likely to file for bankruptcy and get divorced. In addition, they may face higher incarceration rates, accumulate debts they cannot pay and be less productive in their jobs. Psychologists have studied the problematic

⁸ For a full discussion, see chapters 13 and 14 of D.M. Walker (2013). *Casinonomics: The Socioeconomic Impacts of the Casino Industry*. New York: Springer.

⁹ N.M. Petry, F.S. Stinson and B.F. Grant (2005). "Comorbidity of DSM-IV Pathological Gambling and Other Psychiatric Disorders: Results from the National Epidemiological Surveys on Alcohol and Related Conditions." *Journal of Clinical Psychiatry*, 66(5), 564-574.

¹⁰ This is referred to as an "adaptation effect." See H.J. Shaffer, R.A. LaBrie and D. LaPlante (2004). "Laying the Foundation for Quantifying Regional Exposure to Social Phenomena: Considering the Case of Legalized Gambling as a Public Health Toxin." *Psychology of Addictive Behaviors*, 18, 40-48.

behaviors associated with gambling, and are continuing research on treatment options. The negative impacts of problem gambling clearly are worth consideration prior to the introduction of casino gambling into a region.

There have been numerous studies of crime rates before and after the introduction of casinos. At least two theories of crime suggest there may be a link between casinos and crime. One is the economic theory, which suggests that criminals are rational, and that the decision to commit crime is based on a comparison between expected costs and benefits. Casinos may be a catalyst for criminal behavior because casino patrons are likely to carry large amounts of cash. The other major theory, the routine activities theory of crime, focuses on three simultaneous conditions – likely offender, suitable targets and a lack of enforcement against crime – that create the ideal atmosphere for criminal activities. In the view of some, casinos provide all three.

A recent review of the casinos and crime issue examined 16 different studies conducted between the mid-1980s until about 2010.¹¹ The markets studied included cities such as Atlantic City, Biloxi and Reno; states including Colorado, Wisconsin and Indiana; and counties in various states. Among the 16 studies reviewed, eight studies found no casinos and crime link, six found that casinos unambiguously increased crime and two reported mixed results.

Summing It Up

If a riverboat casino were to open, say, on the Elizabeth River in the middle of Hampton Roads, it would have only a small economic impact on our region. This is because casino expenditures usually reduce other expenditures. Only if the casino attracted gamblers from outside Hampton Roads, or if it acted as a magnet so that our residents stopped spending money outside our region, would there be any economic impact of note.

The casino would generate additional tax revenues, but once again likely at the expense of tax revenues being collected at other businesses throughout the region.

There would be social costs attached to the new casino, though these have proven to be difficult to document on a broad scale in other states.

¹¹ Chapter 16 in D.M. Walker (2013). Casinonomics: The Socioeconomic Impacts of the Casino Industry. New York: Springer.

Cover: Port of Virginia United Way of South Hampton Roads Inside Front Cover: Sara Kidd, Hampton Roads Planning District Commission Page 1: Steve Daniel

Page 23: City of Suffolk, Newport News Tourism Development Office, City of Portsmouth

Pages 41, 48 and 50: Huntington Ingalls

Page 45: Jefferson Lab

Page 46: Atlantic Diving Supply

Pages 55, 61, 68 and 71: Port of Virginia

Page 77: United Way of South Hampton Roads

