The Gaming Industry in the Mid-south and the Factors
That Effect Revenue

Jerrod Anderson

Introduction:

Gambling in the United States is described as coming in three waves. The first wave came before the country's inception. The Continental Army used lotteries, and the early founding of Harvard, Dartmouth, and Princeton was supported by games of chance (Blevins 1998). By the 1830s, east of the Mississippi River, these games had been made illegal. The second wave came with westward expansion and the settlement of California, but by the early 1900s gaming was again made illegal. In 1931, the third wave began when Nevada authorized casino gambling, and Nevada remained the only state with legalized casino gambling until 1976 when New Jersey authorized gaming in Atlantic City. Gaming in Nevada carried with it a sordid reputation. Although the casino industry was characterized with high profits, casinos could not access "mainstream sources of financial capital." Managers of casinos, therefore, turned to other means of financing casino operations, such as criminal organizations. Not until 1969 could publicly traded corporations invest in casino gaming. When Nevada passed the Corporate Gaming Act, corporations such as MGM and Hilton entered the casino industry. Other states tried to push through laws that would allow gaming, but except for New Jersey, all these efforts failed. In 1988, when Congress passed the Indian Gaming Regulatory Act, those in favor of legalizing gaming gained a foothold. The Indian Gaming Regulatory Act and the legalization of slot machines outside of casinos were the catalysts that drove the increase in casino gaming. Between 1982 and 1997, casino

revenues almost tripled, reaching just over $20 billion in 1997. The public attitude towards casinos shifted from the stigma that linked casinos and organized crime to an attitude that accepted gambling as a form of recreation. Another factor that stimulated the growth in casinos was the issue of cross border gaming. In these situations, residents of a state that did not have casinos would go to bordering states that did have casinos. Noticing the revenues that were lost and the potential revenue gains, those states that did not have casinos were led to consider legalization of casinos (Eadington 1999).

The issues surrounding the legalization of casino gambling can generally be placed in two categories: economic and moral. The moral arguments often are in opposition to casino gambling and touch on possible consequences, such as increase in problem gambling, increase in crime, etc. Some moral arguments against casino gambling, such as the deterioration of a good work ethic, cannot be examined by economics, but some arguments can be examined in cost benefit analyses. There have been numerous articles written on the connection between casinos and street crime. Other studies have looked specifically at the cost of problem gambling to society, and other studies have examined factors that add to, such as job creation, and detract from, such as cannibalization of less efficient local establishments[1], the total net benefit contributed by casinos. The debate of legalization of casinos has been viewed mainly through these two categories.

The issue of gambling is constantly evolving. In recent years the issue of internet gambling has been of particular interest in the on-going debate concerning gambling. The same issues that are heard in the debate over casinos also appear with regard to

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[1] Cannibalization impact is what occurs when the expenditures of customers are diverted from one business to another, such as local restaurant customers eating at a newly opened Wendy's (Gazel 1998).

internet gambling: should internet gambling be legal, and if so, how should it be

regulated? These are the questions that constantly appear in the issue of casino gambling.

One argument for legalizing casinos is the additional revenue that will be

collected by local and state economies. The direct and indirect revenue gains are

included in this. The direct revenue gain comes from the tax placed specifically on

individual casinos, normally with a percentage of the tax divided between the state and

local government. The taxes that states place on casinos range from 6.25 percent in

Nevada to 35 percent in Illinois. The tax on casino revenue is not a primary source of

funding for state governments, except for Nevada, which is the only state heavily

dependent on revenues from taxes on casino (Eadington 1999). Some supporters in state

legislatures support casino gambling based on this idea, and they sell the idea of

gambling to their constituents by proposing to earmark the tax revenue to specific

programs, such as education (Garrett 2003). The indirect revenue gains come from the

added economic benefits that come with casinos, such as job creation, tourism,

development and redevelopment, etc., and it has often been the case that the areas in

which casinos are placed are resource poor or under some economic distress (Eadington

1999). An increase in employment would increase income tax revenue if the state has an

income tax. Sales tax revenues might increase, and the local government would collect

more in property tax. This paper will focus on the direct revenue gains from taxes on

gaming revenue.

Casino gaming became legal in Mississippi with the passing of the Gaming

Control Act by the Mississippi legislature in 1990. The growth of the gaming industry in

Mississippi has been attributed to the "Nevada-style" structure. There is no limit on the

number of licenses that can be granted nor is there a limit on how much an individual player can lose. The tax on gaming revenue in Mississippi is 12 percent, with 8 percent collected by the state and 4 percent collected by the local governments.

The Mississippi gaming industry is divided in three regions: the north river, the south river, and the coastal regions. The coastal region economy has been supported by shipbuilding, defense industry, and the State Port at Gulfport, but the gaming industry has been an important sector for job creation. Some of the housing growth has been attributed to the introduction of gaming. In 1999, the average number of homes sold per month was 210, which shadows the 75 yearly housing starts prior to the introduction of gaming. The 130 percent increase in hotel rooms can almost be solely attributed to gaming industry. The median income of gamblers in the coastal region is between $40,000 and $49,999.

The north river region has also experienced tremendous growth. Residential development has increased in this region, with an increase in apartment construction and single-family dwellings. The retail industry has also experienced increased growth with the construction of large retail outlet in Tunica County. As in the coastal region, the north river region has had increased construction of hotel rooms, which increased from 20 rooms in 1992 to 6093 in 2000. The median age of gamblers in the north and coastal regions is 49.

The south river region has also experienced significant growth. The personal disposable income of Washington County increased by nearly $100 million between 1991 and 1997. The number of individual tax payers also increased by 16 percent between 1993 and 1997. The south region has not experienced the growth in retail that

the north and coastal regions have. While the counties in the north and coastal regions have experienced retail growth above the Mississippi average, the growth of retail in the counties in the south region has been either less or in-line with the Mississippi average. In contrast to the other regions, the median age of gamblers in the south region is 39. The median income of gamblers in the north and south regions is between $30,000 and $39,999, which is lower than the median income of gamblers in the coastal region. As of 1999, whereas out-of-state gamblers comprised the majority of visitors to casinos in the north river and coastal regions, only 23 percent of those visiting the casinos in the south region were from out-of-state (Herrman 2000).

The north and south river regions are very similar in background. Being part of the Mississippi Delta, these two regions are characterized by an agrarian history, and agriculture is still a large part of the delta economy with the cotton industry alone providing almost 30,000 jobs and producing over $2 billion in revenue in 1999 (HAC 2002).

Much debate over casinos has involved the issue of whether urban or resort casinos should be encouraged. Destination resort casinos are the strongest type of casino gambling for job creation and lessening the negative social impact. The ability of urban casinos to support non-gaming activities- restaurants, retail, etc.- is diminished because the consumer base of urban casinos have the foremost motivation to gamble, which contrast with the consumer base of resort casinos whose motivation for traveling to the casino is to have the "resort experience." Cannibalization tends to have more of an impact in areas that have urban casinos because the consumers come from the

metropolitan area and the gaming is not, in effect, exported to consumers in other regions (Eadington 1998).

There has been some research done in the area of forecasting gaming revenue. It was found that the California personal income was a highly significant variable in Nevada gaming revenues. This independent variable was examined alongside the dummy variables of energy crisis and current economic conditions. The dummy variables were found to not be significantly different than zero. The personal income of California was examined because California, at the time of the study, was the major tourist base for Nevada (Cargill 1978). In 1998, slot machines were the primary source of casino revenue, with 65.3 percent in Las Vegas, 70.1 percent in Atlantic City, and 94.5 percent in Colorado. This is a departure from the percentages of revenue produced in 1980, when table games produced 55.6 percent of total revenue in Las Vegas. The types of customers, specifically local or visiting, can affect the casino's advantages on slot machines, with the house's advantage lowering for casinos that cater to local gamblers (Eadington 1999). Demand for gambling was found to increase as accessibility increased to gambling facilities. Government restrictions on gaming such as loss-limits have been found to have a negative effect on demand, and demand for gaming was found to have a negative correlation to per capita income at lower levels and a positive correlation to per capita income at higher levels (Thalheimer 2003).

There has also been a rise in the riverboat gaming industry since its beginning in 1991. It was found that an increase in riverboat gaming leads to an increase in resort casino gaming. This is because riverboat casinos provide a largely local customer base a low cost substitute to resort casino gaming, which enables the consumer to determine

whether he or she enjoys gambling. With this experience, locals who enjoy their gambling experience have more of a demand to visit resort casino areas (Hunsaker 2001).

With the tremendous growth in the gaming industry, it is important for states to know what variables affect gaming revenue and therefore the tax revenue from gaming in order to know how to best approach the issue of casino gaming. In this paper, I will examine demographic, location, and game type variables to determine whether these variables have a significant impact on gross gaming revenue relative to the number of casino visitors. The results, if relevant, will then be applied to Memphis in order to determine the effect conditions in Memphis would have on hypothetical gaming revenues.

Data:

The data presented in this paper pertains to the gaming establishments in Louisiana and Mississippi. These two states have a total of seven casino districts. Mississippi is divided into the North and South River regions and the Coastal Region. Louisiana has four casino districts: Baton Rouge, New Orleans, Lake Charles, and Shreveport-Bossier.

Revenue:

The gross gaming revenues of the casino districts are shown in Figure 1. The revenues are recorded in real dollars in the time period between the first quarter of 2000 and the first quarter of 2006. As can be seen in the graph, the north and coastal regions in Mississippi are the highest grossing regions, and Baton Rouge is the least grossing region. The sharp drop in revenue from the Coastal and New Orleans regions is due to

the effects of Hurricane Katrina. The highest grossing quarter within this timeframe for

the coastal region was the third quarter of 2000 with revenue of $478,131,124. From the

Figure 1

Figure 1 title: **Quarterly Gross Gaming Revenue**
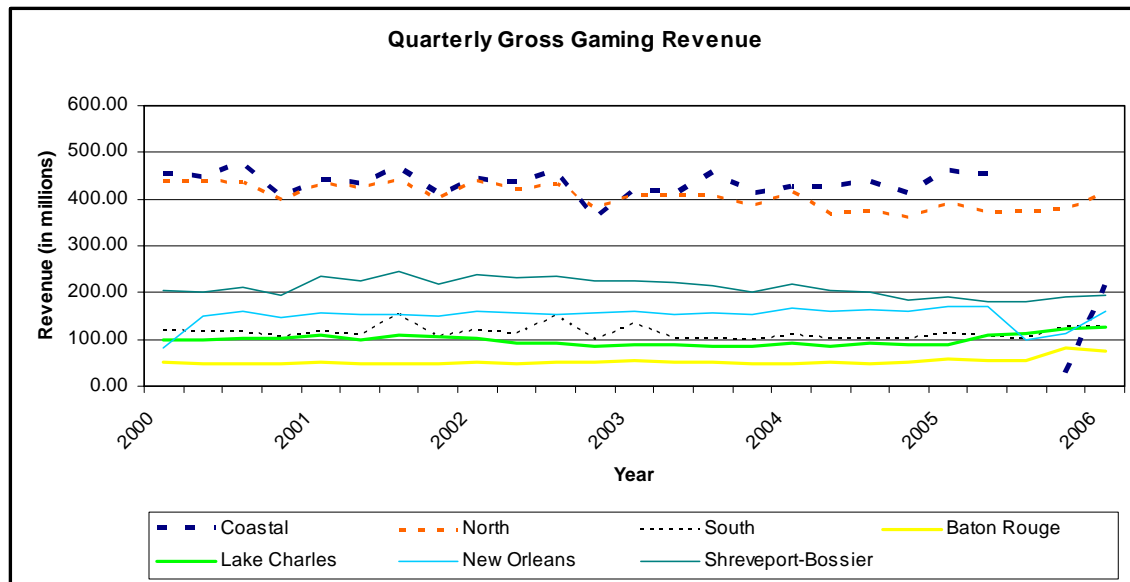
graph, one is able to see that the gross gaming revenue has remained relatively constant

between the first quarter of 2000 and the first quarter of 2006.

The regions with the highest number of visitors were the Coastal and North

regions in Mississippi. The number of visitors in these regions range between 5,000,000

and 7,000,000. The Baton Rouge region had the least number of visitors, holding steady

around 700,000 visitors. The Mississippi Gaming Commission provides information on

the visitors' state of residency. In the Coastal region during the second quarter of 2005,

15 percent of the visitors resided in Mississippi. Louisiana provided the most visitors for

the Coastal region with almost 24 percent. Tennessee only provided 1.15 percent of the

visitors to this region. During this same period, the North region had less than 1 percent

of visitors come from Mississippi. Tennessee provided the most visitors with 29.16

percent of the total number of visitors. Approximately 13 percent of visitors to the North

region came from Louisiana. The majority of the visitors to the South region during the

same quarter came from Louisiana, which provided 55.44 percent of the total visitors.

16.22 percent of the visitors were residents of Mississippi, and 1.09 percent of the visitors

came from Tennessee. The majority of the visitors to casinos in Mississippi have been

Table 1

Visitors to Mississippi Casinos 2005 Second Quarter

Region	In-State	Out-of-state
Coastal	15.80	84.20
North	0.55	99.45
South	16.22	83.78

from out-of-state, making up 82.4 percent of the Coastal market, approximately 99

percent of the North market, and 83.78 percent of the South market. This is a dramatic

increase of out-of-state gamblers in the South region from 1999 as reported by Herrman

in 2000.

The Figure 1 shows the total revenues produced by the different regions, but it is

important to see how efficiently that revenue is being gained. A good measure of this is

the revenue the regions make from each visitor that visits the casinos. If the revenue per

visitor in a region is higher than the revenue per visitor in another region, the region with

the higher revenue per visitor is bringing in revenue more efficiently. Figure 2 and

Figure 3 below show the revenue per visitor in Mississippi and Louisiana. The revenue

per visitor is recorded in real dollars over the same time as the gross gaming revenues

above. The revenue per visitor for both Louisiana and Mississippi stay within the range

of $50 to $100 per visitor. After the third quarter in 2005, there was a sharp increase in

the revenue per visitor in the Coastal region in Mississippi and the regions in Louisiana,

which can be explained by an influx of high rollers to the casinos in the region.
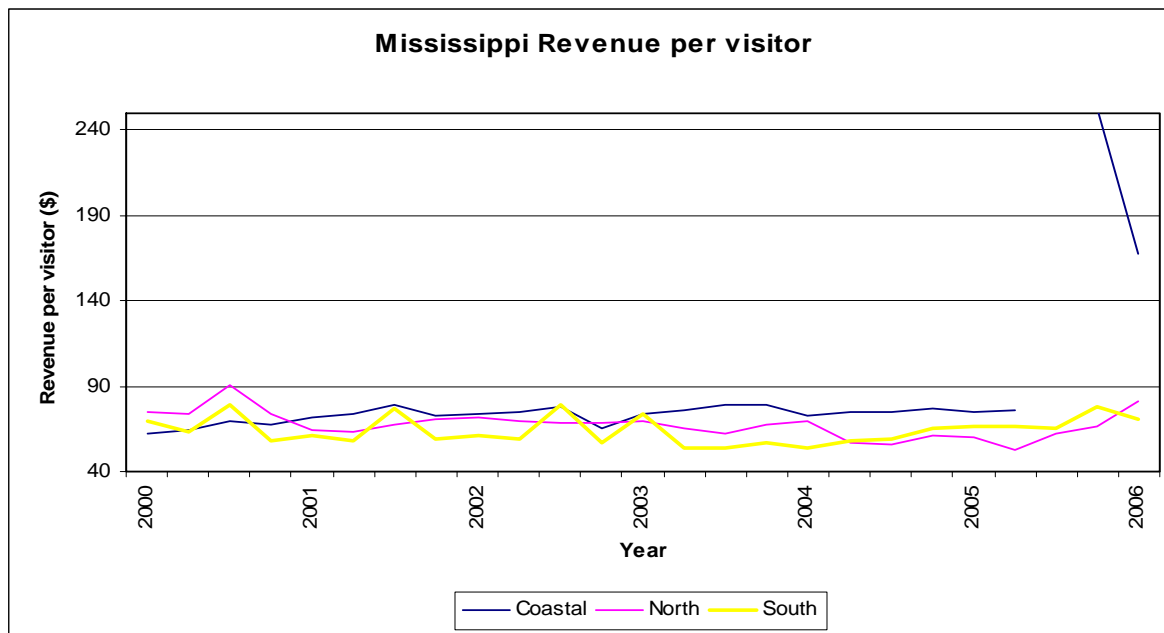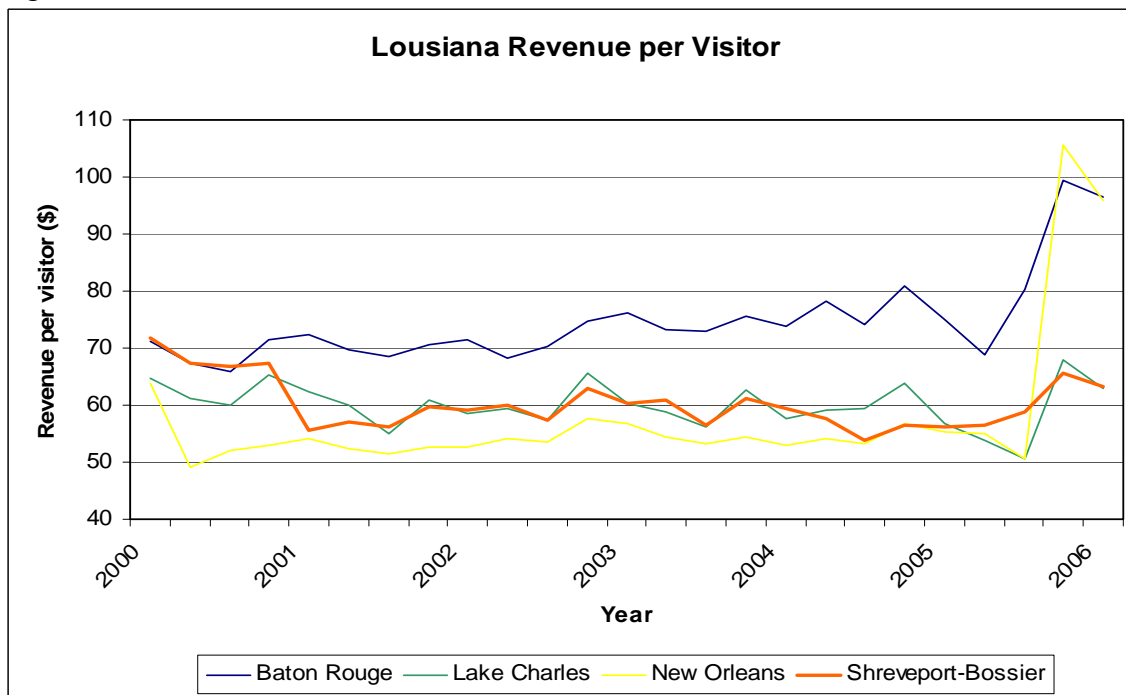
Figure 2

Mississippi Revenue per visitor

Figure 3

Lousiana Revenue per Visitor

The breaking of the line that represents the Coastal region is due to the closure of all the

casinos in that region after Hurricane Katrina.

As can be expected, since the North and Coastal regions had significantly higher

revenues, more tax revenue will come from these regions. The Coastal region normally

was the source of more tax revenue than the North region, until Hurricane Katrina.

Figure 4 below shows the tax revenue gained by the state and local governments between

2001 and 2006. The revenue that came from taxing the North and Coastal regions range

Figure 4
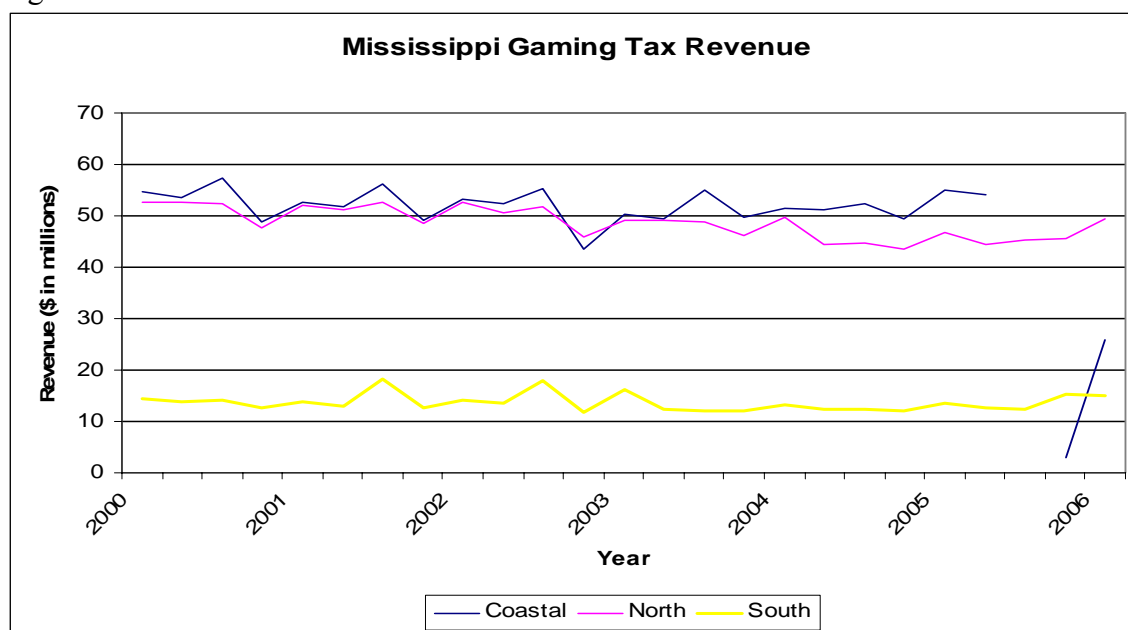
between $40 million and $60 million per quarter with the South region providing

between $10 million and $20 million. The quarter that provided the highest tax revenue

in this time series was the third quarter of 2001 with $127,276,278.

Regional Economies:

Data on the regional economies has also been collected focusing on the population, per capita income, and the percentage of the economy that is indicated as hospitality and leisure. This information pertains to the counties containing the casino and the counties that border the casino counties. Population was reported on a yearly basis between 2001 and 2004. Over this time period, the regions have been relatively

Table 2

Population of Gaming Regions

	2001	2002	2003	2004
South	610,736	606,200	603,201	600,789
North	401,708	405,071	409,509	414,802
Coastal	626,271	634,038	641,002	653,402
New Orleans	1,219,512	1,219,689	1,220,994	1,222,505
Baton Rouge	672,396	677,109	683,344	689,858
Lake Charles	356,770	356,479	357,716	358,480
Shreveport-Bossier	618,537	619,249	620,852	624,257

static. Shown in Table 2, the New Orleans region has the greatest population, hovering just above 1.2 million. The Lake Charles region has the smallest population with just under 400,000 residents.

Per capita income is also reported yearly by the Bureau of Labor Statistics and can be seen for each region between 2001 and 2004 in Table 3 below.   The table

Table 3

Per Capita Income of Gaming Regions

	2001	2002	2003	2004
South	20,398.06	19,927.69	21,671.78	22,167.13
North	21,870.00	20,895.80	23,035.08	23,153.98
Coastal	26,411.41	26,631.85	27,094.62	27,409.66
New Orleans	30,784.20	30,671.17	30,834.38	31,556.02
Baton Rouge	25,645.50	25,966.04	26,067.85	26,863.61
Lake Charles	23,027.12	23,061.58	23,393.18	23,690.86
Shreveport-Bossier	24,422.12	24,187.82	24,668.64	25,687.81

shows that the New Orleans region has the highest per capita income of approximately $30,000. The North and South regions in Mississippi have the lowest per capita income.

The number of establishments considered part of the hospitality and leisure industry has been analyzed with respect to the total number of firms in each region. The Bureau of Labor Statistics reports these figures quarterly. The following illustration represents the percentage of establishments within the individual regional economies that are classified as hospitality and leisure establishments:

Figure 5
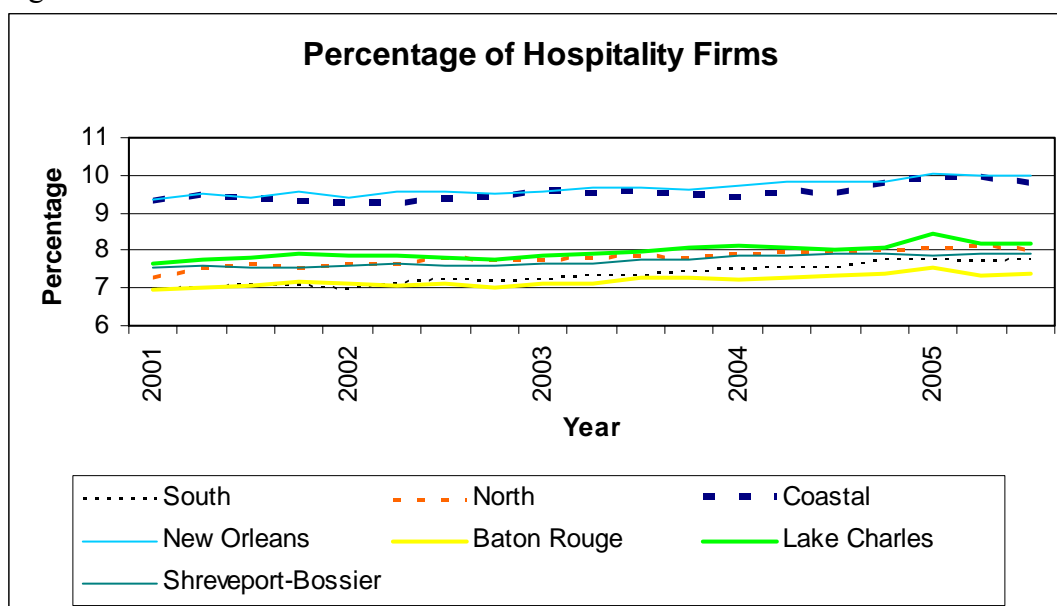
The data presented here is recorded for the first quarter of 2001 through the third quarter of 2005. All the regions experienced slight increases in the percentage of establishments in the hospitality and leisure industry. The percentage of establishments in this industry for all regions, except for the New Orleans and Coastal regions, remained around seven and eight percent of the total number of establishments in the region. The New Orleans and Coastal regions had a higher percentage of hospitality firms, with about ten percent of the total number of firms in the hospitality industry.

The wages paid in the hospitality industry relative to the total wages paid within the regions is also examined within the time period between the first quarter of 2001 and the third quarter of 2005. Figure 6 below illustrates the percentage of the regional wages

paid that come from the hospitality and leisure industry. The South and Baton Rouge

regions are here reported as having the highest percentage of wages that come

Figure 6
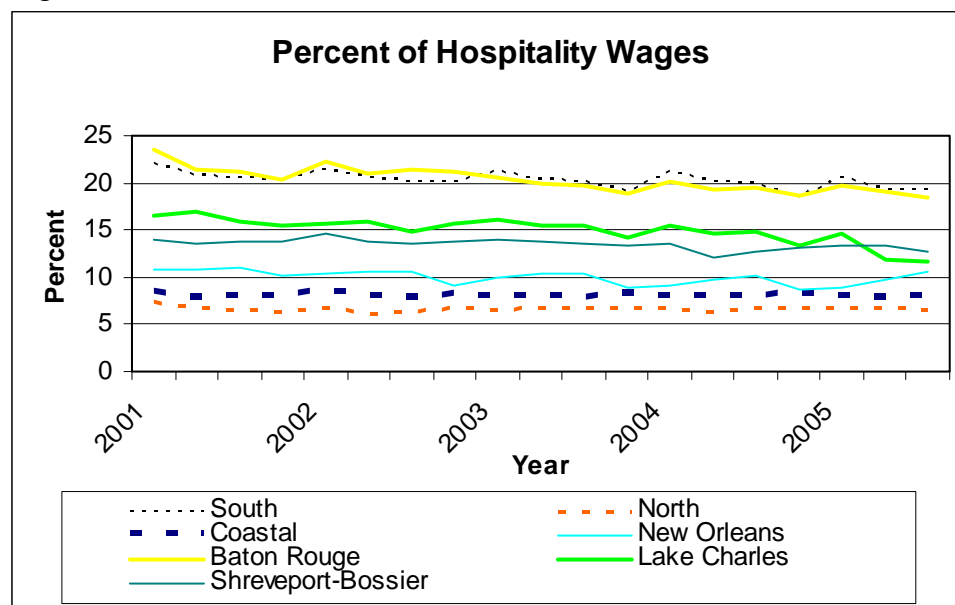
from the hospitality industry. These two regions experienced a decline of hospitality

wages as a percentage of total wages, from approximately 23 percent in the first quarter

of 2001 to approximately 19 percent in the third quarter of 2005. An interesting note to

make here is that while the Coastal and New Orleans regions had the highest number of

hospitality establishments as a percentage of total establishments, these two regions at the

same time have two of the lowest amounts of hospitality wages as a percentage of total

wages. This can be explained by the initial hospitality industry attracts more jobs in other

industries and thereby decreasing the amount of wages of the hospitality industry relative

to total wages.

Games:

The games of casinos in Mississippi have also been analyzed. The Mississippi

Gaming Commission reports the number of slots and table games at each casino monthly.

The sums of the table games and slot machines have been taken for each to determine the total number of slot machines and table games in each region.
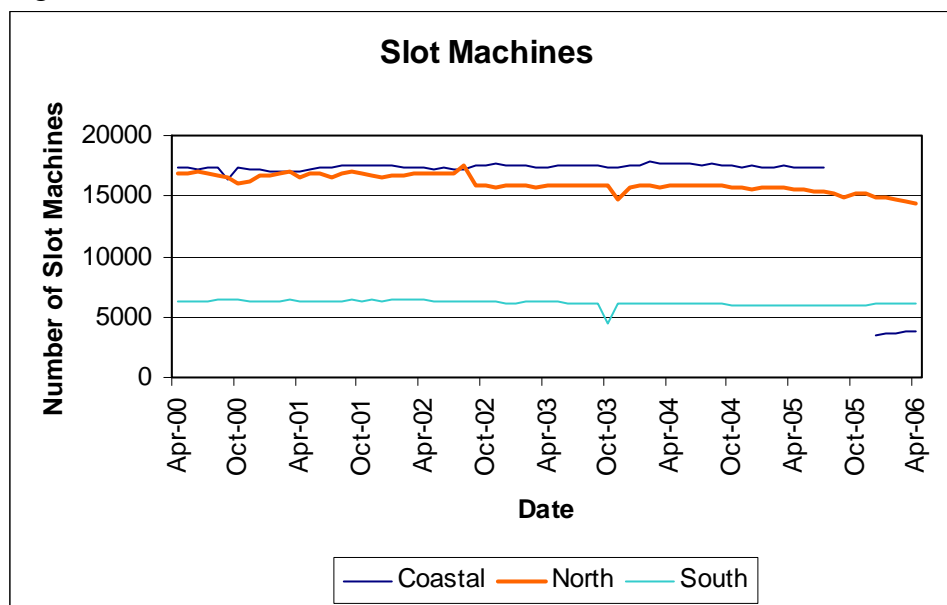
Figure 7

Figure 7 shows the total number of slot machines in use in each region between April 2000 and April 2006. The Coastal region reported the greatest number of slot machines in Mississippi until Hurricane Katrina struck. The Coastal and South regions had a relatively consistent number of slot machines in the casinos, with the Coastal region containing approximately 17,000 machines and the South region containing approximately 6000 machines. The North region, however, experienced negative growth in slot machines. In April 2000, there were 16,797 slot machines in the casinos of the North region; this number fell to 14,319 slot machines in April 2006.

The number of tables in the three regions fell steadily between April 2000 and April 2006. The Coastal region, as with the slot machines, had the greatest number of table games. The number of tables in the South region decreased from 166 to 116 tables between April 2000 and April 2006; the number of tables in the North region decreased

from 564 to 422 tables within the same time period. The amount of tables in the Coastal region fell from 661 to 516 tables between April 2000 and August 2005.

I also analyzed the number of poker tables in each to see whether the seemingly growing popularity in poker, with the World Series of Poker being televised on ESPN and the surge in online poker rooms, is reflected in a growth of poker tables. The North region trend was characterized by slightly positive growth with short-lived upward spikes in the number of poker tables. Between April 2000 and April 2006, the number of poker tables in this region increased from 49 to 61 tables. In the South region, the number of poker tables went from thirteen in April 2000 to zero in May 2002. Poker tables reappeared in this region in March 2004, and by April 2006, the number of poker tables rose to eight tables. Between April 2000 and July 2005, the number of poker tables stayed relatively constant around 50 tables.

The slot to table ratio was determined by taking the total number of slots in a region for one month and dividing that by the total number of tables in the same region for the same month. The graph below shows the slot to table games ratio for the three Mississippi regions between April 2000 and April 2006. The graph shows that the South region has the highest slot to table ratio, which ranges from 37.36 slot machines for every table game in April 2000 to 52.73 slot machines for every table game in April 2006. This is also the sharpest rise in the slot to table ratio in the three regions if the effects of Hurricane Katrina are not taken into account. The North and Coastal regions experienced modest growth in slot to table ratios, with the North region having 29.78 slot machines for every table game in April 2000 to having 33.93 slot machines for every table game in

April 2006. The Coastal slot to table ratio rose from 26.23 slot machines for every table game in April 2000 to 32.77 slot machines for every table game in July 2005.

Figure 8
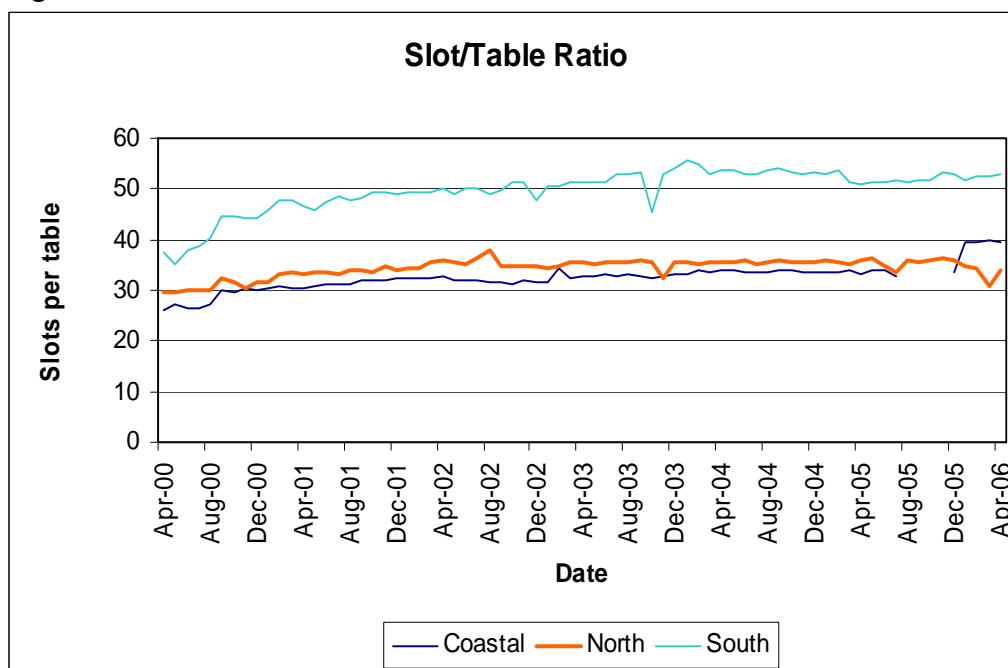
The data that has been gathered will be used to build a model to determine some factors that affect changes in gaming revenue. Some of the variables that will be examined are the types of games in the regions and whether the ratio of slot machines to table games, the ratio of slot machines to poker tables, or the ratio of poker tables to total table games has a significant impact on revenue. Accessibility to major cities, specifically the distance from a city with population of 500,000 or greater, will also be examined. Factors pertaining to the local economy, such as percent of total firms and wages coming from the hospitality and leisure industry, and the local per capita income will also be examined. The local demographics will also be viewed for the possible effects on revenue.

Data Analysis:

The dependent variable for the regressions run is the revenue that is produced for each visitor to the casinos. The main model will be:

Revenue/visitor = $\beta 0 + \beta 1$(population)$+\beta 2$(income)$+\beta 3$(distance from major

city)$+\beta 4$(tourism firms)$+\beta 5$(tourism wages)$+\varepsilon$

The variable of population and income captures the population and per capita income of each gaming district. The variable of distance refers to how far away each district is from a city with a population of 500,000 or more. The variable of tourism firms measures the number of firms in the tourism industry relative to the total number of firms in the region, and the variable of tourism wages refers to the amount of wages paid by the hospitality sector relative the total amount of wages paid within the region.

Table 4

Adjusted R-Squared	0.94			
Real revenue/visitor	**Coef.**	**Std. Err.**	**t**	**P>t**
population	-0.00011	0.000012	-8.98	0
distance	-0.02587	0.021268	-1.22	0.227
per capita income	-0.00292	0.000582	-5.01	0
tourism firms	4.375201	0.545489	8.02	0
tourism wages	8.521182	0.466858	18.25	0
_cons	31.77182	16.28758	1.95	0.054

Table 4 shows the results of the main model. The adjusted R-squared for this model is .94, which means that 94 percent of the variability in revenue per visitor is explained through this model. The variables of population, per capita income, tourism firms, and tourism wages all show significance in this model. The coefficient for the population variable is -0.00011, which means that for each unit increase in population there is an estimated decrease of 0.00011 units in revenue per person, so the higher the population of a region is there will be less revenue per person collected. Casinos in

cities are not as profitable per person as resort casinos. The coefficient for per capita income is negative, which captures the fact that in the data per capita income was higher in the urban areas. The coefficients of the tourism variables show a positive correlation with revenue per person. This is because much of the resort areas economy is based around the already present casinos. It is important to note that the unit for population is one individual, and the unit for tourism firms and wages is one percentage point. While the tourism variables have large coefficients, it would be hard to increase or decrease the percentage of tourism firms or wages in an economy.

The second model tested the variables of slot to table ratios, Hurricane Katrina, and three regions of Mississippi. The adjusted R-squared of this regression is 0.2738,

Table 5

Adjusted R-Squared	0.2738			
Real revenue/visitor	**Coef.**	**Std. Err.**	**t**	**P>t**
slot_table ratio	-0.64443	0.940561	-0.69	0.496
Katrina	35.43655	8.616929	4.11	0
North	-5.8357	15.75484	-0.37	0.712
Coast	13.17507	17.44099	0.76	0.453
Distance	0.059632	0.117001	0.51	0.612
_cons	96.72278	46.66538	2.07	0.042

which means that 27.38 percent of the variability in revenue per visitor is explained through this model. Hurricane Katrina was found to be the only significant variable in the regression. This is mainly because the casinos in the Coastal region were closed for months before three of the casinos reopened in December. The coefficient for this variable is 35.44, which means the revenue per visitor is 35.44 units more than if the Hurricane had not occurred. This can be explained by an increase in the amount of money people are wagering, which means there were more high rollers visiting the

casinos. The presence of high rollers could attract other gamblers because of the exciting

high-stakes wagering occurring.

The next model also uses the regional dummy variables, Hurricane Katrina, and

the distance from large cities, but it replaces the number of slots to table games with the

number of poker tables to total number of table games ratios. The adjusted R-squared

Table 6

Adjusted R-squared	0.4026			

Real revenue/visitor	Coef.	Std. Err.	t	P>t
Katrina	15.26765	9.160717	1.67	0.1
North	-25.3998	10.14234	-2.5	0.015
Coast	6.308258	7.6582	0.82	0.413
Distance	-0.08403	0.103601	-0.81	0.42
poker_table	378.1713	101.4941	3.73	0
_cons	56.25226	10.84005	5.19	0

for this model is 0.4026. With the poker to total table games ratios included, Hurricane

Katrina becomes insignificant and the North regional variable becomes significant with a

coefficient of -25.3998. The poker to table games ratio is also significant with a

coefficient of 378.1713. This means that there is an estimated increase of 378.1713 units

in revenue per visitor with each one unit increase of the poker to total table games ratios

as long as the other variables are held constant. This can be explained by the regions

with a higher number of poker tables relative to the total number of table games attract

customers that are willing to wager more.

When the number of hotel rooms and the percent of occupancy for the hotel

rooms were put into a model with the regional and Katrina dummy variables, the regional

Table 7

Adjusted R-squared	0.7969			

Real revenue/visitor	Coef.	Std. Err.	t	P>t
North	127.0987	12.03176	10.56	0

Coast	156.8083	11.82653	13.26	0
Hotel rooms	-0.02383	0.001942	-12.27	0
Percent occupancy	22.94522	29.38271	0.78	0.438
Katrina	0.698064	5.172334	0.13	0.893
_cons	71.77875	23.0451	3.11	0.003

variables showed significance along with the number of hotel rooms. The adjusted R-squared for this model is 0.7969. The coefficient for hotel rooms shows a negative impact on revenue per visitor for each unit increase in hotel rooms. The regional variables become significant because, since the regions are considered resort casinos, so there is some correlation between the regions and hotel rooms.

This last model describes the relationship between revenue per visitor and low-denomination slots, defined as slot machines that cost one dollar or less to play. Before the progressive slots were included in the model, the 25-cent slots were the only machines to show significance with a coefficient of 0.04. When the progressive slots were included in the model, the 25-cent slots lost their significance. The progressive

Table 8

Adjusted R-squared	0.1556			
Real revenue/visitor	**Coef.**	**Std. Err.**	**t**	**P>t**
s0_05	0.003889	0.00832	0.47	0.642
s0_1	-0.02801	0.019703	-1.42	0.16
s0_25	0.013447	0.010934	1.23	0.224
s0_5	0.021975	0.030818	0.71	0.479
s1	-0.00981	0.012714	-0.77	0.444
s_05p	0.040492	0.137225	0.3	0.769
s_25p	0.148558	0.15802	0.94	0.351
s_5p	-0.95246	0.369964	-2.57	0.013
s1_p	0.512949	0.276684	1.85	0.069
_cons	64.65538	3.96795	16.29	0

fifty-cent slots gain significance. Each machine has a negative coefficient. The progressive fifty-cent machine has a negative coefficient because players know they have a small chance of winning the jackpot and are therefore less willing to play.

Conclusion:

In this study, Louisiana and Mississippi casinos were examined in order to determine what leads to greater gross gaming revenue and, therefore, greater gaming tax revenue. It was shown in a model that observed population in the casino regions, per capita income in casino regions, distance from a major city, and the amount of tourism-related industry and wages in an economy. The model showed that the population, income, and tourism variables were significant. From this model, it was determined that city casinos are not as profitable per person as resort casinos are.

As discussed in the introduction, urban casinos are more likely to lead to cannibalization, which does not lead to a total net economic benefit. As far as Memphis is concerned, casino gaming should not be sought out to be introduced into the city. With a population of about one-million in the greater Memphis area, it seems unlikely that there could be a resort-type casino industry set in Memphis. The percentage of tourism firms and wages are also on the low end of the spectrum relative to the observed area, with 7.5 percent of the firms and 4.1 percent of the wages in the economy come from the leisure and hospitality industry.

There is a great likelihood that if a casino were introduced to Memphis that that it would bring in revenue and the state would collect gaming tax revenues. There is also a great likelihood that the majority of gamblers who would visit a Memphis casino would be local because the north river region has a mature and massive gaming industry. With this competition to the south of Memphis, it would be very difficult to create a resort-like casino industry in Memphis. But with the jobs that are provided in Tunica and the

location of Harrah's regional corporate office being in Memphis, there may be something

gained by supporting the resort gaming industry in Mississippi.

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