

The Economic Impact of An Omaha, Nebraska Casino



Prepared for the Greater Omaha Chamber of Commerce
August 12, 2002

<p>Ernest Goss, Ph.D. Professor of Economics, Creighton University Goss & Associates—Economic Solutions Omaha, Nebraska 68178-0130</p>
--

The Economic Impact of An Omaha, Nebraska Casino

This study was prepared for The Greater Omaha Chamber of Commerce (Omaha Chamber). Findings remain the sole property of the Omaha Chamber and may not be used without prior approval of that organization.

Any errors or misstatements contained in this study are solely the responsibility of the author. Please address all correspondence to:

Dr. Ernest Goss
MacAllister Chair
Department of Economics
Creighton University
Omaha, Nebraska 68178-0130
Voice-(402) 280-4757
Fax-(402) 280-2172
[e-mail: ernieg@creighton.edu](mailto:ernieg@creighton.edu)

The Economic Impact of An Omaha, Nebraska Casino

Preface

This study examines the impact of “commercial casinos” focusing specifically on the impact of the addition of a casino to the Omaha, Nebraska economy.

- For the purposes of this study, commercial casinos are defined to include private sector (i.e., nongovernmental) land-based, riverboat, and dockside casinos.
- The Council Bluffs casinos have yet to emerge as a destination for casino patrons outside the states of Iowa and Nebraska. As such, estimates contained in this study assume that a new casino on the Nebraska side of Omaha will continue to gain most of its business from residents of Iowa and Nebraska. If, on the other hand, Omaha casinos begin to attract a significant share of its patrons from outside the two states, the estimates contained in this study are too conservative and will likely be exceeded.
- While it is clear that individuals who participate in limited gaming are gambling, the term "gaming" has been used for many years to identify the legal forms of gambling. The term "gambling" is normally used to describe the illegal forms of gambling. Though for some, there is a very clear legal distinction between the two terms, this study will use the terms interchangeably.
- Throughout this study, the term AGR is used. Some states refer to this as “Adjusted Gross Receipts” while others denote it as “Adjusted Gross Revenues.” The two terms are synonymous and represent gross gambling receipts or revenues minus the winnings paid to the bettor.

The Economic Impact of an Omaha, Nebraska Casino

Table of Contents

Executive Summary	4
Chapter 1: Casino Expansion in the U.S.	9
The States	9
Casino Employment	10
The Counties	12
Conclusions	14
Chapter 2: Tax Revenues from Casinos	
Actual Casino Tax Collections	15
Legislated Tax Rates by State	18
Chapter 3: Macro Impacts of Casinos for Casinos Across the U.S.	25
Introduction	25
Jobs	25
Casinos Market Potential and Factors Affecting Casino AGE	30
Impact of Casinos on the Size of Government & Tax Collections	31
Conclusions	33
Chapter 4: Micro Impact of an Omaha, Nebraska Casino	34
Introduction	34
Types of Economic Impacts	35
Description of Input-Output Multipliers Used	36
Input-Output Models: A Preferred Methodology	37
Implan Multipliers	38
Estimated Economic Impact of an Omaha, Nebraska Casino	39
Impact of Casino Construction	45
Chapter 5: Social Costs of Gambling	47
Introduction	47
Gambling and Crime	47
Gambling and Poverty	49
Casinos and Divorce	50
Chapter 6: Organization and Regulation of Casinos	51
Gaming Boards	51
Limits on Casinos	56
Appendix	58
Bibliography	62

The Economic Impact of An Omaha, Nebraska Casino

Executive Summary

- Over the past two years, net commercial casino revenues (Adjusted gross receipts¹) for the nation have grown by 15.1 percent per year.
- In 2001, there were 434 commercial casinos in 11 states employing 364,804 workers with the average casino employing 841 workers.
- Currently 57 counties nationwide offer legalized commercial casino gambling.
- Council Bluffs casinos ranked 18th in the nation in 2001 in casino revenues with \$358 million in AGR, 3,356 in employment, and \$81.7 million in gaming tax collections.
- Council Bluffs casino tax collections have grown from \$40.0 million in 1996 to \$81.7 million in 2001, or roughly 19 percent per year, or 4 percent greater than the average U.S. casino.
- Average tax rates on AGR in 2001 ranged from 7.5 percent in Teller County, Colorado to 32.4 percent in Will County, Illinois. Council Bluffs average tax rate in 2001 was 23.4 percent of AGR which was slightly above the average U.S. tax rate.
- Colorado and South Dakota imposed the most restrictive regulation on casino wagering by not allowing credit, by limiting the amount of the bet, and by limiting the maximum daily loss.
- Of the 57 counties offering casino gambling, 33 produced job gains while 24 generated job losses.

¹Adjusted gross receipts (AGR) represent the gross gambling revenues minus winnings paid to the gambler.

- Metropolitan casinos generated \$37 million more in yearly AGR than non-metropolitan casinos. However, non-metropolitan casino patrons lost an average of \$13 more per casino visit than their metropolitan counterparts.
- Casinos with betting limits generated on average, \$190 million less in yearly casino AGR. Betting limits reduced the average daily loss of casino patrons from \$60 to \$38.
- Granting casino credit had no impact on casino AGR, but did increase the daily loss of casino goers from \$33 to \$73.
- A casino can have a positive economic impact on an area by either increasing the amount of visitor dollars spent in the local area, or by reducing local resident spending outside the area.
- Almost 68.0 percent of Council Bluffs casino patrons come from the Omaha Metropolitan Statistical Area (MSA).² Roughly 8.3 percent of Council Bluffs casino patrons come from outside of Iowa and Nebraska. 10.3 percent come from Iowa outside of Pottawattamie County, and 13.7 percent come from Nebraska outside the Omaha Metropolitan area.
- Yearly **operation** of an Omaha, Nebraska casino is expected to add \$17.5 million in yearly wages and salaries, \$58.4 million in yearly sales and to support 1,008 jobs for the metropolitan area. Furthermore, the casino is expected to contribute roughly \$27.0 million in yearly tax collections.

²As defined by the U.S. Department of Commerce, the Omaha Metropolitan area includes the Nebraska counties of Cass, Douglas, Sarpy, and Washington and the Iowa county of Pottawattamie.

- For Nebraska outside of Omaha, yearly **operation** of an Omaha, Nebraska casino is expected to reduce yearly wages and salaries \$6.3 million, yearly sales by \$24.7 million and 613 in jobs.³
- An Omaha, Nebraska casino would likely increase the yearly crime rate by 1.5 percent to 7.9 percent.
- An Omaha, Nebraska casino would have negligible impacts on the area's poverty rate.
- Casinos in metropolitan Omaha have had no discernible impact on the area's divorce rates. An additional casino in the area is expected to produce little or no change in the metropolitan area's divorce rate.
- Over the period of **construction**, an Omaha, Nebraska casino is expected to add 2,357 jobs, \$245 million in sales and \$74 million in wages and salaries to the local economy. Furthermore, casino construction is expected to add \$23 million to state and local tax collections over the construction period.
- Casino tax collections have produced little tax relief for Pottawattamie taxpayers. Less than five percent of tax collections from the Council Bluffs casinos are retained by the City of Council Bluffs or Pottawattamie County. Between 85 percent to 90 percent of tax collections go to the state government coffers of Iowa.
- Casino revenue and tax growth slow as a casino ages. This trend is expected to characterize an Omaha, Nebraska casino. Thus revenues and tax growth will be highest in the first five years of the casino.

³These losses result from the expectation that 13.7 percent of Omaha casino patrons will come from Nebraska outside of metropolitan Omaha. This results in reduced spending for the Non-Omaha portion of Nebraska.

- Many studies have exaggerated the impact of casinos due to 1) their failure to recognize offsetting negative impacts for other businesses in the area, 2) their recognition of hotel and accommodation workers as casino workers, 3) their recognition of each casino dollar as a “new” dollar for the area.

Page Intentionally Left Blank

Chapter 1: Casino Expansion in the U.S.

The States

After a brief respite, America returned to gaming in 2002. The tragic events of September 11th reduced air travel to spots such as Las Vegas, but neither that nor the economic downturn stopped the U.S. gaming industry from posting a five percent increase in revenues to an estimated \$64 billion for 2001. This follows more than a decade of explosive growth.

According to Christiansen of Capital Advisors LLC, Americans today pay out more on gambling than they spend on movie tickets, theme parks, spectator sports, and video games combined. Moreover, Merrill Lynch estimated that Americans lose a comparable amount in illegal betting. Even though the U.S. had major competition from abroad, Simon Holliday, partner at Britain's Global Betting & Gaming Consultants, asserted that the U.S. was the world's fastest-growing gambling market over the past decade.

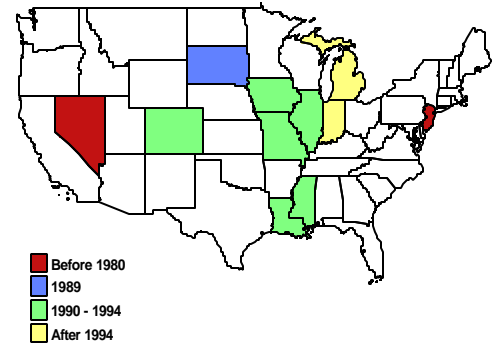
While all forms of gambling have grown, U.S. casino gambling has experienced robust growth in recent years. Since Nevada legalized casino gaming in 1931, an additional ten states have legalized commercial casinos.⁴ However, eight of the ten states approving commercial casinos began casino construction in the 1990s.

Figure 1.1 shows states that currently have legalized commercial casino gaming along with the date that the first casino was constructed in the state. Years of legalization were: Nevada 1931, New Jersey 1976, Iowa, Louisiana, and South Dakota 1989, Colorado, Illinois and Mississippi 1990, Indiana and Missouri 1993, and Michigan 1996.

Not only did the number of states offering casino gambling grow, casino revenues rose even more dramatically. Figure 1.2 attests to the rapid growth in casino gambling in terms of gross revenue or what are normally termed adjusted gross receipts (AGR).

From 1990 to 2001, casino revenues grew from \$8.3 billion in 1990 to \$25.7 billion in 2001. This represents a compounded yearly growth rate of 10.8 percent. This pace of revenue growth was more than five times the rate of growth in inflation, and almost three times the rate of growth in the overall U.S. economy.

Figure 1.1: First year of Casino Operations ⁵



The overall growth presented in Figure 1.2 masks the variation in revenue growth experienced by the states. Table 1.1 shows gross casino revenues by state for 1999, 2000, and 2001, along with the growth rate from 1999 to 2001. As listed, Illinois and Indiana experienced the most rapid growth with identical growth rates of 63.6 percent, while New Jersey experienced the slowest growth rate during the time period at 7.5 percent. This is certainly not surprising since Illinois and Indiana casinos are much newer, while Atlantic City casinos are second only to Nevada casinos in age. Michigan, the latest state to add casinos to its economic mix experienced the fastest yearly growth in AGR at 34.5 percent growth between 2000 and 2001.

⁴A commercial casino is a non-tribal casino owned by private investors.

⁵At this point in time, neither Alaska nor Hawaii offers casino wagering.

Figure 1.2: Annual casino AGR, 1990 2001⁶

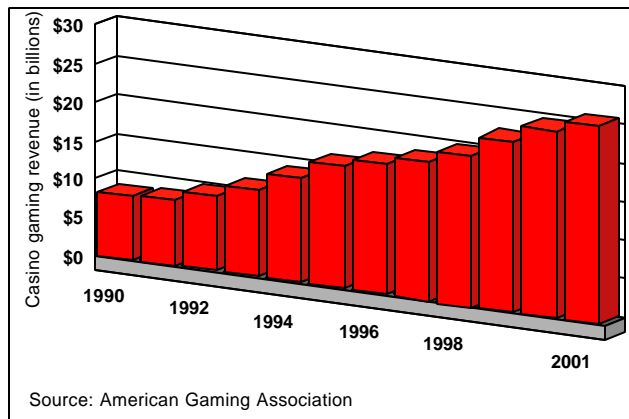


TABLE 1.1: AGR BY STATE 1999-2001 (MILLION \$S)

	1999	2000	2001	Growth 1999-2001
Colorado	\$479.0	\$631.8	\$631.8	31.9%
Illinois	\$1,100.0	\$1,700.0	\$1,800.0	63.6%
Indiana	\$1,100.0	\$1,700.0	\$1,800.0	63.6%
Iowa	\$496.0 ⁷	\$887.0	\$922.9	*
Louisiana	\$1,300.0	\$1,800.0	\$1,800.0	38.5%
Michigan	n.a.	\$743.6	\$1,000.0	n.a.
Mississippi	\$2,200.0	\$2,700.0	\$2,700.0	22.7%
Missouri	\$853.0	\$997.7	\$1,100.0	29.0%
Nevada	\$8,100.0	\$9,600.0	\$9,500.0	17.3%
New Jersey	\$4,000.0	\$4,300.0	\$4,300.0	7.5%
South Dakota	\$44.0	\$51.8	\$58.6	33.2%
U.S.	\$19,672.0	\$25,111.9	\$25,613.3	30.2%

Source: American Gaming Association

Not only were there large differences among the states regarding the rate of growth in revenues, the revenue per casino visitor varied significantly. Table 1.2 lists attendance and average revenue per visitor by state for 2001. As presented, spending per casino visitor ranged from \$23 for Missouri visitors to \$192 for Nevada at-

⁶Gross revenues or AGR represent the total value of wagering minus the winnings of the wagerer.

⁷Includes only riverboat casinos. The American Gaming Association omitted roughly \$281 million in revenues from land-based casinos in their 1999 report.

tendees. The average visitor across the U.S. spent \$79 per casino visit in 2001.

Table 1.2: CASINO ATTENDANCE & REVENUE PER VISITOR, 2001

	Attendance	Revenue per casino visitor
Colorado	n.a.	n.a.
Illinois	18,800,000	\$96
Indiana	19,800,000	\$91
Iowa	19,400,000	\$48
Louisiana	45,900,000	\$39
Michigan	32,640,000	\$31
Mississippi	56,800,000	\$48
Missouri	47,500,000	\$23
Nevada	49,600,000	\$192
New Jersey	32,400,000	\$133
South Dakota	n.a.	n.a.
U.S.	322,840,000	\$79

Source: Gaming control board of each state
n.a.—not available

Casino Employment

In 2001 there were 434 commercial casinos employing more than 370,000 workers earning almost \$11 billion in wages⁸ (American Gaming Association). On average each U.S. casino employed 841 workers in 2001 with South Dakota casinos employing the fewest at 36 workers per casino and with New Jersey casinos employing the most at 3,799 workers per casino.

Table 1.3 lists the number of casinos, number of casino workers, and percent of the workforce employed by casinos by state for 2001. Clearly, casinos played a much more important employment role for Nevada and Mississippi than for the other casino states.

While casino workers are generally paid less than workers in other industries, they are paid more than their counterparts working at other firms engaged in non-casino entertainment and recreation activities.

⁸Includes tips and benefits.

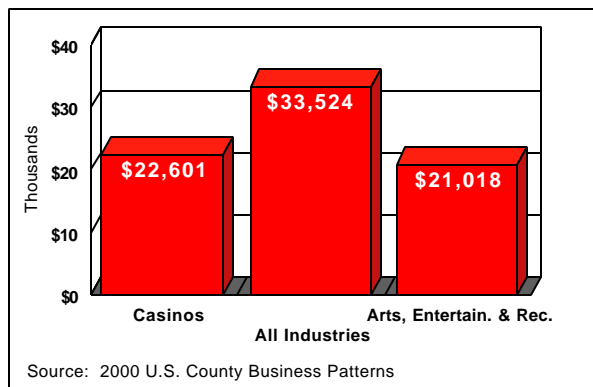
Table 1.3: Casino Employment by state-2001

State	Number of casino workers⁹	Casino employment as % of total workforce
Colorado	7,132	0.3%
Illinois	11,000	0.2%
Indiana	16,000	0.6%
Iowa	9,226	0.7%
Louisiana	18,620	0.9%
Michigan	7,599	0.2%
Mississippi	32,510	3.0%
Missouri	10,516	0.4%
Nevada	205,151	19.4%
New Jersey	45,592	1.2%
South Dakota	1,458	0.4%
Total	364,804	1.3%

Source: American Gaming Association and U.S. Bureau of Labor Statistics

Figure 1.3 profiles average salaries for U.S. workers by industry for 2000. As presented, casino workers earned \$1,500 more than other non-casino arts, entertainment and recreation workers. However, they earned almost \$11,000 less than the average U.S. worker.

Figure 1.3: Average salary by industry

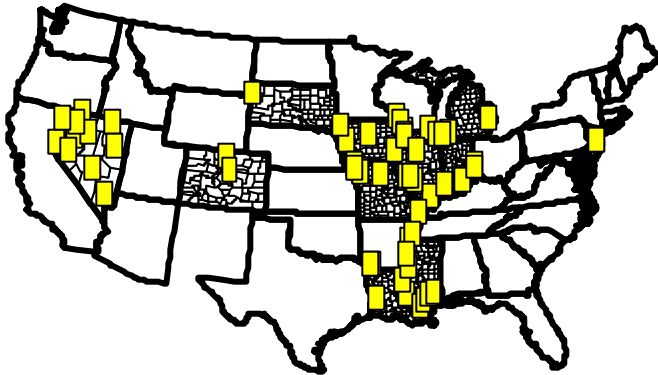


⁹These estimates conflict with data from the U.S. Census Bureau. The estimates by the American Gaming Association include Hotel & Lodging employees. For example, The U.S. Census Bureau lists only 1,246 casino workers in Atlantic City. Overall the American Gaming Association estimates are more than twice the U.S. Census Bureau values.

The Casino Counties

Figure 1.4 details the location of U.S. casinos by county for 2001. Currently fifty-seven counties in the U.S. offer commercial casino gaming. Figure 1.4 shows that most commercial casino activity is located near either a river or body of water.

Figure 1.4: Casinos by County, 2001



The location patterns of casinos as presented in Figure 1.4 suggests that states tend to respond to gambling pressures from bordering states often by locating the commercial casino close to the state line. For example, most of Iowa's thirteen casinos are located on the state's border with Nebraska (four casinos) and on the state's border with Illinois (seven casinos). Only two of Iowa's thirteen casinos are located more than three miles from the state border.

Table 1.4 lists U.S. counties in which casinos currently operate. Eleven counties in Nevada provide commercial casino gambling. However, at the time of printing, 2001 county data were not available for Nevada. Additionally, Mississippi does not publish casino revenues by county.

Atlantic County, New Jersey experienced the highest casino attendance for 2001 with roughly 32 million admissions for the year. Lake County, Indiana ranked second in terms of 2001 admissions with over 17 million visitors.

Table 1.5 provides a ranking of the casinos by location. In most cases, a location is a county. As listed, Council Bluffs, Iowa (Pottawattamie County), was the 18th largest casino market in the U.S. with over \$358 million in AGR in 2001. Over 8.1 million patrons visited the city's three casinos spending just over \$44 per person per visit.

Table 1.4: 2001 AGR and AGR per visitor by county

<i>State & County</i>	<i>AGR (in millions)</i>	<i>Admissions</i>	<i>AGR per visitor</i>
<i>Colorado Gilpin</i>	\$538.1	n.a.	n.a.
<i>Colorado Teller</i>	\$138.6	n.a.	n.a.
<i>Illinois Kane</i>	\$770.8	7,510,712	\$103
<i>Illinois Massac</i>	\$119.8	1,432,742	\$84
<i>Illinois Rock Island</i>	\$35.7	793,509	\$45
<i>Illinois St Clair</i>	\$155.1	2,024,046	\$77
<i>Illinois Tazewell</i>	\$140.8	1,942,547	\$73
<i>Illinois Will</i>	\$561.8	5,104,725	\$110
<i>Indiana Dearborn</i>	\$346.7	7,424,904	\$47
<i>Indiana Harrison</i>	\$214.8	5,373,147	\$40
<i>Indiana Lake</i>	\$732.6	17,607,238	\$42
<i>Indiana LaPorte</i>	\$185.5	3,923,204	\$47
<i>Indiana Ohio</i>	\$173.1	2,656,619	\$65
<i>Indiana Switzerland</i>	\$95.8	2,310,951	\$41
<i>Indiana Vanderburgh</i>	\$93.4	2,077,097	\$45
<i>Iowa Clayton</i>	\$34.6	606,096	\$57
<i>Iowa Clinton</i>	\$28.8	572,650	\$50
<i>Iowa Dubuque</i>	\$86.3	1,946,326	\$44
<i>Iowa Lee</i>	\$29.1	603,108	\$48
<i>Iowa Osceola</i>	\$49.8	989,699	\$50
<i>Iowa Polk</i>	\$142.9	2,594,727	\$55
<i>Iowa Pottawattamie</i>	\$358.5	8,131,767	\$44
<i>Iowa Scott</i>	\$155.4	3,155,510	\$49
<i>Iowa Woodbury</i>	\$37.6	842,694	\$45
<i>Louisiana Bossier</i>	\$483.8	8,185,177	\$59
<i>Louisiana Caddo</i>	\$322.4	8,027,317	\$40
<i>Louisiana Calcasieu</i>	\$278.1	5,493,160	\$51
<i>Louisiana East Baton</i>	\$172.9	2,821,560	\$61
<i>Louisiana Jefferson</i>	\$114.6	1,748,423	\$66
<i>Louisiana Orleans</i>	\$532.2	12,065,214	\$44
<i>Michigan Wayne</i>	\$1,007.0	n.a.	n.a.
<i>Mississippi Gulf</i>	\$1,151.1	24,134,276	\$48
<i>Mississippi MS River</i>	\$1,549.6	32,188,332	\$48
<i>Missouri Buchanan</i>	\$27.2	1,108,363	\$25
<i>Missouri Clay</i>	\$198.8	7,235,331	\$27
<i>Missouri Cooper</i>	\$4.8	248,278	\$19
<i>Missouri Jackson</i>	\$284.0	12,823,057	\$22
<i>Missouri Lewis</i>	\$10.3	522,991	\$20
<i>Missouri Pemiscot</i>	\$23.6	799,585	\$29
<i>Missouri Platte</i>	\$99.2	3,963,036	\$25
<i>Missouri St Charles</i>	\$143.9	5,744,173	\$25
<i>Missouri St Louis</i>	\$345.4	14,935,909	\$23
<i>New Jersey Atlantic</i>	\$4,279.0	32,400,000	\$132
<i>S. Dakota Lawrence</i>	\$58.6	n.a.	n.a.

**Source: State Gaming Boards for each state
(Nevada data not available at time of printing)**

Table 1.5: Ranking of casinos by location---2001

Rank	Location	AGR (in millions)
1	Las Vegas – Strip	\$4,800.0
2	Atlantic City, NJ	\$4,300.0
3	Chicagoland (IL, IN)	\$2,000.0
4	Detroit/Windsor, Canada	\$1,200.0
5	Tunica County, MS	\$1,200.0
6	Mississippi Gulf Coast	\$1,100.0
7	Reno/Sparks, NV	\$1,000.0
8	Southern Indiana	\$697.4
9	Shreveport, LA	\$685.0
10	St. Louis, MO	\$683.8
11	Las Vegas – Downtown	\$673.9
12	Boulder Strip (NV)	\$595.5
13	Kansas City, MO	\$560.0
14	Laughlin, NV	\$559.7
15	New Orleans, LA	\$516.9
16	Black Hawk, CO	\$433.8
17	South Lake Tahoe, NV	\$352.7
18	Council Bluffs, IA	\$347.3 ¹⁰
19	Lake Charles, LA	\$341.3
20	North Las Vegas	\$236.0
21	Vicksburg, MS	\$234.7
22	Quad Cities (IA)	\$210.2
23	Des Moines, IA	\$185.1
24	Baton Rouge, LA	\$163.9
25	Cripple Creek, CO	\$134.5
26	Peoria, IL	\$129.6
27	Dubuque/Marquette, IA	\$115.9
28	Metropolis, IL	\$108.6
29	Evansville, IN	\$96.6
30	Greenville, MS	\$73.0
31	Central City, CO	\$63.4
32	Deadwood, SD	\$51.8
33	Natchez, MS	\$36.3
34	Sioux City, IA	\$35.2
35	Fort Madison, IA	\$30.0
36	Caruthersville, MO	\$22.8

Source: Bear Sterns (2001)

Figure 1.5 profiles AGR for Iowa and Council Bluffs casinos from 1996 to 2001. As presented, Iowa AGR grew from \$430.5 million in 1996 to \$887.0 million in 2001. Council Bluffs AGR advanced from \$204.7 million in 1996 to \$345.7 mil-

lion in 2001. As a percent of overall state AGR, Council Bluffs' share declined from 47.6 percent in 1996 to 39.0 percent in 2001.

Figure 1.5: AGR Council Bluffs and Iowa casinos

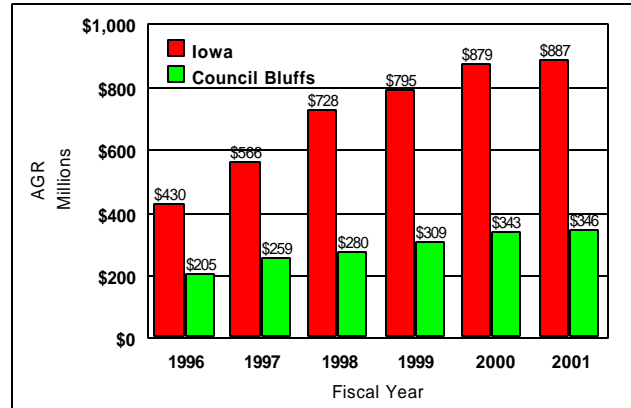
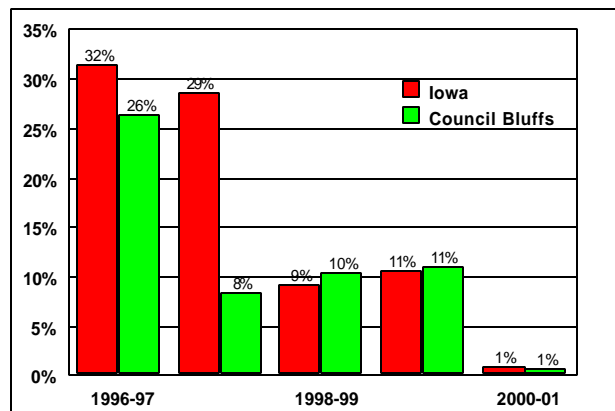


Figure 1.6 shows AGR growth rates for Iowa and Council Bluffs casinos from 1996 to 2001. As presented, Iowa's AGR slowed from 31.6 percent in 1996-97 to less than one percent from 2000 to 2001. Council Bluffs AGR growth slowed from 26.3 percent from 1996 to 1997 to less than one percent from 2000 to 2001.

Figure 1.6: AGR Growth Rates, 1996-2001



¹⁰Note that the Bear Sterns' estimate is \$11.2 million higher than that of the Iowa Racing Commission.

Conclusions

This chapter has documented the rapid growth in casinos and casino revenues over the past decade. However, the recession, which began in March of 2001, has significantly dampened AGR growth with overall AGR growing by only two percent from 2000 to 2001. The state of Nevada even experienced a downturn in AGR between 2000 to 2001.

Due to the increasing dependence of states on rising casino tax collections, the recent stagnation in casino revenues has awakened public policy officials to the danger of a heavy reliance on casino growth. The next chapter examines casino tax collections and spotlights the rising importance of casino revenues to each of the casino states.

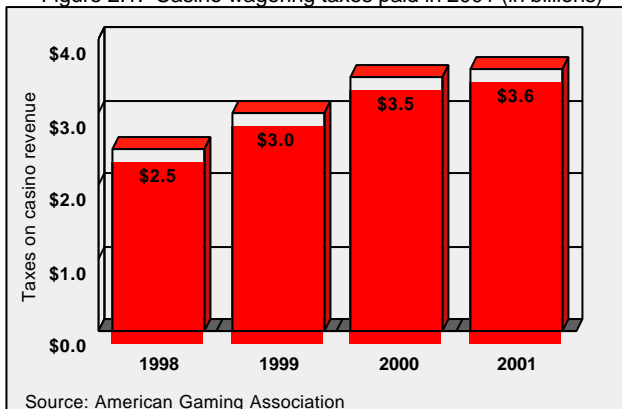
Chapter 2: Tax Revenues from Casinos

Actual Casino Tax Collections

The commercial casino industry provided more jobs, higher wages, and more tax revenues to states and local communities in 2001 than ever before. With 434 commercial casinos operating in 11 states, the industry has become an increasingly powerful engine for the U.S. economy.

Motivated by ever increasing citizen demands made on state and local governments, jurisdictions across the U.S. have vigorously added casinos to their mix of revenue sources. Figure 2.1 shows how casino tax collections have grown between 1998 and 2001. As presented, tax collections from casinos increased from \$2.5 billion in 1996 to \$3.6 billion in 2001, a growth in excess of 44 percent.

Figure 2.1: Casino wagering taxes paid in 2001 (in billions)¹¹



However, the experience of each state has varied as widely as the characteristics of the populations of the states. Table 2.1 presents average tax rates by state for 2001. In this case, the average tax rate is calculated as tax collections from casinos divided by the total revenues or AGR of casinos.

As listed in Table 2.1, Illinois levied the highest average tax rate, while Nevada assessed

the lowest tax rate on casino revenues. Table 2.1 also indicates the stability of tax revenues as a percent of AGR with the average tax rate changing little between 2000 and 2001 despite the recession.

Table 2.1: Average tax rate 2000 & 2001

	2000	2001
Colorado	13.0%	14.6%
Illinois	30.1%	30.8%
Indiana	26.7%	27.4%
Iowa	23.3%	23.5%
Louisiana	21.2%	20.8%
Michigan	23.0%	21.9%
Mississippi	11.9%	11.9%
Missouri	30.5%	29.3%
Nevada	7.4%	7.2%
New Jersey	8.0%	8.0%
South Dakota	9.3%	7.7%
U.S.	13.9%	14.2%

Source: American Gaming Association. Tax rate is equal to total gaming taxes paid divided by AGR

Table 2.2 shows the importance of casino tax collections to each state, with Nevada and Mississippi depending more heavily on casino tax generation for financing government activities than other casino states.

Table 2.2: Gaming Tax Collections for 2001

	Gaming tax collections (in millions)	As a percent Of total taxes
Colorado	\$92.0	0.7%
Illinois	\$555.2	1.4%
Indiana	\$492.6	2.9%
Iowa	\$216.9	2.7%
Louisiana	\$374.8	3.6%
Michigan	\$219.3	0.6%
Mississippi	\$322.6	5.3%
Missouri	\$322.7	2.2%
Nevada	\$688.0	13.4%
New Jersey	\$342.4	1.1%
South Dakota	\$4.5	0.3%
Total	\$3,631.0	2.0%

Sources: U.S. Census and American Gaming Association

¹¹This total does not include additional tax collections from property taxes, corporate income taxes, local use taxes or payroll taxes paid by individual casinos, casino employees and related firms.

Table 2.3 lists tax collections and tax collections as a percent of AGR by county for 2001.

Table 2.3: Wagering tax collections by county, 2001¹²

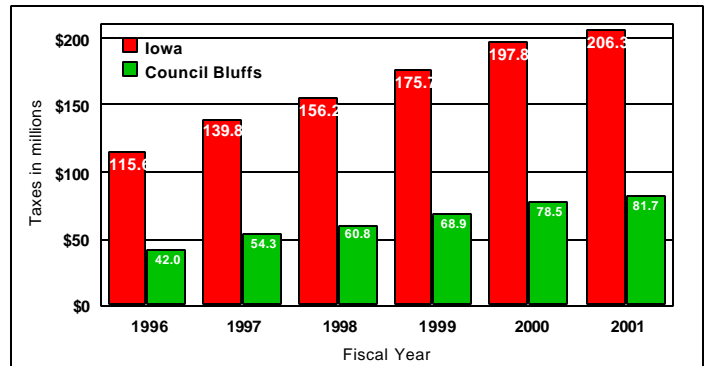
State	County	Total Tax Collections	Taxes As % of AGR
Illinois	Will	\$181,737,303	32.4%
Illinois	Kane	\$247,254,188	32.1%
Missouri	Cooper	\$1,463,649	30.3%
Iowa	Polk	\$43,094,945	30.2%
Missouri	Lewis	\$3,103,340	30.2%
Illinois	St Clair	\$45,844,687	29.6%
Missouri	Jackson	\$82,586,827	29.1%
Illinois	Taswell	\$40,668,649	28.9%
Missouri	St Louis	98,960,104	28.6%
Indiana	Lake	\$207,889,076	28.4%
Missouri	Buchanan	\$7,660,204	28.1%
Missouri	St Charles	\$40,269,997	28.0%
Missouri	Platte	\$27,765,678	28.0%
Indiana	Harrison	\$59,096,088	27.5%
Indiana	Switzerland	\$26,136,764	27.3%
Missouri	Clay	\$54,240,134	27.3%
Illinois	Massac	\$32,252,901	26.9%
Missouri	Pemiscot	\$6,309,922	26.8%
Indiana	Vanderburgh	\$24,833,207	26.6%
Indiana	Dearborn	\$91,609,646	26.4%
Indiana	LaPorte	\$48,869,944	26.3%
Iowa	Dubuque	\$20,726,755	24.0%
Iowa	Pottawattamie	\$83,965,720	23.4%
Louisiana	Orleans	\$119,268,120	22.4%
Illinois	Rock Island	\$7,446,585	20.9%
Louisiana	Calcasieu	\$57,703,211	20.7%
Louisiana	Jefferson	\$23,736,274	20.7%
Louisiana	East Baton Rouge	\$35,820,423	20.7%
Iowa	Clayton	\$6,880,009	19.9%
Iowa	Woodbury	\$7,460,888	19.9%
Iowa	Clinton	\$5,712,523	19.9%
Iowa	Lee	\$5,784,635	19.9%
Indiana	Ohio	\$34,186,827	19.8%
Iowa	Osceola	\$9,862,496	19.8%
Iowa	Scott	\$30,724,717	19.8%
Louisiana	Caddo	\$62,089,694	19.3%
Louisiana	Bossier	\$93,053,692	19.2%
Colorado	Gilpin	\$81,739,256	15.2%
Mississippi	Gulf Coast Coun-	\$136,602,219	11.9%
Mississippi	MS River Coun-	\$183,896,355	11.9%
Michigan	Wayne	\$81,566,471	8.1%
New Jersey	Atlantic	\$342,321,000	8.0%
South Dakota	Lawrence	\$4,455,680	7.6%
Colorado	Teller	\$10,445,369	7.5%

Source: Gaming Board in each state

high of 32.4 percent for Will, Illinois. It should be noted that Polk County, Iowa, with a rate of 30.2 percent, has one of the highest tax rates among U.S. counties. Until a recent court decision, Iowa had taxed racetrack casinos at a higher rate than riverboat casinos. Polk County, Iowa's casino is a race track casino.

Figure 2.2 profiles casino tax collections for Iowa and Council Bluffs from 1996 through 2001. As presented, Iowa casino tax collections grew from \$115.6 million in 1996 to \$206.3 million in 2001. During this same period of time, Council Bluffs casino tax collections expanded from \$42.0 million to \$81.7 million. Thus, the percentage of overall Iowa casino tax collections provided by Council Bluffs rose from 36.3 percent in 1996 to 39.6 percent in 2001.

Figure 2.2: Tax collections, Iowa and Council Bluffs

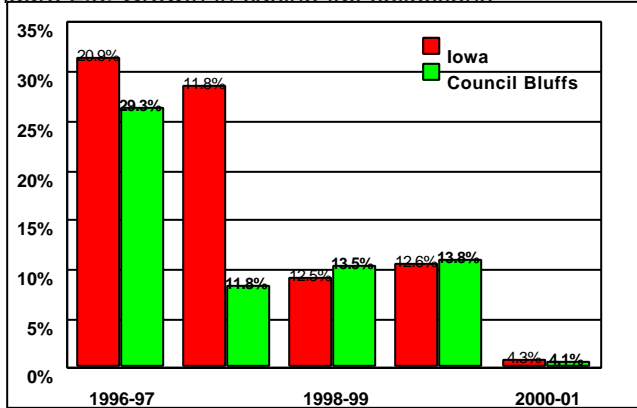


As listed, taxes as a percent of AGR varied from a low of 7.5 percent for Teller, Colorado to a

¹²County data were not available for Nevada at the time of printing. Mississippi does not report casino data by county.

Figure 2.3 shows annual casino tax growth rates for Iowa and Council Bluffs for the period 1996 to 2001. For both the state and the city, casino tax collections have recently been growing at a much slower pace expanding by less than five percent from 2000 to 2001.

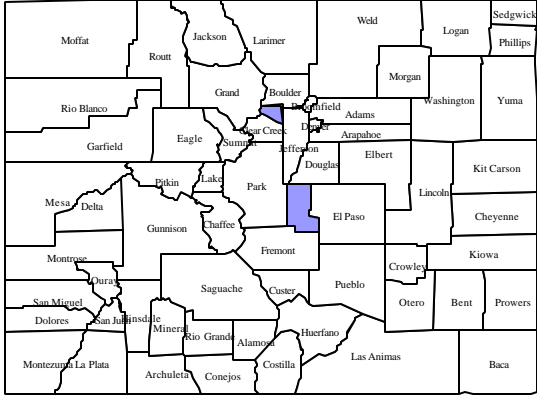
Figure 2.3: Growth in casino tax collections



Despite the fact that the Council Bluffs casinos generated more than \$80 million in gambling taxes for 2001, the Council Bluffs City government and Pottawattamie county government combined received less than \$3.7 million in gambling taxes. Between 85 percent and 90 percent of gambling tax collections ended up in state coffers.

The next section of this chapter summarizes casino tax legislation by state.

Legislated Tax Rates by State

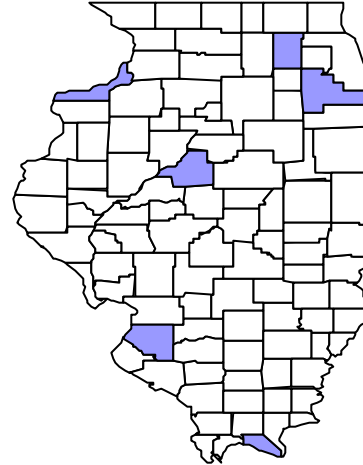


Colorado

The Colorado Limited Gaming Commission established the state's current gaming tax rate structure. In Colorado, casinos pay the states only gaming taxes. The following tax structure has been in effect since the gaming year July 1, 1999 to June 30, 2000.

- 0.25% tax on \$0 - \$2 million in AGR¹³
- 2% tax on \$2 - \$4 million in AGR
- 4% tax on \$4 - \$5 million in AGR
- 11% tax on \$5 - \$10 million in AGR
- 16% tax on \$10 - \$15 million in AGR
- 20% tax on AGR above \$15 million

In addition to the tax on AGR, the Commission required casinos to pay a device fee on each gaming device (slot machine or gaming table). The annual device fee was \$75 for a number of years, but beginning in gaming year 1999-2000, the Commission eliminated the device fee.



Illinois

The *Illinois Riverboat Gambling Act* imposes two taxes on riverboat gaming. These are:

- **A wagering tax:** In 1998, the wagering tax changed from a flat 20 percent tax to a graduated tax rate based on annual AGR. The Act defines adjusted gross receipts as the gross receipts less the winnings paid out to gamblers.
 - ❑ 15% of AGR \$0 - \$24.9 million
 - ❑ 20% of AGR \$25 million - \$49.9 million
 - ❑ 25% of AGR \$50 million - \$74.9 million
 - ❑ 30% of AGR \$75 million - \$100 million
 - ❑ 35% of AGR in excess of \$100 million
- **A tax on admissions:** Each casino must pay an admissions tax of \$2 per person per visit.

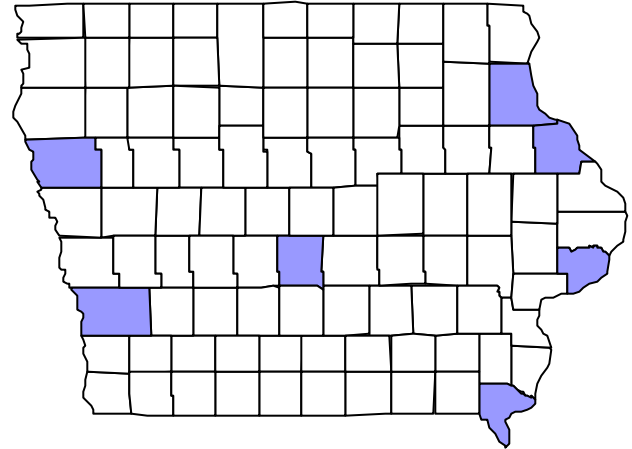
¹³Adjusted gross receipts are equal to gross receipts from wagering less winnings paid to gamblers.



Indiana

Indiana imposes two taxes on commercial casinos.

- Indiana imposes an admission tax on gambling excursions at a rate of three dollars for each person admitted. The admission tax is based on the number of patrons who board for an excursion (turnstile count), plus all patrons who have remained aboard the vessel for more than one cruise (multiple excursion count).
- Indiana also imposes a wagering tax on the adjusted gross receipts received from authorized gambling games at the rate of 20.0 percent of AGR.¹⁴ There are two categories of authorized gambling games; electronic gaming devices (EGD/slot machines) and live gaming devices (table games). The income generated by these devices, commonly known as win, is the major component of AGR.

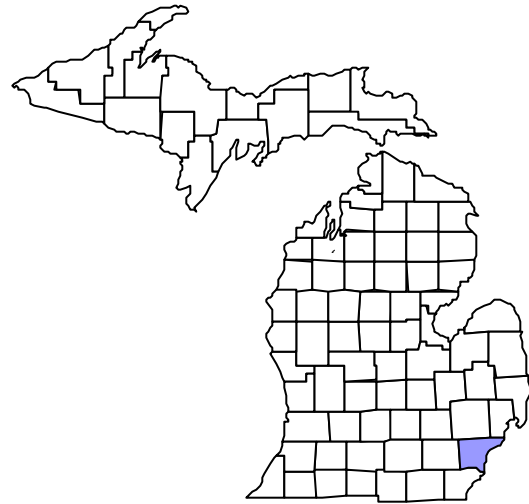
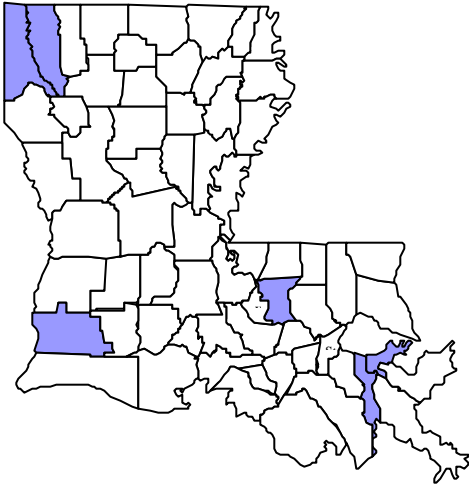


Iowa

Iowa imposes a tax on the adjusted gross receipts received annually from authorized wagering games at the rate of:

- 5.0 percent of AGR \$0 - \$.9 million
- 10.0 percent of AGR \$1 million - \$1.9 million
- 20.0 percent on AGR \$2.0 million - \$3 million
- 22.0 percent on AGR over \$3 million from gambling games at racetrack enclosures with the rate rising by 2.0 percent each succeeding calendar year until the rate is 36.0 percent.
- A manufacturer or distributor of gambling games or implements of gambling shall annually apply for a license. The license fee for a distributor is one thousand dollars, and the license fee for a manufacturer is two hundred fifty dollars. The license fees shall be credited to the special account.

¹⁴In accordance with IC 4-33-2-2, adjusted gross receipts is defined as the total of all cash and property whether collected or not, received by a licensee from gaming operations; minus the total of (A) all cash paid out as winnings to patrons and (B) uncollectible gaming receivables, not to exceed the lesser of (i) a reasonable provision for uncollectible patron checks received from gaming operations; or (ii) two percent of the total of all sums, including checks whether collected or not, less the amount paid out as winnings to patrons.



Louisiana

Louisiana assesses a license fee to conduct gaming activities on a riverboat totaling the following:

- \$50,000 for each riverboat for the first year of operation and \$100,000 per year per riverboat thereafter. The license fee is due at the beginning of each year.
- An amount equal to 3.5 percent of AGR
- A franchise fee shall be charged for the right to conduct gaming activities on a riverboat at an annual amount equal to 15.0 percent of AGR
- ❑ On and after April 1, 2001 up to and including March 31, 2002, an additional franchise fee equal to 1.0 percent of AG
- ❑ On and after April 1, 2002 up to and including March 31, 2003, an additional franchise fee equal to 2.0 percent of AGR
- ❑ On and after April 1, 2003, an additional franchise fee equal to 3.0 percent of AGR
- ❑ For any month in which a licensee receives AGR of \$6.0 million - \$8.0 million the licensee shall pay the franchise fee.
- ❑ For any month in which a licensee receives AGR greater than \$8 million the licensee shall pay the franchise fee an additional franchise fee equal to 3.0 percent of AGR for that month.

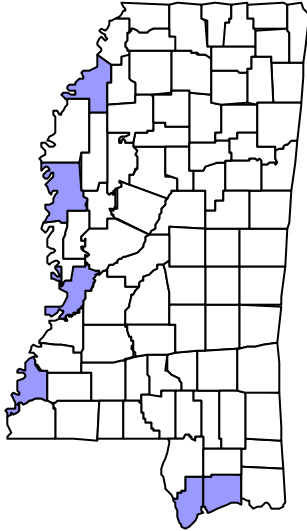
Michigan

The State of Michigan imposes the following taxes on casinos doing business in the state:

- State wagering Tax - 8.1 percent of casino AGR ¹⁵
- City wagering Tax - 9.9 percent of casino AGR
- Application fees - \$50,000 (One-time fee)
- Licensing fees - \$25,000 payable annually
- Annual state services fee ¹⁶
- Each of the state's three casinos pays one-third of \$25 million annually
- Municipal services fee \$4 million payable annually
- Effective gaming-related tax rate 22.14 percent
- The state may impose additional costs for investigations

¹⁵The State/City Wagering Tax totals 18% of the three casinos' Net Win. Net Win (sometimes referred to as Adjusted Gross Receipts) is a casino's gross receipts, less winnings paid to wagerers.

¹⁶The day-to-day operating expenses of the MGCBC are paid for by the Annual State Services Fee (this fee is not related to the casinos' gaming revenues). Each year, \$2 million of this \$25 million Fee goes toward compulsive gambling programs, administered by Michigan Department of Community Health. No single casino's share shall exceed 1/3 of the total Annual State Services Fee Adjusted annually by Detroit Consumer Price Index.



Mississippi

The Mississippi State Tax Commission assesses the following gaming and license fees on casinos operating in the state:

State taxes and fees:

- State application fee of \$5,000 due at time of application.
- State license fee of \$5,000 due at the time issuance of license and annually thereafter on anniversary date of license.
- State license fee based on number of games due at time of application, then annually on anniversary date of issuance of license.

1 Game.....	\$ 50
2 Games.....	\$100
3 Games.....	\$200
4 Games.....	\$375
5 Games.....	\$875
6 or 7 Games.....	\$1,500
8, 9 or 10 Games.....	\$3,000
11 - 16 Games.....	\$500
each game	
17 - 26 Games.....	\$8,000 + \$4,800
each game from 17 to 26	
27 - 35 Games.....	\$56,000
+ \$2,800 each Game from 27 to 35	
Over 35 Games.....	\$81,200
plus \$100 for each game over 35	
- State gross revenue fee

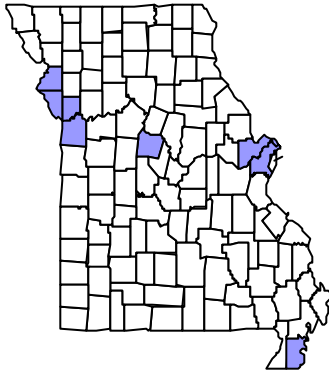
First \$50,000 Monthly AGR	4.0 percent
Next \$84,000 Monthly AGR	6.0 percent
Monthly AGR over \$134,000	8.0 percent

Local government fees:¹⁷

- First \$50,000 Monthly AGR 0.4 percent
- Next \$84,000 Monthly AGR 0.6 percent
- All Monthly AGR over \$134,000 0.8 percent
- Adams County-monthly fee equal to 3.2 percent of AGR
- City of Bay St. Louis-Annual license tax not to exceed \$100 per gaming device.
- City of Biloxi-Monthly fee equal to 3.2 percent of gross revenue. Annual license tax of \$150 upon each gaming device.
- Coahoma County-Monthly fee not to exceed 3.2 percent of gross revenue. Annual license fee not to exceed \$150 per each gaming device.
- City of D’Iberville-Monthly fee not to exceed 3.2 percent of AGR . Annual license tax not to exceed \$150 upon each gaming device.
- City of Greenville-Monthly fee equal to 3.2 percent AGR
- City of Gulfport-Monthly fee equal to 3.2 percent of AGR . Annual license tax of \$250 for each card game or table game. Annual license tax of \$100 for each slot machine
- Hancock County-Monthly fee not to exceed 3.2 percent of AGR . Annual license tax not to exceed \$100 per each gaming device
- Harrison County-Monthly fee equal to 3.2 percent of AGR . Annual license tax of \$150 upon each gaming device
- City of Natchez-Monthly fee not to exceed 3.2 percent of AGR
- Tunica County-Monthly fee not to exceed 3.2 percent of AGR
- City of Vicksburg-Monthly fee not to exceed 3.2 percent of AGR . Annual license fee not to exceed \$150 per each gaming device.

¹⁷ This tax has been imposed in: Bay St.Louis, Gulfport, Biloxi, Tunica County, Natchez, Greenville, Vicksburg, Hancock County and Coahoma County.

- Warren County-Monthly fee not to exceed 3.2 percent of AGR . Annual license fee not to exceed \$150 per each gaming device.
- Washington County-Monthly fee equal to 3.2 percent of AGR



Missouri

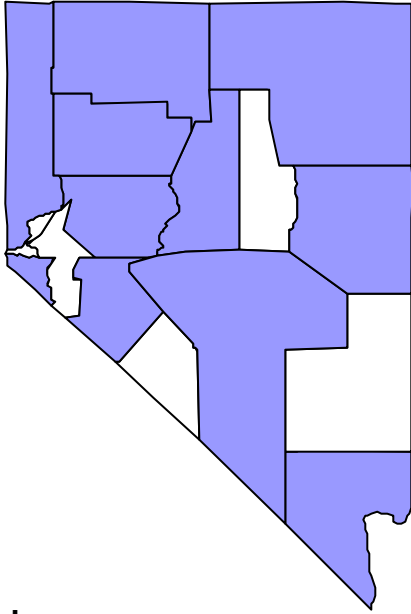
Missouri imposes two taxes, an admissions fee and a revenue tax.

- Missouri requires that an excursion boat licensee shall pay to the commission an admission fee of two dollars for each person embarking on an excursion gambling boat with a ticket of admission. One dollar of such fee shall be deposited to the credit of the gaming commission fund and one dollar of such fee shall not be considered state funds and shall be paid to the home dock city or county. Subject to appropriation, one cent of such fee deposited to the credit of the gaming commission fund may be deposited to the credit of the compulsive gambler fund.
- Missouri imposes a tax on the adjusted gross receipts received from gambling games at the rate of twenty percent. The taxes imposed shall be returned to the state gaming commission in accordance with the commission's rules and

regulations who shall transfer such taxes to the director of revenue.

Each excursion gambling boat shall designate a city or county as its home dock. The home dock city or county shall receive ten percent of the adjusted gross receipts tax collections for use in providing services necessary for the safety of the public visiting an excursion gambling boat. Such home dock city or county shall annually submit to the commission a shared revenue agreement with any other city or county.

All revenues provided for by state law is to be transferred to the governing body of any city not within a county and any city with a population of over three hundred fifty thousand inhabitants shall not be considered state funds and shall be deposited in such city's general revenue fund to be expended as provided for in this section. The remaining amount of the adjusted gross receipts tax shall be deposited in the state treasury to the credit of the "Gaming Proceeds for Education Fund" which is hereby created in the state treasury. Moneys deposited in this fund shall be considered the proceeds of excursion boat gambling and state funds. All interest received on the gaming proceeds for education fund shall be credited to the gaming proceeds for education fund. Appropriation of the moneys deposited into the gaming proceeds for education fund shall be pursuant to state law.



Nevada

The state of Nevada imposes the following taxes on casinos:

- a casino entertainment tax equivalent to 10.0 percent of all amounts paid for admission, food, refreshments and merchandise is hereby levied.

A licensed gaming establishment is not subject to tax pursuant to this section if:

(1) The establishment is licensed for less than 51 slot machines, less than six games, or any combination of slot machines and games within those respective limits;

(2) All of the following conditions are met:

- (a) No distilled spirits, wine or beer is served or permitted to be consumed;
- (b) Only light refreshments are served;

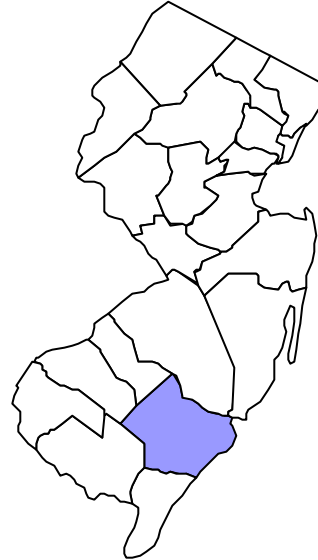
(c) Where space is provided for dancing, no charge is made for dancing; and

(d) Where music is provided or permitted, the music is provided without any charge to the owner, lessee or operator of the establishment or to any concessionaire.

The tax imposed by this section does not apply to merchandise sold outside the facility in which the

entertainment is presented, unless the purchase of the merchandise entitles the purchaser to admission to the entertainment.

The tax imposed by this section must be paid by the licensee of the establishment.

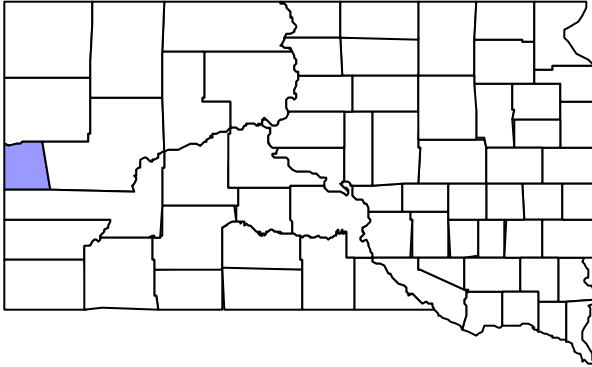


New Jersey

The state of New Jersey imposes the following casino tax on gross revenues

- 8 percent of AGR ¹⁸
- Licensee shall make investments in an amount not less than 2.0 percent of AGR
 - Licensee will make 50.0 percent of the investments in the municipality in which the licensed premises are located, and
 - 50.0 percent of such investments shall be made in any other municipality of the state.

¹⁸Gross revenue is the amount casinos keep after all bets are paid but before the casino pays taxes and other expenses.



South Dakota

South Dakota assesses the following tax rate on casinos operating in the state:

- The tax rate is eight percent of the adjusted gross revenue.
- Each device, which includes table games and slot machines, is assessed an annual device fee of \$2,000.

Conclusion

State and local governments have become increasingly dependent on gambling taxes to support spending. While tax rates have remained fairly stable, casino revenues are subject to the vagaries of the business cycle. Thus, casino tax collections are an unstable source of tax revenues. States and locales must recognize this characteristic before committing to spending that depends on the stability of tax collections.

Chapter 3: Macro Impacts for Casinos Across the U.S.

Introduction

After voters approve casino development, private firms invest substantial capital in gaming infrastructure including hotels and restaurants that are part of the land-side development.

From the Las Vegas Strip to the Atlantic City boardwalk, and points in between, private firms have invested billions of dollars in labor and materials related to gaming activities. Additionally, non-gaming firms make secondary capital investment in order to accommodate the increase in consumer traffic created by gaming developments. In many cases, areas gain new hotels, restaurants, clothing stores, office supply stores and other retail outlets as a result of secondary, or indirect capital investment.

Casinos create direct jobs when the gaming facility hires employees as the development opens. Most riverboat developments in the past five years have employed between 500 and 1,500 workers with an average of just over 800 (American Gaming Association). Annual salaries range from less than six dollars an hour to more than \$200,000 per year, with an average of approximately \$26,000 (2000 U.S. Census *County Business Patterns*).

Casinos create secondary or indirect jobs as existing businesses in the area add staff to meet increased demand. Construction jobs are generated in order to develop the physical facilities related to a new gaming development. For example, land-based or dockside casinos built in the 1990s provided over 48,000 square feet for slot machines and table games. Construction of each of these casinos supported, on average, almost 1,200 construction jobs for a two-year project.

Many research studies have been completed examining the impact of casinos on the local economy. Some have estimated significant and positive impacts stemming from casino development. Others have calculated a negative economic re-

turns from casino development. In the next section, the number of jobs created both directly and indirectly by casinos is estimated.

Jobs

Two different methods are used to estimate the number of jobs produced by casinos. The two methods are: 1) Shift-share analysis, 2) Location Quotient analysis.

Shift-share analysis¹⁹ In order to determine the impact of casinos on employment growth, it is essential that the researcher sort out the growth that was produced simply 1) by an expanding national economy 2) by having a favorable mix of industry and 3) by competitive factors such as the casino. Shift-share analysis is a technique that sorts out growth into these three elements.

Essentially, shift-share analysis accounts for the competitiveness of a region's industries. This analysis decomposes employment changes within an economy over a specific period of time into mutually exclusive factors. It paints a picture of how well the region's industries performed by systematically examining the national, local, and industrial components of employment change.

Once completed, the analysis provides a representation of changes in employment growth or decline. By interpreting data provided by shift-share, policy makers can explore the advantages that their local area enjoys, as well as identify growth, or potential growth industries that are worthy of further expansion.

Shift-share analysis decomposes employment growth (or decline) in a county over a given time period into three components: (1) a *national growth effect*, which is that part of the change in total employment in a region ascribed to the rate of growth of employment in the nation as a whole, (2)

Most riverboat developments in the past five years have employed between 500 and 1,500 workers with an average of just over 800 workers.

¹⁹For a more detailed explanation of shift-share see R. Hanham's "A systematic approach to tourism policy," *Journal of Business Research*, May 2000, Vol. 48(2), pp. 147-57.

an industry mix effect, which is the amount of change the region would have experienced had each of its industries grown at their national rates, less the national growth effect, and (3) a competitive effect, which is the difference between the actual change in employment and the employment change to be expected if each industrial sector grew at the national rate. It is this last element that is ascribed to casino development. The sum of these three effects equals the actual change in total employment within a region over a prescribed time period.

Table 3.1 lists the shift-share analysis of each county with a commercial casino. According to shift-share analysis 33 of the 57 casino counties

Of the 57 casino counties, 33 gained jobs from casino development while 24 lost jobs as a result of casino operations.

gained jobs from casino development while 24 lost jobs from casino development. The average yearly job gain attributable to casinos was 13.3 percent per year with a median of 1.1 percent per year.²⁰

Gilpin County Colorado experienced the largest gain from casino development with fully 344.1 percent per year growth ascribed to casinos. Gilpin's employment grew from 136 in 1990, the year before opening of the first casino, to 4,154 jobs nine years later. Only 1.4 percent of this growth resulted from an expanding economy.

At the other end of the spectrum, Nye County, Nevada experienced job losses from casino development. In 1990, one year before casinos opened in the county, Nye County had an employment level of 8,748. Nine years later the county's employment level had dropped to 5,400. According to shift-share analysis, casino development and operation generated an a 9.0 percent job loss per year for Nye County.

Table3:1: Job Impact of Casinos

State	County	Yearly growth rate from:			
		National Economy	Mix of industries	Casinos	Total
CO	Gilpin	1.4%	-0.6%	344.1%	344.9%
MS	Tunica	2.8%	-3.1%	217.9%	217.7%
IN	Ohio	2.6%	2.6%	84.6%	89.8%
CO	Teller	1.1%	-1.2%	29.8%	29.8%
MS	Hancock	2.5%	-0.3%	12.0%	14.2%
NV	Pershing	1.1%	-2.1%	11.8%	10.8%
LA	Bossier	2.8%	-0.8%	8.5%	10.5%
IN	Dearborn	2.6%	-1.8%	8.1%	8.8%
IL	Massac	2.8%	-2.4%	7.7%	8.1%
MS	Harrison	2.5%	-0.2%	7.0%	9.3%
MO	Platte	2.8%	-1.6%	6.2%	7.4%
NV	Humboldt	1.3%	-3.3%	6.0%	4.1%
IA	Clayton	2.8%	-1.4%	5.7%	7.1%
IN	Harrison	2.6%	-5.6%	5.4%	2.4%
MS	Warren	2.8%	-1.0%	5.1%	6.9%
IA	Pottawattamie	2.6%	-2.0%	4.5%	5.1%
NV	Clark	1.1%	2.4%	4.2%	7.8%
MO	St Charles	2.8%	-0.7%	4.1%	6.1%
SD	Lawrence	2.4%	-1.8%	3.5%	4.1%
IL	Will	2.5%	-0.4%	3.3%	5.4%
NV	Churchill	1.2%	-0.5%	3.1%	3.7%
MO	Clay	2.8%	-1.0%	2.2%	4.0%
NV	Elko	1.1%	0.9%	2.0%	4.1%
LA	Calcasieu	2.8%	-0.4%	1.9%	4.3%
MS	Coahoma	2.8%	-0.7%	1.9%	4.0%
NV	White Pine	0.9%	-1.0%	1.5%	1.4%
IA	Scott	1.1%	-0.3%	1.3%	2.1%
IL	Kane	1.1%	-0.5%	1.1%	1.8%
IA	Lee	1.1%	-1.3%	1.0%	0.8%
IL	Tazewell	1.1%	-1.3%	0.9%	0.7%
IN	LaPorte	2.8%	-2.3%	0.2%	0.7%
NV	Mineral	1.3%	-2.0%	0.2%	-0.5%
MS	Adams	2.8%	-2.0%	0.1%	0.9%
MS	Washington	2.8%	-1.3%	-0.0%	1.4%
LA	East Baton	2.8%	1.0%	-0.1%	3.7%
LA	Jefferson	2.8%	0.1%	-0.2%	2.6%
IA	Polk	2.9%	-0.1%	-0.4%	2.4%
IL	St Clair	2.8%	0.0%	-0.6%	2.2%
IN	Lake	2.6%	-0.7%	-0.7%	1.1%
IA	Dubuque	1.1%	0.1%	-0.7%	0.5%
NV	Washoe	1.1%	1.6%	-0.8%	2.0%
IA	Woodbury	2.8%	0.1%	-0.8%	2.1%
MO	St Louis	2.8%	0.0%	-0.8%	2.0%
IA	Clinton	1.1%	0.0%	-1.0%	0.2%
MO	Jackson	2.8%	0.4%	-1.0%	2.2%
IL	Rock Island	2.5%	-0.5%	-1.2%	0.8%
MO	Cooper	2.6%	-1.5%	-1.3%	-0.2%
NV	Lander	1.0%	-2.4%	-1.4%	-2.7%
IN	Vanderburgh	2.9%	-0.2%	-1.4%	1.2%
MO	Buchanan	2.8%	-0.9%	-1.5%	0.4%
MO	Pemiscot	2.9%	-0.9%	-1.7%	0.4%
LA	Caddo	2.8%	0.3%	-1.8%	1.4%
MI	Wayne	2.6%	-1.1%	-2.1%	-0.7%
NJ	Atlantic	3.2%	3.2%	-3.6%	2.8%
LA	Orleans	2.8%	1.2%	-3.9%	0.1%
NV	Douglas	1.2%	4.0%	-5.6%	-0.4%
NV	Nye	1.5%	-1.1%	-9.0%	-8.6%

Source: Shift-share analysis

Table 3.2 summarizes the estimated impact of casinos across the 57 counties using shift-share analysis. According to the analysis,

²⁰It should be noted that assigning the full value of the competitive effect to casino development is more appropriate for less populous counties than for more heavily populated counties.

casino counties added a total of 777,079 jobs after initiation of casino operation in the county. However, most of this growth was due to an expanding national economy with only 63,806, or 8.2 percent, of the jobs generated by casino operation.²¹ The largest share of the jobs were produced by a growing U.S. economy.

Table 3.2: Job and wage impact of casinos— 57 counties

Industry	Yearly impact	
	Jobs	Wages & Salaries
Agriculture & related	(4,491)	-\$130,777,920
Mining	5,272	\$209,407,636
Construction	30,852	\$1,155,515,999
Manufacturing	(35,813)	-\$1,124,032,548
Transportation & public utilities		
	29,278	\$976,472,829
Wholesale trade	13,984	\$440,554,733
Retail trade	17,339	\$254,574,666
Finance, insurance & real estate	34,323	\$1,018,011,942
Services	(26,939)	-\$671,991,200
All industries	63,806	\$2,127,736,137

Source: Shift-share analysis

As presented in Table 3.2, while the overall contribution was positive, casinos produced job losses for agriculture, manufacturing, and services. Casinos produced job gains for all other sectors. Furthermore, according to the analysis, casinos had a large positive impact of the number of jobs in *Finance, Insurance, & Real Estate* with 34,323 new jobs attributable to the casino. Of course, data in Table 3.2 represent averages with any one county's experience varying significantly from the other's.

An important issue raised by the estimates is the extent to which casino employment offsets or displaces other types of employment. This is particularly an important issue relative to non-casino *Arts, Entertainment, and Recreation* industry jobs. For example it is quite likely that casinos siphon revenue from other entertainment businesses in the area. On the other hand, casinos have the potential to increase overall *Arts, Entertainment & Recreation* employment for an area. The next section

²¹The earliest date used was 1978 for the New Jersey casinos. This was the date used for the Nevada casinos as well.

investigates this same issue using a location quotient, an alternative technique to shift-share to estimate the impact of casinos.

Location quotient (LQ).²² A location quotient (LQ) is a rather simple economic development tool to compare states or regions and helps identify what are known as "basic" and "non-basic" industries in the local economy. Basic industries are those which draw money into the economy from outside its borders, while non-basic industries serve the needs of the local populace and businesses within the state's borders.

Although the calculation of a location quotient requires several assumptions, it is a quick and useful tool in determining a region's key industries. A location quotient is simply an industry's share of county employment over the industry's share of national employment.

If a location quotient is 1.0, then the industry's share of local employment is the same as the nation's share. A location quotient greater than 1.0 means the industry employs a greater share of the local workforce countywide than it does nationally. A location quotient less than 1.0 implies that the industry's share of local employment is smaller than its share of national employment.

For example Equation 3.1 shows the formula used to calculate the LQ for Omaha's Entertainment and Recreation Industry. Thus if casinos tend to make an area more attractive for tourists who attend other entertainment facilities in the area, a large LQ would be calculated. On the other hand, a relatively low LQ would indicate that casinos tend to add little to an area's tourist attractiveness.

$$\text{LQ} = \left(\frac{\text{Omaha E\&R Emp.}}{\text{Total Omaha Emp.}} \right) \div \left(\frac{\text{U.S. E\&R Emp.}}{\text{Total U.S. Emp.}} \right) \quad (3.1)$$

The numerator of Equation (3.1) is the percentage of the *Entertainment & Recreation* industry in Omaha and the denominator is the percentage of

²²For a more detailed explanation of the use of location quotients see R. Bainbridge's "Analyzing the Market for Convenience Stores: The Changing Convenience Store Industry," *Appraisal Journal*, Oct. 2000, Vol. 68(4), pp. 427-32.

the *Arts, Entertainment & Recreation Industry* in the nation. A location quotient greater than 1.0 indicates that the industry is bringing new dollars into the area. Industries that bring dollars into the area help the local economy grow.

If a location quotient is less than 1.0, it indicates that residents and businesses spend a high proportion of their *Arts, Entertainment and Recreation* dollar outside the area or that outsiders spend

A location quotient greater than one indicates that the industry is bringing new dollars into the area.

few of their dollars in the area. The more the location quotient exceeds 1.0, the greater the importance of the industry to the economic viability of the state or area.

Table 3.3 lists LQs for metropolitan areas with casinos. For all metro areas, Biloxi/Gulfport had the highest LQ at 5.93 implying that casinos are bringing significant new dollars into the area. On the other hand, Kansas City's LQ of 0.83 indicates that casinos are likely pulling dollars from other Kansas City entertainment venues.

As indicated, relative to other metro casino areas, Omaha, with an LQ of 0.99 appears to be exporting little in terms of the *Arts, Entertainment & Recreation* industry. The average LQ for metro areas with casinos is 1.17 indicating that at least superficially, there is room to grow for an Omaha casino. Alternatively, it indicates that Omaha casinos have tended to siphon dollars from other *Arts, Entertainment & Recreation* firms in the area.

If casino locations had a LQ equal to that of non-casino locations (or LQ = 1.01), their AE&R employment would have been 136,589. Thus for the areas listed in Table 3.2, casinos added roughly 21,638 jobs (158,227 – 136,589) to *Arts, Entertainment and Recreation* firms in the areas. This represents a 15.8 percent increase in *Art, Entertainment & Recreation* employment stemming from casinos.

If one assumes that all casino counties had a similar experience, this would mean across the

U.S., casinos created roughly 22,350 *Arts, Entertainment & Recreation* industry jobs. Using national multipliers, one finds that the 22,350 jobs produced another 33,611 jobs in other or spillover industries.

Table 3.3: Arts, entertainment and recreation workers and Location Quotients (LQ) for Metro areas with casinos, 1999

<i>Metropolitan Statistical Area</i>	<i>Workers</i>	<i>LQ</i>
<i>Biloxi—Gulfport--Pascagoula, MS</i>	11,870	5.93
<i>Gary, IN</i>	7,532	2.26
<i>Shreveport—Bossier City, LA</i>	4,825	2.18
<i>Dubuque, IA</i>	1,511	2.11
<i>Reno, NV</i>	4,973	2.00
<i>Las Vegas, NV—AZ</i>	16,910	1.79
<i>Sioux City, IA—NE</i>	1,316	1.48
<i>St. Joseph, MO</i>	750	1.33
<i>New Orleans, LA</i>	10,538	1.32
<i>Davenport, IA</i>	3,112	1.30
<i>Des Moines, IA</i>	4,190	1.10
<i>St. Louis, MO—IL</i>	19,111	1.08
<i>Baton Rouge, LA</i>	4,035	1.07
<i>Omaha, NE—IA</i>	5,315	0.99
<i>Atlantic—Cape May, NJ</i>	2,031	0.93
<i>Lake Charles, LA</i>	922	0.89
<i>Chicago, IL</i>	48,672	0.85
<i>Kansas City, MO—KS</i>	10,614	0.83
<i>All Metros with casinos</i>	158,227	1.17
<i>All Metros without casinos</i>	1,154,735	1.01

Source: U.S. Census Bureau

Table 3.4 compares the estimated impacts generated in this study with that from the accounting firm, Arthur Andersen. As listed, there are dramatic differences among the estimates with the Arthur Anderson impact more than ten times that produced in this report.

Why do estimates above differ so significantly from those of Arthur Andersen? First, Arthur Andersen estimates assume that all casino revenue emanates from outside the area. In other words, they assume that all casino revenues are new to the area. However, this assumption ignores the fact that at least a portion of casino spending comes at the expense of spending in other busi-

nesses in the economy. Thus their estimates seriously overstate the impact of a casino.

It is very likely that a large share of casino revenues come at the expense of other firms in the area. For example, for Council Bluffs casinos, over 90 percent of casino patrons originate from either Iowa or Nebraska.

A second factor accounting for the large differences is that the Arthur Andersen estimates include *Hotel & Lodging* employees working at casino hotels as casino employees. The present study does not count these workers as casino workers.

A third factor accounting for the wide difference between the Arthur Andersen impacts and that of this study is that Anderson's analysis included the impact of Tribal casinos.

The next section of this chapter estimates the casino market size for each of the commercial casino markets in the U.S.

Table 3.4: Overall job impacts of casinos

	<u>Arthur Andersen</u>	<u>This Study</u> <u>Shift-Share</u>	<u>LQ</u>
Jobs supported	709,000	63,806	55,961
Wages & salaries	\$21 billion	\$2.1billion	\$1.9 billion
Source: Arthur Anderson (1996) & shift/share analysis and location quotient analysis			

Casino Market Potential and Factors Affecting Casino AGR

The goal of this section is to model past casino data in order to determine both the factors affecting AGR and the potential casino markets across the U.S.

A statistical regression model is first applied to past casino data. The estimated model is listed in Appendix A.1. As presented, the factors that had a statistically significant impact on casino AGR are: population density, the share of the population over 65, median household income, the number of slot machines, and the existence of a betting limit.

Potential casino market. Using estimates from the model listed in A.1, one can estimate both the potential AGR market and the factors influencing casino AGR. Table 3.5 lists estimated market potential for each county with a commercial casino in the U.S.²³

As presented in Table 3.5, Atlantic City has the number one casino market among those examined with \$1.3 billion in potential AGR. However, Atlantic City casinos generated \$4.3 billion in 2001 AGR. This simply indicates the degree to which Atlantic City brings in new dollars from outside the area. In other words, Atlantic City is a major destination casino location.

Lake County, Indiana had the second largest potential market among the counties examined with a potential market of \$1.27 billion. However, contrary to Atlantic City, Lake County received \$732 million in 2001 AGR. This indicates that Lake County is likely receiving little in terms of casino dollars from outsiders.

As listed in Table 3.5, the Council Bluffs' casinos had 2001 AGR of \$358 million which is \$45

million less than the area's potential AGR. This indicates that the area is experiencing little in the way of outside dollars flowing into the area and that there is untapped potential to grow area revenues.

Table 3.5: Current and potential casino market by county (2001 AGR)

State	County	Current casino	Potential casino market	
		AGR	AGR	Growth
CO	Gilpin	\$538,056,504	\$699,932,341	\$161,875,837
CO	Teller	\$138,617,688	\$207,810,331	\$69,192,643
IA	Clayton	\$34,633,556	\$43,896,166	\$9,262,610
IA	Clinton	\$28,763,543	\$47,434,952	\$18,671,409
IA	Dubuque	\$86,268,781	\$86,893,449	\$624,668
IA	Lee	\$29,073,281	\$45,984,677	\$16,911,396
IA	Osceola	\$49,773,091	\$55,145,437	\$5,372,346
IA	Polk	\$142,921,148	\$244,226,127	\$101,304,979
IA	Pottawattamie	\$358,468,712	\$404,355,045	\$45,886,333
IA	Scott	\$155,382,340	\$148,159,453	-\$7,222,887
IA	Woodbury	\$37,582,178	\$65,105,197	\$27,523,019
IL	Kane	\$770,813,122	\$386,416,383	-\$384,396,739
IL	Massac	\$119,783,701	\$60,647,632	-\$59,136,069
IL	Rock Island	\$35,681,961	\$87,638,976	\$51,957,015
IL	St Clair	\$155,082,587	\$342,283,208	\$187,200,621
IL	Tazewell	\$140,836,835	\$168,206,565	\$27,369,730
IL	Will	\$561,759,960	\$1,108,586,904	\$546,826,944
IN	Dearborn	\$346,682,973	\$404,988,168	\$58,305,195
IN	Harrison	\$214,779,847	\$442,080,392	\$227,300,545
IN	Lake	\$732,595,238	\$1,269,236,714	\$536,641,476
IN	LaPorte	\$185,468,733	\$160,540,437	-\$24,928,296
IN	Ohio	\$173,058,784	\$173,964,488	\$905,704
IN	Switzerland	\$95,812,261	\$125,559,817	\$29,747,556
IN	Vanderburgh	\$93,444,924	\$161,982,519	\$68,537,595
LA	Bossier	\$483,778,932	\$546,411,814	\$62,632,882
LA	Caddo	\$322,404,424	\$863,303,886	\$540,899,462
LA	Calcasieu	\$278,141,996	\$300,909,838	\$22,767,842
LA	E.Baton Rouge	\$172,926,617	\$184,888,706	\$11,962,089
LA	Jefferson	\$114,562,794	\$196,107,989	\$81,545,195
LA	Orleans	\$532,204,163	\$594,732,737	\$62,528,574
MI	Wayne	\$1,006,993,466	\$1,256,305,785	\$249,312,319
MO	Buchanan	\$27,217,390	\$21,776,493	-\$5,440,897
MO	Clay	\$198,847,361	\$166,835,026	-\$32,012,335
MO	Cooper	\$4,835,467	\$27,756,506	\$22,921,039
MO	Jackson	\$283,963,122	\$335,847,571	\$51,884,449
MO	Lewis	\$10,286,790	\$13,513,482	\$3,226,692
MO	Pemiscot	\$23,553,759	\$12,595,671	-\$10,958,088
MO	Platte	\$99,198,031	\$111,355,188	\$12,157,157
MO	St Charles	\$143,908,253	\$207,256,188	\$63,347,934
MO	St Louis	\$345,441,429	\$453,813,826	\$108,372,397
NJ	Atlantic	\$4,279,034,000	\$1,312,714,637	-\$2,966,319,363
SD	Lawrence	\$58,609,106	\$64,338,372	\$5,729,266
	U.S. Average	\$318,858,350	\$314,917,238	-\$3,941,112

Source: Model A.1

²³Mississippi does not produce casino statistics by county. At the time of printing, Nevada county data were not available.

According to estimates from Table 3.5 the Council Bluffs casino market was approximately \$46 million greater than actual yearly receipts for 2001. Another way of viewing this is that Council

Bluffs casinos depend heavily on local casino patrons.

Impact of factors on AGR. Table 3.6 lists factors having an impact of area AGR. According to Table 3.6, casino AGR:

- is \$37 million per year higher in metropolitan areas than in non-metropolitan areas
- is \$190 million higher for casinos without betting limits than for casinos with betting limits
- rises by \$6 million for each \$1,000 increase in household income
- declines by \$25 million for each one percent increase in the percentage of the population that is over 65 years of age

According to Table 3.6, loss per patron per visit:

- is \$13 higher in non-metropolitan casinos
- is \$22 higher for casinos with no betting limit
- is \$40 higher for casinos granting credit
- declines by \$13 for each 10 percent increase in tax rates

Impact of Casinos on the Size of Government & Tax Collections

One important issue from a taxpayer's standpoint is the impact of casino operations on the tax burden of the local taxpayers. Do casino operations tend to enlarge the relative size of government, or reduce tax burdens?

Size of government. Table 3.7 lists growth in the size of government for counties with casinos compared to that of the U.S.²⁴

As presented in Table 3.7, casino counties overall experienced slower growth in the size of government than the rest of the U.S. Casino counties, for example, experienced local job and wage growth of 5.6 percent and 15.5 percent respectively. The comparable values for the U.S. were 6.5 percent and 18.4 percent. Thus, in terms of the growth in local government, casino counties expanded their local governments more slowly than the rest of the U.S.

In terms of local government job growth, only Missouri and Nevada added workers at a higher rate than non-casino counties. Relative to wage growth, Mississippi and Nevada expanded government wages at a higher rate than that of the U.S.

In the case of state jobs, Indiana, Iowa, Louisiana, and Nevada added workers at a slower pace than the U.S. Relative

Table 3.6: AGR & loss per visitor for average U.S. casino (2001)

	AGR	Loss per visitor
Metropolitan casino	\$241,967,601	\$49
Non-Metropolitan casino	\$204,255,944	\$62
Casinos with betting limits	\$118,738,320	\$38
Casinos without betting limits	\$308,577,208	\$60
Casinos allowing credit	\$229,605,171	\$73
Casinos not allowing credit	\$229,605,171	\$33
State limit on number of casinos	\$229,605,171	\$24
No state limit on number of casinos	\$229,605,171	\$66
Average tax rate 23.2%	\$229,605,171	\$53
Average tax rate 33.2%	\$229,605,171	\$40
Average household income \$38,135	\$229,605,171	\$53
Average household income \$39,135	\$235,714,231	\$54
Average percent of population over 65 is 12.9%	\$229,605,171	\$53
Average percent of population over 65 is 13.2%	\$204,887,075	\$50

²⁴These are state and local jobs located in casino counties only.

to wage growth, only Louisiana and Michigan increased state wages at a slower rate than the U.S.

One difficulty with interpreting the data in Table 3.7 is that a county may be expanding both government and non-government sectors. Thus to gain a more accurate picture of the impact of casino operations on the size of government, one must examine the growth in the ratio of government to non-government workers. Table 3.8 shows the government share of jobs and wages for 1997 and 2000 for casino counties and for the U.S.

As indicated in Table 3.8, local government

that the relative size of government rose more quickly for casino counties in comparison to non-casino counties in terms of both jobs and wages.

In terms of the individual states, casino counties in Colorado, Iowa, Louisiana and Nevada experienced a decline in both jobs and wages for the local government sector. However, only Colorado experienced a larger decline than the U.S. in both jobs and wages in terms of the relative size of the local government sector.

Table 3.7: Growth in government for casino counties

	% Growth 1997-2000			
	Government Jobs		Government Wages	
	<u>State</u>	<u>Local</u>	<u>State</u>	<u>Local</u>
Colorado	21.4%	6.4%	46.7%	17.4%
Illinois	n.a.	3.6%	n.a.	14.8%
Indiana	0.0%	4.8%	17.8%	16.6%
Iowa	2.3%	4.2%	16.5%	15.8%
Louisiana	2.0%	0.0%	11.2%	10.0%
Michigan	6.0%	3.2%	-0.8%	7.5%
Mississippi	24.7%	5.6%	34.6%	19.6%
Missouri	6.5%	7.3%	20.9%	16.5%
Nevada	1.0%	15.7%	21.3%	29.9%
New Jersey	10.8%	5.5%	18.2%	13.6%
South Dakota	-3.1%	-0.4%	24.6%	10.8%
All Casino Counties	3.4%	5.6%	12.9%	15.5%
U.S.	3.7%	6.5%	15.7%	18.4%

U.S. Census Bureau

wages were 9.7 percent of total private wages in 1997 for casino counties. By 2000, this percentage had dropped to 9.4 percent. For the U.S., local government wages were 11.2 percent of total private wages in 1997, but dropped to 10.5 percent by 2000. The size of the local government sector in casino counties compared to the rest of the U.S. dropped by a smaller percentage suggesting a lack of tax relief from casino tax collections.

In terms of jobs, government employment as a percent of private employment was 9.8 percent in both 1997 and 2000. For the U.S., the share of government workers as a percent of all workers declined from 11.6 percent in 1997 to 11.5 percent in 2000. In other words, there is evidence

Table 3.8: The local government sector as a percent of private sector: 1997, 2000

	Wages		Jobs	
	<u>1997</u>	<u>2000</u>	<u>1997</u>	<u>2000</u>
	Colorado	16.1%	13.5%	12.9%
Iowa	9.1%	8.9%	9.1%	9.0%
Indiana	10.3%	10.7%	10.6%	10.8%
Louisiana	9.7%	9.4%	11.0%	10.5%
Michigan	10.7%	9.7%	11.0%	11.2%
Missouri	8.0%	7.8%	8.7%	9.0%
Mississippi	14.6%	14.9%	14.1%	14.2%
New Jersey	13.7%	14.5%	10.2%	10.6%
Nevada	10.0%	9.8%	7.9%	7.8%
all casino counties	9.7%	9.4%	9.8%	9.8%
U.S.	11.2%	10.5%	11.6%	11.5%

Source: U.S. Census Bureau & U.S. Bureau of Labor Statistics; Note that Illinois & South Dakota data were judged unreliable

Table 3.9 lists shares of state government workers and wages for casino states and for the U.S. As listed, casino counties reduced the proportion of state government wages in their workforce between 1997 and 2000 more slowly than the rest of the U.S. However in terms of jobs, casino counties reduced state government jobs as a share of total jobs at approximately the same pace as the rest of the U.S.

Table 3.10 profiles the change in property and income tax burdens for casino states. Since casino tax collections are included in sales tax collections, comparisons of sale tax burdens are omitted.

As presented, between 1995 and 1999, casino counties were able to reduce property tax

collections as a percentage of personal income by 5.3 percent. This compares to a 5.5 percent reduction for the rest of the nation. In terms of individual states, Iowa, South Dakota, Illinois, and Mississippi reduced property tax burdens at a much greater rate than other casino states. In terms of combined property and income taxes, four states, Iowa, South Dakota, Illinois and Indiana, reduced tax burdens at a faster pace than the rest of the U.S.

Data from Table 3.10 suggest that casinos may have had a modest impact on the reduction of income taxes but little or no impact on the reduction of property taxes. However, until states supply more detail on the collection of casino taxes separate from sales tax collections, this proposition cannot be examined in more detail.

However, it is quite possible that these states enacted local option sales taxes to replace property taxes. Data in Table 3.10 suggests that casinos have, on average, had little impact on the relative tax burdens of casino counties.

Table 3.10: Change in taxes as a percent of income 1995-99

	Property Taxes	Income Taxes	Property & Income
<i>Iowa</i>	-11.1%	-9.1%	-10.3%
<i>South Dakota</i>	-9.2%	0.0%	-9.2%
<i>Illinois</i>	-7.0%	3.3%	-3.8%
<i>Indiana</i>	7.4%	-9.6%	-1.0%
<i>Mississippi</i>	-5.9%	8.2%	-0.5%
<i>Colorado</i>	-9.0%	11.7%	0.2%
<i>New Jersey</i>	-4.5%	14.0%	0.5%
<i>Nevada</i>	3.1%	0.0%	3.1%
<i>Louisiana</i>	0.8%	11.9%	5.9%
<i>Missouri</i>	6.2%	8.4%	7.4%
<i>Michigan</i>	n.a.	n.a.	n.a.
<i>All casino states</i>	-5.3%	6.1%	-0.7%
<i>U.S.</i>	-5.5%	6.5%	-0.6%

Note: Nevada and South Dakota do not levy an income tax; Michigan casinos were not opened until 1999
Source: U.S. Census Bureau

Table 3.9: The state government sector as a percent of private sector, 1997-2000

	Wages		Jobs	
	1997	2000	1997	2000
<i>Colorado</i>	0.2%	0.2%	0.1%	0.2%
<i>Iowa</i>	2.9%	2.8%	2.2%	2.2%
<i>Indiana</i>	2.4%	2.5%	2.6%	2.6%
<i>Louisiana</i>	8.4%	8.3%	7.8%	7.6%
<i>Michigan</i>	2.4%	2.1%	2.2%	2.2%
<i>Missouri</i>	1.3%	1.4%	1.7%	1.7%
<i>Mississippi</i>	1.3%	1.5%	1.2%	1.5%
<i>New Jersey</i>	3.8%	4.2%	2.7%	2.9%
<i>Nevada</i>	2.9%	2.7%	2.4%	2.1%
<i>all casino counties</i>	3.2%	3.0%	3.1%	3.0%
<i>U.S.</i>	4.5%	4.1%	4.1%	4.0%

Conclusions

Tax, wage and employment data suggest that casinos have had little impact on the relative size of government or on relative tax burdens. Furthermore, there is evidence that at least some states have increased sales taxes in order to provide property tax relief. For example, in December, 2001, Pottawattamie approved additional sale taxes in the form of local option taxes. Data indicate that casino tax collections have done little to reduce the tax burden for Pottawattamie County residents. The government sector, both local and state, expanded relative to other casino counties and to the U.S.

Twenty-three of Iowa's 99 counties, and all of its casino counties now have a local option sales tax. Thus it appears that increasingly Iowa relied on local option sales taxes to fund government services previously paid for with property taxes.

Chapter 4: Micro Impacts of an Omaha, Nebraska Casino

Introduction

Chapter 3 provided an overview of the impact of commercial casinos across the U.S. Chapter 4 examines the impact of a Omaha, Nebraska casino on the City of Omaha and the State of Nebraska.

The objective of this portion of the study is to monetarily quantify these impacts in the form of tax receipts, jobs, income, and tax payments to the community. Particular attention is devoted to identifying revenues that come from out-of-state. From an economic perspective, these sources represent new dollars in the area's economy and are thus very powerful in generating jobs and income for the region. Institutions funded primarily by dollars generated from within Omaha have less economic impacts since a high proportion of these dollars are diverted from other industries in the area.

One of the most important issues facing voters and policymakers regarding the legalization and creation of casinos in the state is the assessment of the economic and social consequences of the casino.

Casino spending emanating from casino visitors attracts other firms and individuals to the region and generates new jobs and income for firms already resident in the region. However, as presented in the last chapter, increased spending by consumers at casinos comes partially at the expense of spending in other areas of the local economy. The next section of this chapter supplies an overview of impact assessment.

Impact Assessment

Since the early 1980s, one of the most frequent applications of economic tools to arts, culture, and entertainment has been economic impact analysis. The focus of such studies has been to convince policy makers and the general public that the event or facility should be supported, not only for the social and recreational value, but also for

the direct and indirect economic contributions to the area.

However, the assessment of the impact of a casino is fraught with problems. These problems center on measurement issues and include the proper treatment of the casino's induced spending by local residents, the extent to which the casino diverts spending from established local businesses and attractions, and the isolation of spending drawn to the area by other activities.²⁵

Despite these difficulties, the *Council of State Governments* contends that communities should undertake economic impact analysis to assess the costs and benefits of retaining or creating an existing event/business/casino (Council of State Governments, 1989). In addition to estimating the impact of an event or business, the analysis can be used to tailor casino operations to the needs of the area and to insure that the casino is consistent with the overall economic development plan of the community or state.

However, due to the rapid growth of casinos and to the belief that their state should remain competitive, policymakers in many states and localities have legalized casinos and created a gaming environment not well grounded in economic theory or empirical evidence.

According to the *Council of State Governments*, the presence of interstate impacts, as with the casino, necessitates the development of new

models of assessment to more properly evaluate the impact on the locality where the casino resides.²⁶

.....increased spending by consumers at casinos comes partially at the expense of spending in other areas of the local economy.

²⁵Although a single event or a yearly event can have national or even international interest, the geographic scope of its draw might be relatively limited. McHone (1999), in a study of an Orlando Art Exhibition, determined that 57% of the attendees were local residents, 29% came from other places within Florida, and the remaining 14% were from outside the state.

²⁶It is quite likely, for example, that a significant proportion of casino visitors would obtain lodging in nearby Council Bluffs, Iowa.

At the same time that citizens are asking public officials to be more proactive in economic development, they are holding public officials to a higher level of fiduciary responsibility regarding tax dollars. But given this increased accountability, why have states been slow to adopt evaluation methodologies to casinos? According to Bartik (1991), the following represent the primary reasons that states do not use systematic or structured evaluation programs:

From an economic perspective, spending by non-Omaha residents represents new dollars for the area's economy and are thus very powerful in generating jobs and income for the area.

- Good evaluations are expensive.
- Findings from analyses are available to states and localities not paying for the assessment.
 - Negative evaluations are sometimes used to kill an event, whereas positive evaluations are often discounted by critics.
 - Obtaining reliable data to produce accurate estimates of both costs and benefits is difficult and fraught with ambiguity.
 - The time frame over which the benefits are derived and costs incurred is difficult to gauge. Evaluations are simply snapshots of the effect of policy at a particular time with future changes not considered.
 - The breadth or diversity of initiatives prevents a systematic or structured evaluation approach. For example, projects usually have different objectives, diverse time-scales and take effect in different ways.

Types of Economic Impacts

The estimation methodology that follows makes a distinction between destination gambling (riverboats and resorts), which generates local jobs and economic development, and "convenience gambling" (the video poker machine tucked in the corner of a gasoline service station) which does not.

Casinos funded primarily by dollars generated from Nebraska residents have less economic

impact than a casino that brings new dollars to the area. Destination casino revenues are more powerful than revenues of firms that deal in intra-state commerce in terms of job and income creation since a high share of casino revenues are not offset by reduced spending in other Omaha industries.

Moreover, by making the nation more aware of Omaha and Nebraska, a casino can contribute to the overall growth of community economic activity.

Economic impacts can be divided into direct, indirect and induced impacts. The most obvious *direct impact* of the casino on the economy comes in the form of salaries to those who work at the casino, and in the form of purchases of supplies from vendors in the region. *Indirect impacts* come from expenditures by these vendors to their suppliers. Employees of the supplying firms spend their wages and salaries in the Omaha area. This re-spending creates what are termed *induced impacts*.

Economic impacts identified in this study are short-run in nature and represent annual, recurring events. No attempt is made to identify and quantify intangible factors, such as work force development and knowledge enhancement.

The impact of Omaha MSA casinos comes in the following forms:

1. displacement of other local gambling (e.g., reduce Omaha residents' spending on lotteries),
2. displacement of other local spending, (e.g. reduce Omaha residents' spending at local theatres)
3. increase in local spending in local market (e.g. reduce gambling dollars flowing to Kansas City)
4. increase in non-Omaha resident spending in Omaha (e.g. increase spending by Minnesota residents at Omaha casinos)

Of the few studies that have tried to assign proportions to the above categories, two impact studies of proposed gambling centers in Chicago and Michigan (Deloitte-Touche 1992, 1995) estimated each factor. Table 4.1 summarizes the findings from the Deloitte-Touche studies.

They concluded that of the above four sources of impacts, the increase in non-resident spending in the local area was the largest producing 59% to 62% of all impacts. They concluded that a reduction in local resident casino spending in distant markets accounted for a further 22% to 25% of the total impact. The researchers calculated that casino spending resulted in displacement of other forms of gambling (lotteries) for another 11% to

Table 4.1: Impact of casinos on local area

<u>Type of impact</u>	<u>Share of impact</u>
1. reduce local residents' spending on other local forms of gambling (e.g. lotteries)	11% - 13%
2. reduce Omaha residents' spending at local theatres	3% - 5%
3. reduce gambling dollars flowing to Kansas City	22% - 25%
4. increase spending by residents from other state on Omaha gambling services	59% - 62%

Source: Deloitte-Touche study of Chicago casinos (1992 and 1995)

13% of the total impact. Finally, Deloitte and Touche estimated that casino spending displaced between 3% and 5% of other entertainment and recreation spending.

Deloitte-Touche's estimations stress the fact that the vast majority of displacement is not of local demand but an increase in tourist demand or import substitution. Of course, the larger the latter, the more favorable the impact of the ca-

sino would have. Alternative estimations have turned these figures around by assuming a far lower level of import substitution and a far higher level of displacement of tourist and local demand (Ryan, Connor, and Spreyer 1990).

Finally, it should be noted that the impact and intensity of displacement is likely to be subject to a distance-decay effect. That is, research has shown that many casinos tend to draw heavily from other Arts, Entertainment & Recreation industries close by with less impact on this industry in more distant communities (Grinols and Omorov 1996; Przybylski and Littlepage 1997). This suggests a localization of impacts that is also likely to characterize displacement (category 1 & 2 of Table 4.1). This, of course, means lower impacts.

However, it should also be noted that while geographical proximity is important for localized impacts, when it comes to interregional competition for gambling markets, distance does not seem to be an issue. Shonkwiler (1993), for example, has estimated that despite 2,500 miles separating Atlantic City from Nevada, the introduction of gambling at Atlantic City reduced casino revenues by 10% in Las Vegas.

Thus past research has shown that competition does matter. In the present context, this means that the introduction of casino gaming in Omaha Nebraska could have potentially large and negative impacts on casino revenues for casinos in Council Bluffs, Iowa. However, the ultimate degree of success of an Omaha, Nebraska casino depends on the casino's ability to draw gambler's from outside the area.

Description of Input-Output Multipliers Used

Alternative Techniques: Many types of public and private-sector decisions require an evaluation of probable regional effects. Since important impacts are often economic, this require-

The three most common types of impact models are economic base, econometric and input-output (I-O).

ment has created a need for regional economic impact models. The three most common types of impact models are economic base, econometric, and input-output (I-O).

Two of the three impact models have inherent disadvantages that markedly reduce their viability for estimating the impact of a Omaha, Nebraska casino.

Economic Base Model. The economic base model divides the economy into two sectors--the local/service sector and the export sector. The economic base multiplier is an average for all the economy making it impossible to distinguish, for example, the impact of a casino from that of a new manufacturing plant.

Econometric Models. Econometric models have two major weaknesses. First, the time series data used in constructing econometric models are often unavailable at the state and metropolitan area level, thus precluding county analysis. This is especially true for rural counties and for counties with small populations. Second, econometric models are costly to build and maintain.

Input-Output (I-O) Models. I-O models are the most frequently used type of analysis tool for economic impact assessment. Input-output is a simple general equilibrium approach based on an accounting system of injections and leakages. Input-output analysis assumes that each sector purchases supplies from other sectors and then sells its output to other sectors and/or final consumers.

Historically, high costs precluded the extensive use of I-O models in regional impact analysis. For example, approximately \$250,000 was expended over a five-year period for the collection and processing of data for a 500-industry Philadelphia I-O study. However, with the advent of "ready-made" multipliers produced by third parties, such as the U.S. Forestry Service, I-O multipliers became a much more viable option for performing impact analysis.

All purely non-survey techniques or "ready-made" multipliers take a national I-O table as a first approximation of regional inter-industry relationships. The national table is then made region specific by removing those input requirements that are not produced in the region. This reduces the costs analysis costs substantially. The next section provides an overview of Input-Output analysis.

Input-Output Models: A Preferred Methodology

Input-output systems were originally developed by Wassily Leontief (1941) to assist in planning a national economy. Input-output represents an effective method for depicting and investigating the underlying processes that bind industries of a region. It provides a technique to project into the future the magnitude of important additions or injections into the local economy.

Input-output systems are composed of three basic tables. The first, the *Transactions Table*, traces inter-industry sales and purchases within a defined region. The next table, the *Direct Requirements Table*, answers the question, "If a certain dollar value of intermediate requirements is present for a total dollar value of gross output, what are the intermediate requirements for each industry per dollar of gross output?" The manipulation of these two tables results in the final and most important of the tables, the *Industrial Multiplier Table*. The multiplier table is then used to calculate overall impacts.

Chief problems involved in the use of multipliers are:

■ *Selection of industries.* For which industries will impacts be estimated? The selection is generally dictated by definitions used by government agencies that collect the data. For example, most government data do not distinguish employment in a casino from that in a museum. For the casino, the U.S. Census Bureau places employ-

IMPLAN and RIMS (Regional Input-Output Modeling System) are two of the most widely used multiplier models.

ment, revenue and earnings in the *Arts, Entertainment & Recreation* industry.

■ *Selection of a region.* Again, government agencies collect aggregate data by county, thus requiring the analysis to take place at the county level or combination of counties. Most developers of "ready-made" multipliers use the *County Business Patterns* as the primary data source. For this analysis, the study area is defined as Cass, Douglas, Sarpy and Washington Counties in Nebraska and Pottawattamie County in Iowa.

Major assumptions of the I-O model:

- Constant production coefficients. For example it is assumed that "x" dollars of new revenues from the casino will produce "y" dollars of output regardless of the scale of operations. In other words, the I-O model assumes constant returns to scale.
- Government purchases or federal contracts and grants represent changes in final demand. That is, government spending is considered an injection into the region.
- Constant technological relationships between inputs and outputs. Thus I-O multipliers assume that technology remains the same between the time the multipliers are calculated and the period for which impacts are estimated.
- Old purchasing patterns are the same as new purchasing patterns. Thus, it is assumed that purchasing patterns between the casino and its suppliers remain the same over the period of analysis.
- No supply constraints. I-O models do not take into consideration the problem of finding an adequate supply of workers for the casino.²⁷

Despite their weaknesses and somewhat restrictive assumptions, I-O multipliers are the most often used methodology for impact analysis. Due to their documented effectiveness and relatively low cost, the I-O multipliers used in this study are those produced by the U.S. Forestry Service and marketed by the Minnesota IMPLAN Group Inc. The next section describes these multipliers.

IMPLAN Multipliers

The Forestry Service of the U.S. Department of Agriculture developed the IMPLAN multipliers in the 1980s (U.S. Forest Service, 1985). For very populous areas, IMPLAN divides the economy into 528 industrial sectors. Industries that do not exist in the region are automatically eliminated during user construction of the model (e.g. coal mining in Baton Rouge). IMPLAN uses an industry-based methodology to derive its input-out coefficients and multipliers. Primary sources for data are *County Business Patterns* data and *Bureau of Economic Analysis* data.

Researchers have used IMPLAN to estimate the impact of changes in military spending on the Washington State economy (Hughes, et. al, 1991). IMPLAN and RIMS (Regional Input-Output Modeling System) are two of the most widely used multiplier models. IMPLAN has been compared to other multiplier systems and found to produce reliable estimates Richman and Schwer, 1993). Likewise, Crihfield and Campbell (1991), in estimating the impacts of opening an automobile assembly plant, concluded that IMPLAN's outcomes are, on balance, somewhat more accurate than RIMS.

Due to their documented effectiveness and relatively low cost, the I-O multipliers used in this study are the Implan multipliers.

²⁷Bartik (1991) estimated that 75% of the net new jobs resulting from a business expansion or business relocation go to in-migrants. Likewise, a loss in a job results in an out-migration of the worker and his/her family.

Estimated Economic Impact of an Omaha, Nebraska Casino

Impact of Casino Operation

IMPLAN produces five different sets of multipliers. This study focuses primarily on four of these multipliers. Descriptions of the four multipliers are presented in Table 4.2. Output or sales multipliers typically range between 1.8 and 2.1. This means every one dollar increase in casino revenues that comes from outside the area generates another \$.80 to \$1.10 in spillover or indirect impacts.

Table 4.2: Multipliers Provided by IMPLAN and Used in This Study

Type of Multiplier	Description
Output Multipliers	Represents the total value of sales generated for all sectors of the area economy from one dollar's worth of casino revenues
Tax Multipliers	Direct, indirect and induced tax effects from each AGR dollar
Wage and Salary Multipliers	Shows the direct, indirect, and induced employee wages and salaries generated per AGR dollar
Employment Multipliers	Direct, indirect and induced employment effects from the production of one million dollars of new revenue (injection).

The first step in estimating the impact of the casino is to determine the percentage of visitors and casino dollars that are new to the area. For the purposes of this study, it is assumed that casino spending by Omaha residents would have alternatively been spent in other businesses in the city.

Figure 4.1 compares the attendance patterns for Council Bluffs casino goers in 1996 and 2001 based on two Creighton University surveys. Based on the most recent survey, 8.3 percent of casino patrons came from outside of Nebraska and Iowa while 67.7 percent originated from the five county Omaha Metropolitan area. From an economic perspective, revenues from these Omaha Metropolitan residents have little to no economic impact on the area unless it is assumed that these individuals would have alternatively spent these dollars outside the area.

Table 4.3 summarizes Council Bluffs casino information. As presented in Table 4.3, the three casinos in Council Bluffs began operations in 1995 and 1996. Both Harrahs and Ameristar offer table games while Bluffs Run provides only slot machine gaming. Combined the three casinos generated approximately \$358 million in net gam-

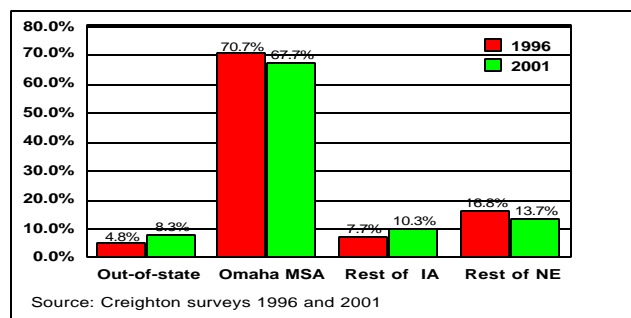
bling revenue, or AGR, in 2001. The percentages of AGR produced by slots were 100.0%, 83.1% and 84.6% for Bluffs Run, Harrahs and Ameristar respectively. Interestingly, Ameristar, which had the highest share of AGR from table games also had the largest average loss per visit per patron at \$51.

Based on data from Table 4.3 and on survey data from 2001 depicted in Figure 4.1, one can estimate the likely revenue from visitors to an Omaha, Nebraska casino. Estimated revenues and sources of the revenues are listed in Table 4.4 for the three scenarios.²⁸

As listed in Table 4.4, total Omaha metropolitan casino market is \$404 million for scenario 1, \$491 million for scenario 2 and \$593 million for scenario 3. It is assumed that each casino will receive 25 percent of total AGR.

This results in an estimated AGR for the Omaha, Nebraska casino of \$101.1 million for scenario 1, \$122.7 for scenario 2 and \$146.3 million for scenario 3. Note that each of these estimates approximates the average AGR for the three existing casinos of \$119.5 million.

Figure 4.1: Origin of Council Bluffs casino patrons



²⁸Scenario 1---assumes that the new casino adds the current average number of slot machines and tables in Council Bluffs. In other words, it assumes that on net there will be no new slots or tables in Omaha Metro area. Scenario 2---assumes that the new casino adds the national average number of slots but with no tables. Scenario 3---assumes that the new casino adds the national average number of slots and tables to the area casino mix.

Table 4.3: Council Bluffs Casinos

	<u>Bluffs Run</u>	<u>Harrah's</u>	<u>Ameristar</u>	<u>Total</u>
<i>Date began operation</i>	March 15, 1995	Jan. 1, 1996	Jan. 19, 1996	
<i>Number of table games</i>	0	34	45	79
<i>Number of slots</i>	1,500	1,224	1,510	4,234
<i>Casino square footage (in 1996)</i>	35,200	28,006	38,040	101,246
<i>Number of employees</i>	866	1,237	1,253	3,356
<i>Slot revenue</i>	\$125,935,703	\$92,683,057	\$102,267,364	\$320,886,124
<i>Table revenue</i>		\$18,905,007	\$18,677,581	\$37,582,588
<i>Percent revenue from slots</i>	100.0%	83.1%	84.6%	89.5%
<i>Admissions</i>	3,278,837	2,471,632	2,381,298	8,131,767
<i>Average loss per visit</i>	\$38	\$45	\$51	\$44
<i>Adjusted Gross Revenue</i>	\$125,935,703	\$111,588,064	\$120,944,945	\$358,468,712
<i>City Taxes</i>	\$629,679	\$557,941	\$604,724	\$1,792,344
<i>County Taxes</i>	\$629,679	\$557,941	\$604,724	\$1,792,344
<i>State Taxes</i>	\$35,493,546	\$20,166,966	\$22,266,705	\$77,927,217
<i>Gambler's treatment</i>	\$377,807	\$334,764	\$362,835	\$1,075,406
<i>Admissions fee tax</i>	\$1,639,419	\$407,198	\$407,198	\$2,453,815

Table 4.4: Estimated revenues for new Omaha, Nebraska casino (2001 dollars)

	Slots = 1,008 Tables = 20 <u>Scenario 1</u>	Slots = 1,297 Tables = 0 <u>Scenario 2</u>	Slots = 1,297 Tables = 53 <u>Scenario 3</u>
Total regional AGR (3 current casinos + Omaha, NE casino)	\$404,355,045	\$491,042,779	\$593,343,240
Omaha, Nebraska casino AGR	\$101,088,761	\$122,760,695	\$148,335,810
Casino revenue from outside Omaha	\$30,023,362	\$36,459,926	\$44,055,736
Casino revenue from Nebraska residents from outside Omaha	\$13,849,160	\$16,818,215	\$20,322,006

Table 4.5: Assumptions for Omaha, Nebraska casino (all \$s denominated in 2003)

	<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>
First year of operation	2004	2004	2004
Number of table games	20	0	53
Number of slots	1,008	1,297	1,297
Casino square footage	48,552	48,552	48,552
Number of casino employees	1,013	1,230	1,487
Adjusted Gross Receipts	\$101,088,761	\$122,760,695	\$148,335,810
Gambling tax rate applied to AGR	19.7%	19.7%	19.7%
Gross gambling tax collections	\$19,914,486	\$24,183,857	\$29,222,155
Percent of AGR from outside IA & NE^a	8.3%	8.3%	8.3%
Percent of AGR from Iowa outside Pottawatomie^a	10.3%	10.3%	10.3%
Percent of AGR from Nebraska outside Omaha^a	13.7%	13.7%	13.7%
Percent of AGR from metro Omaha^a	67.7%	67.7%	67.7%

^a Based on 2001 Creighton University Survey

Applying the percentages from the Creighton visitation surveys listed in Figure 4.1 produces estimated casino revenues from outside the metropolitan area of \$30.0 million, \$36.5 million and \$44.1 million for scenario 1, 2 and 3 respectively.

A large portion of this AGR comes from Nebraska citizens from outside of Omaha. It is estimated that roughly \$13.8 million, \$16.8 million and \$20.3 million for scenarios 1, 2 and 3 respectively, come from residents of Nebraska outside of Omaha.

Using estimated revenues from Table 4.4 along with the assumptions listed in Table 4.5, estimated impacts on operations are produced from the multiplier analysis. These estimates are listed in Table 4.6. As presented the total number of jobs supported each year by the casino (direct and indirect) range from 830 jobs for scenario 1 to 1,218 for scenario 3. It is estimated that the casino will in-

In terms of taxes, an Omaha, Nebraska casino would generate significant amounts of taxes. First, the casino would produce gambling taxes. In this case, it assumed that the tax on net gambling revenues will be the same as the current Iowa rate of roughly 19.7 percent. Thus, it is estimated that the casino will produce gaming tax collections between \$19.9 million and \$29.2 million each year. Additionally, the casino will expand the collections of income and sales taxes between \$2.4 million and \$3.6 million.

Table 4.7 details non-casino tax collections produced by the casino. These tax collection estimates result from income tax collections from casino employees, etc.

Table 4.8 lists sales, wages & salaries and jobs impacts of the casino by detailed industry for scenario 2. As expected, a high percentage, approximately 75 percent of the jobs are created in

Table 4.6: Direct & indirect (spillover) impact of casino operation on Omaha (2003 dollars)

	<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>
Jobs supported	830	1,008	1,218
Sales	\$48,096,272	\$58,407,403	\$70,575,596
Wages & Salaries	\$14,386,021	\$17,470,173	\$21,109,784
Taxes on gambling^a	\$19,914,486	\$24,183,857	\$29,222,155
Taxes---Other state & local taxes	\$2,434,449	\$2,956,360	\$3,572,267
Regulation costs	\$381,257	\$394,937	\$411,082

^aTaxes on gambling include: city tax, county tax, gambler's treatment fee, state tax and admissions fee (total = 19.7%). Rate is equivalent to the average Iowa tax rate on Harrah's and Ameristar AGR for 2001. Regulation costs are based on Iowa's 2001 costs.

crease yearly sales in the area from \$48.1 million for scenario 1 to \$70.6 million for scenario 3 and will expand area wages and salaries from \$14.3 million for scenario 1 to \$21.1 million for scenario 3.

the *Entertainment & Recreation* Industry.

The local *Real Estate* industry is the second leading beneficiary of Omaha casino development with \$2.75 million in yearly revenue and 11 jobs supported by casino operation each year. The

area's retail sector is also a major beneficiary of casino operation with an additional 59 jobs and approximately \$1.0 million in yearly wages and salaries supported indirectly each year by casino operations.

Table 4.7: Direct & indirect impact on non-casino tax collections			
	<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>
Corporate Profits Tax	\$78,737	\$95,617	\$115,537
Dividends	\$769	\$934	\$1,128
Indirect Bus Tax: Motor Vehicle Lic	\$16,794	\$20,394	\$24,643
Indirect Bus Tax: Other Taxes	\$70,408	\$85,503	\$103,316
Indirect Bus Tax: Property Tax	\$868,921	\$1,055,205	\$1,275,039
Indirect Bus Tax: S/L NonTaxes	\$128,389	\$155,914	\$188,396
Indirect Bus Tax: Sales Tax	\$844,584	\$1,025,650	\$1,239,327
Indirect Bus Tax: Severance Tax	\$496	\$602	\$728
Personal Tax: Estate and Gift Tax	\$0	\$0	\$0
Personal Tax: Income Tax	\$354,627	\$430,654	\$520,373
Personal Tax: Motor Vehicle License	\$24,445	\$29,685	\$35,870
Personal Tax: NonTaxes (Fines- Fees)	\$15,128	\$18,372	\$22,199
Personal Tax: Other Tax (Fish/Hunt)	\$9,230	\$11,209	\$13,544
Personal Tax: Property Taxes	\$10,587	\$12,856	\$15,535
Social Ins Tax- Employee Contribution	\$2,244	\$2,725	\$3,292
Social Ins Tax- Employer Contribution	\$9,092	\$11,041	\$13,342
Total state & local taxes	\$2,434,449	\$2,956,360	\$3,572,267

Table 4.7: Impact of casino operation by industry scenario 2

	Sales	Wages & Salaries	Jobs
<i>Recreation services (AGG)</i>	\$33,281,202	\$10,822,732	758
<i>Real estate (AGG)</i>	\$2,751,094	\$138,846	11
<i>Retail Trade (AGG)</i>	\$2,397,502	\$1,020,825	59
<i>Business services (AGG)</i>	\$2,136,521	\$971,939	43
<i>Health services (AGG)</i>	\$1,817,891	\$993,935	24
<i>Wholesale Trade</i>	\$1,040,900	\$401,329	9
<i>Banking</i>	\$938,819	\$190,999	5
<i>Professional services (AGG)</i>	\$884,263	\$367,146	15
<i>Construction (AGG)</i>	\$859,439	\$333,889	10
<i>Communications (AGG)</i>	\$813,348	\$185,054	3
<i>State & local non-ed government (AGG)</i>	\$796,239	\$134,688	2
<i>Food processing (AGG)</i>	\$489,239	\$70,708	2
<i>Printing and publishing (AGG)</i>	\$467,636	\$163,702	4
<i>Insurance Carriers</i>	\$455,723	\$160,213	3
<i>Motor Freight Transport and Warehousing</i>	\$435,439	\$124,685	3
<i>Automotive services (AGG)</i>	\$378,888	\$96,471	5
<i>Legal Services</i>	\$341,099	\$147,383	3
<i>Utilities (AGG)</i>	\$303,733	\$27,419	0
<i>Social services (AGG)</i>	\$276,345	\$134,133	5
<i>Personal services (AGG)</i>	\$243,886	\$79,540	8
<i>Education services (AGG)</i>	\$207,005	\$113,479	5
<i>Federal non-military (AGG)</i>	\$202,784	\$139,135	2
<i>Hotels and Lodging Places</i>	\$199,319	\$78,078	4
<i>Security and Commodity Brokers</i>	\$193,006	\$105,500	2
<i>Non-profit organizations (AGG)</i>	\$153,319	\$108,886	5
<i>Credit Agencies</i>	\$141,997	\$84,962	3
<i>Repair services (AGG)</i>	\$108,979	\$22,095	2
<i>Chemicals and allied (AGG)</i>	\$100,394	\$21,137	0
<i>Ag Services (AGG)</i>	\$98,624	\$24,616	3
<i>Insurance Agents and Brokers</i>	\$77,933	\$35,035	1
<i>Motion Pictures</i>	\$62,873	\$10,307	1
<i>Air Transportation</i>	\$58,797	\$24,560	1
<i>Apparel (AGG)</i>	\$44,970	\$10,900	0
<i>Transportation equipment (AGG)</i>	\$43,564	\$6,194	0
<i>Railroads and Related Services</i>	\$40,717	\$16,670	0
<i>Local, Interurban Passenger Transit</i>	\$40,564	\$16,924	1
<i>Scientific instruments (AGG)</i>	\$39,030	\$9,913	0
<i>Electrical equipment (AGG)</i>	\$37,525	\$7,484	0
<i>Farms (AGG)</i>	\$36,972	\$2,300	0
<i>Furniture (AGG)</i>	\$34,333	\$10,340	0
<i>Pulp and paper (AGG)</i>	\$27,695	\$6,150	0
<i>Transportation Services (AGG)</i>	\$20,334	\$9,344	0
<i>Domestic Services</i>	\$19,240	\$19,240	2
<i>Institutions (AGG)</i>	\$5,210,822	\$0	0
<i>All Other Industries</i>	\$97,406	\$21,286	1
<i>Total</i>	\$58,407,403	\$17,470,173	1,008

Impact of casino operation on Nebraska outside of Omaha. As presented in Figure 4.1, 13.7 percent of Council Bluffs casino patrons in 2001 resided in Nebraska outside of Omaha. From an economic standpoint, spending by these individuals in Omaha would have a negative impact on their community. It is estimated, based on past patterns, the direct spending would range between \$13.8 for scenario 1 to \$20.3 for scenario 3. Table 4.10 presents estimated losses to the rest of Nebraska.

Table 4.9: Direct & indirect (spillover) impact of casino operation on Nebraska outside of Omaha (2003 dollars)

	<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>
Jobs lost	504.4	612.5	740.1
Sales lost	\$20,366,646	\$24,732,961	\$29,885,649
Wages & salaries lost	\$5,197,009	\$6,311,773	\$7,625,997

This means that for the state of Nebraska, the casino would add from 326 to 478 jobs, \$9.2 million to 13.5 million in wages/salaries and between \$27.7 million and \$40.7 million in sales.

These estimates do not include the economic impacts of the construction of the casino on the area. The next section presents the estimated impact of the construction of the casino.

Impact of Casino Construction

In the subsequent estimates, it assumed that size of the casino is the average for the U.S. The average size of a U.S. casino constructed in the 1990s was 48,552 square feet with a cost of \$122.8 million (2003 dollars).

Table 4.8 lists overall impacts of casino construction on the Omaha area. As presented, the casino construction is expected to support 2,357 jobs (both indirect and direct), \$245.0 million in sales, \$74.1 million in wages and salaries and \$23.0 million in taxes. These impacts are achieved over the life of the construction of the project. Thus, if construction takes two years, the yearly impacts are those contained in Table 4.8 divided by two. In other words, a two year casino construction project would support 1,176 jobs per year.

Table 4.11 provides detailed industry impacts for casino construction. In terms of spillover impacts according to these estimates, casino construction produces \$100 million in sales, 1,234 in jobs and \$35 million in wages and salaries over the life of the construction project.

Table 4.10: Direct & Indirect (spillover) impact of casino construction

Jobs supported	2,357
Sales	\$245,022,592
Wages & Salaries	\$74,136,475
Taxes (state & local taxes)	\$23,005,355
Note that impacts are over the life of the project (not yearly)	

Table 4.11: Detailed industry impacts of casino construction

	<u>Sales</u>	<u>Jobs</u>	<u>Wages & Salaries</u>
Domestic Services	\$79,847	7.6	\$79,847
Petroleum products (AGG)	\$84,365	0.2	\$5,576
Transportation Services (AGG)	\$94,606	1.4	\$44,397
Farms (AGG)	\$124,362	0.9	\$6,574
Pulp and paper (AGG)	\$143,292	0.7	\$31,824
Local, Interurban Passenger	\$165,020	4.0	\$68,850
Motion Pictures	\$188,207	2.5	\$30,854
Transportation equipment (AGG)	\$217,339	0.9	\$32,389
Apparel (AGG)	\$221,752	2.2	\$56,257
Air Transportation	\$255,576	2.7	\$106,757
Railroads and Related Services	\$263,575	1.3	\$107,914
Industrial machinery (AGG)	\$305,369	2.1	\$107,756
Stone, glass and clay (AGG)	\$326,504	2.1	\$98,774
Repair services (AGG)	\$341,455	5.0	\$69,574
Insurance Agents and Brokers	\$396,060	7.1	\$178,050
Scientific instruments (AGG)	\$424,648	2.3	\$108,087
Ag Services (AGG)	\$447,715	13.4	\$111,710
Chemicals and allied (AGG)	\$473,373	1.9	\$97,482
Fabricated metal (AGG)	\$538,273	3.0	\$107,921
Non-profit organizations (AGG)	\$548,334	20.9	\$381,909
Printing and publishing (AGG)	\$611,193	4.9	\$207,790
Furniture (AGG)	\$628,054	4.7	\$180,507
Credit Agencies	\$758,828	15.5	\$454,036
Federal non-military (AGG)	\$787,454	8.8	\$519,109
Wood products (AGG)	\$806,155	7.2	\$230,663
Hotels and Lodging Places	\$821,309	16.4	\$321,725
Education services (AGG)	\$858,866	21.8	\$473,800
Personal services (AGG)	\$880,339	26.1	\$268,164
Security and Commodity Brokers	\$919,067	10.2	\$502,375
Electrical equipment (AGG)	\$984,439	3.6	\$198,803
Utilities (AGG)	\$986,912	1.4	\$85,921
Recreation services (AGG)	\$1,005,934	22.0	\$299,875
Social services (AGG)	\$1,150,316	22.9	\$558,694
Automotive services (AGG)	\$1,448,872	16.2	\$355,630
Legal Services	\$1,482,147	14.5	\$640,412
Food processing (AGG)	\$1,727,069	6.6	\$247,008
State & local non-ed government	\$2,278,160	6.8	\$409,281
Insurance Carriers	\$2,316,023	14.2	\$814,219
Communications (AGG)	\$2,656,161	10.1	\$580,523
Motor Freight Transport and	\$3,614,125	28.7	\$1,034,879
Banking	\$4,311,053	20.7	\$877,067
Business services (AGG)	\$6,530,383	132.4	\$3,140,533
Health services (AGG)	\$7,541,155	98.6	\$4,123,120
Real estate (AGG)	\$8,966,051	28.2	\$358,244
Wholesale Trade	\$10,118,194	91.5	\$3,901,171
Professional services (AGG)	\$14,357,665	172.5	\$5,703,540
Retail Trade (AGG)	\$14,767,019	344.7	\$6,363,936
Construction (AGG)	\$145,901,120	1122.8	\$39,419,192
All other industries	\$168,860	1.0	\$33,758
Total	\$245,022,592	2357.3	\$74,136,475

Chapter 5: Social Cost of Gambling

Introduction

Casino gambling is not strictly an economic issue. In addition to economic gains and losses, casinos produce impacts on the social fabric of the area. Therefore, to more accurately assess the total impact of casinos, one must distinguish between economic profitability and social viability.

Twenty-five years ago, legalized gambling was confined to Nevada, Atlantic City, New Jersey, a few race tracks, and two or three state lotteries. Since then, the U.S. has added almost 400 casinos to the gambling landscape. Certainly this expansion has had an impact on the social costs of gambling. Much of the research examining the social costs have focused on the problem or pathological gambler.

A study by the National Opinion Research Center at the University of Chicago found that pathological gamblers generate 15% of the industry's gross revenues and that each gambler costs society around \$12,000 over his/her lifetime. Their report makes a distinction between destination gambling (riverboats and resorts), which generates local jobs and economic development, and "convenience gambling" such as a video poker machine at a service station which does not. The commission recommends a rollback in convenience gambling operations. It also recommends undertaking new studies on the relationship between gambling and various social problems, such as bankruptcy, divorce, domestic violence, suicide and crime.

The 1999 National Gambling Impact Study Commission estimated that of the 125 million Americans who gamble at least once a year, approximately 7.5 million have some form of gambling

problem with another 15 million "at risk" of developing a gambling problem.

A study completed by the Iowa Department of Human Services estimated that one percent of lowans, or between 10,300 and 30,900, were pathological gamblers. But in a 1995 Iowa study, it was concluded that the rate of pathological gambling was 3.3 percent. They calculated that problem and pathological gamblers lose \$3,600 annually to gambling with half of that loss coming from casino gambling.

The National Gambling Impact Study Commission has recommended a pause in the expansion of gambling in order to assess the social impacts of recent rapid expansions in gambling availability. The report estimates that roughly 3 million American adults have had a pathological gambling problem at some point in their lives.

It is expected that pathological gambling and even moderate gambling will have an impact on sociological parameters

defining an areas. This chapter provides an overview of the likely social impacts of an additional casino in the Omaha Metropolitan area.

Since casino gambling is already available in the Omaha metropolitan area, the research issue is to estimate the social impact of **additional** casino gambling on the area. The goal of this chapter is to examine three of parameters: 1) Crime rates, 2) Poverty rates and, 3) Divorce rates.

Gambling and Crime

Opponents of casino development often claim that gambling development leads to an increase in community criminal activity. It is alleged that problem gamblers are more likely than the general population to commit crimes and face imprisonment. A study by the National Opinion Research Center at the University of Chicago estimates that problem gambling costs society \$5 bil-

[it has been estimated] that one percent of lowans, or between 10,300 and 30,900, are pathological gamblers.

lion in jobless benefits, increased levels of crime and incarceration, and medical treatment.

The Research Division of the University of Colorado compared crime levels before, during, and after the initiation of gaming in three rural Colorado towns - Black Hawk, Central City and Cripple Creek. The researchers found that while totals have increased in some offense categories, crime is not proportional to the numbers of tourists visiting. They concluded that it was not clear whether gaming behavior produced increases in crime or whether crime increases were simply the result of huge increases in tourist visits to towns.

The perception that crime would follow gambling was also demonstrated in a survey of residents of two Massachusetts towns considering hotel/casino projects (Pizam and Pokela 1985). Residents said they expected increases in drug availability, prostitution, organized crime, theft, and violent crimes if gaming was allowed. These sentiments are not unique but reflect broader societal concerns about the linkages between gambling and crime.

Friedman, Hakim, and Weinblatt (1989) demonstrated in a study of Atlantic City gaming that "violent crimes are on the average 78% higher, burglaries 41%, vehicle thefts 30%, and larcenies 3%" after casinos opened. Moreover, The researchers found that these crime effects spilled over into the region, affecting communities that received few of the economic benefits of gaming development.

Similarly, Albanese (1985) found a strong correlation between the number of casinos and total crimes in Atlantic City in seven crime categories (murder, forcible rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft). However, the authors suggested that these increases were offset by huge increases in average daily populations visiting the casino city. In other words, even though raw totals of crimes had increased, people were somewhat less likely to be victimized

since the numbers of tourists visiting the city had also increased.

Hakim and Buck (1989), however, noted that even if tourists were less likely to be involved in a crime, the local community still carried the cost for services that accompanied increases in crime, such as the added costs of police protection. One should also include in this estimate the potential costs of increased court activities, imprisonment, and associated administrative functions of local and regional governments.

All communities interested in gaming are attracted by the economic benefits, but all are also wary of the potential tangible and intangible costs of crime. Tourists' personal experiences or observations regarding crime close to a casino represent a potential barrier to successful casino operations.

It is clear from all of these studies that the

relationship between crime and gambling development is complex and not necessarily linear. Even though state and federal crime reporting procedures are usually standardized, increases in crime may be the result of a variety of

personal or structural conditions in communities, including increased tourist visits, more vigilant law enforcement, an increased number of at-risk properties (such as hotel rooms), the flow of larger

The 1999 National Gambling Impact Study Commission estimated that of the 125 million Americans who gamble at least once a year, approximately 7.5 million have some form of gambling problem.

Table 5.1: Crimes per 10,000 individuals

	Crime Rate		
	1990	1999	Change 1990-99
All Casino Counties	510.0	428.5	-81.5
U.S.	582.6	434.7	-147.9

Source: U.S. Census

amounts of money, or more personal opportunities to be involved in unlawful activities (Roehl 1994; Albanese 1985).

Table 5.1 shows crime statistics for casino counties in the U.S. Data indicate that in 1990 the

crime rate was lower for casino counties than for non-casino counties. However, the U.S. crime rate declined more dramatically between 1990 and 1999 for non-casino counties than for casino counties. Even so, data suggest that casinos have not had a significant impact on crime statistics.

Table 5.2 lists individual casino county crime statistics over the decade of the 1990s. Cooper County, Missouri had the worst experience with casino operations after casinos were constructed in the county in 1995. While the county added only 100 jobs between 1995 and 1999, its crime rate increased dramatically.

Table 5.2: Crime statistics for casino counties

	State & County	Crimes per 10,000 population
Lowest 1990 crime rate	Missouri Pemiscot	52.0
Highest 1990 crime rate	Louisiana New Orleans	1246.3
Lowest 1999 crime rate	Iowa Clayton	10.1
Highest 1999 crime rate	Louisiana Baton Rouge	934.6
1990-99 largest dip	Louisiana New Orleans	-469.5
1990-99 largest increase	Missouri Cooper	218.2

Source: U.S. Census

Does increased gambling activity contribute to greater crime? In order to answer this question, county crime activity is modeled against factors influencing crime. Appendix A.3 lists the results from this modeling process.

As listed in A.3, income, percent of population over age 65, and extending gambling credit has a negative impact on crime rates among counties with commercial casinos. On the other hand, increases in casino revenues and state limitation of the number of casinos have a positive impact on crime rates. Other factors had no statistically significant impact on the crime rate.

Table 5.3 lists estimated increases in the Omaha crime rate for the addition of a casino to the Nebraska portion of the metro area. According to estimates for the three scenarios, the crime rate would be expected to rise by as little as 1.5 percent or as much as 7.9 percent.

Table 5.3: Estimated Impact of casino on Omaha's crime rate

	Percent change in crime rate	Number of additional crimes per year per 10,000 population
Scenario 1^a	1.5%	7.2
Scenario 2	4.5%	20.8
Scenario 3	7.9%	36.8

Source: Model page A.3
^a see Chapter 4 for a definition of each scenario

Gambling and Poverty

It is often argued that gambling revenue is disproportionately gained at the expense of lower income individuals. Thus, increases in casino gambling would be expected to increase the degree of poverty. On the other hand, gambling is likely to increase the number of jobs available for low income workers.

As presented in Table 5.4, casino counties have lower rates of poverty than the U.S. average.

Table 5.4 : Poverty rates-1999

	U.S.	Percent Below Poverty
		13.3%
Lowest poverty rate	Missouri-St. Charles	4.7%
Highest poverty rate	Missouri-Pemiscot	28.3%
	Iowa--Pottawattamie	11.2%
Average poverty rate	All casino counties	12.0%

Source: U.S. Census Bureau

The lowest poverty rate among casino counties was St. Charles County, Missouri. Interestingly, the highest poverty rate among casino counties was also in Missouri with Pemiscot having the highest poverty rate of 28.3 percent. The average for all casino counties was 12.0 percent which was less than the U.S. poverty rate of 13.3 percent. Pottawattamie County's poverty rate was less than the U.S. average and less than the average for all casino counties.

Does increased gambling activity contribute to higher poverty rates? In order to answer this question, poverty rates are modeled against factors influencing poverty. Appendix A.4 lists the results from this modeling process.

As listed in A.4, higher retail sales, greater population density, and a higher percent of population over age 65 had a positive impact on poverty rates. No other variable had a statistically significant impact on the poverty rate.

While higher casino revenues had a positive impact on poverty rates, its impact was not statistically significant. From a statistical standpoint, this means that there is a high probability that increases in casino revenues have no impact on poverty rates. With that said, one can still compute a relationship between casino revenues and poverty rates. Table 5.5 lists the change in poverty rates for each of the three scenarios.

Table 5.5: Estimated Poverty rates for Omaha

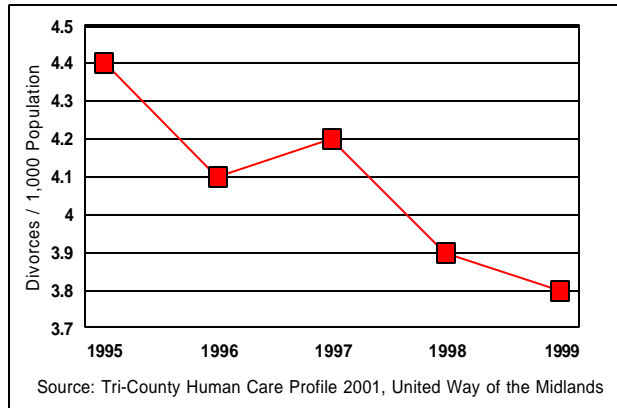
	Poverty Rates	Addition to Poverty
Current % below poverty	8.4%	
Scenario 1	8.5%	0.10
Scenario 2	8.7%	0.29
Scenario 3	8.9%	0.52

Source: Model from page A.5

Casinos and Divorce

It is often asserted that a casino places heightened stress on marriages in the area by increasing pathological or problem gambling. However, data provided by United Way of the Midlands *Tri-County Human Care Profile 2001* show little relationship between the openings of the casinos in Council Bluffs in 1996 and divorces rates in Metropolitan Omaha. Figure 5.1 shows divorce rates per 1,000 population for the period 1995.

Figure 5.1: Divorce rates for Metro Omaha



Not only did divorce rates decline after the introduction of casinos in the area, they remained below the U.S. average. Table 5.6 lists divorce rates for 1998 and 1999 for Metropolitan Omaha and the U.S. As presented, Metropolitan Omaha rates were lower than those for the U.S. Both Omaha and U.S. rates declined by 0.1 between 1998 and 1999.

Table 5.6: Divorce rates, Metro Omaha vs. U.S.

	1998	1999
Metro Omaha	3.9	3.8
U.S.	4.2	4.1

Source: United Way of the Midlands & U.S. Census

Conclusions

Based on statistical analysis, it is determined that the addition of an Omaha, Nebraska casino would increase the crime rate between 1.5 percent to 7.9 percent. Per 10,000 population, this would mean an increase in the number of reported crimes ranging from 7.2 to 36.8 per year per 10,000 in population. It is also determined that additions to casino activity in the area would have little or no impact on the area's poverty rate. Furthermore, the addition of an Omaha, Nebraska casino would likely have little impact on divorce rates in the area.

Chapter 6: Organization and Regulation of Casinos

Introduction

Gaming states create and maintain regulatory boards or commissions to ensure public confidence. In each state, policy-makers created an independent gaming commission to regulate the industry. In order to gain public acceptance and confidence, each state has attempted to ensure that the gaming commission is independent of the casino industry. Equally important, the state has attempted to guarantee that regulators and public officials are also completely independent of the gaming industry.

States must maintain strict regulations for licensing standards and for on-going regulation. Some specific standards currently common to state practices include:

- Gaming states should try to ensure integrity of casino operations by enforcing strict regulation.
- A gaming license must be specifically designated as a revocable, privileged license in the statute authorizing gaming.
- The statute should place the burden on the applicant to prove suitability for a license.
- Consumer protection is critical to preserving public trust in the industry and the regulatory agency. Consumer protection provisions should include a ban on false/misleading advertising, a requirement of technical standards for machines, and the posting rules of games in prominent places.

Table 6.1 lists the date and method of casino legalization in each state. In each state, legislative action is a necessary ingredient of commercial casinos. Colorado, Michigan, Missouri, New Jersey and South Dakota require voter approval before a casino can begin operation in the state.

Six states, Indiana, Iowa, Louisiana, Michigan, Missouri, and South Dakota require that voters in the jurisdiction where the casino is located approve the operation of the casino in their area.

Table 6.1: How & when casinos legalized

<u>State</u>	<u>Year Legalized</u>	<u>Method of legalization</u>
Colorado	1990	Statewide vote and legislative action
Illinois	1990	Legislative action
Indiana	1993	Local option vote, legislative action
Iowa	1989	Local option vote, legislative action
Louisiana	1991	Local option vote, legislative action
Michigan	1996	Local advisory vote, statewide voter referendum, legislative action
Mississippi	1990	Legislative action, local option votes
Missouri	1993	Approved via statewide vote, local option vote and legislative action
New Jersey	1976	Statewide vote, legislative action
Nevada	1931	Legislative action
South Dakota	1989	Statewide vote, local option vote, legislative action

Source: American Gaming Association

Gaming Boards

Colorado

The Colorado Division of Gaming regulates casino gaming in Colorado. Other forms of legalized gambling are regulated by other state agencies. Five types of licenses are issued by the Colorado Limited Gaming Control Commission, or by the Division of Gaming upon the authority of the Commission:

1. A Manufacturer/Distributor license is required of businesses that manufacture import, or distribute slot machines into or out of Colorado.
2. A Retail license is required of businesses which permit or conduct limited gaming on their premises (casinos).

3. An Operator license is required of those who engage in the business of placing and operating slot machines, such as slot machine routers. A retail licensee is not required to hold an operator's license in addition to its retail license. The operator's rights are inclusive with the retail license. An operator license is also required of those who are entitled to receive income or payment based upon, or calculated upon, the income of a retailer.
4. A key employee license is required of those individuals who have the responsibility or authority to make management and policy decisions in a gaming establishment.
5. A support employee license is required of most casino workers, such as card dealers, cashiers, change persons, accounting personnel, proposition poker players, and security officers. Some non-gaming casino employees may be required to hold a support license. Depending upon individual circumstances, such employees may include food and beverage servers, porters or other maintenance personnel, and parking valets. The identity of these unlicensed employees must still be reported to the Division of Gaming on the required periodic employment reports.

Illinois

The Riverboat Gambling Act was enacted in February 1990, making Illinois the second state in the nation to legalize riverboat gambling. The Riverboat Gambling Act authorizes the Gaming Board to grant up to 10 casino licenses. On September 11, 1991, the first riverboat casino began operation in Alton.

The Riverboat Gambling Act created the Illinois Gaming Board. The five-member board, appointed by the governor and confirmed by the Senate, administers a regulatory and tax collection system for riverboat casino gambling in Illinois. The Board's staff conducts audit, legal, enforcement, investigative and financial analysis activities to en-

sure the integrity of gaming in Illinois as mandated by the Riverboat Gambling Act. The Board's staff includes more than 75 direct agency employees and a detail of 65 Illinois State Police employees. The Board assures the integrity of riverboat gambling through the regulatory oversight of casino operations and the licensing of suppliers and employees of riverboat gambling operations.

Prior to any license being issued, the Board's staff conducts a criminal background investigation and, in some cases, a financial investigation in an effort to ensure that an applicant is free of any felony convictions or criminal history which would make him or her ineligible for licensure. Similar investigations into the owners and key persons of casino operations are also performed. Illinois Gaming Board members may not serve on the Board and employees may not be employed by the Board if their spouse, parent or child is an official of, or has a financial interest in or a financial relationship with, any operator engaged in gambling operations in the State of Illinois. Gaming Board members and staff are prohibited from gambling in Illinois casinos.

Indiana

The Riverboat Gambling Act (ACT), became effective on July 1, 1993, legalizing casino gaming on riverboats in the state. In general, the ACT established the Indiana Gaming Commission (IGC) and vested it with the authority both to issue not more than 11 riverboat licenses in specified areas of the state and to regulate the operation of the riverboats along with related businesses, occupations and schools. The ACT authorized the Governor to appoint the bipartisan seven-member commission and directed that the initial commission be appointed by September 1, 1993. The first meeting of the IGC was held September 7, 1993. The Act requires the IGC to hold at least one meeting each quarter of the fiscal year.

Iowa

In May of 1983, the Iowa Legislature passed the Pari-Mutuel Wagering Act allowing qualified sponsoring organizations to apply for a license to conduct pari-mutuel wagering on horse and dog racing. The Governor signed the bill and subsequently appointed the first Racing Commission on July 1, 1983. The Act provided for a Commission consisting of five members each serving a staggered three-year term. The Commission appoints an Administrator for a four-year term, responsible for the daily operations of the Commission. July 1, 1989, legislation was enacted allowing the Commission to license qualified sponsoring organizations to conduct gambling games on excursion gambling boats in a county where the electorate approves a proposition by referendum.

Louisiana

In 1991 the Louisiana Legislature approved casino gambling in the state and created the Louisiana Gaming Control Board to regulate the industry. The board consists of nine members appointed by the governor and two ex officio members. In making the appointments, the governor is required to appoint at least one member from each congressional district and such appointments shall, as nearly as practicable, be made in a manner that is representative of the population of the state. All such appointments are subject to confirmation by the Senate. Members shall serve staggered terms of six years. Board members can serve no more than two terms. Furthermore, persons who served on any gaming regulatory board or commission prior to the establishment of the Louisiana Gaming Control Board can not serve on the board.

Each member of the board shall be a citizen of the United States and resident of Louisiana and be registered to vote in Louisiana. No person holding any elective office, appointive office, or employment in the government of Louisiana or of any political subdivision thereof and no officer or official of any political party is eligible for appointment to or

membership on the board, except for the ex officio board members.

Michigan

Michigan Gaming Control & Revenue Act, authorizes up to three licensed commercial casinos in the City of Detroit. It also vests the Michigan Gaming Control Board exclusive authority to license, regulate, and control the three authorized Detroit casinos. The Michigan Senate created the Standing Gaming & Casino Oversight Committee to review casino and gaming legislation in early 1997. The Committee traveled around the state in 1997 to hear Michigan residents' comments about casino gaming. The Committee also heard from industry leaders, state officials, gaming officials from states with legalized Class III gaming, and casino operators and suppliers.

The ACT assigns to the Michigan House Oversight & Ethics Committee assigns a majority of the casino and gaming related bills, resolutions, and discussions. This standing committee has created several subcommittees to handle specific gaming legislation. These committees were later renamed the Senate and House Gaming & Casino Oversight Committees.

Mississippi

In 1990, the Mississippi Legislature legalized dockside casino gambling. The enabling legislation bill established the Mississippi Gaming Control Act to be in force after its adoption on June 29, 1990. The Gaming Control Act established the Mississippi Gaming Commission to regulate dockside casinos. The Commission also regulates charitable gaming pursuant to the Charitable Bingo Law.

The Mississippi State Tax Commission initially regulated gaming in order to prepare the Commission to assume this responsibility October 1, 1993. The Commission is headed by three Commissioners who are appointed by the Governor. Each Commissioner serves staggered four-

year terms. The law also provides that no Commissioner will serve more than ten years of total service. The Governor appoints the Chairman. The Commissioners are responsible for hiring a full time Executive Director who is responsible for all authorized positions.

Missouri

In 1993, Governor Carnahan signed into law bills creating the five member Gaming Commission. The Commission was given much more authority over the gaming industry than had previously been given to the Tourism Commission. The Commission could prioritize applications; issue liquor licenses; assess a wide array of administrative penalties; inspect the licensees' premises at any time; decide the number, type, and location of gambling boats; determine the time during which gambling may occur; have access to all closed records relating to applicants for licenses; conduct hearings and be a trier of fact with regard to alleged violations of the gaming act; and require licensees to release all information on their finances.

In addition, the industry was held to a higher standard, having to prove its suitability for licensure by clear and convincing evidence, rather than a preponderance of the evidence as had been the case under the original referendum. Felons were prohibited from holding gaming licenses under the new act and the Commission was empowered to reopen licensing hearings at any time. These requirements made it clear that a riverboat gambling license was a privilege granted at the sole direction of the State of Missouri and that the license carried no property rights.

Nevada

The Nevada Gaming Commission is a five-member body appointed by the Governor, which serves in a part-time capacity. The primary responsibilities of the Commission include acting on the recommendations of the State Gaming Control

Board in licensing matters and ruling in work permit appeal cases. The Commission is the final authority on licensing matters, having the ability to approve, restrict, limit, condition, deny, revoke, or suspend any gaming license. Additionally, the Commission is charged with the responsibility of promulgating regulations to implement and enforce the State laws governing gaming.

New Jersey

The New Jersey Casino Control Commission is the panel charged with regulating New Jersey's casinos. It is made up of five members who are appointed by the Governor and confirmed by the State Senate. Commissioners serve staggered, five-year terms and can only be removed for cause. By law, no more than three commissioners can be of the same political party, a requirement that insures political balance on the panel.

The task of regulating casinos is shared with the New Jersey Division of Gaming Enforcement. While the Casino Control Commission is an independent agency which is in, but not of, the Department of Treasury, the Division of Gaming Enforcement is an arm of the state's Attorney General's Office. It conducts investigations into license applicants and reports the results to the commission. When it comes to license applications or regulatory violations, the Division of Gaming Enforcement acts as the police/prosecuting agency while the Casino Control Commission acts in a quasi-judicial manner ruling on those applications and assessing penalties for any regulatory violations.

The Casino Control Commission's staff is divided among four main operating divisions: Administration, Compliance, Licensing and Financial Evaluation.

South Dakota

The South Dakota Commission on Gaming, a division of the South Dakota Department of

Commerce and Regulation, is responsible for regulating the gaming industry in the City of Deadwood and on the Indian reservations through compacts. The commission also regulates live horse and simulcast racing in the state.

The South Dakota Commission on Gaming has a five-member commission consisting of citizens of South Dakota, all of whom shall be appointed by the Governor of the state of South Dakota. The commission is responsible for the promulgation of rules and regulations governing limited betting in the State of South Dakota.

There are six types of licenses required:

1. Slot Machine Manufacture or Distributor- The application fee is \$5,000 and the license fee is \$1,000 with a fiscal year (July through June) renewal fee of \$250.

2. Operator License-Any person who places slot machines in the person's own business premises must complete this application. The license fee is \$1,000 with a fiscal year (July through June) renewal fee of \$200.

3. Route Operator License-Any person who, individually or jointly, pursuant to an agreement whereby consideration is paid for the right to place slot machines or gaming tables, engages in the business of placing and operating slot machines or gaming tables within the City of Deadwood must complete this application. The application fee is \$1,000 and the license fee is \$1,000 with a fiscal year (July through June) renewal fee of \$200.

4. Retail License- Any licensee who maintains gaming at the licensee's place of business within the City of Deadwood for use and operation by the public must complete this application. The application fee is \$250 and the license fee is \$250 with a fiscal year (July through June) renewal fee of \$100.

5. Key Employee License-Any executive, employee, or agent of a gaming licensee having the power to exercise a significant influence over decisions concerning any part of the operation of a gaming licensee must complete this application. The application fee is \$150 and the license fee is \$150 with a calendar year (January through De-

Table 6.2: Summary of Governance by State

<u>State</u>	<u>Title of regulating body</u>	<u>Membership</u>
Colorado	Colorado Gaming Control Board	5 member commission appointed by governor and confirmed by state senate
Illinois	Illinois Gaming Board	5 member board appointed by governor and confirmed by state senate
Indiana	Indiana Gaming Commission	7 members appointed by the governor for staggered 3 year terms
Iowa	Iowa Racing and Gaming Commission	5 members appointed by governor and confirmed by state senate for staggered 3yr terms
Louisiana	Louisiana Gaming Control Board	9 member board appointed by the governor serve 6 year staggered terms
Michigan	Michigan Gaming Control Board	5 member board appointed by governor and confirmed by state senate
Mississippi	Mississippi Gaming Commission	3 member commission appointed by governor for staggered 4 year terms
Missouri	Missouri Gaming Commission	5 member commission appointed by the governor
Nevada	Nevada Gaming Control Board	2 tiers, 3 members on upper and 5 members on lower The Nevada Gaming Commission is a five-member lay body appointed by the Governor.
New Jersey	New Jersey Casino Control	5 member commission appointed by the governor and confirmed by state senate for 5 year staggered terms
South Dakota	South Dakota Gaming Commission	5 member commission appointed by the governor

Source: Gaming associations in the individual states

ember) renewal fee of \$75.

6. Support License-A person licensed by the commission who is working or who is about to work for an operator or retailer as a card dealer, slot machine technician, floor supervisor, cashier, shill, proposition player, slot route runner, pit boss, a member of a count team, computer monitor for progressive links, or in any other way directly related to gaming must complete this application. The application fee is \$50 and the license fee is \$50 with a calendar year (January through December) renewal fee of \$25.

Limits on Casinos

Location

Table 3.3 shows the type of casinos that each state allows. Each type reflects the casino climate in each state. For example, Colorado allows casinos in two historically mining towns.

Table 6.3: Type of casinos by state

<u>State</u>	<u>Type of casinos</u>
Colorado	Land-based
Illinois	Riverboat
Indiana	Riverboat
Iowa	Riverboat, Racetrack
Louisiana	Riverboat, Racetrack, Land-Based
Michigan	Land-based
Mississippi	Dockside
Missouri	Riverboat
Nevada	Land-based
New Jersey	Land-based, Ocean Front
South Dakota	Land-based

Source: American Gaming Association

Types of Games

States take varied approaches to the types of games allowed. Often limitations are enacted based on the assumption that certain types of games pose a greater risk to the patron. These odds are based on simulation experiments con-

ducted by Eadington (1999). Clearly, the odds do not justify patrons' preference for slot machines with slot machines producing a much higher advantage for the casino than other games.

Table 6.4: Casino odds by game

<u>Game</u>	<u>House Advantage</u>
Blackjack	0.5%
Baccrat	1.25%
Craps	1.41%
Video Poker	2.0%
Pai Gow Poker	2.5%
Roulette (European)	2.7%
Slot Machines	5.0%
Roulette (American)	5.26%
Keno	28.0%

Source: Eadington (1999)

Nevada and Mississippi, as opposed to other casino states, take a free-market approach to casinos. All other states limit the number of gaming licenses awarded. This approach allows the regulating commission to control each market and maximize tax revenues.

Colorado

Colorado limits casinos in three ways:

- (1) Gaming may only be conducted in three historic mining towns of the state.
- (2) Only three general types of casino games may be played--poker, blackjack, and slot machines.
- (3) The maximum amount of any single wager is limited to five dollars. The limit on wagering does not prevent "raising" in poker, or "doubling down" in blackjack; it's just that each single original and subsequent bet may not exceed five dollars.

Iowa

Iowa, by allowing two riverboat casinos in Council Bluffs and slot machines at the local dog-racing track, has positioned the market to capitalize on the strong population base in the Council Bluffs/Omaha, Nebraska, metropolitan area without creating saturation in the market.

South Dakota

South Dakota limits casino operations to include Blackjack, poker and slot machines. The state sets a maximum bet limit in Deadwood of \$100. Must be 21 years of age for wagering in the casinos.

New Jersey

New Jersey has authorized, roulette, baccarat, blackjack, craps, big six wheel, slot machines, minibaccarat, red dog, pai gow, and sic bo. The state has also authorized any variations or composites of such games, provided that such variations or composites are found by the commission suitable for use after an appropriate test or experimental period under such terms and conditions as the commission may deem appropriate.

Any other game which is determined by the commission to be compatible with the public interest and to be suitable for casino use after such appropriate test or experimental period as the commission may deem appropriate.

Illinois

Each riverboat gaming license in Illinois authorizes up to 1,200 gaming positions and allows each licensee to operate up to two vessels at a single, specified dockside. Those casinos that operate two boats cannot have more than 1,200 gaming positions between both vessels. Patrons visiting the casinos must be 21 years-of age to be admitted to the gambling areas of each operation. The Riverboat Gambling Act requires that all wagering in the casinos be cashless. Riverboat patrons are required to use tokens, chips or electronic cards for

wagering. Illinois employs the same limited-license approach with similar positive results.

Table 6.5 summarizes particular limits on casinos by state. Colorado and Iowa provide the strictest limits on casino betting. Both states limit the size of the wager and the loss and neither state allows casinos to extend credit.

Table 6.5: Limits on casino by state

<u>State</u>	<u>Credit Allowed</u>	<u>Wager Limit</u>	<u>Loss Limit</u>
Colorado	No	Yes	No
Illinois	Yes	No	No
Indiana	Yes	No	No
Iowa	No	No	No
Louisiana	Yes	No	No
Michigan	Yes	No	No
Mississippi	Yes	No	No
Missouri	No	No	Yes
Nevada	Yes	No	No
New Jersey	Yes	No	No
South Dakota	No	Yes	No

Source: Eadington (1999)

Appendix

Table A.1-Impact of factors on casino AGR			
	Coefficient	Standard Error	t-value
Metropolitan Casino	0.1694	0.2452	0.6910
Population Density	0.0003 ^a	0.0001	1.8650
Percent of population over age 65	-0.0883 ^a	0.0453	-1.9510
Household income	0.0263 ^a	0.0153	1.7120
Number of slots (in logarithmic form)	0.7269 ^a	0.2052	3.5420
Number of table games	0.0036	0.0025	1.4340
Existence of state betting limit	-0.9551 ^a	0.2043	-4.6760
CONSTANT	13.5295 ^a	1.9200	6.9320
R^2		85.7%	
Number of observations		42	
^a indicates that coefficient is statistically significant at the 90% level of confidence (one-tail test)			

Table A.2: Impact of factors on casino patrons' net loss			
take	Coefficient	Standard Error	t-value
CONSTANT	108.6800	31.6900	3.4300
Metropolitan Casino	-12.5080	6.1340	-2.0390
Percent of population over age 65	-2.5429	1.2290	-2.0690
Household income	0.3145	0.3882	0.8100
Number of slots (in logarithmic form)	0.0016	0.0013	1.2720
Existence of state betting limit	-22.0860	6.6130	-3.3400
State limit on number of casinos	-41.8530	6.2350	-6.7130
State allows use of credit	39.7410	6.5500	6.0670
Tax rate on casino revenues	-128.0500	48.7300	-2.6280
	R2	82.6%	
	Number of observations	42	
"a" indicates that coefficient is statistically significant at the 90% level of confidence (one-tail test).			

Table A.3: Impact of factors on the rate of crime, 1999			
	Coefficient	Standard error	T-value
Intercept	15063.9325	5527.0530	2.7255
Income	-0.1517 ^a	0.0728	-2.0848
County retail sales	0.0002	0.0002	1.0153
Population Density	0.2004	1.0594	0.1891
Metropolitan Casino	1613.2752	1086.9087	1.4843
Percent of population over age 65	-560.6020 ^a	248.8659	-2.2526
AGR	0.0157 ^a	0.0074	2.1021
Riverboat casinos	1045.5342	1541.1457	0.6784
Existence of state betting limit	-504.4781	1026.1670	-0.4916
State allows use of credit	-3326.9599 ^a	1776.0066	-1.8733
State limit on number of casinos	2864.3378 ^a	1546.3216	1.8524
R ²		61.3%	
Number of observations		34	
^a indicates that coefficient is statistically significant at the 90% level of confidence (one-tail test).			

Table A.4: Impact of factors on poverty rate			
	Coefficient	Standard Error	T-Value
Intercept	-0.4057	9.9953	-0.0406
County retail sales	-0.0012 ^a	0.0006	-2.0958
Population Density	0.0064 ^a	0.0024	2.7373
Metropolitan Casino	-1.3404	2.3829	-0.5625
Percent of population over age 65	0.6790 ^a	0.3882	1.7493
AGR	0.0000	0.0000	1.5927
Riverboat casinos	0.1658	2.7288	0.0608
Existence of state betting limit	3.6450	7.2515	0.5027
State allows use of credit	2.3871	6.8385	0.3491
State limit on number of casinos	1.9324	2.3290	0.8297
Colorado casinos	-1.8851	5.2735	-0.3575
Iowa casinos	1.2442	7.2743	0.1710
	R^2	47.7%	
	Number of observations	42	
<p>"a" indicates that coefficient is statistically significant at the 90% level of confidence (one-tail test).</p>			

Bibliography

Albanese, J. S. (1985). "The Effect of Casino Gambling on Crime." *Federal Probation*, 49 (2): 39-44. Arland-Fye, B., and R. Pellin (1992). "Riverboat Gambling: Recreational Revenue?" *Park and Recreation Magazine*, 27 (11): 65-66, 75.

Allen, L. R., H. R. Hafer, P. T. Long, and R. R. Perdue (1993). "Rural Residents' Attitudes toward Recreation and Tourism Development." *Journal of Travel Research*, 31 (Spring): 27-33.

Altman, I. (1975). *The Environment and Social Behavior: Privacy, Personal Space, Territory and Crowding*. Monterey, CA: Brooks/Cole Publishing.

Ap, J. (1992). "Resident Perceptions on Tourism Impacts" *Annals of Tourism Research*, 19 (4): 665-90.

Ap, J., and J. L. Crompton (1993). "Resident Strategies for Responding to Tourism Impacts." *Journal of Travel Research*, 32 (Summer): 47-49.

Belisle, F. J., and D. R. Hoy (1980). "The Perceived Impact of Tourism by Residents: A Case Study in Santa Marta, Colombia" *Annals of Tourism Research*, 12 (1): 83-101.

Business Week (1994a). "The Entertainment Economy." March 14: 58-64.

-- (1994b). "Blackjack and Mickey vs. Urban Blight." March 14: 64.

Caneday, L., and J. Zeiger (1991). "The Social, Economic, and Environmental Costs of Tourism to a Gaming Community as Perceived by Its Residents" *Journal of Travel Research*, 30 (Fall): 45-48.

Casino Player (1994). "U.S. Gaming, 1994 February: 40.

Central Bureau of Statistics (1995). *Local Authorities: Physical Data 1993*. Special Series 992. Jerusalem: Central Bureau of Statistics. (1996). *Quarterly Statistical Report on Tourism and Lodging Services*. No. 2. Jerusalem: Central Bureau of Statistics (in Hebrew). (1997). *Statistical Abstract of Israel 1996*. No. 47. Jerusalem: Central Bureau of Statistics.

Colorado Department of Public Safety (1988-1993). *Crime in Colorado: Annual Reports*. Denver, CO: Colorado Bureau of Investigation, Crime Information Center. Colorado Division of Gaming (1994). *Gaming in Colorado: Fact Book and 1994 Abstract*. Denver, CO.

Deloitte-Touche, L.L.P. (1992). *Economic and Other Impacts of a LandBased Entertainment, Casino and Hotel Facility*. Chicago: City of Chicago Gaming Commission. (1995). *Economic Impacts of Gambling on the State of Michigan*. Chicago: Deloitte-Touche Tohmatsu International.

Dombrink, J., and W. Thompson (1990). *The Last Resort: Successes and Failures in Campaigns for Casinos*. Reno: University of Nevada Press.

Dombrink, J., and W. N. Thompson (1990). *The Last Resort: Success and Failure in Campaigns for Casinos*. Reno, NV: University of Nevada Press. Findlay, J. M. (1986). *People of Chance: Gambling in American Society from Jamestown to Las Vegas*. New York: Oxford University Press.

Eadington, W. (1986). "Impact of Casino Gambling on the Community: Comment on Pizam and Pokela." *Annals of Tourism Research*, 13: 279-85.

Eadington, W. R. (1995). *Casino Gambling-Origins, Trends and Impacts*. Reno: Institute for the Study of Gambling and Commercial Gaming, University of Nevada.

Fleischer, A., and D. Freeman (1997). "The Economic Impact of Rural Tourism in Israel: Multi-Regional Input-Output Analysis." *Annals of Tourism Research*, 24 (4): 998-1001.

Fletcher, J. E. (1989). "Input-Output Analysis and Tourism Impact Studies." *Annals of Tourism Research*, 16: 514-29.

Freeman, D. (1996). *Local and Foreign Tourism in Israel: A Multi-Regional Input-Output Model for Estimating the Direct and Indirect Impacts of Tourism*. Jerusalem: Ministry of Tourism (in Hebrew).

Freeman, D., H. Talpaz, A. Fleischer, and O. Laufman (1990). "A MultiRegional Input-Output Model for Israel and Extensions: Methodology and Experience." In *Regional Science: Retrospect and Prospect*, edited by D. E. Boyce, P. Nijkamp, and D. Shefer. Heidelberg, Germany: Springer-Verlag, pp. 425-45.

Freeman, D., G. Alperovich, and I. Weksler. (1985). "Inter-Regional Input-- Output Model: The Israeli Case." *Applied Economics*, 17: 381-93.

Fick, G. R., and J. R. B. Ritchie (1941). "Measuring Service Quality in the Travel and Tourism Industry" *Journal of Travel Research*, 30

Freudenburg, W. R., and R. E. Jones (1991). "Criminal Behavior and Rapid Community Growth: Examining the Evidence." *Rural Sociology*, 56 (4): 619-45.

Frey, J. H. (1984). "Gambling: A Sociological Review." *Annals of the American Academy of Political and Social Science*, 474: 107-21.

Friedman, J., S. Hakim, and J. Weinblatt (1989). "Casino Gambling as a 'Growth Pole' Strategy and Its Effect on Crime." *Journal of Regional Science*, 29 (4): 615-23.

Gavish Committee (1995). Report of the Public Inquiry into Legalizing Casino Gambling in Israel. Tel Aviv: Gavish Committee (in Hebrew).

Goodman, R. (1994). *Legalized Gambling as a Strategy for Economic Development*. Northampton, MA: United States Gambling Study.

Grinols, E. L., and J. D. Omorov (1996). *Development or Dreamfield Delusions: Assessing Casino Gambling's Costs and Benefits*. Urbana: Department of Economics, University of Illinois (mimeograph).

Hakim, S., and A. J. Buck (1989). "Do Casinos Enhance Crime?" *Journal of Criminal Justice*, 17 (5): 409-16.

Johnson, J. D., D. J. Snepenger, and S. Akis (1994). "Residents' Perceptions of Tourism Development." *Annals of Tourism Research*, 21 (3): 629-42.

Kang, Y. S., P. T. Long, and R. R. Perdue (1995). "Resident Attitudes toward Legal Gambling." *Annals of Tourism Research*, 22 (4). In press.

Krannich, R. S., T. Greider, and R. L. Little (1985). "Rapid Growth and Fear of Crime: A Four-Community Comparison." *Rural Sociology*, 50 (2): 193-209.

King, B., A. Pizam, and A. Milman (1993). "Social Impacts of Tourism: Host Perceptions." *Annals of Tourism Research*, 20 (4): 650-65.

Lankford, S. V. (1994). "Attitudes and Perceptions toward Tourism and Rural Regional Development." *Journal of Travel Research*, 32 (Winter): 35-43.

LeBlanc, G. (1992). "Factors Affecting Customer Evaluation of Service Quality in Travel Agencies: An Investigation of Customer Perceptions." *Journal of Travel Research*, 30 (Spring): 10-16.

Lesieur, H. R. (1977). *The Chase: Career of the Compulsive Gambler*. Garden City, NY: Anchor Books.

Long, P., J. Clark, and D. Liston (1994). *Win, Lose, or Draw: Gambling with America's Small Towns*. Washington, DC: The Aspen Institute.

Liu, J. C., P. J. Sheldon, and T. Var (1987). "Resident Perceptions of the Environmental Impacts of Tourism." *Annals of Tourism Research*, 14

Liu, J. C., and T. Var (1996). "Resident Attitudes toward Tourism Impacts in Hawaii" *Annals of Tourism Research*, 13: 193-214.

Long, P. T., J. Clark, and D. Liston (1994). *Win, Lose, or Draw? Gambling with America's Small Towns*. Washington, DC: Rural Economic Policy Program, The Aspen Institute.

Long, P. T., R. Perdue, and L. Allen (1990). "Rural Resident Tourism Perceptions and Attitudes by Community Level of Tourism" *Journal of Travel Research*, 28 (Winter): 3-9.

Loukissas, P. J. (1983). "Public Participation in Community Tourism Planning: A Gaming Simulation." *Journal of Travel Research*, 12 (Summer): 18-23.

Marsh, N. R., and B. D. Henshall (1987). "Planning Better Tourism: The Strategic Importance of Tourist-Resident Expectations and Interactions." *Tourism Recreation Research*, 12 (2): 47-54.

McCool, S. E, and S. R. Martin (1994). "Community Attachment and Attitudes toward Tourism Development" *Journal of Travel Research*, 32 (Winter): 29-34.

Morrison, A. M., C. G. Braunlich, A. C. Liping, and J. T. O'Leary (1996). "A Profile of the Casino Resort Vacationer." *Journal of Travel Research*, 35 (Fall): 55-61.

Milman, A., and A. Pizam (1988). "Social Impacts of Tourism on Central Florida." *Annals of Tourism Research*, 15 (2): 191-204.

Murphy, P. E. (1983). "Perceptions and Attitudes of Decision-Making Groups in Tourism Centers." *Journal of Travel Research*, 21 (Winter): 8-12.

National Insurance Institute (1995). Average Wages, Employment, Health Insurance and Position at Work by Settlement, 1992-1994. Survey No. 130. Jerusalem: National Insurance Institute.

Ostrowski, P. L., T. V. O'Brien, and G. L. Gordon (1993). "Service Quality and Customer Loyalty in the Commercial Airline Industry." *Journal of Travel Research*, 32 (Fall): 16-24.

Pearce, D. G. (1981). *Tourism Development* New York: Longman.

Perdue, R. R., P. T. Long, and L. Allen (1987). "Rural Resident Perceptions and Attitudes *Annals of Tourism Research*, 14, 420-29.

-- (1990). "Resident Support for Tourism Development," *Annals of Tourism Research*, 17 (4): 586-99.

Persky, J. (1995). "Opportunity Costs and Displacement in Casino Impact Studies." *Journal of Gambling Studies*, 11 (4): 349-60.

Pizam, A., and J. Pokela (1985). "The Perceived Impacts of Casino Gambling on a Community." *Annals of Tourism Research*, 12 (2): 147-65.

Pizam, A. (1978). "Tourism's Impacts: The Social Costs to the Destination Community as Perceived by Its Residents." *Journal of Travel Research*, 16 (Spring): 8-12.

Pizam, A., and J. Pokela (1985). "The Perceived Impacts of Casino Gambling on a Community." *Annals of Tourism Research*, 12: 147-65.

Przybylski, M., and L. Littlepage (1997). "Estimating the Market for Limited Site Casino Gambling in Northern Indiana and Northeastern Illinois." *Journal of Urban Affairs*, 19 (3): pp. ??-34.

Ravitz, M. (1988). "Community Development: Salvation or Suicide?" *Social Policy*, 19 (2): 17-21.

Rephann, T., M. Dalton, A. Stair, and A. Isserman (1996). *Casino Gambling as an Economic Development Strategy*. Research Paper 9607. Morgantown: Regional Research Institute, West Virginia University.

Ritchie, J. R. B. (1988). "Consensus Policy Formulation in Tourism: Measuring Resident Views via Survey Research." *Tourism Management*, 9: 199-212.

- Ross, G. E (1992). "Resident Perceptions of the Impact of Tourism on an Australian City." *Journal of Travel Research*, 30 (Spring): 13-17.
- Roehl, W. S. (1994). "Gambling as a Tourist Attraction: Trends and Issues for the 21st Century." In *Tourism: The State of the Art*, edited by A. V. Seaton. Chichester, UK: John Wiley and Sons, pp. 156-68.
- Ryan, T., P. J. Connor, and J. F. Spreyer (1990). *The Impact of Casino Gambling in New Orleans*. New Orleans: Division of Business and Economic Research, University of New Orleans.
- Scott, J. K., T. G. Johnson, and J. C. Mia (1996). "Measuring the Impact of the Gaming Sector on a State Economy." Paper presented at the Western Regional Science Annual Conference, Napa Valley, CA.
- Schluter, R., and T. Var (1988). "Resident Attitudes toward Tourism in Argentina: A Research Note." *Annals of Tourism Research*, 15: 442-45.
- Sheldon, P. J., and T. Var (1984). "Resident Attitudes to Tourism in North Wales." *Tourism Management*, 5 (1): 40-47.
- Shonkwiler, J. S. (1993). "Assessing the Impact of Atlantic City Casinos on Nevada Gaming Revenues." *Atlantic Economic Journal*, 21 (2): 50-61.
- Smith, G. J., and T. D. Hinch (1996). "Canadian Casinos as Tourist Attractions: Chasing the Pot of Gold." *Journal of Travel Research*, 34 (Winter): 37-45.
- Soutar, G. N., and P. B. McLeod (1993). "Residents' Perceptions on Impact of the America's Cup" *Annals of Tourism Research*, 20 (3): 571-82.
- Stevens, B. H., G. I. Treyz, and M. L. Lahr (1989). "On the Comparative Accuracy of RPC Estimating Techniques." In *Frontiers of Input- Output Analysis*, edited by R. E. Miller, K. R. Polenske, and A. Z. Rose. Oxford, UK: Oxford University Press, pp. 27-37.
- Stokowski, P. A. (1993). "Undesirable Lag Effects in Tourist Destination Development: A Colorado Case Study." *Journal of Travel Research*, 32 (Fall): 35-41.
- Stubbles, R. (1992). "A Question of Gambling." *Parks and Recreation Magazine*, 27 (4): 61-64, 83.

Taskir Surveys and Consulting (1993). Survey of Expenditures of Foreign Tourists. Report prepared for the Ministry of Tourism, Jerusalem (in Hebrew).

Thomason, P. S., J. L. Crompton, and B. D. Kamp (1979). "A Study of the Attitudes of Impacted Groups within a Host Community toward Prolonged Stay Tourist Visitors." *Journal of Travel Research*, 17 (Winter); 2-6.

Yin, R. (1989). *Case Study Research: Design and Methods*. 2d ed. Newbury Park, CA: Sage.

Webb, E. J., D. T. Campbell, R. D. Schwartz, and L. Seechrest (1966). *Unobtrusive Measures: Nonreactive Research in the Social Sciences*. Chicago, IL: Rand McNally. Yin, R. K. (1984). *Case Study Research: Design and Methods*. Beverly Hills, CA: Sage Publications.