

**CHAPTER 4**

**GAMBLING BENEFITS**

## INTRODUCTION

The benefits from gambling are presented in this chapter. Each major form of gambling under study will be discussed separately. As presented in Chapter 2, gambling benefits include:

1. Net new direct spending in the State due to gambling. Great care must be taken to determine if spending is really new to Louisiana or is existing spending that is diverted from some existing industry or business. The research team employed several different methodologies to identify net new spending as opposed to diverted spending. First, in interviews with local residents and casino patrons from Louisiana, questions were asked to determine the sources of their gambling funds. Second, econometric analysis was used to determine the net effect of the introduction of gambling in an area by analyzing data on total employment, sales tax revenues, and the like.

When calculating the net new spending, it is important to consider that Louisiana gambling venues may keep people and dollars in Louisiana. This phenomenon is measured by questions asked of local residents during the casino intercept and resident surveys.

The final consideration in the calculation of net new spending of the gambling industry is the possibility that the industry can attract new visitors to Louisiana. In addition to providing a source of net new spending directly in the gambling industry, new visitors can create additional spending in other industries of the State's economy, such as the hotel or restaurant industries. New visitors can also create other ancillary benefits, such as hotel and other related developments. The number of new visitors attracted to the State's gambling venues was measured by the casino intercept and license plate surveys and econometric analysis of riverboat gambling and video poker revenues.

2. Net new jobs and earnings created (or jobs saved) by gambling. Based on an analysis similar to the one discussed in point 1, gambling can also create net new jobs in a community. There is generally a direct relationship between the amount of net new spending in an area due to some activity and the net new jobs created by that activity. The creation of net new jobs by the gambling industry is measured by the same instruments that net new spending is measured. Based on an analysis similar to the one discussed in point 1, gambling can also create net new income in a community. There is generally a direct relationship between the amount of net new employment in an area due to some activity and the net new income created by that activity. The creation of net new income by gambling is measured by the same instruments that net new spending is measured.
3. Net new state and local tax revenues created (or saved) by gambling. Whenever a new economic activity creates spending and creates new jobs in an area, new tax revenues are created for state and local governments. Some of these new tax

revenues are direct taxes (taxes levied on the activity). Other new tax revenues are created by the indirect benefits of the new activity, such as the income created by the activity. In the case of gambling, the direct taxes are large compared to other industries. Thus, one dollar spent at a casino instead of at a movie theater yields the government a net increase in revenues since the gambling industry is more heavily taxed than the movie theater industry. Direct tax revenues were obtained from the government agencies. The indirect tax revenues were estimated by the use of various economic models that will be explained as part of each individual section in this report.

4. Other benefits. There are other benefits that can be identified but are not as easily quantified as points 1 through 3. Those benefits could include providing jobs for otherwise unemployed or underemployed people (measured by the casino employee survey). It could also include the participation of casinos as "good corporate citizens" in an area. As well, there are certain non-economic benefits such as improved entertainment opportunities, enhanced local infrastructure, etc. that are not included in the present study because of problems of quantification.

## **RIVERBOAT CASINOS**

The benefits derived from riverboat casinos are presented in this section.

Riverboat casinos receive a great deal of attention in this report for several reasons. First, the riverboat casino industry is the largest sector in the Louisiana gambling industry. Second, riverboat casinos have the greatest opportunity to create secondary benefits for the economy since they offer a greater attraction to visitors compared to the lottery, video poker, and horse racing. Finally, because of the limited number of casinos (compared to video poker with thousands of outlets) and the strict regulatory environment, it was possible to obtain the necessary information.

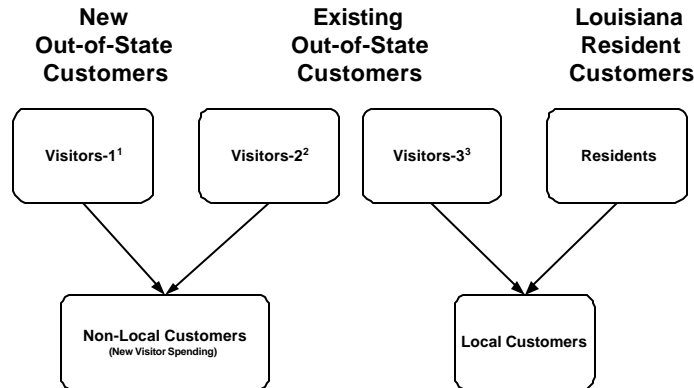
## **NET NEW DIRECT SPENDING**

New spending in Louisiana due to the riverboat casinos consists of two parts: 1) the new dollars spent in the State by the casinos themselves and 2) those new dollars spent in other parts of the economy by those who visit Louisiana to gamble. To determine the new dollars spent in the State by the casinos, it is necessary to adjust the total casino spending by the dollars that are displaced from other forms of local spending.

The estimates for total new spending and other variables in this section are for calendar year 1998. The adjustment process has several steps:

1. Determine total revenues at the casinos.
2. Determine the total number of casino customers.
3. Determine the number of new out-of-state visitors versus in-state and existing out-of-state visitors. The two customer categories of interest are “non-local customers” and “local customers.” Non-local customers (or new visitors) are nonresidents attracted to the State specifically by gambling (visitors-1) and nonresidents visiting for other purposes but extending their stay to gamble (visitors-2). Local customers include nonresidents not specifically visiting Louisiana to gamble (visitors-3) and Louisiana residents. Figure 4-1 depicts these categories.
4. Determine the total amount of casino spending for each of the groups identified in step 3.
5. Adjust the total amount of spending by subtracting the amount displaced from other local spending by the local customers (local residents and visitors-3 who were in the area for reasons other than gambling but who spent money at the casino).
6. Estimate net new local spending by the casinos by subtracting displaced local spending.
7. Estimate the spending by non-local customers (visitors-1 and visitors-2) in other parts of the local economy – notably hotels, restaurants, and retail establishments. These are the people visiting Louisiana specifically with the intent to gamble at the riverboat casinos (or extend their stay to gamble); and, thus, are generating spending that would not have occurred without the riverboat casinos.

**FIGURE 4-1**  
CASINO VISITOR CATEGORIES



- 1 Visitors (nonresidents) whose primary purpose is to gamble.
- 2 Visitors (nonresidents) whose primary purpose is **not** to gamble **but** extend their stay to gamble.
- 3 Visitors (nonresidents) whose primary purpose is **not** to gamble **and** who **do not** extend their stay to gamble.

The first step is to determine total revenues at the casinos. The total 1998 casino revenues by area are presented in Table 4-1. In calendar year 1998, local residents and all out-of-state visitors spent over \$1.3 billion dollars at Louisiana’s thirteen riverboats. The largest local market was Shreveport-Bossier City, followed by New Orleans, Lake Charles, and Baton Rouge. In 1998, almost 25.4 million people visited a Louisiana riverboat to gamble. Shreveport-Bossier City area riverboats led the State in customers (12.1 million), followed by New Orleans (5.7 million), Lake Charles (5.0 million) and Baton Rouge (2.6 million).

**TABLE 4-1**  
TOTAL 1998 CASINO REVENUES BY AREA

| <u>Area</u>             | <u>Revenues</u>        |
|-------------------------|------------------------|
| New Orleans             | \$304,575,956          |
| Baton Rouge             | 120,261,052            |
| Lake Charles            | 299,703,642            |
| Shreveport-Bossier City | 598,695,792            |
| <b>TOTAL</b>            | <b>\$1,323,236,442</b> |

Source: Louisiana Attorney General's Office and Individual Casinos

The next step is to determine what proportions of the total customers are local customers and non-local customers. Those proportions were determined from the intercept survey results. From October 1998 to January 1999, riverboat customers on all thirteen of Louisiana's active riverboats were surveyed. A sample of over 1,700 riverboat customers were asked a series of questions concerning residency, purpose of trip, trip spending, etc. (See Appendix F). Table 4-2 presents the 1998 Louisiana riverboat casino customers by category and area.

The riverboat casino markets in New Orleans and Baton Rouge are primarily local markets with 97.7% and 99.0% local customers, respectively. Lake Charles and Shreveport-Bossier City attract large numbers of non-local customers, primarily from Texas. In Lake Charles, only 35.0% of the casino customers are local; and, in Shreveport-Bossier City, 55.9% are local. **In total, 8,755,562 non-local customers (or 34.5% of total casino customers) were attracted to Louisiana (or stayed extra time in Louisiana) by riverboat casinos.** Of this total, 98.2% of the total customers (8,599,266) were attracted to Lake Charles and Shreveport-Bossier City.

**TABLE 4-2**  
TOTAL 1998 CASINO CUSTOMERS BY CATEGORY AND AREA

| Area         | Non-local Customers     |                         | Local Customers         |                   | Total             |
|--------------|-------------------------|-------------------------|-------------------------|-------------------|-------------------|
|              | Visitors-1 <sup>1</sup> | Visitors-2 <sup>2</sup> | Visitors-3 <sup>3</sup> | Residents         |                   |
| New Orleans  | 57,819                  | 72,229                  | 260,622                 | 5,271,207         | 5,661,877         |
| Baton Rouge  | 11,681                  | 14,567                  | 43,700                  | 2,520,729         | 2,590,677         |
| Lake Charles | 3,051,606               | 198,243                 | 462,567                 | 1,290,840         | 5,003,256         |
| Shreveport   | 4,739,598               | 609,819                 | 1,810,097               | 4,975,255         | 12,134,769        |
| <b>TOTAL</b> | <b>7,860,704</b>        | <b>894,857</b>          | <b>2,576,986</b>        | <b>14,058,032</b> | <b>25,390,579</b> |

Source: Louisiana State Police and Gambling Research Team, Casino Intercept Survey

1 Visitors (nonresidents) whose primary purpose is to gamble.

2 Visitors (nonresidents) whose primary purpose is **not** to gamble **but** extend their stay to gamble.

3 Visitors (nonresidents) whose primary purpose is **not** to gamble **and** who **do not** extend their stay to gamble.

The next step in the estimation process is to determine the total casino spending related to the various groups identified in Table 4-2 (local and non-local customers). Local and non-local customer spending may not be equal. There is no direct data on individual casino spending (remember that "casino spending" in this context is defined as the casino Win or the amount of money that the customers lose). In the absence of direct evidence of customer losses at the casinos, the gambling spending of each group was estimated by using the amount of time each group spent gambling (that figure is available from the casino intercept survey). In New Orleans and Baton Rouge, local and non-local customers spend, on average, the same amount of time gambling. Thus, there is no need to make any adjustment; and total casino spending can be apportioned to local and non-local customers based on the customer counts. In Lake Charles and Shreveport-Bossier City, the amount of time spent by non-local customers is statistically greater than the amount of time spent by local customers. In Lake Charles, non-local customers spend 54.9% more time, on average, in the casino than local customers do. In Shreveport-

Bossier City, non-local customers spend 51.8% more time in the casinos than local customers do. These ratios are used to adjust the customer count to estimate non-local and local casino spending. These estimates are shown in Table 4-3.

**TABLE 4-3**  
TOTAL 1998 CASINO CUSTOMER SPENDING BY CATEGORY AND AREA  
(IN MILLIONS)

| Area                    | Non-local<br>Customers | Local<br>Customers | Total<br>Customers |
|-------------------------|------------------------|--------------------|--------------------|
| New Orleans             | \$7.00                 | \$297.58           | \$304.58           |
| Baton Rouge             | 1.22                   | 119.04             | 120.26             |
| Lake Charles            | 241.99                 | 57.71              | 299.70             |
| Shreveport-Bossier City | 425.39                 | 173.30             | 598.69             |
| <b>TOTAL</b>            | <b>\$675.60</b>        | <b>\$647.63</b>    | <b>\$1,323.23</b>  |

Source: Louisiana State Police and Gambling Research Team, Casino Intercept Survey

In 1998, non-local customers visiting Louisiana for gambling purposes spent \$675.60 million at the riverboat casinos alone. During that same period, local customers spent \$647.63 million. Most of the non-local customer spending (\$667.38 million) was in Lake Charles (\$241.99 million) and Shreveport-Bossier City (\$425.39 million). Thus, the Lake Charles and Shreveport-Bossier City markets account for 98.8% of the casino non-local customer spending in Louisiana. **These data clearly indicate two completely different gambling markets. New Orleans and Baton Rouge have local casino markets, and Lake Charles and Shreveport-Bossier City have primarily non-local casino markets.**

The next step in the estimation process is to determine local customer spending that is displaced from other competing local uses. Economic logic tells us that consumer

spending is limited by income. The basic tautology in economics is that total income is equal to consumption plus taxes plus savings. Those are the only uses of income. Thus, for a consumer to increase consumption on any good or service, he or she must reduce consumption of some other good or service, have an increase in income, or reduce savings (borrowings are considered reduced savings). This is obviously true for casino gambling.

In order to gain some information about the magnitude of the displacement effect, a Bayesian regression analysis was used to estimate the total earnings, both direct and secondary, created by the riverboat casino industry. The Bayesian technique allows us to begin with a plausible initial value (called the “prior”) for the multipliers based on theory. Then, the data determine whether the multiplier for each of the state planning districts is larger or smaller than the assumed prior and by how much. (See text below for a detailed description of this methodology.) That analysis indicates that the riverboat industry generated \$595.98 million of new earnings in Louisiana (see Table 4-13). Using the United States Bureau of Economic Analysis Input-Output Table, new earnings of \$595.98 million are associated with \$879.29 million of new spending in the State's economy. We know that non-local customer spending at the riverboat casinos in 1998 was \$675.60 million. Thus, the implied net new local spending is the difference between the total estimated net new spending of \$879.29 million and the new visitor (from non-local customers) spending of \$675.60 million, or \$203.69 million. Since the actual total local customer spending at Louisiana riverboat casinos in 1998 was \$647.63 million, the diverted or displaced spending was \$443.95 million. Table 4-4 presents the diverted spending figures by area for 1998.

**TABLE 4-4**  
 DIVERTED 1998 SPENDING BY CATEGORY AND AREA  
 (IN MILLIONS)

| <u>Area</u>             | <u>Diversion</u> |
|-------------------------|------------------|
| New Orleans             | \$203.99         |
| Baton Rouge             | 81.60            |
| Lake Charles            | 37.56            |
| Shreveport-Bossier City | 118.80           |
| <b>TOTAL</b>            | <b>\$443.95</b>  |

Source: Authors' Calculations

Thus, riverboat casinos pulled a total of \$443.95 million from other businesses in the Louisiana economy. This seems like a great deal of money; but, compared to the size of the overall riverboat gambling industry, it is small. It is also small compared to people's expectations based on the theoretical economic discussions of the budget constraint. If only a relatively small fraction of the local dollars spent on casinos comes out of other local spending, what is the source of the rest of the money? There are several possible answers. First, that money could come out of non-local spending, such as vacations, trips to out-of-state casinos, etc. Second, that money could come out of savings, borrowings, or some other source of income. Third, that money could come from increased incomes that occurred simultaneously with increased gambling spending. It is most likely the case that all three explanations are true in Louisiana.

This leads to a very important question. Is the low displacement rate temporary or will it be permanent? Clearly, there is no definitive answer to this question. There is, however, evidence to suggest that displacement of spending by Louisiana residents could increase over time for at least two reasons. First, if the local money spent on gambling comes from reduced savings or increased borrowing, eventually this pattern will be

reversed. When the savings run out or borrowing must be repaid, either the total dollars spent on gambling will decrease or displacement will increase. This needs to be watched carefully over time. Second, if the local money spent on gambling comes from increased local incomes due to the relatively good local economy in Louisiana, we should observe a change as the Louisiana economy slows. The period from 1994 to 1998 was a stronger than average growth period for the Louisiana economy due to other factors – a revival in the oil and gas industry, low interest rates, good national economy, and the like. It is likely that lower oil and natural gas prices and the resulting fallout effect is going to slow the State's economy closer to the average growth rate over the next two to three years. At that time, we should see either reduced gambling spending along with reduced discretionary spending in general, or increased displacement.

The steps that have been described above produce an estimate of existing (local customer) versus new (non-local customer) spending at the casinos themselves. This measures the amount of new money going into the casino. In order to estimate the net new impact of the casinos on the economy, we must measure what portion of this new money the casinos spend in the local economy. The Louisiana spending by the casinos was estimated by examining casino accounting data and various public reports (see Appendix K). Table 4-5 presents the amounts spent locally by the riverboat casinos.

**TABLE 4-5**  
**1998 LOUISIANA RIVERBOAT SPENDING BY CATEGORY AND BY AREA**  
**(IN MILLIONS)**

| <u>Area</u>        | New<br>Orleans  | Baton<br>Rouge | Lake<br>Charles | Shreveport-<br>Bossier City | <u>TOTAL</u>    |
|--------------------|-----------------|----------------|-----------------|-----------------------------|-----------------|
| Wages and salaries | \$65.26         | \$34.80        | \$66.75         | \$136.97                    | \$303.78        |
| Taxes              | 75.31           | 30.06          | 71.83           | 149.67                      | 326.87          |
| Local Purchases    | 65.40           | 28.15          | 56.44           | 108.89                      | 258.88          |
| Other              | 3.64            | 1.44           | 3.58            | 7.15                        | 15.81           |
| <b>TOTAL</b>       | <b>\$209.61</b> | <b>\$94.45</b> | <b>\$198.60</b> | <b>\$402.68</b>             | <b>\$905.34</b> |

Source: Louisiana Attorney General's Office and Individual Louisiana Riverboat Casinos

In 1998, the casinos spent over \$900 million in the Louisiana economy in wages and salaries, state and local taxes, local purchases on goods and services, and other items. Based on data reported by the casinos, there were no significant capital expenditures that were not included in this figure. Of the total spent, \$209.61 million was spent in New Orleans, \$94.45 million in Baton Rouge, \$198.60 million in Lake Charles, and \$402.68 million in Shreveport-Bossier City. The final step in estimating the net new local spending related to riverboat casinos is to adjust the local spending in Table 4-5 by displacement ratios that can be calculated from Table 4-4. If one dollar is spent in the local community and \$.50 of that dollar is from a reduction in spending somewhere else in that community, the net effect is only an increase of \$.50. Table 4-6 presents the final net new casino spending numbers by area for 1998.

**TABLE 4-6**  
**1998 NET CASINO SPENDING BY AREA**  
**(IN MILLIONS)**

| <u>Area</u>             | <u>Spending</u> |
|-------------------------|-----------------|
| New Orleans             | \$68.82         |
| Baton Rouge             | 26.45           |
| Lake Charles            | 177.99          |
| Shreveport-Bossier City | 328.34          |
| <b>TOTAL</b>            | <b>\$601.60</b> |

Source: Authors' Calculations

Thus, the net new spending in the State of Louisiana by the riverboat casino industry in 1998 was \$601.60 million. Again, the largest share of that was spent in Shreveport-Bossier City with net new spending of \$328.34 million, followed by Lake Charles (\$177.99 million), New Orleans (\$68.82 million), and Baton Rouge (\$26.45 million).

The final step is to estimate the local spending by new casino visitors (non-local customers) in other areas of the economy – hotels, restaurants, retail establishments, local transportation and other local businesses. The methodology is straightforward. Total new visitor spending is equal to the number of non-local customers in Table 4-2 multiplied by the visitor spending in the various non-gambling categories. Data collected in the casino intercept survey is used to estimate the new visitor spending in these categories. Table 4-7 presents total visitor spending estimates in the spending categories.

**TABLE 4-7**  
1998 NEW VISITOR SPENDING BY CATEGORY AND BY AREA  
(IN MILLIONS)

| Area         | New Orleans  | Baton Rouge | Lake Charles | Shreveport-Bossier City | TOTAL         |
|--------------|--------------|-------------|--------------|-------------------------|---------------|
| Hotels       | \$23.71      | \$1.51      | \$14.17      | \$48.62                 | \$88.01       |
| Restaurants  | 10.37        | 2.45        | 31.38        | 69.16                   | 113.36        |
| Other        | 23.24        | 5.58        | 34.26        | 122.82                  | 185.90        |
| <b>TOTAL</b> | <b>57.32</b> | <b>9.54</b> | <b>79.81</b> | <b>240.60</b>           | <b>387.27</b> |

Source: Gambling Research Team, Casino Intercept Survey and Authors' Calculations

In 1998, visitors who came to Louisiana for the purpose of gambling at a riverboat casino or who extended their trip to gamble at a riverboat casino spent \$387.27 million in other business in the State while they were here. The final step in estimating the total new spending in Louisiana related to riverboat casinos is to add the new visitor spending in Table 4-7 to the net new casino spending in Table 4-6. Those figures are presented in Table 4-8.

**TABLE 4-8**  
1998 NET SPENDING BY AREA  
(IN MILLIONS)

| Area                    | Casino Spending | New Visitor Spending | Total New Spending |
|-------------------------|-----------------|----------------------|--------------------|
| New Orleans             | \$68.82         | \$57.32              | 126.14             |
| Baton Rouge             | 26.45           | 9.54                 | 35.99              |
| Lake Charles            | 177.99          | 79.81                | 257.80             |
| Shreveport-Bossier City | 328.34          | 240.60               | 568.94             |
| <b>TOTAL</b>            | <b>\$601.60</b> | <b>\$387.27</b>      | <b>\$988.87</b>    |

Source: Gambling Research Team, Casino Intercept Survey and Authors' Calculations

**In 1998, the Louisiana riverboat casino industry contributed \$988.87 million to the Louisiana economy.** The big winner in the riverboat casino sweepstakes is Shreveport-Bossier City with \$568.94 million in new spending (or 57.5% of the Louisiana total). Shreveport-Bossier City is followed by Lake Charles (\$257.80 million, 26%), New Orleans (\$126.14 million, 12.8%) and Baton Rouge (\$35.99 million, 3.6%).

Table 4-9 presents a summary of the steps used to estimate the new spending generated by the riverboat casinos in Louisiana.

**TABLE 4-9**  
1998 NET NEW RIVERBOAT SPENDING  
(DOLLAR FIGURES IN MILLIONS)

| Row | Category  | Value           |
|-----|---|-----------------|
| 1   | Total Riverboat Casino Win                          | \$1,323.24      |
| 2   | New Out-of-State Revenues                           | \$675.60        |
| 3   | In-State Revenues (Row 1 - Row 2)                   | \$647.64        |
| 4   | Diversion Rate                                      | 68.5%           |
| 5   | Displaced Spending (Row 3 times Row 4)              | \$443.95        |
| 6   | New Louisiana Customer Spending (Row 3 minus Row 5) | \$203.69        |
| 7   | Total New Customer Spending (Row 2 plus Row 6)      | \$879.29        |
| 8   | Louisiana Spending by Casinos                       | \$905.33        |
| 9   | Louisiana Spending Rate (Row 8 divided by Row 1)    | 68.4%           |
| 10  | Net new spending (Row 9 times Row 7)                | \$601.59        |
| 11  | New Local Visitor Spending Outside of Casinos       | \$387.28        |
| 12  | <u>Net New Local Spending</u>                       | <u>\$988.87</u> |

Source: Louisiana State Police, Gambling Study Team, Casino Intercept Survey, and Authors' Calculations

## EMPLOYMENT AND EARNINGS

One important measure of the impact of gambling on the economy is the number of jobs produced. There is no question that the casino industry provides employment through casino jobs. Table 4-10 presents direct casino employment at the various casinos in the State. (Note that for the purpose of this table and the employment analysis, the Indian reservation casinos are included. This is one of the few areas in which Indian casino data are available (or are easily estimated) and are, therefore, used in the employment analysis.)

In 1998, there were 20,156 jobs directly at the riverboat and Indian casinos. The direct, or primary, employment of the casinos in Table 4-10 is relatively straightforward. A more difficult analysis is to determine what, if any, additional jobs in the economy are produced by the casino industry. The additional jobs are sometimes referred to as secondary employment and the phenomenon of creating these secondary jobs is referred to as the "multiplier effect." There has been a great deal of debate about the multiplier effect related to casino employment.

**TABLE 4-10**  
1998 DIRECT CASINO EMPLOYMENT

| Area                           | Casino                                | Employment                |
|--------------------------------|---------------------------------------|---------------------------|
| <b>New Orleans</b>             | Boomtown                              | 1,238                     |
|                                | Bally's                               | 901                       |
|                                | Treasure Chest                        | <u>1,321</u>              |
|                                | <b>Total</b>                          | <b>3,460</b>              |
| <b>Baton Rouge</b>             | Belle of Baton Rouge                  | 749                       |
|                                | Casino Rouge                          | <u>958</u>                |
|                                | <b>Total</b>                          | <b>1,707</b>              |
| <b>Lake Charles</b>            | Grand Palais                          | 528                       |
|                                | Showboat Star                         | 650                       |
|                                | Isle of Capri – Lake Charles          | 1,291                     |
|                                | Players                               | 1,221                     |
|                                | Grand Casino – Coushatta <sup>1</sup> | <u>2,000</u> <sup>2</sup> |
|                                | <b>Total</b>                          | <b>5,690</b>              |
| <b>Shreveport-Bossier City</b> | Isle of Capri – Shreveport            | 1,264                     |
|                                | Horseshoe – Bossier City              | 2,803                     |
|                                | Harrah's Red River                    | 1,355                     |
|                                | Casino Magic                          | <u>1,377</u>              |
|                                | <b>Total</b>                          | <b>6,799</b>              |
| <b>Houma</b>                   | Cypress Bayou <sup>1</sup>            | <b>1,200</b> <sup>2</sup> |
| <b>Alexandria</b>              | Grand Casino Avoyelles <sup>1</sup>   | <b>1,300</b> <sup>2</sup> |
| <b>Louisiana Total</b>         |                                       | <b>20,156</b>             |

Source: Riverboat casino employment numbers were obtained from quarterly reports submitted to the Attorney General's office by casinos or directly from the casinos. For Indian casinos, the employment numbers were estimated using previous press reports on employment and the number of games.

<sup>1</sup> Denotes Indian Reservation casino.

<sup>2</sup> Denotes estimated.

Critics of casino gambling argue that the multiplier effect may not hold for casinos. The key point is that dollars spent by local citizens in casinos would otherwise be spent in local businesses such as restaurants. Thus, casinos *crowd out* other businesses. The one exception occurs if the casino patrons come from other areas,

bringing new money to the local economy. Grinols' comparison of casinos to restaurants and factories is a good example of this view commonly expressed by casino critics:

“A factory, when it locates in an area, sells to the rest of the country. Its payroll, materials purchases, and profits spent locally are new money to the area that represents tangible goods produced. On the other hand, adding a new restaurant that caters to local population in an area simply takes business from local firms [i.e., industry cannibalization]. The question for a particular region therefore is: Is a casino more like a factory or a restaurant? In Las Vegas, casinos are more like factories because they sell gambling services to the rest of the Nation. In most other parts of the country, gambling is like a restaurant, however, drawing money away from other businesses, creating no economic development, but leaving social costs in its wake (Grinols 1994b, 9; also see Grinols 1995b, 7-9).” [Note: a list of references for this section is contained in Appendix L.]

Goodman (1994a, 1994b), Grinols and Omorov (1995), and Edington (1995a, 1996) express similar concerns, but perhaps the strongest criticism comes from Rose (1995, p. 34):

“A casino acts like a black hole sucking money out of a local economy. No one cares if you suck money out of tourists, but large-scale casinos that do not bring in more new tourist dollars than they take away from local players and local businesses soon find themselves outlawed.”

These critics argue fervently that casinos will have no positive impact on the local economy if they fail to attract outside gamblers. However, others find their arguments less than compelling. As Ewart (1995) notes, professional sports teams and countless other businesses fail to produce a tangible product yet economists typically find a positive economic impact from such industries. Why do casinos differ from other forms of entertainment?

Hoover and Giarrantani (1984) note another flaw in the theory above. If exporting is necessary for growth, how can the world as a whole grow? In the words of Hoover and Giarrantani (1984, p. 319):

“The argument advanced for the [export base] approach is that a region, like a household or a business firm, must earn its livelihood by producing something that others will pay for. Activities that simply serve the regional market are there *as a result of* whatever level of income and demand the region may have achieved: They are passive participants in growth but not prime movers. A household, a neighborhood, a firm, or a region cannot get richer by simply “taking in its own washing”; it must sell something to others in order to get more income. Consequently, exports are viewed as providing the economic base of a region’s growth.

The view of export demand as the prime mover in regional growth raises some interesting questions that indicate the need for a more adequate explanation. Consider, for example, a large area, such as a whole country, that comprises several economic regions. Let us assume that these regions trade with one another, but the country as a whole is self-sufficient. We might explain the growth of each of these regions on the basis of its exports to the others and the resulting multiplier effects upon activities serving the internal demand of the region. But if all the regions grow, then the whole country or “superregion” must also be growing, despite the fact that it does not export at all. The world economy has been growing for a long time, though our exports to outer space have just begun and we have yet to locate a paying customer for them. It appears, then, that *internal* trade and demand can generate regional growth: A region really can get richer by taking in its own washing.”

Scholars can easily disagree on the impact of casinos because there is little empirical evidence on the issue. Walker and Jackson’s (1998) results based on state level data suggest that the introduction of casinos *does* lead to increases in personal income within a state. Impact studies also find benefits from casinos, though casino critics are quick to point out that most of the existing studies were funded by casinos. Hamer (1995) uses an input/output model with multipliers for New Jersey casinos and finds that every job in the casino industry creates an additional 1.09 jobs in all other industries in the state. That is, Hamer (1995) finds a multiplier of 2.09. An earlier study for Louisiana by Oakland Econometrics (1996) finds a multiplier of 1.81. Both studies appear to use

the input-output approach, which may overstate the multiplier for reasons that are discussed in the methodology section.

The literature provides several bits of key information for our study. First, combining non-empirical and empirical studies suggests a wide range for the multiplier. Critics would assert plausible values near zero while the most optimistic previous industry study suggests a value slightly over two. Second, the literature supplies an idea that casinos that attract outside gamblers will have a larger impact on the local economy. We label this idea as the *export hypothesis*, because it implies a larger multiplier for areas that export their product (gambling). For Louisiana, this implies that casinos in Shreveport-Bossier City and Lake Charles, which attract a large proportion of gamblers from Texas, will have a larger multiplier than other casinos which rely more on local gamblers.

To determine which view reflects the real impact of gambling in Louisiana, we use a novel approach to estimate the employment multipliers. That approach is to employ Bayesian econometric analysis. The econometric modeling approach consists of specifying regression equations for employment in each of the state planning districts. To allow for joint hypothesis tests, we estimate a system of equations with one equation for each of the eight state planning districts. Because Cypress Bayou casino is located near the boundary of the Houma and Lafayette state planning districts, we also consider models which combine these two districts (resulting in a total of seven). The approach consists of specifying key economic factors for each state planning district and estimating a regression model including these factors and casino employment. The coefficient on casino employment supplies the employment multiplier.

The central idea behind the Bayesian approach is to combine prior information with the data to obtain a final answer. A key advantage of the technique is that it is more flexible for our application than the frequentist techniques described above.

We begin by considering the data. Table 4-11 contains the key variables for each state planning district which were derived from the work described above. For each state planning district (the combined Houma-Lafayette district is counted as one), this implies a regression equation. For example, the New Orleans equation is:

$$spd1_t = \mathbf{b}_0 + \mathbf{b}_1 cas1_t + \mathbf{b}_2 chem_t + \mathbf{b}_3 oil_t + \mathbf{b}_4 gdp_t + \mathbf{b}_5 spd1_{t-1} + e_t$$

where  $spd1_t$  is employment in state planning district one,

$cas1_t$  is casino employment in state planning district one,

$chem_t$  is chemical employment,

$oil_t$  is the Louisiana active rig count measuring oil and gas activity,

$gdp_t$  is U. S. real Gross Domestic Product, and

$e_t$  is a random error term.

**TABLE 4-11**  
ECONOMIC DRIVERS FOR THE BAYESIAN REGRESSION ANALYSIS

| State Planning District | Economic Drivers          | R <sup>2</sup> |
|-------------------------|---------------------------|----------------|
| Lake Charles            | Chemicals, Oil, U. S. GDP | .974           |
| New Orleans             | Chemicals, U. S. GDP, Oil | .947           |
| Shreveport-Bossier City | U. S. GDP, AT&T           | .929           |
| Baton Rouge             | Chemicals, U. S. GDP      | .974           |
| Lafayette/Houma         | Oil, U. S. GDP            | .975           |
| Alexandria              | Oil, U. S. GDP            | .916           |
| Monroe                  | U. S. GDP                 | .895           |

Source: Authors' Estimates Using Secondary Data as Noted in Chapter 1

The lagged employment term accounts for persistence in the series and also eliminates the problem of autocorrelation. The coefficient  $\beta_1$  is the casino employment multiplier and the key focus of this study. A similar equation exists for each state planning district. Likewise, the assumption of normal errors allows us to write the likelihood function for any single equation and also for entire system. This likelihood function summarizes the information in the data, and the results summarized above were obtained by maximizing this likelihood function. The  $R^2$  values in the final column of Table 4-11 were calculated using maximum likelihood and show that these models provide a good fit in each district. The final Bayesian results appear in Table 4-12.

The results show multipliers ranging from 1.02 in Lafayette/Houma to 1.75 in Shreveport-Bossier City. The results conform to the predictions of the export hypothesis; the multipliers are largest for the casinos in Shreveport-Bossier City and Lake Charles.

Table 4-13 presents the final results on the impact of riverboat and Indian casinos on employment and earnings. These results were generated using the Bayesian multipliers and earnings from the BEA's input-output tables. The Direct Employment column of Table 4-13 presents casino employment as number of employees; the number in parenthesis is casino employment as a proportion of total employment for the area. The Total Employment column is the number of jobs generated by the casino, both through directly employing workers and through the multiplier. Total employment is calculated as the product of the multipliers in Table 4-12 and the direct employment numbers in Table 4-13. The Total Earnings column of the table contains the estimated increase in earnings (both direct and via the multiplier effect) created by the casino industry in Louisiana. Table 4-14 presents the employment and earnings impact of just riverboat casinos (i.e., the Indian casinos are not included).

**TABLE 4-12**  
CASINO EMPLOYMENT MULTIPLIERS

| State Planning District        | Multiplier  |
|--------------------------------|-------------|
| New Orleans (SPD1)             | 1.31        |
| Baton Rouge (SPD2)             | 1.23        |
| Lafayette/Houma (SPD3 & 4)     | 1.02        |
| Lake Charles (SPD5)            | 1.63        |
| Alexandria (SPD6)              | 1.38        |
| Shreveport-Bossier City (SPD7) | 1.75        |
| <u>Louisiana</u>               | <u>1.53</u> |

Source: Authors' Calculations

Consider first the total impact of both riverboat and Indian casinos in Louisiana. These casinos employed 20,156 workers directly in 1998. This implies that roughly one out of every one hundred Louisiana workers was employed by a casino. **Taking into account the multiplier, Louisiana's casinos accounted for 30,823 jobs and \$596 million in earnings.**

**TABLE 4-13**  
1998 RIVERBOAT AND INDIAN CASINO  
EMPLOYMENT AND EARNINGS IMPACT

| Planning District       | Direct<br>Employment <sup>1</sup> | Total<br>Employment <sup>2</sup> | Total<br>Earnings    |
|-------------------------|-----------------------------------|----------------------------------|----------------------|
| Lake Charles            | 5,690 (5.2%)                      | 9,275 (8.5%)                     | \$175,079,503        |
| New Orleans             | 3,460 (0.6%)                      | 4,533 (0.8%)                     | \$ 91,324,915        |
| Shreveport-Bossier City | 6,799 (3.1%)                      | 11,898 (5.5%)                    | \$229,265,702        |
| Baton Rouge             | 1,707 (0.5%)                      | 2,100 (0.6%)                     | \$ 42,203,659        |
| Lafayette / Houma       | 1,200 (1.0%)                      | 1,224 (1.0%)                     | \$ 23,331,873        |
| Alexandria              | 1,300 (0.6%)                      | 1,794 (0.8%)                     | \$ 34,776,364        |
| <u>Total</u>            | <u>20,156 (1.1%)</u>              | <u>30,823 (1.7%)</u>             | <u>\$595,982,017</u> |

Source: Louisiana Attorney General's Office and Authors' Estimates

<sup>1</sup> Figures in parentheses are direct casino employment as a percentage of total employment in that area.

<sup>2</sup> Figures in parentheses are total casino employment as a percentage of total employment in that area.

**TABLE 4-14**  
1998 RIVERBOAT CASINO EMPLOYMENT AND EARNINGS IMPACT

| Planning District       | Direct<br>Employment <sup>1</sup> | Total<br>Employment <sup>2</sup> | Total<br>Earnings    |
|-------------------------|-----------------------------------|----------------------------------|----------------------|
| Lake Charles            | 3,690 (3.4%)                      | 6,015 (5.5%)                     | \$113,542,126        |
| New Orleans             | 3,460 (0.6%)                      | 4,533 (0.8%)                     | \$ 91,324,915        |
| Shreveport-Bossier City | 6,799 (3.1%)                      | 11,898 (5.5%)                    | \$229,265,702        |
| Baton Rouge             | 1,707 (0.5%)                      | 2,100 (0.6%)                     | \$ 42,203,659        |
| <b>Total</b>            | <b>15,656 (.8%)</b>               | <b>24,546 (1.3%)</b>             | <b>\$476,336,402</b> |

Source: Louisiana Attorney General's Office and Authors' Estimates

<sup>1</sup> Figures in parentheses are direct casino employment as a percentage of total employment in that area.

<sup>2</sup> Figures in parentheses are total casino employment as a percentage of total employment in that area.

The results also show that the impact of casinos is heavily concentrated in two areas. By simple job count, Shreveport-Bossier City led the State with 6,799 workers employed by casinos. With the multiplier, casinos in Shreveport-Bossier City accounted for 11,898 jobs. Lake Charles, including all direct and secondary employment, has 6,015 casino-related jobs, or 5.5% of total Lake Charles area employment.

Casinos do not play this dominant a role in the other state planning districts. Although casinos employ over a thousand workers in each of the four other districts studied, completely eliminating casinos in one of these areas would not begin to invoke the hardship of the Fruit of the Loom layoffs in Lafayette or the AT&T layoffs in Shreveport-Bossier City. Casinos employ less than 1% of total employment in these areas. Even accounting for the multiplier effect, total employment created does not rise above 1% in these areas.

Our results indicate that riverboat and Indian casino employees earned \$377 million dollars. In addition, jobs created through the multiplier effect accounted for another \$219 million in new earnings indirectly created by casinos. **Overall, the results**

**indicate the total impact of casinos on Louisiana earnings is an additional \$596 million (\$476.3 million for riverboat casinos alone).** To put this figure in perspective, Louisiana personal income is currently \$92.6 billion. **This implies that direct and indirect earnings created by riverboat and Indian casinos make up 0.64% of the Louisiana economy.**

#### STATE AND LOCAL TAX REVENUE

This section of the report estimates total state and local tax revenues derived from the riverboat gambling industry in Louisiana. There are two types of tax revenues: direct and indirect. Direct revenues are those paid by the industry itself in the form of Win taxes, property taxes and other sources. Indirect tax revenues are those generated by the economic activity created by the industry but paid by others, generally out of the new income created by the gambling industry.

Table 4-15 presents the direct and indirect tax revenues paid by the riverboat casinos to the State by area. The primary source of direct tax revenue is the Win tax. The rate of the Win tax is 18.5% of total Win, or gross casino revenue. In 1998, the State's 13 riverboats paid approximately \$244.8 million in direct taxes to the Louisiana Treasury.

**TABLE 4-15**  
**1998 GROSS STATE TAX REVENUE FROM RIVERBOATS BY AREA**  
**(IN MILLIONS)**

| <u>Area</u>             | <u>Direct<br/>Revenue</u> | <u>Indirect<br/>Revenue</u> | <u>Total<br/>Revenue</u> |
|-------------------------|---------------------------|-----------------------------|--------------------------|
| New Orleans             | \$56.34                   | \$7.32                      | \$63.66                  |
| Baton Rouge             | 22.25                     | 2.70                        | 24.95                    |
| Lake Charles            | 55.45                     | 12.82                       | 68.27                    |
| Shreveport-Bossier City | 110.76                    | 22.23                       | 132.99                   |
| <b>TOTAL</b>            | <b>\$244.80</b>           | <b>\$45.07</b>              | <b>\$289.87</b>          |

Source: Louisiana State Police, Louisiana Fiscal Office and Authors' Calculations

The indirect tax revenue is somewhat more complicated. Indirect tax revenues consist of two types of revenue. The first type are the tax revenues paid by the people who are the recipients of new income as a result of casino operations (both direct and indirect income). Economists in the Louisiana Legislative Fiscal Office have estimated that for every new dollar of income generated in the Louisiana economy the State collects approximately 5.5 cents in additional tax revenue. Thus, the \$595.98 million in additional earnings created by the casino industry (see Table 4-13) should have increased state tax collections to the state treasury by approximately \$32.8 million. The second type of indirect state tax revenues are those taxes paid by casino induced visitors on hotel rooms, meals, and other local expenditures. Based on the visitor spending estimates of \$387.27 million (see Table 4-8), total visitor-related state taxes are \$13.00 million.

The final step in arriving at net new tax revenues is to net out the displaced spending estimated in Table 4-4. The displaced spending is spending that is pulled out of other local uses. Those other uses are also taxable and generate income that produces tax revenue for Louisiana. The same methodology used to estimate the indirect tax revenues

was used to estimate the displaced revenue. Table 4-16 presents the displaced revenues and the net new state tax revenue.

**TABLE 4-16**  
**1998 TOTAL, DISPLACED, AND NET STATE TAX REVENUE**  
**FROM RIVERBOATS BY AREA**  
**(IN MILLIONS)**

| <u>Area</u>             | <u>Total<br/>Revenue</u> | <u>Displaced<br/>Revenue</u> | <u>Net<br/>Revenue</u> |
|-------------------------|--------------------------|------------------------------|------------------------|
| New Orleans             | \$63.66                  | \$15.76                      | \$47.90                |
| Baton Rouge             | 24.95                    | 6.31                         | 18.64                  |
| Lake Charles            | 68.27                    | 3.06                         | 65.21                  |
| Shreveport-Bossier City | 132.99                   | 9.18                         | 123.81                 |
| <b>TOTAL</b>            | <b>\$289.87</b>          | <b>\$34.31</b>               | <b>\$255.56</b>        |

Source: Louisiana State Police, Louisiana Fiscal Office and Authors' Calculations

Thus, in total the riverboat casino industry in 1998 generated \$255.56 million in net new revenue for the State of Louisiana. One of the main arguments in favor of casino gambling is that it produces large amounts of tax revenue for the State. This appears to be true. Even after considering displaced spending, the tax revenue generated is substantial. The riverboat casino industry in Louisiana is a very heavily taxed industry with direct overall tax rates approaching and in some cases exceeding 25% of gross revenues. Other forms of spending are taxed at much lower rates. Thus, even if every dollar spent in the casino industry came from the displacement of other local spending, tax revenues would go up due to the much higher tax rate for gambling.

Local tax revenue can be estimated in much the same manner as state tax revenues. There are two major differences in the estimation of local tax revenues: first, local direct taxes include several different kinds of taxes (boarding fees, Win taxes,

casino property taxes, and other fees); second, the tax rates are different for the indirect taxes. Table 4-17 presents gross direct and indirect local tax revenues.

**TABLE 4-17**  
**1998 GROSS LOCAL TAX REVENUE FROM RIVERBOATS BY AREA**  
**(IN MILLIONS)**

| <u>Area</u>             | <u>Direct<br/>Revenue</u> | <u>Indirect<br/>Revenue</u> | <u>Total<br/>Revenue</u> |
|-------------------------|---------------------------|-----------------------------|--------------------------|
| New Orleans             | \$18.97                   | \$5.45                      | \$24.42                  |
| Baton Rouge             | 7.82                      | 1.34                        | 9.16                     |
| Lake Charles            | 16.38                     | 7.16                        | 23.54                    |
| Shreveport-Bossier City | 38.92                     | 14.82                       | 53.74                    |
| <b>TOTAL</b>            | <b>82.09</b>              | <b>28.77</b>                | <b>110.86</b>            |

Source: Louisiana State Police, Louisiana Fiscal Office and Authors' Calculations

As was the case for state tax revenues, the final step in arriving at net new local tax revenues is to net out the displaced spending estimated in Table 4-4. The displaced spending is spending that is pulled out of other local uses. Those other uses are also taxable and would have generated income that produces tax revenue for local governments. The same methodology used to estimate the indirect tax revenues was used to estimate the displaced revenue. Table 4-18 presents the displaced revenues and the net new local tax revenue.

**TABLE 4-18**  
**1998 TOTAL, DISPLACED, AND NET LOCAL TAX REVENUE**  
**FROM RIVERBOATS BY AREA**  
**(IN MILLIONS)**

| Area                    | Total<br>Revenue | Displaced<br>Revenue | Net<br>Revenue |
|-------------------------|------------------|----------------------|----------------|
| New Orleans             | \$24.42          | \$13.55              | \$10.87        |
| Baton Rouge             | 9.16             | 4.34                 | 4.82           |
| Lake Charles            | 23.54            | 2.10                 | 21.44          |
| Shreveport-Bossier City | 53.74            | 6.31                 | 47.43          |
| <b>TOTAL</b>            | <b>\$110.86</b>  | <b>\$26.30</b>       | <b>\$84.56</b> |

Source: Louisiana State Police, Louisiana Fiscal Office and Authors' Calculations

Thus, the riverboat casino industry in 1998 generated \$84.56 million in total net new revenue for local governments in Louisiana. **Combining the state tax total of \$255.56 with the local total of \$84.56 million produces a total state and local government tax revenue of \$340.12 million.**

OTHER BENEFITS

Casinos do provide a large number of jobs for Louisiana residents. Based on the casino employee survey, most casino employees believe that the casino does provide them opportunities that were not available to them without the casinos in the State (see Appendix H).

Many current casino employees were unemployed prior to their casino job (29%). Thus, one added benefit of the riverboat casino industry is that it has provided jobs for people who did not have them prior to the industry coming into Louisiana. Casino employees also believe that their casino jobs provide better pay and benefits and more marketable skills than the alternative jobs available.

## **VIDEO POKER**

The analysis of video poker is conducted through a different methodology than the analysis of riverboat casinos for several reasons. First, there are only 13 riverboat casinos. The small number of casinos allowed the research team to gather a great deal of data from the casinos themselves – intercept surveys, license plate tallies, individual casino accounting data, and the like. In comparison, there are approximately 15,125 video poker devices in 3,600 different establishments. The large number of devices and establishments makes it impossible to gather survey and similar data at video poker sites. Second, the riverboat casinos have a greater ability to attract visitors from out of state. Due to large-scale operations and large advertising budgets, the casinos can attract visitors into the State. In general, video poker outlets are not able to do this. However, a border effect may exist for video poker outlets in parishes on the Louisiana border (documented in the next section).

## **NET NEW REVENUES**

In 1998, total video poker revenues were \$668.83 million. The first step in estimating the net new spending in the State related to video poker is to estimate the out-of-state share of total spending. Unlike riverboat casinos, there is no direct method of estimating visitor spending at Louisiana's video poker establishments. It is logical to assume that some out-of-state visitors would come into the State to play video poker. Given the nature of video poker, it is also logical to assume that this phenomenon is primarily limited to the border parishes.

To estimate the magnitude of the border effect, a pooled time series, cross-section data set was used. Data were collected for every Louisiana parish for a six-year period from 1992 through 1997. The data included video poker net device revenue, total

employment, per capita personal income, population, tourism spending, racial composition of population, and percent of population with a college degree. To this list of variables, a "dummy" variable was added that is equal to one if the parish is a border parish and zero otherwise.

A two-equation, simultaneous system was estimated to determine the economic impacts of video poker using the cross-section data. The first equation estimated total employment in a parish as a function of population in that parish, per capita income, tourism spending, and video poker revenues. The second equation uses video poker revenues as a function of total employment, percent of the population African American, percent of population with a college degree, and the border variable.

The coefficient of the border dummy was 1,195,994. This means that, holding everything else constant, a border location implies an additional \$1.2 million of video poker revenues. Since there are 23 border parishes, the estimate for out-of-state video poker revenues is \$27.51 million. **Thus, of the total \$668.83 million video poker revenues, \$27.51 million is from outside Louisiana and the remaining \$641.32 million comes from Louisiana residents.**

The next step in the process is to estimate the proportion of the \$641.32 million of local video poker spending that is displaced from other sources. The same methodology was used to estimate video poker displacement that was used to estimate riverboat casino displacement, with one major exception. The methodology used to estimate riverboat displacement was based on the Bayesian regression analysis to determine total observed employment based on direct riverboat employment. For Lake Charles and Shreveport-Bossier City, the total multipliers were higher than for other areas due to the fact that those markets have a great deal more out-of-state visitor spending. Thus, the more

appropriate multiplier to use for video poker was that of the Baton Rouge market in which the market is mostly local as is the video poker market. Based on that analysis, the rate of displacement was 86.9%. In other words, of every dollar spent on video poker by locals, \$.87 is diverted from other local spending. It is very important to remember the riverboat displacement discussion. This displacement rate is very likely to increase in the future.

Based on that rate of displacement, \$557.57 million of the total local video poker spending comes out of existing local spending in the State's economy and \$83.75 million is new spending. The \$83.75 million of new local spending is then added to the \$27.51 million of out-of-state visitor spending to arrive at total new video poker customer spending of \$111.26 million.

The next step is to estimate the amount of total video poker revenues that are spent within the State of Louisiana by the firms involved in the business. Table 4-19 presents the local spending of the video poker dollars for 1998. In 1998, \$491.07 million of the total revenue from video poker machines was spent in the State of Louisiana. The Louisiana spending of the video poker industry is 73.4% of total revenues. The greatest part of that local spending is in payments to the local establishments housing the video poker machines and state and local taxes. For the purposes of this report, local establishments include bars and restaurants, video poker truck stops, and horse racing establishments. The video poker industry, like the riverboat casino industry, is a very heavily taxed industry, paying \$198.71 million (or 29.7% of gross revenues) in state and local taxes.

**TABLE 4-19**  
1998 LOCAL VIDEO POKER SPENDING  
(IN MILLIONS)

| <u>Category</u>                     | <u>Local<br/>Spending</u> |
|-------------------------------------|---------------------------|
| Taxes                               | \$198.71                  |
| Payments to Local Establishments    | 235.09                    |
| Local Spending on Maintenance, etc. | 12.81                     |
| Local Ownership and Distributors    | 44.46                     |
| <b><u>TOTAL</u></b>                 | <b><u>\$491.07</u></b>    |

Source: Louisiana State Police and Authors' Calculations

The final step in determining net new spending created in the State by video poker is to adjust the new customer spending of \$111.26 million by the local customer spending percentage of 73.4%. That adjustment yields an estimate of net new spending related to the video poker industry in the State of \$81.69 million. Table 4-20 presents a summary of the calculation of net new spending.

**TABLE 4-20**  
1998 NET VIDEO POKER SPENDING  
(DOLLAR FIGURES IN MILLIONS)

| <u>Row</u> | <u>Category</u>                                     | <u>Value</u>   |
|------------|---|----------------|
| 1          | Total Video Poker Revenues                          | \$668.83       |
| 2          | Out-of-State Revenues (Row 1 minus Row 2)           | \$27.51        |
| 3          | In-State Revenues                                   | \$641.32       |
| 4          | Diversion Rate                                      | 86.9%          |
| 5          | Displaced Spending (Row 3 times Row 4)              | \$557.57       |
| 6          | New Louisiana Customer Spending (Row 3 minus Row 5) | \$83.75        |
| 7          | Total New Customer Spending (Row 2 plus Row 6)      | \$111.26       |
| 8          | Louisiana Spending by Video Poker Businesses        | \$491.07       |
| 9          | Louisiana Spending Rate (Row 8 divided by Row 1)    | 73.4%          |
| 10         | <u>Net new spending (Row 9 times Row 7)</u>         | <u>\$81.69</u> |

Source: Louisiana State Police and Authors' Calculations

## EMPLOYMENT AND EARNINGS

The same methodology that was used to estimate new employment and earnings for the riverboat casino industry was used to estimate employment and earnings for video poker. Based on the net new revenues of \$81.69 million, the new local earnings supported by that new spending is \$55.37 million. Based on the State's average annual earnings in gambling-related secondary industries, the new earnings translate to employment of 2,914 jobs in Louisiana. Of the \$81.69 million, about 40% is new tax dollars and; thus, the new or saved positions will be observed, most obviously, in the state and local government sectors.

## STATE AND LOCAL TAXES

The video poker industry is a heavily taxed industry. In 1998, approximately \$198.71 million in state and local taxes were paid directly by the video poker companies. Of that total, approximately 25% goes to local governments in the jurisdictions that the devices are located and 75% goes to the State of Louisiana. In addition to the direct tax revenues, the new earnings estimated in this chapter create tax revenues for state and local governments. This indirect tax revenue is estimated using the same methodology that was employed to estimate riverboat casino indirect tax revenues. Table 4-21 presents direct and secondary tax revenues created by video poker in 1998.

After netting out the state and local tax revenues lost on the diverted spending, the video poker industry contributed \$179.47 million in tax revenue to state and local governments in Louisiana in 1998. Of that total, \$140.93 million was collected by the State of Louisiana and \$38.54 million was collected by various local governments in the State.

**TABLE 4-21**  
**1998 GROSS STATE AND LOCAL TAX REVENUE FROM VIDEO POKER**  
**(IN MILLIONS)**

| <u>Category</u>                  | <u>Revenues</u>   |
|----------------------------------|-------------------|
| State Direct                     | \$149.03          |
| State Indirect                   | 3.05              |
| less State Taxes Diverted        | -11.15            |
| <br>Total New State Tax Revenues | <br>140.93        |
| <br>Local Direct                 | <br>\$49.68       |
| Local Indirect                   | 1.41              |
| less Local Taxes Diverted        | -12.55            |
| <br>Total New Local Tax Revenues | <br>38.54         |
| <br><u>TOTAL</u>                 | <br><u>179.47</u> |

Source: Louisiana State Police, Louisiana Fiscal Office and Authors' Calculations

## **HORSE RACING**

This section presents a description of the benefits associated with the horse racing and off-track betting industry in Louisiana. Since race tracks and off-track betting parlors have video poker machines, care must be taken in this section to present only the benefits associated with the racing and horse betting activities at the tracks and off-track betting parlors.

The horse racing industry is different from both riverboat casinos and video poker devices in two fundamental ways. First, the horse tracks have been legal for many years in Louisiana, unlike riverboat casinos and video poker devices. As a result, the impacts are much more likely to be permanent. Whatever adjustment in consumer habits and preferences that are going to occur have probably already occurred. Second, unlike riverboats and video poker, the largest input into the production process – the breeding

and training of the horses – occurs in the State of Louisiana almost exclusively. An analogy would be that the video poker industry would be like the horse racing industry if all the video poker devices were actually manufactured and maintained by companies in the State.

In 1998, the State's four racetracks and related Off-Track Betting (OTB) parlors spent \$56.1 million in the Louisiana economy (Source: Survey of Louisiana Racetracks, 1998). In addition, the horse owners paid \$123.63 million to train the horses that are housed at the tracks and near-by facilities (Source: Timothy P. Ryan, Ed Nebel, Harsha Chacko, The Economic Impact of the Louisiana Racing and Horse Breeding Industries, 1990). Finally, the Louisiana horse breeders spent \$47.62 million in the State to support the breeding and raising of thoroughbred racehorses (Source: Dr. Clinton Depew, Equine Specialist at LSU Co-operative Extension Service, 1990 adjusted for inflation and foal crop changes). In total, the horse racing industry in 1998 spent \$227.39 million in the State of Louisiana.

These local spending figures must be adjusted to determine net new spending related to the horse racing industry. Three different methodologies were used to adjust the three different components of the horse racing impact.

The direct racetrack spending is adjusted in the same manner that the riverboat casino spending is adjusted. The first step is to determine the out-of-state visitors to the tracks. Based on the survey results, 31.3% of track customers were from outside Louisiana. Thus, \$17.59 million of the direct spending comes from non-residents. The remaining \$38.55 million come from Louisiana residents. As was the case for riverboat casinos, some of the spending of local residents is displaced from other local spending.

Using the same displacement ratio, 65.6%, the net new spending from locals is \$13.26 million. Thus, total net new spending related to the tracks is \$30.85 million.

The horse racing industry is a strange industry. On average, the purses that go to the owners of the winning horses are well below the costs of training the horses. In 1998, total purses only offset 22.1% of total training costs. The net effect of this is that, in part, horse racing is a sport engaged in by wealthy people who do not get all of their costs covered by the wagering that occurs at the tracks and OTB facilities. Clearly, however, they all believe that their horses will win and their costs will be covered and a profit made. In aggregate, this is never true. This is certainly unique in the gambling industry. This means that the training costs are only partially supported by wagering; and, thus, the normal diversion analysis that was used previously only partially applies to horse training. The estimate of net new spending involves adjusting 22.1% of training costs by the diversion ratio used above. This assumes that the remaining 77.9% comes out of investments and leisure for the wealthy owners and, thus, does not displace any local spending. Based on that methodology, the total net new spending created by horse training activities in the State in 1998 were \$111.33 million.

Horse breeding is assumed to have no local displacement since horses can be sold anywhere and thus the breeding industry is much more like a typical manufacturing industry. Thus, the net new spending associated with the horse breeding part of the industry is \$47.6 million.

**Thus, the net new spending associated with the horse racing industry in the State in 1998 is \$189.81 million.** Table 4-22 presents the components of this total.

The horse racing industry also creates jobs, earnings and state and local tax revenue. In 1998, the tracks and OTB facilities, horse training operations, and breeding

farms employed 7,450 people directly. Using the same methodology used to estimate secondary employment for riverboat casinos, the industry was responsible for the support of an additional 4,172 secondary jobs in the State. In total, the horse racing industry supports 11,622 jobs. The number of jobs supported by the horse-racing industry appears to be rather large when compared to the employment estimates for the other forms of gambling. It must be understood that the horse-racing industry contains a number of part-time workers, seasonal employees, and low-paid agricultural employees. Thus, the number of jobs supported is large and the amount of earnings created is relatively small. The direct earnings generated by the horse racing industry in 1998 were \$74.74 million. Secondary earnings were \$53.92 million for a total of \$128.65 million of total earnings. The horse racing industry in 1998 was responsible for \$4.35 million in direct taxes to the State and \$7.08 million in secondary revenues for a total of \$11.43 million in state tax revenues. The horse racing industry in 1998 was responsible for \$1.48 million in direct taxes to local governments and \$2.80 million in taxes generated by secondary spending for a total of \$4.28 million in local tax revenues. **In total, the horse racing industry created \$15.71 million in state and local tax revenue.**

**TABLE 4-22**  
1998 NET HORSE RACE SPENDING  
(IN MILLIONS)

| Category       | Local<br>Spending |
|----------------|-------------------|
| Racetracks     | \$30.85           |
| Horse Training | 111.34            |
| Horse Breeding | 47.62             |
| <b>TOTAL</b>   | <b>\$189.81</b>   |

Source: Racetracks and Authors' Calculations

## CONCLUSION

It is clear that the economic benefits of the gambling industry in Louisiana are large. Measured by direct new dollars spent in the State's economy, jobs, earnings and tax revenues, the industry has had a substantial dollar impact on the economy. A large percentage of that impact is created by out-of-state dollars brought in by the industry. Table 4-23 presents a summary of the dollar benefits of the gambling industry in the State of Louisiana in 1998. The employment and earnings estimates are large numbers and should be considered in perspective of the overall Louisiana economy. The three forms of gambling identified in Table 4-23 amount to 2.1% of all Louisiana employment and 0.7% of total earnings in the State.

**TABLE 4-23**  
1998 NET GAMBLING BENEFITS BY FORM OF GAMBLING  
(DOLLAR FIGURES IN MILLIONS)

| <u>Category</u>           | <u>Riverboats<sup>1</sup></u> | <u>Video<br/>Poker</u> | <u>Horse<br/>Racing</u> | <u>Total</u>    |
|---------------------------|-------------------------------|------------------------|-------------------------|-----------------|
| Direct Spending           | \$988.87                      | \$81.69                | \$189.81                | \$1,260.37      |
| Employment (persons)      | 24,546                        | 2,914                  | 11,622                  | 39,082          |
| Earnings                  | \$476.34                      | \$55.37                | \$128.65                | \$660.36        |
| State Tax Revenues        | \$255.56                      | \$140.93               | \$11.43                 | \$407.92        |
| <u>Local Tax Revenues</u> | <u>\$82.73</u>                | <u>\$38.34</u>         | <u>\$3.98</u>           | <u>\$125.05</u> |

Source: Authors' Calculations

<sup>1</sup> Note that this includes only riverboat casinos not Indian reservation casinos.