

Socioeconomic Impact of Gambling on Iowans

A Study for the Iowa Racing and Gaming
Commission

Prepared by

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Table of Contents

Executive Summary	1
Economic and Fiscal Impacts: A Summary.....	1
Social Impacts: A Summary	5
Introduction	8
1. Literature Review	10
Economic Impact Studies	12
Employment Literature Review	15
Impacts on Local Community Services	25
Impacts on State and Local Government Finances, Charitable Organizations	29
Casinos and Crime	32
Household Financial Impact Studies.....	41
Health Impact Studies	44
Social Services Impact Studies.....	50
Summary and Conclusion.....	51
References	52
2. History and Overview of Casino Gambling in Iowa	58
History of Gaming Legislation.....	58
The Growth and Evolution of Casino Gambling in Iowa	65
Statistical Profile of Casino Gambling in Iowa	69
Geography of Racetrack and Casino Impacts	75
3. Statewide Economic Impact Model Analysis	82
Description of Economic Indicators.....	82
Impact of the Iowa Casinos	83
4. Impact of Casinos on the Economies of Host Communities	90
Data and Data Sources	90
Statewide Economic Trends	92
Economic Impacts in Casino Counties	102
5. Comparison of the Economies of Casino and Non-Casino Counties	132
Data and Data Sources	133
Population Changes.....	135
Personal Income Changes	137
Employment Changes.....	151
Retail Sales Changes	161
Property Valuation Changes.....	167
Local Views on the Economic Impact of Casinos	174
6. Community Services Impacts	179
Community Services Budget Impacts	179
Summary of Comments from Local Officials	191
7. Impact of Casino Gambling on Crime	192
Methodology.....	192
Summary	193
Overall Crime Rate (Category A Offenses).....	194
Illegal Gambling, Gambling by Minors.....	200
Embezzlement, Insurance Fraud	201

8. Impacts on Household Finances.....	204
Consumer Credit	206
Financial Institutions	208
Problem Gambling.....	209
Bankruptcy	211
Social Services	222
9. Impacts on Household and Community Health and Social Issues	231
Family.....	233
Homelessness.....	239
Education	241
Gambling Addiction.....	246
Substance Abuse	255
Health and Life Expectancy	256
10. Fiscal Impacts	261
Charitable Contributions	261
State and Local Gambling Fees and Taxes	262
Casino Property Assessments and Taxes	265
Hotel-Motel Tax	268
State and Local Option Sales Taxes	270
Personal Income Tax	271
Summary of Fiscal Impacts	272
Appendix.....	273
About this Report.....	273

Table of Tables

Table 1.1 U.S. County-Level Changes in Employment and Income	20
Table 1.2 Change in Economic Factors after 15 years of Casino Operation	20
Table 1.3 Estimated County-Level Effect of Casinos	23
Table 1.4 Casino–Crime-Rate Studies, 1985-2000	36
Table 1.5 Casino–crime rate studies, 2001-2010	36
Table 2.1 Timeline of State-Regulated Casino Gambling	59
Table 2.2 History of Commission Licensing Actions	67
Table 2.3 Iowa Casinos and Racetracks Construction Startup Costs	70
Table 2.4 Iowa Casinos and Racetracks Gaming Facilities and Capacities, 2013	71
Table 2.5 Casino on-Site Lodging, Meeting and Dining Amenities	72
Table 2.6 Live and Simulcast Pari-Mutuel Handles (\$Millions).....	73
Table 2.7 Iowa Casino and Racetrack Historical Trends	75
Table 2.8 State of Residence of Casino Employees	76
Table 2.9 Domicile of Casino and Racetrack Employees	77
Table 2.10 Employees’ Residence for Casinos and Racetracks along the Missouri River	77
Table 2.11 Employees’ Residence for Casinos and Racetracks along the Mississippi River	78
Table 2.12 Employees’ Residence for Casinos and Racetracks in the Northern Counties	78
Table 2.13 Employees’ Residence of Casinos and Racetracks in the Central Counties	78
Table 2.14 State Location of Vendors, 2013	80
Table 2.15 Location of Iowa Casino Loyalty-Card Members, October-December 2013.....	81

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 3.1 Casino Construction Data	84
Table 3.2 Casino Construction Impact	85
Table 3.3 Casino Operational Assumptions.....	86
Table 3.4 Economic Impacts of Operational Phase of Casinos	88
Table 3.5 Casino Capital Improvements.....	89
Table 3.6 Economic Impacts of Casino Capital Investments	89
Table 4.1 Iowa Employment by Sector and Year.....	97
Table 4.2 Casino Host County Population Percent Change Before and After Opening	104
Table 4.3 Before-and-After Population Change Differences	106
Table 4.4 Casino Host County Real Non-Farm Personal Income Change Before and After Opening	108
Table 4.5 Before-and-After Real Non-Farm Personal Income Change Differences	110
Table 4.6 Casino Host County Private Non-Farm Employment Change Before and After Opening	115
Table 4.7 Before-and-After Private Non-Farm Employment Change Differences	117
Table 4.8 Casino Host County Bar and Restaurant Employment Changes Before and After Opening	122
Table 4.9 Before-and-After Bar and Restaurant Employment Change Differences	124
Table 4.10 Casino Host County Retail Employment Changes Before and After Opening	126
Table 4.11 Before-and-After Retail Employment Change Differences	127
Table 4.12 Casino Host County Construction Employment Changes Before and After Opening	130
Table 5.1 Population Change Comparisons.....	136
Table 5.2 Real Non-Farm Personal Income	139
Table 5.3 Real Non-Farm Personal Income per Capita.....	140
Table 5.4 Real Wage and Salary Income	142
Table 5.5 Real Wage and Salary Income per Capita	143
Table 5.6 Real Benefits (Supplements to Wages and Salaries)	145
Table 5.7 Real Benefits Per Capita	146
Table 5.8 Casino and Non-Casino Employer Wage - Salary Comparison (\$1,000).....	148
Table 5.9 Total Private Non-Farm Employment.....	152
Table 5.10 Lodging and Entertainment Employment.....	154
Table 5.11 Lodging and Entertainment Employment per 1,000 Population	155
Table 5.12 Bar and Restaurant Employment	157
Table 5.13 Retail Employment	159
Table 5.14 Construction Employment.....	160
Table 5.15 Total Taxable Sales (excluding Transportation and Utilities)	162
Table 5.16 Real Bar and Restaurant Sales	164
Table 5.17 Traditional Retail Sales	166
Table 5.18 Commercial Property Valuations.....	168
Table 5.19 County Residential Property Valuations	170
Table 5.20 City Commercial Property Valuations.....	172
Table 5.21 City Residential Property Valuations	175
Table 6.1 Police Protection Expenditures (\$ 2012)	180
Table 6.2 Police Protection Expenditures per Capita (\$ 2012)	181
Table 6.3 Fire Protection Expenditures (\$2012).....	183
Table 6.4 Fire Protection Expenditures per Capita (\$2012)	185
Table 6.5 Roads, Parking & Sidewalks Expenditures (\$2012).....	187
Table 6.6 Capital Project Expenditures (\$2012)	189
Table 7.1 Iowa selected UCR Index Crime Rates, Casino Counties, Non-Casino Counties, State	198
Table 7.2 Iowa UCR Average Arrest Rates per 100,000 Residents, 2006-2011	200

Table 7.3 Iowa Insurance Fraud Referrals (Businesses and Individuals) and Amounts, 2007-2012	203
Table 8.1 Percentage of Iowans Receiving Assistance through Family Investment Program	224
Table 8.2 Percentage of Iowans that Received SNAP Food Assistance for 10-year Period Ending 2012	226
Table 8.3 Iowans Enrolled in Medicaid Programs, 2002-2013, Rate per 1,000	227
Table 8.4 Iowans Receiving Health Insurance, 2006-2013 Average per 100,000 Residents	228
Table 8.5 Percentage of Iowans that Filed for Earned Income Credit, 2002-2011	230
Table 9.1 Iowa Divorces and Annulments per 1,000 Population, 2003-2012	234
Table 9.2 Iowa Child-Abuse and Child-Neglect Rates per 1,000 Juveniles, 2003-2012	236
Table 9.3 Percentage Iowa Families Headed by a Single Parent, Average Rate 2005-2009	237
Table 9.4 Recipients of Homelessness Services, Selected Counties 2006-2011	239
Table 9.5 Iowa Truancy Public-Schools Rate per 1,000 Students, 2008-09 through 2012-2013	242
Table 9.6 Iowa Public-Schools In-School Suspension per 1,000 Students, 2008-09 through 2012-13	243
Table 9.7 Iowa Public High School Dropout Rate, 2012-2013 School Year	244
Table 9.8 Percent of Iowans Age 25+ Who are High School Graduates, 2009-2012	245
Table 9.9 Percent of Iowans Age 25+ Who are College Graduates, 2009-2012	246
Table 9.10 IGTP Clients Seeking Problem-Gambling Treatment 2012-2013, Top 10 Counties	250
Table 9.11 IGTP Calls Inquiring about Problem-Gambling Treatment 2012 and 2013, Top 10 Counties	252
Table 9.12 Substance Abuse Treatment Rate per 1,000 Residents, 2004-2013	255
Table 9.13 Rates of Death by Heart Disease per 100,000 Population, 2008-2012	257
Table 9.14 Rates of Death by Cancer per 100,000 Population, 2008-2012	258
Table 9.15 Rates of Death by Chronic Lower Respiratory Disease per 100,000 Population, 2008-2012	259
Table 9.16 Suicides per 100,000 Population, Available Counties, 2008-2012	260
Table 10.1 Iowa Casinos Charitable and Civic Donations, 2013	262
Table 10.2 State and Local Gambling Taxes and Fees	266
Table 10.3 Prairie Meadows Assessed Value	267
Table 10.4 Casino Valuation Shares	267
Table 10.5 Local Hotel-Motel Taxes	269
Table 10.6 Direct Casino Hotel-Motel Tax Payments	270
Table 10.7 State and Local Option Sales Tax Estimates (\$ Current)	271
Table 10.8 Iowa Personal Income Tax Estimate (\$ Current)	272

Table of Figures

Figure 2.1 Signing the Pari-Mutuel Wagering Act of 1983	60
Figure 2.2 Adjusted Gross Gaming Receipts	74
Figure 2.3 Home Location of Iowa Casino Employees, 2013	76
Figure 2.4 Location of Goods and Services Vendors to the Iowa Casinos and Racetracks in 2013	79
Figure 2.5 Location of Iowa Casino Loyalty-Card Members, October-December 2013	81
Figure 4.1 Iowa Population and Annual Percent Change	93
Figure 4.2 Iowa Real Personal Income Components Decennial Percent Change	94
Figure 4.3 BLS and CBP Iowa Total Non-Farm Employment	95
Figure 4.4 Iowa Percent Change in Employment by Sector	96
Figure 4.5 Sector Shares of Iowa Total Private Non-Farm Employment	98
Figure 4.6 Cumulative Changes in Iowa Taxable Sales, 2000 - 2012	101
Figure 4.7 Change in Iowa Residential and Commercial Property Valuations	102

The Socioeconomic Impact of Gambling on Iowans, 2014

Figure 4.8 Before-and-After 5-Year Real Wage and Salary Income Change Differences 112

Figure 4.9 Before-and-After 5-Year Real Worker Benefits Change Differences 112

Figure 4.10 Before-and-After 5-Year Lodging and Entertainment Host County Job Counts 120

Figure 5.1 Casino and Non-Casino Comparison Counties 132

Figure 5.2 Counties Ordered by Percent Change in Population, 2006 - 2012 137

Figure 5.3 Metro Area Manager Job Pay Comparison..... 149

Figure 5.4 Metro Area Non-Supervisory Job Pay Comparison 149

Figure 5.5 Percent of Full-Time Workers Covered, 2014 150

Figure 5.6 Bar and Restaurant Jobs per 1,000 Population 156

Figure 8.1 Total Iowa Bankruptcy Filings, Business and Consumer, 2007-2013..... 211

Figure 8.2 Iowa Business Bankruptcies per 1,000 Population, 2007-2013..... 212

Figure 8.3 Iowa Consumer Bankruptcies per 1,000 Population, 2007-2013 213

Figure 8.4 Iowa, U.S. Bankruptcy Filings per 1,000 Population, 2007-2013 214

Executive Summary

The following summarizes key findings by Strategic Economics Group and Spectrum Gaming Group (“the Research Team”), authors of this report for the Iowa Racing and Gaming Commission. Caution should be exercised if any of these summary findings are cited. As we note below, correlation does not necessarily imply causation, and certain areas of data – such as crime-related statistics – need to be understood in a broader context than would be allowed by simply citing the numbers.

Economic and Fiscal Impacts: A Summary

The Research Team used a custom Iowa economic impact model developed by Regional Economic Models, Inc. (“REMI”) to estimate the statewide impacts of Iowa’s racetrack and casino industry. This analysis determined that Iowa’s 18 State-licensed casinos support a total of roughly 14,000 private-sector jobs statewide, including 9,165 directly at the casinos themselves and an additional 4,813 jobs in other sectors of the economy. Our analysis excludes any government jobs supported as a result of the casinos.

For each direct job at the casinos, an additional 0.53 jobs are created in the private sector. These indirect and induced jobs result from the spending by the casinos on goods and services purchased for its operation and the spending of casino wages by employees in the local economy. These new jobs, and the subsequent additional income, flow through the State economy in the form of investments and spending on goods and services, creating additional jobs.

The sectors that experience the greatest benefit from the casinos, other than entertainment (which primarily represents the direct casino jobs) include:

- Construction
- Retail trade
- Accommodations and food services
- Administrative support and waste management services.

The construction impact is primarily a result of an increase in capital investments, an increase in demand for housing construction, and an increase in spending in the public sector on public facilities. As new jobs and subsequent income are created, demand for housing, commercial enterprises, and public sector facilities increases, thus, creating construction jobs.

Other key findings are:

- The operation of Iowa’s casinos is estimated to generate a total of roughly \$1.3 billion in yearly Gross State Product (“GSP”) for the State of Iowa. GSP can be

considered as the net impact in monetary value on the economy. All sectors of the economy impacted by the casinos show a positive contribution to the total GSP. The largest contributor to GSP, as expected, is the entertainment sector; the direct impact of the casinos.

- Iowa's casinos are estimated to generate annually on average \$378 million in personal income with \$231 million directly through their own payrolls and another \$147 million through secondary impacts on the state economy.
- The construction phase of planned or ongoing casino improvements is projected to generate an average of 87 new jobs each year during the 2012-2015 period, ranging from five in 2012 to 239 in 2015. The jobs include direct construction jobs and indirect and induced jobs, from construction spending on goods, services and equipment, and the spending of wages earned.
- Total GSP generated during the construction period of these improvements is projected to total roughly \$23.7 million for Iowa. Personal Income generated over the four years of capital improvements is projected to total \$15.1 million and the State is expected to collect a total of \$1.4 million in income and sales taxes as a result of the construction.

A survey of casino general managers conducted for this study shows that 69.2% of casino employees are Iowa residents, while 12.9% reside in Nebraska and 5.8% reside in Illinois. The same survey found that almost half of Iowa casino patrons reside in Iowa, while 23.4% reside in Nebraska, 6.7% reside in Minnesota, and 5.8% reside in Illinois.

A county-level analysis of federal, state, and local data shows:

- Comparisons of county population, total non-farm personal income, wage and salary income, and employee benefits reveal that, on average, growth rates were slightly higher during the five years following the establishment of casinos than during the prior five years.
- Looking at the average county private non-farm job growth rates for the 15 counties where jobs data exists for at least five years before and after casinos opened, the growth rates after the casinos opened for business were greater than the rates exhibited before the casinos opened, particularly during the first three years.
- The average growth rate the year after the casinos opened for business equals 5.70%, while the year before the rate equals 3.50%. For the first two years after

casinos opened, the average job growth equals 10.70%, while for the two prior years the job growth rate averages 6.15%.

- On average during the three-year period after casinos opened for business, job growth in their host counties averaged 12.39%. On average during the three years before casinos opened, job growth in these counties equaled 5.10%. By the fifth year, the comparison equals 12.12% after versus 10.16% before. Adjusted for statewide average growth rates, the five-year comparison equals 3.74% growth after casinos opened versus a 0.07% decrease during the five years before casinos opened.
- The first year after casinos opened, the number of retail jobs increased in 12 of the 18 casino counties. Of the six casino counties that experienced a drop in retail jobs, five are counties where casinos opened during 2006 or later, which corresponds with the period of the Great Recession.
- From five years before to five years after casinos opened for business, the number of jobs in the Arts, Entertainment, and Recreation sector and in the Accommodation and Food Services sector jumped from 16,704 to 37,644, or by 20,940 (125.36%).
- The analysis of employment changes from five years before to five years after casinos opened for business reveals that bars, restaurants, and traditional retailers have not experienced job losses. This finding is substantiated by the study of retail sales data.
- On the other hand, for all casino counties, personal income from the Arts, Entertainment, and Recreation sector and the Accommodation and Food Services sector declined by 1.42% from 2006-2012, while for the non-casino comparison counties, growth equaled 0.24%. But the non-metropolitan counties tell a different story: Real personal income for these two sectors grew by 32.20% in the casino non-metropolitan counties, while it declined by 1.25% in the non-casino non-metropolitan counties.
- The before-and-after analysis found that employment in the Arts, Entertainment, and Recreation sector and in the Accommodation and Food Services sector experienced large gains during the period immediately following the startup of casino operations, but the comparison counties analysis showed that the gains relative to other counties did not continue after the startup period.

- The development of casinos appeared to boost taxable retail sales in casino counties. Sales increased in four of the five counties where casinos opened during and after 2006, despite the recession. In Worth County, sales increased by 35.59% over the period. In Lyon County, sales showed little change from 2006-2010 during which sales decreased from \$62.5 million to \$62.3 million. But when Grand Falls Casino Resort opened in 2010 sales jumped to \$73.0 million and the next year to \$78.9 million. Even in Black Hawk County, sales increased by 2.53% over the seven years. In Clarke County, where Lakeside Casino Resort opened in 2000, sales jumped by 19.33% from 2006-2012. This increase happened at the same time that the facility undertook a major renovation and expansion.
- From 2006-2012, non-metropolitan area casino counties experienced a 3.31% increase in real wage and salary income, in contrast to a 3.54% decrease for the non-metropolitan non-casino counties.
- The eight non-metropolitan area casino counties realized a 6.30% gain in jobs from 2006-2011, while the non-metropolitan non-casino counties lost 8.46% of their jobs. These differences are comparable to the results for the total non-farm personal income analysis.
- The opening of five casinos from 2006-2011 provided a significant boost to lodging and entertainment jobs in these new casino counties. In Worth County, after the Diamond Jo Casino opened in April 2006, the number of jobs in the lodging and entertainment sectors jumped from 49 to 429 and has stayed at about that level since. In Palo Alto County, after the Wild Rose Casino and Resort opened in May 2006, the number of lodging and entertainment jobs jumped from 39 to 396. The largest jump occurred in Washington County, where the job count for these sectors rose from 97 to 846 after the Riverside Casino and Golf Resort opened for business.
- During fiscal year 2011-2012, police protection expenditures per capita were only slightly higher in casino cities than in the non-casino comparison cities, \$215.94 versus \$206.39. On the other hand, the same year per-capita expenditures for fire protection, which includes emergency medical services, were much higher in the casino cities than in the non-casino cities, \$147.45 versus \$112.04.
- During 2013, State-licensed casinos made contributions to charitable and civic organizations totaling \$78.7 million. State and local wagering taxes and fees for 2013 totaled \$336.0 million. Property taxes paid on casino-owned property

during the most recent fiscal years for which data are available equaled \$29.2 million. The estimated amount of State and local hotel-motel tax generated by casino-owned lodging facilities during 2012 equaled \$1.9 million and \$2.7 million, respectively. State sales tax collections and local option sales tax collections derived from purchases of goods and services provided by casinos and associated enterprises equaled an estimated \$10.6 million and \$1.8 million, respectively. Finally, the estimated Iowa personally income tax liability of casino employees for tax year 2012 equaled \$8.2 million. Thus, the total annual fiscal impact of the casino industry in Iowa equals just short of \$470 million.

Social Impacts: A Summary

In reviewing the following outputs from our analysis, we issue a cautionary note: While there may be a correlation to the presence of casinos and certain impacts – positive or negative – that does not imply causation, as each data point must be reviewed and understood within its own broader context.

Key findings regarding problem gambling are:

- During their lifetime, 0.6% of Iowans are estimated to be pathological gamblers. For the past year, the figure declines to 0.3%. Among other actions, they may have written bad checks, lost a job, asked a family member for a loan, and/or lied to family members about the extent of a gambling problem. It should be noted that the source of an individual's gambling problem – be it casino gambling, lottery, sports betting, etc. – is not necessarily known.
- Using the rates cited above, as many as 9,000 Iowans in the past year may be pathological gamblers and as many as 18,000 may have been pathological gamblers during their lifetime. Yet only 678 people received treatment through the Iowa Department of Public Health-funded program in FY 2013. While others may have received treatment privately, it appears that the overwhelming majority of the state's pathological gamblers may not be receiving treatment at all, leaving them and their families subject to financial ruin. Problem-gambling professionals, as well as a prominent casino critic, point out that the 1-800-BETS-OFF gambling helpline has been subject to funding cuts, resulting in far fewer referrals.

A county-level analysis of federal and state data where such comparisons can be made shows:

- The number of bankruptcies and the number of Iowans receiving health insurance through the state's hawk-i program were higher in casino counties than they were in the non-casino counties.
- In Iowa casino counties, consumer bankruptcies averaged 3,525 filings per year, or 2.9 filings per 1,000 population. In the non-casino counties, consumer bankruptcy filings averaged 1,044 filings per year, or 2.52 per 1,000 population. Although there appears to be a correlation between proximity to a casino in Iowa and bankruptcy, correlation should not be mistaken for causation.
- In terms of bankruptcy filings, Iowans generally appear to be financially responsible. Per-capita bankruptcy filings in Iowa for the 2007-2013 period reflect national trends but at a much lower level. Tennessee, a state with no casinos, ranked first with 6.49 bankruptcy filings per capita.
- Iowans living in casino counties had fewer enrollees in Medicaid and less reliance on the Supplemental Nutrition Assistance Program than did those living in the non-casino counties.
- The percentage of Iowans receiving income assistance through the Family Investment Program and the percentage Iowans who filed for earned income credit was about the same in casino counties as it was in non-casino counties.

Casinos and Crime: A Summary

We do not imply causation between the higher crime rates in casino counties versus non-casino counties, and such causation should not be inferred. We note that some of the casino patrons were not from the region, and their presence is not adjusted in any way when the number of crimes is divided into a year-round population to arrive at a crime rate. Many casinos are located in urban areas, which tend to have higher crime rates. In addition, many of the casino rates could have been higher than the statewide rate if the casino county did not have a casino. Indeed, we found that Black Hawk County's crime rates declined in a number of areas in the years following its casino opening.

A chief reason for higher crime rates in casino counties is that the rates are not adjusted for the visitor populations. Casinos can attract thousands of patrons daily – many of whom live outside the host county or outside of Iowa – but the crime rates are calculated in proportion to the resident population, not the resident-plus-visitor population. Iowa makes no adjustment for visitation in calculating crime rates.

Our specific findings include:

- The casino counties in Iowa had much higher crime rates than the non-casino counties and the state as a whole. The six-year average ending in 2011 for the casino counties was 8,239.2 (offenses per 100,000 population), which was 34% higher than the rate for the non-casino counties and 42% higher than the statewide number.
- The casinos had higher crime rates for each of the Category A Offenses we reviewed that included robbery, simple assault, burglary/breaking and entering, larceny, motor vehicle theft, and embezzlement. We selected those index offenses (among the 47 indexed) as being relevant for casino communities.
- Non-casino counties had slightly higher rates for driving under the influence than did the casino counties. Casino counties had higher rates for domestic abuse.

Introduction

The *Iowa Code* Chapter 99F.4 (24) requires the Iowa Racing and Gaming Commission (“IRGC”) to conduct a study of the socio-economic impacts of gambling on Iowans, and that such studies should take place at eight-year intervals. The IRGC hired Strategic Economics Group and Spectrum Gaming Group (collectively “the Research Team”) to jointly undertake the study. Work on the study commenced in December 2013 and was completed during May 2014.

Legal gambling in Iowa takes many forms, including:

- Pari-mutuel wagering at horse and dog racing tracks
- Slot machines and table games at State-licensed riverboats and land-based casinos
- Tribal casinos
- A state lottery and multistate lottery
- Charitable gaming

The economic-impact portion of this study focuses on State-licensed casino and racetrack facilities. The social-impact analysis addresses how gambling generally impacts criminal activity, household finances, and public health.

This report begins with a review of literature that addresses economic and social impacts associated with gambling and gaming enterprises. In addition, Chapter 1 summarizes gambling trends in the United States.

The analysis of the economic impacts of casino and racetrack gambling is divided into four parts:

- The first part (Chapter 2) addresses the direct impacts of casinos and racetracks through the hiring of workers, making purchases from vendors, and providing entertainment activities to their patrons. In addition, this chapter provides a history of casino gambling in Iowa and a statistical profile of the industry.
- The second part (Chapter 3) estimates the statewide economic impacts that the casino industry in aggregate has had on Iowa’s economy. The analysis undertaken for this part employs an Iowa REMI (Regional Economic Models Incorporated) dynamic regional economic impact model to separately estimate impacts associated with the development and operation of casino and racetrack facilities.

- Part three (Chapter 4) investigates differences in a variety of measures of economic activity in counties where casinos have located from five years before to five years after the years when casinos opened for business.
- The last part of the economic analysis (Chapter 5) makes comparisons that rely on a variety of economic measures between counties where casinos are located and a sample of similar counties without casinos.

Subsequent chapters have been organized along the following lines:

- Chapter 6 addresses the impacts of casinos and racetracks on community services. The community service impacts evaluated include police, fire, emergency medical, and public works. To provide perspective, the demands gambling facilities place on services provided by the local governments of the communities where they are located are compared to similar services provided by a sample of non-casino communities. This comparison is made using budget data for casino and non-casino communities. Also, input was obtained from local government officials.
- The analysis of criminal activity impacts in Chapter 7 uses data for 15 indicators obtained from the Iowa Division of Criminal and Juvenile Justice Planning.
- The household finances analysis in Chapter 8 looks at bankruptcies, household income levels, and demands for family assistance.
- In Chapter 9, the public health analysis includes a review of data from the State's gamblers assistance program as well as other public health indicators obtained from the Iowa Department of Public Health. For all of the social impacts, comparisons are provided between the counties where casinos are located and a sample of similar size non-casino counties.
- The final part (Chapter 10) of the study addresses both direct and indirect fiscal impacts associated with Iowa casinos and racetracks. The direct fiscal impacts include state wagering taxes, city and county gaming taxes, charitable contributions, and property taxes. Indirect fiscal impacts include State sales and use taxes, hotel-motel taxes, and income taxes.

Beyond the analysis of statistical data, the study involved meeting and gathering opinions and insights related to the gaming industry in Iowa and its impact on the citizens from a broad range of stakeholders. Meetings were held with both proponents and opponents of casino gambling. In addition, input was gathered through telephone conversations and a survey of local government officials and business community representatives.

1. Literature Review¹

The expansion of the U.S. casino industry since the late 1980s has been the catalyst for a new field of academic research that examines the economic and social impacts of casino gambling. Prior to 1990, the only published research on casino gambling in the U.S. dealt with a few specific issues related to casinos in Nevada and Atlantic City, New Jersey. Much of that early work was performed by professionals working on this Iowa study.

In the early years of analysis, a variety of published studies focused on the relationship between casinos and crime rates, and casinos and local public finance. Since 1990, however, the scope of academic research has widened dramatically. Aside from studies published in academic journals, numerous policy reports have been written on existing or potential casino jurisdictions. Such studies have been sponsored by state governments, industry and, in some cases, research organizations.

In this literature review, we focus primarily on studies published in peer-reviewed academic journals. Such studies have the benefit of having gone through the peer-review process in which (presumably) independent experts have critically examined the methodology, data, and conclusions prior to publication. This is not to say that such papers cannot have flaws or be biased, but there is less likely to be an agenda on the part of the author than in the case of a sponsored research project.

Research on casino gambling can be categorized into two major areas: psychology of gambling, and economic and social impacts. The psychology literature focuses on estimating the prevalence of gambling problems, as well as the diagnosis, prevention, and treatment of gambling disorders. This area of research probably accounts for 80% of all published research on gambling. Several journals are dedicated to publishing research on the psychology of gambling, including the *Journal of Gambling Studies* and *International Gambling Studies*. Gambling disorder studies are also frequently published in psychology and medical journals.

Although the economic and social impacts of gambling are controversial and are always debated when any casino expansion is being proposed, the academic research in this area is surprisingly sparse, making up only about 20% of the academic research related to gambling. One explanation for this is that research funding for gambling is almost always aimed at research on the psychology of gambling, not on the economic, social, or political impacts. As a result, relatively few researchers focus on the economic and social impacts of gambling as their primary research focus. One comprehensive study that did address the economic and social

¹ This chapter was prepared as an academic review and the citations (which are hyperlinked) refer to the Reference section at the end of the chapter.

impacts of gambling, in addition to the psychological aspects and health effects, is the National Gambling Impact Study Commission report (National Gambling Impact Study Commission 1999). However, the report is now dated, and was arguably largely a political exercise rather than an academic study of the issues. However, the National Research Council's book on the subject was used to support the NGISC, and represents a good discussion of the literature available at that time (National Research Council 1999). Since these resources are now about 15 years old, we do not review them here; there is much more recent research available on most topics of interest for this report.

As a background for the analysis in this study, we provide an overview of the academic literature on the economic and social impacts of casinos. The general categories of research we review include:

- Economic impact studies
- Studies of impacts on local community services
- Studies on impacts on state and local government finances and on charitable organizations
- Crime studies
- Household financial studies
- Health impact studies
- Social services impact studies

For some categories, there is a wealth of literature, but in other categories, there has been little academic study.

Notably, little research has focused specifically on the economic and social impacts of casinos on Iowa. Nevertheless, studies that examine other jurisdictions are likely to be relevant to the Iowa case, since we would not expect casinos to have dramatically different impacts across multiple jurisdictions. However, there are obviously unique cases. We might expect that casinos would have similar impacts in Missouri, Iowa and Indiana, for example, since these economies and the casino industries therein are similar. But the impacts of casinos in Mississippi, Nevada, and New Jersey may be fundamentally different, since the industry is structured quite differently than in the states in the Midwest.

One study that did focus solely on Iowa was a 2005 report written for the Iowa Legislative Council (Chhabra, Lutz, and Gonnerman 2005). This report relied on surveys of Iowa residents as well as policymakers and other stakeholders in the state. The study focused on understanding who gambles in Iowa, and how much, and how the casinos affect the local and state economies. Much of the report is dedicated to describing the population of Iowa, and

what empirical analysis there is in the report does not convincingly show that casinos and the other variables have any causal connection. Nevertheless, the report indicates – as most other studies do, and as is obvious – that casinos have had both positive and negative impacts in Iowa. We do not provide a detailed review of the study, as its scope is too wide to concisely review here, and this 2014 report can be seen as a complement to that report.

Economic Impact Studies²

The U.S. gambling industry has expanded dramatically since the 1960s. The lottery was introduced in New Hampshire in 1964, and now 44 states have a state-operated lottery.³ Pari-mutuel racing is also common now; much of the growth in these industries occurred during the 1970s and '80s. Casinos began appearing outside of Nevada and New Jersey in the early 1990s, and today there are nearly 1,000 casinos of all types – land-based commercial, floating, Indian, racetrack – in 41 states.⁴

Politicians and voters often approve of legalizing gambling, particularly casino gambling, because of expected economic benefits. Casinos are thought to bring increases in employment, wages, economic growth, and tax revenue. In this section, we review the recent academic literature in which these economic impacts have been analyzed. The discussion of tax revenues appears in a later section. The review in this section begins with a discussion of two recently released reports for the Iowa Racing and Gaming Commission. We then discuss specific economic variables as analyzed in the academic literature.

Iowa Reports

The report by Marquette Advisors (2014) provides an update of an earlier analysis Marquette did for Iowa in 2008-09. The purpose of the report was to:

- Provide data on the landscape of gambling in Iowa
- Analyze underserved casinos markets
- Estimate the revenue potential for new casinos
- Analyze the impact of new casinos on existing ones.

² The discussion in this section is largely drawn from Spectrum Gaming Group (2013b).

³ This includes Wyoming, which legalized a state lottery in 2013 and is expected to begin sales as early as June 2014.

⁴ Massachusetts would become the 42nd state if the first authorized racetrack casino opens as scheduled in 2015.

Much of the analysis is a simple presentation of data over time, including revenue per gaming position, recent casino expansions, etc. They project revenues into the future based on a variety of assumptions. One of their key conclusions is that new casino developments in Iowa are likely to cannibalize existing ones (pp. 54-55).

A similar report was produced by Union Gaming Analytics (2014). The report offers a plethora of publicly available data on casinos within Iowa as well as in surrounding states. The descriptions include casino location and size, which serve as a foundation of an analysis that warns of saturation in the Iowa casino market. The report provides maps of Iowa casinos along with areas representing drive-time to the casino. The report illustrates 30-, 60-, and 120-minute driving distances to each casino. Such maps make it clear why the authors warn about the potential for oversaturation in the market. The cannibalization issue is modeled in the report, under a variety of plausible assumptions about how Iowa residents are likely to react to new casinos.

Overall, the two recent Iowa reports provide important data on the Iowa casino industry, as well as reasonable projections about what is likely to occur in the future. A news report quoted the managing director of Union Gaming saying that he believed there were no underserved counties in Iowa and that the state should not issue any new casino licenses (Wiser 2014). Both reports warned of cannibalization if new casinos are introduced. What is lacking in the Iowa reports, however, are rigorous analyses of specific economic variables such as employment and wages. We turn to a review of the academic literature for more detailed analyses.

Employment and Wages

One of the most commonly cited benefits of legalizing casinos is increased employment. Gaming developers can generate temporary employment through the construction of casinos, as well as permanent employment through the day-to-day operation of the casinos. The industry is very labor-intensive. In support of this, the American Gaming Association's *State of the States* annual report lists the number of casino employees in each state with commercial casinos (American Gaming Association 2013, 11-22). The report also lists "casino employee wages" as a state-level aggregate. There is certainly an effect on local labor markets when a new casino is built and operating. In general, one can think of the new casino as causing an increase in the demand for labor. As a result, employment and average wages should increase.

However, casino critics often argue that casino jobs are low-quality, low-paying jobs. Another criticism of casinos is that they may cause a "substitution effect," through which other industries that are unable to compete with casinos eventually close, resulting in job losses. If this occurs, then a new casino may not create any new employment in the long run (Grinols

2004). There are no published studies of which we are aware that confirm either of these criticisms. Nevertheless, these issues are often raised whenever a jurisdiction is considering legalizing casinos or expanding an existing casino market.

The Research Team extensively examined the “substitution effect” question in various reports, including a report last year that was prepared for the Florida Legislature. That report noted:⁵

The introduction or expansion of legalized gambling, in particular casino gambling, raises a variety of concerns. Although casinos are often introduced in order to raise tax revenues, create jobs, and spur economic development, many observers have a concern for the potential “substitution effect” of casinos. That is, they are concerned that the expenditures at the new casino(s) will be redirected from other local or regional businesses, with the end result that the casinos have no real net benefit on the local economy. As an example, a quick review of “Stop Predatory Gambling” shows a variety of concerns about the casino industry’s impacts on other industries.⁶

Fundamentally, the substitution effect is not unique to the casino industry. Indeed, anytime any new business opens, there is the potential that an addition to the local economy will be harmful to incumbent firms and industries. This is because the substitution effect is essentially synonymous with market competition. As such, from an economic perspective, the substitution effect is not necessarily a cause for concern. Casinos compete for a share of discretionary incomes within their respective markets, as would be expected from any segment of the entertainment or leisure industries. When adults elect to visit a casino, rather than the theater or a museum, the casino wins and the alternative loses. Quite often, however, the reverse is true – and the number of precise alternatives competing for a share of discretionary spending is so vast, even in smaller markets, that it would defy any efforts to track precise winners and losers.

Such efforts are further complicated because, not only are there many options for discretionary dollars, we point out that overall discretionary spending also competes against savings. A dollar saved is a dollar not spent, and vice versa. ...

⁵ Gambling Impact Study, Spectrum Gaming Group, July 1, 2013, p. 266
http://www.leg.state.fl.us/GamingStudy/docs/FGIS_Spectrum_28Oct2013.pdf (accessed May 15, 2014)

⁶ Stop Predatory Gambling <http://stoppredatorygambling.org/blog/category/research-center/economic-impacts/> (accessed June 13, 2013)

We note a very important point that was articulated rather well by Michael E. Porter who makes the point that substitution is an omnipresent issue that must be viewed in a much larger context:

Substitutes are always present, but they are easy to overlook because they may appear to be very different from the industry's product: To someone searching for a Father's Day gift, neckties and power tools may be substitutes. It is a substitute to do without, to purchase a used product rather than a new one, or to do it yourself (bring the service or product in-house).⁷

With that in mind, we caution that any analysis of the substitution effect defies simplification. If a casual dining establishment loses customers to casino restaurants, it is easy to identify a competitive culprit. But what if patrons of high-end restaurants decide to alter their spending patterns, and shift more dollars to casual restaurants to free up more discretionary income to visit a spa at a destination casino. Who benefits? Who suffers? What if income levels rise in a community, thus allowing more households to spend less money at supermarkets to prepare home-cooked meals while they increase spending at area restaurants? Again, in such situations, it is difficult to identify the competition.⁸

Employment Literature Review

Since casinos began expanding outside of Nevada and New Jersey in the early 1990s, many of the studies on their impacts published in the early 1990s are of questionable quality because of data limitations. The research that has been published beginning in the late 1990s represents a significant improvement in quality. We begin the review with general and theoretical discussions about the economic impacts of casinos. Later we discuss more recent, empirical research.

The work by Robert Goodman received an enormous amount of attention in the mid-1990s because it was one of the first comprehensive analyses of casinos (Goodman 1994). Among the findings of his study, Goodman notes, "[Casino] expansion has produced increases in employment and tax revenues, but the shift of consumer spending to gambling significantly cannibalizes existing local businesses ..." The basic argument here, which has been repeated in a number of subsequent studies, is that casinos generally do not create net employment

⁷ "The Five Competitive Forces that Shape Strategy," by Michael E. Porter, *Harvard Business Review*, January 2008, p. 84.

⁸ Spectrum Gaming Group, *Comprehensive Analysis: Projecting and Preparing for Potential Impact of Expanded Gaming on Commonwealth of Massachusetts*, p. 155, August 1, 2008
<http://www.mass.gov/hed/docs/eohed/ma-gaming-analysis-final.pdf>.

benefits because the jobs created simply come at the expense of other, competing industries in the local economy. Yet, Goodman presents little empirical support for his claims. However, despite the lack of data at the time, Goodman did raise concerns about uncertainty as to the economic impacts of legalized gambling. Although Goodman's research did little to provide answers, he did raise a number of important questions.

Eadington (1995) explained the fundamental economic perspective on casino economics. He explained that to the extent that a casino can draw tourists from outside the local region, the economic benefits to the region are more pronounced, compared to a situation when the casino serves a more local clientele:

If a casino is purely a tourist facility – if all casino patrons come from outside the jurisdiction – then the facility is effectively exporting casino services. As a result, all revenues generated within the casino, all jobs created within the casino, can be classified as “exports” and will stimulate, via the multiplier process, additional economic activity in the jurisdiction. This is one of the reasons for the success of Las Vegas. (Eadington 1995, 52).

Eadington (1995, 52) seems to support Goodman's cannibalization argument, noting that:

At the other extreme, locations or regions which have casinos that cater predominantly to local or regional residents will not have a stimulative effect on the region's economy. In effect, customers to such casinos would just be redirecting their expenditures from other goods and services provided within the region to the casinos. Thus, jobs created and revenues generated in the casinos would be offset by jobs lost and revenue shortfalls elsewhere in the region. One exception to this guideline is with regard to “import substitution.” If the presence of casinos in the region allows regional residents to gamble at local casinos rather than becoming tourists to casinos in other regions, the economic impact from spending so generated is the same as it would be for tourists.

As a result, Eadington suggests that urban casinos will have very different impacts from destination resort casinos in less populated areas. He notes that “most of the customers will be drawn from the local or regional market. Thus, there is less of an ‘export’ effect from spending in the casino, and there is therefore little economic stimulus to the metropolitan area” (Eadington 1995, 53).

The impact suggested by Eadington appears to have been confirmed by evidence from Mississippi in the early 1990s, just after riverboat casinos were legalized in the state. Walker (2013, 10) summarizes a discussion by the Chamber of Commerce director from Tunica, who explains the effect casinos had on his community:

In January 1992, per capita income in the county was \$11,865; ...53 percent of residents received food stamps ... Since casinos have been legalized, however, land once valued at \$250/acre now sells for \$25,000/acre... Because of the increased government revenues, property taxes have been lowered 32 percent in recent years... Unemployment has dropped to 4.9 percent. ... The number of welfare recipients has decreased 42 percent; the number of food stamp recipients has decreased by 13 percent. ... In 1994 the county recorded the highest percentage increase in retail sales of all Mississippi counties: 299 percent.

There is little doubt that casinos had a positive economic impact in Tunica and in other relatively poor communities in the state. However, it is unclear whether such benefits continue to accrue as casinos have spread across the United States. In the early 1990s, Mississippi casinos could be seen as significant regional tourist attractions. But now, it is not clear how far people will travel to go to those casinos, as they may have closer options.

These perspectives from Goodman and Eadington are in line with how many researchers and politicians view the likely economic impacts of casinos. It would seem to make sense that the economic impacts of casinos, in terms of employment, wages, and economic growth, would be larger in more rural locations than urban ones. Of course, this is probably the case with any business, simply because in a more populous area, any particular firm of a given size will be smaller relative to the local economy.

Nevertheless, some authors have questioned this conception of casinos as being beneficial only to the extent that they attract tourists and do not compete with other industries. Detlefsen (1996) writes,

Invocation of the substitution effect in this context not only presumes a static, zero-sum economy in which no business can grow except at the expense of other firms. It mistakenly implies that certain types of commercial activities, such as casino gambling, create no new “real” wealth and provide no “tangible” products of value. That view overlooks the key point that all voluntary economic exchanges presumably are intended to improve the positions and advance the preferences of *both* parties (in other words, improve their social welfare). That the gains from such exchanges (particularly in a wealthier, service-oriented economy in which a greater portion of disposable income is consumed for recreational activities) are not easily quantifiable in every case is beside the point. After all, the only true measure of the value of entertainment-oriented goods and services in the diverse US economy ultimately remains in the spending preferences expressed by individual consumers.

Walker (2013, 26) argues that industry cannibalization, or the “substitution effect,” is essentially just market competition, and exists for most industries. Most people do not have concern about “substitution” or “industry cannibalization” when a new restaurant opens in town. Perhaps the difference is that casino openings are the direct result of government action – legalization and issuing a casino permit – whereas the opening of most other types of business is routine and relatively unregulated. Additionally, citizens’ concerns about the morality or acceptability of gambling may also cause an increase in concern over industry substitution.

In any case, the “industry cannibalization” argument about casinos, which essentially suggests that there will be no net employment changes as the result of casino introduction, was pervasive in the literature. Walker cites the following studies which he claims essentially support this view of casinos: Gazel and Thompson (1996), Goodman (1995), Grinols (1995), Grinols and Mustard (2001), and Kindt (1994).

In his book, Grinols (2004) presents a different version of this theory of casino impacts. However, he discusses in more detail the relationship between economic growth and employment. First, Grinols defines economic development as relating directly to residents’ “welfare” or well-being. Economic activity results in economic development, whether or not it results in a net increase in local employment, as long as it increases welfare (p. 55). While often economic growth is accompanied by increases in employment, it is not necessarily the case (pp. 60-63). Economic development may even occur when there is a net decrease in employment.

Grinols provides an intuitive explanation for the substitution (i.e., cannibalization) effect, focusing on employment. He suggests that the employment impacts of casinos can be likened to the impacts of “factories,” “restaurants,” or “tollbooths” (pp. 67-69). For example, if a casino attracts most of its patrons from outside the local area, say from across the country, then it acts similar to a factory, exporting most of its product. He explains,

New money is brought in from buyers outside the area and the revenues are used to pay local workers’ wages, suppliers, and owners’ profits. This money, in turn, is recycled by being spent in the region. Secondary suppliers arise to serve the secondary demands. New local jobs are created – both directly at the factory and in the secondary sectors. These represent a true net increase in local employment. A variant of the factory is a business that serves local demand that would have flowed to outside had the local factory not been present. Meeting demand that might otherwise have been met by imports is called import substitution. Import substitution also leads to a net increase in local jobs compared to the no-factory alternative (Grinols 2004, 68)

This example would seem to describe Las Vegas quite well, and perhaps a few other markets during the 1990s (e.g., the Mississippi Gulf Coast and Atlantic City). However, with the proliferation of casinos, there may be few “factory” markets other than Las Vegas.

Another category described by Grinols is “restaurants,” which characterizes casinos in many jurisdictions. Grinols (2004, pp. 67-68) writes,

A restaurant generally serves local residents and existing tourists. Adding another restaurant to a town that already has many increases employment in the new restaurant but does not increase total employment. Because no new dollars are attracted from the outside, the restaurant redistributes money within the local economy: increased demand at one location comes at the expense of demand at another.

The third category Grinols describes (p. 68) is the “tollbooth,” in which the firm collects money from local buyers and those outside the region, but the positive effect is negated because an equally large or larger flow of money goes out. The net effect is that the local economy is reduced to the role of being a collection booth for the industry. The impact could either be to expand or to shrink the local economy. Grinols’ scenarios seem generally to be consistent with both Goodman’s and Eadington’s conception of casinos and employment. However, Grinols’ discussion of spending and jobs suggests that there are relatively few cases in which casinos could have a positive impact on the local economy.

Walker argues that Grinols’ discussion, and the cannibalization argument generally, ignores the fact that spending at a new business, even if the spending comes entirely from local residents, can increase welfare (Walker 2013, 29). Indeed, even using Grinols’ factory-restaurant classification, one would expect the new option for consumers (i.e., additional variety for spending options) to increase their well-being. As Grinols himself notes, economic development depends on well-being, not necessarily only on employment. In addition, one could argue even if there is no net change in overall employment after the opening of a casino, since the jobs are produced in firms that are seeing increased demand/expenditures, the jobs are higher-valued, from a societal/economic perspective. In short, even though there is a somewhat well-developed literature on the substitution/ cannibalization effect, overall there is little empirical evidence on either side of the debate.

We now examine studies that provide more empirical evidence on the economic impacts of casinos than some of the studies discussed above. In their comprehensive book on gambling, Morse and Goss (2007, 59) analyze county-level employment and per capita income. They present changes in county employment and per capita income, depending on whether a casino was introduced in the county in 1993 or 1994. Changes are shown for 1995-2002.

Table 1.1 U.S. County-Level Changes in Employment and Income

County-Type	1995-2002 Change in County-Level	
	Employment	Per Capita Income
Non-casino counties	11.3%	32.8%
Native American casino counties	23.8%	33.3%
Commercial casino counties	6.7%	31.7%

Source: Morse and Goss (2007, p. 60)

Morse and Goss explain that factors other than the existence of a casino could, of course, be explaining the changes shown above. Therefore, they perform a regression analysis, which accounts for a variety of other characteristics in the counties. The results can be seen as a truer representation of the impacts of casinos on employment and per capita income. Their regression results are reproduced in the table below. Their analysis indicates that per-capita income growth (i.e., economic growth) is actually lower in Indian and commercial casino counties than in non-casino counties. However, employment increases at a greater rate in casino counties, and the unemployment rate decreases more in casino counties than in non-casino counties. Obviously, the results show that employment tends to increase as a result of casinos being introduced, but per capita income does not increase as fast in casino counties as in non-casino counties. There is no obvious explanation for why this might be the case. Nevertheless, this is interesting empirical evidence based on casino adoptions that occurred in the early 1990s.⁹

Table 1.2 Change in Economic Factors after 15 years of Casino Operation

	Compound Annual Change in Per-Capita Income	Compound Annual Change in Employment	Change in Unemployment Rate
Commercial casino counties	3.0%	4.2%	-1.0%
Native American casino counties	2.7%	4.1%	-0.9%
Non-casino counties	3.2%	1.7%	-0.4%

Source: Morse and Goss (2007, p. 66)

Although the Morse and Goss results suggest casino counties may not realize the economic growth seen in non-casino counties, a more recent study has found a positive effect of casinos on state-level economic growth. The study by Walker and Jackson (2013) examines personal income and casino revenue data from 12 states with commercial casinos,¹⁰ from 1990-2010. The results indicate a Granger-causal relationship between casino revenues and personal income. Granger causality does not prove one variable causes another. Rather, it indicates that

⁹ It should be noted that their analysis excluded counties in Nevada and New Jersey, so that they would not unduly influence the results (Morse and Goss 2007, 60).

¹⁰ As many other studies do, this study excluded Nevada and New Jersey data.

one variable helps in the prediction of the second variable. If the first variable is helping to explain the second one, then it suggests a “causal” type relationship between the two variables.

In a recent in-depth study of the impacts of Canadian casinos on local employment and wages, Humphreys and Marchand (2013) found positive local labor market effects:

The direct labor market growth in the gambling industry shows that areas with new casinos experience large, positive employment and earnings growth within one to five years following the opening of a casino. However, this growth was insignificant for areas with existing casinos, suggesting that the local effects of new casinos do not extend beyond five years (p. 159).

They caution policymakers considering the introduction of casinos in order to boost employment:

The evidence presented in this paper suggests that a skeptical approach be taken regarding the use of employment and earnings gains to justify the legalization of expansion of casino gambling within a locality. Any expectations of new jobs or earnings enhancement should be considered short-term and narrowly-focused within the gambling and hospitality industries. Broad employment and earnings gains in other local industries outside of gambling and hospitality should not be expected (p. 159).

The paper by Hashimoto and Fenich (2003) is somewhat similar to the analysis we will perform later in this study. These authors examined county-level changes in employment, number of establishments, and annual payroll in several Mississippi counties. For the most part, they found that the introduction of casinos led to an increase in all three variables, which raises questions about the validity of the “substitution effect”:

In the four different counties in Mississippi, the legalization and subsequent development of casino gaming did not drive all the local restaurants out of business. Casinos did not cause the predicted drop in the number of businesses, nor the drop in people employed, nor the drop in payroll. In fact, just the opposite occurs (p. 108).

They point out that these results do not include the restaurants offered on casino properties, and argue that the casinos have quite clearly had a positive economic impact in Mississippi. However, it is worth noting that in some of the counties studied, there was not a lot of economic activity prior to the casinos being built.

The study by Garrett (2004) examines selected casino counties in Mississippi, Illinois, Iowa, and Missouri. Garrett (p. 13) notes that most previous studies he reviewed (from the 1990s) have found a positive impact of casinos on employment. His analysis tracks total employment before and after casino introduction, so that he is able to forecast what

employment would have been had casinos not been introduced. He also analyzes payrolls before and after casino openings.

Garrett finds positive impacts of casinos on employment and payrolls in three of the four rural counties he studied (p. 21). He also notes that pinpointing the impacts of casinos in metropolitan areas is more difficult, since the casino represents a small proportion of the overall economy, relative to a casino in a rural area. This idea is supported by other research, discussed above. One important point that Garrett makes that is relevant for the analysis of Iowa is that studying the employment impacts of casinos requires the researcher to pay careful attention to interpreting changes in the variables, especially in rural areas. For example, when a casino opens in a rural county, county employment certainly increases, and perhaps dramatically. But this change would not necessarily imply that employment among county residents has increased. It may instead indicate that people from other counties are getting jobs at the casino. This issue is less likely to arise in an urban setting, as the opening of a casino is unlikely to attract a large number of people seeking employment from outside the area, at least relative to a rural setting.

Perhaps the most comprehensive, best analysis of the labor market effects of casinos in the United States is that by Cotti (2008). Cotti analyzes U.S. county-level data from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages ("QCEW"), comparing counties with and without a casino. He employs sophisticated econometric modeling in order to discern the marginal impact of casinos on employment and wages. His analysis provides North American Industrial Classification System ("NAICS") sector-specific impact estimates, including the effects on employment and earnings for "all industries," and for the "entertainment" and "hospitality" industry sectors.

Cotti's basic estimates are for the existence of casinos on overall employment in a county, i.e., for all industries. His results suggest that the casino effect is about +8.2%. This is interpreted to mean that, controlling for other relevant factors, a county with a casino of any size can expect to see approximately 8.2% more jobs than a similar county without a casino. The estimated wage effect is much smaller, about +0.79% relative to non-casino counties. From these results, Cotti suggests that casinos "play a significant role in increasing both employment, earnings, and promoting economic development in a county" (p. 28). When Cotti isolates the impacts for the entertainment and hospitality sectors, he finds starkly different results, as shown in Table 1.3. Based on the results in Table 1.3, it appears that much of the growth in employment accrues to the entertainment industry sector, which includes the casino industry.

Table 1.3 Estimated County-Level Effect of Casinos

Sector	Employment Effect	Earnings Effect
All Industries	+ 8.2%	+ 0.79%
Entertainment (NAICS 71)	+50.5%	+ 19.1%
Hospitality (NAICS 72)	- 1.55%	+ 3.47%
Weighted Average of Entertainment and Hospitality Sectors	+7.52%	+ 6.16%

Source: Cotti (2008, p. 27) Weighted average calculation by Walker, Spectrum Gaming Group

An important caveat applies to the above results. Cotti’s analysis does not account for the size or number of casinos in a county; it simply considers the existence of a casino. Therefore, the results are not sensitive to the size of the casino industry relative to the county size. One might expect that a particular casino would have a much larger impact on a rural county’s employment numbers, compared to an urban county. In order to address this issue, Cotti breaks his sample into three, based on county population. He analyzes the employment and earnings effects for the top-third population counties as a group, and from the middle-third and bottom-third population counties. The results indicate that the employment and earnings effects are significantly larger in small counties than in large counties (Cotti 2008, 34). For example, the employment effect for the entertainment sector in the top-third-population counties is 17.6%, while in the bottom-third-population counties it is 28.7%. The earnings effects are similar across county size, however. It is 7.89% in large counties, and 6.74% in small counties. The essential point here is that a casino is likely to have a larger impact in percentage terms in small counties relative to large counties. This is simply because a given casino represents a relatively large employer in a small county compared to a large county.

Overall, the Cotti study provides strong support for the casino industry’s contentions that it generates jobs and improves wages, at least for the hospitality and entertainment sectors. There is also a modest positive effect found when all industries are considered in aggregate. As this is one of the most comprehensive studies to date, this study raises questions about the validity of the “substitution effect” argument against casinos. It suggests that, although there may be some declines in some industries, overall, casinos increase employment. Since Cotti does not distinguish among different sizes or numbers of casinos, there is still a lack of understanding about how these effects would vary by casino industry size.

Economic Growth¹¹

Economic growth refers generally to an increase in the standard of living. This phenomenon is perhaps easiest measured by changes in per-capita income. Federal statistics

¹¹ This section relies on the discussion from Walker (2013, chapters 2-6).

agencies provide per-capita income data at a state-level on an annual basis. Therefore, one relatively easy way to track economic growth is at the state level. Since U.S. casinos are legalized at the state level (or in the case of Indian casinos, compacts are signed at the state level), it would be interesting to know whether there is a relationship between casinos and economic growth at the state level. Although the casino industry does not generally promote itself as a catalyst for economic growth, one might expect that the industry might work like any other in promoting growth.

Casinos could lead to economic growth simply because they represent new economic activity in a region. Joseph Schumpeter ([1934] 1993, 66) discussed “the introduction of a new good” as one possible source of economic development. The introduction of a casino to a new state or region would seem to be an example of Schumpeter’s source of economic growth. The proposition has been tested with respect to casinos using a statistical analysis called “Granger causality.” As explained above, this statistical test determines whether the use of past values on one variable can improve the prediction of another variable. If it can, then the one variable is said to “Granger cause” the other variable. This is as close as economists can come to showing “causality” among two variables.

Walker and Jackson (2013) perform a Granger causality analysis using data from U.S. states with commercial casinos, from 1990 through 2010. They test two series of data: per-capita income and casino revenues at the state level. The Granger test examines the “causal” relationship in both directions. Walker and Jackson tested whether casino revenues Granger cause economic growth as well as whether economic growth causes casino revenues. Their findings indicate strong evidence that casino revenues Granger cause economic growth, but not vice versa. Unfortunately, their empirical analysis only indicates that there is a *statistically significant* effect. It does not provide information on the degree or strength of the relationship. Nor is there a distinction between the impacts in states with well-established casino industries vs. new casino industries. Nevertheless, the analysis suggests that casinos indeed have a positive economic impact, at least in the United States.

If we step back and consider what causes economic growth (increases in per-capita income) to occur, it boils down to mutually beneficial transactions. That is, whenever a market transaction occurs between buyer and seller, both parties are expecting to benefit as a result of the transaction; otherwise, they would not agree to trade. Any business that provides a good or service for which people are willing to pay helps to foster this process of mutually beneficial exchange. This is simply economic activity, which is the basis of economic growth. It matters little what type of business it is, as long as the customers receive benefits from the product at least as great as the amount they must pay for it.

As new businesses are formed, workers must be hired to produce the goods and services. This creates increased competition for workers; that is, there is greater demand for workers, and wages are likely to be pushed up as a result. The new firm must offer a salary and/or benefits that exceed the workers' next-best option; otherwise the new firm will not be able to find suitable employees. It is possible that the new firm would simply hire individuals who are currently unemployed. In this case, the new job still presumably represents an improvement over the unemployed worker's current situation.

Therefore, just as any other new businesses do, casinos appear to stimulate economic activity and economic growth results. Given this rather important impact from casinos, there are surprisingly few analyses of this issue. The series of papers by Walker and Jackson, discussed by Walker (2013, chapters 5-6) are the only studies of which we are aware that directly and rigorously examine the issue. However, other studies have confirmed the basic result. These include the Cotti (2008) study discussed above.

Overview of Economic Impacts

The casino industry provides optimistic projections of the positive economic impacts of proposed casinos. However, the academic literature suggests somewhat more modest expectations are appropriate. The available empirical evidence from the United States suggests that casinos do have at least a modestly positive impact on employment and wages in casino jurisdictions. At the same time, studies have shown a positive relationship between casinos and state-level economic growth. It is important to keep in mind that the economic impacts of casinos are likely to vary by market. Casinos are likely to have a greater positive impact in smaller markets, while their impacts are less significant in more populous jurisdictions.

Impacts on Local Community Services

It is difficult to find academic studies that examine the effects of casinos specifically on local community services, such as roads, public utilities, etc. Indeed, the National Gambling Impact Study Commission (1999) warned that states should require thorough impact studies prior to additional casino expansion because of a "paucity of evidence" on casino impacts (p. 7-28). Yet, there have been several studies published since the NGISC that examine people's *perceptions* of the impacts of casinos on the local economy and quality of life. We provide a brief review of papers that examine the more general issue of quality of life.

The study by Alexander and Paterline (2005) is one of the few studies that surveys public officials. The survey was sent to approximately 350 economic development officials (or the persons most responsible for economic development) of every city in which there is casino

gaming (p. 21; 26-27, note 8). Alexander and Paterline (2005, p. 21) note that most of these communities had a single, two, or three casino developments. They received 140 survey responses. The survey included the following questions (p. 27):

- When was gaming established in your municipality?
- What type of gaming do you have?
- Would you consider the casino to be a destination-type attraction, a local-type attraction, or a mix of both?
- Approximately how much money does your municipality receive per year from casino gaming based on your agreement with the gaming facility operator?
- How is that money allocated?
- How has the casino development affected your community economically?
- Has casino revenue allowed your community to undertake projects or developments that would not have been possible without casino revenue?
- If yes, what types of projects?
- In the long-term, how do you view casino gambling as an economic development growth strategy or redevelopment strategy for municipalities in general?
- Overall, how important has casino gambling been to the economic development or redevelopment of your community?
- Has the casino development caused secondary or tertiary development near the development or in other areas of the municipality?
- If yes, what types of development?
- How would you describe your level of support of gaming today?
- Overall, has casino gambling been an economic positive or negative in terms of revenue generation for your community?
- Overall, has casino gambling been an economic positive or negative in terms of economic development or redevelopment of your community?
- Would you recommend casino gaming as a revenue generation or economic development strategy for other municipalities?

Alexander and Paterline (2005, 22) explain that the survey results were overwhelmingly positive. For example, 78% of respondents indicated that casinos have had a “positive” or “very positive” effect on the community. Almost 60% indicated that casinos “caused secondary or

tertiary development near the gaming development or in other parts of the community.” Although the survey did not ask about the effects of casinos on specific publicly provided services, in most municipalities, contractually, casino profits [i.e., tax revenues] must be utilized for projects that benefit the entire community, which often include large-scale capital improvement projects, educational funding, equipment for police and firefighters, community grants, downtown revitalization, libraries, and debt relief (p. 24).

The fact that the majority of survey respondents had positive opinions of casinos indicates that the fiscal benefits more than offset whatever negative impacts casinos had. We would expect that this would suggest that the revenues from casinos offset whatever increased demand there was on social services, such as utility infrastructures and roads, as a result of casinos. One caveat worth noting is that the responses related to commercial casinos were more positive than for tribal casinos. This is most likely because commercial casinos are typically taxed, while tribal casinos are not. However, tribal casinos must have a compact with the state, and that agreement may require payments to local governments.

Alexander and Paterline (2005, 21) summarize their survey results:

... economic development professionals in those cities that possess it support gaming overwhelmingly. According to those surveyed, gaming seems to have had a significant positive overall economic effect in most host cities, especially those with riverboat or land-based non-Native American gaming enterprises.

One might suggest that the survey results are anecdotal. For example, perhaps those officials who have had more negative experiences with casinos decided not to respond to the survey. (The response rate was roughly 40%.) However, Alexander and Paterline explain that the respondents have experience beyond just dealing with casinos; they were often in their positions prior to the casinos, so they are unlikely to be biased casino proponents and are able to gauge the marginal impact of them on the community (p. 21).

Stitt, Nichols, and Giacomassi (2005) examine residents' perceptions of casinos' impacts on crime and publicly visible nuisances, such as drinking in public, vandalism, and prostitution. Their survey included 2,768 individuals in a number of different casino communities. We briefly summarize the most relevant results, focusing on those related to community impacts. With respect to crime, the majority of respondents' perceptions (66%) were that crime had not changed after casinos were introduced. About 32% perceived an increase in crime, while about 2% of respondents thought crime had decreased (pp. 191-192).

When asked about the physical decay of the city, 60% of respondents had a neutral response, about 18% noticed an increase in decay, and slightly more (21%) thought this decreased (p. 194). More than 50% of respondents had noticed an increase in traffic

congestion, while 46% thought traffic remained about the same. Only 1% of respondents thought traffic congestion decreased after the casino's introduction (p. 194). It should be emphasized that the survey results provided by Stitt et al. (2005) are interesting, but they do not necessarily address how casinos have affected the social services offered at the local level. What they do indicate is whether people perceive the problems to have become worse after casinos were introduced.

In a study similar to that by Stitt et al., Kang et al. (2008) examine resident perceptions of casinos through a survey. They study the impacts of casinos in Colorado, and had 370 survey respondents. The results indicate that casinos are perceived to bring a variety of benefits to the communities, including "enhanced public infrastructures (e.g., roads, hospitals, etc.)." The results also indicate that casinos "enhanced the standard of living." At the same time, however, casinos are believed to increase traffic congestion and reduce the quality of life; respondents also indicated a negative response to "improved educational funding" for the community (p. 686). As with other studies, the perception is that casinos bring both benefits and costs to communities, the types and magnitudes of which are likely market-specific.

The study by Wenz (2008) gets indirectly at how casinos may affect local services by estimating the impact that the casino has on "quality of life." Wenz matches casino counties with non-casino counties and then uses a sophisticated statistical model to estimate the impact that casinos had on residents through their willingness to pay to live near a casino. If willingness to pay to live near a casino is higher than in a similar location but without a casino, then it would be a signal that the quality of life is higher near the casino. A higher quality of life might be due to better or more government services, among a variety of other variables. Wenz (2008, 249) finds "no evidence that either Native American or non-Native American casinos are associated with an improvement or a decline in quality of life." These results might indicate that whatever negative impacts casinos bring to an area, they are offset by proportional benefits. Perhaps, for example, although casinos may be the source of increased traffic, the casino provides funding for road improvements so that the net effect on residents' willingness to pay to live near the casino is neutral. In any case, the study by Wenz indicates that casinos do not have an impact on quality of life.

The economics literature has numerous papers that examine how lottery revenues are often earmarked for specific purposes, such as education. In Georgia, the lottery funds the HOPE Scholarship for good high school students. The scholarship pays for college tuition and other expenses for students based on their performance in high school. Students are required to meet minimum performance standards to retain funding. Studies have examined who the beneficiaries are from such gambling-funded programs, with a focus on the regressivity of gambling taxes. For example, the study by Rubenstein and Scafidi (2002) showed that the HOPE

Scholarship in Georgia goes disproportionately to higher-income students. When this result is coupled with the fact that lower income individuals purchase a disproportionate amount of lottery tickets, this finding amplifies the regressive nature of lottery taxes.

We are unaware of studies that focus specifically on analyzing the amount or quality of education – or other community services – related to legalized gambling. For example, even though lottery revenues may be earmarked to subsidize college education, there is no reason to believe that legislators act to provide a net increase in education funding. For example, if \$100 million in lottery revenue is earmarked toward education, legislators could simply cut other education spending by \$100 million, resulting in no net change in overall education funding. This example helps to illustrate why it would be difficult to isolate the marginal impact of casinos or gambling on local community services. Without such evidence, the analysis of surveys on public opinion regarding legalized gambling may be the best way to understand the impact of casinos on the quality of life in the areas surrounding casinos.

Impacts on State and Local Government Finances, Charitable Organizations

Even before the widespread legalization of commercial and Indian casinos, gambling for charity was popular in the United States. Churches, college groups, and others will often host a “casino night” to raise money for a worthy cause. While such events can certainly have a significant impact on individual organizations, we were not able to find any significant studies in the literature. However, there have been studies on how tax laws related to charitable gambling might affect regular donations, for example to churches (Apinunmahakul and Devlin 2004). But we do not view such tax-law literature to be directly relevant to the issues of interest in this report. In short, there is no study of which we are aware that examines how funding from casinos to charitable organizations affects them on net.

States and localities that approve commercial or Indian casinos typically require that the casino develop provide funding for the local government to help cover the additional costs associated with increased demand on social services, such as policing and roads. The amounts paid by casinos obviously vary across jurisdictions. In some cases, a fixed annual fee is provided; in other cases, such expenses are covered through a portion of the casino tax that is paid to the local government. Presumably, such fees and taxes more than offset the additional costs incurred by local casino hosting governments. The study by Alexander and Paterline (2005) referenced in the previous section suggests that the majority of public officials are positive about the impact of casinos on the local communities. One would not expect this to be the case if casinos did not help offset the costs they impose on their surrounding communities.

Nevertheless, the direct impact of casinos on the quality and quantity of various community services is not an issue that has been empirically examined in the literature.

There is an abundance of literature on casinos and state and local government tax revenues. Certainly, one of the primary motivations for legalizing casinos is tax revenues. Pennsylvania has one of the highest tax rates (55%) on casinos in the U.S., raising more than \$1 billion per year from casinos there. Other states have much lower tax rates (Nevada, less than 7%), but still raise a substantial portion of their state budget from gambling taxes. Yet, the tax benefit from casinos is not as large as many observers believe. In 2004, legalized gambling accounted for less than 2% of state revenues in most states. In Iowa, taxes on all gambling activities resulted in only 2.7% of net state government revenue; casinos contributed \$250 million out of \$11.4 billion net state revenue (Walker 2013, 68). In Nevada, casino taxes represented 10.4% of state revenues.

Although legalized gambling is usually taxed at relatively high rates – upward of 60% in some states, for certain games – this does not necessarily mean that the gambling industry necessarily results in a net increase of state tax revenues. For example, if there is a large substitution effect away from other consumption, legalized gambling could actually result in a decrease in tax revenues. This result is unlikely in most jurisdictions, however, since tax rates on gambling are typically much higher than tax rates on other goods and services.

Several researchers have examined the impact of legalized casinos and lotteries on state government revenues. For example, Siegel and Anders (1999) examine how Missouri county sales tax revenues were affected by the introduction of riverboat casinos. They studied 1994-96 data, and found that a 10% increase in gambling tax revenue leads to about a 4% decrease in taxes from other amusement and recreation sources. The study by Borg, Mason, and Shapiro (1993) found that \$1 in lottery revenue has a cost of 15 cents to 23 cents in other types of government revenue. However, the lottery still leads to a net increase in state tax receipts; the substitution effect from the lottery is not great.

Anders, Siegel, and Yacoub (1998) examine the effect that Indian casinos had on transactions tax revenues in one Arizona county. From their model estimating tax revenues from 1990-96, the authors find that the existence of a casino has a negative effect on taxes from retail, restaurant, bar, hotel, and amusement sectors. A similar study was performed for New Mexico. The paper by Popp and Stehwien (2002) examined county-level tax revenue from 1990 to 1997. They found that casinos have a negative impact on tax revenues within the county, but the effect is not so straightforward for neighboring counties.

Finally, the study by Walker and Jackson (2011) is probably the most comprehensive tax study in the United States, to date. This analysis considers all U.S. states from 1985-2000. They

develop a sophisticated econometric model to isolate the impact of gambling taxes on the state's net tax receipts. They found statistical evidence that lotteries do lead to an increase in state net tax receipts, but that the positive effect diminishes as sales increase. Their casino result was more interesting. They found that casinos have a mildly *negative* impact on state tax receipts. However, their analysis also finds a positive impact on state tax revenues from increases in per-capita income (i.e., economic growth) and hotel employees (as a proxy for tourism). If casinos generate economic growth and are a significant component of a state's tourism sector, then casinos may still have a positive impact on state-level tax receipts (Walker 2013, 84). So, although their analysis suggests that the direct effect of casinos on taxes is probably not positive, the overall impact of casinos may be positive when the economic growth and tourism effects of casinos are accounted for.

In a follow-up analysis using 1991-2010 data from the 12 states with commercial casinos, Walker (2013, 85-87), uses the Granger causality analysis discussed above to test the relationship between state tax revenues and casino industry revenues. He finds no causal relationship. Taken as a group, the empirical studies of casinos and tax revenues do not paint a clear picture. It is not obvious that the introduction of a casino will lead to an increase in overall tax revenues. There is likely a substitution tax effect, at least to a degree, which partially offsets the positive impact on tax receipts from relatively high casino tax rates. Why, then, are politicians often so adamant in their support for casinos as a fiscal policy (i.e., tax revenue) tool? One suggestion is provided by Walker (2013, 87). He argues that even if casinos do not provide a large tax benefit to states, they may indeed provide a large political benefit to policymakers. For example, by introducing casino taxes, politicians may not have to raise income, sales, or property taxes as much as they might have to otherwise. Or casino taxes may enable politicians to increase overall government spending to curry favor with voters or special interests. Alternatively, politicians may simply count the obvious top-line revenue without considering the comprehensive economic impacts.

Whatever the actual economic impacts of casino taxes, they are a primary argument used by the industry and supportive policymakers in promoting the legalization and expansion of the casino industry. More research on this topic is needed, especially as casinos have spread across the country. Some states (e.g., Delaware) have actually been considering lowering the tax rates on casino revenues because of increasing regional competition. Indeed, the issue of optimal gambling taxes is becoming an increasingly important question.¹² It is unclear whether casinos in any particular state will continue to have the fiscal stimulus effect they may have had in the past. This is because it is likely that as casinos continue to spread, they will begin nearing

¹² For a discussion, see Philander (2013).

a saturation point. This can be defined as the situation in which the supply of gambling (i.e., casino square footage) increases but there is no significant increase in net casino revenues (Gallagher 2014, 48-49). The saturation issue is one that governments in a variety of jurisdictions are beginning to seriously consider.

Casinos and Crime

Among the social costs most often attributed to casino gambling, crime has received the most attention from researchers. This may be because relatively good crime data, such as the FBI's *Uniform Crime Reports*, are available on jurisdictions at a "micro" level (e.g., county level). There are several different theoretical explanations for a possible link between casinos and crime. We discuss these different theories and then review many of the casino-crime studies that have been published in the literature.¹³

Theories of Crime

Following Becker's (1968) seminal paper on crime, most economists view crime as a rational decision, in which the criminal compares the expected costs and benefits of engaging in crime prior to acting. This simply means that criminals are assumed to consider the likelihood of success, the value of committing the crime, and the likely penalty adjusted by the perceived risk of being caught. The economics literature contains many applications and empirical tests of this theory of crime. Several papers that study casinos and crime using an economics methodology are discussed later in this review.

A series of published papers examine the link between casinos and crime from the perspectives of "routine activities theory" and the "hot spot" theory of crime. The routine activities approach originated from Cohen and Felson (1979), and suggests that crime results when three conditions coexist at one place at one time: offenders, targets, and lack of law enforcement. A casino may present such a scenario since many customers are carrying large amounts of cash. However, casinos typically have high security standards and have a strong incentive to provide a safe experience for their customers.

The hot spot theory of crime is the idea that crime may be concentrated in small areas, called hot spots. If casinos bring together potential criminals and victims, then they may act as hot spots. In a series of papers that test this theory, however, Barthe and Stitt (2007, 2009) found that crime incidence was actually lower around casinos in Reno than in other parts of the

¹³ Walker (2013, chapter 16) provides a comprehensive review of the literature, as does Spectrum Gaming Group (2013a). The discussion here draws from these resources.

city. Their findings suggest that there is no traceable link between casinos and crime, at least in the market they studied. Anecdotal evidence might suggest that in some markets (e.g., Atlantic City) casinos may have contributed to higher crime rates. However, one must consider the volume of visitors to the market when examining crime rates, as discussed below.

Crime by Disordered Gamblers

As with most of the other “social costs of gambling” discussed in the academic literature, the crime attributed to casino gambling is believed by researchers (particularly psychologists, who explain the common symptoms and resulting actions of the affected people) to be mostly caused by disordered gamblers. There is solid evidence that disordered gamblers are more likely than non-gamblers to engage in crime. This connection makes intuitive sense. For example, a person who has difficulty controlling his gambling may have to take drastic actions to obtain money to satisfy a gambling habit. A variety of studies that rely on Gamblers Anonymous members confirm that these individuals are more likely than others to commit crimes. For example, in the study by Meyer and Stadler (1999), 89% of their sample of pathological gamblers admitted to having committed at least one crime in their lifetime. This rate is much higher than for the general population.

Even when analyzing a sample of people from the general population, the link between gambling behaviors and crime seems to exist. In one study of adolescents, researchers found that individuals who indicated gambling behaviors consistent with diagnostic criteria for disordered gambling were significantly more likely to indicate that they also engaged in crime, compared to people who did not exhibit disordered gambling behaviors (Clark and Walker 2009). However, the study also found that it was not casino gambling that is most linked to crime. Rather, it was gambling on horse racing, sporting events, and card games that were found to have the link to crime.

Within a particular jurisdiction, one important question related to crime is whether the crime rate increases in closer proximity to casinos.¹⁴ Several studies have examined this issue. While the odds of a person being a disordered gambler are about 1%, for people within 10 miles of a casino the odds almost double, to 1.9% (Welte et al. 2004). However, it is unclear whether an increase in this risk is the result of people already in the area developing new gambling problems, or whether a new casino attracts existing disordered gamblers to the area. A different study that examined adolescents found that the number of different types of legal gambling in a state is related to an increase in the proportion of problem gamblers in the state (Welte et al. 2009). On the other hand, psychologists have not found significant differences in

¹⁴ See St-Pierre et al. (2014) for a recent review of this literature.

disordered gambling prevalence rates across jurisdictions or across time. So even though casinos have spread across the United States over the past two decades, the prevalence rate has not increased markedly.

It is difficult to predict whether the increased crime committed by disordered gamblers has a meaningful impact on overall crime rates, since disordered gamblers make up such a small portion of the population. Nevertheless, the available evidence suggests that individuals who are more likely to have a gambling disorder are also more likely to have engaged in crime. This relationship may simply be an indicator of individuals who simply are more likely to engage in risky behaviors.

Casinos and Crime Rates

As discussed above, there are different theories on why there may be a casino-crime link. The vast majority of the academic literature on the topic examines the relationship between the crime rate and some measure of casino activity or size of the industry. Next we provide an overview of the major studies that have been published. Most studies that examine crime rates use data from the FBI's Uniform Crime Reports ("UCR"). The Index I crimes examined include aggravated assault, rape, robbery, murder, larceny, burglary, and auto theft. Crimes that may involve money, such as robbery, larceny, and burglary, are more likely to be linked to casinos than are murder and rape. Most of the published studies examine changes in crime rates at the city or county level.

In their paper on casinos and crime, Grinols and Mustard (2006, 31-32) offer two explanations for why casinos might reduce crime, and five explanations for why crime might rise as a result of casinos being introduced. We paraphrase their explanations:

Reasons casinos reduce crime

- Wage effects – If casinos have a positive impact on wages, then the motivation for committing crimes may be reduced.
- Development – If casinos bring economic development, more residents, safer streets, etc., there may be less crime.

Reasons casinos increase crime

- Development – Casinos could have a negative development effect, attracting "unsavory clients," and draining the local economy.
- Increased payoff to crime – Casinos attract patrons with money, increasing potential victims and potential gains from engaging in crime.

- Problem and pathological gambling – The spread of casinos makes it likely that there would be an increase in problem gambling and hence the potential for increased crime among this population.
- Visitor criminality – Casinos may attract visitors who are prone to commit and be victims of crime.
- Casino-induced changes in population composition – Casino expansion may increase the proportion of unskilled workers, who may be more apt to engage in criminal activity.

Most studies on crime rates attempt to determine whether the introduction or expansion of casinos can explain changes in reported crimes. Studies typically control for a variety of demographic factors, such as population, average income, race, education, unemployment, and age. In some studies there are controls for neighboring jurisdictions and changes to relevant laws. There are two key criteria on which different crime studies can be characterized: (1) the different jurisdictions and periods analyzed, and (2) the empirical methodology used. Earlier studies focused primarily on Nevada and Atlantic City, but more recent studies have been more comprehensive and have analyzed different jurisdictions. The empirical methodology used in research is usually a function of the researcher's area of expertise.

In his review of the literature, Walker (2013) groups the crime research into "early" (1985-2000) and "recent" (2001-2010) categories. We reproduce his summary tables here. The key result from each study is presented in the column, "Casinos Increase Crime Rate?" As shown in the table, many of the early studies on casinos and crime focused on Atlantic City. Although some other jurisdictions were studied during this period, Walker (2013, 209) argues that some of the studies have methodological flaws or are "weak." In any case, evidence from the early studies appears mixed.

Table 1.4 Casino–Crime-Rate Studies, 1985-2000

Study Author(s)	State/Region Studied	Years Analyzed	Year Casinos Opened	Casinos Increase Crime Rate?	Population Adjusted for Visitors?
Albanese (1985)	Atlantic City	1978-82	1978	No	Yes
Friedman, Hakim, and Wienblatt (1989)	Atlantic City	1972-84	1978	Yes	No
Hakim and Buck (1989)	Atlantic City	1972-84	1978	Yes	No
Curran and Scarpitti (1991)	Atlantic City	1985-89	1978	No	Yes
Giacopassi and Stitt (1993)	Biloxi, MS	1991-93	1992	Yes	No
Chang (1996)	Biloxi, MS	1986-94	1992	No	Yes
Stokowski (1996)	Colorado	1989-94	1991	No	Yes
General Accounting Office (2000)	Atlantic City	1977-97	1978	No	Yes

Source: Walker (2013, 209)

More recent studies have had the benefit of more data, more recent data, and better empirical methodologies, compared to the studies listed above. The table below summarizes the results from studies published between 2001 and 2010. As with the previous table, the more recent studies summarized above do not provide consistent results.

Table 1.5 Casino–crime rate studies, 2001-2010

Study Author(s)	State/Region Studied	Years Analyzed	Year Casinos Opened	Casinos Increase Crime Rate?	Population Adjusted for Visitors?
Gazel, Rickman, and Thompson (2001)	Wisconsin (Tribal)	1981-94	(various)	Yes	No
Wilson (2001)	Indiana	1992-97	1995	No	No
Evans and Topoleski (2002)	National (Tribal only)	1985-1989	(various)	Yes	No
Stitt, Nichols, and Giacopassi (2003)	Various	1980s-90s	(various)	Mixed	Yes
Betsinger (2005)	144 counties in 33 states	1977-2001	(various)	Mixed	No
Grinols and Mustard (2006)	National	1977-1996	(various)	Yes	No
Barthe and Stitt (2007)	Reno, NV	2003	1937	No	Yes
Reece (2010)	Indiana	1994-2004	1995	No	Yes

Source: Walker (2013, 210)

Considering all of the studies in Tables 1.4 and 1.5, there appears to be one key variable on which casino-crime study results seem to hinge. The definition of the “crime rate” used in the study appears to be critical to the results of most crime analyses. In particular, a link between casinos and crime seems to depend on whether the population measure of the crime rate is adjusted for visitors to the jurisdiction. This issue is addressed next.

Measuring the Crime Rate

“Crime rate” refers to the number of crimes per capita that are committed or reported in a jurisdiction during a particular period, usually a year. Crime rates are usually expressed as the number of crimes per 100,000 people. A crime rate provides a metric either for how safe (or unsafe) a particular area is, or alternatively, how likely a particular person is to be victimized by crime. Crime rates can be compared across jurisdictions and through time to evaluate different crime prevention policies, changes in police enforcement, etc. – or the effect of casinos on crime.

If we let C represent crimes committed and P represent the population at risk, then the crime rate can be represented as: $Crime\ Rate = C/P$. The more crimes committed within a given population, obviously the less safe that area is, and the more likely a person in that area is to be victimized by crime. Relatively few casinos in the United States are located in urban settings, although this is certainly changing. When we consider that often casinos are located in jurisdictions with relatively small populations, along with the fact that casinos can attract many tourists, it becomes clear that if we wish a crime rate to represent what it is supposed to – the likelihood of being victimized by crime – then we must re-evaluate the denominator of the crime rate (i.e., the population at risk).

If we consider a large city with casinos, such as Detroit, we may not expect the casinos to attract a large number of tourists relative to the resident population. Then the crime rate noted above may be appropriate (C/P), since C would represent all the crimes committed in the city, while P would represent the population at risk, or those people living in Detroit. If we ignore the tourists who do visit Detroit, it would probably not markedly affect the crime rate, assuming the number of tourists is relatively small compared to the resident population. However, if we consider a casino jurisdiction which has a relatively small population, such as a rural county or town, but whose casino attracts a large number of tourists each year, then using C/P as described above will overestimate the crime rate – perhaps dramatically.

Albanese (1985, 41) provides a simple numerical example:

A city with a population of 100 citizens might experience 10 reported index crimes in a year. Therefore, the probability that any one citizen will be the victim of one of these crimes is 1 in 10. If the population of this city suddenly doubles [after a casino opens] to, say, 200 citizens, it is likely that the number of crimes that occur there will also rise – simply because there are more people to be offenders and victims. If the number of crimes also doubled to 20, it would appear as if crime had increased 100 percent. However, this is not the case. If 200 people are now at risk and 20 crimes are committed, the probability of being a victim is *still* 1 in 10 (i.e., 20 in 200). Therefore, the

risk of being victimized by crime can remain the same with *both* the population and crime increase together.

Several other studies examine this issue, including Curran and Scarpitti (1991), Miller and Schwartz (1998), and Walker (2008).

Reviewing the two tables above, one striking result is that most of the studies that find that “casinos increase crime rate” do not adjust the population measure of the crime rate by the visitors to the jurisdiction. This is because it is difficult to track visitors to a particular jurisdiction. In the next section we review some of the more important casino-crime studies from the literature.

Key Studies

One of the best casino-crime studies to date is by Stitt, Nichols, and Giacomassi (2003). In this study, six new casino communities are matched to six control communities. The analysis compares the crime rates in casino communities with their control communities. They analyze both resident population and population at risk. As noted in the table above, their results were mixed; they found that in casino communities, rates for certain crimes increased while others decreased. More to the point, in some casino communities more types of crimes decreased than increased, relative to their control communities, while in other casino communities, more types of crime increased than decreased. The main point from this study may be that the effect of casinos on crime is likely to be different for different jurisdictions.

The Grinols and Mustard (2006) study is probably the most comprehensive study on casinos and crime. This study examined crime at the county-level in the United States from 1977 through 1996. The authors tested how the presence of a casino in a county affected crime rates. Their data set on county level casinos is one that allows for a more comprehensive study than any other analysis that has been published. The authors found that roughly 8% of crime in casino counties is attributable to casinos. Unfortunately, it is almost certain that their results overstate the crime impact of casinos because they did not adjust the population at risk for county visitors. Grinols and Mustard had little choice, however, as county level visitor data are generally not available. Another serious problem with the analysis is that the authors cannot distinguish between crime generated as a result of tourism in general and casino-related tourism.

Reece (2010) examined the casino-crime question in Indiana. It represents a significant improvement over the Grinols and Mustard study because it controls for several factors that Grinols and Mustard were unable to. First, Reece was able to control for the number of visitors to the casinos in Indiana through turnstile counts from the casinos. Second, Reece was able to

control for tourism, in general, because his model included the number of hotel rooms in each county. Third, Reece included a variable to control for law enforcement. These three controls represent a significant improvement over other papers in the literature, and particularly over the Grinols and Mustard paper. Reece's analysis suggests that new casinos increase burglaries, but reduce car thefts and aggravated assaults. Increases in casino turnstile counts are associated with lower rates of larceny, car theft, aggravated assault, and robbery (p. 157). Overall, Reece's results suggest that casinos do not generate higher crime rates. But, as other studies have found, Reece concludes that some types of crimes may increase, but overall the amount of crime falls.

Finally, the paper by Park and Stokowski (2011) is likely the first in the literature to successfully isolate a casino based tourism from other types of tourism, with respect to tourism's impact on crime. The authors tested the impact of different types of tourism attractions on county-level crime rates. The types of tourism tested were: casinos, snow skiing, "natural resource access counties," and cultural tourist attractions. The authors examined crime rates in 24 Colorado counties. Each county had only one type of major tourist attraction. The analysis controlled for average daily traffic volume, number of employees in police services, and growth level (measured by population, per capita income, local government revenue, retail sales) (p. 292). Interestingly, Park and Stokowski found that "gaming counties did not show significant differences in crime rates compared to other types of tourism communities" (p. 299). This finding raises questions about other studies that have linked casinos and crime, as no previous study has fully isolated casino-specific tourism from overall tourism. However, there is (at least) one important caveat to keep in mind: Casinos in Colorado are relatively small, and the crime results found for them may not reflect casinos in other jurisdictions or their relationships to crime in those jurisdictions.

Gambling and Poverty

One might expect that individuals in poverty may be especially attracted to gambling as a means to escape poverty. Since the "house always wins," gambling will rarely be a solution to financial crises. It might therefore be expected that individuals with lower incomes are more likely to gamble and possibly engage in crime when their luck goes bad. There have not been, to our knowledge, studies that have specifically studied a link between gambling, poverty and crime. A key problem with doing such research is that crime studies typically analyze aggregate data and usually do not focus on specific crimes or victims (i.e., there is no knowledge of who the criminals or victims are).

Although some academic research has focused on specific populations, such as the Australian Indigenous population, their socioeconomic status and how gambling may impact

them,¹⁵ such studies do not provide any general information on any link between poverty, gambling, and crime. And while occasional media reports of individuals using welfare debit cards at casinos¹⁶ may raise questions about the extent to which people in poverty gamble, academic research has not been extended to whether these individuals are linked to significant crime.

Lottery research has found that lotteries are “regressive” – i.e., individuals with lower incomes spend a larger proportion of their incomes on the lottery – but the regressivity of casino gambling is questionable.

Certainly, many individuals with gambling disorders inevitably find themselves impoverished because many of the problems experienced by such individuals are at their root financial. The issues of financial problems and gambling disorders are addressed in more detail in the following sections.

Overview of Crime Literature

As is clear from the sample of papers discussed in this section, there have been numerous studies of the relationship between casinos and crime over the past several decades. A significant number of these studies were in the 1980s and focused on Atlantic City. However, as casinos spread throughout the United States, the question became more interesting to politicians and voters, and researchers increased their attention to the casino-crime question.

The evidence appears to be split; about half of papers suggest that casinos exacerbate crime, on net, while the other half finds no statistically significant impact. However, as we emphasize, this finding appears to critically depend on how the crime rate is defined. Those studies which calculate the crime rate using only the jurisdiction's resident population tend to find that casinos increase crime rates. Yet, those which use the “population at risk” (i.e., resident plus tourist population in calculating the crime rate) tend not to find a significant relationship between casinos and crime. Since the purpose of crime rates is to indicate the likelihood of being victimized by crime, we believe the use of the population at risk as being more appropriate, especially in measuring crime rates in jurisdictions with a significant amount of tourism.

Lastly, there is only one study of which we are aware that attempts to isolate casino-specific tourism from other specific forms of tourism in testing for a link to crime. That study found that casino-tourism was no more likely than the other forms of tourism tested to cause

¹⁵ See Breen et al. (2012) and research cited therein.

¹⁶ Jojola (2012).

crime. In conclusion, although the issue has been studied by many researchers, there is no consensus. More to the point, there is insufficient evidence to have strong confidence in the relationship between casinos and crime. The most appropriate conclusion would seem to be that any link between casinos and crime is probably market/jurisdiction-specific.

None of the studies reviewed focuses specifically on Iowa. Nevertheless, there is no reason to believe that casinos in Iowa behave far differently from those in other jurisdictions, with respect to their relationship to crime.

Household Financial Impact Studies

As noted in one recent book on gambling problems, “Not surprisingly, many people who have gambling problems are also in debt. In fact, few people who gamble ever win more than they lose” (Shaffer et al. 2012, 51). A common concern regarding the legalization and expansion of casino gambling is that the wider availability of casinos will be a catalyst for the increased prevalence of disordered gambling. Since many gambling disorders result in financial problems for the affected individuals, it seems plausible that the expansion of casino gambling might be linked to household financial problems. If such a link exists, it might show up at an aggregate level in personal bankruptcy rates.

Nonbusiness bankruptcy filings in the United States increased dramatically during the 1990s, doubling between 1990 and 1998 (Barron, Staten, and Wilshusen 2002, 441). This is a period during which there was substantial legalization of casinos in new states.¹⁷ Yet, at the same time, the U.S. economy was doing relatively well. Opinion research has suggested that there is at least the perception that casinos might cause bankruptcy rates to increase (Stitt, Nichols, and Giacomassi 2005). However, simply because the expansion of casino gambling seems to have been concomitant to increasing bankruptcy rates does not mean there is a causal relationship. Indeed, the change in bankruptcy rates could be due to a number of factors. In this section we review academic research that rigorously analyzes the relationship between casino gambling and bankruptcy rates.

Key Bankruptcy Studies

The study by Nichols, Stitt, and Giacomassi (2000) examined quarterly data on personal bankruptcies between 1989 and 1998 in eight casino markets along with control markets that did not have casinos. The casino markets they studied were: Sioux City, IA; St. Joseph, St. Louis

¹⁷ Commercial casinos opened in seven states during this period (Calcagno, Walker, and Jackson 2010, 70).

City, and St. Louis County, MO; Alton, Peoria, and East Peoria, IL; and Biloxi, MS (p. 252). By matching the casino communities with other non-casino communities, the authors attempted to hold constant other factors that might affect bankruptcy rates, thus isolating the effect of casinos on bankruptcies. Nichols et al. found that bankruptcy rates increased in seven of the eight casino communities they studied (p. 253), and that the largest increases in bankruptcy rates occurred in the jurisdictions that had had casinos the longest. Sioux City was in the middle of the group, with a 32.6% increase in bankruptcy rates relative to the rate in the control jurisdiction. The one county that saw lower bankruptcy rates, relative to the control community, was Biloxi. The authors note that this is the one casino market they studied that would be appropriately classified as a destination resort market (p. 255), suggesting that this type of casino may have less of an impact on financial problems. The study by Nichols et al. is perhaps one of the best studies because it matches casino communities with similar non-casino communities.

The paper by Barron, Staten, and Wilshusen (2002) examined data for over 3,000 U.S. counties, from 1993 to 1999. Again, this is a period that covers significant expansion of casinos, especially in the Midwest. Their results suggest that bankruptcy rates are higher closer to casinos, and that if casinos were eliminated there would have been a 5% decline in 1998 filing rates in casino counties (p. 452). Thus, at the county level, the existence of casinos appeared to have a significant impact on bankruptcy rates during the 1993-99 period.

Another county-level study was performed by de la Vina and Bernstein (2002). These researchers examined 100 counties in 36 states, from 1989 through 1994. They did not find a relationship between the introduction of casinos and county bankruptcy rates. However, their lack of results may simply be because their analysis only went through 1994, just five years after commercial casinos began to spread outside of Nevada and New Jersey.

The study by Thalheimer and Ali (2004) examined Midwest counties in states that had riverboat casinos between 1990 and 1997. States in their analysis included Iowa (99 counties), Illinois (102 counties), Missouri (115 counties), and Mississippi (82 counties). Their sample size for the 398 counties over the eight-year period was 3,184 (p. 424). The authors note that less than 1% of the adult population filed for bankruptcy in the last year of their study (p. 431). As other studies have found, Thalheimer and Ali find that bankruptcies were a function of socioeconomic variables such as “population, personal income, age, race, sex, divorce rate, unemployment rate, and the ratio of debt (consumer and mortgage) to disposable personal income” (p. 431). They found no significant link between access to casinos and bankruptcy filings, noting that the absence of casino gambling was estimated to result in only a 0.4% reduction in nonbusiness bankruptcy filings (p. 431).

One of the newer studies from the literature is that by Boardman and Perry (2007). These authors examine counties in Kentucky, from 1989 to 2001. Although their focus is both on pari-mutuel wagering and casino gambling (which though not present in Kentucky is widely available to Kentuckians along the bordering Ohio River), they find that access to casino gambling did not have a statistically significant effect on bankruptcy filings in Kentucky (p. 798). They suggest that the increase in problem gambling resulting from casino expansion could be offset by general positive economic benefits from casino expansion. In any case, this study is one of the more narrowly focused bankruptcy analyses in the literature. As with all studies, it should be noted that the results in this study may not apply to other jurisdictions.

The study by Goss, Morse, and Deskins (2009) examines the link between casinos and bankruptcy from 1990-2005. These authors find that bankruptcy rates in casino counties are initially higher than non-casino counties, but then casino-county bankruptcy rates actually fall below non-casino counties four to eight years after casinos are introduced. However, rates in casino counties again start to rise, and 13 years after the introduction of casinos, bankruptcies in casino counties are 15% higher than in non-casino counties (p. 467, Figure 1).

Garrett and Nichols (2008) take a different angle at studying the relationship between casinos and bankruptcy. They examine whether casinos “export” bankruptcy back to casino visitors’ home states. The findings indicate that individuals who visit out-of-state casinos have a 10% higher chance of filing for bankruptcy back in their home states, compared to individuals who did not visit casinos out of state.

Finally, the most recent study on gambling and bankruptcy examines lottery and casino gambling from 1983 through 2010, which provides for a longer-run analysis than many other studies in the literature. Grote and Matheson include a variety of demographic data in their study. However, they use a categorical (or “dummy”) variable for the existence of casinos, plus a variable for “years of existence” of casinos in a state. In analyzing the impacts of lotteries on bankruptcies, they use revenue data. (They do not use revenue data for casinos because such data are not available for tribal casinos.) Their conclusion (p. 133) is:

...although the presence of lotteries and casino gambling contributed significantly to the annual percentage changes in personal bankruptcy filings prior to 1995, this effect is not present post-1995, possibly because of increasing efforts to identify problem gambling as the presence of gambling spreads across the state.

Certainly, the evidence on a link between casinos and bankruptcy rates is mixed. Studies that do find that casinos are associated with higher bankruptcy rates indicate that the effect is likely greater the closer proximity to casinos. Intuition suggests that because the proximity of gambling is linked to the prevalence of disordered gambling, any link between casinos and

bankruptcy is likely through disordered gamblers. Prevalence estimates of disordered gambling range from 0.4% to 2.0% of the adult population (Petry, Stinson, and Grant 2005). Such a low number of affected individuals may suggest why a statistical link between casinos and bankruptcy rates can be difficult to detect.

Residential Property Values

Although personal bankruptcy is one of the major concerns regarding the expansion of casino gambling, there are potential positive financial impacts that occur as a result of casino expansion. For example, when a large casino project is undertaken, either building a new one or expanding an existing one, there is the potential that the casino will affect residential property values. Wenz (2007) provides such an analysis. He finds that casinos have a net positive impact on housing prices – about 2% – in the same geographic area as a casino. At the same time, bordering areas experience positive spillover effects of about a 6% increase in value. Importantly, most of the cities in Wenz’s analysis are near Indian casinos. We might expect higher than average benefits in Indian casino communities since these are often lower-income areas than non-tribal areas. These results provide some mild evidence that casinos have a positive impact on residential property values, but this may be simply explained by the fact that casino introduction increases the demand for land, pushing land prices higher.

Certainly residential property values are not a key consideration for policymakers when contemplating new casinos. Other issues, such as bankruptcy rates and employment may be seen as more important. There are relatively few papers on the household financial impacts of casinos. What studies have been published tend to focus on bankruptcy. Although bankruptcy that can be tied to casinos is relatively rare, it is still an important consideration. The literature reviewed here suggests that those in close proximity to casinos may be at the greatest risk for financial problems associated with too much casino gambling.

Health Impact Studies

By far, the topic that garners the most interest from gambling researchers is on the health impacts of gambling disorders. There is a growing literature on how disordered gambling can be considered to be a public health issue. We briefly review that literature, as well as studies that discuss various impacts of gambling disorders on the affected individuals, their families, and friends. Many of the impacts may be considered to be “social” impacts, but they may nevertheless be closely tied to health issues. Approximately 80% of all academic literature on gambling deals with diagnosing gambling problems, estimating their prevalence, or addressing treatment strategies. Unlike other issues that we tackle in this review with detailed discussions, the literature on health impacts is far too large to provide a detailed review.

Therefore, we touch on the key issues and provide a sample of empirical evidence, where applicable.

Legalized gambling has obviously been an important public policy issue for many years now – since the late 1980s in Iowa. Much of the research on gambling has focused on health-related issues. For example, one of the major areas of controversy in public debate and in the academic literature has been the “social costs of gambling.” These costs may include treatment and legal costs of disordered gamblers, as well as “psychic costs” that might be incurred by those impacted by disordered gamblers. How to define and measure the social costs associated with gambling has been a controversial issue, in part because researchers address the issues from different disciplinary backgrounds. For example, psychologists and economists may have very different perspectives on social costs.

Disordered Gambling as Public Health Issue

One important perspective on disordered gambling is the public health perspective. The public health perspective traces its roots back to the Ottawa Charter (World Health Organization 1986). It examines the effects of disordered gambling on individuals, families, and communities (Korn and Shaffer 1999), and views gambling problems as inevitable in free societies that allow gambling. The goal of public-health-oriented research on gambling is “harm minimization.” That is, given we have gambling in the United States, it should be allowed and regulated in a way that is likely to minimize the harms associated with gambling disorders. Although public health research discusses many of the social costs associated with gambling, it is not so much focused on estimating values for social costs. Instead, it focuses on how to improve quality of life given gambling problems exist (Walker 2013, 185).

A related area of research deals with “responsible gambling.” This refers to strategies to reduce the likelihood that people will develop gambling disorders and the associated problems, such as financial ruin. Responsible gambling is promoted by the casino industry, researchers, and the government. For example, many casinos have a responsible-gambling program that includes brochures on or near the casino floor that explains how to gamble responsibly. Key suggestions for gambling responsibly include setting loss limits, or an affordable maximum amount one is willing to lose, and time limits on gambling, including the number of gambling sessions and the time per session.

Governments often promote responsible gambling through policies that restrict gamblers’ behavior. For example, several states used to set loss limits (e.g., \$200 every 2 hours), or relatively low maximum bets at table games. Many states also have self-exclusion programs. Such policies are designed to prevent individuals from losing more than they can afford, or otherwise losing control of their gambling. The American Gaming Association (2008)

lists the different regulations designed to promote responsible gambling. There is scant empirical evidence on whether such government policies have been effective in heading off gambling disorders for at-risk populations.

Lastly, numerous researchers have examined how self-imposed betting limits (or pre-commitments) can help reduce the harms associated with gambling. The primary goal is to prevent the development of gambling problems before they begin. Although the evidence is limited, most studies suggest that responsible gambling strategies can be helpful, especially in online gambling scenarios. For examples of responsible gambling research, see Auer and Griffiths (2013), Blaszczynski, Ladouceur, and Shaffer (2004), Blaszczynski, Gainsbury, and Karlov (2013), and Currie et al. (2008).

Impacts on Affected Individuals and Family Members

One of the most established areas of academic research related to gambling behaviors is the impacts of disordered gambling on the affected individual and family members. There has been so much published work on this issue that one can easily find standalone articles that review the literature. Three examples are Shaw et al. (2007), Kalischuk et al. (2006), and Petry (2009). These papers explain the different impacts on the affected individual as well as family members. Petry (2009) discusses the symptoms, diagnosis, and treatment of problem gambling. She explains that studies have shown that individuals with a gambling disorder are more likely to exhibit other health problems as well. For example, “pathological gamblers have significantly elevated rates of tachycardia, angina, cirrhosis, and other liver diseases” (p. 459). The health of family members may also be impacted. For example, children of disordered gamblers often develop gambling problems themselves, are often subject to mental and physical abuse. In addition, such children are:

... At much greater risk for health-threatening behaviors, such as smoking and alcohol or drug use, psychosocial problems, such as an unhappy childhood, or having a ‘broken home’; educational difficulties; and emotional disorders, including dysphoria and suicidal behavior” (Shaw et al. 2007, 619).

Such effects on children have been long reported (e.g., Jacobs et al. 1989). Spouses of disordered gamblers are also usually negatively impacted. Physical and psychological abuse is common, and divorce is much more common in marriages in which at least one partner has a gambling disorder (Shaw et al. 2007). Obviously, children and spouses of disordered gamblers are likely to experience the hardships associated with financial problems, which are commonly associated with gambling disorders. As noted earlier, some of these impacts of disordered gambling could be considered social rather than health problems, but the line is not so clear.

Diagnosis and Treatment of Disordered Gambling

As noted above, the diagnosis, prevalence, and treatment of gambling disorders are the major focus of at least 80% of all gambling research. Several academic journals are almost entirely dedicated to these issues (e.g., *Journal of Gambling Studies*, *International Gambling Studies*). It would be impossible and beyond the scope of this report to provide a detailed review of this entire literature. Instead, we provide an overview of key health issues that are believed to be commonly associated with disordered gambling.

Disordered gambling is recognized in the American Psychiatric Association's DSM-5 (i.e., *Diagnostic and Statistical Manual of Mental Disorders*; American Psychiatric Association 2013). It can be diagnosed in a clinical setting based on a person's endorsement of at least four of nine of the following items during a 12-month period:

1. Needs to gamble with increasing amounts of money in order to achieve the desired excitement
2. Is restless or irritable when attempting to cut down or stop gambling
3. Has made repeated unsuccessful efforts to control, cut back, or stop gambling
4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)
5. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed)
6. After losing money gambling, often returns another day to get even ("chasing" one's losses)
7. Lies to conceal the extent of involvement with gambling
8. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling
9. Relies on others to provide money to relieve desperate financial situations caused by gambling

The more criteria endorsed by an individual, the more likely the person is to have a gambling problem. There has been an enormous amount of research on how people with gambling problems experience the different problems indicated in the DSM criteria.

Disordered gamblers often exhibit antisocial behaviors and illnesses that can range from borrowing from family members or friends to finance their gambling, reduced productivity in their job, increased absences from work, higher probability of divorce, increased suicide

attempts, and depression and physical illness (Walker 2013, 155). These effects are among the list of effects that are typically considered to be “social costs of gambling.” The literature includes a variety of studies that have attempted to estimate monetary values for the social costs of gambling. Such estimates range anywhere from \$2,000 to \$20,000 per disordered gambler per year. Such costs may fall on the individual gambler or on society in general.¹⁸ In its recent report on casino gambling in Florida, Spectrum Gaming Group (2013a, 234) estimated that the annual social costs of gambling, per pathological gambler, range from \$3,000 to \$9,500, depending on how one defines “social cost.”

Research has indicated that disordered gamblers are more likely than the rest of the population to engage in criminal behavior (Meyer and Stadler 1999, Clark and Walker 2009). In addition, such individuals are more likely to drink excessively, use illegal drugs, and hire prostitutes (Walker, Clark, and Folk 2010). There is also strong evidence to indicate that individuals with a gambling problem are also more likely to have other behavioral (i.e., comorbid) disorders such as alcohol and drug abuse, and compulsive shopping. Entire issues of *Journal of Gambling Studies* have been dedicated to studies on comorbidity and gambling and alcohol use (vol. 19, no. 3 and vol. 21, no. 3, respectively). The study by Petry, Stinson, and Grant (2005) estimated that more than 70% of disordered gamblers had other behavioral disorders. A similar result was found by Westphal and Johnson (2007). Even research that does not rely on studies primarily of disordered gamblers suggests that individuals who are more likely to be diagnosed as problem gamblers are more likely to engage in other risky behaviors. Petry (2009, 465) explains that “mood and anxiety disorders also commonly appear with pathological gambling.” As a group, these studies suggest that there is a strong correlation with disordered gambling and other behavioral and health problems.

Prevalence estimates indicate that approximately 0.4% to 2.0% of the general public could be diagnosed as having a gambling disorder (Petry, Stinson, and Grant 2005). This rate appears to be fairly stable across regions. However, there is some evidence to indicate that the rate might be higher in closer proximity to casinos (St-Pierre et al. 2014). When these prevalence rates are considered in the context of the estimated social costs of gambling, it becomes clear that the social and health costs associated with gambling disorders can be quite significant. Despite these costs, governments around the world continue to expand the availability of legalized gambling.

¹⁸ The social cost literature is controversial, and there is little agreement among researchers on how to define and measure social costs. This disagreement is one reason why the monetary estimates have such a wide range. For a detailed discussion of the social costs of gambling, see Walker (2013, chapters 13 and 14).

The treatment of gambling disorders has garnered a significant amount of research attention during the past two decades as casinos have become more common around the world. Treatment often includes a significant counseling component, but may also have medical components. For example, Gamblers Anonymous (“GA”) may be used in a strategy similar to that used for dealing with alcohol problems. Such a strategy does not rely on a medical treatment, but rather on helping the individual better organize his or her thoughts and deal with the sources of the gambling problem. Petry (2009) discusses methods of treatment for disordered gambling. She notes that GA is most common, although it is not very effective: “One year after their initial meeting, less than 10% remained actively involved with GA, and only 8% maintained abstinence from gambling” (p. 461). Petry concludes, “more research is needed to examine the effectiveness of GA as a stand-alone intervention and when combined with professional therapy.”

In discussing medical treatments of gambling problems, Petry notes that naltrexone and nalmefene (opioid antagonists) have been tested, and the findings have indicated that these medications seem effective relative to a placebo. For example, one study indicated that 75% of individuals who were treated with naltrexone rated as “much improved” or “very much improved,” compared to 24% of the patients taking the placebo (Petry 2009, 461). Anti-depressants have also been used to treat gambling problems. For example, Petry reports that paroxetine was used in one study, with the finding that 48% of patients were rated as “very much improved” versus only 5% of the placebo patients (p. 461). However, another study using fluvoxamine found no significant impact. Other types of medication have been tested, and the general result is that medications have the potential to be used as a component of effective treatment of disordered gambling. Of course, more research is needed.

Finally, Petry (2009) reviews studies that examine the effectiveness of cognitive-behavioral therapy. Such therapy usually involves focusing on “identifying cognitive distortions about gambling (e.g., biased memories, illusions of control), reinforcing non-gambling behaviors, and preventing relapse” (p. 462). Other therapies have also proven to be effective.

Overview

Gambling researchers have focused on the mental and physical impacts of legalized gambling. Although research on gambling behaviors is still young, researchers have come a long way in the past two decades understanding the health impacts of disordered gambling. Most disordered gamblers have other behavioral problems, including alcohol or drug problems, other compulsive behaviors, or mood disorders. The diagnosis of disordered gambling has become more refined in the past twenty years, as have different strategies for treatment. Despite these advances, there is still much more research needed on effectively treating disordered gambling.

Finally, we should reiterate that there is an enormous literature on the health impacts of gambling, including diagnosis and treatment, and a thorough review of the literature would be impossible and inappropriate given the scope of the current study. We were unable to find peer-reviewed research that examined health problems associated specifically with casino gambling in Iowa.

Social Services Impact Studies

In previous sections of this literature review we have touched on issues including “impacts on local community services” and “government finance.” We noted that there was not a significant literature on community services, and our review focused on perceptions about the impacts of casinos on local government and the quality of life. We noted in the discussion of local government finance that most local officials surveyed indicated that casinos had a positive impact on their communities. This is consistent with the anecdotal evidence that many communities are still interested in hosting new casino developments. As with the subject of local community services, we are unable to find academic literature that examines the impact of casinos on social services. Nevertheless, there is one area which can be mentioned anecdotally: treatment funding by states for problem gambling.

Typically, the legalization of casinos comes with an agreement that the casino or industry will finance information and treatment of problem gambling. For example, most casinos have brochures on the casino floor that explain to customers how to gamble responsibly and how to find help if needed. Often state governments will include an earmark for such programs to be financed with gambling taxes. The Iowa Gaming Association proclaims, “In 2012, the Iowa legislature allocated millions of dollars to fund the Iowa Gambling Treatment Program.”¹⁹ The program includes 10 treatment providers statewide, the information for which is available on the program’s website.²⁰ As another example, Ohio legalized four casinos in 2009, all of which were opened by February 2013. The gross casino tax is 33% of gross revenues.²¹ The Ohio Department of Taxation indicates that 2% of casino taxes are allocated to the “Problem Casino Gambling and Addictions Fund,” for Alcohol and Drug Addictions Services.²² Other states have similar earmarks to help offset the negative social impacts, particularly related to disordered gambling, of which casino expansion may be a catalyst. Researchers have examined the prevalence of disordered gambling with respect to casino location. The evidence suggests that there is likely to be a higher rate of disordered gambling in

¹⁹ See http://www.iowagaming.org/responsible_gaming/treatment_programs.aspx

²⁰ See http://www.idph.state.ia.us/webmap/default.asp?map=gambling_treatment

²¹ See http://www.tax.ohio.gov/gross_casino_revenue.aspx

²² See <http://www.tax.ohio.gov/government/casinooverview.aspx>

closer proximity to casinos (St-Pierre et al. 2014). However, there is no research of which we are aware that tests the efficacy of government or industry sponsored funding for the treatment of gambling disorders. This is an area that certainly deserves increased attention from researchers.

On the surface, the statutory funding of problem gambling treatment from casino taxes suggests that there will be increased social services of this type when casinos expand. But this does not necessarily mean that the severity or frequency of gambling disorders is diminished from what it would be in the absence of casinos and the attendant funding.

Summary and Conclusion

With this review we have attempted to provide key information available from the academic literature. Gambling research is a young and growing field. As such, the literature does not yet provide a comprehensive picture of the universal impacts of casinos. There are certainly economic and social benefits from casinos, such as tax revenues, employment, upward pressure on wages, and entertainment for consumers. These benefits are offset by a variety of social costs, primarily due to disordered gambling. Individuals with gambling disorders engage in a variety of anti-social and harmful behaviors which affect themselves, their families, and often the rest of society. The values of these impacts are difficult to measure.

Most of the literature examines large samples, meaning multiple jurisdictions. Many studies on employment and taxes have been at the state or national level. Surveys of problem gamblers are often done at a national level. We found no academic studies that focus specifically on Iowa. One would expect that the general economic impacts of casinos would be similar across gaming markets. However, the degree of impacts is likely to be market-specific. This makes a clear understanding of all the impacts of casinos difficult to attain, since most casino markets in the United States have been continually developing. Certainly, the casino landscape in Iowa 1991 is very different from Iowa 2014.

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2. History and Overview of Casino Gambling in Iowa

From 1846 until 1972, the Iowa Constitution outlawed all forms of gambling in the State.²³ In 1972, Article III Section 28 of the Iowa Constitution was repealed, removing this prohibition. Bingo games in church basements predate and ultimately led to the repeal of the gambling prohibition. This happened after the State's Attorney General in 1969 issued an opinion that branded bingo games that required payments for the privilege to play or that awarded prizes as a game of chance and thus illegal. The General Assembly enacted legislation authorizing bingo and raffles during 1973.²⁴

The modern era for gambling in Iowa began in 1983, when the General Assembly enacted the Pari-Mutuel Wagering Act.²⁵ The industry has undergone significant changes over the past 30 years. The first section of this chapter provides a brief summary of major legislative changes that have occurred over this period. But this section begins by providing some perspective on how the growth of gambling in Iowa compares to other states.

Section 2 describes the growth and evolution of racetrack and casino gambling in Iowa. This section presents a brief chronology of the development of different casino venues, changes in the character of casino facilities, ownership changes, and the geographic distribution of these facilities.

Section 3 presents information gathered from Iowa Racing and Gaming Commission statistical reports and from a survey of the 18 State-licensed riverboats, land-based casinos, and racetracks undertaken as part of this study. The statistical presentation includes the history of casino attendance and revenues, gaming tables and slot machines, and wagering taxes and fees paid to State and local governments. Section 4 presents information gathered by the survey that covers the geographic distributions of employees, vendors, and customers.

History of Gaming Legislation

There was a 45-year gap between Nevada's legalization of casino gambling in 1931 and the legalization of gambling in New Jersey in 1976. Through the mid-1990s, eight other states, including Iowa legalized some form of casino gambling. Table 2.1 summarizes the spread of this form of entertainment across the country.

²³ *Iowa Constitution* (1846), Article IV, Paragraph 29; *Iowa Constitution* (1857), Article III, Paragraph 28.

²⁴ Iowa Legislative Services Agency, "Legislative Guide to Gambling in Iowa," December 2002, pp. 1 – 2.

²⁵ *Iowa Acts* 1983, Chapter 187 (Senate File 92), "Pari-mutuel Betting on Horse and Dog Racing."

Table 2.1 Timeline of State-Regulated Casino Gambling

State	Form of Casino Gaming*	Year of Legalization
Nevada	Unlimited Stakes	1931
New Jersey	Unlimited Stakes	1976
South Dakota	Limited Stakes	1989
Iowa	Riverboat	1989
Colorado	Limited Stakes	1990
Illinois	Riverboat	1990
Indiana	Riverboats	1990
Mississippi	Riverboat, Dockside	1990
Louisiana	Unlimited Stakes, Riverboat	1991
Rhode Island	Racetrack VLTs	1992
Missouri	Riverboat	1993
Indiana	Riverboat	1993
West Virginia	Racetrack VLTs	1994
Delaware	Racetrack VLTs	1994
Michigan	Unlimited Stakes	1996
New Mexico	Racetrack Slots	1997
New York	Racetrack VLTs	2001
Maine	Racetrack	2004
Oklahoma	Racetrack Slots	2004
Pennsylvania	Unlimited Stakes	2004
Florida	Racetrack VLTs	2006
Kansas	Unlimited Stakes	2007
Maryland	Standalone and Racetrack VLTs	2008
Ohio	Unlimited Stakes	2009
Massachusetts	Unlimited Stakes	2011
* Form of gambling at legalization; many states have since expanded the forms of casino gambling. Massachusetts has yet to commence casino gambling operations.		

Source: American Gaming Association

By 2013, total U.S. casino gross gaming revenue (wagers minus winnings) equaled \$67.6 billion at nearly 1,000 casinos of all types, and the casinos employed 639,000 in gaming and related non-gaming positions.²⁶ The commercial casinos in 2012 generated \$8.6 billion in direct gaming taxes to state and local governments.²⁷ Iowa offers one of the widest ranges of legalized gambling choices among states, with charitable gaming, pari-mutuel wagering, lotteries,

²⁶ National Indian Gaming Association, Spectrumtrix US Gross Gaming Revenue Analysis, American Gaming Association.

²⁷ American Gaming Association, *State of the States 2013*, p. 6.

commercial casinos, Indian casinos, and racetrack casinos. The only states that outlaw all forms of gambling are Hawaii and Utah.

The push for pari-mutuel wagering in Iowa began as far back as the mid-1970s. In 1981 the Linn County Fairgrounds hosted Quarter Horse racing, drawing crowds as large as 1,400.²⁸ An important factor that contributed to the legalization of pari-mutuel wagering in 1983 was the farm recession that devastated much of Iowa's economy during the early-1980s. Governor Branstad inaugurated the modern era of gambling in Iowa by signing the Pari-Mutuel Wagering Act on June 10, 1983. This signing is shown in the following figure.

Figure 2.1 Signing the Pari-Mutuel Wagering Act of 1983



Photograph provided by Harvey Siegelman (second from left, first row)

The 1983 legislation established the Iowa Racing Commission, which would consist of five members, and vested it with the following powers and authority:

- To investigate and determine the eligibility of applicants for racing licenses,
- To identify occupations within the racing industry that require licensing and to establish standards for licensing these occupations,

²⁸ "About the Iowa Quarter Horse Association," <http://www.iquh.com/about.php> (accessed March 18, 2014).

- To establish rules related to the establishment of racing schedules, purses, and testing of animals and equipment, and the treatment of animals,
- To establish financial and other reporting requirements for racing license holders and require the annual audit of the finances of these organizations, and
- To provide for and impose sanctions for violations of Commission rules and State statutes.

The legislation required that holders of racing licenses be non-profit corporations. The wagering tax imposed by the legislation equaled 6% of the gross sum wagered on races with 5% going to the State General Fund and with 0.5% each going to the cities and counties in which racetracks are located.²⁹

The State Racing Commission granted the first racing licenses on July 18, 1984. It granted a thoroughbred license to the Racing Association of Central Iowa for a track to be constructed in Bondurant. It granted greyhound racing licenses to the National Cattle Congress in Waterloo and the Dubuque Racing Association. On August 28, 1984, the Commission approved a third greyhound racing license for the Iowa West Racing Association in Council Bluffs.

Dubuque Greyhound Park opened on June 1, 1985. The Iowa West Racing Association opened Bluffs Run on February 27, 1986. The National Cattle Congress opened Waterloo Greyhound Park on October 15, 1986. And after modifying its license application, the Racing Association of Central Iowa opened Prairie Meadows Racetrack in Altoona on March 1, 1989.

During March 1985, the Commission approved a license for the Iowa Horse Racing Association to hold pari-mutuel harness races at various county fairgrounds during 1985 through 1988.³⁰

Also, during 1985 the General Assembly approved the creation of a State lottery.³¹

The General Assembly enacted legislation during 1989 to allow pari-mutuel wagering on simulcast races by licensed facilities that also held live horse or dog racing events. In addition, the 1989 legislation marked the next incremental expansion of the gaming industry in Iowa by giving the Commission the authority to license gambling on excursion boats in counties where

²⁹ *Iowa Acts* 1983, Chapter 187 (Senate File 92), "Pari-mutuel Betting on Horse and Dog Racing."

³⁰ "Chronology of the Iowa Racing and Gaming Commission,"

<http://www.iowa.gov/irgc/CommChronology.htm> (accessed March 18, 2014), p 1.

³¹ *Iowa Acts* 1985, Chapter 33 (House File 225), "Economic Development, Lottery and Trade Center."

voters approved such activity. The Iowa Racing Commission became the Iowa Racing and Gaming Commission.³²

This expansion of gaming in Iowa was measured. The legislation established a maximum wager of \$5 per hand or play and limited an individual gambler's losses to \$200 per excursion. As with the horse and dog tracks, the excursion-boat license holder had to be a non-profit organization. The excursion boats had to be constructed and furnished in such a way as to resemble historic Iowa riverboats. Gambling space on each boat was limited to 30% of square footage. From April through October, gambling could only occur while boats were on excursion. Gambling games were restricted to twenty-one, dice, slot machines, video games of chance, and roulette.

During August and September 1989, voters held gambling referendums in nine counties, which resulted in approvals in eight counties – Clinton, Des Moines, Dubuque, Jackson, Lee, Muscatine, Scott, and Woodbury – and rejection in Clayton County. In 1991, Allamakee and Clayton county voters approved excursion-boat gambling referendums and in November 1992 Polk County voters approved excursion boat gambling.³³

In 1992, legislation removed the live-racing requirement for gaming facilities to offer simulcast wagering at pari-mutuel facilities. However, during 1994 the live-racing requirement was re-established. The new minimum live racing requirement was 60 performances of at least nine live races each day of the season.³⁴

Gambling at both the tracks and the excursion boats experienced a bumpy start. Prairie Meadows in November 1991 and the Waterloo Greyhound Park in December 1993 filed for Chapter 11 Bankruptcy. The Bettendorf and the Burlington/Fort Madison/Keokuk excursion boats ceased operation in July 1992 followed by the Dubuque excursion boat in March 1993. These troubles led to additional remedial legislation during 1994.³⁵

House File 2179 provided the following remedies:

- the elimination of the \$5-per-wager and \$200-per-excursion gambling limits,
- the allowing of gambling games at racetrack enclosures for tracks in existence on January 1, 1994,
- the reduction of the minimum excursion boat capacity from 500 to 250,

³² *Iowa Acts* 1989, Chapter 67 (Senate File 124), "Excursion Boat Gambling."

³³ "Chronology of the Iowa Racing and Gaming Commission," <http://www.iowa.gov/irgc/CommChronology.htm> (accessed March 18, 2014), p. 2.

³⁴ *Ibid.*, p. 3.

³⁵ *Ibid.*, pp. 3 – 4.

- the elimination of the restriction of gambling areas to 30% of excursion boat square footage,
- the allowing of nickel and quarter wagering,
- the elimination of the prohibition against dockside gambling,
- the allowing of 24-hour gambling operations, and
- a reduction in assessment for the State Gambler's Treatment Program from 3% to 0.3% of adjusted gross revenues.³⁶

The racetracks took advantage of the new legislation and over the next decade made numerous expansions to accommodate expanded gambling opportunities. They also expanded other facilities, including buffet areas and entertainment facilities. For example, in July 1999, the Commission approved plans for Prairie Meadows to add space for 336 slot machines and for Harrah's Casino and Hotel to add 512 slot machines and 17 table games. In September 1999, the Commission approved 275 slot machines for the President Riverboat in Davenport.³⁷

In May 1998, following Governor Branstad's veto of Senate File 2320, which proposed to impose a moratorium on new gambling venues, the Commission adopted a rule effectively imposing a moratorium on new locations. Under this rule, the Commission limited the number of horse-racing tracks to one (Prairie Meadows) and the number of dog-racing licenses to the two located in Dubuque and Pottawattamie Counties. Additionally, the rule limited the number of excursion boat licenses to 10.³⁸

Legislation enacted during 2004 marks the next big change in the character of racetrack, riverboat, and casino gambling in Iowa. The provisions of this legislation may be grouped under two main themes – the distribution of wagering taxes and fees and the expansion of allowable gambling facilities. Among the provisions that address wagering taxes and fees are:

- the dedication of 0.5% of adjusted gross revenue to Community Endowment Funds,
- the increase in the amount paid into the State Gambling Treatment Fund from 0.3% to 0.5% of adjusted gross revenues,
- the establishment of a minimum contribution threshold for charitable contributions at 3% of adjusted gross revenues,
- the establishment of a schedule of initial license fees for new gambling licenses to be paid over the first four years of operation, and
- the establishment of a new wagering tax structure

³⁶ *Iowa Acts* 1994, Chapter 1021 (House File 2179), "Gambling."

³⁷ "Chronology of the Iowa Racing and Gaming Commission,"

<http://www.iowa.gov/irgc/CommChronology.htm> (accessed March 18, 2014), p. 7.

³⁸ "Moratorium," <http://www.iowa.gov/irgc/CommMoratorium.htm> (accessed March 16, 2014).

Provisions that provided opportunities for the expansion of gambling options and venues include:

- the redefinition of excursion gambling boat to include moored barges,
- the authorization of table games, including video machines that simulate table games, at racetrack enclosures, and
- the allowing of excursion gambling boats to be operated on a natural or man-made lake or reservoir

In addition, this legislation required the Legislative Council to commission a study of socioeconomic impacts of gambling.³⁹

At its June 10, 2004 meeting, the Commission took steps to lift the moratorium on new gambling facilities imposed in 1998 and set a deadline of November 10, 2004, for the submission of new riverboat gambling facility applications. Ten groups submitted applications by the deadline. Applicants made presentations at a two-day Commission meeting on March 22-23, 2005. Following site visits and public hearings the Commission granted four new licenses at its May 11, 2005 meeting to:

- Wild Rose Emmetsburg, LLC/ Palo Alto County Gaming Development Corporation,
- Diamond Jo Worth, LLC/ Worth County Development Authority,
- IOC Black Hawk County, Inc./ Black Hawk County Gaming Association, and
- Washington County Casino Resort, LLC/ Washington County Riverboat Foundation, Inc.⁴⁰

Senate File 263 enacted during 2007 made another significant change to the nature of gaming facilities in Iowa. This legislation expanded the definition of gambling structures to include any man-made stationary structure approved by the Commission that 1) does not include a racetrack enclosure, 2) is subject to land-based building codes rather than maritime or Iowa Department of Natural Resource inspection laws and regulations, and 3) is licensed to conduct lawful gambling as provided in *Iowa Code* Chapter 99F (Gambling Boat, Gambling Structure, and Racetrack Regulation).⁴¹

Most recently, the enactment of Senate File 526 during the 2011 legislative session eliminated the requirement that every eight years voters reapprove the operation of gambling games in counties where such referendums had been approved in two successive previous

³⁹ *Iowa Acts* 2004, Chapter 1136 (House File 2302), "Gambling – Miscellaneous Changes."

⁴⁰ "Chronology of the Iowa Racing and Gaming Commission,"

<http://www.iowa.gov/irgc/CommChronology.htm> (accessed March 18, 2014), p. 11.

⁴¹ *Iowa Acts* 2007, Chapter 188 (Senate File 263), "Gambling Games and Gambling Structures."

elections. In addition, this legislation required the Commission to prepare a report for delivery to the

General Assembly by December 1, 2011, on the creation of a framework for the State regulation of intrastate Internet poker.⁴²

The Growth and Evolution of Casino Gambling in Iowa

The first gambling venues granted licenses by the Iowa Racing Commission were for thoroughbred racing in Bondurant (subsequently changed to Altoona) in Polk County and for greyhound racing in Dubuque and in Waterloo. The Commission granted these three licenses on July 18, 1984. At the same meeting the Commission denied four other license applications from Linn County (horse), Fremont County (greyhound), Muscatine County (greyhound), and Pottawattamie County (greyhound). However, the following month the Commission did approve a third greyhound racing license for the Iowa West Racing Association in Council Bluffs, which opened a track named Bluffs Run.

Table 2.2 summarizes the history of racetrack, riverboat, and casino licenses approved, denied, surrendered to, and revoked by the Iowa Racing Commission and Iowa Racing and Gaming Commission. The table identifies the location county, applicant, facility, license type, type of action, and date for each event. As this commission action summary shows the Commission has been deliberate in its actions. Not every application for a gambling license has been approved. Over the Commission's 30 years it has approved 30 license applications, denied 22, revoked 1, and accepted the surrender of 7.

The racetrack facilities hold separate racing and gambling-enclosure licenses. In several instances, licenses were granted in a county after several prior applications for the area were rejected. Organizations from 22 counties have made applications for some type of gambling license since 1984. There are currently 18 State-licensed casinos in 14 counties. As of March 2014, there are two additional counties – Greene and Linn – interested in adding new casinos.

Another way in which casino gambling has expanded in the state is through additions to existing facilities. Prairie Meadows has undertaken the largest number of expansion projects. On July 15, 1999, the Commission approved the addition of 336 slot machines. Then, five and a half years later, on January 25, 2005, the Commission approved a much larger expansion that included improved jockey and paddock areas, 32 table games, 500 slot machines, an entertainment area, a multipurpose room, new kitchen, and restaurants.

⁴² *Iowa Acts* 2011, Chapter 111 (Senate File 526), "Gambling Regulation and Licensing."

All three of the Council Bluffs facilities have undergone expansions and other improvements. In July 1999 the Commission approved an additional 512 slot machines and 17 table games for Harvey's (later Harrah's). Additional improvements were approved for Harrah's in November 2012. Bluffs Run received Commission approval for an expansion project in March 2004 and Ameristar received Commission approval to the renovation and expansion of its facility along with additional gaming positions in July 2004.⁴³

Another form of change in the character of gambling facilities has been the addition of lodging, entertainment, and resort facilities either as part of the casino properties or adjacent to them. 12 of the gambling facilities have hotels, 12 have entertainment space, 15 have meeting rooms, and two have golf courses.

⁴³ "Chronology of the Iowa Racing and Gaming Commission," <http://www.iowa.gov/irgc/CommChronology.htm> (accessed March 18, 2014), pp. 6, 9 and 10.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 2.2 History of Commission Licensing Actions

Location County	Applicant	Facility Name	License Type	Commission Action	Action Date	Began Operation
Polk	Racing Association of Central Iowa	Prairie Meadows	thoroughbred	approved	18-Jul-84	1-Mar-89
Black Hawk	National Cattle Congress	Waterloo Greyhouse Park	greyhound	approved	18-Jul-84	15-Oct-86
Dubuque	Dubuque Racing Association	Dubuque Greyhound Park	greyhound	approved	18-Jul-84	1-Jun-85
Linn	Nakoni Park, Inc.		horse	denied	18-Jul-84	
Pottawattamie	Council Bluffs Greyhound Association		greyhound	denied	18-Jul-84	
Fremont	Southwest Iowa Racing Association		greyhound	denied	18-Jul-84	
Muscatine	West Liberty		greyhound	denied	18-Jul-84	
Pottawattamie	Iowa West Racing Association	Bluffs Run	greyhound	approved	28-Aug-84	27-Feb-86
Multi-Counties	Iowa Horse Racing Association		horse	approved	15-Mar-85	
Linn	Cedar Rapids Horse Racing, Inc.		horse	approved	11-Jul-85	
Linn	Cedar Rapids Horse Racing, Inc.		horse	surrendered	14-Jan-86	
Linn	Heartland Association		horse	denied	14-Jul-87	
Polk	Racing Association of Central Iowa	Prairie Meadows	thoroughbred	renewed	14-Jul-87	1-Mar-89
Dubuque	Dubuque Racing Association/ Dubuque Casino Belle	Casino Belle	excursion boat	approved	8-Mar-90	1-Apr-91
Des Moines/ Lee	Southeast Iowa Regional Authority/ Steamboat Southeast	Emerald Lady	excursion boat	approved	8-Mar-90	10-May-91
Scott	Riverbend Regional Authority/ Steamboat Development Corp.	Diamond Lady	excursion boat	approved	8-Mar-90	1-Apr-91
Scott	Riverboat Development Authority/ The Connelly Group	the President	excursion boat	approved	8-Mar-90	1-Apr-91
Woodbury	Missouri River Historical Development/ Missouri Riverboat Association		excursion boat	approved	8-Mar-90	
Woodbury	Missouri River Historical Development/ Missouri Riverboat Association		excursion boat	revoked	1-Oct-90	
Woodbury	Missouri River Historical Development/ Steamboat Sioux City		excursion boat	approved	27-Nov-90	
Clinton	Clinton County Gaming Association/ Mississippi Belle II	Mississippi II	excursion boat	approved	19-Jan-91	12-Jun-91
Woodbury	Missouri River Historical Development/ Steamboat Sioux City		excursion boat	surrendered	26-Mar-92	
Scott	Riverbend Regional Authority/ Steamboat Development Corp.	Diamond Lady	excursion boat	surrendered	Jul-92	
Des Moines/ Lee	Southeast Iowa Regional Authority/ Steamboat Southeast	Emerald Lady	excursion boat	surrendered	Jul-92	
Woodbury	Missouri River Historical Development/ Sioux City Riverboat Corp	Sioux City Sue	excursion boat	approved	2-Jul-92	29-Jan-93
Dubuque	Dubuque Racing Association/ Dubuque Casino Belle	Casino Belle	excursion boat	surrendered	Mar-93	
Dubuque	Dubuque Racing Association/ Greater Dubuque Riverboat Entertainment	Diamond Jo	excursion boat	approved	Mar-93	18-May-94
Woodbury	Summit Riverboat Casinos Sioux City/ Missouri River Historical Development		excursion boat	denied	16-Sep-93	
Des Moines/ Lee	Southeast Iowa Regional Riverboat Corp./ Catfish Bend Casinos	Catfish Bend Casino	excursion boat	approved	20-Jan-94	16-Nov-94
Clayton	Marquette Gaming Corporation/ Gamblers Supply Management Company	Miss Marquette	excursion boat	approved	18-Nov-94	26-Dec-94
Woodbury	Missouri River Historical Development/ Belle of Sioux City	Belle of Sioux City	excursion boat	approved	18-Nov-94	1-Dec-94
Woodbury	Missouri River Historical Development/ Sioux City Riverboat Corp	Sioux City Sue	excursion boat	surrendered	1-Dec-94	
Scott	Riverbend Regional Authority/ Lady Luck Bettendorf	Lady Luck	excursion boat	approved	18-Jan-95	21-Apr-95
Pottawattamie	Iowa West Racing Association/ Harvey's Iowa Management Company	Harvey's Casino Hotel	excursion boat	approved	20-Jan-95	1-Jan-96
Pottawattamie	Iowa West Racing Association/ Ameristar Council Bluffs	Ameristar Casino	excursion boat	approved	20-Jan-95	19-Jan-96
Pottawattamie	President Riverboat Casino - Carter Lake/ Pottawattamie County Gaming Association		excursion boat	denied	20-Jan-95	
Pottawattamie	Boomtown Iowa/ Iowa West Racing Association		excursion boat	denied	20-Jan-95	
Pottawattamie	Iowa Par-A-Dice/ Iowa West Racing Association		excursion boat	denied	20-Jan-95	
Pottawattamie	Abbott LC - MOM/ Pottawattamie County Gaming Association		excursion boat	denied	20-Jan-95	
Pottawattamie	Iowa West Racing Association	Bluffs Run Casino	racetrack enclosure	approved	28-Feb-95	15-Mar-95
Polk	Racing Association of Central Iowa	Prairie Meadows Casino	racetrack enclosure	approved	28-Feb-95	1-Apr-95
Dubuque	Dubuque Racing Association	Dubuque Greyhouse Park Casino	racetrack enclosure	approved	20-Jul-95	22-Nov-95

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 2.2 (continued) History of Commission Licensing Actions

Location County	Applicant	Facility Name	License Type	Commission Action	Action Date	Began Operation
Clarke	Clarke County Development Corp./ Argosy of Iowa		excursion boat	denied	20-Jul-95	
Black Hawk	Waterloo Greyhound Park		greyhound	surrendered	7-Mar-96	
Lee	ILLIAMO/ Midwest Gaming		excursion boat	denied	18-Apr-96	
Clarke	Clarke County Development Corp./ Argosy of Iowa		excursion boat	denied	8-Apr-97	
Clarke	Clarke County Development Corp./ Southern Iowa Gaming Company	Lakeside Casino Resort	excursion boat	approved	20-Nov-97	1-Jan-00
Palo Alto	Wild Rose Emmetsburg/ Palo Alto County Gaming Development Corp.	Wild Rose Casino and Resort	casino	approved	11-May-05	28-May-06
Worth	Diamond Jo Worth LLC/ Worth County Development Authority	Diamond Jo Casino	casino	approved	11-May-05	6-Apr-06
Black Hawk	IOC Black Hawk County Inc./ Black Hawk County Gaming Association	Isle Casino and Hotel	casino	approved	11-May-05	30-Jun-07
Washington	Washington County Casino Resort LLC/ Washington County Riverboat Foundation	Riverside Casino and Golf Resort	casino	approved	11-May-05	31-Aug-08
Webster	Mineral City Hotel & Casino LLC? Heart of Iowa Foundation		casino	denied	11-May-05	
Palo Alto	Northwest Iowa Gaming Company/ Palo Alto County Development		casino	denied	11-May-05	
Franklin	Landmark Gaming LC/ Franklin County Development Association		casino	denied	11-May-05	
Black Hawk	Cedar Valley Gaming Company LLC/ Cedar Valley Grants Inc.		casino	denied	11-May-05	
Black Hawk	Black Hawk County Greyhound Park & Casino/ National Dairy Cattle Congress Inc.		casino	denied	11-May-05	
Wapello	Wind Rose Ottumwa LLC/ River Hills Riverboat Association		casino	denied	11-May-05	
Lyon	Lyon County Resort and Casino/ Lyon County Riverboat Foundation Inc.		casino	approved	13-May-10	8-Jun-11
Webster	Webster County Gaming LLC/ Heart of Iowa Foundation		casino	denied	13-May-10	
Wapello	Ingenus of Iowa LLC/ River Hills Riverboat Authority		casino	denied	13-May-10	
Tama	Signature Management Group of Iowa/ Tama County Community Enfrichment Inc.		casino	denied	13-May-10	

Source: "Chronology of the Iowa Racing and Gaming Commission," <http://www.iowa.gov/irgc/CommChronology.htm> (accessed March 18, 2014)

One final type of transformation that has occurred within the gaming industry in Iowa involves the change in ownership of gambling facilities. Currently, Iowa-based companies own eight of the State-licensed gambling facilities. Two are owned by local governments: The City of Dubuque owns Mystique and Polk County owns Prairie Meadows. Catfish Bend in Burlington remains the only single location locally owned casino in Iowa. Wild Rose Entertainment, headquartered in West Des Moines, owns casinos located in Clinton and Emmetsburg. A group headed up by the Kehl family from Dubuque owns casinos and resorts located near Riverside in Washington County and near Larchwood in Lyon County. In addition, the Kehl Development Corporation recently purchased Rhythm City in downtown Davenport from Isle of Capri and proposes to replace it with a land-based casino north of the city along Interstate 80.

Isle of Capri, which owns casinos in Marquette, Bettendorf, and Waterloo, started out as an Iowa-based company. It was started by the family that owned Alter Trading Corporation, a large Davenport-based scrap-metal and river-transportation company. Several years ago the gaming operational headquarters moved to St. Louis.

Most of the other Iowa casino facilities are owned by four Las Vegas-based companies. Boyd Gaming acquired the Diamond Jo Casinos located near Northwood in Worth County and in Dubuque from Peninsula Gaming Corporation in 2011. Caesars Entertainment owns two facilities in Council Bluffs (Horseshoe and Harrah's). The third Council Bluffs casino is owned by Ameristar Casinos, which is now part of Pinnacle Entertainment. Affinity Gaming owns Lakeside Hotel and Casino in Osceola.

The final State-licensed gambling facility is Argosy in Sioux City owned by Penn National Gaming, which is based in Wyomissing, Pennsylvania. However, this riverboat facility is being retired and will be replaced by a new, Hard Rock-branded land-based casino.

Statistical Profile of Casino Gambling in Iowa

This section presents a profile of casino gambling in Iowa. Information is provided on the existing 18 State-licensed racetracks, riverboats, and casinos. Also presented are statistics on aggregate facility admissions and revenues. Other information shows types of gambling options and other facilities at the different locations.

Table 2.3 presents information obtained from annual reports the Iowa gambling facilities file with the Iowa Racing and Gaming Commission. The information includes the dates when the facilities opened for business, the size of the properties on which they are located, primary building size, and investment amounts.

Table 2.3 Iowa Casinos and Racetracks Construction Startup Costs

Properties	Date Opened	Number of Acres	Primary Building Square Footage	Land & Improvements Costs	Building, Equipment & Fixtures Cost	Capitalized Leases Cost
Wild Rose Clinton	6/10/91	29	119,000	\$1,200,000	\$23,900,000	
Diamond Jo	5/1/94	7	188,600	\$3,381,000	\$89,391,679	
Catfish Bend	11/16/94	64	55,600	\$7,400,000	\$77,000,000	
Argosy	12/1/94	0	19,000	\$0	\$6,000,000	
Horseshoe	3/17/95	64	246,084	\$5,510,739	\$65,603,238	
Prairie Meadows	4/1/95	233	521,944	\$34,832,000	\$128,268,000	\$408,870
Isle Bettendorf	4/21/95	25	317,802	\$17,527,000	\$228,193,000	
Mystique	11/1/95	47	120,500	\$40,272,898	\$34,298,548	\$13,985,211
Harrah's	1/1/96	106	317,387	\$15,000,000	\$92,000,000	\$13,965,333
Ameristar	1/19/96	59	118,016	\$15,842,549	\$108,000,000	
Lakeside	1/1/00	100	101,207	\$847,000	\$33,000,000	
Lady Luck	3/2/00	31	20,658	\$945,712	\$10,846,213	
Rhythm City	10/10/00	6	22,000	\$0	\$87,209,000	
Diamond Jo Worth	4/6/06	36	107,013	\$2,704,000	\$51,495,000	
Wild Rose Emmetsburg	5/28/06	90	78,000	\$600,000	\$20,000,000	
Riverside	8/31/06	375	310,000	\$20,300,000	\$69,000,000	
Isle Waterloo	6/30/07	54	165,000	\$2,049,552	\$101,708,106	
Grand Falls	6/8/11	207	275,000	\$4,700,000	\$59,000,000	
Total		1,532	3,102,811	\$173,112,450	\$1,284,912,784	\$28,359,414

Source: Iowa Racing and Gaming Commission

Overall the facilities occupy 1,532 acres and more than 3.1 million square feet of primary building space. The largest properties are those occupied by Riverside (375 acres), Prairie Meadows (233 acres), and Grand Falls (207 acres). The Riverside and Grand Falls properties both include golf courses. The Prairie Meadows property includes the thoroughbred racetrack and associated horse stalls, paddock, and jockey facilities.

The sizes of primary casino spaces range from 19,000 square feet for the Argosy riverboat to 521,944 square feet for Prairie Meadows. The other large casino facilities are Isle of Capri Bettendorf (317,802 square feet), Harrah's (317,387 square feet), and Riverside (310,000 square feet).

Table 2.4 Iowa Casinos and Racetracks Gaming Facilities and Capacities, 2013

Properties	No. of Slots	No. of Table Games	Patron Capacity	Number of Employees	Number of Iowa Employees	2013 Casino Adjusted Gross Revenue	2013 Casino Admissions
Wild Rose Clinton	546	12	1,790	250	199	\$35,801,720	632,948
Diamond Jo	996	19	3,282	507	388	\$67,099,021	1,116,897
Catfish Bend	625	28	2,213	222	187	\$38,704,850	803,278
Argosy	709	20	1,800	307	243	\$52,292,964	763,014
Horseshoe	1,640	72	8,935	990	476	\$199,372,793	2,100,255
Prairie Meadows	2,252	50	6,055	1,369	1,369	\$187,640,078	2,863,648
Isle Bettendorf	978	21	2,300	591	305	\$73,433,849	1,008,943
Mystique	972	23	3,500	399	364	\$56,536,557	999,845
Harrah's	591	18	1,905	508	249	\$71,290,799	1,128,939
Ameristar	1,588	24	2,700	848	424	\$164,309,320	1,975,812
Lakeside	1,042	13	1,800	343	343	\$50,041,318	660,535
Lady Luck	566	8	1,200	206	112	\$29,364,803	322,302
Rhythm City	895	14	2,200	261	165	\$45,967,412	785,302
Diamond Jo Worth	1002	30	3,547	419	266	\$87,434,044	1,299,943
Wild Rose Emmetsburg	525	16	900	268	267	\$32,270,571	524,579
Riverside	1140	46	4,562	756	747	\$89,124,199	1,884,393
Isle Waterloo	952	27	3,180	573	573	\$86,096,581	1,352,650
Grand Falls	890	37	3,513	520	99	\$58,658,799	1,236,542
Total	17,909	478	55,382	9,337	6,029	\$1,425,439,678	21,459,824

Source: Iowa Racing and Gaming Commission

Total investment in the 18 properties equals almost \$1.5 billion. The more-than-\$245 million investment made in Isle of Capri Bettendorf is the largest. The \$160 million invested in Prairie Meadows is the second largest, followed by the almost \$124 million investment by Ameristar.

Table 2.4 presents a summary of statistics for gambling options, facility capacity, employment, adjusted gross revenues, and admissions compiled from 2013 reports filed with the Iowa Racing and Gaming Commission.

The 18 State-licensed facilities reported having almost 18,000 slot machines and 478 table games. The occupancy limit of all the gambling areas combined is more than 55,000 people. Annual admissions totaled almost 21.5 million and adjusted gross gaming revenues equaled over \$1.4 billion. The casinos employed 9,337 full- and part-time workers, with just under 65% residing in Iowa. Subsequent analysis presents the distribution of workers by state based on a more recent survey.

Table 2.5 presents information on non-gambling amenities and services provided by the 18 gambling facilities.

Table 2.5 Casino on-Site Lodging, Meeting and Dining Amenities

Properties	On-Site Hotel Rooms	Meeting Room Conf. Capacity	Meeting Room Square Footage	Dining Facility Capacity	Number of Dining Venues	Entertainment Capacity	Square Footage	RV Parking (Sites)
Wild Rose Clinton	60	N/A	17,206	1,150	3	N/A	120,000	Yes
Diamond Jo	No	344	4,922	534	4	1,782	33,307	Yes
Catfish Bend	No	1,155	12,800	660	3	N/A	130,000	Yes
Argosy	No	600	8,800	73	1	500	7,746	Yes
Horseshoe	No	249	2,734	1,037	3	646	9,500	43
Prairie Meadows	168	3,401	58,174	1,683	4	2,155	21,900	Yes
Isle Bettendorf	514	540	750	404	3	1,600	24,000	Yes
Mystique	No	N/A	N/A	550	4	2	500	No
Harrah's	251	355	5,325	740	4	4,515	56,330	Yes
Ameristar	160	1,135	15,895	1,680	5	953	22,861	Yes
Lakeside	150	950	6,850	820	5	950	6,850	47
Lady Luck	No	N/A	N/A	151	2	250	3,360	Yes
Rhythm City	No	150	1,600	224	1	150	1,600	No
Diamond Jo Worth	No	598	6,997	346	2	637	8,862	No
Wild Rose Emmetsburg	70	616	6,000	559	3	N/A	16,800	68
Riverside	201	1,000	N/A	510	3	1,200	58,000	20
Isle Waterloo	195	400	5,000	N/A	3	N/A	35,000	Yes
Grand Falls	97	1,300	12,000	800	4	1,200	274,000	14
Total	1,866	12,793	165,053	11,921	57	16,540	830,616	

Source: Iowa Racing and Gaming Commission

Table 2.6 Live and Simulcast Pari-Mutuel Handles (\$Millions)

Fiscal Year	Live	Simulcast Imported	Simulcast Exported	Total
1986	\$188.2	\$0.0	\$0.0	\$188.2
1987	\$218.4	\$0.0	\$0.0	\$218.4
1988	\$223.7	\$0.0	\$0.0	\$223.7
1989	\$237.6	\$0.4	\$0.0	\$238.0
1990	\$174.6	\$5.1	\$0.0	\$179.7
1991	\$138.1	\$18.3	\$14.2	\$170.6
1992	\$94.3	\$38.4	\$28.8	\$161.5
1993	\$62.8	\$39.1	\$36.1	\$138.0
1994	\$46.6	\$48.3	\$34.1	\$129.0
1995	\$32.5	\$45.4	\$17.6	\$95.5
1996	\$27.1	\$45.9	\$16.8	\$89.8
1997	\$26.1	\$50.4	\$52.3	\$128.9
1998	\$25.0	\$46.5	\$64.3	\$135.8
1999	\$23.1	\$43.8	\$81.9	\$148.8
2000	\$21.1	\$39.4	\$65.4	\$125.9
2001	\$18.8	\$39.1	\$56.3	\$114.2
2002	\$18.8	\$40.4	\$73.2	\$132.5
2003	\$17.0	\$38.4	\$69.4	\$124.9
2004	\$15.5	\$33.0	\$68.3	\$116.8
2005	\$14.3	\$31.5	\$64.1	\$109.9
2006	\$13.5	\$31.4	\$66.3	\$111.2
2007	\$13.2	\$33.4	\$77.6	\$124.2
2008	\$12.4	\$30.5	\$84.5	\$127.4
2009	\$11.2	\$32.6	\$70.4	\$114.3
2010	\$10.6	\$36.2	\$73.5	\$120.3
2011	\$10.7	\$30.7	\$78.6	\$120.0
2012	\$10.6	\$30.2	\$70.3	\$111.1

Source: Iowa Racing and Gaming Commission

Ten of the casinos include hotels, with a total room capacity of 1,866, and 15 of the casinos provide space for recreational vehicle parking. All the casinos have restaurants, with a total of 57 dining venues. Almost all of the facilities offer meeting and entertainment space.

As chronicled previously, the gambling industry in Iowa has grown and evolved over the past three decades. Beyond bingo and raffles, horse and greyhound racing marked the initial foray into State-licensed gambling. Table 2.6 presents the history of the live and simulcast pari-mutuel handle (gross receipts) at the state’s racetracks.

The first riverboat began operation in Clinton in June 1991. The first racetrack gambling enclosure facility opened at Bluffs Run in Council Bluffs in March 1995. By 2000, gambling

venues began to be opened on natural and man-made lakes inland from the Mississippi and Missouri rivers. As more facilities opened for business gambling activity increased, as shown in Table 2.7.

The big increase in admissions and adjusted gross receipts occurred between 1994 and 2000. Over these years, the number of gambling venues increased from seven to 13. Admissions increased by more than 770%, from 3 million to 21.2 million, and adjusted gross receipts increased by almost 900%, from \$100.7 million to \$892.7 million.

After 2000, growth of admissions to gambling facilities leveled off. Even though five more State-licensed gambling facilities opened, the number of admissions peaked at 23.5 million during 2007. No doubt the recession that began in December 2007 was a significant factor that led to a drop in admissions to 22.0 million over the next three years.

From 2000 to 2013, adjusted gross receipts continued to increase rising from \$892.7 million to \$1,416.7 million, or by 58.7%. About three-fifths of this increase can be attributed to a general increase in prices. Figure 2.2 shows the growth of adjusted gross receipts adjusted for inflation. Also, this figure shows the growth of real per-capita adjusted gross receipts.

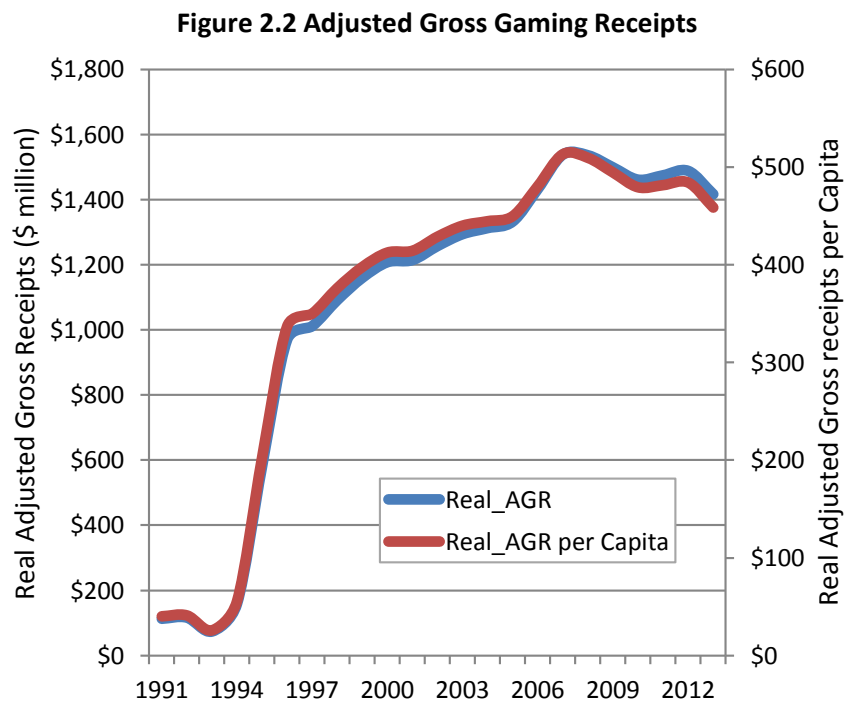


Table 2.7 Iowa Casino and Racetrack Historical Trends

Year	Number of Casinos/ Racetracks	Adjusted Gross Receipts (\$Millions)	Admissions (Millions)	Number of Table Games	Table Revenue (\$Millions)	Number of Slot Machines	Slot Revenue (\$Millions)
1991	5	\$65.7	2.1	92	\$10.5	1,792	\$54.3
1992	5	\$69.8	2.2	98	\$9.9	1,827	\$59.9
1993	4	\$45.4	1.7	79	\$6.6	1,393	\$38.7
1994	7	\$100.7	3.0	102	\$24.1	1,713	\$76.0
1995	10	\$379.6	10.6	210	\$58.3	6,029	\$321.3
1996	12	\$653.0	19.6	314	\$97.0	9,006	\$555.4
1997	12	\$696.9	20.6	330	\$95.8	9,095	\$600.5
1998	12	\$763.6	20.9	337	\$96.4	9,793	\$666.7
1999	12	\$829.4	20.7	332	\$93.7	10,182	\$735.3
2000	13	\$892.7	21.2	345	\$97.8	11,831	\$794.9
2001	13	\$922.9	19.4	300	\$86.1	12,083	\$836.7
2002	13	\$971.0	19.9	259	\$81.9	12,184	\$890.4
2003	13	\$1,022.1	19.4	229	\$83.8	12,261	\$938.4
2004	13	\$1,064.4	19.5	268	\$86.3	12,483	\$979.9
2005	13	\$1,117.1	19.9	327	\$102.0	13,036	\$1,015.1
2006	16	\$1,239.4	21.6	380	\$117.1	14,481	\$1,122.4
2007	17	\$1,369.2	23.5	491	\$129.2	17,724	\$1,240.0
2008	17	\$1,419.5	22.9	494	\$130.1	17,418	\$1,289.5
2009	17	\$1,380.7	22.6	493	\$119.6	17,565	\$1,261.1
2010	17	\$1,368.1	22.0	483	\$117.0	17,495	\$1,251.1
2011	18	\$1,424.0	22.2	491	\$125.8	17,723	\$1,298.2
2012	18	\$1,466.8	22.6	475	\$132.8	18,095	\$1,334.0
2013	18	\$1,416.7	21.2	471	\$132.5	17,921	\$1,284.2

Source: Iowa Racing and Gaming Commission

The similar trends for total and per-capita real adjusted gross receipts shows that the per-capita measure increased at a slightly greater rate than total receipt adjusted gross receipts from 1995 to the beginning of the recession at the end of 2007 and then thereafter the per-capita growth rate trailed the total rate of growth.

Geography of Racetrack and Casino Impacts

Employees

Iowa casino and racetrack managers were surveyed by the Research Team regarding the home location of their employees in 2013, and the results were released in 2014. The best source for that information was the mailing address on the federal W-2 tax forms sent to those employees in early 2014. Some of the outlier locations are the result of employees who no

longer work at the casinos and whose mailing addresses are no longer in the immediate surrounding areas. Figure 2.3 and Table 2.8 show the share of Iowa casino employees by the zip code area and state in which they lived in early 2014.

Figure 2.3 Home Location of Iowa Casino Employees, 2013

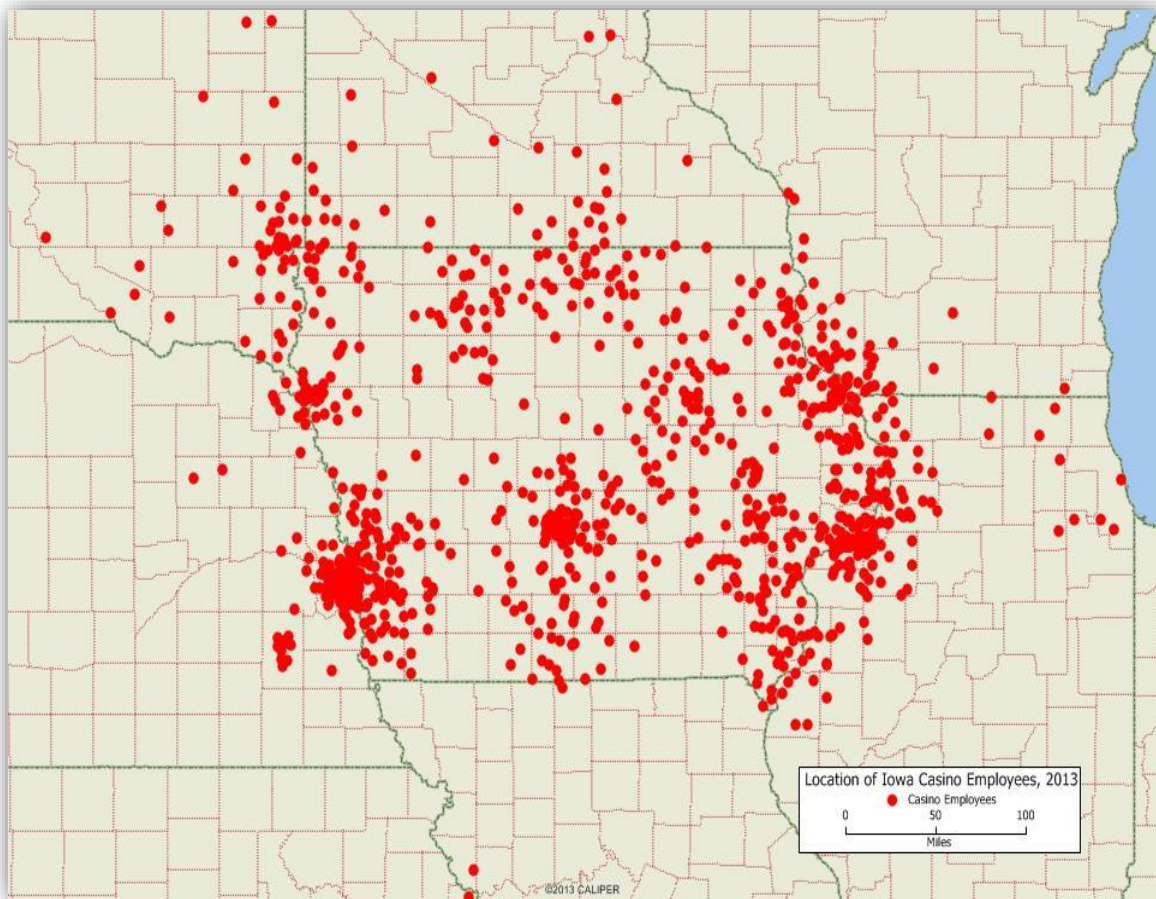


Table 2.8 State of Residence of Casino Employees

State	Count	Share
Iowa	6,475	69.2%
Nebraska	1,205	12.9%
Illinois	543	5.8%
South Dakota	733	7.8%
Wisconsin	169	1.8%
Minnesota	210	2.2%
All others	23	0.2%
Total	9,358	100.0%

Some of the geographical outliers on the map (former employees) are located as far away as California, Ohio, Kentucky and Tennessee. While 34.2% of the employees lived in the municipality where the casino or racetrack is located, 31.9% lived in an adjoining or nearby state.

Table 2.9 Domicile of Casino and Racetrack Employees

Property	Same City	Balance of County	Balance of State	Out-of-State	Total
Ameristar	333	27	51	426	837
Argosy	193	20	14	69	296
Catfish Bend	96	26	61	33	216
Diamond Jo Dubuque	326	26	24	111	487
Diamond Jo Worth	103	26	147	154	430
Grand Falls	66	55	38	777	936
Harrah's	187	19	36	239	481
Horseshoe	351	35	49	506	941
Isle of Capri Bettendorf	60	224	7	275	566
Isle Casino Hotel Waterloo	280	151	83	1	515
Lady Luck Marquette	30	61	23	76	190
Lakeside	150	28	145	1	324
Mystique	299	10	26	55	390
Prairie Meadows	237	768	272	0	1,277
Rhythm City	134	24	7	94	259
Riverside	80	167	347	108	702
Wild Rose Clinton	143	31	9	58	241
Wild Rose Emmetsburg	130	56	84	0	270
Total	3,198	1,754	1,423	2,983	9,358
Percent of Total	34.2%	18.7%	15.2%	31.9%	100.0%

While 68.1% of the casino and racetrack employees lived in Iowa, many of them worked in Iowa's border communities. For the casinos and racetracks located along the Missouri River, 51.5% of those employees lived in Iowa, but 47.2% lived in Nebraska.

Table 2.10 Employees' Residence for Casinos and Racetracks along the Missouri River

Property	City	Iowa	Nebraska	Minnesota	South Dakota	Total
Ameristar	Council Bluffs	411	425			836
Harrah's	Council Bluffs	242	239			481
Horseshoe	Council Bluffs	435	503			938
Argosy	Sioux City	227	37	16	16	296
Total		1,315	1,204	16	16	2,551
Share of Total		51.5%	47.2%	0.6%	0.6%	100.0%

Table 2.11 Employees' Residence for Casinos and Racetracks along the Mississippi River

Property	City	Iowa	Illinois	Wisconsin	Total
Catfish Bend	Burlington	183	33		216
Isle Bettendorf	Bettendorf	291	275		566
Rhythm City	Davenport	165	94		259
Wild Rose	Clinton	183	58		241
Diamond Jo	Dubuque	376	61	49	486
Mystique	Dubuque	335	13	42	390
Lady Luck	Marquette	114		76	190
Total		1,647	534	167	2,348
Share of Total		70.1%	22.7%	7.1%	100.0%

For casinos and racetracks located along the Mississippi River, 70.1% of their employees lived in Iowa, 22.7% commuted from Illinois, and 7.1% lived in Wisconsin.

Casinos located in the northern and northwestern part of the state hired only 43.6% of their workforce from Iowa residents. For these three facilities another 44.4% of employee commuted from South Dakota and the remaining 12.0% of employees resided on Minnesota.

Table 2.12 Employees' Residence for Casinos and Racetracks in the Northern Counties

Property	City	Iowa	Minnesota	South Dakota	Total
Grand Falls	Larchwood	159	42	716	917
Wild Rose	Emmetsburg	270			270
Diamond Jo Worth	Northwood	276	152	1	429
Total		705	194	717	1,616
Share of Total		43.6%	12.0%	44.4%	100.0%

Not surprisingly, in the center part of the state nearly all of the casino and racetrack employees were Iowa residents.

Table 2.13 Employees' Residence of Casinos and Racetracks in the Central Counties

Property	City	Iowa	Missouri	Illinois	Total
Isle Waterloo	Waterloo	514			514
Lakeside	Osceola	323	1		324
Prairie Meadows	Altoona	1,277			1,277
Riverside	Riverside	694		7	701
Total		2,808	1	7	2,816
Share of Total		99.7%	0.1%	0.2%	100.0%

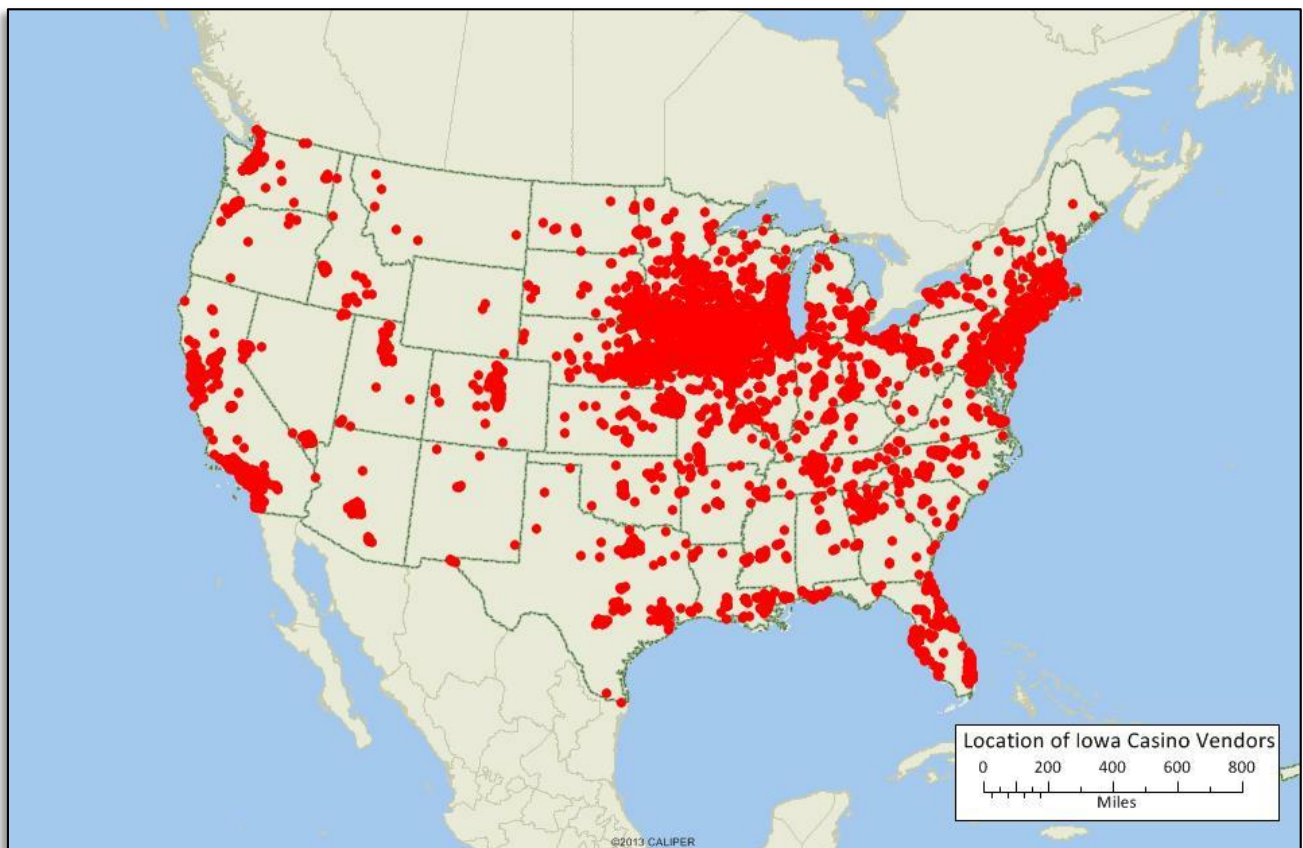
Vendors

The same 2014 survey of Iowa casino and racetrack managers provided a list of the vendors from which they purchased goods and services in 2013. Figure 2.4 shows the

distribution of these vendors by zip code. Table 2.14 summarizes the number of vendors by state. Vendors were located in every state and the District of Columbia; some even in Canada (although those are not plotted on the map). Iowa accounted for 41.7% of the vendors; Iowa and the surrounding states included 70.9%. Vendors in California accounted for 5.3% of the total number of vendors.

As expected, the geographic distribution of vendors is more widespread than the distribution of employees. The casinos and racetracks reported that 41.7% of their vendors were located in Iowa. However, the Iowa Gaming Association reports on its website that “89 percent of the total expenditures by IGA member casinos on products, supplies and services available in our state were with Iowa-based vendors.”⁴⁴ The two statistics are not necessarily in conflict. The survey of casinos and racetracks only identified the location of vendors and did not include the amount of purchases made.

Figure 2.4 Location of Goods and Services Vendors to the Iowa Casinos and Racetracks in 2013



⁴⁴ Iowa Gaming Associate, <http://www.iowagaming.org/newsroom/article.aspx?rid=117> (accessed May 17, 2014).

Table 2.14 State Location of Vendors, 2013

State	Vendors	Share
Iowa	8,513	41.7%
Nebraska	1,841	9.0%
Illinois	1,815	8.9%
California	1,082	5.3%
Minnesota	750	3.7%
Wisconsin	585	2.9%
Missouri	525	2.6%
Texas	448	2.2%
South Dakota	434	2.1%
Nevada	393	1.9%
New York	378	1.9%
Florida	346	1.7%
All Others	3,283	16.1%
Total	20,393	100.0%

Customers

A 2014 survey of casino and racetrack general managers conducted by the Research Team included access to their player’s loyalty-card database for the October-December 2013 period. The database provides a convenient surrogate for measuring the customer market area. While this analysis is not intended to provide a market study, it is interesting to see the relationship between in-state and out-of-state business and the overlapping of casino markets.

This analysis replicates a casino market study by Strategic Economics Group from 2004. The prior study showed that “during the first half of 2003, an average of 66% of the customers and 52% of the spending at Iowa gaming facilities came from out-of-state zip codes.”⁴⁵

⁴⁵ Kenneth Stone, Daniel Otto and Harvey Siegelman, “Analysis of the Iowa Casino Gaming Industry: Market Patterns, Economic Impact and the Likely Effects of an Expansion in the Number of Licensees,” an Analysis Presented to the Iowa Legislature, February 2004.

Figure 2.5 Location of Iowa Casino Loyalty-Card Members, October-December 2013

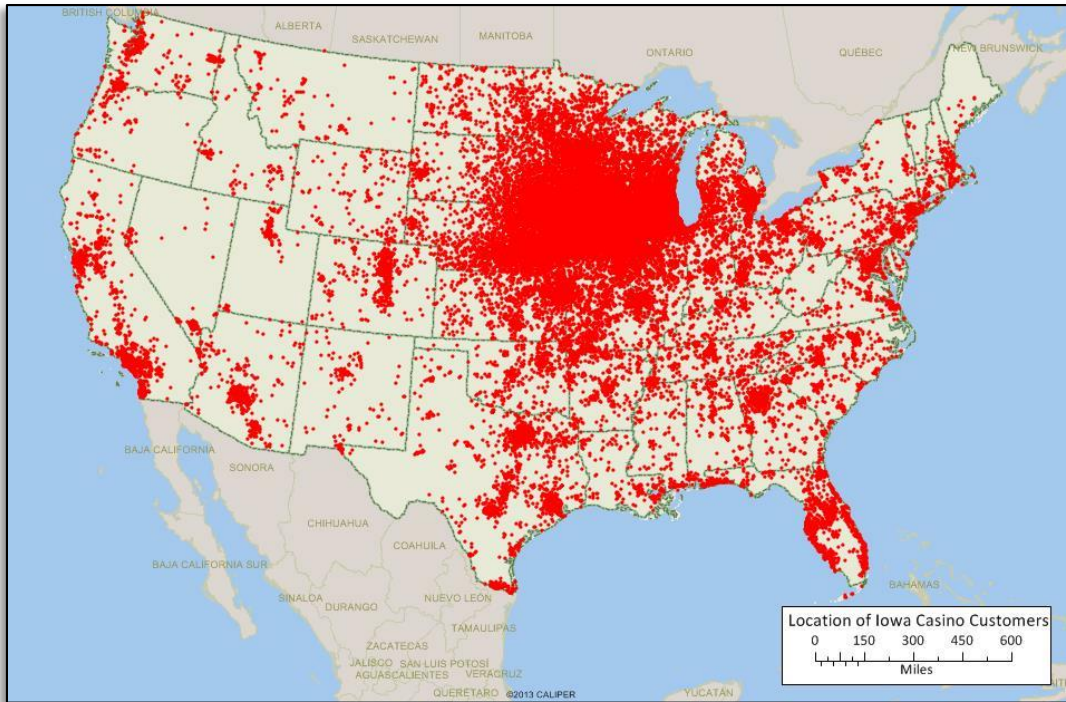


Table 2.15 summarizes the state of residence of all loyalty-card customers for Iowa’s 18 State-licensed gambling facilities as reported in the October – December 2013 data. Iowa residents account for only about half the customers. Nebraska residents account for just under a quarter of all customers. Illinois residents account for a fairly small share of customers for Iowa’s casinos. The fact that Illinois allows casino gambling while Nebraska does not no doubt strongly influences these statistics.

Table 2.15 Location of Iowa Casino Loyalty-Card Members, October-December 2013

State	Players Card Members	Share of Members	Win/Loss	Share of Win/Loss
Iowa	292,827	49.9%	\$97,152,924	52.2%
Nebraska	137,287	23.4%	\$51,600,232	27.7%
Minnesota	39,036	6.7%	\$11,293,232	6.1%
Illinois	33,865	5.8%	\$5,538,220	3.0%
Wisconsin	27,742	4.7%	\$7,229,067	3.9%
South Dakota	23,650	4.0%	\$7,393,338	4.0%
Missouri	7,441	1.3%	\$1,164,553	0.6%
Kansas	3,850	0.7%	\$690,865	0.4%
Texas	2,714	0.5%	\$504,655	0.3%
All other	17,973	3.1%	\$3,426,191	1.8%
Total	586,385	100.0%	\$185,993,277	100.0%

3. Statewide Economic Impact Model Analysis

Using outputs and assumptions noted throughout this report, we now project macro-level, statewide, net economic impacts of the Iowa casino industry. We contracted with Regional Economic Models Inc. (“REMI”), a leading supplier of economic modeling and forecasting tools for national, state and local governments (including the State of Iowa), to build an Iowa statewide economic model for this study. The REMI model is robust, and uses a variety of variables based on economic, demographic, industry and other data to develop outputs.

This study divides the economic and fiscal impact of the casinos into three parts: the impact of all past casino construction, the continuous operational impacts of the casinos, and the impact of the capital improvements plan for the casinos.

As a metric to measure the economic and fiscal impacts of the prospective casinos, various basic economic indicators are shown in the tables below; these include Employment, Gross State Product (“GSP”), Output, and Personal Income (which are all outputs from the REMI model). The fiscal impacts include the revenue collected by state and local governments in Iowa as a result of the construction and operation of the casinos. Government revenue consists of the taxes charged directly to the casino, such as taxes on gaming revenue, and income and sales taxes collected from casino workers and from workers that are supported by the casinos spending and by the spending of casino wages.

Description of Economic Indicators

Employment comprises estimates of the number of jobs – full-time plus part-time – by place of work. Full- and part-time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included, but unpaid family workers and volunteers are not included.⁴⁶

Gross State Product (“GSP”) as a value-added concept is analogous to the national concept of Gross Domestic Product. It is equal to output, excluding the intermediate inputs, and represents compensation and profits. GSP as a final demand concept is equal to Consumption + Investment + Government + (Exports – Imports).⁴⁷ GSP is affected by changes in demand and is the concept most often used to represent the net economic impact on a region, in monetary

⁴⁶ As defined by Regional Economic Models Inc., for use in the REMI PI+ Model.

⁴⁷ Ibid.

terms, of a change to the economy. In simplified terms, it can be said to represent the net economic value to an economy.

Output is the gross impact on the economy and is often thought of as total sales. Outputs include GSP + the intermediate inputs (some of which are derived from outside the state). Whereas GSP is considered the net economic value to an economy, Output is considered the gross economic value.

Personal Income is the income that is received by all persons from all sources.⁴⁸ It is calculated as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and personal current transfer receipts, less contributions for government social insurance.⁴⁹ Personal income is shown by place of residence (in this case the personal income of residents of Iowa).

Impact of the Iowa Casinos

The follow sections summarize the results of the economic and fiscal impact of casinos in Iowa, under the three parts noted above (construction, operations, and capital improvements). The assumptions and methodologies used in each scenario are described along with the associated impacts.

Construction Impact

In projecting the construction impact that the casinos have had on Iowa, we use information on the construction cost and cost of equipment and fixtures for each casino built in Iowa. Table 3.1 shows the casino construction data for each year that a casino was under construction in the state. The first casino began construction in 1990 and the last casino completed construction in 2011. There are gaps between the 1990 and 2011 period when there were not any casinos under construction in the state, notably 1996-1998, 2001-2004, and 2008-2009. The construction impact is modeled on a yearly basis, using current years to represent the actual year of construction so that impacts can be viewed in today's economy; costs from the actual year of construction are used, however, so that impacts are not overstated.

⁴⁸ The model, however, does not include tips that casino dealers may earn.

⁴⁹ As defined by REMI, for use in the REMI PI+ Model.

Table 3.1 Casino Construction Data

In Nominal \$ Millions	Construction costs	Fixtures and Equipment costs
1990	\$15.80	\$0.00
1991	\$8.10	\$0.00
1992	\$62.20	\$0.00
1993	\$241.70	\$1.40
1994	\$320.80	\$36.80
1995	\$131.00	\$36.80
1999	\$83.70	\$0.00
2000	\$28.40	\$0.00
2005	\$135.70	\$0.00
2006	\$86.20	\$0.00
2007	\$20.30	\$0.00
2010	\$38.90	\$0.00
2011	\$20.10	\$0.00

Table 3.2 shows the statewide economic and fiscal impact of the construction of Iowa’s casinos. The results are presented on both an average yearly basis and the cumulative total across all years of construction. The average yearly impact is for 1990-2011. During this period, there were roughly 500 direct construction jobs per year associated with the construction of the casinos. The construction of casinos during this period generated an average of 771 new total jobs each year. The jobs include direct construction jobs and indirect and induced jobs, from construction spending on goods, services, and equipment, and from the spending of wages earned.

The employment multiplier for the construction workers equates to roughly 0.65 additional jobs for each direct construction job. A high multiplier is typical in the construction industry, due to the high wages earned by construction workers and the large costs associated with construction material. For example, a construction worker earning a high wage – and spending accordingly – can support multiple jobs in the lower-paying retail and service sectors.

Some of the other industry sectors that benefited from the impacts of casino construction include retail trade, accommodations and food services, administrative and waste services, and professional services. The impact on retail trade and accommodations and food services (primarily food services) is a result of the induced effect, or the spending of wages by direct workers. The impact on administrative and waste services and professional services is a result of the indirect impact, or the purchase of services by construction companies (business to business sales).

The total GSP over the entire construction period totals roughly \$1.1 billion for Iowa, an average of \$48.6 million per year over the measured period of 1990-2011. The largest contributor to GSP among industry sectors, as expected, is construction. Other large contributors to GSP include real estate services, professional services and retail trade. This is directly related to the increased demand for real estate and construction service professionals (commercial leasing services, engineers, architects, etc.) within the real estate and professional services sectors and from the induced spending in retail goods generated by the construction wages paid to workers.

Personal Income generated over the construction period totals \$796 million for Iowa, an average of \$36.2 million per year. The majority of the Personal Income encompasses the direct wages paid to the construction workers. The remaining Personal Income consists primarily of the wages earned by the workers in the indirect and induced jobs, created as a result of both the purchase of goods and services and the creation of jobs in the retail and service sectors (resulting from increased demand).

Table 3.2 Casino Construction Impact

	Yearly AVG 1990-2011	Total 1990-2011
Total Private Non-Farm Employment	761	
Direct	500	
Secondary	261	
Construction	541	
Arts, Entertainment, and Recreation	6	
Retail Trade	62	
Professional Services	16	
Administrative and Waste Services	17	
Accommodation and Food Services	22	
All other sectors	97	
Gross State Product (2013 \$)	\$48,581,958	\$1,068,803,077
Output (Fixed 2013 \$)	\$80,920,000	\$1,780,240,000
Direct	\$56,802,905	\$1,192,861,000
Secondary	\$24,117,095	\$587,379,000
Personal Income (2013 \$)	\$36,181,818	\$796,000,000
Direct	\$26,922,112	\$565,364,348
Secondary	\$9,259,706	\$194,453,834
State Revenue Collection (2013 \$)	\$3,361,642	\$73,956,120
Income Tax	\$2,560,015	\$56,320,320
Sales Tax	\$801,627	\$17,635,800

Source: Regional Economic Models Inc.

It is projected that the State of Iowa collected roughly \$74 million in income and sales taxes directly and indirectly associated with the casino construction, an average of \$3.36 million per year between 1990 and 2011.

Operational Impact

To measure the economic and fiscal impact of the operational phase of the Iowa casinos, a counterfactual analysis was employed. A counterfactual analysis is used to project what would have occurred if a particular scenario was different than what currently exists. In this case, the counterfactual analysis is used to project the characteristics of the Iowa economy if the state’s casinos did not exist, and subsequently projects the impact of the casinos.

Data from 2013 are used to project the impact of the casinos on the state economy. The average impact over a 47-year period – from 2013-2060 – is also used so that the impact is spread out over time to estimate the average effect of the casinos. Table 3.3 shows the direct casino data that were used to model the total operational impacts. In 2013, there were a total of 9,165 casino employees, casino revenue totaled \$1.15 billion, and wages (measured for Iowa residents only) equaled roughly \$163 million. The State also directly collected roughly \$310 million in casino taxes and fees while various local governments (county, city, and/or town) collected almost \$14 million in direct casino taxes and fees.

Table 3.3 Casino Operational Assumptions

\$ in nominal millions	2013
Casino Revenue	\$ 1,149.00
Casino Employment	9,165
Casino Wages (Iowa residents only)	\$ 163.00
Direct State Government Casino Taxes/Fees	\$ 310.19
Direct Local Government Casino Taxes/Fees	\$ 13.81

Table 3.4 shows the projected impact that the Iowa casinos have on the state economy. The casinos support a total of roughly 14,000 jobs statewide, 9,165 directly at the casinos themselves and an additional 4,813 jobs in other sectors of the economy. These jobs include only private-sector employment and exclude any government jobs supported as a result of the casinos. For each direct job at the casinos, an additional 0.53 jobs are created in the private sector. These indirect and induced jobs result from the spending by the casinos on goods and services purchased for its operation and the spending of casino wages by employees in the local economy. These new jobs, and the subsequent additional income, flow through the state economy in the form of investments and spending on goods and services, creating additional jobs.

The sectors that experience the greatest benefit from the casinos, other than entertainment (which primarily represents the direct casino jobs) include construction, retail trade, accommodations and food services, and administrative support and waste management services. The construction impact is primarily a result of an increase in capital investments, an increase in demand for housing construction, and an increase in spending in the public sector on public facilities. As new jobs and subsequent income are created, demand for housing, commercial enterprises, and public sector facilities increases, thus, creating construction jobs. It should be noted that the construction-jobs impact in the operational impact phase of this casino study is not related to the direct jobs associated with construction projects at the casinos; these are covered solely in the construction impact section above. Retail trade and food services are obvious benefactors of the casinos' economic impact.

New income creates demand for retail goods and food services leading to an increase in jobs in those sectors. The increase in employment in administrative support and waste management services is primarily the effect of the non-payroll spending by the casinos on services purchased at local firms; a function of the casinos contracting with outside firms to provide support services for their operation.

The casinos are estimated to generate a total of roughly \$1.3 billion in yearly Gross State Product ("GSP") for the State of Iowa. This equals 0.85% of the Iowa's total GSP in 2012 of \$152.4 billion, while casinos accounted for 0.5% of the state's total jobs. As explained above, GSP can be considered as the net impact in monetary value on the economy. All sectors of the economy impacted by the casinos show a positive contribution to the total GSP. The largest contributor to GSP, as expected, is the entertainment sector; the direct impact of the casinos.

Other sectors that show large contributions include real estate, professional services, retail trade, finance, construction, and administrative support services. This is result of the indirect and induced spending by casino employees and the casinos themselves, as it flows through the regional economy.

The casinos are projected to also generate roughly \$592 million in Personal Income for Iowa residents each year; \$231 million of this income is direct wages and salary disbursements from the casinos. Much of the remaining Personal Income is represented by wage and salary disbursements for the indirect and induced jobs created by the casinos' operations.

The State of Iowa is projected to collect a total of \$356 million yearly (in fixed 2013 dollars) in direct casino taxes and fees and in income and sales taxes directly and indirectly associate with the casinos. Additionally, local governments in Iowa are projected to collect roughly \$14 million in direct local casino taxes and fees.

Table 3.4 Economic Impacts of Operational Phase of Casinos

	Yearly Average Impact (2013-2060)
Total Private Non-Farm Employment	13,978
Direct	9,165
Secondary	4,813
Construction	896
Arts, Entertainment, and Recreation	10,347
Retail Trade	588
Professional Services	50
Administrative and Waste Services	392
Accommodation and Food Services	422
All other sectors	1,281
Gross State Product (Fixed 2013 \$)	\$1,316,515,789
Output (Fixed 2013 \$)	\$2,103,920,000
Direct	\$1,149,000,000
Secondary (indirect+induced)	\$954,920,000
Personal Income (2013 \$)	\$591,662,484
Wage and Salary Disbursement	\$378,312,627
Direct	\$231,000,000
Secondary (indirect+induced)	\$147,312,627
State Government Revenue Collection (Fixed 2013 \$)	\$356,299,058
Income Tax	\$32,641,137
Sales Tax	\$13,467,921
Direct State Casino Taxes and Fees (2013 \$)	\$310,190,000
Local Government Revenue Collection (Fixed 2013 \$)	\$13,810,000
Direct Local Casino Taxes and Fees (2013 \$)	\$13,810,000

Source: Spectrum Gaming Group, Regional Economic Models, Inc.

Impact of Capital Investments

A number of capital investments by existing casinos in Iowa were completed over the past few years and others are scheduled to be completed in 2014 and 2015. The economic and fiscal impacts of these investments are projected for the actual year that they were or are expected to be completed. Only the economic and fiscal impacts of the construction phases of these projects are projected here. Any additional revenue generated after the completion of these investments is not included in these projections.

Table 3.5 shows the direct costs of these capital improvements by year, including the cost of construction and equipment and fixtures. Capital investments range from a total of roughly \$1.1 million in 2012 to a planned \$31.5 million in 2015.

Table 3.5 Casino Capital Improvements

Detail (\$ in millions)	2012	2013	2014	2015
Construction Costs	\$0.26	\$0.26	\$7.16	\$17.40
Equipment and Fixture Costs	\$0.79	\$1.54	\$4.62	\$14.06
Total	\$1.15	\$1.80	\$11.78	\$31.46

Table 3.6 shows the economic and fiscal impacts of the capital improvements projects by casinos in Iowa. The construction phase of these improvements is projected to generate an average of 87 new jobs each year during the 2012-2015 period, ranging from five in 2012 to 239 in 2015. The jobs include direct construction jobs and indirect and induced jobs, from construction spending on goods, services and equipment, and the spending of wages earned.

Total GSP generated during the construction period of these improvements is projected to total roughly \$23.7 million for Iowa. Personal Income generated over the four years of capital improvements is projected to total \$15.1 million, and the State is expected to collect a total of \$1.4 million in income and sales taxes as a result of the construction.

Table 3.6 Economic Impacts of Casino Capital Investments

\$ actual	2012	2013	2014	2015	Total
Total Private Non-Farm Employment	5	7	98	239	349
Construction	3	3	64	152	222
Arts, Entertainment, and Recreation	0	0	1	2	3
Retail Trade	1	1	10	26	38
Professional Services	0	1	4	11	16
Administrative and Waste Services	0	0	3	7	10
Accommodation and Food Services	0	0	3	7	10
All other sectors	1	2	13	34	50
Gross State Product (2013 \$)	\$361,760	\$495,040	\$6,568,800	\$16,279,200	\$23,704,800
Output (Fixed 2013 \$)	\$609,280	\$894,880	\$11,766,720	\$29,016,960	\$42,287,840
Personal Income (2013 \$)	\$208,000	\$288,000	\$4,152,000	\$10,496,000	\$15,144,000
State Revenue Collection (2013 \$)	\$18,069	\$26,999	\$389,092	\$973,020	\$1,407,180
Income Tax	\$14,356	\$20,430	\$286,847	\$712,839	\$1,034,472
Sales Tax	\$3,713	\$6,569	\$102,245	\$260,182	\$372,708

Source: Spectrum Gaming Group, Regional Economic Models, Inc.

4. Impact of Casinos on the Economies of Host Communities

This chapter investigates how casinos have impacted the economies of their host communities. Three measures of economic activity provide the basis for this analysis. These measures include changes in:

- Population
- Personal Income
- Employment

In most cases, the analysis focuses on changes in measures of economic activity within the casinos' host counties. This is because most economic data are not available for smaller geographic areas. Also, since the impacts of casinos often extend beyond the host city looking at countywide impacts makes sense. Since the first riverboat casino opened during June 1991, most of the analysis of local economic impacts covers the period beginning with the mid-1980s.

Data and Data Sources

Population

The U.S. Census annually estimates total populations for states, counties, and places, which consist primarily of incorporated cities but also include some unincorporated settlements. The estimates for states and counties date back to 1969. The population estimates for cities only date back to 1990. The U.S. Census released the 2013 population estimates for states on December 30, 2013. The most recent county and city estimates are for the year 2012.

This chapter presents population trends for counties in which casinos are located. These trends are traced from 1990 through 2012. The focus of the population analysis is twofold: First, attention focuses on population growth before and after casino openings; second, comparisons are made comparing the population growth in casino host counties relative to the state as a whole over the same periods.

Personal Income

The U.S. Bureau of Economic Analysis ("BEA") provides annual personal income estimates for counties. The estimates delineate both major sources of income and income by industry sector. In addition, for each county the estimates distinguish between income by place of work and by place of residence. The difference between these two estimates indicates whether counties experience net inflows or outflows of income.

Personal income data are available for 1969-2012. For 1969-2000, the industry data are summarized by SIC (Standard Industrial Classification) and from 2001-2012 the industry data corresponds to NAICS (North American Industrial Classification System) definitions.

For this study, the source of income that is of most interest is wages and salaries. Of secondary interest is the category “supplements to wages and salaries,” which consist of employer contributions to private pensions, insurance, and for government social insurance. This source of income is referred to as “benefits” in this report. Also of interest is the total measure of non-farm income.

Employment

County employment estimates are made by the U.S. Bureau of Labor Statistics (“BLS”) and state employment agencies based on the Quarterly Census of Employment and Wages (“QCEW”). The data collected through this federal-state program is derived from quarterly unemployment insurance filings made by businesses. The BLS provides only county total non-farm and industry sector employment estimates back to 2001. In addition, the industry sector estimates available by county vary due to confidentiality restrictions. The industry definitions for these estimates are according to the North American Industrial Classification System (“NAICS”), which replaced Standard Industrial Classification codes in 1998.

The U.S. Census’s County Business Patterns (“CBP”) series provides another source of employment estimates. These data are available in electronic form back to 1986. Similar to the BLS data, the level of detail by industry varies. For counties with limited numbers of establishments in different industry categories, the data are suppressed to prevent the disclosure of proprietary information. Where suppressed employment levels are estimated based on establishment counts by employment range, which CBP provides without suppression. One major difference between the CBP and BLS employment estimates is that the CBP estimates reflect employment levels at a single point in time each year – the week of March 12. The BLS annual estimates take into consideration all of the QCEW data collected throughout the year. In addition, the CBP estimates exclude government employment.

The analysis of employment in this chapter looks at changes in total private non-farm employment and at employment changes in four subsectors that relate closely to the casino industry. This analysis uses the County Business Patterns data. The four subsectors considered are:

- Bars and restaurants
- Lodging places
- Entertainment and recreation
- Retail trade

In addition, construction sector employment changes are analyzed as a way of gaining insight into possible spillover impacts from casino developments in their host counties.

Other Information Sources

By definition, statistics offer only a limited means of relaying the story of how casinos have impacted the economies of their host cities and counties. For each casino community, local government staff and business persons were contacted to fill in the blanks in the statistical story. We reached out to a variety of stakeholders, including city administrators, city planning and economic development directors, and staff of local chambers of commerce and economic development corporations.

Statewide Economic Trends

Population

Before turning to the community economic impacts of individual casinos, this section presents information on statewide economic trends in order to provide perspective. Looking first at population and using the U.S. Census annual estimates, from 1980 to 1990 Iowa decreased from 2,914,018 to 2,781,018, a loss of 133,000 residents (-4.56%). During the 1990s, Iowa recovered the population lost during the farm recession of the 1980s, growing to 2,928,184 by 2000. By 2013 Iowa's population had grown to 3,090,416. This equals an increase of 6.05% since 1980, which is an average annual change of less than 0.18%.

Figure 4.1 shows Iowa's statewide population by year and annual growth rates from 1980 through 2013.

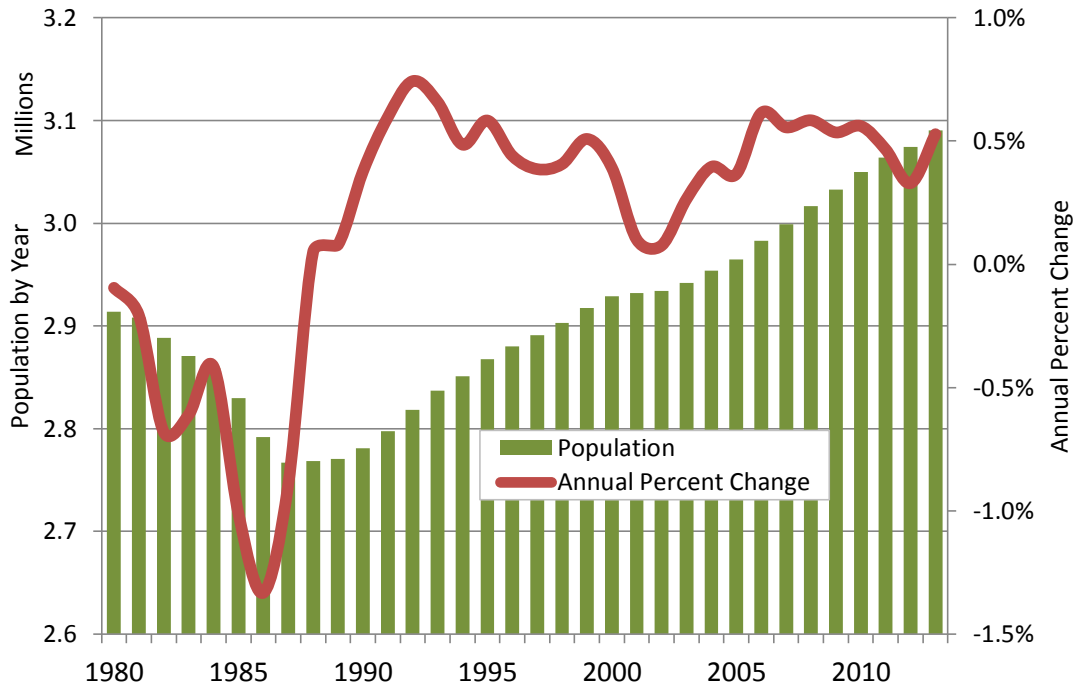
Personal Income

Measured in constant 2012 dollars, total personal income in Iowa increased from \$77.7 billion in 1980 to \$135.1 billion in 2012. This change equals a \$57.3 billion (73.73%) increase over the 32 years. Annual rates of change over this period ranged from -3.02% during 1982 to 6.67% during 1994. Over the three-plus decades, the average annual rates of change in real personal income exhibited considerable variation. From 1980 to 1990 the average annual rate of change equaled 0.87%; from 1990 to 2000 the rate equaled 2.31%; and from 2000 to 2010 the rate equaled 1.64%.

Over the entire 32 years, the average annual rate of growth in real personal income equals 1.74%. The decennial differences reflect the farm recession of the 1980s, the technology boom of the 1990s, and the housing and finance sectors driven recession of the 2000s. The fact that Iowa's average annual growth rate for real total personal income during the first decade of

the 2000s was only slightly less than for the entire 32-year average confirms that the state fared better during the Great Recession than did most other states.

Figure 4.1 Iowa Population and Annual Percent Change



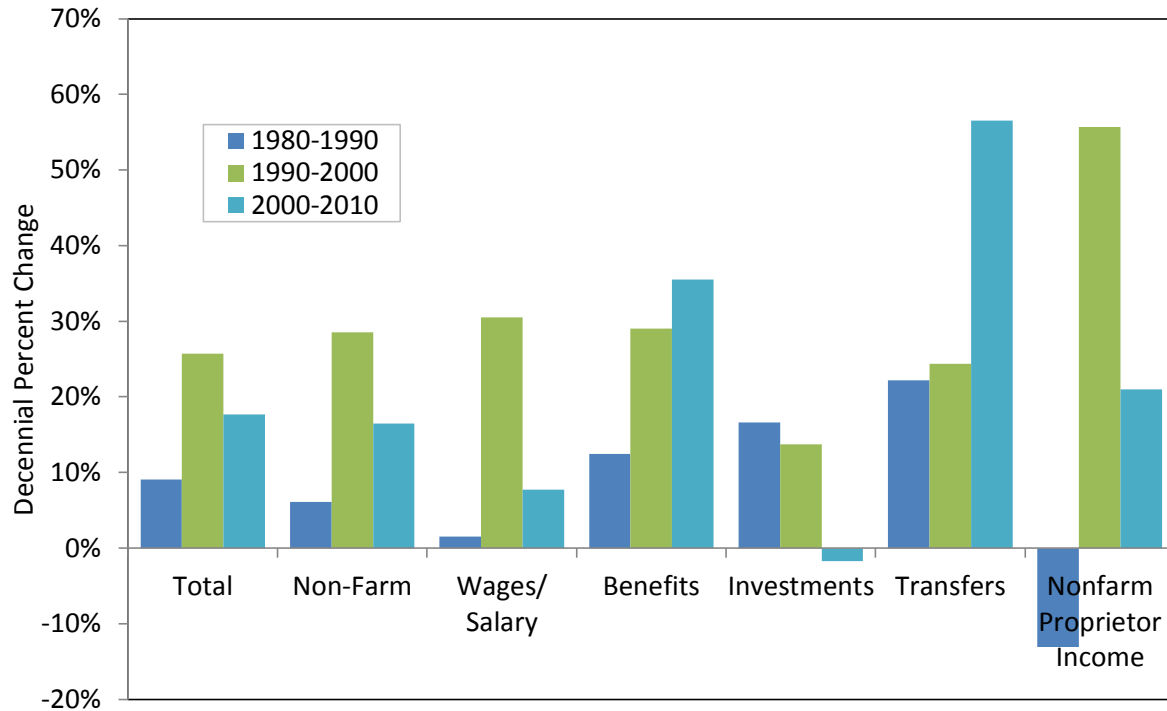
Added perspective is gained by investigating how different components of real personal income changed over the 32 years. Figure 4.2 shows how growth rates compare by component by decade.

For this study, the three components of most interest are non-farm income, wage and salary income, and benefits (i.e., supplements to wages and salary). The percentage growth of non-farm income over the three decades equaled 6.14% between 1980 and 1990, 28.51% between 1990 and 2000, and 16.50% between 2000 and 2010. Over the full 32 years from 1980 to 2012, real non-farm personal income increased by 67.80%. Real wage and salary income over the three decades from 1980 to 2010 grew by 1.50%, 30.53%, and 7.75%, respectively, and growth over the entire 32 years equaled 47.11%. The real value of employee benefits increased over the three decades by 12.46%, 29.04%, and 35.54%, respectively, and by 100.85% over the entire 32 years.

When analyzing the impact of casinos on their local economies the host county growth rates for real non-farm personal income, wage and salary income, and benefits over the five

years before and after the casinos' opening years are compared to the state growth rates over the same years.

Figure 4.2 Iowa Real Personal Income Components Decennial Percent Change

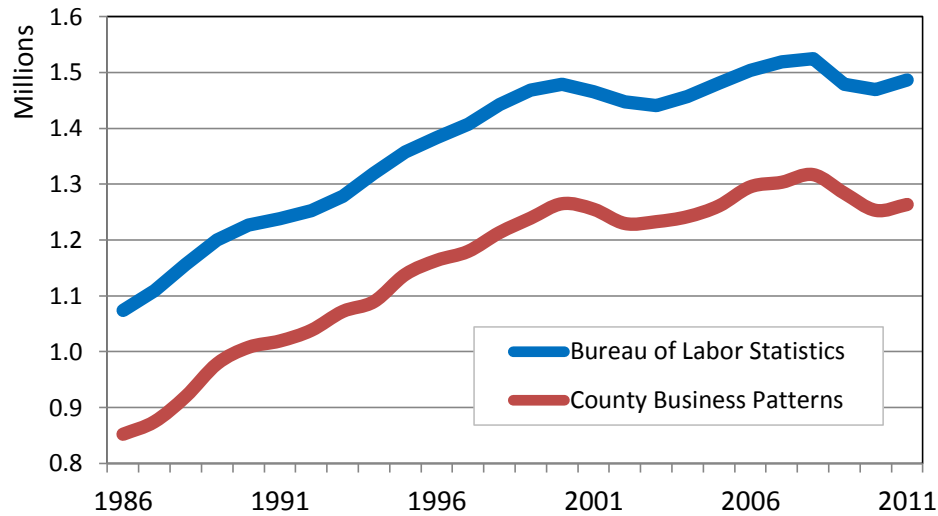


Employment

Since the BLS provides only county-level employment statistics back to 2001, CBP employment counts provide the basis for employment impacts analysis in this study. These numbers are different. The major source of the difference between the two total non-farm employment counts is the exclusion of government employment from the CBP data. On average over the 26 years for which Iowa total non-farm employment data for both are available the CBP count equals about 84% of the BLS count. Figure 4.3 shows the comparison between the two total non-farm employment series.

The patterns of year-to-year changes for the two data series are similar. Over the entire period from 1986 to 2011, the change in the BLS Iowa total non-farm employment equals 412,300, while the CBP employment count changed by 411,418 over the same period, which is a difference of only 882 workers (0.21%). Similarly, for three segments of the entire period the differences are small. From 1986 to 1990 the difference equals 3,053 (1.98%); from 1990 to 2000 the difference equals 5,064 (1.99%); and from 2000 to 2010 the difference equals 2,769 (26.16%).

Figure 4.3 BLS and CBP Iowa Total Non-Farm Employment



Source: U.S. Bureau of Labor Statistics, County Business Patterns

Therefore, since this aspect of the analysis of the impact of casinos on local economies focuses on changes in private sector employment, use of the CBP data rather than BLS data is justified by the additional years of available data. The inclusion of establishment counts by employment ranges provides another advantage of the CBP data. This additional information allows the estimation of employment levels when the counts are suppressed due to U.S. Census Bureau disclosure rules.

In addition to changes in total employment the analysis investigates employment changes in four industries with significant interaction with casinos and their patrons. These industries are:

- Bars and restaurants
- Lodging
- Entertainment and recreation
- Retail trade

Construction industry employment changes are also investigated. Changes in employment for this industry reflect both the direct impact of casino facilities development and spillover development impacts in the surround areas of casino communities.

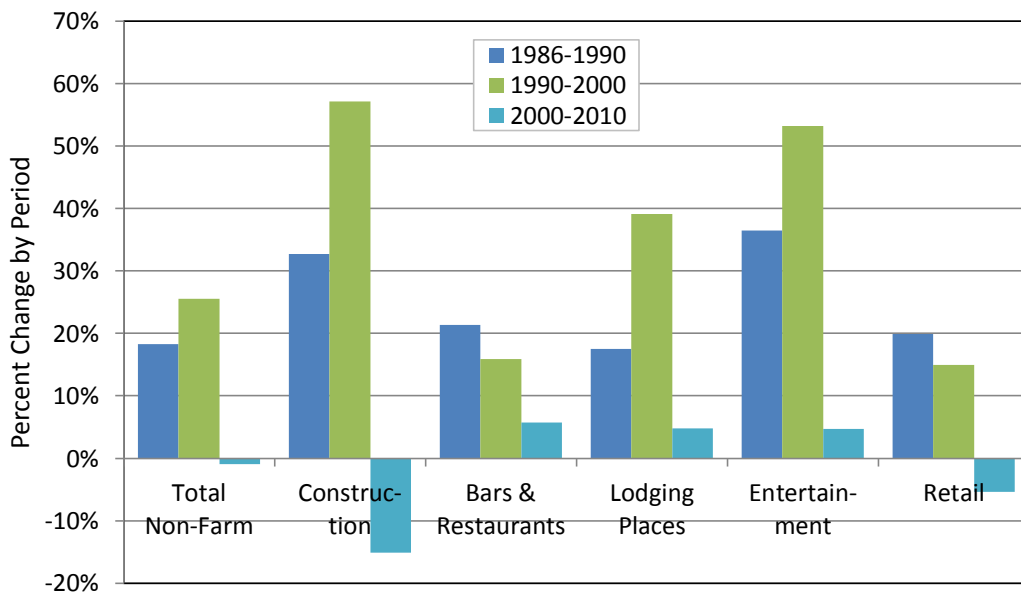
Figure 4.4 shows percentage changes in statewide employment for the five industry sectors over three time segments – 1986-1990, 1990-2000, and 2000-2010. One thing that should be noted in these comparisons is that for casino facilities that include bars, restaurants, and lodging facilities, the employment is often counted in the entertainment sector. In other

cases for casinos that are part of a hotel and resort complex employment maybe be counted in the lodging (accommodations) sector.

According to the 2011 CBP for Iowa, the arts, entertainment, and recreation sector employed 20,765 workers at 1,450 establishments. Out of this total, non-hotel casinos employed 3,211 workers (15.46% of the sector total) at 10 establishments. This represents only about half the casino establishments in the state. The employment and establishment data for the remaining casinos are reported with the accommodation sector. In total that sector employed 17,269 workers at 776 locations during 2011. The casino hotel subsector employed 5,106 works (29.57% of the sector total) at nine establishments. Thus, combining data from the two sectors casino establishments employed 8,317 workers at 19 locations during the second week of March 2011.

Since the manner in which businesses are classified by sector and the level of detail with which data are reported changed with the introduction of the North America Industrial Classification System, comparable data to that available for 2011 only goes back to 1998. However, the following table (Table 4.1) reflects employment levels for the five sectors of primary interest for this study where the pre-1998 CBP data have been adjusted to correspond with 1998 and later industry sector definitions. Figure 4.5 shows each of the five sectors' shares of Iowa's total private non-farm employment over the 26 years.

Figure 4.4 Iowa Percent Change in Employment by Sector



Among the five sectors, retail trade accounts for the greatest number of workers. In 1986, 133,538 employees worked at 14,711 retail establishments throughout Iowa. Between

1986 and 2011, the number of retail workers peaked at 183,999 at 14,382 establishments during 2000. In 2011 the number of retail workers stood at 173,126 and the number of retail establishments in Iowa equaled 12,215. As a percentage of total private non-farm employment in the state, the retail sector share equaled 15.67% in 1986; rose to a peak share of 15.98% in 1991; dropped almost every year over the next 17 years reaching a low of 13.69% in 2008; then recovered modestly to 13.78% in 2011.

Table 4.1 Iowa Employment by Sector and Year

Year	Construction	Bars & Restaurants	Retail	Lodging	Entertainment
1986	31,220	62,810	133,538	10,241	9,484
1987	33,405	67,988	138,297	10,395	9,956
1988	34,659	70,740	144,953	10,463	11,461
1989	37,085	73,434	152,319	11,221	12,880
1990	41,443	76,202	160,118	12,031	12,945
1991	41,969	75,794	162,866	11,813	13,589
1992	44,368	78,500	163,390	13,288	14,631
1993	44,888	80,450	159,633	13,308	16,632
1994	46,999	80,531	163,481	12,047	16,017
1995	51,070	82,700	166,828	12,961	19,141
1996	53,031	84,364	170,038	14,017	23,234
1997	57,971	84,948	171,296	15,379	18,549
1998	58,557	87,450	177,723	16,191	17,843
1999	61,269	87,608	179,815	16,811	18,434
2000	65,122	88,338	183,999	16,740	19,829
2001	58,895	87,082	181,794	15,895	19,301
2002	57,740	87,711	176,903	16,073	19,874
2003	58,159	87,717	176,596	16,472	19,819
2004	61,166	91,580	178,251	15,691	20,397
2005	62,855	92,977	178,216	15,462	21,811
2006	64,574	96,410	181,376	15,367	22,688
2007	63,715	96,285	180,441	17,426	21,458
2008	62,669	95,962	180,264	19,107	22,824
2009	59,574	95,385	177,640	18,360	21,696
2010	55,283	93,431	174,080	17,538	20,758
2011	53,104	94,490	174,126	17,269	20,765

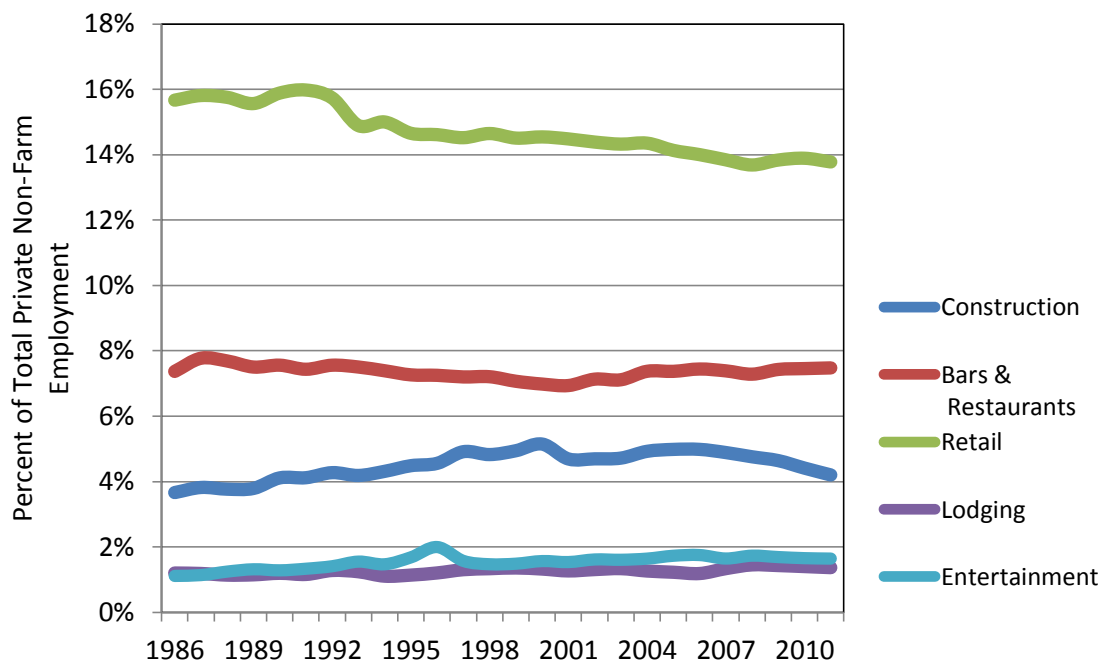
Iowa food service employment, which primarily involves employment in bars and restaurants, equaled 62,810 in 1986 at 5,233 establishments. In 2011 this sector employed 94,490 workers at 6,093 locations. Peak employment in this sector occurred during 2006, when the number of workers reached 96,410 at 6,183 locations. The share of Iowa's total private

non-farm employment accounted for bar, restaurant, and other food service workers equaled 7.37% in 1986 and 7.48% in 2011. During the intervening years the sector's share peaked at 7.77% in 1987 and hit its low point of 6.94% in 2001.

Entertainment (arts, entertainment and recreation) sector employment equaled 9,484 at 1,205 locations in 1986. In 2011 this sector's number of workers equaled 20,765 employed at 1,450 establishments. In 1986 this sector accounted for 1.11% of Iowa's total private non-farm employment. The sector's share equaled 1.64% in 2011. The sector's share peaked during 1996 at 2.00%.

Employment at Iowa lodging places equaled 10,241 at 619 locations in 1986 and rose to 17,269 at 776 locations by 2011. This sector's employment peaked at 19,107 in 2008. Employment at lodging place equaled 1.20% of total private non-farm employment in 1986 and 1.37% in 2011. During 2008 this sector's share of total non-farm employment peaked at 1.45%.

Figure 4.5 Sector Shares of Iowa Total Private Non-Farm Employment



As noted previously, employment counts for the lodging and entertainment sectors have been somewhat distorted by the classification of casino facilities. For example, during 1998 – the first year casino employment data are available – the lodging sector claimed 3,729 casino workers at four locations while the entertainment sector claimed 4,187 casino workers at nine locations. During four of the years from 1998 through 2011, casino employment levels are suppressed for one or the other of the two sectors, so total casino facilities employment

numbers are only available for 10 of the years. During these 10 years, casino facilities employment has accounted for between 0.63% and 0.71% of total private non-farm employment and between 21.57% and 24.42% of the combined employment for the lodging and entertainment sectors.

For the construction sector during 1986, 5,390 establishments employed 31,220 workers. This sector employed 53,104 workers at 8,504 establishments in 2011. Construction employment peaked at 64,574 during 2006. As a share of Iowa's total private non-farm employment the construction sector accounted for 3.66% in 1986 and 4.20% in 2011, while the share for this sector peaked at 5.15% in 2000.

The importance of these five sectors – retail, bars and restaurants, lodging, entertainment, and construction – to the state's economy has stayed relatively constant over the 25 years from 1986 to 2011. In 1986 these sectors accounted for 29.02% of Iowa's total private non-farm employment and in 2011 the share equaled 28.47%. Over the entire period the employment share accounted for by these sectors ranged only between a high of 30.26% in 1992 and the 2011 low of 28.47%.

A final way of evaluating statewide employment trends for these five sectors is in terms of growth over the entire period for which data are available. Over the entire 25 years employment percentage growth by sector equals 30.39% for retail, 50.44% for bars and restaurants, 68.63% for lodging, 118.95% for entertainment, and 70.10% for construction. On an average annual basis the employment growth rates for the five sectors equal 1.07% for retail, 1.65% for bars and restaurants, 2.11% for lodging, 3.18% for entertainment, and 2.15% for construction. In comparison, total private non-farm employment in Iowa grew by 48.27% over the entire period, or at an average annual rate of 1.59%.

Retail Sales

Both temporal and geographic factors limit the usefulness of retail sales receipts data in the analysis of casino impacts on a before and after opening date basis. This is because reliable sales receipts data are only available for the years 2000 and later. Furthermore, the concentration of retail activity in the state leaves many counties with too few retail establishments in many trade categories for the data to be disclosed.

The lack of data prior to 2000 limits the use of this economic indicator to the analysis of the four casinos established during 2006 and 2007. Also, although the Iowa Department of Revenue publishes taxable sales data for 12 categories of sales tax permit holders, disclosure restrictions for small counties allow comparisons only for the bar and restaurant category, all traditional retailers in aggregate, and for total taxable sales excluding utility and transportation

companies. Taxable sales reported by utility and transportation companies are excluded from the statewide and county totals used in this study because a number of utility companies report all sales within the state in the counties where their billing offices are located rather than in the counties where the sales occur. In addition, the passage of legislation during 2001 phased out the sales tax on residential electricity, natural gas, and other fuel purchases beginning 2002. This resulted in a large reduction in total taxable sales.

A review of annual taxable sales converted to 2012 dollars over the period from 2000 to 2012 finds that total taxable sales excluding utilities and transportation decreased by 0.87%. The total 12-year changes for bar and restaurant sales and for sales by traditional retailers equal only 12.57% and 5.74%, respectively. Figure 4.6 shows cumulative percentage changes by year for the three categories. For total sales excluding utilities and transportation companies there is a clear indication of the impacts of the 2001 and 2008 – 2009 recessions and their lingering impacts on consumer spending. Bar and restaurant sales seem to have been the least adversely impacted by the recessions. The recessions had a greater impact on traditional retailers than on bars and restaurants, but the impact of the Great Recession on traditional retailers did not occur as soon as the impact on bars and restaurants.

Property Valuations

Although not addressed in this part of the report, changes in property valuations will be addressed in the next chapter, where comparisons are made between casino and non-casino counties. The commercial and residential property classifications are of most interest for this study. The two sources of data for these valuations statewide and by county are annual abstract reports filed by the state's 99 county and eight city assessors with the Iowa Department of Revenue and annual valuation data reported to the Iowa Department of Management. This report primarily uses the Department of Management county data which dates back to 1998. Statewide data are available back to the late 1980s.

Figure 4.6 Cumulative Changes in Iowa Taxable Sales, 2000 - 2012

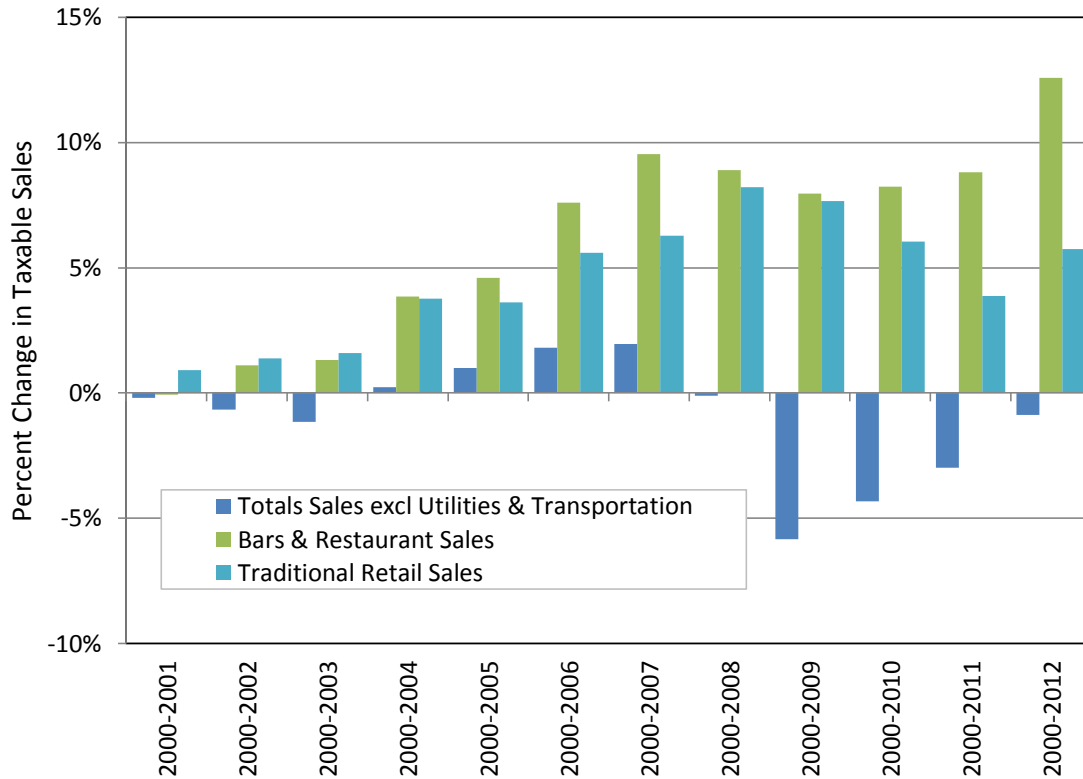
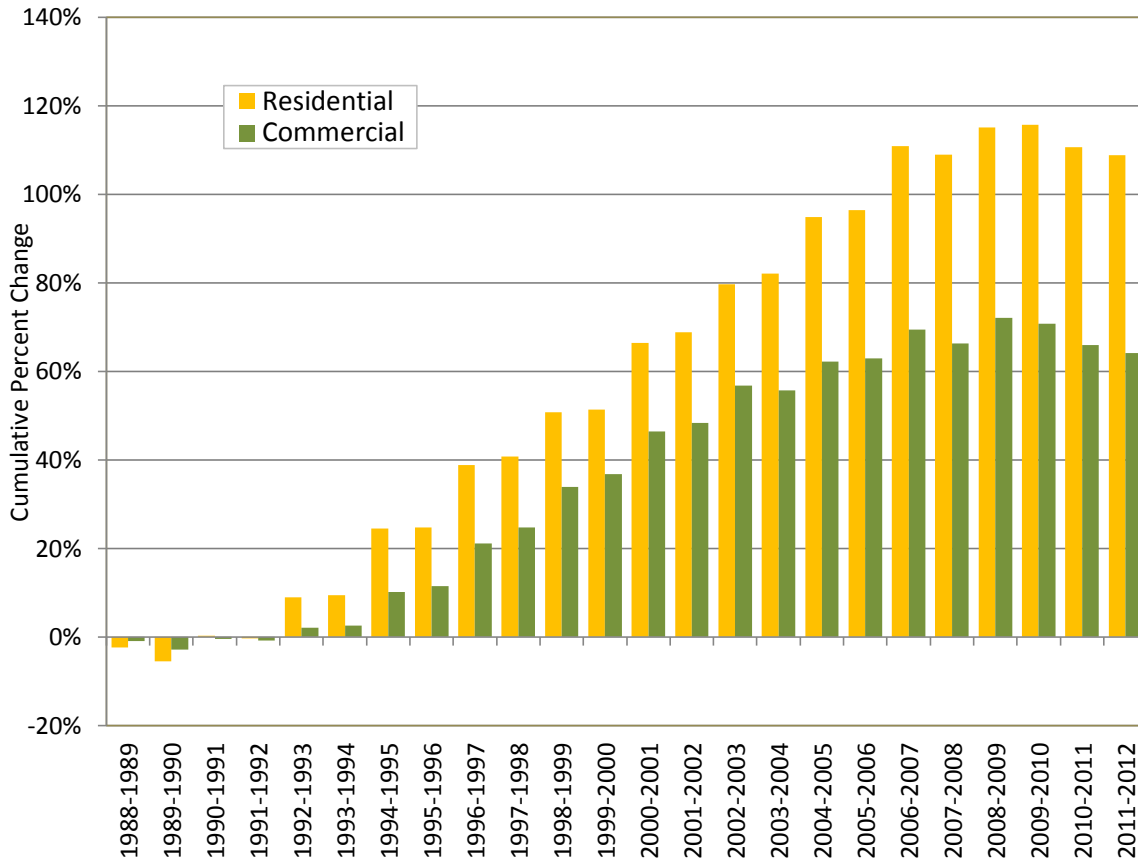


Figure 4.7 shows the cumulative percentage changes in residential and commercial valuations statewide expressed in 2012 dollars. Both residential and commercial property lost value from the late 1980s through 1992. This reflects the factors leading up to and through the 1991 recession. These include:

- residual effects of the October 1987 stock market crash,
- the Federal Reserve Bank’s raising of interest rates to battle inflation that reached 5.1% during 1989,
- the beginning of the first Gulf War, and
- a worldwide spike in oil prices during 1990.

Beginning in the mid-1990s and extending up until the start of the Great Recession at the end of 2007, the value of both residential and commercial property experienced substantial growth. From 1994 through 2007 the inflation-adjusted value of residential property in Iowa increased by 92.57%, while from 2007 through 2012 the statewide value of this property classification decreased by 0.98%. The inflation-adjusted value of commercial property statewide increased by 65.09% between 1994 and 2007, but then dropped by 3.14% from 2007 to 2012.

Figure 4.7 Change in Iowa Residential and Commercial Property Valuations



Economic Impacts in Casino Counties

The remainder of this chapter focuses on measures of economic change in counties where casinos are located. This analysis investigates changes that occurred by comparing various measures of economic activity during the five years preceding to five years following the opening of each casino. However, all of the measures of economic change are not available for all of the years for every casino hosting county.

As the statewide analysis presented above shows, a variety of changes have occurred in Iowa from the late 1980s through the present. The factors that contributed to these statewide changes no doubt have impacted economic activity in the counties where casinos are located. Therefore, the before and after analysis for each casino county takes into consideration changes in the overall state economy that occurred over the same years.

For each indicator actual and percentage changes are computed for the five years preceding and the five years following the year in which a casino opens for business. Also, for the state, percentage changes for the five years preceding and the five years following each

year from 1990 through 2012 have been computed. Then for each casino the state percentage changes are subtracted from the casino county percentage changes to yield adjusted percentage changes.

For example, the Isle of Capri Casino in Scott County (in Bettendorf) opened in 1995. Population in Scott County increased by 3.80% from 1989 to 1994. Statewide over the same years, population increased by 2.89%. Thus, over those years the Scott County population growth rate exceeded the statewide population growth rate by 0.91 percentage points.

In addition, for each indicator before and after the opening date, annual differences are computed with and without the State adjustments. For example, for Scott County population increased by 1.94% from 1994 to 1999. So, population in the county increased by 1.86 percentage points more during the five years preceding the opening of the Isle of Capri Casino compared to the five years following the opening year. Adjusting for statewide population changes the difference between the two five-year periods equals -1.31 percentage points.

Obviously, other factors may complicate and confuse the before-and-after comparisons. Notably, the larger a county's population and economy, the less likely the before-and-after comparisons may be expected to exhibit clearly discernable impacts related to the opening of a casino. Additionally, normalizing percentage changes for a specific county by statewide average percentage changes ignores unique local factors that have nothing to do with the opening of a casino.

Population Impacts

As the above analysis shows, statewide population growth in Iowa has been modest over the past three-plus decades. After recovering from the farm recession of the 1980s, annual population growth has averaged slightly below 0.5% per year.

For the 14 casino host counties, population increased by an average of 0.57% in the year prior to the casinos' openings and by 0.51% in the year following the openings. As shown in Table 4.2, over the five years preceding casino openings, the average population increase equaled 0.81% for the host counties (excluding Lyon County because Grand Falls Casino has only been open since 2011), while over the five years following opening years, the percentage change in population equaled 2.00%.

Matching population changes statewide for each five-year period preceding casino opening years found that, on average, the change equaled 1.76% (excluding Lyon County). Similarly, for the five years following casino opening years, the statewide average population change equaled 2.56%. Thus, both before and after openings casino counties' populations grew less than the state as a whole.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.2 Casino Host County Population Percent Change Before and After Opening

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 Years	4 Years	3 Years	2 Years	1 Year	1 Year	2 Years	3 Years	4 Years	5 Years
President/Rhythm City	1991	-2.11%	-0.86%	0.27%	0.72%	0.84%	1.27%	2.38%	2.69%	2.93%	3.28%
Wild Rose Casino & Resort Clinton	1991	-4.66%	-2.59%	-1.22%	-0.53%	0.06%	-0.05%	0.61%	0.78%	0.45%	0.35%
Diamond Jo Dubuque	1994	1.04%	1.87%	2.08%	1.46%	0.67%	0.45%	0.77%	0.95%	0.83%	0.58%
Catfish Bend Casino	1994	0.71%	1.17%	1.02%	0.54%	0.21%	0.02%	-0.39%	-0.65%	-1.12%	-1.12%
Argosy Sioux City	1994	4.17%	3.99%	3.18%	2.14%	1.19%	0.73%	1.68%	2.32%	2.05%	1.98%
Lady Luck Casino Marquette	1994	-2.37%	-1.61%	-0.81%	0.11%	0.51%	-0.12%	-0.20%	0.11%	0.23%	-0.05%
Horseshoe Casino and Bluffs Run	1995	0.92%	1.02%	0.82%	0.04%	-0.12%	0.52%	1.74%	2.56%	3.67%	4.32%
Prairie Meadows Race Track & Casino	1995	8.34%	6.34%	4.73%	2.86%	1.22%	1.36%	2.47%	3.33%	4.50%	6.08%
Isle of Capri - Bettendorf	1995	3.80%	2.93%	1.64%	0.53%	0.23%	0.34%	0.65%	0.96%	1.29%	1.94%
Mystique	1995	2.32%	2.54%	1.92%	1.12%	0.45%	0.32%	0.50%	0.39%	0.14%	0.32%
Harrah's Council Bluffs Hotel & Casino	1996	1.54%	1.34%	0.56%	0.39%	0.52%	1.21%	2.03%	3.14%	3.79%	4.76%
Ameristar II	1996	1.54%	1.34%	0.56%	0.39%	0.52%	1.21%	2.03%	3.14%	3.79%	4.76%
Lakeside Hotel Casino	2000	5.68%	4.97%	2.83%	2.38%	0.76%	3.13%	3.05%	2.92%	3.40%	3.51%
Diamond Jo Worth	2006	-2.34%	-1.10%	-1.01%	-0.05%	0.09%	-1.26%	-1.19%	-1.43%	-2.26%	-1.85%
Wild Rose Casino & Resort Emmetsburg	2006	-5.59%	-4.59%	-2.78%	-0.98%	-0.82%	-1.37%	-1.56%	-2.62%	-3.03%	-1.87%
Riverside Casino and Golf Resort	2006	1.62%	0.18%	0.26%	0.20%	0.12%	0.30%	0.55%	0.84%	1.05%	3.16%
Isle Casino Hotel Waterloo	2007	-0.86%	-0.06%	0.42%	0.38%	0.25%	0.14%	1.17%	2.15%	3.67%	3.82%
Grand Falls Casino Resort	2011	1.03%	2.07%	3.02%	3.38%	3.54%	1.05%	1.64%			
Average for All Casinos*		0.81%	0.99%	0.85%	0.69%	0.39%	0.48%	0.96%	1.27%	1.49%	2.00%
Average for State		1.76%	1.70%	1.45%	0.98%	0.49%	0.51%	1.01%	1.45%	1.93%	2.56%
Difference (Casino Counties - State)		-0.96%	-0.70%	-0.60%	-0.29%	-0.10%	-0.03%	-0.05%	-0.18%	-0.44%	-0.56%

* Averages exclude Grand Falls Casino

Looking at the casinos individually, one finds that, in the year prior to opening, county populations decreased in two instances and increased for the remaining 16. Also, the first year following casino openings the populations decreased for four host counties and increased for the other host counties. Over the five years leading up to a casino opening, six host counties lost population, while 12 gained population. During the five years following casino openings, population decreased in four host counties and increased in the remaining 13 counties where casinos have been opened for five or more years.

The counties with the greatest percentage increases in population over the five years following casino openings are those associated with the state's larger metropolitan areas – Prairie Meadow/Polk County (6.08%), Harrah's and Ameristar Casinos/Pottawattamie County (4.76%), Horseshoe Casino/Pottawattamie County (4.32%), and Isle Casino/Black Hawk County (3.82%). Over the five years preceding the opening of Prairie Meadows Casino Polk County's population increased by 8.34%, while the population of Pottawattamie increased by 0.92% during the five years prior to the opening of Horseshoe Casino. Black Hawk County lost 0.86% of its population the five year prior to the opening of the Isle Casino in Waterloo. However, when evaluating the impact of casinos on population growth on relatively large urban areas one needs to be careful about reaching any conclusions regarding a causal linkage.

On the other hand, for less-populous counties, the presumption of a causal relationship between the opening of a casino and population growth is reasonable. For example, over the five years preceding the opening of the Diamond Jo Casino in 2006, the population of Worth County decreased by 2.34%. Over the next five years the county's population continued to decrease but by slightly less 1.85%. Similarly, in Palo Alto County, where a Wild Rose Casino also opened during 2006, the population decreased by 5.59% over the five preceding years and continued to lose population during the following five years, but the decrease from 2006 to 2011 equaled only 1.87%.

Another way of looking for possible population impacts associated with the opening of casinos involves taking the differences between the percentage changes in population before and after the opening years for each time span from one to five years. These comparisons are presented in Table 4.3. The top part of the table presents the unadjusted percentage change differences for casino host counties. The bottom part of the table presents the percentage change differences adjusted by statewide percentage changes in population over the same spans of years. At the bottom of each table average before and after percentage change differences are presented for all of the casino host counties with the exception of Lyon County.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.3 Before-and-After Population Change Differences

Casino	Year Opened	Percent Change in Casino Counties				
		1 Yr Before to	2 Yrs Before to	3 Yrs Before to	4 Yrs Before to	5 Yrs Before to
		1 Yr After	2 Yrs After	3 Yrs After	4 Yrs After	5 Yrs After
President/Rhythm City	1991	0.43%	1.66%	2.42%	3.79%	5.40%
Wild Rose Casino & Resort Clinton	1991	-0.11%	1.15%	2.00%	3.04%	5.01%
Diamond Jo Dubuque	1994	-0.23%	-0.70%	-1.13%	-1.03%	-0.46%
Catfish Bend Casino	1994	-0.19%	-0.93%	-1.67%	-2.29%	-1.83%
Argosy Sioux City	1994	-0.46%	-0.46%	-0.87%	-1.93%	-2.19%
Lady Luck Casino Marquette	1994	-0.63%	-0.31%	0.92%	1.84%	2.33%
Horseshoe Casino and Bluffs Run	1995	0.64%	1.70%	1.74%	2.65%	3.40%
Prairie Meadows Race Track & Casino	1995	0.14%	-0.39%	-1.40%	-1.83%	-2.26%
Isle of Capri - Bettendorf	1995	0.11%	0.11%	-0.69%	-1.64%	-1.85%
Mystique	1995	-0.12%	-0.62%	-1.53%	-2.40%	-2.00%
Harrah's Council Bluffs Hotel & Casino	1996	0.70%	1.63%	2.58%	2.45%	3.21%
Ameristar II	1996	0.70%	1.63%	2.58%	2.45%	3.21%
Lakeside Hotel Casino	2000	2.37%	0.67%	0.09%	-1.57%	-2.17%
Diamond Jo Worth	2006	-1.35%	-1.14%	-0.41%	-1.15%	0.49%
Wild Rose Casino & Resort Emmetsburg	2006	-0.55%	-0.57%	0.16%	1.56%	3.72%
Riverside Casino and Golf Resort	2006	0.18%	0.34%	0.58%	0.87%	1.53%
Isle Casino Hotel Waterloo	2007	-0.11%	0.79%	1.73%	3.73%	4.68%
Grand Falls Casino Resort	2011	-2.48%	-1.74%			
Average for All Casinos*		0.09%	0.27%	0.42%	0.50%	1.19%

Casino	Year Opened	Percent Change in Casino Counties with Statewide Adjustment				
		1 Yr Before to	2 Yrs Before to	3 Yrs Before to	4 Yrs Before to	5 Yrs Before to
		1 Yr After	2 Yrs After	3 Yrs After	4 Yrs After	5 Yrs After
President/Rhythm City	1991	0.21%	0.77%	0.92%	0.89%	0.57%
Wild Rose Casino & Resort Clinton	1991	-0.33%	0.26%	0.49%	0.14%	0.19%
Diamond Jo Dubuque	1994	-0.05%	-0.36%	-0.64%	-0.55%	-0.31%
Catfish Bend Casino	1994	-0.02%	-0.60%	-1.17%	-1.80%	-1.67%
Argosy Sioux City	1994	-0.29%	-0.12%	-0.37%	-1.44%	-2.03%
Lady Luck Casino Marquette	1994	-0.46%	0.03%	1.42%	2.32%	2.48%
Horseshoe Casino and Bluffs Run	1995	0.54%	1.82%	2.23%	3.33%	3.95%
Prairie Meadows Race Track & Casino	1995	0.04%	-0.26%	-0.92%	-1.15%	-1.71%
Isle of Capri - Bettendorf	1995	0.01%	0.24%	-0.20%	-0.96%	-1.31%
Mystique	1995	-0.22%	-0.50%	-1.05%	-1.72%	-1.46%
Harrah's Council Bluffs Hotel & Casino	1996	0.84%	1.88%	3.08%	3.19%	4.20%
Ameristar II	1996	0.84%	1.88%	3.08%	3.19%	4.20%
Lakeside Hotel Casino	2000	2.52%	1.19%	1.00%	-0.34%	-0.64%
Diamond Jo Worth	2006	-1.58%	-1.57%	-1.23%	-2.45%	-2.21%
Wild Rose Casino & Resort Emmetsburg	2006	-0.78%	-1.00%	-0.66%	0.26%	1.03%
Riverside Casino and Golf Resort	2006	-0.06%	-0.08%	-0.24%	-0.42%	-1.16%
Isle Casino Hotel Waterloo	2007	-0.09%	0.58%	1.34%	2.03%	2.51%
Grand Falls Casino Resort	2011	-1.52%	-0.64%			
Average for All Casinos*		0.07%	0.24%	0.42%	0.27%	0.39%

* Averages exclude Grand Falls Casino in Lyon County

The average percentage change differences for the 17 casino host counties where casinos have been open for at least five years show that – both with and without the statewide adjustments – the opening of casinos have not had much of an impact on population. This finding is not surprising. In many instances, the case made for establishing a casino involved the promise of new jobs for existing unemployed and underemployed populations. Also, particularly in rural areas, people are more likely to commute longer distances for work than to pick up and move from communities where they have established roots. In addition, many of the jobs offered by casinos and associated businesses do not pay wages at a level high enough to induce a large influx of new residents.

Personal Income Impacts

Rather than use real total personal income as a measure of economic change, this analysis uses real (i.e., inflation-adjusted) non-farm personal income. This selection of the more narrowly defined measure of personal income reflects a deliberate decision to screen out the impact of farm income, which is subject to wide year-to-year variation. In addition, for the purpose of this study farm income can reasonably be considered as determined by exogenous factors not related to casino operations. Other measures of personal income used in this analysis are real wage and salary income and real employee benefits.

Real Non-Farm Personal Income

Table 4.4 presents percentage changes in real non-farm personal income over one to five-year periods both before and after the years in which casinos opened for host counties. Averaged over the full five years for the 17 counties where casinos have been open at least five years, real non-farm personal income grew by 15.48%. Over the five years preceding casino openings the same counties experienced real non-farm personal income growth of 7.28%.

Compared to the state as a whole, the average post-opening real non-farm personal income growth rate is only 0.77 percentage point greater than the statewide income growth rate, and for the five years prior to casino openings the growth rate is 0.20 percentage point lower.

Among the individual casino host counties, Clinton County, where the Wild Rose Casino (previously the Mississippi Belle II) is located, stands out on the low end of the growth distribution, having experienced only a 4.92% increase in real non-farm personal income over the five years following the casino's opening in 1991. However, this may be somewhat distorted because, after the acquisition of the Mississippi Belle II by Wild Rose in June 2006 a new land-based casino was constructed, which opened during July 2008.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.4 Casino Host County Real Non-Farm Personal Income Change Before and After Opening

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 Years	4 Years	3 Years	2 Years	1 Year	1 Year	2 Years	3 Years	4 Years	5 Years
President/Rhythm City	1991	3.37%	3.91%	2.58%	2.65%	1.19%	0.39%	2.42%	2.26%	4.43%	8.18%
Wild Rose Casino & Resort Clinton	1991	-1.29%	-0.17%	1.02%	0.43%	-0.95%	0.88%	2.76%	0.79%	2.37%	4.92%
Diamond Jo Dubuque	1994	6.05%	4.93%	5.50%	4.88%	1.06%	4.25%	8.30%	8.08%	10.14%	15.55%
Catfish Bend Casino	1994	2.17%	0.35%	0.27%	0.72%	-0.29%	2.01%	2.91%	4.78%	6.50%	12.39%
Argosy Sioux City	1994	5.46%	4.98%	3.41%	3.46%	-0.79%	2.91%	7.71%	12.20%	11.44%	17.18%
Lady Luck Casino Marquette	1994	3.94%	2.95%	4.93%	4.13%	0.61%	1.25%	10.79%	14.83%	19.77%	22.99%
Horseshoe Casino and Bluffs Run	1995	5.97%	7.58%	6.35%	4.39%	4.35%	3.46%	8.40%	12.39%	18.98%	23.58%
Prairie Meadows Race Track & Casino	1995	11.01%	6.60%	8.41%	5.02%	3.64%	4.03%	6.80%	9.89%	18.14%	22.20%
Isle of Capri - Bettendorf	1995	5.68%	4.43%	4.03%	1.97%	2.12%	3.58%	6.95%	9.57%	15.96%	16.40%
Mystique	1995	9.39%	9.98%	9.34%	5.35%	4.25%	3.89%	3.67%	5.65%	10.84%	10.32%
Harrah's Council Bluffs Hotel & Casino	1996	11.30%	10.03%	8.00%	7.95%	3.46%	4.78%	8.64%	15.01%	19.46%	24.33%
Ameristar II	1996	11.30%	10.03%	8.00%	7.95%	3.46%	4.78%	8.64%	15.01%	19.46%	24.33%
Lakeside Hotel Casino	2000	32.25%	28.40%	21.17%	14.54%	6.25%	6.77%	11.36%	12.46%	13.88%	13.38%
Diamond Jo Worth	2006	1.37%	2.33%	3.62%	4.22%	-0.95%	3.16%	10.01%	11.37%	12.67%	11.27%
Wild Rose Casino & Resort Emmetsburg	2006	0.48%	0.56%	1.42%	1.90%	0.54%	1.49%	7.34%	11.95%	11.69%	12.37%
Riverside Casino and Golf Resort	2006	2.94%	4.70%	3.91%	3.16%	0.81%	3.65%	7.67%	9.11%	10.64%	10.93%
Isle Casino Hotel Waterloo	2007	8.46%	5.44%	5.40%	2.87%	3.10%	2.90%	6.13%	7.03%	3.82%	5.53%
Grand Falls Casino Resort	2011	17.43%	14.43%	8.41%	3.58%	4.45%	10.80%	14.43%			
Average for All Casinos*		7.28%	6.45%	5.92%	4.56%	1.92%	3.36%	7.38%	10.01%	12.86%	15.48%
Average for State		7.47%	6.19%	5.25%	4.07%	1.78%	2.91%	5.86%	8.80%	11.62%	14.71%
Difference (Casino Counties - State)		-0.20%	0.26%	0.67%	0.49%	0.13%	0.45%	1.52%	1.21%	1.24%	0.77%

* Averages exclude Grand Falls Casino

On the high end, Pottawattamie County – where the Horseshoe, Harrah’s, and Ameristar Casinos are located – experienced increases in real non-farm personal income exceeding 20% over the five years following the casinos’ openings. The five years preceding the opening of Horseshoe Casino real non-farm personal income grew by 5.97% in Pottawattamie County and the five years preceding the opening of Harrah’s and Ameristar the county’s real non-farm personal income increased by 11.30%.

Table 4.5 provides additional perspective on real non-farm personal income growth for casino counties. This table matches growth rates by number of years before and after casino openings both without and with adjustment to reflect statewide growth rates. Looking at the without adjustment data two casino counties stand out as exhibiting considerably weaker growth after their casinos opened for business compared to earlier years. These casinos and their host counties are Lakeside located in Clarke County and Isle located in Black Hawk County. In both cases, real non-farm personal income grew by a greater percentage five years prior to the casinos opening for business than after. For Clarke County, real non-farm personal income grew by 32.25% the five years prior to the opening of Lakeside Casino and only by 13.38% the five years after, which is a difference of 18.87 percentage points. For Black Hawk County, real non-farm personal income increased by 8.46% during the five years prior to the opening of Isle Casino, while during the following five years real non-farm personal income increased by 5.53%. Both of these casinos opened at the beginning of recessions.

When adjusted for statewide growth, there are six casino counties where real non-farm personal increased less during the five years after casinos opened than before. The two casinos in Dubuque County, the Diamond Jo and Mystique opened during 1994 and 1995, respectively. The adjusted differences over the five year after and before the opening dates for these two casino are -4.06 percentage points and -9.96 percentage points, respectively. A likely reason the adjusted differences show much lower growth after the casinos opened than before is because during the first half of the 1990s Iowa like much of the rest of the country slowly recovered from the 1991 recession, while during the second half of the decade the economy started to boom. But although, real non-farm personal income in Dubuque County did grow by slightly more during the second half of the 1990s than during the first half of the decade, the county’s rate of growth trailed the state’s average rate of growth by a substantial margin.

Palo Alto County, where the Wild Rose Casino opened in 2006, experienced the greatest positive growth difference over the five years after its casino opened compared to the five years prior to the opening when adjusted for the statewide growth rates. The adjusted five-year difference for this county equals 9.93 percentage points.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.5 Before-and-After Real Non-Farm Personal Income Change Differences

Casino	Year Opened	Percent Change in Casino Counties				
		1 Yr Before to 1 Yr After	2 Yrs Before to 2 Yrs After	3 Yrs Before to 3 Yrs After	4 Yrs Before to 4 Yrs After	5 Yrs Before to 5 Yrs After
President/Rhythm City	1991	-0.80%	-0.24%	-0.31%	0.52%	4.80%
Wild Rose Casino & Resort Clinton	1991	1.83%	2.34%	-0.23%	2.54%	6.20%
Diamond Jo Dubuque	1994	3.19%	3.42%	2.58%	5.21%	9.49%
Catfish Bend Casino	1994	2.30%	2.19%	4.51%	6.16%	10.22%
Argosy Sioux City	1994	3.71%	4.26%	8.79%	6.47%	11.72%
Lady Luck Casino Marquette	1994	0.64%	6.66%	9.90%	16.82%	19.06%
Horseshoe Casino and Bluffs Run	1995	-0.89%	4.01%	6.04%	11.40%	17.62%
Prairie Meadows Race Track & Casino	1995	0.39%	1.78%	1.47%	11.54%	11.19%
Isle of Capri - Bettendorf	1995	1.46%	4.98%	5.54%	11.53%	10.72%
Mystique	1995	-0.36%	-1.68%	-3.69%	0.86%	0.92%
Harrah's Council Bluffs Hotel & Casino	1996	1.33%	0.69%	7.01%	9.43%	13.04%
Ameristar II	1996	1.33%	0.69%	7.01%	9.43%	13.04%
Lakeside Hotel Casino	2000	0.52%	-3.18%	-8.71%	-14.52%	-18.87%
Diamond Jo Worth	2006	4.11%	5.79%	7.75%	10.33%	9.90%
Wild Rose Casino & Resort Emmetsburg	2006	0.95%	5.44%	10.53%	11.12%	11.89%
Riverside Casino and Golf Resort	2006	2.84%	4.52%	5.20%	5.94%	7.99%
Isle Casino Hotel Waterloo	2007	-0.20%	3.26%	1.63%	-1.62%	-2.93%
Grand Falls Casino Resort	2011	6.35%	10.85%			
Average for All Casinos*		1.31%	2.64%	3.82%	6.07%	8.00%

Casino	Year Opened	Percent Change in Casino Counties with Statewide Adjustment				
		1 Yr Before to 1 Yr After	2 Yrs Before to 2 Yrs After	3 Yrs Before to 3 Yrs After	4 Yrs Before to 4 Yrs After	5 Yrs Before to 5 Yrs After
President/Rhythm City	1991	-0.65%	-0.14%	0.03%	-1.87%	-0.27%
Wild Rose Casino & Resort Clinton	1991	1.99%	2.43%	0.12%	0.15%	1.13%
Diamond Jo Dubuque	1994	0.85%	0.23%	-3.61%	-3.96%	-4.06%
Catfish Bend Casino	1994	-0.04%	-1.00%	-1.69%	-3.02%	-3.33%
Argosy Sioux City	1994	1.37%	1.07%	2.60%	-2.71%	-1.83%
Lady Luck Casino Marquette	1994	-1.70%	3.48%	3.71%	7.65%	5.50%
Horseshoe Casino and Bluffs Run	1995	-0.68%	2.02%	3.11%	2.26%	6.74%
Prairie Meadows Race Track & Casino	1995	0.60%	-0.22%	-1.45%	2.40%	0.31%
Isle of Capri - Bettendorf	1995	1.68%	2.98%	2.61%	2.39%	-0.16%
Mystique	1995	-0.15%	-3.67%	-6.61%	-8.28%	-9.96%
Harrah's Council Bluffs Hotel & Casino	1996	1.30%	0.81%	1.82%	4.56%	5.13%
Ameristar II	1996	1.30%	0.81%	1.82%	4.56%	5.13%
Lakeside Hotel Casino	2000	-0.51%	0.10%	-3.81%	-6.37%	-10.73%
Diamond Jo Worth	2006	1.27%	2.59%	2.19%	6.54%	7.95%
Wild Rose Casino & Resort Emmetsburg	2006	-1.88%	2.25%	4.97%	7.33%	9.93%
Riverside Casino and Golf Resort	2006	0.00%	1.32%	-0.36%	2.15%	6.03%
Isle Casino Hotel Waterloo	2007	-0.30%	1.37%	3.19%	0.14%	-2.38%
Grand Falls Casino Resort	2011	3.47%	4.93%			
Average for All Casinos*		0.26%	0.97%	0.51%	0.82%	0.89%

* Averages exclude Grand Falls Casino in Lyon County

Overall, the casino counties experienced more growth in real non-farm personal income over all periods after their casinos opened for business than during similar numbers of years

prior to the openings. When growth rates statewide over the same periods are taken into consideration real non-farm personal income in the casino counties still on average grew more than during the years prior to the casinos opening, but the differences are more modest.

Two other personal income measures that focus on workers are wage and salary income and benefits. Figures 4.8 and 4.9 present 5-year period comparisons for these two measures.

Real Wage and Salary Income

Figure 4.8 shows that for most casino host counties, real-wage and salary income both unadjusted and adjusted for statewide wage and salary growth increased by more during the five years following casinos opening for business than before. Unadjusted for statewide changes, real-wage and salary income for four casino counties – Black Hawk, Clarke, Dubuque, and Palo Alto – experienced more growth the five years before casinos opened than after. Adjusted for statewide changes again four casino counties – Clarke, Dubuque, Palo Alto, and Woodbury – experienced less real-wage and salary income growth the five years after the casinos opened than before.

Similar to the analysis of changes in real non-farm personal income, Clarke County experienced much lower growth in real-wage and salary income after Lakeside Casino opened for business compared to the prior five years. However, this can likely be attributed to the opening of Osceola Foods, a subsidiary of Hormel Foods, in 1995. This facility employs close to 700 workers and thus is a dominant influence on the local economy and distorts the before and after analysis of the influence of Lakeside Casino on personal income in Clarke County.

Real Benefits

Figure 4.9 presents a similar picture of the differences in the change in inflation-adjusted worker benefits over the five years after casinos opened compared to the five years before their opening for business. On an unadjusted basis, in only three counties – Clinton, Pottawattamie, and Scott – did benefits on an unadjusted basis increase more over the five years following the opening of their casinos than over the five prior years. However, taking into consideration benefits growth statewide, there are nine counties – Black Hawk, Clayton, Clinton, Palo Alto, Pottawattamie, Polk, Scott, Washington, and Worth – where the benefits component of personal income grew more over the five years following casino openings than over the prior five years.

Figure 4.8 Before-and-After 5-Year Real Wage and Salary Income Change Differences

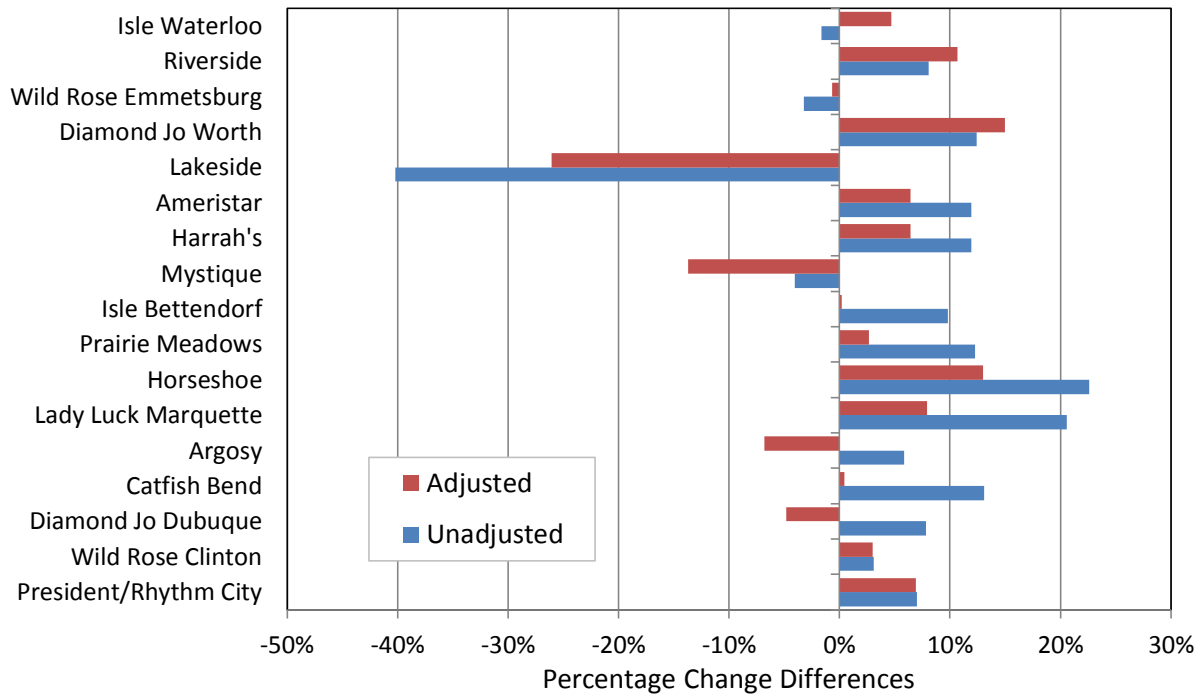
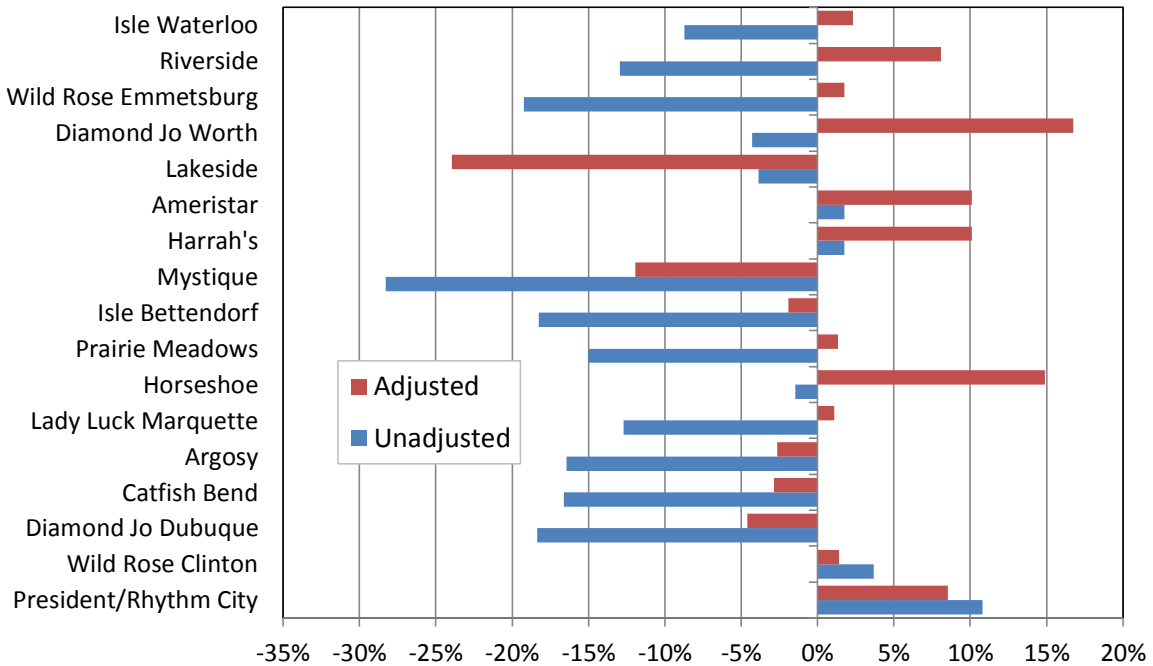


Figure 4.9 Before-and-After 5-Year Real Worker Benefits Change Differences



For only two of the casinos did the real value of worker benefits decrease in their host counties – Des Moines and Dubuque – over the five years following the year in which the casinos opened. Averaging over the five years before and after casinos opened, excluding Lyon County because Grand Falls Casino has only been open for two years, the increase in real worker benefits equaled 19.86% before casinos opened and 10.56% after casinos opened.

The analysis of changes in real non-farm personal income over the five years before and after the years during which casinos opened for business finds that there were increases in all of the host counties. Also, for 15 of the casinos real non-farm personal income increased by a greater percent in their host counties during the five years following their opening years than during the five years prior to opening. Taking into consideration changes that went on in the state's economy over the period from five years prior to the opening of the first casino in 1991 to 2012, the most recent data year, reveals a somewhat different picture. With this adjustment eight of the casino host counties experienced less growth in real non-farm personal income during the five years after the opening of the casinos than before.

Focusing on the components of personal income of most interest to workers (i.e., wages and salaries and benefits) the picture of how the opening of casinos impacted their location counties is about the same as for total real non-farm personal income. The host counties for all of the casinos experienced growth in real wage and salary income during the five years following casino openings. In all except four instances did wage and salary income grow by more after the casinos opened than before. For all except three of the casinos did host county real benefits increase during the five years after casinos opened for business. However, when a comparison is made between the five years prior to casinos opening to the five years after, one finds that in only four cases did the real value of benefits increase by more after the casinos opened than before. Averaging over the 17 counties for which casinos have been open at least five years the rate of benefits growth the five years before casinos opened is 9.30 percentage points greater than for the five years after. However, when statewide growth rates for benefits are taken into consideration the before and after comparison of real benefits growth improves. On this adjusted basis the increases in benefits after casinos opened were greater in percentage terms for 11 casino counties than during the five years before.

The next section provides a different perspective on how casinos have impacted worker welfare by investigating changes in employment for selected sectors of the economy.

Employment Impacts

Similar, to the prior two sections, this section investigates changes in employment in host counties from five years before to five years after the opening of casinos. In addition to total private non-farm employment the analysis addresses the lodging and entertainment, bar

and restaurant, retail trade, and construction sectors. Although reported as separate sectors in the County Business Patterns reports the lodging and entertainment employment statistics are combined because casino employment is split between the two sectors depending on whether or not a casino development includes a lodging facility. Another factor that complicates the analysis for these two sectors, and in some cases for the other sectors, is the suppression of data for some of the smaller counties. Attempts have been made to estimate missing data, but when the estimates or provided data are suspect for specific casino counties they are omitted from statewide average calculations and comparisons.

Total Private Non-Farm Employment Impacts

For the 17 casinos open at least five years by 2011, which is the last year of available jobs data, 15 of the host counties experienced increases in total private non-farm employment through the fifth year. As shown in Table 4.6, the counties that lost jobs are Clarke (Lakeside Casino) and Palo Alto (Wild Rose Casino Emmetsburg). The largest job gains occurred in Clayton County (29.31%) the five years after the Miss Marquette started operations, in Pottawattamie County (22.26%) the five years following the opening of the Harrah's and Ameristar Casinos in 1996, and in Scott County (18.93%) following the opening of the Isle of Capri in Bettendorf in 1995. The gain in jobs for Pottawattamie and Scott Counties during the latter half of the 1990s are not particularly surprising because in Iowa and nationwide these were years of strong economic growth.

Looking at the average county job growth rates for the 15 counties where jobs data exists for at least five years before and after casinos opened, the growth rates after the casinos opened for business are greater than the rates exhibited before the casinos opened. This is particularly true for the first three years. For example, the average growth rate the year after the casinos opened for business equals 5.70%, while the year before the rate equals 3.50%. For the first two years after casinos opened the average job growth equals 10.70%, while for the two prior years the job growth rate averages 6.15%. And for the three-year periods the average job growth rate after equals 12.39%, but only 5.10% before. By the fifth year, the comparison equals 12.12% after and 10.16% before. Adjusted for statewide average growth rates, the five year comparison equals 3.74% growth after casinos opened to a 0.07% decrease the five years before.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.6 Casino Host County Private Non-Farm Employment Change Before and After Opening

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 Years	4 Years	3 Years	2 Years	1 Year	1 Year	2 Years	3 Years	4 Years	5 Years
President/Rhythm City	1991		10.20%	7.62%	5.83%	2.20%	3.31%	2.45%	4.56%	7.64%	12.47%
Wild Rose Casino & Resort Clinton	1991		16.30%	12.18%	6.10%	1.42%	2.81%	9.00%	6.26%	6.58%	9.07%
Diamond Jo Dubuque	1994	11.91%	10.02%	6.69%	5.13%	4.84%	1.23%	6.20%	5.96%	7.66%	5.71%
Catfish Bend Casino	1994	6.24%	1.34%	1.31%	1.57%	2.65%	0.80%	5.30%	7.33%	7.16%	8.35%
Argosy Sioux City	1994	17.53%	7.59%	1.76%	6.36%	4.58%	-0.82%	4.65%	8.08%	8.78%	11.29%
Lady Luck Casino Marquette	1994	6.65%	-0.16%	-1.43%	1.79%	2.40%	4.92%	7.45%	27.91%	34.16%	29.31%
Horseshoe Casino and Bluffs Run	1995	10.95%	6.87%	6.02%	2.42%	3.74%	0.72%	17.93%	15.33%	19.54%	20.97%
Prairie Meadows Race Track & Casino	1995	10.79%	8.62%	6.42%	4.71%	2.31%	4.63%	5.10%	6.36%	8.25%	13.13%
Isle of Capri - Bettendorf	1995	10.01%	7.64%	4.19%	5.06%	2.95%	4.48%	7.59%	11.22%	16.40%	18.93%
Mystique	1995	11.37%	8.00%	6.42%	6.13%	1.23%	4.91%	4.68%	6.35%	4.43%	5.84%
Harrah's Council Bluffs Hotel & Casino	1996	7.64%	6.78%	3.15%	4.48%	0.72%	17.08%	14.51%	18.69%	20.10%	22.26%
Ameristar II	1996	7.64%	6.78%	3.15%	4.48%	0.72%	17.08%	14.51%	18.69%	20.10%	22.26%
Lakeside Hotel Casino	2000	39.29%	38.89%	14.80%	21.39%	11.14%	23.33%	15.11%	6.37%	1.97%	-2.12%
Diamond Jo Worth	2006	2.24%	14.85%	16.63%	26.19%	10.40%	-1.06%	32.16%	33.55%	18.83%	14.99%
Wild Rose Casino & Resort Emmetsburg	2006	9.56%	17.21%	6.91%	4.23%	0.96%	0.68%	1.73%	1.42%	-0.74%	-8.25%
Riverside Casino and Golf Resort	2006	-2.78%	-0.95%	-1.78%	-2.73%	2.69%	8.61%	22.97%	16.52%	11.91%	15.00%
Isle Casino Hotel Waterloo	2007	3.35%	5.04%	2.29%	0.97%	1.12%	-1.13%	0.69%	2.10%	3.14%	4.16%
Grand Falls Casino Resort	2011	4.89%	-0.33%	-4.04%	-6.08%	-3.63%	2.18%				
Average for All Casinos*		10.16%	9.23%	5.10%	6.15%	3.50%	5.70%	10.70%	12.39%	12.11%	12.12%
Average for State		10.23%	7.31%	6.11%	4.61%	2.54%	2.65%	4.81%	6.13%	6.99%	8.38%
Difference (Casino Counties - State)		-0.07%	1.92%	-1.01%	1.54%	0.96%	3.05%	5.89%	6.26%	5.12%	3.74%

* Averages exclude Rhythm City, Wild Rose Clinton, Grand Falls Casino

Table 4.7 shows the cumulative percentage point difference in host county private non-farm job growth from one to five years before and after the opening of each casino. The top part of the table makes the comparisons without any adjustment for statewide job growth fluctuations. The one-year comparisons show greater job growth in 11 of the 18 cases after casinos opened. (Actually, the comparison is for 10 of 17 counties because two casinos opened in Pottawattamie County during 1996.) The two-year comparisons find a greater percentage growth of jobs for 10 of 16 counties (counting Pottawattamie County only once for Harrah's and Ameristar) after casinos opened. For the three-year comparisons eight of the 16 casino counties had greater job growth rates after the casinos opened. The four-year comparisons find greater job growth after casinos opened in eight of 16 counties, and the five-year comparisons find greater job growth in nine of the 14 counties for which data exist after casinos opened for business. The greatest average growth rate disparity between the before-and-after casino openings was for the three-year period, at 7.29 percentage points.

The bottom part of Table 4.7 makes similar before-and-after casino opening year comparisons for private non-farm job growth rates adjusted to account for fluctuations in the statewide economy. Over the one-, two- and three-year periods, the overall averages are close to the overall averages for the unadjusted growth rates. For the four- and five-year comparisons the overall averages differences are somewhat greater when adjusted for statewide growth. The four-year average growth rate difference without the statewide adjustment equals 2.88%, while the with adjustment average equals 3.20%. The five-year average growth rate difference without the statewide adjustment equals 1.96%, while the with adjustment average equals 3.81%.

In making these comparisons, certain local anomalies need to be taken into consideration. For example, for the three casinos located in Pottawattamie County, one opened during March 1995 and the other two opened during January 1996. Employment statistics show a 4,062 (17.08%) jobs jump between 1995 and 1996 and then relatively flat jobs growth over the next five years going from 27,838 in 1996 to 30,412 in 2001. It is possible some of the job growth during 1995 can be attributed to the openings of the Harrah's and Ameristar Casinos the first month of 1996.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.7 Before-and-After Private Non-Farm Employment Change Differences

Casino	Year Opened	Percent Change in Casino Counties				
		1 Yr Before to	2 Yrs Before to	3 Yrs Before to	4 Yrs Before to	5 Yrs Before to
		1 Yr After	2 Yrs After	3 Yrs After	4 Yrs After	5 Yrs After
President/Rhythm City	1991	1.11%	-3.38%	-3.06%	-2.56%	
Wild Rose Casino & Resort Clinton	1991	1.39%	2.91%	-5.92%	-9.72%	
Diamond Jo Dubuque	1994	-3.61%	1.07%	-0.73%	-2.36%	-6.20%
Catfish Bend Casino	1994	-1.85%	3.72%	6.02%	5.82%	2.11%
Argosy Sioux City	1994	-5.40%	-1.72%	6.32%	1.19%	-6.23%
Lady Luck Casino Marquette	1994	2.52%	5.66%	29.34%	34.32%	22.66%
Horseshoe Casino and Bluffs Run	1995	-3.02%	15.51%	9.31%	12.67%	10.02%
Prairie Meadows Race Track & Casino	1995	2.32%	0.39%	-0.06%	-0.37%	2.34%
Isle of Capri - Bettendorf	1995	1.53%	2.53%	7.03%	8.76%	8.92%
Mystique	1995	3.68%	-1.45%	-0.07%	-3.57%	-5.53%
Harrah's Council Bluffs Hotel & Casino	1996	16.36%	10.02%	15.53%	13.32%	14.62%
Ameristar II	1996	16.36%	10.02%	15.53%	13.32%	14.62%
Lakeside Hotel Casino	2000	12.20%	-6.28%	-8.43%	-36.91%	-41.42%
Diamond Jo Worth	2006	-11.46%	5.97%	16.93%	3.98%	12.75%
Wild Rose Casino & Resort Emmetsburg	2006	-0.28%	-2.51%	-5.49%	-17.95%	-17.82%
Riverside Casino and Golf Resort	2006	5.92%	25.71%	18.30%	12.86%	17.78%
Isle Casino Hotel Waterloo	2007	-2.25%	-0.28%	-0.19%	-1.89%	0.81%
Grand Falls Casino Resort	2011	5.81%				
Average for All Casinos*		2.20%	4.56%	7.29%	2.88%	1.96%

Casino	Year Opened	Percent Change in Casino Counties with Statewide Adjustment				
		1 Yr Before to	2 Yrs Before to	3 Yrs Before to	4 Yrs Before to	5 Yrs Before to
		1 Yr After	2 Yrs After	3 Yrs After	4 Yrs After	5 Yrs After
President/Rhythm City	1991	2.98%	3.15%	5.81%	7.58%	
Wild Rose Casino & Resort Clinton	1991	3.26%	9.44%	2.95%	0.42%	
Diamond Jo Dubuque	1994	-2.03%	0.05%	-2.91%	-2.86%	-2.87%
Catfish Bend Casino	1994	-0.27%	2.70%	3.84%	5.32%	5.44%
Argosy Sioux City	1994	-3.82%	-2.74%	4.14%	0.69%	-2.90%
Lady Luck Casino Marquette	1994	4.11%	4.64%	27.16%	33.83%	26.00%
Horseshoe Casino and Bluffs Run	1995	-5.82%	13.70%	7.98%	9.46%	7.66%
Prairie Meadows Race Track & Casino	1995	-0.48%	-1.43%	-1.39%	-3.58%	-0.03%
Isle of Capri - Bettendorf	1995	-1.27%	0.71%	5.70%	5.54%	6.55%
Mystique	1995	0.88%	-3.27%	-1.40%	-6.78%	-7.90%
Harrah's Council Bluffs Hotel & Casino	1996	18.62%	12.59%	18.59%	16.15%	16.45%
Ameristar II	1996	18.62%	12.59%	18.59%	16.15%	16.45%
Lakeside Hotel Casino	2000	12.27%	-2.50%	-1.13%	-27.52%	-27.89%
Diamond Jo Worth	2006	-12.61%	4.90%	15.05%	2.66%	13.07%
Wild Rose Casino & Resort Emmetsburg	2006	-1.44%	-3.57%	-7.37%	-19.28%	-17.49%
Riverside Casino and Golf Resort	2006	4.76%	24.64%	16.42%	11.53%	18.10%
Isle Casino Hotel Waterloo	2007	-0.17%	2.33%	5.75%	6.70%	6.44%
Grand Falls Casino Resort	2011	2.58%				
Average for All Casinos*		2.09%	4.36%	7.27%	3.20%	3.81%

* Averages exclude Rhythm City, Wild Rose Clinton, Grand Falls Casino

Another case in which the job growth statistics are likely distorted is for Clarke County. As indicated previously in the analysis of personal income changes, the opening of a large meat-processing plant in Osceola during 1995 significantly impacted the economy of this small county. From 1995 to 1996 private non-farm employment jumped from 2,407 to 2,912, or by 505 jobs (20.98%).

One would expect that an analysis of employment changes in the lodging and entertainment sectors would help clarify many of anomalies found in the analysis of the total private non-farm employment statistics. The next section presents an analysis for job growth in these combined sectors. However, for many smaller counties County Business Patterns suppresses the job count data in one or both sectors due to the dominance of new casino facilities.

Lodging and Entertainment Job Impacts

Although County Business Patterns suppresses the job counts for smaller counties and even for larger counties where just a few businesses account for most of the employment in a sector, the number of establishments by employment ranges are reported. This allows job estimates to be made where the actual counts are suppressed. The casino host counties for which most years of the lodging and entertainment sectors job counts have had to be estimated are:

- Clayton County (Miss Marquette/ Lady Luck Casino)
- Clarke County (Lakeside Casino)
- Worth County (Diamond Jo Casino)
- Palo Alto County (Wild Rose Casino)
- Washington County (Riverside Casino)
- Lyon County (Grand Falls Casino)

There are other instances where the job counts are reported but the year-to-year jumps are so large as to make the reported numbers suspect. For example, in Scott County from 1995 to 1996 the reported number of jobs for the combined lodging and recreation sectors increased from 2,625 to 3,630, which is an increase of 1,005 (38.29%). However, for 1997 the reported number of jobs for these sectors dropped back to 3,036.

For the other economic indicators, the before-and-after casino opening year comparisons have been presented as percentage changes. Presenting job count changes for these sectors in percentage terms is not particularly meaningful, nor does it allow the effective use of charts to illustrate the changes. This is because for some of the counties the total number of lodging and entertainment sector jobs prior to the opening of a casino was small,

often well under 100. Consequently, when a casino opens, particularly ones with associated hotel and resort facilities, the job change percentages often exceed 1,000%. Therefore, Figure 4.10 presents actual county job counts for five years before and five years after the opening of casinos.

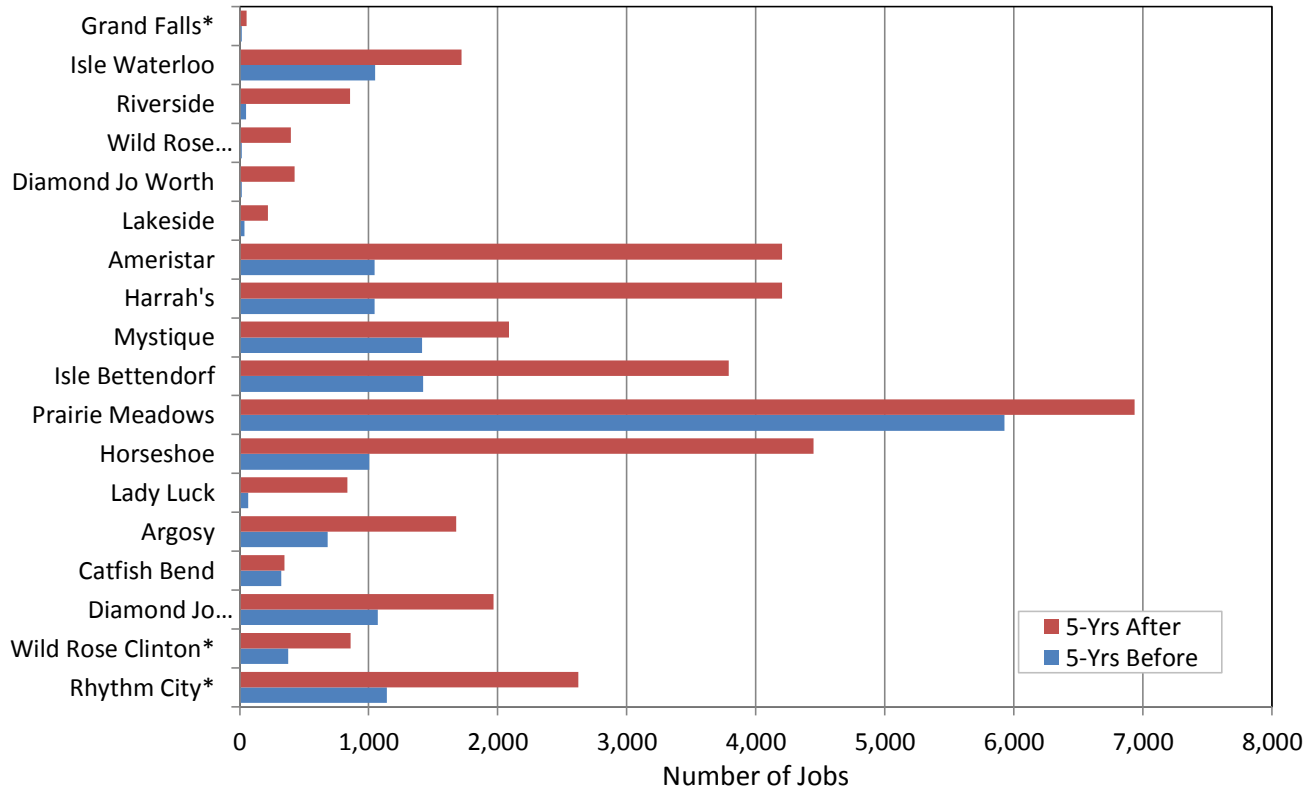
Because the job counts are presented for the host counties of the different casinos and because, in a few cases, more than one casino is located in a county, some of the job count changes appear extremely large. Pottawattamie County represents the most extreme case, where Horseshoe Casino opened in 1995 and Harrah's and Ameristar Casinos opened in early 1996. In the cases of Lucky Lady (Clayton County), Lakeside (Clarke County), Wild Rose Emmetsburg (Palo Alto County), and Riverside (Washington County) the differences in the lengths of the before and after bars give a sense of just how great the percentage growth of lodging and entertainment jobs were in these counties. Thus, in most cases Figure 4.10 provides fairly solid evidence of a causal relationship between the opening of casinos and the growth in lodging and entertainment jobs in their host counties.

Bar and Restaurant Job Impacts

Logically, the opening of casinos can be expected to have both positive and negative impacts on businesses in the bar and restaurant sector of the casino host counties. The fact that food-service jobs at the casinos and at their associated bars and restaurants are counted in the lodging and entertainment sectors complicates the identification of these impacts. Therefore, this section looks at both changes in the numbers of jobs at bars and restaurants and at changes in the number of such establishments.

Table 4.8 presents the percentage changes in bar and restaurant jobs in casino host counties for one- to five-year periods before and after casinos opened for business. Looking at the full five years before and after casinos opened, bar and restaurant jobs increased in all except three of the counties. The exception counties are Clayton County (Lady Luck Casino), Washington County (Riverside Casino), and Black Hawk County (Isle Waterloo Casino). The percentage decreases in bar and restaurant jobs in Washington County (-5.23%) and Black Hawk County (-4.97%) are relatively small and happened during the years of the Great Recession.

Figure 4.10 Before-and-After 5-Year Lodging and Entertainment Host County Job Counts



*Counts for Scott County and Clinton County are only for a 4-years prior to opening and for Lyon County only for 1-year after opening.

The five-year decline in Clayton County is much larger, equaling 23.23%. A couple of factors shed some light on what happened in this instance. From 1986-1993, the years prior to the opening of the Miss Marquette Riverboat (predecessor to the Lady Luck Casino), bar and restaurant jobs in Clayton County jumped from 181 to 297 (64.09%). Over the same years the number of bars and restaurants rose from 37 to 49. Then, from 1993 to 1995 the county lost eight bars and restaurants and 65 bar and restaurant jobs (-21.89%). It is unlikely the opening of the Miss Marquette Riverboat was a major cause of the bar and restaurant closings between 1993 and 1995. This is because none of these establishments were located in Marquette and only two were located in McGregor. Also, since 1995 the number of bars and restaurants in Clayton County has risen back to 48 and the number of bar and restaurant workers as of 2011 totaled 345.

The largest five-year percentage increases in bar and restaurant jobs after casinos opened occurred in Worth County (65.45%) and Palo Alto County (40.51%). These are both small counties. In Worth County prior to the opening of the Diamond Jo Casino in 2006 there were only 55 bar and restaurant jobs at 10 establishments. Five years later the number of bar and restaurant jobs equaled 91 and the number of such establishments had increased by one. In Palo Alto County the number of bar and restaurant jobs prior to the opening of the Wild Rose Casino was reported as equaling 195 at 20 establishments. Five years later the number of bar and restaurant jobs equaled 274 at 25 establishments. However, these numbers are somewhat suspect because for several of the intervening years County Business Patterns only reports employment ranges for this sector.

Also, Scott County experienced large percentage increases in bar and restaurant jobs during the five years following the opening the President Riverboat (the predecessor to Rhythm City Casino) in 1991 and the Bettendorf Isle of Capri Casino in 1995. From 1990 to 1995 the number of bar and restaurant job in Scott County jumped from 5,235 to 6,550 (25.12%) and the number of bars and restaurants increased from 280 to 323 (15.36%). From 1994 to 1999 the number of bar and restaurant jobs rose from 6,052 to 7,253 (19.84%) and the number of bars and restaurants increased from 314 to 341 (8.60%). One might suspect that there was a population boom during this period in Scott County, but from 1990 to 1999 population in the county only increased by 4.93%.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.8 Casino Host County Bar and Restaurant Employment Changes Before and After Opening

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 Years	4 Years	3 Years	2 Years	1 Year	1 Year	2 Years	3 Years	4 Years	5 Years
President/Rhythm City	1991		6.34%	0.60%	0.48%	3.48%	2.01%	8.29%	7.66%	15.61%	25.12%
Wild Rose Casino & Resort Clinton	1991		-3.59%	0.63%	3.79%	10.27%	-3.11%	6.75%	-1.09%	0.16%	0.23%
Diamond Jo Dubuque	1994	2.81%	0.07%	-1.56%	5.41%	1.47%	-0.26%	0.23%	-0.26%	13.69%	6.88%
Catfish Bend Casino	1994	0.24%	9.15%	5.07%	8.21%	0.80%	-1.82%	15.65%	21.34%	27.27%	17.94%
Argosy Sioux City	1994	10.08%	8.46%	1.78%	4.90%	8.18%	-2.83%	-3.40%	-1.20%	-0.09%	8.01%
Lady Luck Casino Marquette	1994	57.14%	50.00%	33.78%	38.14%	9.19%	-14.48%	-21.89%	-22.56%	-17.85%	-23.23%
Horseshoe Casino and Bluffs Run	1995	12.13%	7.66%	3.90%	-4.71%	3.81%	-1.63%	6.45%	2.21%	8.13%	5.43%
Prairie Meadows Race Track & Casino	1995	10.91%	9.04%	8.04%	8.84%	0.77%	0.94%	3.78%	4.14%	7.75%	7.69%
Isle of Capri - Bettendorf	1995	19.63%	15.61%	13.33%	6.76%	7.38%	8.23%	7.01%	11.52%	17.55%	19.84%
Mystique	1995	-0.20%	-1.81%	5.14%	1.20%	-0.26%	0.50%	0.00%	13.99%	7.16%	11.85%
Harrah's Council Bluffs Hotel & Casino	1996	5.90%	2.20%	-6.27%	2.11%	-1.63%	8.22%	3.91%	9.92%	7.18%	4.00%
Ameristar II	1996	5.90%	2.20%	-6.27%	2.11%	-1.63%	8.22%	3.91%	9.92%	7.18%	4.00%
Lakeside Hotel Casino	2000	-8.68%	-3.07%	-18.75%	-30.50%	-23.00%	2.26%	-5.43%	-17.19%	-21.72%	15.38%
Diamond Jo Worth	2006	10.00%	1.85%	12.24%	-6.78%	25.00%	69.09%	176.36%	65.45%	63.64%	65.45%
Wild Rose Casino & Resort Emmetsburg	2006	-21.69%	-21.69%	-17.72%	-21.69%	-21.69%	23.08%	15.90%	16.92%	78.46%	40.51%
Riverside Casino and Golf Resort	2006	-1.36%	-4.72%	-12.32%	-3.46%	-4.47%	-3.58%	3.58%	0.00%	-0.55%	-5.23%
Isle Casino Hotel Waterloo	2007	17.87%	17.70%	2.89%	1.36%	1.20%	-1.01%	-5.77%	-4.12%	-4.29%	-4.97%
Grand Falls Casino Resort	2011	-10.86%	-24.68%	0.85%	-12.50%	41.67%	-7.56%				
Average for All Casinos*		8.05%	6.18%	1.55%	0.79%	0.34%	6.33%	13.35%	7.34%	12.90%	11.57%
Average for State		9.72%	7.69%	5.98%	4.46%	1.61%	1.80%	3.02%	4.10%	4.89%	5.84%
Difference (Casino Counties - State)		-1.68%	-1.51%	-4.43%	-3.67%	-1.27%	4.53%	10.33%	3.23%	8.01%	5.73%

* Averages exclude Rhythm City, Wild Rose Clinton, Grand Falls Casino

When comparisons are made between the percentage changes in the number of bar and restaurant jobs for one to five years before and after casinos opened for business one finds considerable variation both by length of the period and by location. As shown in Table 4.9, among the host counties for the 15 casinos for which data exists the full five years before and after their opening years the differences range from -80.38% for Clayton County (Lady Luck Casino) to 62.20% for Palo Alto County (Wild Rose Casino Emmetsburg). Explanations for both the extreme cases have already been provided.

In addition, Table 4.9 shows that there is about an even split between the number of counties where bar and restaurant jobs increased by greater percentages after casinos opened than before they opened for business. Without adjustment for statewide changes in employment in this sector seven of the 15 casino counties experienced greater bar and restaurant job growth during the five years after the casinos opened. With the adjustment for statewide growth the number of casino counties with greater percentage growth in jobs in this sector after casinos opened equals nine of 15.

Retail Jobs Impacts

One question often raised in association of casino development is the extent to which people who go to casinos patronize other local businesses. As stated earlier, data for retail sales receipts exists only for the years 2000 and later. Consequently, sales receipt data is inadequate for analyzing the before and after impacts of casino development on retail trade. As an alternative, changes in retail employment have been analyzed. These changes for casino host counties from one to five years before and after casinos opened are summarized in Table 4.10.

This analysis shows that the first year after casinos opened the number of retail jobs increased in 12 of the 18 casino counties. Of the six casino counties that experienced a drop in retail jobs five are ones where casinos opened during 2006 or later, which corresponds with the period of the Great Recession.

A full 10 years of county retail jobs data exists for 15 of Iowa's 18 State-licensed casinos. For these 15 casinos, 11 host counties experienced retail job growth over the five years following their casinos opening for business. The largest percentage increases were for Pottawattamie County with 22.05% following the opening of Horseshoe Casino and 21.23% following the opening of Harrah's and Ameristar Casinos.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.9 Before-and-After Bar and Restaurant Employment Change Differences

Casino	Year Opened	Percent Change in Casino Counties				
		1 Yr Before to	2 Yrs Before to	3 Yrs Before to	4 Yrs Before to	5 Yrs Before to
		1 Yr After	2 Yrs After	3 Yrs After	4 Yrs After	5 Yrs After
President/Rhythm City	1991	-1.47%	7.81%	7.06%	9.27%	
Wild Rose Casino & Resort Clinton	1991	-13.38%	2.97%	-1.71%	3.75%	
Diamond Jo Dubuque	1994	-1.73%	-5.18%	1.29%	13.63%	4.07%
Catfish Bend Casino	1994	-2.61%	7.44%	16.28%	18.13%	17.71%
Argosy Sioux City	1994	-11.01%	-8.30%	-2.98%	-8.55%	-2.07%
Lady Luck Casino Marquette	1994	-23.67%	-60.03%	-56.34%	-67.85%	-80.38%
Horseshoe Casino and Bluffs Run	1995	-5.44%	11.16%	-1.69%	0.47%	-6.70%
Prairie Meadows Race Track & Casino	1995	0.17%	-5.06%	-3.90%	-1.29%	-3.23%
Isle of Capri - Bettendorf	1995	0.85%	0.25%	-1.82%	1.94%	0.22%
Mystique	1995	0.76%	-1.20%	8.86%	8.98%	12.05%
Harrah's Council Bluffs Hotel & Casino	1996	9.85%	1.80%	16.19%	4.98%	-1.90%
Ameristar II	1996	9.85%	1.80%	16.19%	4.98%	-1.90%
Lakeside Hotel Casino	2000	25.26%	25.07%	1.56%	-18.65%	24.06%
Diamond Jo Worth	2006	44.09%	183.14%	53.21%	61.78%	55.45%
Wild Rose Casino & Resort Emmetsburg	2006	44.76%	37.58%	34.64%	100.15%	62.20%
Riverside Casino and Golf Resort	2006	0.89%	7.04%	12.32%	4.17%	-3.88%
Isle Casino Hotel Waterloo	2007	-2.21%	-7.13%	-7.01%	-21.99%	-22.84%
Grand Falls Casino Resort	2011	-49.23%				
Average for All Casinos*		5.99%	12.56%	5.79%	6.73%	3.52%
Casino	Year Opened	Percent Change in Casino Counties with Statewide Adjustment				
		1 Yr Before to	2 Yrs Before to	3 Yrs Before to	4 Yrs Before to	5 Yrs Before to
		1 Yr After	2 Yrs After	3 Yrs After	4 Yrs After	5 Yrs After
President/Rhythm City	1991	2.83%	12.52%	13.57%	24.91%	
Wild Rose Casino & Resort Clinton	1991	-9.07%	7.67%	4.79%	19.39%	
Diamond Jo Dubuque	1994	0.65%	-1.84%	2.00%	17.59%	9.10%
Catfish Bend Casino	1994	-0.23%	10.79%	16.99%	22.09%	22.73%
Argosy Sioux City	1994	-8.62%	-4.95%	-2.27%	-4.59%	2.96%
Lady Luck Casino Marquette	1994	-21.29%	-56.68%	-55.63%	-63.88%	-75.35%
Horseshoe Casino and Bluffs Run	1995	-8.03%	8.99%	-0.93%	-2.44%	-5.83%
Prairie Meadows Race Track & Casino	1995	-2.42%	-7.23%	-3.13%	-4.20%	-2.35%
Isle of Capri - Bettendorf	1995	-1.75%	-1.92%	-1.05%	-0.97%	1.09%
Mystique	1995	-1.83%	-3.37%	9.62%	6.07%	12.92%
Harrah's Council Bluffs Hotel & Casino	1996	10.53%	1.88%	15.80%	8.16%	-0.19%
Ameristar II	1996	10.53%	1.88%	15.80%	8.16%	-0.19%
Lakeside Hotel Casino	2000	24.61%	28.81%	5.28%	-12.84%	28.32%
Diamond Jo Worth	2006	41.92%	185.58%	56.00%	65.96%	60.22%
Wild Rose Casino & Resort Emmetsburg	2006	42.60%	40.02%	37.44%	104.33%	66.96%
Riverside Casino and Golf Resort	2006	-1.27%	9.48%	15.11%	8.35%	0.89%
Isle Casino Hotel Waterloo	2007	1.61%	-1.40%	3.97%	-8.98%	-10.13%
Grand Falls Casino Resort	2011	-52.41%				
Average for All Casinos*		5.80%	14.00%	7.67%	9.52%	7.41%

* Averages exclude Rhythm City, Wild Rose Clinton, Grand Falls Casino

Other large percentage increases occurred in Clayton County (20.10%) following the opening of the Miss Marquette Riverboat in 1994, in Dubuque County (18.06%) following the opening of the Diamond Jo Casino in 1994, in Des Moines County (15.02%) following the opening of Catfish Bend Casino in 1994, and in Scott County (14.95%) following the opening of the Isle of Capri Casino in 1995. The fact that these four casinos all opened at the beginning of a period of rapid economic growth for the state may provide more of an explanation for retail jobs growth over these years than the existence of new casinos.

The average rate of retail jobs growth for the 15 casino counties also tells an interesting story. For periods of one to three years following the opening of casinos the statewide average growth rates for retail employment exceed the casino counties' average growth rates. But for the four- and five-year periods the averages for the casino counties exceed the statewide average growth rates. For the one- to four-year periods prior to casinos opening the average retail jobs growth rates for the casino counties exceed the statewide average growth rates for the same periods. But over the five year periods prior to casino openings the casino county and statewide average retail jobs growth rates are the same.

Table 4.11 presents the differences between the retail jobs growth rates by period from one to five years before and after casinos opened for casino counties. Focusing just on the differences for the five-year periods, Worth County experienced the greatest negative difference with a 29.35-percentage-points-lower retail job growth after the Diamond Jo Casino opened compared for the five prior years. According to County Business Patterns, Worth County experienced a net loss of 12 retailers from 2005 to 2010. The net loss of retail establishments obscures a much greater incidence of business starts and closings over this period. Iowa Department of Revenue records disclose that over these five years, 54 sales tax permits were issued while 62 were canceled. Since the loss of retail businesses coincides with a period of deep recession, no conclusion can be made regarding how the Diamond Jo Casino may have contributed to the decline in retail activity in the county.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.10 Casino Host County Retail Employment Changes Before and After Opening

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 Years	4 Years	3 Years	2 Years	1 Year	1 Year	2 Years	3 Years	4 Years	5 Years
President/Rhythm City	1991		10.82%	11.66%	7.61%	7.35%	1.28%	0.63%	0.16%	4.10%	8.09%
Wild Rose Casino & Resort Clinton	1991		5.81%	1.08%	4.76%	0.72%	1.89%	0.51%	-2.09%	-2.25%	4.82%
Diamond Jo Dubuque	1994	12.17%	10.20%	2.84%	1.53%	1.82%	7.97%	12.02%	15.19%	16.91%	18.06%
Catfish Bend Casino	1994	8.51%	6.99%	-2.13%	-0.77%	-0.70%	4.79%	1.94%	12.14%	22.66%	15.02%
Argosy Sioux City	1994	12.96%	6.62%	3.86%	3.03%	1.45%	8.93%	8.78%	9.16%	5.93%	11.41%
Lady Luck Casino Marquette	1994	11.28%	-1.66%	-0.50%	-2.31%	-3.74%	1.69%	4.39%	6.42%	8.11%	20.10%
Horseshoe Casino and Bluffs Run	1995	13.81%	4.40%	7.36%	9.34%	7.20%	1.65%	5.59%	3.47%	12.27%	22.05%
Prairie Meadows Race Track & Casino	1995	4.59%	1.65%	0.10%	-6.74%	0.92%	-0.54%	2.17%	1.47%	-0.27%	-0.99%
Isle of Capri - Bettendorf	1995	11.75%	4.10%	2.78%	3.45%	3.93%	3.83%	4.76%	6.29%	10.86%	14.95%
Mystique	1995	18.99%	11.03%	9.62%	9.93%	7.97%	3.76%	6.69%	8.28%	9.35%	9.41%
Harrah's Council Bluffs Hotel & Casino	1996	6.12%	9.13%	11.14%	8.97%	1.65%	3.88%	1.79%	10.44%	20.07%	21.23%
Ameristar II	1996	6.12%	9.13%	11.14%	8.97%	1.65%	3.88%	1.79%	10.44%	20.07%	21.23%
Lakeside Hotel Casino	2000	9.02%	19.51%	6.10%	3.08%	5.58%	10.34%	16.32%	3.45%	10.34%	4.83%
Diamond Jo Worth	2006	0.00%	-1.47%	-0.99%	8.65%	3.08%	-16.42%	-27.36%	-3.98%	1.99%	-29.35%
Wild Rose Casino & Resort Emmetsburg	2006	-32.58%	-10.64%	-23.50%	5.00%	3.96%	-4.05%	-5.24%	-21.19%	-19.29%	-15.95%
Riverside Casino and Golf Resort	2006	-3.54%	-4.80%	-2.68%	5.82%	0.93%	-2.84%	-4.40%	-10.08%	-10.45%	1.56%
Isle Casino Hotel Waterloo	2007	-0.55%	-3.14%	-0.60%	-3.09%	1.94%	-2.72%	-1.27%	-1.28%	-2.96%	-0.71%
Grand Falls Casino Resort	2011	-11.72%	-12.56%	-7.75%	-6.35%	-9.34%	-5.15%				
Average for All Casinos*		5.24%	4.07%	1.64%	3.66%	2.51%	1.61%	1.87%	3.35%	7.04%	7.52%
Average for State		5.24%	2.46%	1.01%	0.72%	0.50%	1.92%	2.91%	3.87%	4.86%	6.27%
Difference (Casino Counties - State)		0.01%	1.61%	0.62%	2.94%	2.01%	-0.31%	-1.04%	-0.52%	2.18%	1.25%

* Averages exclude Rhythm City, Wild Rose Clinton, Grand Falls Casino

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.11 Before-and-After Retail Employment Change Differences

Casino	Year Opened	Percent Change in Casino Counties				
		1 Yr Before to 1 Yr After	2 Yrs Before to 2 Yrs After	3 Yrs Before to 3 Yrs After	4 Yrs Before to 4 Yrs After	5 Yrs Before to 5 Yrs After
President/Rhythm City	1991	-6.07%	-6.98%	-11.50%	-6.72%	
Wild Rose Casino & Resort Clinton	1991	1.18%	-4.24%	-3.17%	-8.06%	
Diamond Jo Dubuque	1994	6.15%	10.49%	12.35%	6.70%	5.88%
Catfish Bend Casino	1994	5.49%	2.71%	14.27%	15.67%	6.51%
Argosy Sioux City	1994	7.47%	5.76%	5.30%	-0.69%	-1.54%
Lady Luck Casino Marquette	1994	5.43%	6.70%	6.92%	9.77%	8.82%
Horseshoe Casino and Bluffs Run	1995	-5.55%	-3.75%	-3.88%	7.87%	8.24%
Prairie Meadows Race Track & Casino	1995	-1.47%	8.92%	1.37%	-1.92%	-5.59%
Isle of Capri - Bettendorf	1995	-0.10%	1.31%	3.51%	6.77%	3.20%
Mystique	1995	-4.21%	-3.24%	-1.34%	-1.69%	-9.57%
Harrah's Council Bluffs Hotel & Casino	1996	2.23%	-7.17%	-0.70%	10.94%	15.11%
Ameristar II	1996	2.23%	-7.17%	-0.70%	10.94%	15.11%
Lakeside Hotel Casino	2000	4.76%	13.24%	-2.65%	-9.16%	-4.19%
Diamond Jo Worth	2006	-19.49%	-36.01%	-2.99%	3.46%	-29.35%
Wild Rose Casino & Resort Emmetsburg	2006	-8.01%	-10.24%	2.31%	-8.65%	16.63%
Riverside Casino and Golf Resort	2006	-3.77%	-10.22%	-7.41%	-5.65%	5.09%
Isle Casino Hotel Waterloo	2007	-4.65%	1.82%	-0.68%	0.17%	-0.16%
Grand Falls Casino Resort	2011	4.19%				
Average for All Casinos*		-0.90%	-1.79%	1.71%	2.97%	2.28%
Casino	Year Opened	Percent Change in Casino Counties with Statewide Adjustment				
		1 Yr Before to 1 Yr After	2 Yrs Before to 2 Yrs After	3 Yrs Before to 3 Yrs After	4 Yrs Before to 4 Yrs After	5 Yrs Before to 5 Yrs After
President/Rhythm City	1991	-2.66%	1.44%	4.58%	11.08%	
Wild Rose Casino & Resort Clinton	1991	4.58%	4.18%	12.91%	9.75%	
Diamond Jo Dubuque	1994	1.44%	4.00%	5.53%	4.20%	4.68%
Catfish Bend Casino	1994	0.78%	-3.78%	7.45%	13.16%	5.30%
Argosy Sioux City	1994	2.76%	-0.74%	-1.52%	-3.19%	-2.75%
Lady Luck Casino Marquette	1994	0.72%	0.21%	0.10%	7.26%	7.62%
Horseshoe Casino and Bluffs Run	1995	-5.19%	-7.70%	-8.28%	1.26%	5.58%
Prairie Meadows Race Track & Casino	1995	-1.10%	4.96%	-3.03%	-8.53%	-8.25%
Isle of Capri - Bettendorf	1995	0.26%	-2.64%	-0.89%	0.15%	0.54%
Mystique	1995	-3.85%	-7.20%	-5.74%	-8.30%	-12.24%
Harrah's Council Bluffs Hotel & Casino	1996	2.35%	-5.34%	-5.12%	5.59%	9.01%
Ameristar II	1996	2.35%	-5.34%	-5.12%	5.59%	9.01%
Lakeside Hotel Casino	2000	3.61%	17.11%	4.72%	0.41%	6.67%
Diamond Jo Worth	2006	-21.29%	-36.34%	-3.40%	1.82%	-30.18%
Wild Rose Casino & Resort Emmetsburg	2006	-9.80%	-10.57%	1.90%	-10.29%	15.81%
Riverside Casino and Golf Resort	2006	-5.56%	-10.55%	-7.81%	-7.29%	4.27%
Isle Casino Hotel Waterloo	2007	-2.37%	4.19%	4.09%	6.73%	3.61%
Grand Falls Casino Resort	2011	2.16%				
Average for All Casinos*		-2.33%	-3.98%	-1.14%	0.57%	1.25%

* Averages exclude Rhythm City, Wild Rose Clinton, Grand Falls Casino

An additional piece of information that exists for this period for Worth County is Iowa Department of Revenue taxable sales statistics. From 2000-2005, inflation-adjusted receipts from the county's retailers decreased from \$14.5 million to \$12.6 million, but then by 2010 recovered to \$15.6 million. These are receipts from traditional retailers and do not include bars and restaurants, lodging places, or the casino.

Palo Alto County experienced the second-largest percentage loss of retail jobs over the five years following the opening of a casino in Emmetsburg – the Wild Rose Casino. However, the 15.95% loss of jobs after the casino opened is substantially less than the 32.58% loss of retail jobs during the five years prior to the casino opening. Iowa Department of Revenue statistics show that from 2000-2005, inflation-adjusted taxable sales by traditional retailers increased from \$31.4 million to \$32.2 million, then by 2010 taxable sales rose to \$36.9 million. So, even though the number of retail jobs in Palo Alto County dropped substantially from 2000-2010, retail sales expressed in 2012 dollars grew.

Consequently, there does not appear to be any significant evidence that the opening of casinos harmed local retailers. Also, there is no way without gathering information from casino patrons to determine if local retailers have gained new customers due to the opening of casinos. However, a comparison of the jobs analysis and the small amount of taxable sales data available for the years 2000 and later raises a new question: "Can some of the job decreases experienced by traditional retailers be attributed to former retail workers finding better employment opportunities at the casinos?"

Construction Job Impacts

A final category of employment analyzed for this study is construction jobs. Employment in the construction sector may be expected to be impacted in two ways. First, development of the casino properties should be revealed in job changes one to two years prior to the casino opening dates. Second, changes in construction sector employment may reflect general growth of the local economies of casino counties.

As Table 4.12 shows, construction sector jobs increased in 16 of 18 host counties the two years prior to casino openings. The average increase for all 18 casinos one year before casinos opened for business equaled 13.11% and for the two-year period prior to casinos opening the increase averaged 12.29%. The two counties in which construction jobs decreased each of the five periods prior to casinos opening are Clayton County (Lady Luck Casino) and Lyon County (Grand Falls Casino). The year prior to casinos opening in these two counties construction jobs decreased by 13.21% and 25.71%, respectively.

Explanations for what happened in these two counties are speculative, but looking at construction jobs counts by year does provide some insight. In Clayton County the number of construction jobs rose from 282 in 1986 to 398 in 1990, but then by 1993 the number had dropped to 289. This rise and fall corresponds to a recovery from the 1980s farm recession followed by a return to recession by 1991. By 1997 the number of construction jobs in Clayton County rose back to 515 and then rose even higher to 597 by 2006, just before the beginning of the Great Recession. In 2011 construction jobs in Clayton County stood at 488.

The number of construction jobs in Lyon County has never been large. In 1986 there were only 81 construction jobs and the number peaked at 193 in 2000. By 2002 the number of construction jobs dropped back to 113. But then by 2009 rose 175. For 2011 the number of construction jobs in Lyon County stood at 123.

Both Clayton and Lyon Counties have small populations. The 1993 population of Clayton County equaled 18,909 and the 2010 population of Lyon County equaled 11,567. Since County Business Patterns counts jobs by business location and because it is unlikely these small counties have companies with many of the skilled tradesmen needed for casino construction, it is likely many of the workers employed on these casino projects were credited to other counties.

When statewide job growth for this sector is taken into consideration, a likely relationship between casino development and construction job growth is revealed. Proceeding from the five-year to the one-year periods prior to casinos opening for business the differences between the average casino county and statewide average construction job growth rates go from 2.33% (five years) to -1.97% (four years) to -2.70% (three years) to 4.66% (two years) to 9.35% (one year).

Looking at the years after casinos opened, there appears to be some residual positive impact of casino development on construction activity in their host counties. Each of the five periods following casino opening years the average growth of construction jobs in casino counties exceeds the statewide average growth rates for this sector. The largest difference between the statewide and casino county average growth rates occurs at the four-year mark, when it equals 6.79 percentage points. Of the 17 counties for which four-year period post-opening data exists, 13 counties experienced growth in their numbers of construction jobs. This delayed response is logical as the development of other businesses that may benefit from new casinos would not occur until a few years after the casinos opened.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 4.12 Casino Host County Construction Employment Changes Before and After Opening

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 Years	4 Years	3 Years	2 Years	1 Year	1 Year	2 Years	3 Years	4 Years	5 Years
President/Rhythm City	1991		62.20%	51.61%	29.15%	12.65%	-6.64%	-2.82%	3.97%	7.40%	22.18%
Wild Rose Casino & Resort Clinton	1991		43.61%	39.50%	21.63%	20.43%	-5.47%	8.48%	7.52%	-4.38%	-7.52%
Diamond Jo Dubuque	1994	22.13%	27.74%	11.02%	6.00%	5.26%	5.20%	21.32%	33.18%	39.04%	5.80%
Catfish Bend Casino	1994	64.67%	-5.38%	2.10%	-0.56%	14.78%	-0.56%	14.09%	6.25%	9.70%	20.43%
Argosy Sioux City	1994	23.79%	14.17%	6.99%	6.06%	1.17%	13.62%	37.01%	44.65%	150.08%	103.68%
Lady Luck Casino Marquette	1994	-2.36%	-1.70%	-27.39%	-16.47%	-13.21%	32.18%	21.11%	48.79%	78.20%	49.48%
Horseshoe Casino and Bluffs Run	1995	17.07%	19.21%	-3.10%	8.16%	11.71%	7.80%	3.58%	9.08%	7.80%	17.77%
Prairie Meadows Race Track & Casino	1995	21.46%	4.07%	6.59%	5.62%	7.63%	5.63%	9.84%	16.62%	13.45%	35.88%
Isle of Capri - Bettendorf	1995	20.98%	7.40%	15.05%	10.52%	3.30%	13.76%	14.63%	27.80%	36.41%	29.89%
Mystique	1995	34.38%	16.79%	11.51%	10.73%	5.20%	15.33%	26.60%	32.17%	0.57%	10.39%
Harrah's Council Bluffs Hotel & Casino	1996	28.51%	4.46%	16.60%	20.43%	7.80%	-3.91%	1.19%	0.00%	9.25%	17.08%
Ameristar II	1996	28.51%	4.46%	16.60%	20.43%	7.80%	-3.91%	1.19%	0.00%	9.25%	17.08%
Lakeside Hotel Casino	2000	1.82%	-8.20%	9.80%	64.71%	86.67%	-37.50%	-19.64%	-28.57%	-25.00%	-16.07%
Diamond Jo Worth	2006	1.54%	16.81%	15.79%	10.92%	16.81%	-16.67%	-7.58%	-6.06%	-15.91%	-9.85%
Wild Rose Casino & Resort Emmetsburg	2006	57.41%	66.67%	21.43%	21.43%	32.81%	23.53%	24.71%	0.00%	0.00%	-12.94%
Riverside Casino and Golf Resort	2006	10.62%	20.56%	9.03%	12.06%	3.42%	25.83%	29.80%	20.53%	20.20%	17.05%
Isle Casino Hotel Waterloo	2007	5.45%	16.53%	12.05%	4.37%	5.58%	4.07%	-5.96%	-2.68%	-11.39%	-17.13%
Grand Falls Casino Resort	2011	-7.14%	-9.72%	-12.16%	-12.75%	-25.71%	-5.38%				
Average for All Casinos*		22.40%	13.57%	8.27%	12.29%	13.11%	5.63%	11.46%	13.45%	21.44%	17.90%
Average for State		20.07%	15.54%	10.97%	7.64%	3.76%	4.95%	8.72%	12.06%	14.65%	16.28%
Difference (Casino Counties - State)		2.33%	-1.97%	-2.70%	4.66%	9.35%	0.67%	2.74%	1.39%	6.79%	1.62%

* Averages exclude Rhythm City, Wild Rose Clinton, Grand Falls Casino

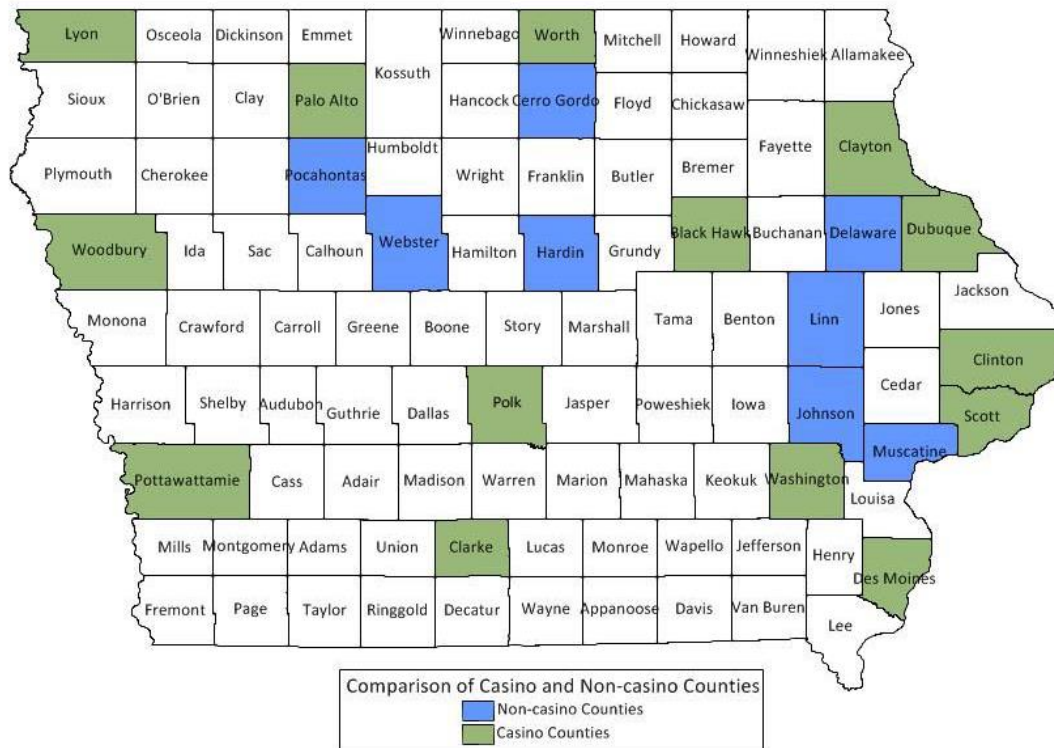
Because much of the construction activity associated with casinos occurred a year or more prior to the opening of the casinos, the before-and-after comparisons by period are not meaningful for this sector.

Overall, the employment changes experienced before and after the opening of casinos appear to show that, in the majority of cases, casino development did stimulate job growth. For the combined lodging and entertainment sectors there exists a clear causal relationship. For bars and restaurants, job changes over five years before and after casinos opened for business are about evenly split between gains and losses, but when statewide average changes are taken into consideration gains slightly exceed losses. Also, retail job changes show a slightly more positive response to the opening of casinos. In addition, there is a hint that where some reduction in retail employment occurred, this may be due to workers moving to “better” casino jobs. Finally, there is a clear indication that construction employment grew during the one to two years prior to the opening of casinos. Furthermore, there is some evidence from casino counties that the development of casinos has had some spillover impacts on other development in the same counties.

5. Comparison of the Economies of Casino and Non-Casino Counties

This part of the analysis of the economic impact of casinos on the State matches the 14 counties where State-licensed racetracks and casinos are located with eight other counties where no gambling facilities are located. Figure 5.1 shows the locations of the casino counties and the comparison counties.

Figure 5.1 Casino and Non-Casino Comparison Counties



The comparison (or “control”) counties were chosen so as to be similar to the casino counties in population, geographic location, and economic character. Two major constraints limited the choice of non-casino comparison counties. First, most metropolitan areas in Iowa already have casinos. Two of the three metropolitan counties that do not have casinos have economies heavily influenced by the location of large state universities, which may distort comparisons. Nevertheless, the set of eight comparison counties does include Johnson County, which is home to the University of Iowa. Second, the Research Team decided to use the same set of comparison counties for both the economic and social impact analyses. The availability of some social impact data limited the choice of comparison counties.

The prior chapter investigated the impact of the development of the casino industry by looking at changes in measures of economic activity over the five years before and after the opening of these facilities. Thus, that analysis focused on startup impacts and did not cover the same years for each casino county because casinos opened over a 20-year period beginning in 1991 and ending in 2011. The analysis presented in this chapter looks at changes in economic activity in casino and non-casino counties over the same years. The period covered by this analysis – 2006 through 2012 – in most cases covers a period more than five years beyond when casinos opened for business. The exceptions include:

- Palo Alto County, where a Wild Rose Casino and Resort opened during 2006
- Worth County, where a Diamond Jo Casino opened during 200
- Black Hawk County, where an Isle Casino and Hotel opened during 200
- Washington County, where Riverside Casino and Resort opened during 2008
- Lyon County, where Grand Falls Casino Resort opened during 2011

Thus, the analysis presented in this chapter focuses on the ongoing economic impacts casinos have had on the counties where they are located. These impacts are analyzed by comparing changes in five types of measures of economic activity for the two sets of counties. These measures are: population, personal income, employment, retail sales, and property value. Changes are measured as percentages and on a per-capita basis where appropriate to eliminate the impact of county population size.

The first section of this chapter discusses the data sources for the economic activity measures used in this analysis. The next five sections present the casino and non-casino county comparisons for the five types of measures. Section two compares changes in population; section three, personal income; section four, employment; section five, retail sales; and section six, property valuations. Supplementing the personal income comparisons is a comparison of wages and salaries paid by Iowa's casinos to wages and salaries paid for similar jobs by non-casinos. In addition, information on the types of employee benefits provided by Iowa casino is presented. The county level property valuation analysis is supplemented with a discussion of city level impacts based on information obtained from assessors.

Data and Data Sources

Population

Annual population estimates for 2006-2012 are used in the county comparisons. The U.S. Census Bureau releases these estimates each spring for the most recent past year with

revisions for the prior two years. The 2012 estimates were the most currently available at the time this analysis was completed.

Personal Income

The three measures of personal income used in this analysis are non-farm personal income, wage and salary income, and supplements to wage and salary income. The supplements to wage and salary income include payments for health insurance, pensions, and social security and are referred to as “benefits” in this analysis. All values are expressed in 2012 constant dollars and are referred to as real values. The analysis uses non-farm personal income rather than total personal income in order to avoid distortions caused by large year-to-year fluctuations experienced with farm income.

Employment

As in the prior chapter, County Business Patterns (“CBP”) serves as the source of job counts for this analysis. Although the Bureau of Labor Statistics’ (“BLS”) Quarterly Census of Employment and Wages provides county job counts for the years 2001 and later the CBP job counts are used for this analysis to be consistent with the prior chapter. The main difference between the two series is the CBP data reflect job counts from a single week in March each year while the BLS data are an average of 12 monthly counts each year. Also, the CBP data includes only private sector non-farm employment.

Retail Sales

The Iowa Department of Revenue compiles quarterly taxable retail sales statistics by county for 12 taxable sales categories. However, due to disclosure restrictions data for some categories of taxable sales are not available. This is primarily true for small counties. These data are available for the years 2000 and later.

This analysis uses three categories of taxable sales to measure economic changes in casino and non-casino counties. These categories of sales are:

- Total taxable sales excluding utilities and transportation
- Bar and restaurant sales
- Traditional retail sales, which include sales by stores dealing in building materials, furniture and appliances, grocery and personal care products, clothing, general merchandise, and specialty retail

The total sales measure used in the analysis excludes utilities and transportation because in recent years a number of utilities have begun reporting all taxable sales in the counties from which bills are issued rather than where customers are located.

Property Values

The Iowa Department of Management provided annual valuation statistics by property classification for cities and counties dating back to assessment year 1998. The residential and commercial property classifications are of primary interest for this study. Also, local assessors were contacted in the jurisdictions where casino facilities are located to obtain their views on how these facilities have impacted development in surrounding areas.

Population Changes

From 2006 to 2012 Iowa's population grew by 3.07%. The combined population of the 14 casino counties grew by 4.88%, while the population of the eight comparison counties grew by 4.95%. Among the casino counties, Polk experienced the highest rate of growth, at 8.45%, and accounted for 61.78% of total population growth for the casino counties. Johnson County experienced the highest rate of growth among the non-casino counties, at 10.67%, and accounted for 53.80% of total population growth for these eight counties. So, both the casino counties and comparison counties experienced similar rates of population growth and grew at about a 60% faster rate than the state as a whole.

Among the casino counties, four experienced population declines over this period. These four counties are Palo Alto (-1.73%), Worth (-1.30%), Clinton (-1.11%), and Des Moines (-0.28%). Also, four of the non-casino counties – Pocahontas (-6.39%), Webster (-3.31%), Hardin (-1.90%), and Cerro Gordo (-0.59%) – experienced population decreases. One thing that stands out among the counties that experienced population decreases is that two in each group are micropolitan area counties and the other two in each group are rural counties. No metropolitan area counties lost population.

Table 5.1 presents 2006 and 2012 population counts, changes in population over the seven years, and percent changes in population for each of the 22 subject counties. The table groups the casino and non-casino counties separately. Also, at the bottom of the table are various subtotal statistics. Among the subtotal comparisons is the division of casino and non-casino counties into metropolitan and non-metropolitan area groups.

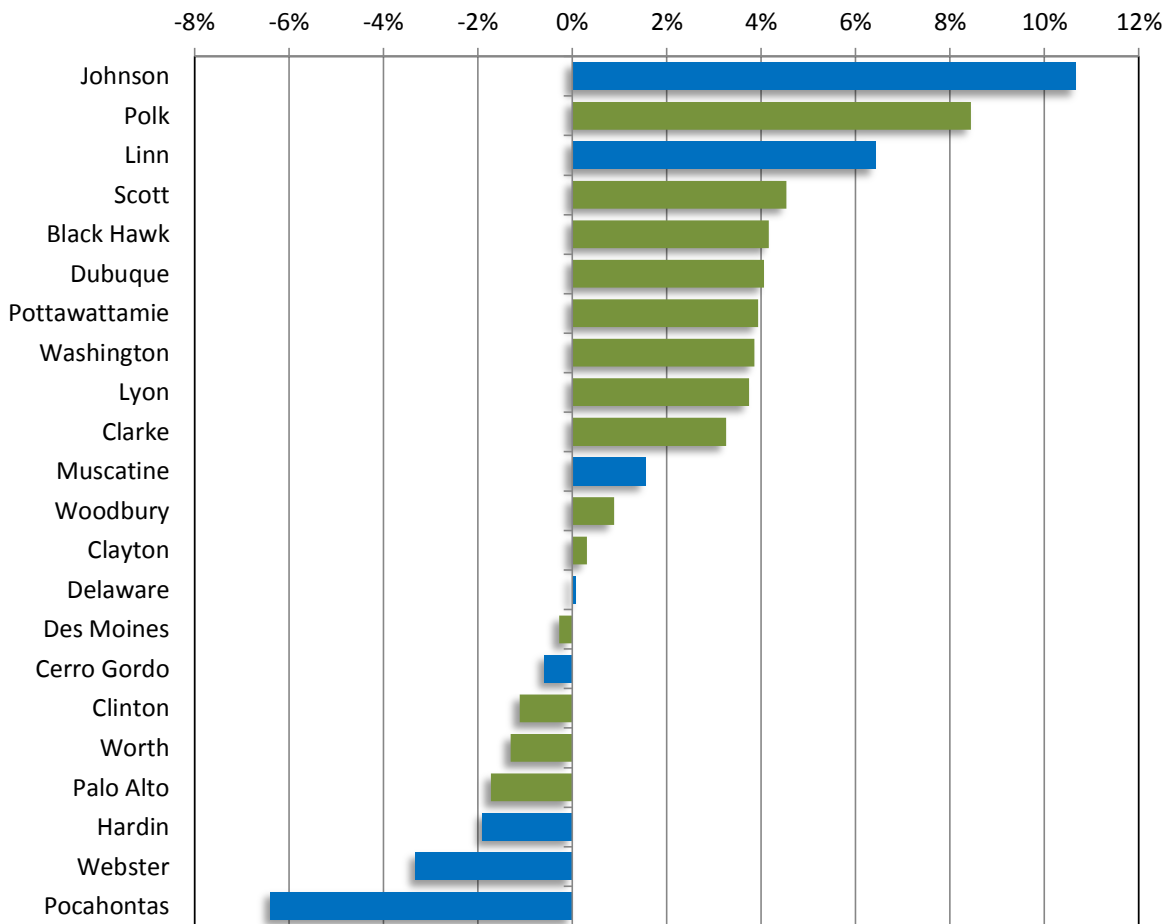
Table 5.1 Population Change Comparisons

Casino Counties	2006	2012	Change	Percent Change
Black Hawk	126,556	131,820	5,264	4.16%
Clarke	9,074	9,370	296	3.26%
Clayton	17,779	17,835	56	0.31%
Clinton	49,264	48,717	-547	-1.11%
Des Moines	40,453	40,340	-113	-0.28%
Dubuque	91,390	95,097	3,707	4.06%
Lyon	11,332	11,757	425	3.75%
Palo Alto	9,438	9,275	-163	-1.73%
Polk	409,146	443,710	34,564	8.45%
Pottawattamie	89,393	92,913	3,520	3.94%
Scott	161,473	168,799	7,326	4.54%
Washington	21,100	21,914	814	3.86%
Woodbury	101,427	102,323	896	0.88%
Worth	7,618	7,519	-99	-1.30%
Non-Casino Counties	2006	2012	Change	Percent Change
Cerro Gordo	44,048	43,788	-260	-0.59%
Delaware	17,560	17,574	14	0.08%
Hardin	17,637	17,302	-335	-1.90%
Johnson	123,171	136,317	13,146	10.67%
Linn	202,314	215,295	12,981	6.42%
Muscatine	42,226	42,879	653	1.55%
Pocahontas	7,638	7,150	-488	-6.39%
Webster	38,550	37,273	-1,277	-3.31%
	2006	2012	Change	Percent Change
Casino County Totals	1,145,443	1,201,389	55,946	4.88%
Non-Casino County Totals	493,144	517,578	24,434	4.95%
State Totals	2,982,644	3,074,186	91,542	3.07%
Casino Metro	979,385	1,034,662	55,277	5.64%
Casino Non-Metro	166,058	166,727	669	0.40%
Non-Casino Metro	325,485	351,612	26,127	8.03%
Non-Casino Non-Metro	167,659	165,966	-1,693	-1.01%

Figure 5.2 presents another way of looking at the changes in population for the 22 subject counties. This figure orders the counties from largest to smallest percent change in population. The casino counties are colored green and the non-casino counties are colored blue. This presentation shows that for both groups of counties there is considerable difference in the rates of population change. In most cases factors other than the existence or absence of

casinos likely influenced changes in population. This spread of counties shows that the casino and non-casino counties are generally comparable.

Figure 5.2 Counties Ordered by Percent Change in Population, 2006-2012



Personal Income Changes

Non-Farm Personal Income

Statewide real non-farm personal income increased by \$12.9 billion (11.30%) between 2006 and 2012. For the 14 casino counties, the increase equaled \$4.6 billion (9.64%) and for the non-casino comparison counties the increase equaled \$2.7 billion (13.41%). The difference between the rates of change for the casino and non-casino counties is sizable. However, looking at the metropolitan and non-metropolitan area counties raises the question of whether the difference is meaningful. The two non-casino metropolitan area counties – Johnson and Linn –

experienced a 14.66% increase, while the six casino metropolitan area counties – Black Hawk, Dubuque, Polk, Pottawattamie, Scott, and Woodbury – experienced an 8.25% increase. On the other hand, the six non-casino non-metropolitan area counties experienced a 10.60% increase, while the non-metropolitan area casino counties experienced a 19.69% increase. The data for each county and the sub-groups are presented in Table 5.2.

Focusing in on the two sectors in which casinos are classified by the U.S. Bureau of Economic Analysis sheds some light on whether there exists any causal relationship between the existence of casinos and changes in real non-farm personal income. These two sectors are 1) Arts, Entertainment, and Recreation and 2) Accommodation and Food Services. Statewide personal income attributed to these sectors grew by only 0.12% over the seven years.

For all casino counties, personal income from these sectors declined by 1.42%, while for the non-casino comparison counties growth equaled 0.24%. But the non-metropolitan counties tell a different story. Real personal income for these two sectors grew by 32.20% in the casino non-metropolitan counties, while it declined by 1.25% in the non-casino non-metropolitan counties. So, for the sectors most directly impacted by casino expansion and in areas where casinos account for a significant share of economic activity there appears to be a causal relationship associated with the existence of casinos.

The comparisons of total changes in real non-farm personal income incorporate both changes in economic activity and population. The population change impact can be eliminated by comparing changes on a per capita basis. Table 5.3 presents these comparisons for each county and for the county sub-groups. Here again the gains by the eight comparison non-casino counties are substantially larger than for the casino counties, \$3,237 (8.06%) vs. \$1,883 (4.54%). For the metropolitan area counties the comparisons are similar – non-casino counties \$2,587 (6.14%) vs. casino \$1,051 (2.47%), but for the non-metropolitan area counties the relative changes in non-farm personal income are reversed. The average per-capita change for the non-casino counties equals \$4,270 (11.73%), while for the casino counties the change is much larger equaling \$6,702 (19.21%).

Wage and Salary Income

While non-farm personal income provides an important gauge of an area's overall economic well-being, wage and salary income represents what is most important to an area's residents. From 2006 to 2012 real wages and salaries grew by \$740.2 million (1.23%) statewide. For the casino counties the increase equaled \$699.5 million (2.48%).

Table 5.2 Real Non-Farm Personal Income

Casino Counties	(\$2012 thousands)			
	2006	2012	Change	Percent Change
Black Hawk	4,723,967	5,163,436	439,469	9.30%
Clarke	288,701	303,218	14,517	5.03%
Clayton	562,806	652,744	89,938	15.98%
Clinton	1,689,473	1,871,760	182,287	10.79%
Des Moines	1,593,964	2,154,363	560,399	35.16%
Dubuque	3,465,545	3,751,638	286,093	8.26%
Lyon	350,324	458,703	108,379	30.94%
Palo Alto	281,988	345,715	63,727	22.60%
Polk	19,574,556	20,825,111	1,250,555	6.39%
Pottawattamie	3,547,104	3,677,846	130,742	3.69%
Scott	6,949,725	8,100,436	1,150,711	16.56%
Washington	801,118	893,858	92,740	11.58%
Woodbury	3,460,182	3,644,537	184,355	5.33%
Worth	224,956	253,726	28,770	12.79%
Non-Casino Counties				
	2006	2012	Change	Percent Change
Cerro Gordo	1,711,660	1,907,227	195,567	11.43%
Delaware	583,348	703,130	119,782	20.53%
Hardin	582,611	652,381	69,770	11.98%
Johnson	5,111,147	6,087,546	976,399	19.10%
Linn	8,598,256	9,631,946	1,033,690	12.02%
Muscatine	1,652,851	1,761,878	109,027	6.60%
Pocahontas	230,833	260,472	29,639	12.84%
Webster	1,341,596	1,464,835	123,239	9.19%
	2006	2012	Change	Percent Change
Casino County Totals	47,514,410	52,097,091	4,582,681	9.64%
Non-Casino County Totals	19,812,302	22,469,415	2,657,113	13.41%
State Totals	114,183,682	127,087,566	12,903,884	11.30%
Casino Metro	41,721,079	45,163,004	3,441,925	8.25%
Casino Non-Metro	5,793,330	6,934,087	1,140,757	19.69%
Non-Casino Metro	13,709,403	15,719,492	2,010,089	14.66%
Non-Casino Non-Metro	6,102,899	6,749,923	647,024	10.60%

Table 5.3 Real Non-Farm Personal Income per Capita

	Per Capita (\$2012)			
	2006	2012	Change	Percent Change
Casino Counties				
Black Hawk	37,327	39,170	1,843	4.94%
Clarke	31,816	32,361	544	1.71%
Clayton	31,656	36,599	4,943	15.62%
Clinton	34,294	38,421	4,127	12.03%
Des Moines	39,403	53,405	14,002	35.54%
Dubuque	37,920	39,451	1,530	4.04%
Lyon	30,915	39,015	8,101	26.20%
Palo Alto	29,878	37,274	7,396	24.75%
Polk	47,842	46,934	-908	-1.90%
Pottawattamie	39,680	39,584	-96	-0.24%
Scott	43,040	47,989	4,949	11.50%
Washington	37,968	40,789	2,822	7.43%
Woodbury	34,115	35,618	1,503	4.41%
Worth	29,530	33,745	4,215	14.27%
Non-Casino Counties				
Cerro Gordo	38,859	43,556	4,697	12.09%
Delaware	33,220	40,010	6,789	20.44%
Hardin	33,033	37,706	4,672	14.14%
Johnson	41,496	44,657	3,161	7.62%
Linn	42,500	44,738	2,239	5.27%
Muscatine	39,143	41,090	1,947	4.97%
Pocahontas	30,222	36,430	6,208	20.54%
Webster	34,801	39,300	4,499	12.93%
	2006	2012	Change	Percent Change
Casino County Totals	41,481	43,364	1,883	4.54%
Non-Casino County Totals	40,175	43,413	3,237	8.06%
State Totals	38,283	41,340	3,058	7.99%
Casino Metro	42,599	43,650	1,051	2.47%
Casino Non-Metro	34,887	41,589	6,702	19.21%
Non-Casino Metro	42,120	44,707	2,587	6.14%
Non-Casino Non-Metro	36,401	40,671	4,270	11.73%

The real dollar value of the increase in wages and salaries in the non-casino comparison counties was almost as great equaling \$625.9 million, but more importantly in percentage

terms the increase at 5.11% over doubled the rate of increase for the casino counties. Table 5.4 presents the changes for each county and groups of counties.

The distribution of gains between metropolitan and non-metropolitan area counties shows that Johnson and Linn Counties account for all non-casino group gains. Combined real wage and salary income increased by 8.36% for these two counties. For the six metropolitan casino counties, the increase equals only 2.40%. On the other hand, non-metropolitan area casino counties experienced a 3.31% increase in real wage and salary income, in contrast to a 3.54% decrease for the non-metropolitan non-casino counties.

To eliminate the impact of population changes on the comparison, Table 5.5 shows per-capita real-wage and salary changes. Statewide there was a 1.78% decrease. For all casino counties there was a 2.29% decrease, while the non-casino comparison counties realized a meager 0.15% increase. Again the metropolitan area casino counties experienced a decrease (-3.07%), while the non-metropolitan casino counties experienced an increase 2.90%. For the non-casino counties the results were reversed with the metropolitan counties realizing a 0.31% gain and the non-metropolitan counties a 2.56% loss.

Benefits

Statewide benefits equaled 24.88% of wage and salary income in 2006 and rose to 26.45% by 2012. This continues a long-term trend of a rising share of worker compensation being accounted for by benefits. The statewide percentage change in the real value of benefits between 2006 and 2012 equaled 7.63%. For the casino and non-casino counties the percentage increases equaled 6.07% and 10.39%, respectively.

Similar to the other personal income analysis, benefits changed by a greater percentage in the non-casino than in the casino metropolitan area counties, while for the non-metropolitan counties the situation is reversed. Table 5.6 shows the changes in the real value of total benefits payments between 2006 and 2012 for each county and for the county sub-groups. For the casino counties the percentage changes in benefits spans the range from -7.43% for Pottawattamie County, which contains the Ameristar, Harrah's, and Horseshoe Casinos, to 31.57% for Lyon County, where the Grand Falls Casino Resort opened during 2011. For the non-casino counties the percentage changes in benefits span the range from -1.42% for Cerro Gordo County to 26.08% for Pocahontas County.

Table 5.4 Real Wage and Salary Income

	(\$2012 thousands)			
	2006	2012	Change	Percent Change
Casino Counties				
Black Hawk	2,942,635	3,226,667	284,032	9.65%
Clarke	133,613	137,007	3,394	2.54%
Clayton	211,094	231,088	19,994	9.47%
Clinton	821,248	830,107	8,859	1.08%
Des Moines	853,424	825,785	-27,639	-3.24%
Dubuque	2,091,417	2,323,629	232,212	11.10%
Lyon	113,796	149,330	35,534	31.23%
Palo Alto	118,455	123,459	5,004	4.22%
Polk	13,507,566	13,795,154	287,588	2.13%
Pottawattamie	1,619,796	1,387,640	-232,156	-14.33%
Scott	3,615,729	3,675,871	60,142	1.66%
Washington	236,498	265,741	29,243	12.36%
Woodbury	1,870,695	1,853,689	-17,006	-0.91%
Worth	67,007	77,321	10,314	15.39%
Non-Casino Counties				
Cerro Gordo	988,471	937,052	-51,419	-5.20%
Delaware	216,366	237,827	21,461	9.92%
Hardin	267,952	259,971	-7,981	-2.98%
Johnson	3,227,703	3,594,849	367,146	11.37%
Linn	5,679,764	6,056,987	377,223	6.64%
Muscatine	1,048,645	983,554	-65,091	-6.21%
Pocahontas	84,628	100,474	15,846	18.72%
Webster	737,465	706,222	-31,243	-4.24%
	2006	2012	Change	Percent Change
Casino County Totals	28,202,975	28,902,488	699,513	2.48%
Non-Casino County Totals	12,250,995	12,876,936	625,941	5.11%
State Totals	59,967,395	60,707,578	740,184	1.23%
Casino Metro	25,647,839	26,262,650	614,811	2.40%
Casino Non-Metro	2,555,135	2,639,838	84,703	3.31%
Non-Casino Metro	8,907,467	9,651,836	744,369	8.36%
Non-Casino Non-Metro	3,343,528	3,225,100	-118,428	-3.54%

Table 5.5 Real Wage and Salary Income per Capita

	Per Capita (\$2012)			
	2006	2012	Change	Percent Change
Casino Counties				
Black Hawk	23,252	24,478	1,226	5.27%
Clarke	14,725	14,622	-103	-0.70%
Clayton	11,873	12,957	1,084	9.13%
Clinton	16,670	17,039	369	2.21%
Des Moines	21,097	20,471	-626	-2.97%
Dubuque	22,885	24,434	1,550	6.77%
Lyon	10,042	12,701	2,659	26.48%
Palo Alto	12,551	13,311	760	6.06%
Polk	33,014	31,090	-1,924	-5.83%
Pottawattamie	18,120	14,935	-3,185	-17.58%
Scott	22,392	21,777	-616	-2.75%
Washington	11,208	12,127	918	8.19%
Woodbury	18,444	18,116	-328	-1.78%
Worth	8,796	10,283	1,488	16.91%
Non-Casino Counties				
Cerro Gordo	22,441	21,400	-1,041	-4.64%
Delaware	12,322	13,533	1,211	9.83%
Hardin	15,193	15,025	-167	-1.10%
Johnson	26,205	26,371	166	0.63%
Linn	28,074	28,133	59	0.21%
Muscatine	24,834	22,938	-1,896	-7.64%
Pocahontas	11,080	14,052	2,972	26.83%
Webster	19,130	18,947	-183	-0.96%
	2006	2012	Change	Percent Change
Casino County Totals	24,622	24,058	-564	-2.29%
Non-Casino County Totals	24,843	24,879	37	0.15%
State Totals	20,105	19,748	-358	-1.78%
Casino Metro	26,188	25,383	-805	-3.07%
Casino Non-Metro	15,387	15,833	446	2.90%
Non-Casino Metro	27,367	27,450	83	0.31%
Non-Casino Non-Metro	19,942	19,432	-510	-2.56%

Table 5.7 presents per capita changes in benefits. For the casino counties, per-capita benefits increased from \$5,813 in 2006 to \$5,878 in 2011, or by \$66 (1.13%). For the non-casino counties benefits increased from \$6,417 to \$6,749, or by \$332 (5.18%). What is particularly

notable for this component of worker compensation is that, in metropolitan area casino counties, the per-capita benefits increase equaled only \$13 (0.21%), while in the metropolitan area non-casino counties the increase equaled \$351 (4.89%). For non-metropolitan area counties the relative size of the increases is reversed, equaling \$293 (7.47%) for the casino counties and \$157 (3.18%) for the non-casino counties.

In summary, the analysis of changes in personal income on the surface seems to indicate that, overall, non-casino counties experienced greater growth than in the casino counties. However, this finding is driven by changes in metropolitan area counties. This impression may be misleading for two reasons: First, even large casinos account for a relative small share of total economic activity in metropolitan area counties; second, the study period mostly coincides with the years of the Great Recession. Johnson County, as the home of the University of Iowa, actually prospered during these years because of the countercyclical nature of university enrollment. Consequently, the non-metropolitan counties may be expected to reveal casino economic impacts more clearly. However, even among these counties there is some distortion due to casinos opening for business on Lyon, Palo Alto, Washington, and Worth counties during these years.

Casino Wages, Salaries, and Benefits

An issue closely related to the analysis just presented involves how compensation offered by casinos compares to other employers where casino workers may seek employment in the absence of the casinos. These comparisons use data obtained from three sources. These sources are:

- 2012 Iowa Gaming Association employee compensation survey
- 2014 survey of casinos conducted for this study
- 2012 Bureau of Labor Statistics Occupational Employment Survey (“OES”)

Wages and salary comparisons were made for five categories of employees. These are:

- Administration
- Human Resources
- Beverage and Food Services
- Hotel Operations
- Facilities and Transportation

Table 5.6 Real Benefits (Supplements to Wages and Salaries)

	(\$2012 thousands)			
Casino Counties	2006	2012	Change	Percent Change
Black Hawk	724,360	819,324	94,964	13.11%
Clarke	33,794	36,697	2,903	8.59%
Clayton	54,084	62,665	8,581	15.87%
Clinton	205,915	221,419	15,504	7.53%
Des Moines	219,048	215,474	-3,574	-1.63%
Dubuque	497,331	558,711	61,380	12.34%
Lyon	28,654	37,699	9,045	31.57%
Palo Alto	31,715	34,950	3,235	10.20%
Polk	3,095,371	3,258,442	163,071	5.27%
Pottawattamie	386,045	357,354	-28,691	-7.43%
Scott	844,720	894,581	49,861	5.90%
Washington	60,216	71,866	11,650	19.35%
Woodbury	459,477	471,454	11,977	2.61%
Worth	17,175	21,277	4,102	23.88%
Non-Casino Counties	2006	2012	Change	Percent Change
Cerro Gordo	237,286	233,927	-3,359	-1.42%
Delaware	57,086	66,764	9,678	16.95%
Hardin	69,314	71,394	2,080	3.00%
Johnson	986,546	1,166,680	180,134	18.26%
Linn	1,350,543	1,481,441	130,898	9.69%
Muscatine	253,780	254,369	589	0.23%
Pocahontas	21,544	27,162	5,618	26.08%
Webster	188,477	191,533	3,056	1.62%
	2006	2012	Change	Percent Change
Casino County Totals	6,657,905	7,061,913	404,008	6.07%
Non-Casino County Totals	3,164,576	3,493,270	328,694	10.39%
State Totals	14,917,695	16,055,753	1,138,058	7.63%
Casino Metro	6,007,304	6,359,866	352,562	5.87%
Casino Non-Metro	650,602	702,047	51,445	7.91%
Non-Casino Metro	2,337,089	2,648,121	311,032	13.31%
Non-Casino Non-Metro	827,487	845,149	17,662	2.13%

Table 5.7 Real Benefits Per Capita

Casino Counties	Per Capita (\$2012)			
	2006	2012	Change	Percent Change
Black Hawk	5,724	6,215	492	8.59%
Clarke	3,724	3,916	192	5.16%
Clayton	3,042	3,514	472	15.50%
Clinton	4,180	4,545	365	8.74%
Des Moines	5,415	5,341	-73	-1.36%
Dubuque	5,442	5,875	433	7.96%
Lyon	2,529	3,207	678	26.81%
Palo Alto	3,360	3,768	408	12.14%
Polk	7,565	7,344	-222	-2.93%
Pottawattamie	4,319	3,846	-472	-10.94%
Scott	5,231	5,300	68	1.31%
Washington	2,854	3,279	426	14.91%
Woodbury	4,530	4,608	77	1.71%
Worth	2,255	2,830	575	25.52%
Non-Casino Counties	2006	2012	Change	Percent Change
Cerro Gordo	5,387	5,342	-45	-0.83%
Delaware	3,251	3,799	548	16.86%
Hardin	3,930	4,126	196	5.00%
Johnson	8,010	8,559	549	6.85%
Linn	6,675	6,881	206	3.08%
Muscatine	6,010	5,932	-78	-1.29%
Pocahontas	2,821	3,799	978	34.68%
Webster	4,889	5,139	249	5.10%
	2006	2012	Change	Percent Change
Casino County Totals	5,813	5,878	66	1.13%
Non-Casino County Totals	6,417	6,749	332	5.18%
State Totals	5,002	5,223	221	4.42%
Casino Metro	6,134	6,147	13	0.21%
Casino Non-Metro	3,918	4,211	293	7.47%
Non-Casino Metro	7,180	7,531	351	4.89%
Non-Casino Non-Metro	4,936	5,092	157	3.18%

Due to the proprietary nature of employee compensation information, these comparisons are not presented by casino. Rather, comparisons are presented as pay ranges for metropolitan area and non-metropolitan area locations. Because the Iowa Gaming Association

and Bureau of Labor Statistics use different job titles, the matches are close approximations but not exact matches.

The comparisons are presented in Table 5.8. The comparisons cover 33 types of jobs distributed over the five employment categories listed above. Using a fairly simple approach low and high points for each type of job are compared for casino and all area employers. For metropolitan areas the low point of the casino pay ranges exceed the low point for comparable non-casino jobs for 54.5% of the job types. At the high end of the pay ranges the casino jobs' pay exceeds overall metropolitan area jobs' pay 63.6% of the time. For non-metropolitan areas the low points for 21 of the 31 job types (64.5%) are higher for casinos than for all area employers. But on the high end of the pay ranges the casinos exceed all area employers only 25.8% of the time.

In many cases the differences in the pay ranges between casino and all area employers are not great. Figure 5.3 shows the comparisons for four examples of metropolitan area management jobs. For example, under the hotel operations category for metropolitan areas the pay range for Director of Hotel Operation for casinos goes from \$60,000 to \$148,948 per year compared to a pay range of \$34,430 to \$147,610 for all employers in metropolitan areas. A likely explanation for the casinos having a higher starting point for this job classification is that a significant share of non-casino lodging places offers less in the way of services than what is offered by casino hotels.

For the management jobs, the largest discrepancy between the pay ranges for casino and all metropolitan area employers is for the Director of Hospitality Services. For the casinos, the top of the pay range for this job is more than twice as much as for all metropolitan-area employers. One possible explanation for the difference is that many casinos offer several bars and restaurants within their facilities.

Figure 5.4 presents similar comparisons for metropolitan-area non-supervisory jobs. These jobs include production cook, bartender, housekeeping attendant, and maintenance technician. Among these jobs casinos offer slightly higher pay for production cooks and housekeeping attendants. On the other hand, bartenders appear to earn substantially less working for casinos than for other employers in metropolitan areas. The pay range for maintenance technician at casinos is almost exactly the same as for all other metropolitan-area employers.

Table 5.8 Casino and Non-Casino Employer Wage - Salary Comparison (\$1,000)

Occupation Groups & Types	Iowa Gaming Association				Bureau of Labor Statistics				
	Metropolitan		Non-Metro		Metropolitan		Non-Metro		
	Low	High	Low	High	Low	High	Low	High	
Administration									
Executive Administrative Assistant	24.7	60.0	29.8	48.8	17.4	59.9	22.3	57.9	
Administrative Assistant	17.2	60.0	30.0	48.0	17.4	59.9	22.7	54.1	
Compliance Manager	34.8	102.0	30.0	50.3	35.3	91.1	34.7	82.4	
Human Resources									
Director of Human Resources	50.0	177.8	35.0	90.0	31.8	182.8	41.2	122.2	
Hiring Manager	31.0	100.0	35.0	50.3	20.9	57.7	30.2	44.5	
Employee Relations Manager	30.0	100.0	50.0	80.0	25.6	94.2	29.3	95.6	
Benefits Coordinator	26.9	61.1	22.0	44.1	31.4	80.6	27.8	73.5	
HR Generalist	24.0	72.8	22.0	42.8	25.6	94.2	28.2	80.8	
HR Clerk	18.1	58.3	18.1	44.1	22.1	48.5	19.8	45.7	
Food and Beverage Services									
Director of Hospitality Services	50.0	160.0	35.0	80.0	24.7	74.0	22.6	73.7	
Restaurant Manager	31.5	77.3	35.0	65.0	16.9	54.1	17.1	42.9	
Restaurant Supervisor	25.0	72.8	18.9	42.8	17.1	38.3	17.1	42.9	
Hostess/ Cashier	15.6	29.4	18.1	31.7	16.1	26.3	16.0	23.4	
Food Server	6.7	22.4	9.8	17.3	15.8	34.2	15.8	26.5	
Prep Cook	15.6	31.6	18.1	33.1	15.7	43.7	16.6	28.6	
Production Cook	19.0	38.2	18.1	27.0	15.7	29.7	15.9	27.6	
Steward, Dishwasher, Utility Worker	12.5	29.4	18.1	26.4	15.9	23.6	15.9	22.4	
Beverage Manager	33.5	100.0	35.0	50.4	25.2	73.0	22.6	73.7	
Beverage Attendant	6.7	22.4	8.8	16.8	15.9	34.2	15.8	26.5	
Bartender	\$10.9	\$31.6	\$12.0	\$20.4	\$15.8	\$41.2	\$15.9	\$25.9	
Hotel Operations									
Director of Hotel Operations	60.0	148.9	32.0	60.8	34.4	147.6	27.3	116.9	
Front Office Supervisor	25.5	55.0	0.0	0.0	16.9	67.4	0.0	0.0	
Front Desk Manager	33.5	66.9	38.0	60.8	16.0	24.0	16.0	23.6	
Concierge	18.1	34.5	18.1	23.2	15.7	23.2	16.1	23.8	
Housekeeping Manager	31.0	70.0	26.0	48.0	16.9	54.4	21.1	53.7	
Housekeeper Supervisor	26.5	52.5	20.0	48.0	16.9	54.4	21.1	53.7	
Housekeeping Attendant	18.1	29.4	18.1	23.6	16.0	28.7	16.2	24.7	
Laundry Attendant	18.1	25.9	0.0	0.0	16.6	33.0	0.0	0.0	
Facilities & Transportation									
Director of Facilities	50.0	140.0	35.0	80.0	33.7	135.8	28.4	109.1	
Facilities Manager/ Supervisor	18.1	100.0	26.0	48.0	20.5	74.4	21.1	53.7	
Maintenance Tech	19.2	58.0	18.9	49.0	20.2	56.4	21.0	52.6	
Facilities Housekeeping	15.6	29.4	18.1	26.4	16.2	37.1	16.4	36.1	
Valet Attendant	12.1	23.4	10.9	26.4	16.0	27.5	16.0	23.6	

Figure 5.3 Metro Area Manager Job Pay Comparison

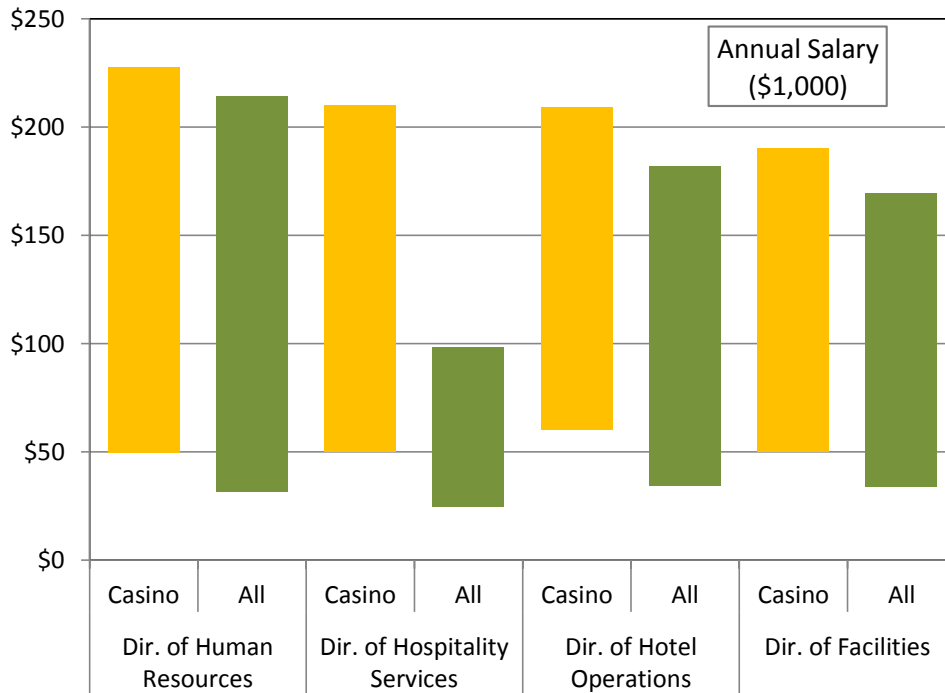
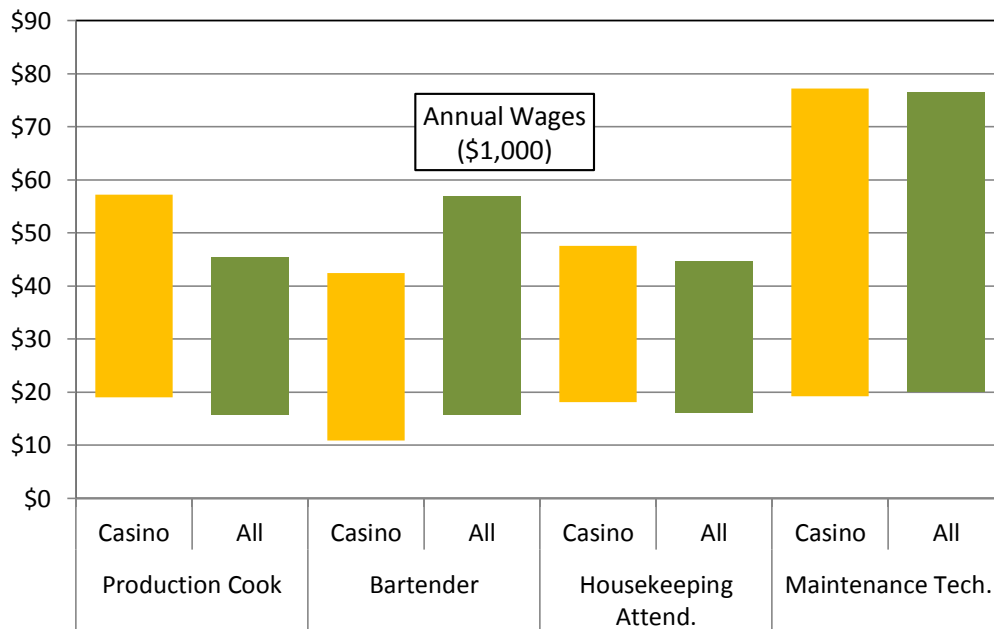


Figure 5.4 Metro Area Non-Supervisory Job Pay Comparison



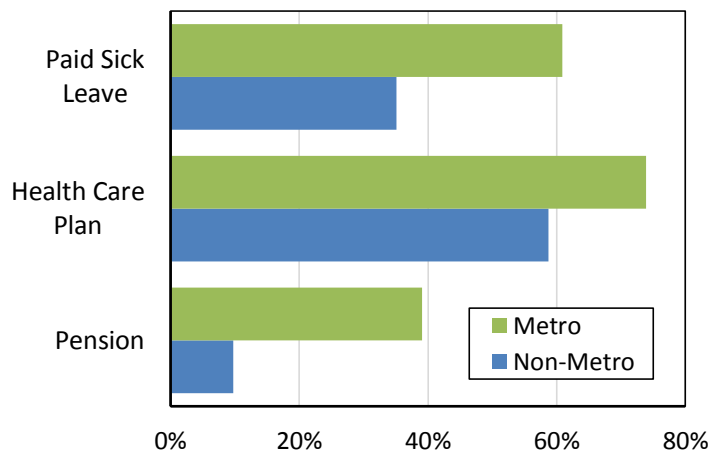
In non-metropolitan areas, the pay range comparisons for non-supervisory jobs are about the same as in metropolitan areas. However, in general pay in non-metropolitan areas is less than in metropolitan areas.

So, casinos appear to pay their top managers slightly more than the prevailing amount for similar jobs in metropolitan areas, but in non-metropolitan areas this is not necessarily the case. For non-supervisory jobs, casinos pay their workers wages that are comparable to slightly better than other area employers, but there are exceptions.

In addition to wages and salaries, benefits account for an important part of worker compensation. Information on types of benefits offered by casinos was obtained through a survey of casinos conducted for this study. Various sources were contacted in an attempt to find similar information on benefits offered by other employers but without success.

For the casinos, worker benefits differed widely between properties located in metropolitan communities from those relatively smaller facilities located in rural communities. Facilities in metropolitan communities offered 74% of full-time workers a health care plan, 61% paid sick leave, and 39% offered a pension plan. The survey respondents indicated that while a large portion of the workers are offered the opportunity to invest in a pension plan, not all of the workers – even full-time workers – chose to invest in the plans. Also, the contact persons at four of the metropolitan facilities indicated that they provide a combined sick leave/vacation benefit that can be used at the discretion of the worker. These options are not reflected in the benefits share computations. For full-time non-supervisory workers in non-metro casinos, 59% are offered a health care plan, 35% are offered paid sick leave, and 10% are offered a pension plan. Figure 5.5 summarizes the percentages of workers offered the different types of benefits for metropolitan and non-metropolitan area casinos.

Figure 5.5 Percent of Full-Time Workers Covered, 2014



For part-time non-supervisory casino workers, the offered benefits are not as generous in either metropolitan or non-metropolitan communities. In the metropolitan facilities, 32% of part-time workers are offered paid sick leave (22% in non-metro facilities), 6% a pension plan (2% in the non-metro facilities) and virtually none of them are offered or took advantage of a health care plan in 2014.

Employment Changes

Total Private Non-Farm Employment

The County Business Patterns employment data are available only through 2011. Statewide, the number of private non-farm jobs dropped from 1,295,258 in 2006 to 1,263,665 in 2011, or by 31,593 (2.44%). For the 14 casino counties the decrease equaled 4.43%, while in the non-casino comparison counties the job count actually increased by 1.62%. However, for the casino counties the losses occurred almost entirely in Polk County where the job count dropped by 26,445 compared to a drop of 26,394 for all the casino counties combined. For the non-casino counties exclusive of Johnson and Linn counties the change in jobs equaled -8.46%.

Table 5.9 shows the changes for each casino county and for each non-casino comparison county. For the casino counties percentage changes in total private non-farm employment ranged from a 12.16% decrease in Palo Alto County to a 23.85% increase in Clinton County. For the non-casino counties job count changes ranged from -13.46% in Muscatine County to 6.31% in Johnson County. Most likely factors other than the existence or absence of a casino explain these changes. The neighboring counties Palo Alto and Pocahontas illustrate this point. Over the seven years Palo Alto experienced a 12.16% decrease in private non-farm jobs and the decrease in Pocahontas equaled a comparable 12.07%.

Looking at the difference between metropolitan area and non-metropolitan area counties finds that the six casino metropolitan counties lost 30,336 jobs (-5.69%) from 2006 to 2011, while the two non-casino metropolitan area counties gained 10,110 jobs (6.32%). But, since the economies of university cities tend to be countercyclical, the influence of Johnson County should be discounted.

The eight non-metropolitan area casino counties realized a 6.30% gain in jobs from 2006 to 2011, while the non-metropolitan non-casino counties lost 8.46% of their jobs. These differences are comparable to the results for the total non-farm personal income analysis.

Table 5.9 Total Private Non-Farm Employment

	Jobs			
	2006	2011	Change	Percent Change
Casino Counties				
Black Hawk	62,286	64,875	2,589	4.16%
Clarke	3,349	3,080	-269	-8.03%
Clayton	5,117	4,878	-239	-4.67%
Clinton	20,538	25,437	4,899	23.85%
Des Moines	20,136	19,516	-620	-3.08%
Dubuque	51,617	51,097	-520	-1.01%
Lyon	2,714	2,764	50	1.84%
Palo Alto	2,976	2,614	-362	-12.16%
Polk	256,517	230,072	-26,445	-10.31%
Pottawattamie	32,240	30,891	-1,349	-4.18%
Scott	83,696	80,218	-3,478	-4.16%
Washington	6,221	6,496	275	4.42%
Woodbury	46,711	45,578	-1,133	-2.43%
Worth	1,492	1,700	208	13.94%
Non-Casino Counties				
Cerro Gordo	23,174	21,438	-1,736	-7.49%
Delaware	5,178	5,203	25	0.48%
Hardin	5,382	5,540	158	2.94%
Johnson	55,179	58,663	3,484	6.31%
Linn	106,995	113,621	6,626	6.19%
Muscatine	21,447	18,560	-2,887	-13.46%
Pocahontas	2,162	1,901	-261	-12.07%
Webster	16,999	15,410	-1,589	-9.35%
	2006	2011	Change	Percent Change
Casino County Totals	595,610	569,216	-26,394	-4.43%
Non-Casino County Totals	236,516	240,336	3,820	1.62%
State Totals	1,295,258	1,263,665	-31,593	-2.44%
Casino Metro	533,067	502,731	-30,336	-5.69%
Casino Non-Metro	62,543	66,485	3,942	6.30%
Non-Casino Metro	162,174	172,284	10,110	6.23%
Non-Casino Non-Metro	74,342	68,052	-6,290	-8.46%

Lodging and Entertainment Employment

Statewide, the number of jobs in the lodging (accommodations) and entertainment (arts, entertainment, and recreation) sectors experienced little change from 2006-2011. The job count for these combined sectors totaled 38,055 in 2006 and 38,038 in 2011. The number of jobs in these sectors peaked at 41,931 near the beginning of 2008, but then as the recession set in the job count dropped.

There has also been a redistribution of jobs in these sectors. The opening of five casinos from 2006-2011 provided a significant boost to lodging and entertainment jobs in these new casino counties. In Worth County, after the Diamond Jo Casino opened in April 2006, the number of jobs in the lodging and entertainment sectors jumped from 49 to 429 and it has stayed at about that level since. In Palo Alto County, after the Wild Rose Casino and Resort opened in May 2006, the number of lodging and entertainment jobs jumped from 39 to 396. The largest jump occurred in Washington County, where the job count for these sectors rose from 97 to 846 after the Riverside Casino and Golf Resort opened for business in August, 2008. In Black Hawk County the increase was not quite as stark rising from 915 to 1,274 after the Isle Casino and Hotel opened in June 2007. Because the newest casino development located in Lyon County – the Grand Falls Casino Resort – did not open until after County Business Patterns completed its 2011 survey the data in this study does not reflect the impact of that facility.

Table 5.10 shows the changes in lodging and entertainment job counts for each casino and non-casino comparison county from 2006-2011. In addition, the table shows the changes in absolute and percentage terms for all of the casino counties, all of the comparison non-casino counties, and for the entire state. Although statewide the number of jobs in these sectors remained unchanged over the six years, the casino counties experienced a net increase of 765 jobs (3.44%), while the non-casino counties suffered a net loss of 182 jobs (-3.35%). Looking deeper within both groups of counties finds that for the casino counties the job gains occurred primarily in non-metropolitan areas where the gains equaled 1,400 (56.61%). The metropolitan area casino counties lost 635 jobs (-3.21%) in these two sectors. In the non-casino comparison counties the two metropolitan counts held their own gaining 11 jobs (0.21%), but the six non-metropolitan counties lost 193 jobs (-12.12%).

So, for these sectors, the existence of casinos definitely provided a boost to total employment, but the gains occurred when casinos opened. Afterward, there does not appear to be any additional growth. In fact, since 2008, when the recession took hold in Iowa, employment in these sectors dropped off by 7.40%. Nevertheless, this is better than the state as a whole where the drop off in jobs equaled 9.28% since 2008.

Table 5.10 Lodging and Entertainment Employment

Casino Counties	Jobs			
	2006	2011	Change	Percent Change
Black Hawk	949	1,719	770	81.14%
Clarke	433	438	5	1.15%
Clayton	465	218	-247	-53.12%
Clinton	780	635	-145	-18.59%
Des Moines	572	839	267	46.68%
Dubuque	2,337	2,427	90	3.85%
Lyon	37	55	18	47.30%
Palo Alto	39	404	365	935.90%
Polk	6,837	6,848	11	0.16%
Pottawattamie	4,514	3,523	-991	-21.95%
Scott	3,358	2,948	-410	-12.21%
Washington	97	859	762	785.57%
Woodbury	1,768	1,663	-105	-5.94%
Worth	49	424	375	765.31%
Non-Casino Counties	2006	2011	Change	Percent Change
Cerro Gordo	781	514	-267	-34.19%
Delaware	47	72	25	53.19%
Hardin	74	86	12	16.22%
Johnson	1,446	1,293	-153	-10.58%
Linn	2,387	2,551	164	6.87%
Muscatine	291	393	102	35.05%
Pocahontas	60	47	-13	-21.67%
Webster	340	288	-52	-15.29%
	2006	2011	Change	Percent Change
Casino County Totals	22,235	23,000	765	3.44%
Non-Casino County Totals	5,426	5,244	-182	-3.35%
State Totals	38,055	38,038	-17	-0.04%
Casino Metro	19,763	19,128	-635	-3.21%
Casino Non-Metro	2,472	3,872	1,400	56.61%
Non-Casino Metro	3,833	3,844	11	0.29%
Non-Casino Non-Metro	1,593	1,400	-193	-12.12%

Table 5.11 Lodging and Entertainment Employment per 1,000 Population

Casino Counties	Jobs			
	2006	2012	Change	Percent Change
Black Hawk	7	13	6	74.47%
Clarke	48	47	-1	-1.43%
Clayton	26	12	-14	-53.60%
Clinton	16	13	-3	-18.29%
Des Moines	14	21	7	47.90%
Dubuque	26	26	0	0.50%
Lyon	3	5	1	42.80%
Palo Alto	4	43	39	945.87%
Polk	17	16	-1	-6.39%
Pottawattamie	50	38	-13	-25.36%
Scott	21	18	-3	-15.20%
Washington	5	39	35	755.91%
Woodbury	17	16	-1	-6.97%
Worth	6	56	50	770.45%
Non-Casino Counties	2006	2012	Change	Percent Change
Cerro Gordo	18	12	-6	-34.11%
Delaware	3	4	1	52.31%
Hardin	4	5	1	18.15%
Johnson	12	10	-2	-17.53%
Linn	12	12	0	1.00%
Muscatine	7	9	2	33.41%
Pocahontas	8	7	-1	-16.97%
Webster	9	8	-1	-13.47%
	2006	2012	Change	Percent Change
Casino County Totals	19	19	0	-0.74%
Non-Casino County Totals	11	10	-1	-7.33%
State Totals	13	12	0	-2.70%
Casino Metro	20	19	-2	-7.68%
Casino Non-Metro	15	23	8	55.80%
Non-Casino Metro	12	11	-1	-6.10%
Non-Casino Non-Metro	10	8	-1	-11.61%

A final interesting comparison for these sectors involves looking at sector job counts on a per-1,000-population basis. Table 5.11 makes this comparison. For the casino counties, the average number of lodging and entertainment jobs per 1,000 population equals 19 over the six-year period. However, for some of the rural counties the ratio equals over 40. For the non-

casino comparison counties, the average ratio ranged between 10 and 11.

Bar and Restaurant Employment

Beyond the lodging and entertainment sectors, which are the sectors where casino food service employees are counted, one may expect to see some spillover job impacts on the bar and restaurant sector. However, as shown in Table 5.12, neither in the casino counties nor in the non-casino comparison counties did employment in this sector experience much change from 2006-2011. For the 14 casino counties in this sector, the job count in 2006 equaled 45,293 and in 2011 it equaled 45,212, an 81 job (0.18%) decrease. The eight non-casino comparison counties experienced a similar change from 19,096 jobs in 2006 to 19,004 jobs in 2011, which is only a 92 job (0.48%) decrease. Statewide over this period bars and restaurants shed 1,920 jobs, or 1.99% of the sector total. Given the severity of the recession, the performance of this sector is impressive.

A comparison between casino and non-casino counties in terms of bar and restaurant jobs per 1,000 population shows the major difference is between metropolitan and non-metropolitan counties. In non-metropolitan counties, the existence of casinos may have resulted in slightly fewer non-casino bar and restaurant jobs. Figure 5.6 presents this comparison.

Figure 5.6 Bar and Restaurant Jobs per 1,000 Population

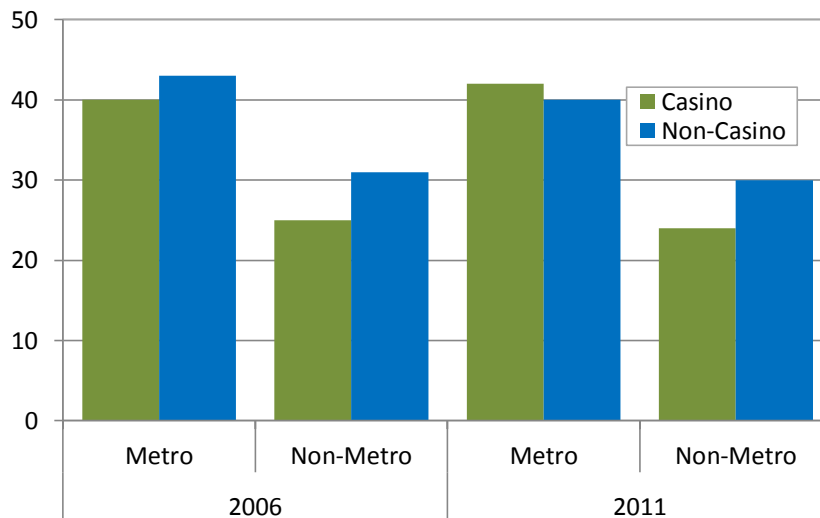


Table 5.12 Bar and Restaurant Employment

Casino Counties	Jobs			
	2006	2011	Change	Percent Change
Black Hawk	5,733	5,448	-285	-4.97%
Clarke	245	180	-65	-26.53%
Clayton	358	345	-13	-3.63%
Clinton	1,248	1,313	65	5.21%
Des Moines	1,504	1,452	-52	-3.46%
Dubuque	3,862	3,476	-386	-9.99%
Lyon	158	110	-48	-30.38%
Palo Alto	240	220	-20	-8.33%
Polk	17,452	17,218	-234	-1.34%
Pottawattamie	2,690	2,936	246	9.14%
Scott	7,184	7,652	468	6.51%
Washington	350	343	-7	-2.00%
Woodbury	4,176	4,432	256	6.13%
Worth	93	87	-6	-6.45%
Non-Casino Counties				
	2006	2011	Change	Percent Change
Cerro Gordo	2,095	2,051	-44	-2.10%
Delaware	349	284	-65	-18.62%
Hardin	304	357	53	17.43%
Johnson	6,059	6,270	211	3.48%
Linn	7,832	7,761	-71	-0.91%
Muscatine	1,150	991	-159	-13.83%
Pocahontas	98	133	35	35.71%
Webster	1,209	1,157	-52	-4.30%
	2006	2011	Change	Percent Change
Casino County Totals	45,293	45,212	-81	-0.18%
Non-Casino County Totals	19,096	19,004	-92	-0.48%
State Totals	96,410	94,490	-1,920	-1.99%
Casino Metro	41,097	41,162	65	0.16%
Casino Non-Metro	4,196	4,050	-146	-3.48%
Non-Casino Metro	13,891	14,031	140	1.01%
Non-Casino Non-Metro	5,205	4,973	-232	-4.46%

Retail Employment

Statewide from 2006-2011, Iowa lost 4.00% of its retail jobs. Also, every casino county and every non-casino comparison county lost retail jobs. The casino counties lost 7.44% of their retail jobs and the non-casino comparison counties lost 4.58% of their retail jobs. The recession no doubt caused a substantial portion of these losses, but Iowa began losing retail jobs even before the recession set in. The growth of Internet commerce and the growing dominance of big box stores are almost certainly other contributing factors.

As shown in Table 5.13, the metropolitan area casino counties lost 7.66% of their retail jobs, while job losses in the non-metropolitan area casino counties were slightly less at 5.71%. For the non-casino counties retail job losses in Johnson and Linn counties equaled 3.32%, while in the six non-metropolitan area counties the retail job count dropped by 7.23%.

Adjusting for population differences the number of retail jobs statewide decreased from 61 to 57 per 1,000 population from 2006-2011. For casino counties, the number went from 73 to 65 and for the non-casino comparison counties the number went from 69 to 63. At both the beginning and end of the period there were slightly more retail jobs per 1,000 population in casino counties than in non-casino counties for metropolitan areas. For non-metropolitan counties the opposite is true.

Overall, the data do not imply that the existence of casinos had either a positive or negative impact on retail sector employment. Both structural and cyclical economic factors provide more of an explanation for the decline of jobs in this sector in Iowa.

Construction Employment

A change in the number of construction sector jobs may be thought of as a surrogate measure for overall economic vitality. However, given that the major cause of the Great Recession was a collapse of the housing sector, which then spilled over into commercial construction, compromises the signals provided by this indicator.

Statewide the number of construction jobs dropped by 17.76% from 2006-2011. For the casino counties the decrease equaled 22.38% and for the non-casino comparison counties, 15.32%. Per 1,000 population, the number of construction jobs equaled 26 in casino counties, 24 in non-casino counties, and 22 statewide in 2006.

By 2011, construction employment per 1,000 population dropped to 20 for both the casino and non-casino comparison counties and to 17 statewide. Thus, there does not appear to be any persistent positive or negative effect on construction activity that spilled over from casinos to their host counties.

Table 5.13 Retail Employment

	Jobs			
	2006	2011	Change	Percent Change
Casino Counties				
Black Hawk	9,052	8,988	-64	-0.71%
Clarke	445	565	120	26.97%
Clayton	712	626	-86	-12.08%
Clinton	2,819	2,753	-66	-2.34%
Des Moines	3,416	3,060	-356	-10.42%
Dubuque	6,689	6,988	299	4.47%
Lyon	422	350	-72	-17.06%
Palo Alto	403	345	-58	-14.39%
Polk	32,075	27,763	-4,312	-13.44%
Pottawattamie	6,441	6,133	-308	-4.78%
Scott	11,969	11,113	-856	-7.15%
Washington	1,060	1,047	-13	-1.23%
Woodbury	7,656	7,240	-416	-5.43%
Worth	168	160	-8	-4.76%
Non-Casino Counties				
Cerro Gordo	3,929	3,734	-195	-4.96%
Delaware	804	692	-112	-13.93%
Hardin	839	799	-40	-4.77%
Johnson	8,676	8,392	-284	-3.27%
Linn	14,245	13,768	-477	-3.35%
Muscatine	2,310	2,037	-273	-11.82%
Pocahontas	315	254	-61	-19.37%
Webster	2,750	2,640	-110	-4.00%
	2006	2011	Change	Percent Change
Casino County Totals	83,327	77,131	-6,196	-7.44%
Non-Casino County Totals	33,868	32,316	-1,552	-4.58%
State Totals	181,376	174,126	-7,250	-4.00%
Casino Metro	73,882	68,225	-5,657	-7.66%
Casino Non-Metro	9,445	8,906	-539	-5.71%
Non-Casino Metro	22,921	22,160	-761	-3.32%
Non-Casino Non-Metro	10,947	10,156	-791	-7.23%

Table 5.14 Construction Employment

	Jobs			
	2006	2011	Change	Percent Change
Casino Counties				
Black Hawk	2,651	2,197	-454	-17.13%
Clarke	62	27	-35	-56.45%
Clayton	597	488	-109	-18.26%
Clinton	790	765	-25	-3.16%
Des Moines	987	908	-79	-8.00%
Dubuque	1,998	1,866	-132	-6.61%
Lyon	144	123	-21	-14.58%
Palo Alto	105	70	-35	-33.33%
Polk	13,740	8,804	-4,936	-35.92%
Pottawattamie	1,000	824	-176	-17.60%
Scott	4,630	4,323	-307	-6.63%
Washington	760	661	-99	-13.03%
Woodbury	2,433	2,124	-309	-12.70%
Worth	110	111	1	0.91%
Non-Casino Counties				
Cerro Gordo	840	739	-101	-12.02%
Delaware	314	280	-34	-10.83%
Hardin	369	353	-16	-4.34%
Johnson	2,836	2,097	-739	-26.06%
Linn	6,181	5,335	-846	-13.69%
Muscatine	591	521	-70	-11.84%
Pocahontas	55	55	0	0.00%
Webster	712	695	-17	-2.39%
	2006	2011	Change	Percent Change
Casino County Totals	30,007	23,291	-6,716	-22.38%
Non-Casino County Totals	11,898	10,075	-1,823	-15.32%
State Totals	64,574	53,104	-11,470	-17.76%
Casino Metro	26,452	20,138	-6,314	-23.87%
Casino Non-Metro	3,555	3,153	-402	-11.31%
Non-Casino Metro	9,017	7,432	-1,585	-17.58%
Non-Casino Non-Metro	2,881	2,643	-238	-8.26%

Retail Sales Changes

Taxable retail sales provide another indicator for assessing the impact of casinos on their local economies. Because of restrictions placed on the disclosure of sales transaction statistics for jurisdictions with a small number of businesses within a sector or when one business dominates sales within a sector, this analysis considers only three measures of taxable sales. These are total taxable sales excluding transportation and utility company sales, bar and restaurant sales, and sales by traditional bricks-and-mortar retailers. All of the sales analysis presented in this section is in terms of constant 2012 dollars.

Total Taxable Sales (excluding Transportation and Utilities)

Some utility companies report all of their taxable sales in the counties where their billing offices are located. Therefore, reporting taxable sales exclusive of the transportation and utilities category provides a better indication of local activity than does total taxable sales. In addition, to traditional bricks-and-mortar retailers these sales include those made by certain service companies and wholesalers.

Due to the recession that began in Iowa during 2008, taxable sales statewide decreased over the seven years from 2006-2012 by 2.64%. Given the severity of the recession this decrease was not that pronounced. Taxable sales in both casino counties and the non-casino comparison counties experienced greater percentage decreases than the state as a whole. The decrease for the casino counties equaled 4.49% and for the non-casino counties the decrease equaled 4.83%.

Also, as shown in Table 5.15, for both the casino counties and the non-casino counties sales decreased by greater percentages in metropolitan areas than in non-metropolitan areas. The decrease for the casino metropolitan counties equaled 4.69%, while in the casino non-metropolitan counties the decrease equaled 2.60%. For the non-casino counties the metropolitan and non-metropolitan sales decreases equaled 5.20% and 3.91%, respectively.

A likely explanation for the greater percentage sales decreases in metropolitan areas is that retail trade, particularly for types of stores that sell expensive products like appliances, furniture, and electronics, has become concentrated in the state's metropolitan areas. So these areas experienced greater percentage sales decreases during the recession than did more rural areas, where merchants sell less in the way of discretionary types of products and services.

Table 5.15 Total Taxable Sales (excluding Transportation and Utilities)

	(\$2012)			
	2006	2012	Change	Percent Change
Casino Counties				
Black Hawk	1,598,981,389	1,639,433,069	40,451,680	2.53%
Clarke	56,678,478	67,635,511	10,957,033	19.33%
Clayton	104,110,696	114,153,158	10,042,462	9.65%
Clinton	503,913,188	440,588,230	-63,324,958	-12.57%
Des Moines	533,829,248	498,304,236	-35,525,012	-6.65%
Dubuque	1,196,189,675	1,163,946,854	-32,242,821	-2.70%
Lyon	62,472,234	78,862,554	16,390,320	26.24%
Palo Alto	81,985,334	80,231,026	-1,754,308	-2.14%
Polk	6,845,169,527	6,325,189,591	-519,979,936	-7.60%
Pottawattamie	1,014,428,387	997,414,208	-17,014,179	-1.68%
Scott	2,349,227,620	2,159,608,243	-189,619,377	-8.07%
Washington	159,941,044	172,668,941	12,727,897	7.96%
Woodbury	1,376,649,449	1,420,220,346	43,570,897	3.16%
Worth	30,031,625	40,720,203	10,688,578	35.59%
Non-Casino Counties				
Cerro Gordo	678,465,660	651,446,815	-27,018,845	-3.98%
Delaware	109,518,107	119,580,589	10,062,482	9.19%
Hardin	155,213,623	136,071,125	-19,142,498	-12.33%
Johnson	1,758,921,584	1,563,245,340	-195,676,244	-11.12%
Linn	2,915,706,694	2,868,527,206	-47,179,488	-1.62%
Muscatine	381,969,611	370,427,565	-11,542,046	-3.02%
Pocahontas	32,999,344	36,104,652	3,105,308	9.41%
Webster	493,924,893	466,070,057	-27,854,836	-5.64%
	2006	2012	Change	Percent Change
Casino County Totals	15,913,607,894	15,198,976,170	-714,631,724	-4.49%
Non-Casino County Totals	6,526,719,517	6,211,473,349	-315,246,168	-4.83%
State Totals	32,276,384,602	31,425,469,252	-850,915,350	-2.64%
Casino Metro	14,380,646,047	13,705,812,311	-674,833,736	-4.69%
Casino Non-Metro	1,532,961,847	1,493,163,859	-39,797,988	-2.60%
Non-Casino Metro	4,674,628,278	4,431,772,546	-242,855,732	-5.20%
Non-Casino Non-Metro	1,852,091,240	1,779,700,803	-72,390,437	-3.91%

Looking at the individual casino counties provides some indication that the development of casinos did boost taxable retail sales. Sales increased in four of the five counties where casinos opened during and after 2006, despite the recession. In Worth County, sales increased by 35.59% over the period. In Lyon County, sales showed little change from 2006-2010 during

which sales decreased from \$62.5 million to \$62.3 million. But when Grand Falls Casino Resort opened in 2010 sales jumped to \$73.0 million and the next year to \$78.9 million. Even in Black Hawk County, sales increased by 2.53% over the seven years. In Clarke County, where Lakeside Casino Resort opened in 2000, sales jumped by 19.33% from 2006-2012. This increase happened at the same time that Herbst Gaming purchased the facility and undertook a major renovation and expansion.

Bar and Restaurant Sales

In spite of the recession, bar and restaurant sales, even after adjustment for inflation, held up well over the 2006-2012 period. Statewide sales by these types of establishments grew by 4.63%. For the casino counties, bar and restaurant sales increased by 7.92%, which is substantially greater than the 1.62% increase experienced by the non-casino comparison counties. The growth of bar and restaurant sales in casino counties is particularly notable because food and beverage sales by casinos are not classified as bar and restaurant sales for statistical purposes. Bar and restaurant taxable sales by casinos generally are counted for statistical purposes in the gambling (or entertainment) industry classification.

As Table 5.16 shows, there are a few cases where bar and restaurant sales appear to have declined after casinos opened for business or expanded operations. This happened in Clarke, Lyon, and Washington counties. However, after initial adjustment periods bar and restaurant establishments generally prospered in the casino counties. Furthermore, the growth of bar and restaurant sales in casino counties exceeded the growth in non-casino counties in both metropolitan and non-metropolitan areas.

Per-capita bar and restaurant sales provide another way of making the comparison between casino and non-casino counties. In 2006 the per capita sales equaled \$1,505 for casino counties and \$1,487 for non-casino counties, which is an \$18 spread. By 2012, the spread increased to \$110 with the per capita sales in casino counties rising to \$1,549, while in the non-casino comparison counties it dropped to \$1,439.

Table 5.16 Real Bar and Restaurant Sales

	(\$2012)			
Casino Counties	2006	2012	Change	Percent Change
Black Hawk	180,279,655	195,326,501	15,046,846	8.35%
Clarke	8,341,273	8,170,834	-170,439	-2.04%
Clayton	9,887,593	10,776,167	888,574	8.99%
Clinton	51,253,197	56,154,116	4,900,919	9.56%
Des Moines	56,565,804	59,097,136	2,531,332	4.48%
Dubuque	117,712,932	138,590,708	20,877,776	17.74%
Lyon	5,362,966	4,656,051	-706,915	-13.18%
Palo Alto	6,361,743	7,582,757	1,221,014	19.19%
Polk	703,629,458	770,370,949	66,741,491	9.49%
Pottawattamie	136,327,321	138,481,085	2,153,764	1.58%
Scott	281,833,449	292,234,374	10,400,925	3.69%
Washington	14,733,721	14,661,589	-72,132	-0.49%
Woodbury	148,506,431	161,132,217	12,625,786	8.50%
Worth	3,590,899	3,692,001	101,102	2.82%
Non-Casino Counties	2006	2012	Change	Percent Change
Cerro Gordo	72,260,287	72,955,543	695,256	0.96%
Delaware	10,343,584	9,582,147	-761,437	-7.36%
Hardin	10,665,444	11,388,155	722,711	6.78%
Johnson	238,601,905	253,882,663	15,280,758	6.40%
Linn	302,875,862	307,778,862	4,903,000	1.62%
Muscatine	44,240,758	40,920,218	-3,320,540	-7.51%
Pocahontas	3,025,437	2,565,767	-459,670	-15.19%
Webster	51,081,128	45,893,651	-5,187,477	-10.16%
	2006	2012	Change	Percent Change
Casino County Totals	1,724,386,443	1,860,926,485	136,540,042	7.92%
Non-Casino County Totals	733,094,405	744,967,006	11,872,601	1.62%
State Totals	3,542,238,585	3,706,193,786	163,955,201	4.63%
Casino Metro	1,568,289,246	1,696,135,834	127,846,588	8.15%
Casino Non-Metro	156,097,197	164,790,651	8,693,454	5.57%
Non-Casino Metro	541,477,767	561,661,525	20,183,758	3.73%
Non-Casino Non-Metro	191,616,638	183,305,481	-8,311,157	-4.34%

Traditional Retail Sales

Traditional retail includes department and discount stores, home furnishing and appliance stores, stores that sell building materials, hardware and lawn-care products, groceries, drug stores, and specialty retailers that sell apparel, books, jewelry, sporting goods, and a variety of other consumer goods locally in communities.

As shown in Table 5.17, from 2006-2012 statewide traditional retail sales increased by 0.13%. Within the casino counties, the gain equaled a comparable 0.08%. For the non-casino comparison counties, sales decreased by 3.24%.

Both casino and non-casino metropolitan area counties experienced sales decreases, but while the decrease in the six casino metropolitan areas was small (-0.05%), the decrease in the two non-casino metropolitan counties was much larger (-4.30%). In addition, the six non-casino non-metropolitan comparison counties experienced a 0.60% drop in traditional retail sales, while the eight non-metropolitan area casino counties experienced a 1.28% gain in sales.

On a per capita basis, traditional retail sales in 2006 were significantly higher in both the casino counties (\$8,883) and the non-casino comparison counties (\$8,647) than statewide (\$6,992). The same held true in 2012 when casino county per capita sales equaled \$8,476, non-casino county per capita sales equaled \$7,972, while the statewide amount equaled only \$6,792.

With one or two exceptions, no definitive causal relationship can be made between the existence of casinos and retail sales growth. The major exception is Clarke County where retail sales grew by 38.48% between 2006 and 2012. This growth can be attributed to a large expansion of the casino hotel, plus the community's ability to attract a Super Walmart that opened in 2008. The Executive Director of the Clarke County Development Corporation indicated the existence of the casino helped attract the Walmart.

Table 5.17 Traditional Retail Sales

	(\$2012)			
Casino Counties	2006	2012	Change	Percent Change
Black Hawk	1,091,973,679	1,152,981,173	61,007,494	5.59%
Clarke	35,821,897	49,607,422	13,785,525	38.48%
Clayton	66,201,877	74,578,161	8,376,284	12.65%
Clinton	280,630,500	282,161,665	1,531,165	0.55%
Des Moines	394,881,538	370,816,379	-24,065,159	-6.09%
Dubuque	838,909,629	834,554,022	-4,355,607	-0.52%
Lyon	30,353,845	29,553,347	-800,498	-2.64%
Palo Alto	33,318,646	35,079,070	1,760,424	5.28%
Polk	4,003,202,105	4,008,640,786	5,438,681	0.14%
Pottawattamie	765,092,869	737,975,031	-27,117,838	-3.54%
Scott	1,566,945,209	1,516,863,908	-50,081,301	-3.20%
Washington	83,219,803	94,257,570	11,037,767	13.26%
Woodbury	970,661,962	981,454,031	10,792,069	1.11%
Worth	14,297,954	14,684,070	386,116	2.70%
Non-Casino Counties	2006	2012	Change	Percent Change
Cerro Gordo	470,348,285	456,963,595	-13,384,690	-2.85%
Delaware	69,942,880	73,984,158	4,041,278	5.78%
Hardin	84,890,375	82,228,859	-2,661,516	-3.14%
Johnson	1,332,616,386	1,178,849,085	-153,767,301	-11.54%
Linn	1,713,765,017	1,736,603,857	22,838,840	1.33%
Muscatine	233,542,356	247,500,347	13,957,991	5.98%
Pocahontas	18,091,916	20,028,253	1,936,337	10.70%
Webster	341,141,910	329,884,965	-11,256,945	-3.30%
	2006	2012	Change	Percent Change
Casino County Totals	10,175,511,514	10,183,206,635	7,695,121	0.08%
Non-Casino County Totals	4,264,339,125	4,126,043,119	-138,296,006	-3.24%
State Totals	20,854,025,918	20,880,216,684	26,190,766	0.13%
Casino Metro	9,236,785,454	9,232,468,951	-4,316,503	-0.05%
Casino Non-Metro	938,726,061	950,737,684	12,011,623	1.28%
Non-Casino Metro	3,046,381,403	2,915,452,942	-130,928,461	-4.30%
Non-Casino Non-Metro	1,217,957,722	1,210,590,177	-7,367,545	-0.60%

Property Valuation Changes

The final group of indicators used to assess the impact of casinos on Iowa's economy includes changes in the valuations for commercial and residential property. Unlike for the other economic indicators, the comparisons between casino and non-casino counties in this section take into consideration both county- and city-level data. The source of these data is annual budget reports submitted to the Iowa Department of Management by county auditors. Beyond the statistical data insight to the impacts that casinos have had on local development activity was gained by contacting assessors for the cities and counties where casinos are located.

County Commercial Property Valuations

Statewide the value of commercial property increased by a modest 0.11% from 2006-2012. In both the casino counties and the non-casino comparison counties, the value of commercial property decreased. In the casino counties the decrease equaled 0.83% and in the non-casino comparison counties the decrease equaled 2.44%. See Table 5.18.

As with many of the other economic indicators for most casino counties, it is not possible to draw a direct causal linkage between the existence of a casino and changes in the value of commercial property. However, the large percentage jumps in valuations in five counties – Worth (68.10%), Palo Alto (27.39%), Washington (47.93%), Black Hawk (9.51%), and Lyon (140.51%) – provide a strong indication that at least the direct investment in the casino facilities has raised commercial property valuations. The casinos in these counties were all developed from 2006-2011.

The Diamond Jo Casino in Worth County opened in April 2006 and from 2006 to 2007 commercial valuations in the county rose from \$46.4 million, to \$56.6 million. By 2010, the value of commercial property in the county rose to \$79.4 million, which equals a \$33 million (71.24%) increase over the four years, before dropping off slightly during 2011 and 2012.

The Wild Rose Casino and Resort in Palo Alto County opened in May 2006 and from 2006 to 2007 the value of commercial property jumped from \$60.0 million, to \$83.2 million, an increase of \$23.2 million (38.62%). Then, over the next five years the value of commercial property dropped back to \$76.4 million at the end of the study period.

With the opening of the Riverside Casino and Golf Resort in Washington County in August 2008 the value of commercial property jumped from \$124.7 million in 2006 to \$174.7 million in 2007, which equals a \$50.1 million (40.16%) increase. In this county, commercial property values continued to increase, reaching \$184.4 million in 2012.

Table 5.18 Commercial Property Valuations

	(\$2012 millions)			
	2006	2012	Change	Percent Change
Casino Counties				
Black Hawk	1,466.6	1,606.0	139.4	9.51%
Clarke	72.0	76.9	4.9	6.76%
Clayton	111.7	101.1	-10.6	-9.52%
Clinton	446.5	434.0	-12.5	-2.80%
Des Moines	399.6	375.2	-24.4	-6.11%
Dubuque	1,175.6	1,272.4	96.8	8.23%
Lyon	52.2	125.5	73.3	140.51%
Palo Alto	60.0	76.4	16.4	27.39%
Polk	8,580.5	7,989.5	-591.0	-6.89%
Pottawattamie	1,087.0	1,225.7	138.6	12.75%
Scott	2,526.5	2,466.1	-60.3	-2.39%
Washington	124.7	184.4	59.8	47.93%
Woodbury	1,204.6	1,197.9	-6.7	-0.55%
Worth	46.4	77.9	31.6	68.10%
Non-Casino Counties				
Cerro Gordo	534.8	540.8	6.0	1.12%
Delaware	85.3	94.2	8.9	10.42%
Hardin	109.9	98.1	-11.8	-10.76%
Johnson	2,202.3	2,261.3	59.0	2.68%
Linn	2,999.5	2,817.4	-182.2	-6.07%
Muscatine	334.6	327.2	-7.5	-2.23%
Pocahontas	41.2	43.5	2.3	5.57%
Webster	348.7	311.6	-37.1	-10.65%
	2006	2012	Change	Percent Change
Casino County Totals	17,354.0	17,209.2	-145	-0.83%
Non-Casino County Totals	6,656.3	6,494.0	-162	-2.44%
State Totals	34,100.5	34,137.3	37	0.11%
Casino Metro	16,040.8	15,757.6	-283	-1.77%
Casino Non-Metro	1,313.2	1,451.6	138	10.54%
Non-Casino Metro	5,201.8	5,078.7	-123	-2.37%
Non-Casino Non-Metro	1,454.5	1,415.3	-39	-2.70%

The Isle Casino Hotel Waterloo in Black Hawk County opened during June 2007. From 2006 to 2007, the value of commercial property in this county rose by 9.08%, from \$1,466.6 million to \$1,599.7 million. From 2007-2012, commercial valuations moved up just another \$6.3

million. The investment in the casino complex equaled \$101.7 million and so accounts for most of the increase.

The most recently opened casino, the Grand Falls Casino Resort in Lyon County, opened in June 2011. From 2010-2012, the value of commercial property in the county jumped from \$64.1 million to \$125.5 million.

For the nine counties where casinos opened at least six years prior to 2006, the valuation of commercial property adjusted for inflation decreased by 2.98% between 2006 and 2012. Three of the nine counties experienced increases in commercial property valuations and six experienced decreases. So, the development of casinos does appear to cause a substantial increase in the value of commercial property in their home counties. However, in most cases that impact is attributed to the direct investment in the casinos and other directly associated facilities. Continued growth in commercial valuations after the startup of new casinos is inconsistent. Regardless the commercial part of the counties' tax bases has been raised to levels substantially higher than they would have been without the casinos. And even with the recession these increased valuations did not erode much.

County Residential Property Valuations

Changes in the valuations for residential property have been analyzed to see to what extent, if any, the development of casinos has spilled over to other development in host counties. In addition, changes in the valuations for residential property in casino counties are compared to changes in the eight non-casino comparison counties and to the state as a whole.

As shown in Table 5.19, statewide the valuation of residential property increased by 6.69% from 2006-2012. The percentage changes for the casino counties and the non-casino comparison counties equaled 5.51% and 6.92%, respectively. Most all of the growth in the non-casino comparison counties occurred in Johnson and Linn counties. Due to growth associated with the University of Iowa, Johnson County escaped much of the 2008-2009 housing-sector-driven recession. In addition, it is likely that rebuilding activity following the devastating flooding of the Cedar and Iowa Rivers during 2008 boosted residential property values in these two counties.

Table 5.19 County Residential Property Valuations

	(\$2012 millions)			
	2006	2012	Change	Percent Change
Casino Counties				
Black Hawk	5,369	5,846	477	8.88%
Clarke	281	300	19	6.76%
Clayton	685	761	76	11.10%
Clinton	1,765	1,843	77	4.37%
Des Moines	1,359	1,417	58	4.23%
Dubuque	4,044	4,536	492	12.17%
Lyon	373	402	29	7.74%
Palo Alto	241	304	62	25.83%
Polk	20,920	21,912	992	4.74%
Pottawattamie	4,149	4,029	-120	-2.89%
Scott	8,051	8,687	636	7.91%
Washington	901	953	51	5.69%
Woodbury	3,297	3,260	-36	-1.11%
Worth	231	267	36	15.47%
Non-Casino Counties				
Cerro Gordo	2,218	2,328	111	4.98%
Delaware	751	815	64	8.49%
Hardin	538	525	-12	-2.27%
Johnson	7,014	7,815	801	11.42%
Linn	10,447	11,187	740	7.09%
Muscatine	1,821	1,828	7	0.38%
Pocahontas	149	155	6	3.73%
Webster	1,225	1,180	-45	-3.64%
	2006	2012	Change	Percent Change
Casino County Totals	51,668	54,516	2,848	5.51%
Non-Casino County Totals	24,163	25,834	1,671	6.92%
State Totals	127,933	136,497	8,564	6.69%
Casino Metro	45,830	48,270	2,440	5.32%
Casino Non-Metro	5,838	6,246	408	6.99%
Non-Casino Metro	17,461	19,003	1,541	8.83%
Non-Casino Non-Metro	6,702	6,832	130	1.94%

Among the casino counties, only Pottawattamie and Woodbury experienced a decrease in the value of residential property. The highest rates of growth among these counties occurred in Palo Alto County (25.83%) and Worth County (15.47%). Casinos opened in both these

counties during the spring of 2006. From 2006-2007, the value of residential property in Palo Alto County jumped by 29.19%, from \$241.3 million to \$311.7 million, after which valuations dropped modestly to \$303.6 million in 2012. Similarly, from 2006-2007 the value of residential property in Worth County jumped by 20.86%, from \$230.9 million to \$279.1 million, after which it dropped back to \$266.7 million in 2012. So, in these two cases it does appear that the opening of new casinos stimulated growth in residential property values for a short time.

A few of the non-casino comparison counties also experienced residential valuation jumps between 2006 and 2007, but not nearly as great as the Palo Alto and Worth County increases. Delaware, Hardin and Muscatine counties experienced residential valuation increases of 11.17%, 4.83%, and 3.76%, respectively in these two years.

City Commercial Property Valuations

Changes in property values in cities provide a sharper focus on the impact of casinos than the prior county level analysis. Of the 18 State-licensed casinos, 15 are located in 12 different cities. The other three casinos are located outside city limits and so are excluded from this analysis.

Commercial property valuations for the 12 casino cities are presented in Table 5.20. In addition, commercial property valuations are presented for 12 non-casino comparison cities. These cities are located in the same counties used for the prior county level comparisons.

For all of the state's cities, commercial property valuations decreased by 0.61% from 2006-2012. Also, commercial property located in the non-casino comparison cities dropped 4.12% in value. But for the casino cities, the value of commercial property grew by 3.11%.

The value of commercial property grew in all except four of the casino cities. The cities that experienced decreases are Burlington (-5.50%), Davenport (-5.63%), Marquette (-22.73%), and Sioux City (-1.28%). Emmetsburg experienced the largest percentage increase in the value of commercial property, with a 40.41% rise over the seven years. This increase clearly reflects the development of the Wild Rose Casino and Resort, which opened in May 2006. From 2006-2007 the value of commercial property in Emmetsburg jumped from \$32.4 million to \$52.5 million.

Table 5.20 City Commercial Property Valuations

	(\$2012 millions)			
Casino Cities	2006	2012	Change	Percent Change
Altoona	359.5	400.9	41.4	11.51%
Bettendorf	519.5	530.2	10.7	2.07%
Burlington	252.1	238.3	-13.9	-5.50%
Clinton	317.2	323.5	6.3	1.98%
Council Bluffs	949.9	1,085.2	135.3	14.25%
Davenport	1,728.5	1,631.3	-97.2	-5.63%
Dubuque	958.7	1,032.7	74.0	7.72%
Emmetsburg	32.4	45.4	13.1	40.41%
Marquette	11.0	8.5	-2.5	-22.73%
Osceola	67.2	72.8	5.6	8.36%
Sioux City	1,108.0	1,093.8	-14.2	-1.28%
Waterloo	855.5	919.9	64.4	7.53%
Non-Casino Cities	2006	2012	Change	Percent Change
Cedar Rapids	2,378.1	2,093.1	-285.1	-11.99%
Coralville	693.7	756.6	62.9	9.06%
Fort Dodge	276.4	246.0	-30.5	-11.02%
Iowa Falls	49.7	42.5	-7.2	-14.52%
Lehigh	0.5	0.5	-0.1	-12.45%
Delaware	44.3	44.5	0.2	0.47%
Marion	302.5	336.6	34.1	11.28%
Mason City	377.3	375.3	-2.0	-0.54%
Muscatine	255.6	249.4	-6.2	-2.41%
North Liberty	146.8	193.7	46.9	31.95%
Pocahontas	13.1	13.2	0.1	0.63%
Thornton	2.5	2.2	-0.3	-11.98%
	2006	2012	Change	Percent Change
Casino County Totals	7,159.4	7,382.4	223.0	3.11%
Non-Casino County Totals	4,540.5	4,353.4	-187.1	-4.12%
State Totals	32,022.3	31,826.1	-196.2	-0.61%
Casino Metro	6,479.5	6,693.9	214.4	3.31%
Casino Non-Metro	680.0	688.6	8.6	1.26%
Non-Casino Metro	3,521.1	3,380.0	-141.2	-4.01%
Non-Casino Non-Metro	1,019.4	973.4	-45.9	-4.51%

Council Bluffs experienced the second-largest percentage increase over the period, equaling 14.25%. Even though the three casinos in the city – Horseshoe, Harrah’s, and Ameristar – all undertook some renovation or expansion work during the period, most of the

commercial property growth can be attributed to other businesses, such as the development of a large Google data center.

Altoona, the home of Prairie Meadows Racetrack and Casino, experienced the third-highest rate of commercial property growth rising from \$359.5 million in 2006 to \$400.9 million in 2012, which equals an 11.51% increase. Here, the racetrack and casino facility has become part of an entertainment and recreation complex that has stimulated the growth of lodging, bar and restaurant, and retail establishments in the surrounding area. For example, just recently plans have been announced for a 75 store upscale outlet mall just west of Prairie Meadows. This type of regional development will draw customers from significant distances beyond Altoona and even the Des Moines Metropolitan Area.

For the non-casino comparison cities, the highest rates of growth in commercial property values occurred in North Liberty (31.95%) and Coralville (9.06%) two fast-growing suburbs of Iowa City, which is the home of the University of Iowa, and in Marion (11.28%), a suburb of Cedar Rapids. The total gain in the value of commercial property in these three cities equals \$143.9 million. However, this gain is dwarfed by the \$285.1 million loss in value suffered by Cedar Rapids, which at least partially occurred as the result of flooding during 2008 that inundated most of the city's downtown. So, no doubt some of the growth of commercial property values in Marion represents a shifting of activity from the flood zone to higher ground.

Outside the four metropolitan area cities, the valuations of commercial property in the eight other comparison cities decreased by \$45.9 million (4.51%) over the seven years. All three of the micropolitan area cities in this group – Fort Dodge (-11.02%), Mason City (-0.54%), and Muscatine (-2.41%) – lost commercial valuation.

City Residential Property Valuations

Similar to the county-level residential property valuation analysis, changes in the valuations of casino host-city residential property were analyzed to look for any evidence that casinos have had spillover impacts on the communities where they are located. As Table 5.21 shows, statewide the value of residential property located within cities increased by 6.11% from 2006-2012. In the non-casino comparison cities, residential valuations increased by 6.87%, while in the casino cities the increase equaled 3.21%.

Similar to the county-level analysis, the four cities located in Johnson and Linn counties – Cedar Rapids, Coralville, Marion, and North Liberty – account for all of the residential property valuation gains. The value of this class of property increased by \$959.1 million (10.49%) in these non-casino metropolitan cities, while the total gain for all 12 non-casino cities

equaled \$844.0 million. For the eight non-casino non-metropolitan cities residential valuations decreased by \$115.1 million (3.66%).

For the six metropolitan area casino cities, residential valuations increased by \$514.4 million (3.17%) and for the six non-metropolitan area casino cities the increase equaled \$65.7 million (3.54%). Among the casino cities the largest percentage gains in residential valuations occurred in Marquette (23.15%), Emmetsburg (22.80%), and Altoona (20.05%). Only in Emmetsburg does the timing of the increase correspond to the opening of a new casino.

Overall, the changes in city residential property valuations do not provide evidence of casino spillover impacts. Both for the casino cities and the non-casino comparison cities changes in residential property valuations are likely driven by factors not related to the presence or absence of casinos.

Local Views on the Economic Impact of Casinos

Statistics only tell part of the story. Assessors, city government officials, and members of civic organizations were contacted to provide local perspective on how casinos have impacted the economies of their cities and counties. These comments are summarized below by county for the casino facilities for which comments were obtained. The comments are provided without attribution because many of those contacted asked that their names not be cited in the report.

Black Hawk County – Isle Casino and Hotel

A water park (Lost Island Water Park) was built adjacent to the casino and hotel. This recreation venue was initially built at the same time as the casino and hotel, but it has been expanded two times since. City officials have seen hotel-motel tax revenues increase significantly since the opening of the Isle complex and not just from the casino hotel. Some of this increase has resulted from other hotels and motels built in the same area as the casino. Also, retail development, particularly in nearby strip shopping centers, has been strong. Casino personnel participate in civic organizations and the Casino serves as the location for the annual Waterloo Area Strictly Business conference.

Table 5.21 City Residential Property Valuations

	(\$2012 millions)			
Casino Cities	2006	2012	Change	Percent Change
Altoona	622.3	747.1	124.8	20.05%
Bettendorf	2,189.3	2,457.0	267.7	12.23%
Burlington	770.4	778.5	8.1	1.05%
Clinton	824.5	848.9	24.4	2.96%
Council Bluffs	2,259.8	2,190.9	-68.9	-3.05%
Davenport	4,025.1	4,067.6	42.5	1.06%
Dubuque	2,190.5	2,339.3	148.7	6.79%
Emmetsburg	102.9	126.3	23.5	22.80%
Marquette	17.1	21.0	4.0	23.15%
Osceola	140.8	146.7	5.8	4.14%
Sioux City	2,488.0	2,408.5	-79.5	-3.20%
Waterloo	2,437.9	2,517.1	79.2	3.25%
Non-Casino Cities	2006	2012	Change	Percent Change
Cedar Rapids	5,903.1	6,169.6	266.5	4.52%
Coralville	1,048.6	1,177.3	128.7	12.27%
Fort Dodge	754.5	686.8	-67.7	-8.97%
Iowa Falls	165.0	158.7	-6.3	-3.79%
Lehigh	10.4	9.5	-0.9	-8.47%
Manchester	186.0	197.6	11.6	6.26%
Marion	1,621.2	1,879.2	258.0	15.92%
Mason City	1,123.6	1,084.3	-39.4	-3.50%
Muscatine	849.5	836.5	-13.0	-1.53%
North Liberty	565.5	871.3	305.8	54.08%
Pocahontas	47.3	49.6	2.3	4.89%
Thornton	11.9	10.0	-1.9	-15.62%
	2006	2012	Change	Percent Change
Casino County Totals	18,068.7	18,648.9	580.1	3.21%
Non-Casino County Totals	12,286.4	13,130.4	844.0	6.87%
State Totals	94,964.2	100,766.6	5,802.5	6.11%
Casino Metro	16,213.0	16,727.4	514.4	3.17%
Casino Non-Metro	1,855.7	1,921.4	65.7	3.54%
Non-Casino Metro	9,138.3	10,097.4	959.1	10.49%
Non-Casino Non-Metro	3,148.1	3,033.0	-115.1	-3.66%

Clarke County – Lakeside Casino and Hotel

Since opening in 2000, the Lakeside Casino and Hotel complex has undergone several improvements and expansions. In 2011, the hotel added 90 rooms onto the existing 60-room facility. The Osceola area now has 400 hotel and motel rooms that average an occupancy rate of around 70%. In 2008, a Walmart Superstore opened in the city. A local economic development corporation stated he believes the existence of the casino influenced this development because Walmart generally does not locate superstores in communities as small as Osceola.

Clayton County – Lucky Lady Casino

This is one of the true remaining riverboat casinos. There is an onshore hotel associated with the casino. This casino is located in a sparsely populated area. Marquette's population equals only 457 and neighboring McGregor has a population of only 855. Nevertheless, local officials indicate the economic impact of the casino has been positive. The casino benefits local businesses by attracting visitors to the area. Also, the casino generously supports local charities and has increased property tax revenue.

Des Moines County – Catfish Bend Casino and Spa

A riverboat casino originally began operating in Burlington in 1994. In 2007 the riverboat was replaced by a land-based casino located just north of the U.S. 34 / U.S. 61 interchange about 2.7 miles from the riverfront. The site of the new casino has attracted other entertainment and recreation enterprises. In addition to the casino and spa there are a retail shopping strip, two hotels, a water park, and a bowling alley. The bowl alley each year hosts a major competition that lasts for 14 weeks. Since the new facility opened, annual tourism spending has increased from \$60 million to \$100 million and hotel occupancy has increased by over 25%. In addition, casino personnel play an activity role in many civic organizations.

Dubuque County – Mystique Racetrack and Casino and Diamond Jo Casino

The Mystique Racetrack and Casino are owned by the City of Dubuque. A privately owned hotel is located adjacent to the casino. Because this facility is publicly owned, it provides a considerable amount of financial resources to the city and local charities. Also, the management of the casino contributes a considerable amount of time to local organizations.

The opening of the Diamond Jo Casino initiated the redevelopment of the Ice Harbor area as an entertainment and recreation district. Adjacent to the casino are The Grand River Convention Center, the Grand Harbor Resort and Water Part, a winery, and the National

Mississippi River Museum and Aquarium.

Polk County – Prairie Meadows Racetrack and Casino

Prairie Meadows and Adventureland Amusement Park serve as the focus of an entertainment, recreation, and retail district in Altoona. Six hotels and motels have located in the area as have over 30 restaurants and bars. According to local chamber of commerce, officials the casino was a major reason Bass Pro Shops chose to locate in the area. City staff is currently reviewing plans for three new restaurants. Recently, a 75-store upscale outlet mall has been announced that will be located next to Bass Pro Shops. Various organizations use the casino facilities for meetings. The management of Prairie Meadows actively participates in a number of civic organizations including the Altoona Chamber of Commerce, Rotary, and the East Polk Regional Development Corporation.

Pottawattamie County – Horseshoe, Harrah's, and Ameristar Casinos

The area where the three casinos are located has become an entertainment and recreation district. Also, located in the area are the Mid-America Center arena, a Bass Pro Shops, at least 10 hotels and motels, and a large number of restaurants. During summer months the lodging places in the area have about an 80% occupancy rate. Management and staff of the different casinos actively participate in local civic organizations.

Scott County – Isle of Capri Casino and Hotel (Bettendorf) and Rhythm City Riverboat (Davenport)

Rhythm City has recently been purchased and will be replaced by a land-based casino north of the city along Interstate 80. The downtown area surrounding the existing casino has seen a variety of redevelopment projects, including the Figge Art Museum, the River Music Museum, a Radisson Hotel, the renovation of the Black Hawk Hotel, and the conversion of numerous industrial buildings into apartments and condominiums.

The Isle of Capri complex has undergone a number of expansions. A hotel was added in 1998 and expanded in 2006. The Quad-Cities Waterfront Convention Center was built next to the casino and is managed by the Isle of Capri. There has not been much in the way of additional restaurant and bar development. The area is currently undergoing a major transformation, as work has begun in preparation for the construction of a new Interstate 74 Mississippi River Bridge just to the west of the casino site.

Washington County – Riverside Casino and Golf Resort

This is one of the newest casino developments in the state, having opened during the summer of 2008. Some new development is planned in the area. A new hotel is under consideration. A 30-unit condominium complex has been built in the area. The casino and golf

course have boosted tourism in the area. This can be seen in the City of Washington and other surrounding communities. Funds received from the casino have helped the City of Riverside improve a city park, city office building, and fire station. The casino's management and staff are actively involved in civic organizations.

Summary of Comments

Uniformly, local officials indicate that the casinos have impacted their local economies positively. In the larger cities, the casinos have helped stimulate the development of other entertainment and recreation venues and supporting businesses like hotels, restaurants, and retail developments. The additional tax revenues and charitable contributions have provided support for improvements to local government facilities and for civic organizations. In most cases the management and staff of the casinos play an activity role in civic organizations.

6. Community Services Impacts

Cities and counties provide a variety of services to their residents and business community. This chapter reviews the extent to which expenditures on major types of community services vary between casino cities and a comparison group of non-casino cities. The comparison cities are the same as used in Chapter 5.

The comparisons focus on four types of services. These are 1) police, 2) fire and emergency medical service (EMS), 3) roads, parking and sidewalks, and 4) capital improvements. Comparisons cover fiscal years 2005-2006 through 2011-2012. All comparisons are made in terms of 2012 constant dollars in order to eliminate the impact of inflation. In addition to the analysis of budget statistics, this analysis involved discussions with a number of city and county government officials.

The first section of this chapter presents the analysis of budget data. The second section summarizes comments and observations obtained from contacts with city and county government officials.

Community Services Budget Impacts

Police Protection Expenditure

Statewide expenditures (expressed in 2012 dollars) by cities on police protection increased by 7.21% from fiscal years 2005-2006 to 2011-2012, from \$380.2 million to \$407.6 million. For the casino cities, the increase equaled 2.15% and for the non-casino comparison cities the increase equaled 18.04%. These cost comparisons are presented in Table 6.1.

Looking at metropolitan and non-metropolitan cities separately reveals that, in percentage terms, police protection costs in the metropolitan area non-casino cities increased by 24.02%, while in metropolitan area casino cities these costs increased by 2.49%. The major driver of the cost increase for the metropolitan area non-casino cities was Cedar Rapids, which accounted for \$7.1 million of the \$8.4 million cost increase. But even excluding Cedar Rapids, police protection costs for the remaining three metropolitan area non-casino cities increased by 14.13%.

The comparison for non-metropolitan area cities reveals that for the casino cities, police protection cost decreased by 0.44% and for the non-casino cities the cost increased by 3.99%

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 6.1 Police Protection Expenditures (\$ 2012)

Casino Cities	FY05-FY06	FY11-FY12	Change	Percent Change
Altoona	2,392,122	2,801,276	409,154	17.10%
Bettendorf	6,317,109	6,126,435	-190,674	-3.02%
Burlington	4,952,492	5,184,389	231,897	4.68%
Clinton	5,543,676	4,849,098	-694,578	-12.53%
Council Bluffs	14,705,438	15,083,291	377,853	2.57%
Davenport	23,373,226	23,216,387	-156,839	-0.67%
Dubuque	10,871,999	12,043,283	1,171,284	10.77%
Emmetsburg	485,355	562,687	77,332	15.93%
Marquette	151,547	166,576	15,029	9.92%
Osceola	737,961	1,056,055	318,094	43.10%
Sioux City	18,368,333	17,501,479	-866,854	-4.72%
Waterloo	14,404,294	15,914,348	1,510,054	10.48%
Non-Casino Cities	FY05-FY06	FY11-FY12	Change	Percent Change
Cedar Rapids	25,850,466	32,957,030	7,106,564	27.49%
Coralville	3,610,708	3,713,254	102,546	2.84%
Fort Dodge	3,158,973	3,747,952	588,979	18.64%
Iowa Falls	1,170,503	1,238,749	68,246	5.83%
Lehigh	6,831	7,952	1,121	16.40%
Manchester	970,445	1,049,076	78,631	8.10%
Marion	4,892,420	5,214,504	322,084	6.58%
Mason City	5,508,520	5,400,883	-107,637	-1.95%
Muscatine	4,044,304	4,010,259	-34,045	-0.84%
North Liberty	576,717	1,434,825	858,108	148.79%
Thornton	5,535	3,249	-2,286	-41.30%
	FY05-FY06	FY11-FY12	Change	Percent Change
Casino Cities	102,303,551	104,505,304	2,201,753	2.15%
Non-Casino Match Cities	49,795,422	58,777,733	8,982,311	18.04%
State Totals	380,212,259	407,637,991	27,425,732	7.21%
Metro Casino Cities	90,432,521	92,686,499	2,253,978	2.49%
Non-Metro Casino Cities	11,871,031	11,818,805	-52,226	-0.44%
Metro Non-Casino Cities	34,930,312	43,319,613	8,389,301	24.02%
Non-Metro Non-Casino Cities	14,865,111	15,458,120	593,009	3.99%

Table 6.2 Police Protection Expenditures per Capita (\$ 2012)

Casino Cities	FY05-FY06	FY11-FY12	Change	Percent Change
Altoona	185.87	181.79	-4.07	-2.19%
Bettendorf	198.33	178.85	-19.48	-9.82%
Burlington	193.85	202.00	8.15	4.21%
Clinton	203.97	181.98	-21.99	-10.78%
Council Bluffs	242.95	242.83	-0.12	-0.05%
Davenport	240.32	229.04	-11.28	-4.69%
Dubuque	189.72	207.09	17.37	9.16%
Emmetsburg	124.67	146.61	21.94	17.59%
Marquette	384.64	364.50	-20.14	-5.24%
Osceola	152.22	209.74	57.52	37.79%
Sioux City	224.31	211.58	-12.73	-5.68%
Waterloo	213.61	233.02	19.41	9.09%
Non-Casino Cities	FY05-FY06	FY11-FY12	Change	Percent Change
Cedar Rapids	209.07	257.24	48.17	23.04%
Coralville	208.19	188.57	-19.63	-9.43%
Fort Dodge	124.33	151.43	27.10	21.79%
Iowa Falls	225.83	240.72	14.89	6.59%
Lehigh	15.35	19.68	4.33	28.22%
Manchester	186.59	204.78	18.19	9.75%
Marion	155.18	145.48	-9.70	-6.25%
Mason City	195.34	194.12	-1.23	-0.63%
Muscatine	178.08	174.45	-3.63	-2.04%
North Liberty	56.25	99.06	42.81	76.10%
Thornton	13.24	7.75	-5.49	-41.44%
	FY05-FY06	FY11-FY12	Change	Percent Change
Casino Cities	217.20	215.94	-1.26	-0.58%
Non-Casino Match Cities	184.20	206.39	22.19	12.05%
State Totals	162.50	167.39	4.89	3.01%
Metro Casino Cities				
Metro Casino Cities	221.03	219.47	-1.56	-0.70%
Non-Metro Casino Cities				
Non-Metro Casino Cities	191.90	191.73	-0.16	-0.08%
Metro Non-Casino Cities				
Metro Non-Casino Cities	191.12	218.63	27.52	14.40%
Non-Metro Non-Casino Cities				
Non-Metro Non-Casino Cities	169.76	178.39	8.63	5.08%

To eliminate the impact of changes in population, police protection costs were also compared on a per capita basis. These comparisons are presented in Table 6.2. For the state as a whole these costs increased only slightly from fiscal years 2005-2006 to 2011-2012, rising

from \$162.50 to \$167.39, or by \$4.89 (3.01%). Police protection cost for casino cities decreased over this period, from \$217.20 to \$215.94, or by \$1.26 (-0.58%). For the non-casino comparison cities, these costs increased from \$184.20 to \$206.39, or by \$22.19 (12.05%).

The per capita comparisons show that at both the beginning and the end of the study period, police protection cost more in the casino cities than in the non-casino comparison cities. For fiscal year 2005-2006, the ratio of these costs for the casino cities relative to the non-casino cities equaled 1.18. However by fiscal year 2011-2012, the ratio dropped to 1.05.

Separating out the metropolitan area cities shows that for the 2005-2006 fiscal year the casino cities spent substantially more on police protection per capita than the non-casino cities (\$221.03 vs. \$191.12), but by fiscal year 2011-2012 the difference almost disappeared (\$219.47 vs. \$218.63).

For the non-metropolitan cities, the difference in police protection expenditures between casino and non-casino cities also decreased during the period, but not by as much. For fiscal year 2005-2006 police protection expenditures per capita in casino cities averaged \$191.90 vs. \$169.76 in non-casino cities. By fiscal year 2011-2012 the difference decreased to \$191.73 vs. \$178.39.

What police protection expenditures reveal is that the presence of casinos do appear to be associated with somewhat higher average expenditures per capita, but that the differences between casino city and non-casino city expenditures is not great and is almost non-existent for metropolitan area cities as of fiscal year 2011-2012.

Fire Protection Expenditures

Statewide expenditures for fire protection (expressed in \$2012) by cities rose from \$207.5 million during fiscal year 2005-2006 to \$219.0 million during fiscal year 2011-2012, or by \$11.4 million (5.54%).

For cities where casinos are located, the percentage increase in fire protection expenditures equaled 4.52% vs. 13.12% in the 12 non-casino comparison cities. Table 6.3 summarizes the changes in fire protection expenditures by city and by various groupings of cities over the study period.

Table 6.3 Fire Protection Expenditures (\$2012)

Casino Cities	FY05-FY06	FY11-FY12	Change	Percent Change
Altoona	715,332	1,109,655	394,323	55.12%
Bettendorf	2,321,148	3,056,779	735,631	31.69%
Burlington	3,605,725	3,705,112	99,387	2.76%
Clinton	3,375,752	3,047,995	-327,757	-9.71%
Council Bluffs	10,393,326	9,580,373	-812,953	-7.82%
Davenport	15,492,586	16,338,154	845,568	5.46%
Dubuque	7,731,835	9,282,226	1,550,391	20.05%
Emmetsburg	38,226	48,866	10,640	27.84%
Marquette	12,516	691	-11,825	-94.48%
Osceola	121,719	85,400	-36,319	-29.84%
Sioux City	13,680,474	13,999,543	319,069	2.33%
Waterloo	10,783,274	11,102,781	319,507	2.96%
Non-Casino Cities	FY05-FY06	FY11-FY12	Change	Percent Change
Cedar Rapids	16,393,900	18,206,064	1,812,164	11.05%
Coralville	856,316	1,208,142	351,826	41.09%
Fort Dodge	2,046,316	2,276,665	230,349	11.26%
Iowa Falls	168,105	114,709	-53,396	-31.76%
Lehigh	8,428	27,661	19,233	228.20%
Manchester	157,773	242,368	84,595	53.62%
Marion	2,822,757	2,986,014	163,257	5.78%
Mason City	3,048,164	2,931,828	-116,336	-3.82%
Muscatine	2,530,358	3,404,243	873,885	34.54%
North Liberty	156,105	474,377	318,272	203.88%
Thornton	19,900	36,344	16,444	82.64%
	FY05-FY06	FY11-FY12	Change	Percent Change
Casino Cities	68,271,914	71,357,575	3,085,661	4.52%
Non-Casino Match Cities	28,208,122	31,908,415	3,700,293	13.12%
State Totals	207,484,829	218,972,860	11,488,031	5.54%
	FY05-FY06	FY11-FY12	Change	Percent Change
Metro Casino Cities	61,117,975	64,469,511	3,351,536	5.48%
Non-Metro Casino Cities	7,153,938	6,888,064	-265,874	-3.72%
	FY05-FY06	FY11-FY12	Change	Percent Change
Metro Non-Casino Cities	20,229,078	22,874,597	2,645,519	13.08%
Non-Metro Non-Casino Cities	7,979,044	9,033,818	1,054,774	13.22%

For the metropolitan area casino cities, fire protection expenditures increased by 5.48%, but for the non-metropolitan area casino cities fire protection costs decreased by 3.72%. For the non-casino comparison cities location did not have much impact on the rate of change in

fire protection costs over the seven fiscal years. In the four metropolitan area non-casino cities expenditures increased by 13.08% and for the eight non-metropolitan area non-casino cities the percentage increase equaled 13.22%

Looking at fire protection expenditures on a per-capita basis shows that there exists a substantial difference between the casino cities and the non-casino cities. For fiscal year 2005-2006, the average for the casino cities equaled \$144.95 compared to \$104.35 for the non-casino cities. For fiscal year 2011-2012, the average for the casino cities equaled \$147.45 compared to \$112.04 for the non-casino cities. See Table 6.4.

Making a distinction between metropolitan areas and non-metropolitan areas the difference persists. For the metropolitan area casino cities, the average fire protection expenditure per capita equaled \$149.38 for the 2005-2006 fiscal year and rose to \$152.66 for the 2011-2012 fiscal year. For the metropolitan area non-casino cities the comparable amounts equaled \$110.68 during fiscal year 2005-2006 and \$115.45 during fiscal year 2011-2012.

For non-metropolitan area casino cities fire protection costs per capita decreased from \$115.64 during fiscal year 2005-2006 to \$111.74 during fiscal year 2011-2012. For the non-metropolitan area non-casino cities, fire protection costs per capita increased from \$91.12 during fiscal year 2005-2006 to \$104.25 during fiscal year 2011-2012.

So, both at the beginning and the end of the study period fire protection expenditures per capita in casino cities are greater than in non-casino cities. This is likely not just coincidence. A couple of city-pair comparisons support this view. First, Altoona and West Liberty are similarly sized cities that are suburbs and growing at about the same rate. Altoona covers 9.35 square miles and has a population of 15,409, while North Liberty covers 7.83 square miles and has a population of 14,485. During fiscal year 2011-2012, Altoona spent \$72.01 per capita on fire protection, while North Liberty spent only \$32.75 per capita.

Second, Waterloo and Cedar Rapids are two of Iowa's major manufacturing centers. Waterloo covers 63.23 square miles and has a population of 68,297 and Cedar Rapids covers 72.07 square miles and has a population of 128,119. During fiscal year 2011-2012 Waterloo spent \$162.57 per capita on fire protection, while Cedar Rapids spent \$142.10 per capita.

Table 6.4 Fire Protection Expenditures per Capita (\$2012)

Casino Cities	FY05-FY06	FY11-FY12	Change	Percent Change
Altoona	55.58	72.01	16.43	29.56%
Bettendorf	72.87	89.24	16.36	22.45%
Burlington	141.14	144.36	3.23	2.29%
Clinton	124.20	114.38	-9.82	-7.91%
Council Bluffs	171.71	154.24	-17.47	-10.18%
Davenport	159.29	161.18	1.89	1.19%
Dubuque	134.92	159.61	24.69	18.30%
Emmetsburg	9.82	12.73	2.91	29.67%
Marquette	31.77	1.51	-30.26	-95.24%
Osceola	25.11	16.96	-8.15	-32.44%
Sioux City	167.06	169.24	2.18	1.31%
Waterloo	159.91	162.57	2.66	1.66%
Non-Casino Cities	FY05-FY06	FY11-FY12	Change	Percent Change
Cedar Rapids	132.59	142.10	9.52	7.18%
Coralville	49.38	61.35	11.98	24.26%
Fort Dodge	80.54	91.98	11.44	14.21%
Iowa Falls	32.43	22.29	-10.14	-31.27%
Lehigh	18.94	68.47	49.53	261.51%
Manchester	30.34	47.31	16.97	55.96%
Marion	89.53	83.31	-6.23	-6.95%
Mason City	108.09	105.37	-2.72	-2.52%
Muscatine	111.42	148.09	36.67	32.91%
North Liberty	15.23	32.75	17.52	115.10%
Thornton	47.61	86.74	39.13	82.20%
	FY05-FY06	FY11-FY12	Change	Percent Change
Casino Cities	144.95	147.45	2.50	1.72%
Non-Casino Match Cities	104.35	112.04	7.70	7.37%
State Totals	88.68	89.92	1.24	1.40%
	FY05-FY06	FY11-FY12	Change	Percent Change
Metro Casino Cities	149.38	152.66	3.28	2.19%
Non-Metro Casino Cities	115.64	111.74	-3.90	-3.37%
	FY05-FY06	FY11-FY12	Change	Percent Change
Metro Non-Casino Cities	110.68	115.45	4.77	4.31%
Non-Metro Non-Casino Cities	91.12	104.25	13.13	14.41%

There are possible explanations for fire protection expenditures being higher in casino cities than in non-casino cities. First, cities with casinos and other entertainment businesses likely experience higher numbers of emergency medical service calls than do cities without such

businesses. Second, cities with casinos and other entertainment businesses often require types of equipment and training not required in cities without such businesses.

Road, Parking, and Sidewalk Expenditures

Statewide road and related expenditures (expressed in \$2012) by cities increased by 5.03% from fiscal year 2005-2006 to 2011-2012 from \$223.0 million to \$234.3 million. For cities with casinos these types of expenditures decreased by 15.07%, while for the 12 non-casino comparison cities these expenditures increased by 30.03%. Table 6.5 shows road and related expenditures for each of the casino and non-casino comparison cities for fiscal years 2005-2006 and 2011-2012, plus expenditure changes and percent changes between the two fiscal years.

Among the casino cities, Davenport accounted for all of the decrease. Removing this city's expenditures results in only a 1.08% increase for the other 11 casino cities. Similarly, for the non-casino cities North Liberty distorts the comparison. Removing this city from the comparison reduces the growth of road and related expenditures for the remaining 11 non-casino cities to 5.85% over the seven fiscal years.

Due to the unusual changes in expenditures in Davenport and North Liberty, the comparison between the metropolitan area groups is not meaningful. However, the non-metropolitan area comparisons do not suffer from any significant distortions. For the non-metropolitan area casino cities road and related expenditures increased by 7.07% over the seven years, while for the non-metropolitan area non-casino cities the percentage increase in expenditures equaled 14.09%.

Excluding Davenport and North Liberty, road and related expenditures per capita for casino cities exceed similar expenditures in non-casino cities. During fiscal year 2005-2006 per capita expenditures for casino cities equaled \$84.69 vs. \$67.88 for non-casino cities. Similarly, during fiscal year 2011-2012 the comparison is \$83.62 for casino cities vs. \$69.13 for non-casino cities.

Table 6.5 Roads, Parking & Sidewalks Expenditures (\$2012)

Casino Cities	2005-2006	2011-2012	Change	Percent Change
Altoona	893,251	858,011	-35,240	-3.95%
Bettendorf	1,188,059	915,370	-272,689	-22.95%
Burlington	1,837,562	1,334,436	-503,126	-27.38%
Clinton	1,685,313	2,484,376	799,063	47.41%
Council Bluffs	2,847,872	2,326,946	-520,926	-18.29%
Davenport	11,081,903	4,300,476	-6,781,427	-61.19%
Dubuque	4,072,277	3,881,520	-190,757	-4.68%
Emmetsburg	493,891	634,210	140,319	28.41%
Marquette	159,163	90,595	-68,568	-43.08%
Osceola	604,847	574,938	-29,909	-4.94%
Sioux City	4,495,995	4,205,899	-290,096	-6.45%
Waterloo	13,372,680	14,685,949	1,313,269	9.82%
Non-Casino Cities	2005-2006	2011-2012	Change	Percent Change
Cedar Rapids	9,633,906	10,430,633	796,727	8.27%
Coralville	874,516	934,063	59,547	6.81%
Fort Dodge	969,943	1,050,071	80,128	8.26%
Iowa Falls	388,543	485,447	96,904	24.94%
Lehigh	63,826	94,352	30,526	47.83%
Manchester	621,566	579,948	-41,618	-6.70%
Marion	2,541,010	2,068,066	-472,944	-18.61%
Mason City	1,445,250	1,662,707	217,457	15.05%
Muscatine	1,073,658	1,326,734	253,076	23.57%
North Liberty	905,260	5,447,329	4,542,069	501.74%
Thornton	41,445	53,644	12,199	29.43%
	FY05-FY06	FY11-FY12	Change	Percent Change
Casino Cities	42,732,812	36,292,726	-6,440,086	-15.07%
Non-Casino Match Cities	18,558,924	24,132,994	5,574,070	30.03%
State Totals	223,039,188	234,262,815	11,223,627	5.03%
Metro Casino Cities	37,952,037	31,174,171	-6,777,866	-17.86%
Non-Metro Casino Cities	4,780,776	5,118,555	337,779	7.07%
Metro Non-Casino Cities	13,954,692	18,880,091	4,925,399	35.30%
Non-Metro Non-Casino Cities	4,604,232	5,252,903	648,671	14.09%

Capital Project Expenditures

Statewide capital project expenditures (expressed in 2012 dollars) by cities grew by 28.63% between fiscal year 2005-2006 and fiscal year 2011-2012. For casino cities, this category

of expenditures increased by 13.62%, while for the non-casino comparison cities capital project expenditures jumped by 136.90%. Table 6.6 summarizes capital project expenditures for each casino city and each non-casino comparison city, as well as for different aggregations of these groups of cities.

Capital project expenditures can be erratic. Cities often accumulate funds for a number of years leading up to making a big investment. Also, not all cities follow the same budgeting practices. Some cities follow a conservative, pay-as-you-go strategy, while other cities issue bonds to borrow funds needed to make capital investments that are needed immediately but that will have a long-term useful life. Recoveries from natural disasters can also cause large fluctuations in capital project expenditures.

Cedar Rapids, one of the non-casino comparison cities, experienced a \$142.1 million (629.13%) jump in capital expenditures between fiscal year 2005-2006 and fiscal year 2011-2012. This exceptional increase most certainly relates to recovery and rebuilding efforts following the devastating floods of 2008. The big jump came between fiscal year 2007-2008, when capital expenditures equaled \$33.6 million, and fiscal year 2008-2009, when capital expenditures equaled \$167.8 million. Within a few years, capital expenditures in Cedar Rapids are likely to fall back to near the pre-flood level.

Excluding Cedar Rapids from the comparison cities group reduces the rate of capital expenditure growth between fiscal years 2005-2006 and 2011-2012 to 15.83%, which is only slightly higher than the growth rate for the casino cities. Also, excluding Cedar Rapids from the group of metropolitan area non-casino cities brings this subgroup's growth rate down to 15.76% from 170.71%. In comparison, the growth rate for the metropolitan area casino cities equals 22.43%.

For the non-metropolitan area subgroups capital expenditures decreased by 27.26% for the casino cities and increased by 16.02% for the non-casino comparison cities. Relatively large drops in capital spending in Clinton and Osceola drove down the growth rate for the casino cities. On the other hand, relatively large increases in capital spending by Fort Dodge, Iowa Falls, and Muscatine drove up the growth rate for the non-casino cities.

Capital project expenditures per capita, excluding Cedar Rapids for the non-casino group, reveal that during both the 2005-2006 and the 2011-2012 fiscal years much higher levels of spending in the non-casino cities than in the casino cities. During fiscal year 2005-2006 capital project expenditures in the casino cities equaled \$357.39 per capita vs. \$625.80 per capita in the non-casino comparison cities.

Table 6.6 Capital Project Expenditures (\$2012)

Casino Cities	2005-2006	2011-2012	Change	Percent Change
Altoona	4,388,442	1,229,017	-3,159,425	-71.99%
Bettendorf	9,612,357	13,854,684	4,242,327	44.13%
Burlington	8,401,910	8,820,883	418,973	4.99%
Clinton	13,692,167	8,206,346	-5,485,821	-40.07%
Council Bluffs	16,794,894	21,841,438	5,046,544	30.05%
Davenport	36,025,396	38,425,489	2,400,093	6.66%
Dubuque	25,875,248	40,877,956	15,002,708	57.98%
Emmetsburg	2,009,384	2,099,133	89,749	4.47%
Marquette	972,113	1,339,348	367,235	37.78%
Osceola	4,777,506	1,248,400	-3,529,106	-73.87%
Sioux City	32,579,604	31,821,949	-757,655	-2.33%
Waterloo	13,201,968	21,490,763	8,288,795	62.78%
Non-Casino Cities	2005-2006	2011-2012	Change	Percent Change
Cedar Rapids	22,579,010	164,631,089	142,052,079	629.13%
Coralville	58,541,955	64,205,983	5,664,028	9.68%
Fort Dodge	6,081,023	11,841,096	5,760,073	94.72%
Iowa Falls	1,972,615	3,312,966	1,340,351	67.95%
Lehigh	0	0	0	0.00%
Manchester	3,258,710	1,425,512	-1,833,198	-56.26%
Marion	8,257,496	10,630,797	2,373,301	28.74%
Mason City	10,046,450	7,509,173	-2,537,277	-25.26%
Muscatine	3,638,717	4,912,814	1,274,097	35.01%
North Liberty	0	2,489,975	2,489,975	0.00%
Thornton	342	0	-342	-100.00%
	2005-2006	2011-2012	Change	Percent Change
Casino Cities	168,330,990	191,255,406	22,924,416	13.62%
Non-Casino Match Cities	114,376,319	270,959,405	156,583,086	136.90%
State Totals	732,082,455	941,679,324	209,596,869	28.63%
Metro Casino Cities	138,477,910	169,541,296	31,063,386	22.43%
Non-Metro Casino Cities	29,853,080	21,714,110	-8,138,970	-27.26%
Metro Non-Casino Cities	89,378,461	241,957,844	152,579,383	170.71%
Non-Metro Non-Casino Cities	24,997,858	29,001,561	4,003,703	16.02%

During fiscal year 2011-2012, the comparable amounts equal \$395.19 per capita for the casino cities and \$678.66 per capita for the non-casino cities. Looking at metropolitan area and non-metropolitan area cities separately shows that capital expenditures per capita in the metropolitan area non-casino cities, even when Cedar Rapids is excluded, far exceed the level of these expenditures in the metropolitan area casino cities.

For the non-metropolitan areas, the comparison is reversed. For fiscal year 2005-2006, capital project expenditures in the non-metropolitan area casino cities equaled \$482.58 per capita vs. \$285.48 per capita for the non-casino cities. For fiscal year 2011-2012 the per capita expenditure amounts were nearly equal at \$352.36 for the casino cities and \$334.68 for the non-casino cities.

Summary of Budget Analysis Findings

Expenditures by casino cities for police and fire protection were found to be slightly higher on a per-capita basis than for non-casino cities. However, per-capita expenditures for transportation infrastructure and other capital projects were found to often be higher in the non-casino cities.

The variability in expenditures for local government services among the casino cities is certainly due to factors beyond what extra services may be required by casino facilities and their patrons. However, logical arguments can be made that at least some additional costs are incurred by city governments due to the location of casinos. On the other hand, these cities receive a share of casino taxes and additional property taxes as compensation for the additional costs.

Considering just police and fire services for fiscal year 2011-2012 provides a sense of the extent to which taxes paid by the casinos to cities are adequate to cover additional city services costs arising from their presence. Compared to the non-casino comparison cities police protection cost on average \$9.55 more per capita in the casino cities. For fire protection, the cost per capita in the casino cities was \$35.41 more than in the non-casino comparison cities.

This roughly means that police services for the casino cities costs about \$4.6 million more and that fire protection costs about \$17.1 million more than if the casino cities experienced the same average costs as in the non-casino comparison cities. On the other hand, the casino cities during fiscal year 2011-2012 received \$5.8 million in wagering taxes and another \$8.9 million in property tax directly attributable to the casino facilities.

This comparison seems to imply there is a revenue deficit associated with the casinos. However, while the wagering tax and property tax numbers can be directly tied to the casinos, the additional police and fire protection costs experienced by casino cities no doubt are due to factors other than the presence of the casinos. A much more in depth analysis is required to determine to what extent the presence of casinos results in increased city services costs.

Summary of Comments from Local Officials

Police Protection

Comments from seven high level law enforcement officials reveal that the presence of casinos has not resulted in increased crime.

Fire Protection and EMS Services

Each county collects and manages its own data regarding emergency-services calls. No statewide data are collected, and as such the Research Team did not attempt statistical comparisons to avoid discrepancies in data, methodology and/or availability among the subject cities and counties. Comments from seven city administrators and public safety officials reveal that the presence of casinos has often resulted in an increased demand for emergency medical services. Most of those that indicated the casinos have generated an increase in EMS calls are officials from non-metropolitan cities and counties.

Traffic and Transportation Services

About half of the communities contacted indicated that the casinos have resulted in increased traffic in the surrounding area, especially when special events are scheduled. However, the view of community officials is that the increased traffic is a good thing. Also, they generally responded that there has not been much impact on road repair and maintenance expenditures.

7. Impact of Casino Gambling on Crime

Methodology

The Research Team analyzed Uniform Crime Reports (“UCR”), prepared by the Iowa Department of Public Safety (“DPS”), to address the issue of “criminal activity in casino communities and elsewhere in Iowa.” We reviewed, depending upon availability, reports from 2006 through 2013 to measure criminal activity in casino counties as well as for a group of non-casino counties that we determined to be demographically similar to the casino counties. We did not include counties with Indian casinos.

In some cases, only a limited number of years were available for review. Reports for 2006 through 2009 were posted on the DPS website. Relevant information for the years 2010 and 2011 (the most recent year for which data were available) were supplied to the Research Team by the Iowa Division of Criminal and Juvenile Justice Planning and Statistical Analysis Center.

UCR reports measure rates in terms of offenses committed per 100,000 residents. The number of offenses committed is divided into a county’s population and that figure is then multiplied by 100,000. We used population figures from the U.S. Census Bureau.

We developed a crime rate for the casino counties, the non-casino counties, and the state as a whole. We computed an average for the six-year period ending in 2011 for each UCR offense.

- The casino counties included: Black Hawk, Clarke, Clayton, Clinton, Des Moines, Dubuque, Palo Alto, Polk, Pottawattamie, Scott, Woodbury, and Worth. Lyon and Washington counties were not included because jurisdictions in those counties did not submit reports to the State. We note that in 2006 and 2007, Black Hawk County was a control county, as its casino in Waterloo did not open until 2008.
- The non-casino counties included: Cerro Gordo, Delaware, Hardin, Linn, Muscatine, Pocahontas, Wapello, and Webster.

We analyzed the total rate for Category A crimes, which consist of 47 offenses that range from murder to rape to credit card fraud. The six offenses that we analyzed separately were robbery, simple assault, burglary/breaking and entering, larceny, motor vehicle theft and embezzlement. We selected those six index offenses (among the 47 indexed) as being the most relevant for casino communities. We also examined arrest rates for driving under the influence and domestic abuse.

Summary

In terms of criminal activity inside Iowa casinos, Iowa's Division of Criminal Investigation conducted 209 felony investigations in FY 2013 and made 105 felony arrests. Nearly half of the arrests inside Iowa casinos involved forgeries and theft. The state Division of Criminal Investigation investigates all criminal activity in Iowa casinos.

In comparing overall crime rates in a casino community vs. a similar non-casino community, we found, for the most part, that crime rates, including overall rates, were routinely higher, and in some cases, significantly higher, than the rates for the state as a whole and for the non-casino counties. However, the higher rates do not necessarily imply a connection between the presence of casinos and higher crime rates. To make such a determination, if one can be made, would require a separate, more detailed study about the causes and relationship between casinos and crime. As noted in Chapter 1, the evidence reported in academic research papers (nationally and in other jurisdictions) appears to be split; about half of papers suggest that casinos exacerbate crime, on net, while the other half finds no statistically significant impact.

A chief reason for higher crime rates in casino counties, also as noted in Chapter 1, is that the rates are not adjusted for the visitor populations. Casinos can attract thousands of patrons daily – many of whom live outside the host county or outside of Iowa – but the crime rates are calculated in proportion to the resident population, not the resident-plus-visitor population. New Jersey, for instance, has recognized since 1998 that municipalities with high population increases due to special events or commuters or with high seasonal populations may show a higher crime rate than may be normal for municipalities their size. Such a municipality's population is increased to take into account the visitor influx. The result is a lower crime rate than if no adjustment were made.⁵⁰ Iowa makes no such adjustment.

Indeed, that is an important consideration. In addition to such adjustments, a detailed study as suggested would also have to separate out crimes of opportunity, which would be those crimes related to casino cheating and other crimes directly related to the nature of gambling. Additionally, crimes committed by problem gamblers, such as embezzlements, would also need to be considered. As we noted in our 2013 Florida report: "It is difficult to predict whether or not the increased crime committed by disordered gamblers has a meaningful impact on overall crime rates, since disordered gamblers make up such a small portion of the population. Aside from that, as noted above, results from crime rate studies are inconclusive as

⁵⁰ New Jersey State Police Uniform Crime Reporting Unit, 2010, http://www.njsp.org/info/ucr2010/pdf/2010_uniform_crime_report.pdf.

a group. Nevertheless, the literature seems to confirm that problem gamblers are more likely to engage in crimes than non-problem gamblers.”⁵¹

Another reason for the higher crime rates in Iowa casino counties may be due to the fact that six of the 14 casino counties were urban in nature. Generally, urban areas have higher crime rates than non-urban areas, and that is true for Iowa. In 2009, for example, the UCR report shows that cities with a population in excess of 50,000 had an overall crime rate of 10,136 offenses per 100,000 population. That figure is 68% higher than the 6,037 rate for cities with a population of between 25,000 and 50,000.⁵²

We took a closer look at Black Hawk County, whose Isle Casino Hotel Waterloo opened June 30, 2007. We compared crime rates for the two calendar years prior to the opening of the casino (2005 and 2006) with rates for two years after the casino opened (2008 and 2009). We found that rates declined in four of the categories analyzed separately and increased in another four. The overall rate for Category A offenses declined 6%. Captain Tim Pillack of the Waterloo Police Department told the Research Team in a March 18, 2014, interview that the Waterloo casino has had minimal impact on his police department. In fact, he said, the department benefitted from a grant from the Black Hawk County Gaming Commission that was used to enhance communications equipment in patrol cars.

Polk County Attorney John Sarcone noted that law enforcement agencies do not routinely track whether an offense was related to casino activity and even if they did, the conclusion would be subjective.

The Research Team did find that casino counties had a much higher embezzlement rate than non-casino counties and the state as a whole. The casino counties had a 17.1 rate, compared to 9.5 for the state as a whole and 5.5 for the non-casino counties.

Polk County Attorney John Sarcone said his office does not track embezzlements related to casino gambling. He suspects that other county attorneys in Iowa also do not track such activity, and as we noted earlier, such crimes may be related in certain instances to problem gambling.

Overall Crime Rate (Category A Offenses)

The casino counties in Iowa had much higher rates than the non-casino counties and the state. The six-year average for the casino counties was 8,239.2 (offenses per 100,000

⁵¹ Spectrum Florida Study, p. 192

⁵² Iowa Department of Public Safety, *2009 Iowa Uniform Crime Report*, p. 115.

population), which was 34% higher than the rate for the non-casino counties and 42% higher than the statewide number.

The number for the casino counties was significantly higher than the non-casino counties and the state for each of the six years we analyzed. We note, though, that the rate from 2006 to 2011 declined by 30% for the casino counties, by 34% for the non-casino counties, and by 16% for the state.

For Black Hawk County, we examined the rate for the two calendar years prior to the opening of the Isle of Capri (2005 and 2006) and compared it to the two calendar years (2008 and 2009) after it opened. The rate declined by 6%, from 8,870.5 to 8,325.7.

Crime Rate by Type

Next, we examine Category A Offenses by type, focusing on robbery, simple assault, burglary/breaking and entering, larceny, motor vehicle theft, and embezzlement. As noted earlier, we selected those index offenses (among the 47 indexed) as being the most relevant for casino communities. We also examined arrest rates for driving under the influence and domestic abuse.

Robbery

The casino counties had much higher rates for robberies than the non-casino counties as well as for the state as a whole. The casino-county six-year average was 75.3, which was 96% higher than the rate for the non-casino counties and 88% higher than the statewide number. The number for robberies was significantly higher for casino counties than it was for the state and non-casino counties in each of the six years we analyzed from 2006 to 2011.

The rate from 2006 to 2011 declined by 45% for the casino counties, which is much higher than the percentage reduction for the state (34%) and the non-casino counties (27%).

For Black Hawk County, the two-year rate after Isle of Capri Waterloo opened increased by 55%, from 70.3 to 109, vs. the two years before opening.

Simple Assault

The casino counties had much higher rates for simple assaults than the non-casino counties as well as for the state as a whole. The six-year average for casino counties was 1,045.2, which was 62% higher than the rate for the non-casino counties and 53% higher than the statewide number. The number was significantly higher in each of the six years we analyzed.

The rate from 2006 to 2011 declined by 18% for the casino counties, which is higher than the percentage decline for the state (12%) and the non-casino counties (6%).

For Black Hawk County, the two-year rate after Isle of Capri Waterloo opened increased by 16%, from 849 to 981.1, vs. the two years before opening.

Burglary, Breaking and Entering

The casino counties had higher rates for burglary/breaking and entering than the non-casino counties and the state as well. The casino-county six-year average was 736.1, which was 18% higher than the rate for the non-casino counties and 25% higher than the statewide number. The number was higher in each of the six years we analyzed, although there was a negligible difference between the casino and non-casino counties in 2006.

The rate from 2006 to 2011 declined by 20% for the casino counties, which is higher than the percentage reduction for the state (6%) and but not as much as the reduction for the non-casino counties (25%).

For Black Hawk County, the two-year rate after Isle of Capri Waterloo opened declined by 12%, decreasing from 886.9 to 783, vs. the two years before opening.

Larceny

The casino counties had higher rates for larceny than the non-casino counties and the state as well. The six-year casino-county average was 1,067, which was 16% higher than the rate for the non-casino counties and 26% higher than the statewide number. The number was higher in five of the six years we analyzed when compared with non-casino counties and was higher than the statewide average in each of the six years.

The rate from 2006 to 2011 declined by 50% for the casino counties, which is higher than the percentage reduction for the state (33%) and for the non-casino counties (44%).

For Black Hawk County, the two-year rate after Isle of Capri Waterloo opened declined by 16%, decreasing from 724 to 604.9, vs. the two years before it opened.

Motor Vehicle Theft

The casino counties had much higher rates for motor vehicle theft than the non-casino counties as well as for the state as a whole. The casino-county six-year average was 241.1, which was 64% higher than the rate for the non-casino counties and 58% higher than the statewide number. The number was significantly higher in each of the six years for the non-casino counties and the state of Iowa.

The rate from 2006 to 2011 declined by 34% for the casino counties, which is higher than the percentage reduction for the state (22%) and the non-casino counties (21%).

For Black Hawk County, the two-year rate after Isle of Capri Waterloo opened declined by 6%, decreasing from 176.6 to 165.8, vs. the two years before it opened.

Embezzlement

The casino counties had significantly higher rates for embezzlement than the non-casino counties and the state as well. The casino-county six-year average was 17.1, which was 212% higher than the rate for the non-casino counties (5.5) and 81% higher than the statewide number (9.5). The number was higher in each of the six years we analyzed for both non-casino counties and the state. (See separate discussion of embezzlement below.)

The rate from 2006 to 2011 declined by 48% for the casino counties, which is higher than the percentage reduction for the state (33%) and for the non-casino counties (44%).

For Black Hawk County, the two-year rate after Isle of Capri Waterloo opened rate (25.7) stayed the same vs. the two years before it opened.

Driving Under the Influence

Driving under the influence was an area in which the non-casino counties had the highest rate, although it was just slightly higher than the rate for the casino counties. The rate for the casino counties was 484.4, and 496.4 for the non-casino counties. The statewide average rate was 479.4, 1% lower than the county rate.

The rate from 2006 to 2011 declined by 12% for the casino counties, 31% for the non-casino counties and 13% for the state.

For Black Hawk County, the two-year rate after Isle of Capri Waterloo opened decreased by 5%, falling from 278.9 to 274.6, vs. the two years before it opened.

Domestic Abuse

The casino counties had highest rates for domestic abuse. The casino-county six-year average was 298, which was 10% higher than the rate for the non-casino counties and 25% higher than the statewide number. The number was higher in five of the six years we analyzed for both non-casino counties and the state.

The rate from 2006 to 2011 declined by 19% for the casino counties, which compares to a 26% reduction for the non-casino counties and a 5% reduction for the state as a whole.

For Black Hawk County, the two-year rate after Isle of Capri Waterloo opened declined from 278 to 274, a reduction of 2%, vs. the two years before it opened. (See Chapter 9 for further discussion of domestic abuse.)

Summary

Table 7.1 summarizes the rates for the selected index crimes at the casino-county, non-casino-county and state levels.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 7.1 Iowa selected UCR Index Crime Rates, Casino Counties, Non-Casino Counties, State

							2006-2011 period		
Rate for ...	2006	2007	2008	2009	2010	2011	Avg.	Change	How much higher /lower were casino counties?
Crime Rate (Category A Offenses)									
Casino counties	10,131.8	9,034.7	8,181.1	7,395.8	7,638.4	7,053.5	8,239.2	-30%	
Non-Cas. counties	8,906.0	6,452.0	3,864.8	6,035.7	5,731.8	5,871.5	6,143.6	-34%	34%
Iowa	6,570.5	6,059.5	5,714.9	5,539.3	5,346.8	5,504.3	5,789.2	-16%	42%
Robberies									
Casino counties	93.3	86.2	80.0	77.0	63.8	51.3	75.3	-45%	
Non-Cas. counties	41.8	45.8	29.2	40.7	41.8	30.5	38.3	-27%	96%
Iowa	45.8	45.0	42.9	42.3	34.4	30.3	40.1	-34%	88%
Simple Assaults									
Casino counties	1,185.2	1,056.9	1,013.5	1,015.7	1,031.8	967.8	1,045.2	-18%	
Non-Cas. counties	705.6	739.7	443.3	670.4	657.6	663.5	646.7	-6%	62%
Iowa	738.7	699.5	677.5	660.9	679.8	650.4	684.5	-12%	53%
Burglary, Breaking and Entering									
Casino counties	854.2	785.7	708.8	668.2	720.0	679.8	736.1	-20%	
Non-Cas. counties	851.5	661.4	417.9	537.2	639.5	638.0	624.3	-25%	18%
Iowa	608.4	564.3	541.3	696.8	541.5	569.9	587.0	-6%	25%
Larceny									
Casino counties	1,706.1	1,164.7	1,116.9	802.9	760.5	855.6	1,067.8	-50%	
Non-Cas. counties	1,374.7	1,266.4	666.3	655.3	768.6	773.4	917.4	-44%	16%
Iowa	1,044.2	970.9	830.6	904.1	623.7	697.5	845.2	-33%	26%
Motor Vehicle Theft									
Casino counties	309.3	277.2	227.3	228.9	199.3	204.5	241.1	-34%	
Non-Cas. counties	173.0	182.4	117.6	136.1	137.0	136.4	147.1	-21%	64%
Iowa	178.9	170.4	151.6	147.1	130.7	139.5	153.0	-22%	58%
Embezzlement									
Casino counties	24.1	22.0	20.8	8.5	14.9	12.5	17.1	-48%	
Non-Cas. counties	13.0	2.2	1.4	9.1	2.1	5.3	5.5	-60%	212%
Iowa	12.2	11.3	11.2	3.7	8.5	9.9	9.5	-19%	81%
Domestic Abuse									
Casino counties	357.6	264.3	295.6	303.9	276.5	290.2	298.0	-19%	
Non-Cas. counties	351.4	276.1	187.2	279.0	263.7	261.2	269.8	-26%	10%
Iowa	243	229.1	219.8	242	263.7	231.2	238.1	-5%	25%
Driving Under the Influence									
Casino counties	484.7	475.6	503.2	523.9	494.3	424.7	484.4	-12%	
Non-Cas. counties	673.8	576.2	349.6	463.1	447.3	468.3	496.4	-31%	-2%
Iowa	484.7	482.6	477.8	577.9	429.5	424.1	479.4	-13%	1%

Source: Iowa Department of Public Safety

Arrest Rates

In addition to examining criminal offenses, the Research Team analyzed Uniform Crime Reports (“UCR”), prepared by the Iowa Department of Public Safety, for arrest rates at the county level. We reviewed reports from 2006-2011 (the latest year available) to measure the arrest rates in casino counties and in our non-casino counties. Reports for 2006-2009 were posted on the agency’s website, and data for 2010-2011 were supplied to the Research Team by the Iowa Division of Criminal and Juvenile Justice Planning and Statistical Analysis Center.

We found that casino counties had an average arrest rate for the five years ending 2011 that was 3% higher than the non-casino counties. The non-casino counties had higher rates in 2006, 2007 and 2011. The casino counties had higher rates in 2008, 2009 and 2010. We note that the arrest rate findings are in sharp contrast to total offenses committed, as we found that casino counties (as noted in the subchapter above), for the most part, had higher rates than the non-casino counties when offenses-only were analyzed.

The arrest rates, as would be expected, are far lower than the offense rate. The FBI, which administers the UCR program across the country, cautions against using arrest data to compare one area against another, noting that a number of factors could skew the rates, such as the effective strength of law enforcement agencies, the policies of other components of the criminal justice system (i.e., prosecutorial, judicial, correctional, and probational), and the crime-reporting practices of law enforcement agencies.⁵³

Indeed, during our research, we found that Clayton and Washington counties did not report arrest and offense information to the state UCR office for each of the years we reviewed. As a result, we did not include them in our analysis and we therefore provide collective averages for the 12 casino counties and eight non-casino counties.

⁵³ See <http://www.fbi.gov/about-us/cjis/ucr/ucr-statistics-their-proper-use>, Accessed May 6, 2014

Table 7.2 Iowa UCR Average Arrest Rates per 100,000 Residents, 2006-2011

Crime Rate (Category A Offenses)	2006	2007	2008	2009	2010	2011	Average for 2006-2011	% change from 2006 to 2011	How much higher /lower were casino counties?
Casino Counties	1,951.5	2,238.0	2,131.4	2,171.3	2,148.6	2,089.6	2,121.7	7%	
Non-Casino Counties	2,230.0	2,569.7	1,354.7	2,054.0	1,977.1	2,140.9	2,054.4	-4%	3%
Statewide	1,558.5	1,651.5	1,563.5	1,613.9	1,603.4	1,656.1	1,607.8	6%	32%

Source: Iowa Department of Public Safety

Illegal Gambling, Gambling by Minors

Our study found no evidence to indicate that the presence of a casino impacted the percentage of illegal gambling in a community or that the level of such activity was higher in casino communities as opposed to non-casino communities. That is largely due to the fact that the number of arrests statewide for “gambling offenses” was de minimis.⁵⁴ In 2009, (the most recent year for which information was available) there were only three arrests in all of Iowa for gambling offenses. Gambling offenses includes those that occurred outside of a casino as well inside.⁵⁵

There were no arrests for underage gambling in 2009, the most recent year for which data were available. The state Division of Criminal Investigation arrested 43 minors for entering the casino floor in 2013. There was no breakdown as to how many of them were caught gambling. As noted above, the illegal gambling activity for both adults and minors was so small in terms of arrests that the data did not lend itself to any meaningful review or analysis by county.

Having said that, the Iowa Consortium for Research and Evaluation concluded in an Iowa Youth Survey in May 2013 that 13% of 11th grade boys said they had lost or won \$25 or more in a day through gambling. The study revealed that high rates were not related to whether a casino was present in the county. Some casino counties had high rates; others did not.

Nearly 71,000 students in grades 6, 8 and 11 were surveyed from September 24, 2012, through November 9, 2012. The students were asked if they have ever bet or gambled for money or possessions. The higher the grade, the more likely was a student to have gambled.

⁵⁴ Ibid.

⁵⁵ Ibid.

The most popular forms of gambling were card games, sporting events, skill games and video. Among the findings:⁵⁶

- Boys are more than twice as likely to have ever gambled compared to girls, 38.5% vs. 14.4%.
- Nearly 50% of 11th grade boys said they had gambled compared to 28% of 6th grade boys.
- Frequent gambling, defined as 10 or more times in a year for an activity, is relatively infrequent for all groups. Less than 1 in 20 students gambled that often.

When asked if they had ever lost or won more than \$25 in a day, 5% of 6th grade boys answered yes to the question. Relatively few students reported having argued with friends or family about their gambling; 4.2% of male, and 1.4% of female students reported such arguments. Overall, the percentages of students that reported arguments in 6th, 8th, and 11th grades were 3.1%, 3.0% and 2.5%, respectively.

Casino counties with the highest percentage rates of students (5.5% or higher) who acknowledged that they had lost or won more than \$25 in a day included: Tama, Dubuque, Scott, Washington and Woodbury. Researchers noted that there was little correlation between the high rates and casino counties, as some casino counties had very low rates such as Monona (which has an Indian casino). Some non-casino counties had high rates such as Crawford, Carroll, Greene and Sac.

Embezzlement, Insurance Fraud

Problem-gambling counselors interviewed by the Research Team said casino-related embezzlements often go “under the radar” because sometimes the employer will allow the employee to resign without pressing charges. In other instances, the employer will not press charges if the employee agrees to pay back the money. In some instances, even when law enforcement is made aware of the embezzlement, charges are not filed if the employee makes restitution. One counselor told us that he is currently counseling a problem gambler who embezzled money from an employer that has not even realized that the embezzlement has occurred. The Research Team therefore believes that embezzlement incidents and rates could be significantly higher than are reported.

⁵⁶ The Iowa Consortium for Substance Abuse and Research, *IYS 2012: Problem Gambling Questions Report*, University of Iowa, May 2013.

Nicolas Foss oversees ADDS Gambling Treatment Services, a state-funded problem gambling treatment program for southeast Iowa. In the past five years, he said he has counseled as many as 15 problem gamblers that embezzled money from their employers for the purpose of gambling at casinos. Many of the incidents were not reported to law enforcement.

“There’s no question that this is an area that is under-reported,” Foss said. “The impacts are felt throughout the community. The employee often loses his or her job and is sometimes prosecuted and goes to prison. And the employer suffers an economic loss along with the loss of a productive employee.”

TJ Gorman, clinical supervisor for the state-funded Heartland Family Service treatment program in southwestern Iowa, said she has treated about a dozen clients regarding casino-related embezzlements in the \$100,000 to \$500,000 range. Some of them never resulted in charges being pressed. She, too, said that this criminal activity is under-reported and is a significant problem despite the relatively few cases that are prosecuted.

Polk County Attorney John Sarcone agreed that embezzlements, particularly casino-related embezzlements, are difficult to document because investigators may not realize that the person used the money to gamble. Sometimes, the question may not even be asked.

Black Hawk County Attorney Thomas Ferguson pointed to at least one high-profile casino-related embezzlement in which a court clerk stole more than \$500,000. Ferguson said his office determined that the clerk gambled way over her means by reviewing activity on her casino loyalty card. Ferguson said that most, if not all, of the \$500,000 was lost at the casino. Analysis of a player’s loyalty card is one way to confirm that embezzlement was casino-related, but he acknowledged that prosecutors often may not seek to determine how the embezzled money was spent.

Scott County Attorney Michael Walton said that when casinos initially came to his county (one opened in 1995 and a second in 2000), there were embezzlement cases related to casino activity but that such cases have not occurred in recent years. Jennifer Miller is the County Attorney for Marshall County, a non-casino county that borders Tama County, which has an Indian casino. She said her office comes across about one case yearly involving an embezzlement defendant who blames the crime on a casino gambling addiction. Like Sarcone, she said it is difficult to document whether the defendant was telling the truth.

Perhaps the most publicized casino-related embezzlement in Iowa involved an Omaha, NE, woman who has admitted she stole \$4 million from her employer to gamble at Ameristar Council Bluffs. Her employer has sued Ameristar, alleging that the casino knew that the

employee was a problem gambler and continued to allow her to gamble even though it had policies in place to prevent that from happening.⁵⁷

The Research Team was also tasked with determining the extent of insurance fraud in Iowa. The Iowa’s Insurance Division’s Fraud Bureau notes that “every company providing goods or services pays for insurance as a cost of doing business. As a result of insurance fraud, the insurance companies must raise rates. To cover the increased cost of insurance, the company must charge you more for goods and services. Bottom line – insurance fraud makes everything more expensive for everybody. Insurance fraud is not simply a problem for insurance companies, it’s a problem for all of us – everybody loses and everybody pays. Insurance fraud also diverts resources from law enforcement and fire services.”⁵⁸

Data from the Insurance Division were not available for individual counties. Statewide, from 2007 to 2012, the number of insurance fraud referrals (both businesses and individuals) increased 43%, from 386 to 553. And the amount associated with those referrals increased 330%, from \$6.7 million to \$28.7 million.

Table 7.3 Iowa Insurance Fraud Referrals (Businesses and Individuals) and Amounts, 2007-2012

	2007	2008	2009	2010	2011	2012
Insurance Fraud Referrals	386	399	564	468	551	553
Est. \$ Associated with Referrals	\$6,676,500	\$12,788,868	\$23,611,551	\$15,122,896	\$25,557,138	\$28,717,177

Source: Iowa Division of Insurance

⁵⁷ Cameron Langford, “Employer Blames Casino for \$4 Million Embezzlement,” Courthouse News Service, April 12, 2013, <http://www.courthousenews.com/2013/04/12/56639.htm>, accessed April 26, 2014.

⁵⁸ Iowa’s Division of Insurance Fraud, http://www.iid.state.ia.us/insurance_fraud, accessed April 26.

8. Impacts on Household Finances

This section examines the impacts that casino gambling may have on the finances of Iowa households through relevant data and organizations, including consumer credit organizations; financial institutions; gamblers assistance organizations; bankruptcy courts; monthly caseload statistics for income assistance, food assistance and healthcare coverage compiled by the Iowa Department of Human Services; and earned income tax credit data compiled by the Iowa Department of Revenue. Where the data supported such analysis, the Research Team segregated data into casino counties and a group of non-casino, or “control,” counties that we determined to be demographically similar to the casino counties. We did not include counties with Indian casinos.

- The casino counties include: Black Hawk, Clarke, Clayton, Clinton, Des Moines, Dubuque, Lyon, Palo Alto, Polk, Pottawattamie, Scott, Washington, Woodbury, and Worth.
- The non-casino counties include: Cerro Gordo, Delaware, Hardin, Linn, Muscatine, Pocahontas, Wapello, and Webster.

We cannot conclude whether the presence of casino gambling in Iowa negatively or positively impacts household finances. Overall, Iowans are more financially responsible and secure than residents in most states – whether because of or despite the presence of 21 total casinos spread throughout the state. A county-level analysis of federal and state data for six financial categories in this chapter where such comparisons can be made shows:

- The number of bankruptcies and the number of Iowans receiving health insurance through the state’s hawk-i program were higher in casino counties than they were in the non-casino counties.
- Iowans living in casino counties had fewer enrollees in Medicaid and less reliance on the Supplemental Nutrition Assistance Program than did those living in the non-casino counties.
- The percentage of Iowans receiving income assistance through the Family Investment Program and the percentage of Iowans who filed for earned income credit was about the same in casino counties as it was in non-casino counties.

While there may be a correlation to the presence of casinos and certain impacts – positive or negative – that does not imply causation. The causes of certain financial (as well as social) impacts are often complicated and subjective. As shown in Chapter 1, prominent academics disagree on causation – and even the results themselves. Two of the most well

researched – and most debated – financial impacts associated with gambling are problem gambling and bankruptcies, which in some cases are connected.

Clearly, problem gambling can destroy Iowa households, resulting in divorce, bankruptcies, a depletion of family savings, embezzlement, and theft. One in eight Iowans experienced one or more symptoms of problem gambling during the past year. One of the most common symptoms: betting more than one could afford to lose. During their lifetime, 0.6% of Iowans are estimated to be pathological gamblers.⁵⁹ For the past year, the figure declines to 0.3%. Among other actions, they may have written bad checks, lost a job, asked a family member for a loan, and/or lied to family members about the extent of a gambling problem.⁶⁰ It should be noted that the source of an individual's gambling problem – be it casino gambling, lottery, sports betting, etc. – is not necessarily known.

Using the rates cited above, as many as 9,000 Iowans in the past year may be pathological gamblers and as many as 18,000 may have been pathological gamblers during their lifetime.⁶¹ Yet only 678 people received treatment through the Iowa Department of Public Health-funded program in FY 2013. While others may have received treatment privately, it appears that the overwhelming majority of the state's pathological gamblers may not be receiving treatment at all, leaving them and their families subject to financial ruin. Problem-gambling professionals, as well as a prominent casino critic, point out that the 1-800-BETS-OFF gambling helpline has been subject to funding cuts, resulting in far fewer referrals.

Bankruptcy can be a consequence of problem gambling, though determining whether the presence of casino gambling causes an increase in bankruptcies is uncertain. As noted, our research found that bankruptcy rates were higher in casino counties than in non-casino counties, but Iowa as a whole ranked 42nd among all states in Chapter 7 and 13 filings in 2013. A 1998 study found that 19% of respondents identified gambling as an important factor in causing their financial problems – but that study was conducted before the profound 2005 change in U.S. bankruptcy law that makes it more difficult to discharge debt.

A 2011 study by the University of Northern Iowa on attitudes toward gambling found that only a small percentage of respondents reported that “gambling to win money to pay bills” was a “very important” reason why they gambled. However, among those apt to be problem

⁵⁹ Gambling Attitudes and Behaviors, A 2011 Survey of Adult Iowans, Prepared for the Iowa Department of Public Health by the University of Northern Iowa, September 2011, p. vi.

⁶⁰ *ibid*

⁶¹ *ibid*

gamblers, 6% cited it as a “very important” reason and 9% cited it as an “important reason.” A 1999 study by U.S. Department of Treasury study found no connection between state bankruptcy and casino gambling, but could point to no single factor as being most important. Then again, a 1999 president of SMR Research said “spread of casino gambling appears to be a problem” regarding bankruptcy. The Federal Reserve Bank of Kansas City in 2005 found that nonbusiness bankruptcy rates increased closer to a casino.

The matter of comorbidity complicates the discussion of financial impacts of gambling. Many problem gamblers experience other issues such as substance abuse or mental illness, leaving unanswered how much of the person’s financial situation should be ascribed to the gambling problem vs. the other problems.

Consumer Credit

In order to analyze the impact of casino gambling in Iowa on consumer credit, the Research Team contacted three of the largest consumer credit organizations in the state. Two of these organizations responded to our requests for an interview; Consumer Credit of the Quad Cities did not respond to our requests.

Consumer Credit of Des Moines is a non-profit community service agency that serves more than 5,000 individuals and families annually who are experiencing financial difficulties. It is Iowa’s largest nonprofit credit-counseling service. It has been in operation for more than 25 years and offers clients a variety of services such as counseling as well as debt consolidation and debt restructuring programs in order to help them regain self-sufficiency and avoid bankruptcy.

Tom Coates is the agency’s Executive Director and also an outspoken critic of casino gambling. He often refers to it as a “predatory industry.” He testified before the 1996 National Gaming Impact Study Commission that was established by Congress to conduct a comprehensive review of the effects of legalized gambling. Coates is widely recognized by the media as a spokesman on credit and gambling issues.

In his interviews and writings, Coates often cites the 1998 study by Iowa State University professor Tahira K. Hira that found that 19% of bankruptcy filings in Iowa were gambling-

related.⁶² He also cites his own anecdotal evidence. From 1994 until 2000, his organization administered Iowa's gambling help hotline, 1-800-BETS-OFF. During that time, he saw gambling-crisis calls go from a few dozen to several hundred a month, he said. Coates noted that these calls most often emanated from the immediate vicinity of casino locations.⁶³ Coates estimates that about 10% of his clientele's debt problems are gambling-related and that his organization sees about 15 clients a month with gambling problems.⁶⁴

Community Credit Counseling Service of Northeastern Iowa is an accredited nonprofit community organization dedicated to helping its clients improve their financial well-being through credit counseling and financial education. It offers debt management and bankruptcy prevention services at five locations: Ames, Mason City, Dubuque, Des Moines, and Waterloo.

Karen Atwood is a certified credit and bankruptcy counselor who has served as the agency's CEO since the organization was founded in 1984. She estimates that 3% to 4% of her caseload has financial problems directly related to gambling.⁶⁵ Many of those individuals are in extremely difficult situations and in many cases are beyond help from her organization. Where her average client has about \$9,000 to \$15,000 in debt and nine to 15 credit cards, those whose problems are directly related to gambling tend to be more than \$100,000 in debt and often do not know how many credit cards they have, she said.

Atwood believes that close proximity to a casino increases the likelihood of some people being more susceptible to problem gambling and that some gamblers redirect money that might have gone to other needs or activities, including savings. She noted that individuals who are down on their luck and coping with financial difficulties will often gamble with the hope of winning a jackpot that will resolve their problems.

Atwood said that she personally is not opposed to gambling and believes that many people can and do gamble responsibly but that some people do not know how to, or cannot, gamble responsibly. She said that, too often, casino patrons can get caught up in the moment and gamble more money, or more often, than they can afford. As a result, their personal finances begin to spin out of control. She recommends that there be more state-sponsored

⁶² See T.K. Hira, "Bankruptcy and Gambling: Is There a Connection," paper presented at the National Coalition against Gambling Expansion," St. Louis, Missouri, 1998. Accessed at <http://tkhira.user.iastate.edu/wp-content/uploads/2013/12/BankruptcyandGambling.pdf>.

⁶³ Spectrum Gaming Group interview conducted February 13, 2014, in Des Moines.

⁶⁴ Ibid.

⁶⁵ Spectrum Gaming Group telephone interview conducted March 31, 2014.

education programs to help teach more people to gamble responsibly and to make better decisions about how often and how much to gamble.

Financial Institutions

As part of our effort to determine the impact of casino gambling and gambling activities on household finances, the Research Team attempted to obtain statistical and anecdotal information from financial institutions in Iowa. For the purpose of this evaluation, we have defined “financial institution” narrowly to mean commercial banking and mortgage-lending institutions. The term is often used subjectively. There is no single definition applicable to all uses of the term and an examination of all entities that may be considered a “financial institution” in Iowa would be beyond the range of this study. For example, NASDAQ defines “financial institution” as “an enterprise such as a bank whose primary business and function is to collect money from the public and invest it in financial assets such as stocks and bonds, loans and mortgages, leases, and insurance policies.”⁶⁶ The Federal Bank Secrecy Act defines the term much more broadly to include a wide range of financially based operations such as credit card companies, insurance companies, dealers in precious metals, pay-day lenders, pawn brokers and even casinos.⁶⁷

As part of this task, the Research Team contacted John Sorensen, President and CEO of the Iowa Bankers Association, which represents 345 member financial institutions, to ascertain whether his organization had any data or other relevant information on the relationship between gambling and household finances. He informed us that that he could not be of much assistance on this issue.⁶⁸

A search of the literature found no studies or data that were on point regarding this topic for Iowa. However, a 2013 survey by Wells Fargo and Co., a provider of banking and mortgage services in Iowa and elsewhere, provides some insight. The survey, as reported in the Iowa-based *Business Record*, found that Iowans tend to be more optimistic about their personal finances than the nation as a whole.⁶⁹ Residents were a bit more concerned when it came to

⁶⁶ See <http://www.nasdaq.com/investing/glossary/f/financial-institution#ixzz2ybPaAnEP>, accessed April 6, 2014.

⁶⁷ Bank Secrecy Act, 31 USC 5312(a)(2).

⁶⁸ Email correspondence with John Sorensen, Iowa Banking Association President and CEO, April 8, 2014.

⁶⁹ *Business Record* May 9, 2013.

<http://www.businessrecord.com/Content/Default/1Click/Article/iowans-still-brooding-about-finances---Wells-Fargo-survey/-3/248/58043#ixzz2z4ZNIJLIF>

their retirement savings. The survey interviewed 500 Iowa residents ranging in age from 25 to 75 and found:

- 56% of Iowa residents felt more financially comfortable, compared with 51% of U.S. adults.
- 56% expressed confidence in their personal financial future, compared with 52% nationally.
- Iowans reported fewer financial challenges when compared nationally.

Iowans also tend to be more aggressive at saving money than their counterparts elsewhere in the nation. According to a 2007 ranking by A.G. Edwards (the most recent available), Iowa ranked 19th among the 50 states based on the personal savings and investment practices of their residents.⁷⁰

Mortgage delinquency and foreclosure can have a multitude of causes. However, it is one of the strongest indicators of household financial strength and stability. The mortgage delinquency rate in Iowa for the second quarter 2014 was 2.36%, much lower than the national average of 4.09%.⁷¹ Iowa, at No. 17, ranked well among the 50 states in foreclosure starts for the fourth quarter 2013.⁷²

In conclusion, although Iowa financial institutions have no data pertaining to the impacts of casino gambling, big-picture data do demonstrate that Iowa ranks better in terms of household financial stability than most of the states.

Problem Gambling

Problem gambling can destroy Iowa households. It can cause divorce, lead to bankruptcies, deplete family savings, and lead to embezzlement and theft. (These topics are discussed separately in this report, though we cannot quantify the link between problem gambling and such financial and criminal matters.) It is difficult to quantify just how often such negative incidents occur, but problem gambling counselors we interviewed all concurred that

⁷⁰ StateMaster.com, "Nest Egg Index by state." http://www.statemaster.com/graph/eco_nes_egg_ind-economy-nest-egg-index. Accessed April 16, 2014.

⁷¹ TransUnion Financial Services, Trend Data.

http://www.transunion.com/corporate/business/solutions/financialservices/trend-data.page?ref=b_pm

⁷² Victor Epstein, "Rate of new mortgage foreclosures falls to 8-year low," *Des Moines Register*, February 20, 2014, <http://www.desmoinesregister.com/story/money/business/2014/02/20/rate-of-new-mortgage-foreclosures-falls-to-8-year-low-/5660499/>.

the numbers are much higher than their caseloads would indicate or what law enforcement captures. (See Chapter 9 for a discussion of the social and health impacts of problem gambling.)

Indeed, one in eight Iowans said they experienced one or more symptoms of problem gambling during the past year.⁷³ The most common symptom was betting more than they could afford to lose and feeling guilty about what happened when they gambled.⁷⁴

During their lifetime, 0.6% of Iowans are estimated to be pathological gamblers.⁷⁵ For the past year, the figure declines to 0.3%. Pathological gamblers had to acknowledge that they experienced four or more symptoms related to problem gambling to be classified as possibly pathological. Those symptoms included writing bad checks to gamble, losing a job, asking a family member for a loan, and lying to family members about the extent of a gambling problem⁷⁶ – all behaviors that destroy a family's finances.

Using the rates cited above, as many as 9,000 Iowans in the past year may be pathological gamblers. And as many as 18,000 may have been pathological gamblers during their lifetime.⁷⁷ Yet only 678 people received treatment through the Iowa Department of Public Health-funded program in FY 2013. While others may have received treatment privately, it is safe to say that the overwhelming majority of the state's pathological gamblers may not be receiving treatment at all, leaving them and their families subject to financial ruin. "We know we are just touching the tip of the iceberg," said Diane Thomas, who oversees the treatment program for 10 Iowa counties. "There are a lot of people out there who do not seek treatment and think they can overcome their problem on their own. Too often, that's not the case."

The result, according to Thomas and other counselors, is untold devastation to Iowa family finances, as Iowans estimated to be pathological gamblers cannot stop gambling; are constantly thinking of ways to get money with which to gamble; are lying to loved ones to conceal gambling; and/or have lost a job, a significant relationship or educational opportunity due to gambling.

⁷³ Gambling Disorder (DSM-5) – Signs and Symptoms, Iowa Department of Public Health, Fact Sheet, January 2014.

⁷⁴ Gambling Attitudes and Behaviors: A 2011 Survey of Adult Iowans, p. 7.

⁷⁵ Gambling Attitudes and Behaviors, A 2011 Survey of Adult Iowans, Prepared for the Iowa Department of Public Health by the University of Northern Iowa, September 2011, p. vi.

⁷⁶ Ibid, p. 19.

⁷⁷ Ibid.

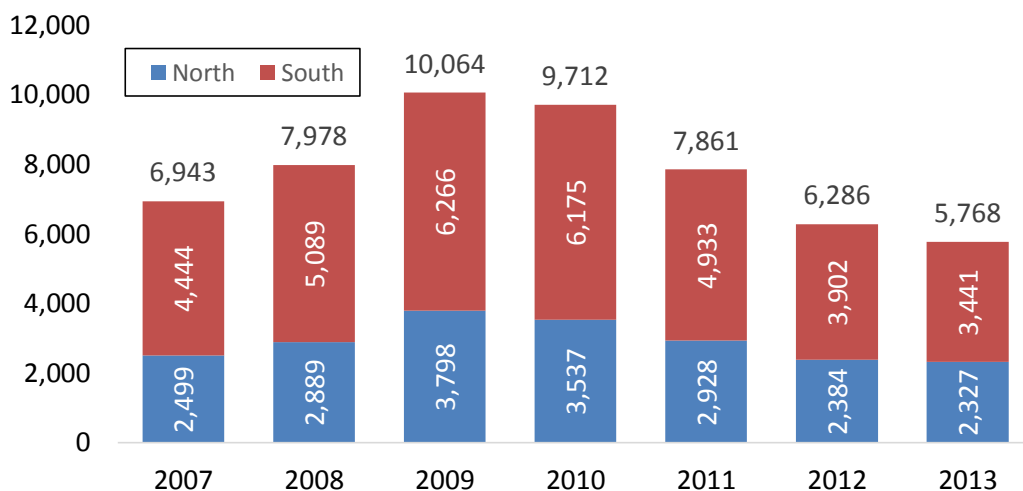
Bankruptcy

A purpose of this study is to determine to what extent casino gambling in Iowa may have an effect on the number of residents and businesses that file for bankruptcy. We examine whether certain individuals, particularly those who may have gambling disorders, are more inclined to accumulate higher levels of debt and, as a consequence, declare bankruptcy at higher rates when gambling opportunities are more convenient.

To perform this analysis, we examined both business and consumer bankruptcy filings in Iowa for the 2007-2013 period. Consumer debt refers to debt that was incurred for personal rather than business needs. Bankruptcy statistics are maintained separately by the United States Bankruptcy Courts Southern District and Northern District for the State of Iowa. Records for the Northern District are maintained online from 1999 to present. The Southern District's online records start from 2007 to present. In both district courts the data are categorized by type of filing, (Chapter 7, 9, 11, 12, 13 and 15), debtor type (Business or Consumer), and the county where the filing originated.

According to our analysis, from 2007-2013, 54,612 individuals and businesses in Iowa filed for federal bankruptcy protection. Of these, 20,362 filings initiated in the Northern District Court and 34,250 initiated in the Southern District. The average number of filings per year for the state as a whole during this period was 3,901. The Northern District averaged 2,909 and the Southern District averaged 4,893. The peak year during this period for filings was 2009 for both the Northern and Southern districts were 3,798 and 6,266 cases were filed, respectively.

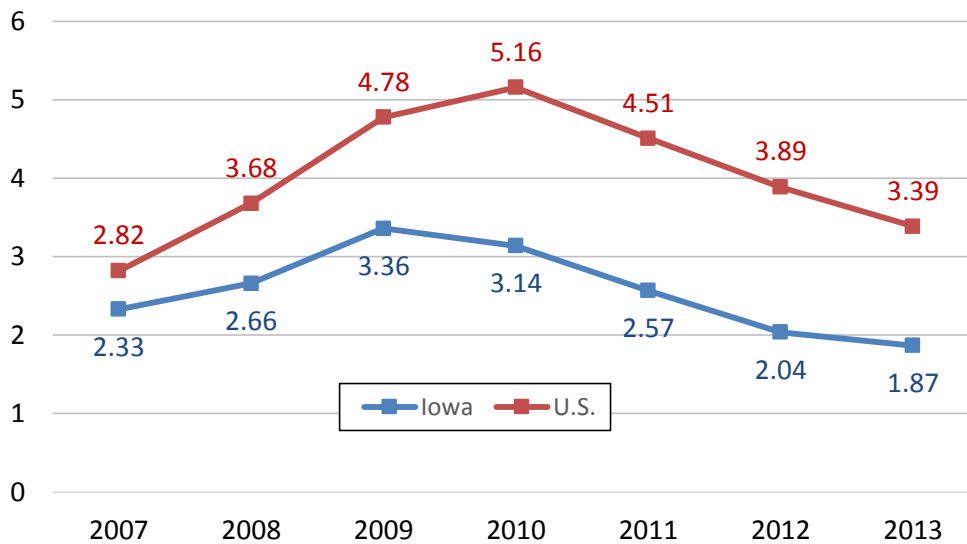
Figure 8.1 Total Iowa Bankruptcy Filings, Business and Consumer, 2007-2013



Source: U.S. Bankruptcy Court Northern District of Iowa <http://www.ianb.uscourts.gov/content/index.php?q=court-info-statistics>; U.S. Bankruptcy Court Southern District of Iowa http://www.iasb.uscourts.gov/V2_BkStats/web/s_filing_by_county2.shtm

Our analysis indicates that Iowa casino counties have higher rates of both business and consumer bankruptcy filings than our non-casino counties. In casino counties, the number of business bankruptcy filings annually ranged from a low of 89 in 2007 to a high of 177 in 2010. The average for the study period was 133 filings a year, or 0.098 business filings per 1,000 population. The non-casino counties averaged 37 business bankruptcies per year, or 0.073 per 1,000 population.

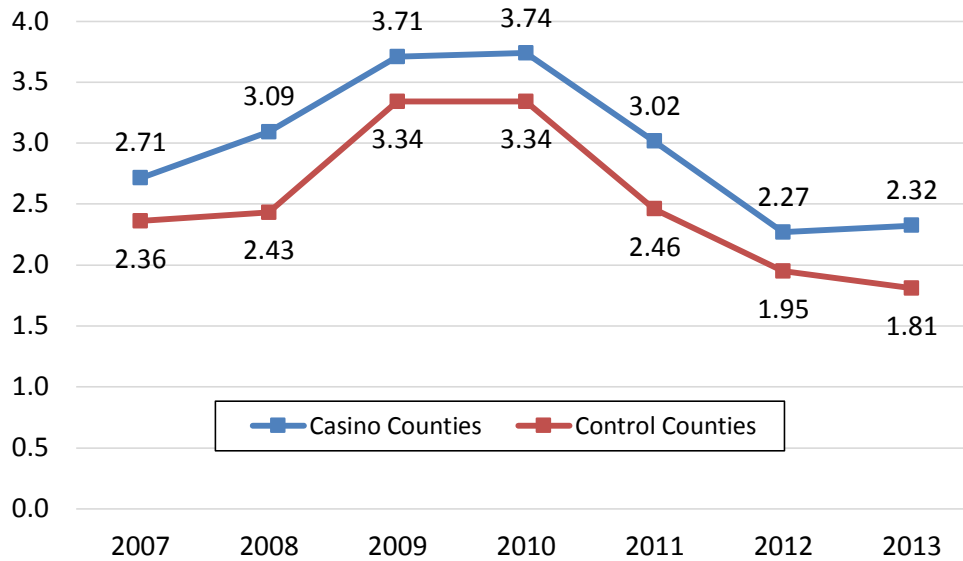
Figure 8.2 Iowa Business Bankruptcies per 1,000 Population, 2007-2013



Sources: 2007 - 2009 Population Estimates State Data Center of Iowa; <http://data.iowadatatcenter.org/browse/counties.html#Population-Estimates>; 2010 - 2012 Population Estimates U.S. Census Bureau <http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>; U.S. Bankruptcy Court Northern District of Iowa <http://www.ianb.uscourts.gov/content/index.php?q=court-info-statistics>; U.S. Bankruptcy Court Southern District of Iowa http://www.iasb.uscourts.gov/V2/BkStats/web/s_filing_by_county2.shtm

In Iowa casino counties, consumer bankruptcies averaged 3,525 filings per year, or 2.9 filings per 1,000 population. In the non-casino counties, consumer bankruptcy filings averaged 1,044 filings per year, or 2.52 per 1,000 population.

Figure 8.3 Iowa Consumer Bankruptcies per 1,000 Population, 2007-2013



Sources: 2007 - 2009 Population Estimates State Data Center of Iowa; <http://data.iowadatatcenter.org/browse/counties.html#Population-Estimates>; 2010 - 2012 Population Estimates U.S. Census Bureau <http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>; U.S. Bankruptcy Court Northern District of Iowa <http://www.ianb.uscourts.gov/content/index.php?q=court-info-statistics>; U.S. Bankruptcy Court Southern District of Iowa http://www.iasb.uscourts.gov/V2/BkStats/web/s_filing_by_county2.shtm;

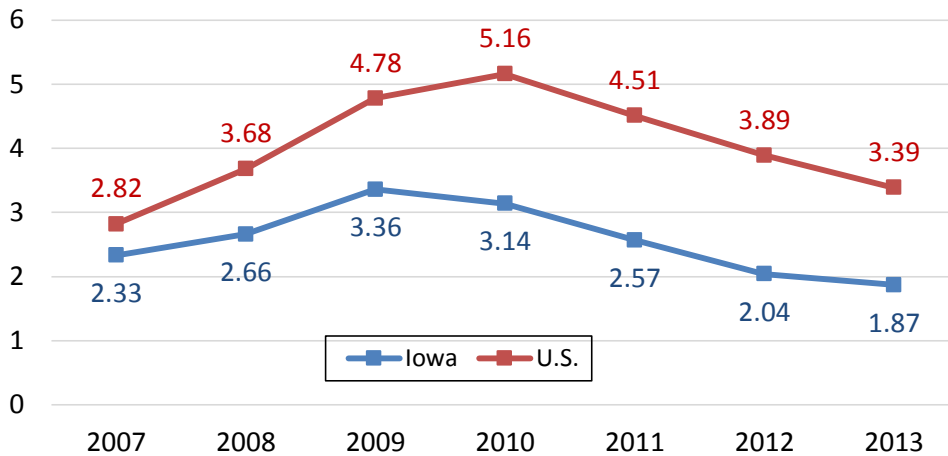
Although there appears to be a correlation between proximity to a casino in Iowa and bankruptcy, several factors may need to be considered before it may be stated with a high degree of confidence that casinos were a significant cause of bankruptcy. Correlation should not be mistaken for causation.

In terms of bankruptcy filings, Iowans generally appear to be financially responsible. Per-capita bankruptcy filings in Iowa for the 2007-2013 period reflect national trends but at a much lower level. According to a report by the United States Bankruptcy Court, as of December 31, 2013, Iowa ranked 42nd in total Chapter 7 and Chapter 13 bankruptcy filings.⁷⁸ Tennessee, a state with no casinos, ranked first with 6.49 bankruptcy filings per capita.⁷⁹

⁷⁸ United States Bankruptcy Court, <http://news.uscourts.gov/bankruptcy-filings-down-12-percent-calendar-year-2013>, Assessed March 16, 2014.

⁷⁹ Ibid.

Figure 8.4 Iowa, U.S. Bankruptcy Filings per 1,000 Population, 2007-2013



Sources: U.S. Bankruptcy Court Northern District Iowa <http://www.ianb.uscourts.gov/content/index.php?q=court-info-statistics>; U.S. Bankruptcy Court Southern District Iowa http://www.iasb.uscourts.gov/V2_BkStats/web/s_filing_by_county2.shtm; U.S. Bankruptcy Court http://www.uscourts.gov/uscourts/Statistics/BankruptcyStatistics/BankruptcyFilings/2013/1213_f2.pdf; U.S. Census Bureau http://www.census.gov/popest/data/historical/2000s/vintage_2009/index.html; American Bankruptcy Institute; <http://www.abiworld.org/AM/AMTemplate.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=66471>

A 1998 study by Iowa State University professor Tahira K. Hira analyzed who files for bankruptcy in Iowa and what factors, including gambling debt, led to bankruptcy filings among Iowans. A questionnaire was sent to 1,250 individuals who were in repayment plans under Chapter 13; 21% responded. According to Hira, 28% of the respondents identified themselves as gamblers and 19% identified gambling as an important factor in causing their financial problems.⁸⁰ It should be noted that Hira’s study was conducted before there were substantial changes in federal bankruptcy laws in 2005 that made it more difficult to discharge debt.

A 2008 study by a team from the University of Northern Iowa found that approximately 40% of Iowa residents surveyed, along with 37% of “key personnel” surveyed, believe that “local people borrow money to gamble and bankruptcies have resulted because of gambling.”⁸¹

⁸⁰ Hira, T.K., “Bankruptcy and Gambling: Is There a Connection,” paper presented at the National Coalition against Gambling Expansion,” St. Louis, Missouri, 1998. P. 4. <http://tkhira.user.iastate.edu/wp-content/uploads/2013/12/BankruptcyandGambling.pdf>

⁸¹ Chhabra, Deepak, et.al, “Socioeconomic Impact of Gambling on Iowans Final Report,” June 2005, p. 17. Can be accessed at http://www.idph.state.ia.us/IGTP/common/pdf/reports/socioeconomic_gambling.pdf

The report defines “key personnel” as “social service providers, law enforcement and economic development officers.”⁸²

In analyzing the relationship between gambling and bankruptcies, a question that arises is whether gambling may exacerbate a person’s existing debt problem or whether it may cause it. In other words, might a desperate person who is already under financial stress gamble with the hope of hitting a jackpot that will solve his or her problems? A 2011 study by the University of Northern Iowa on attitudes toward gambling found that only a small percentage of respondents – 2% of the men and 6% of the women – reported that “gambling to win money to pay bills” was a “very important” reason why they gambled. However, among those apt to be problem gamblers, 6% cited it as a “very important” reason and 9% cited it as an “important reason.” The number was higher among female respondents, 11% of whom cited it as “very important.”⁸³

Impact of Federal Bankruptcy Law Reform

Bankruptcy is a process under federal law that provides a debtor relief from overwhelming financial obligations as well as an orderly means for creditors to obtain some degree of payment. Bankruptcy laws were substantially amended by the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005⁸⁴ (“BAPCPA”). U.S. Senator Chuck Grassley of Iowa was one of the sponsors of the bill. He noted at the time that reforms were needed to “cut down on abusive and frivolous bankruptcy filings that hurt the economy.”⁸⁵

U.S. Representative F. James Sensenbrenner of Wisconsin was one of the bill’s key supporters in the House. He argued on behalf of the BAPCPA, stating that it “... will help restore responsibility and integrity to the bankruptcy system by cracking down on fraudulent, abusive, and opportunistic bankruptcy claims.”⁸⁶ The bill readily passed both houses and was signed into law by President Bush.

⁸² Ibid. p. 23.

⁸³ Melvin E. Gonnerman and Gene M. Lutz, “Gambling Attitudes and Behaviors: A 2011 Survey of Adult Iowans prepared for Iowa Department of Public Health Office of Problem Gambling Treatment and Prevention,” Center for Social and Behavioral Research, University of Northern Iowa, September 2011, p. 40. http://www.csbs.uni.edu/dept/csbr/pdf/Gambling_Attitudes_Behaviors_Report.pdf

⁸⁴ Pub.L. 109-8, 119 Stat. 23, enacted 2005-04-20

⁸⁵ Press Release, “Grassley Renews Effort to Reform Bankruptcy Code,” February 2, 2005; <http://grassley.senate.gov>.

⁸⁶ Kathleen Day, “Bankruptcy bill passes; Bush expected to sign,” *The Washington Post*, April 15, 2005; Page E01. <http://www.washingtonpost.com/wp-dyn/articles/A53688-2005Apr14.html>.

The policy assumptions upon which bankruptcy reform is predicated provide insight why a clear and definitive relationship between gambling and bankruptcy filings is difficult to establish. The BAPCPA instituted broad changes in the law. It made it more difficult for consumers to discharge a debt in a bankruptcy proceeding. It requires that if repayment is possible, then that individual must be directed into a repayment plan under Chapter 13 of the bankruptcy code.

Prior to passage of the BAPCPA, personal bankruptcy filings in the United States increased dramatically from 1980 to 2004, from 288,000 to 1.5 million filings per year. A consequence of the BAPCPA is that fewer people are now able to obtain the same degree of favorable relief as was available under the old law and may now choose not to file. Predictably, prior to the new law taking effect on October 17, 2005, there was a huge spike in the number of petitions filed by individuals seeking protection under the old law and a marked decrease the following year.

Were Senator Grassley and Congressman Sensenbrenner correct? Did consumers learn that the bankruptcy law was very pro-debtor and respond by irresponsibly assuming excessive debt, knowing that filing for bankruptcy would provide them a relatively easy way to rid themselves of the burden? If this were the case, to what extent might those who filed for bankruptcy protection citing gambling as a cause have done so simply to rid themselves of inconvenient gambling debt? Was bankruptcy protection financially advantageous? A 2002 study by Scott Fay, Erik Hurst and Michelle White found that a \$1,000 increase in benefit from filing for bankruptcy would raise the number of bankruptcies by 7%.⁸⁷

According to the *Washington Post*, consumer advocacy groups and many Democrats who opposed the BAPCPA argued that liberal credit policies and aggressive sales practices equally contributed to putting many Americans in substantial debt.⁸⁸ What role did the recession of 2008-2009 and the collapse of the housing and stock markets play in increasing bankruptcy rates as opposed to the availability of legalized gambling opportunities?

One consequence of the BAPCPA is that it may have reduced the number of people who seek protection by increasing the costs of filing for bankruptcy. According to a *US News Report*, there are estimated 200,000 to 1 million individuals who are be unable to pay the \$1,500

⁸⁷Scott Fay, Erik Hurst and Michelle Brown, "The Household Bankruptcy Decision," Scott Fay and Erik Hurst, *American Economic Review*, vol. 92:3, June 2002, pp. 708-718.

<http://econweb.ucsd.edu/~miwhite/aer-fhw-reprint.pdf> Accessed March 20, 2014.

⁸⁸Day, "Bankruptcy Bill Passes: Bush expected to sign."

average filing fees and legal costs in order to get bankruptcy protection.⁸⁹ A team of researchers found that under the BAPCPA, mandatory credit counseling requirements and raised court and application fees resulted in a 50% increase in filing and legal fees. The increase ranged from an average of \$921 before the BAPCPA to \$1,377 afterward.⁹⁰ As a result, those most in need of bankruptcy protection may not be able to file.

Bankruptcy and its Causes

A 1999 study by the U.S. Department of Treasury under Secretary Lawrence Summers examined the reasons behind the rising rates of bankruptcy at the time. It was prepared pursuant to the Treasury and General Government Appropriation Act of 1998, which directed the Treasury to study the relationship between gambling and bankruptcy. The study found no connection between the proliferation of casino gambling and increases in bankruptcy. It noted:

The recent rise in consumer bankruptcies is the result of a number of factors, the relative importance of which is a matter of sharp and unresolved debate. Much of the earlier increase in the national bankruptcy rate has been attributed to the changes in the bankruptcy law of 1978. Other economic and social factors cited by researchers as contributing to more recent increases include higher levels of debt relative to income, increasing availability of consumer credit through general purpose credit cards, and the reduced social stigma of declaring bankruptcy. Researchers have also identified demographic factors that put individuals at risk for bankruptcy, such as increases in the number of divorces, high medical expenses, employment issues, increases in gambling venues, and increases in the number of uninsured drivers.

Using state level data, we find no connection between state bankruptcy rates and either the extent or introduction of casino gambling. ... Our review of the literature concludes that there are several important economic and social factors affecting the increases in personal bankruptcies. Many of these factors have a pronounced trend that coincides with the bankruptcy trend. However, it is not possible to determine which single factor has been the most important force in driving the bankruptcy rate.⁹¹

⁸⁹ Daniel Bortz, "Are you too broke to go bankrupt," *US News*, July 26, 2012.

<http://money.usnews.com/money/personal-finance/articles/2012/07/26/are-you-too-broke-to-go-bankrupt> Accessed March 16, 2014.

⁹⁰ Gross, Tal, Notowidigdo, Matthew and Wang, Jialan, "Liquidity Constraints and Consumer Bankruptcy: Evidence from Tax Rebates," January 14, 2012. Available at SSRN: <http://ssrn.com/abstract=1985272> or <http://dx.doi.org/10.2139/ssrn.1985272>

⁹¹ Department of the Treasury, "A Study of the Interaction of Gambling and Bankruptcy," September 1999, p. i.

According to Michelle J. White, a professor of Economics at the University of California, San Diego, the increase in credit card debt and mortgage debt provide the most compelling argument for the increase in bankruptcy filings.⁹² White believes that most debtors get into financial trouble due to irresponsible behavior rather than due to unexpected difficulties or traumatic life events. She notes that in one survey, 43% of bankruptcy filers pointed to “high debt/misuse of credit cards” as their primary or secondary reason for filing and that two-thirds of those who sought credit counseling before filing for bankruptcy cited “poor money management/excessive spending” as the reason for their predicament. Only 31% cited loss of income or medical bills.⁹³

Conversely, a Harvard University study found that illness and high medical bills were a leading cause of bankruptcy even among those who had health insurance.⁹⁴ The study, which was performed jointly by researchers at Harvard Law School and Harvard Medical School, was the first in-depth analysis of medical causes of bankruptcy. To determine the effects of medical costs on bankruptcy rates, researchers surveyed 1,771 personal bankruptcy filers in five federal courts. They followed up and completed in-depth interviews with 931 of them. About half cited medical causes.

In 2011, a team of researchers from the University of North Carolina at Chapel Hill examined the impact of traumatic life events such as job loss, divorce, and illness on low-income individuals. They found that even when controlling for financial gain, these factors were a good predictor of future bankruptcy filing.⁹⁵

http://www.americangaming.org/sites/default/files/uploads/docs/faqs/treasury_bankruptcy_study.pdf. Accessed March 20, 2014 2014.

⁹² White, Michelle J., “Bankruptcy Reform and Credit Cards,” NBER Working Paper No. 13265, National Bureau of Economic Research, July 2007. <http://www.nber.org/papers/w13265> Accessed March 16, 2014.

⁹³ White, p.5.

⁹⁴ David U. Himmelstein, Elizabeth Warren, Deborah Thorne, and Steffie Woolhandler, “MarketWatch: “Illness and Injury as Contributors to Bankruptcy,” Health Affairs, 2005; <http://m.content.healthaffairs.org/content/early/2005/02/02/hlthaff.w5.63.full.pdf?sid=25a40272-4b95-4776-89ca-9eb017863d1e>.

⁹⁵ Mark R. Lindblad, Robert G. Quericia, Sarah F. Riley, Melissa B. Jacoby, Tianji Cai, Ling Wang, and Kim R. Manturuk, “Coping with Adversity: Personal Bankruptcy Decisions of Low Income Homeowners Before and After Bankruptcy Reform,” University of North Carolina at Chapel Hill Center for Community Capital and School of Law, Working Paper, April 2011; <http://www.fdic.gov/news/conferences/lindblad.pdf>.

Proximity to Gambling

Since an increase in bankruptcy filings also coincided with a period marked by a rapid proliferation of newly legalized gambling opportunities, it would be reasonable for policymakers to examine whether there is a connection. In 1996, Congress established the National Gambling Impact Study Commission (“NGISC”). Its aim was to conduct a comprehensive factual analysis of the social and economic impacts of gambling in the United States. The commission’s study was the first federal examination of the gambling conducted since 1976. The National Opinion Research Center in its report to the NGISC noted, “The availability of a casino within 50 miles (vs. 50 to 250 miles) is associated with about double the prevalence of problem and pathological gamblers.”⁹⁶

Stuart A. Feldman, President of SMR Research Corporation, studied the relationship between the proliferation of gambling and increased bankruptcies. In a 1999 presentation before the House Subcommittee on Commercial and Administrative Law regarding the increasing number of bankruptcies in America, Feldman noted that among other factors:

The spread of casino gambling appears to be a problem. When we look at bankruptcy rates in counties that have major gambling facilities in them, those rates are higher than in counties that have no gambling facilities.⁹⁷

Kelly D. Edmiston, a Senior Economist with the Federal Reserve Bank of Kansas City, agreed that proximity is a factor. She measured the effects of age, geography and other variables on the relationship between gambling and bankruptcy. According to Edmiston in her 2005 study:

Minimum distance to a casino has a statistically significant negative effect on nonbusiness bankruptcy filing rates, meaning that the further a county centroid is from the nearest (legal) casino, the lower is the filing rate. Specifically, an additional 100-mile distance from a casino results in 4.3 fewer bankruptcy filings per 10,000 households, or

⁹⁶ National Opinion Research Center, “Gaming Impact and Behavior Study,” report to the National Gambling Impact Study Commission, April 1, 1999, p. ix.
<http://www.norc.org/PDFs/publications/GIBSFinalReportApril1999.pdf> Accessed March 17, 2014.

⁹⁷ Stuart A. Feldman, President SMR Research Corp., “The Rise in Personal Bankruptcies: Causes and Impact,” presentation before the House Subcommittee on Commercial and Administrative Law, March 10, 1998.

given that the average number of bankruptcies per county is 100, roughly four percent of filings in the average county.⁹⁸

If there is a link between proximity to casinos and higher rates of bankruptcy, the implications may overshadow any state's individual policies regarding gambling. Thomas A. Garrett and Mark W. Nichols said they found strong evidence that states that have more residents who visit out-of-state casinos have higher rates of bankruptcy. This effect appears to be more dominant in the South but provides support for the argument that casinos may "export bankruptcy."⁹⁹

Ernie Goss and Edward A. Morse studied the relationship between casinos and individual bankruptcy rates. They analyzed bankruptcy filings between 1990 and 2002, a period when bankruptcies grew dramatically. They noted that during this timeframe changing economic and demographic data made the assignment of cause difficult. After studying the impact of casinos over time they concluded:

... after an initial increase in personal bankruptcy rates counties that legalized casino gambling experienced lower personal bankruptcy rates during the first several years of casino operations. However those rates then increase, rising above those of non-casino counties after nine years of operations. By the 13th year of casino operations, the estimated bankruptcies per 1,000 population are 6.7 for counties that added casinos compared to 5.2 for a non-casino counties. For the period of time covered by this analysis, this amounts to a compound annual growth rate in personal bankruptcies which is 2.3 percent higher for the county that added a casino than for an equivalent non-casino county.¹⁰⁰

Three other researchers – John M. Barron, Michael E. Staten, and Stephanie M. Wilshusen – examined whether the proximity of casino gambling correlated with higher bankruptcy rates. They concluded that it did. However, they found the impact was most

⁹⁸ Kelly D. Edmiston, "New Insights into the Determinants of Regional Variation in Bankruptcy Filing Rates," Federal Reserve Bank of Kansas City, November, 2005, p. 25.

⁹⁹ Thomas A. Garrett and Mark W. Nichols, "Do Casinos Export Bankruptcy?" Working Paper 2005-019A Federal Reserve Bank of St. Louis, March 2005, p. 1.

¹⁰⁰ Goss, Ernest and Morse, Edward A., "The Impact of Casino Gambling on Individual Bankruptcy Rates from 1990-2002," August 25, 2005, p. 2. Available at SSRN: <http://ssrn.com/abstract=801185>.

pronounced at the local level and the proliferation of gambling did not explain much of the nationwide rise in bankruptcy filings for the period they studied – 1993-1998.¹⁰¹

A slightly contrary conclusion was reached by Lynda de la Viña and David Bernstein in their study of the impact of casinos on county bankruptcy rates. They concluded that the data do not show that the introduction of casino gambling adversely impacted county bankruptcy rates. However, a correlation might occur if a casino is opened in a financially distressed community as other social factors come into play.¹⁰²

The Complicating Matter of Comorbidity

Understanding the relationship between casino gambling and bankruptcy filings is further complicated by the fact that a financially stressed individual may be impacted by other behavioral disorders such as drug and alcohol problems and mental illnesses that may predate or exacerbate his gambling issues. Simply noting that certain types of behavioral disorders or consequences are associated with problem gambling does not necessarily mean that gambling was their primary cause. This factor was cited by the NGISC:

Pathological gambling often occurs in conjunction with other behavioral problems, including substance abuse, mood disorders, and personality disorders. The joint occurrence of two or more psychiatric problems — termed co-morbidity — is an important, though complicating factor in studying the basis of this disorder. Is problem or pathological gambling a unique pathology that exists on its own or is it merely a symptom of a common predisposition, genetic or otherwise, that underlies all addictions?¹⁰³

It is reasonable to assume that individuals who are afflicted with such behavioral issues may be more vulnerable to a gambling problem, and hence, to bankruptcy. However, even in the absence of opportunities to gamble, they would have to cope with difficult ramifications that emanate from their disorder.

¹⁰¹ Barron, J.M., Staten, M.E., & Wilshusen, S... "The Impact of Casino Gambling on Personal Bankruptcy Filing Rates," *Contemporary Economic Policy*. 20, 2002, 440-455.

¹⁰² Lynda de la Viña and David Bernstein, *Journal of Socio-Economics*, Volume 31, Issue 5, 2002, p. 503-509.

¹⁰³ The National Gambling Impact Study Commission Final Report, p. 4-3.

Summary

Our analysis indicates Iowa counties with casino gambling tend to have a slightly higher rate of bankruptcy filings than counties that do not. This is consistent with the findings of several quantitative studies of this issue. However, while for the most part these studies agree that proximity is a factor, they do not necessarily agree in their overall conclusions. Nor do they agree in the weight that should be attributed to gambling activity versus other contributing factors such as income levels, social and mental disorders, drug and alcohol abuse, credit card and mortgage debt, regional economic conditions and traumatic life events such as job loss, illness, and family break up.

Iowa, with its 21 total casinos, ranks 42nd in bankruptcy filings per capita and while it mirrors national trends, it is low compared to the nation as a whole.

Changes in the federal bankruptcy laws in 2006 may now discourage individuals with means from filing for bankruptcy as an easy way to escape inconvenient debt. However, these changes are reported to have increased the costs of filing so that individuals who truly need protection may not be able to get it. This may also indicate that bankruptcy filings are artificially low compared to actual need.

The national increase in casino gambling means that a state's unique policies and regulations concerning gambling activities may have limited impact, since convenient out-of-state opportunities to gamble exist. While proximity to a casino seems to positively correlate with increased bankruptcy filings, the long-term public policy implications of this are uncertain. As Internet gambling proliferates, casino gambling is as near as one's laptop, mobile phone or tablet. Therefore, states may need to address problem and pathological gambling regardless of their own state policies on such matters.

Social Services

Above, we discussed how casino gambling may impact Iowans directly, by examining problem gambling and bankruptcy. Here, we discuss how the presence of casino gambling may impact Iowans indirectly, by examining how residents use social services in both casino counties and non-casino counties. We cannot, however, draw any conclusion about the relationship between the presence (or non-presence) of a casino and enrollment in a social service programs.

Income Assistance

The Research Team analyzed data from the Iowa Department of Human Services relating to the percentage of individuals receiving financial assistance through the Family Investment Program (“FIP”). The data were captured off the website of the Kids Count Data Center, a project of the Annie E. Casey Foundation.¹⁰⁴ FIP is Iowa’s Temporary Assistance to Needy Families program. It provides cash assistance to needy families so that children may be cared for in their own homes or in the homes of relatives.¹⁰⁵ We reviewed reports from 2003 through 2012 (the latest year available) to measure the percentage of individuals receiving FIP financial assistance for casino counties and non-casino counties, and for Iowa statewide. We then compared average rates for the 10-year period ending in 2012.

We examined the average percentage rates during the 10-year period from 2003 to 2012 and found that the non-casino counties had a slightly higher percentage, 1.7%, than did the casino counties, 1.6%. The rate for Iowa statewide was 1.5%, slightly less than both the casino and non-casino counties. The statewide average is trending downward from a high of 1.8% in 2003 to a low of 1.3% in 2012. Eight of the 14 casino counties had higher percentage rates than the state. Four of the eight non-casino counties had higher percentage rates than the state.

When looking at the 22 counties we examined, among the 10 counties with highest percentage of individuals receiving FIP Financial Assistance, seven were casino counties and three were non-casino counties. Among the 22 counties, the four with lowest percentage of individuals receiving FIP Financial Assistance were casino counties.

We further analyzed the data and found:

- Of the non-casino counties, Wapello County had the highest percentage rate (3.1%), which was more than twice the statewide average. The data also show a steady downward trend for Wapello County, from highs of 3.4% in 2003 and 3.5% in 2004 to a low of 3.0% in 2012.
- Of the casino counties, Des Moines had the highest percentage rate (2.5%), which was more than a full percentage point higher than the statewide average.

¹⁰⁴ See <http://datacenter.kidscount.org/data/tables/1242-family-investment-program?loc=17&loct=5#detailed/5/2715-2813/false/868,867,133,38,35/any/2691>.

¹⁰⁵ Iowa Department of Human Services, http://www.dhs.state.ia.us/Consumers/Assistance_Programs/CashAssistance/FamilyInvestmentProgram.html.

- The five casino counties with the highest average percentage rates: Des Moines (2.5%), Scott (2.4%), Black Hawk (2.3%), Clinton (2.3%) and Pottawattamie (2.3%) – all showed a significant, steady downward trend over the 10-year period.

Table 8.1 Percentage of Iowans Receiving Assistance through Family Investment Program for 10-Year Period Ending 2012

County	Casino	Non-Casino
Black Hawk	2.3%	
Cerro Gordo		1.2%
Clarke	1.3%	
Clayton	0.8%	
Clinton	2.3%	
Delaware		1.1%
Des Moines	2.5%	
Dubuque	1.6%	
Hardin		1.3%
Linn		1.6%
Lyon	0.6%	
Muscatine		2.0%
Palo Alto	0.8%	
Pocahontas		1.1%
Polk	1.6%	
Pottawattamie	2.3%	
Scott	2.4%	
Wapello		3.1%
Washington	1.1%	
Webster		2.1%
Woodbury	1.9%	
Worth	1.0%	
Overall averages	1.6%	1.7%
Iowa statewide average: 1.5%		

Source: Internal Revenue Service and Child and Family Policy Center (from Kids count)

Food Assistance

The Research Team analyzed data prepared by the Iowa Department of Human Services relating to Iowans receiving food assistance for the 10-year period ending in 2012. The data were captured off the website of the Kids Count Data Center.¹⁰⁶ The reports show the percentage of individuals receiving financial assistance for food during the year (known

¹⁰⁶ See <http://datacenter.kidscount.org/data#IA/2/0>.

nationally as the Supplemental Nutrition Assistance Program, or “SNAP”). We reviewed reports from 2003 through 2012 (the latest year available) to measure the percentage of adults receiving food assistance in casino counties and non-casino counties, and for Iowa as a whole. We then compared average rates for two five-year periods: from 2003-2007 and from 2008 to 2012 (the latest years available).

The casino counties had a higher percentage of residents receiving food assistance than did the state but a lower rate than the non-casino counties. The average rate for the casino counties was 9.4% compared with 8.8% for the state. The average rate for the non-casino counties was 10%. Six of the eight non-casino counties had higher rates than the state. Eight of the 14 casino counties had higher rates than the state.

In Black Hawk County, where the Isle of Capri Waterloo casino opened on June 30, 2007, the rates increased from 9.2% to 13.7% in the 2008-2011 period after the casino opened (vs. the 2003-2006 period before it opened), but the statewide increase was even greater – from 6.5% to 11.9%.

Worth, Palo Alto and Washington counties opened in 2006. We analyzed the 2003-2005 (pre-casino-opening period and compared them with the 2007-2009 (post-casino-opening) period. We found the following:

- Worth County saw its average increase from 3.3% to 4.7%
- Palo Alto County saw its average increase from 3.5% to 5.1%
- Washington County saw its average increase from 4.5% to 6.7%
- Iowa statewide saw its rate increase from 6.1% to 8.2%

The increases would be expected as the overall economy fell into a recession in the latter years, which resulted in more people seeking food assistance.

Table 8.2 Percentage of Iowans that Received SNAP Food Assistance for 10-year Period Ending 2012

County	Casino	Non-Casino
Iowa		
Black Hawk	11.0%	
Cerro Gordo		9.8%
Clarke	11.3%	
Clayton	5.3%	
Clinton	12.5%	
Delaware		6.0%
Des Moines	14.9%	
Dubuque	7.7%	
Hardin		8.1%
Linn		8.9%
Lyon	4.0%	
Muscatine		11.4%
Palo Alto	5.7%	
Pocahontas		8.2%
Polk	9.5%	
Pottawattamie	12.1%	
Scott	12.9%	
Wapello		15.8%
Washington	7.1%	
Webster		11.4%
Woodbury	11.9%	
Worth	5.6%	
Overall rates	9.4%	10.0%
Iowa statewide average: 8.8%		

Source: Kids Count Data Center

Health Care

The Research Team analyzed two data sets to examine how casino gambling may be impacting health care in Iowa. The data sets, both provided by the Iowa Department of Human Services, pertained to enrollment in Medicaid and the state’s hawk-i program.

Medicaid

We analyzed data relating to Iowans in selected counties who enrolled in the Medicaid program for the 11-year period ending in 2013. We computed a rate per 1,000 residents for casino counties, non-casino counties, and Iowa statewide. We found that the non-casino counties had a higher rate of Medicaid enrollment per 1,000 population than did the casino

counties or the state as a whole. The control rate was 192, the casino rate was 173, and the state rate was 169.

Seven of the 14 casino counties had higher rates than the state. Des Moines had the highest rate, at 240. Five of the eight non-casino counties had higher rates than the state. Wapello County had the highest rate, 270, of any casino or control county.

Table 8.3 Iowans Enrolled in Medicaid Programs, 2002-2013, Rate per 1,000

County	Casino	Non-Casino
Black Hawk	194	
Cerro Gordo		178
Clarke	219	
Clayton	117	
Clinton	214	
Delaware		111
Des Moines	240	
Dubuque	173	
Hardin		167
Linn		159
Lyon	92	
Muscatine		229
Palo Alto	143	
Pocahontas		156
Polk	198	
Pottawattamie		205
Scott	203	
Wapello		270
Washington	165	
Webster		222
Woodbury		224
Worth	121	
Overall average	173	192
Iowa statewide rate: 169		

Source: Iowa Department of Human Services

Hawk-i

We analyzed data relating to Iowans in selected counties who enrolled in the State's hawk-i health insurance program, which provides for coverage for uninsured children of working families. We analyzed fiscal years 2006 through 2013. We computed a rate per 100,000 residents for casino counties, non-casino counties, and Iowa statewide. We found that the

casino counties had a higher rate per 100,000 population than did the non-casino counties or the state as a whole. The control rate was 7,699, the casino rate was 8,761, and the state rate was 7,752.¹⁰⁷

Ten of the 14 casino counties had higher rates than the state. Lyon had the highest rate at 13,237. Four of the eight non-casino counties had higher rates than the state. Delaware had the highest rate, 9,626, of any casino or control county.

Table 8.4 Iowans Receiving Health Insurance, 2006-2013 Average per 100,000 Residents

County	Casino	Non-Casino
Black Hawk	7,608	
Cerro Gordo		7,490
Clarke	10,650	
Clayton	10,282	
Clinton	7,034	
Delaware		9,626
Des Moines	7,561	
Dubuque	6,990	
Hardin		8,589
Linn		6,859
Lyon	13,237	
Muscatine		6,310
Palo Alto	12,515	
Pocahontas		6,502
Polk	6,628	
Pottawattamie	8,200	
Scott	5,501	
Wapello		8,167
Washington	8,662	
Webster		8,053
Woodbury	10,255	
Worth	7,528	
Overall average	8,761	7,699
Statewide average: 7,752		

Source: Iowa Department of Human Services

¹⁰⁷ See <http://datacenter.kidscount.org/data/tables/1241-earned-income-tax-credit?loc=17&loct=5#detailed/5/2715-2813/false/867,133,38,35,18/any/2689>

Earned Income Tax Credits

The Research Team examined data from the Kids Count Data Center to determine countywide earned income tax credit levels. The Kids Count program relied upon data from the Internal Revenue Service and the Child and Family Policy Center of Des Moines in regard to the percentage of individual income tax filers who receive the Earned Income Tax Credit. We analyzed reports from 2002 through 2011 (the latest year available) to measure the percentage of individual income tax filers who received the Earned Income Tax Credit for casino counties and for non-casino counties. We then compared average rates for the 10-year period ending in 2011.

We calculated the average percentage rates during the 10-year period and found that the casino counties, at 15.1%, had a slightly higher percentage rate than did the non-casino counties, at 15.0%. The state, as a whole, had a percentage of 13.8%, less than both the casino and the non-casino counties. The statewide average is trending upward from a low of 12.5% in 2002 to a high of 15.8% in 2009, and then 15.4% in 2009 and 15.3% in 2012.

Nine of the 14 casino counties had higher percentage rates than the state. Six of the eight non-casino counties had higher percentage rates than the state.

When we considered the 22 counties we examined, of the six counties with highest percentage of individual income tax filers who received the Earned Income Tax Credit, five were casino counties and one was a control county. We further analyzed the data and found:

- Overall, the county with the highest percentage rate was Wapello County (a control county), with a rate (20.0%) that was significantly higher than the statewide average (13.8%). The data also show a steady upward trend for Wapello County from a low of 18.7% in 2002 to a high of 22.8% in 2009, then 21.7% in 2010 and 21.9% in 2011.
- Of the casino counties, Woodbury had the highest percentage rate (19.3%), which was over a 5.5 percentage points higher than the statewide average (13.8%). The data also show a significant upward trend similar to the upward trend statewide as well as that of Wapello County, from a low of 16.5% in 2002 to a high of 22.0% in 2009, then 21.8% in 2009 and 21.6% in 2009.
- The five casino counties with the highest average percentage rates: Woodbury (19.3%), Des Moines (17.9%), Clarke (17.7%), (Scott (2.4%), Clinton (16.2%) and Pottawattamie (16.2%); all showed a significant, steady upward trend over the 10-year period.

Table 8.5 Percentage of Iowans that Filed for Earned Income Credit, 2002-2011

County	Casino	Non-Casino
Black Hawk	15.8%	
Cerro Gordo		14.8%
Clarke	17.7%	
Clayton	14.6%	
Clinton	16.2%	
Delaware		12.8%
Des Moines	17.9%	
Dubuque	13.1%	
Hardin		13.9%
Linn		12.2%
Lyon	11.4%	
Muscatine		16.0%
Palo Alto	13.8%	
Pocahontas		14.4%
Polk	12.8%	
Pottawattamie	16.2%	
Scott	15.4%	
Wapello		20.0%
Washington	12.9%	
Webster		15.9%
Woodbury	19.3%	
Worth	13.6%	
Average	15.1%	15.0%
Iowa statewide average: 13.8%		

Source: Internal Revenue Service and Child and Family Policy Center (from Kids Count)

9. Impacts on Household and Community Health and Social Issues

This chapter examines the social and health impacts of casino gambling may have on Iowans and their communities by examining relevant data, organizations, and government organizations. Where the data supported such analysis, we segregated them into casino counties and a group of non-casino (or “control”) counties that we determined to be demographically similar to the casino counties. We did not include counties with Indian casinos.

- The casino counties include: Black Hawk, Clarke, Clayton, Clinton, Des Moines, Dubuque, Lyon, Palo Alto, Polk, Pottawattamie, Scott, Washington, Woodbury, and Worth. We note that in 2006 and 2007, Black Hawk County was a control county, as its casino in Waterloo did not open until 2008.
- The non-casino counties include: Cerro Gordo, Delaware, Hardin, Linn, Muscatine, Pocahontas, Wapello, and Webster.

We also provide qualitative insights on topics where data are unavailable (such as problem gambling, homelessness, and the impacts of casino employment on family life) or where such insights enhance the quantitative analysis.

Problem gambling is the most prominent health issue associated with gambling. While most Iowans can and do gamble without experiencing any problems, researchers have found that a small percentage, as much as 0.03%, have been “pathological gamblers for the past year,”¹⁰⁸ which means they cannot control their gambling and their failure to do so can have devastating consequences at both the community and household levels. The 0.03% of the state’s population translates for the past year into as many as 9,000 pathological gamblers and as many as 18,000 in their lifetime. Fewer than 800 Iowans are currently enrolled in the state-funded program that provides counseling and other assistance to pathological or problem gamblers.¹⁰⁹ While some Iowans may seek treatment through private sources and are not tracked by the Iowa Department of Public Health, it is clear that only a fraction of pathological gamblers in the state are seeking treatment.

¹⁰⁸ *Gambling Attitudes and Behaviors, A 2011 Survey of Adult Iowans*, Prepared by University of Northern Iowa for the Iowa Department of Public Health, p. 23.

¹⁰⁹ Iowa Department of Public Health, Office of Problem Gambling Treatment and Prevention.

Twenty-two percent of Iowans surveyed in an extensive 2011 survey said they “have been negatively affected by the gambling behavior of someone they know.”¹¹⁰ As one problem gambling counselor put it, “We know we are just touching the tip of the iceberg.”

The counselors we interviewed for this report told us they have counseled pathological gamblers who, in addition to experiencing severe financial problems, have experienced marital difficulties or committed crimes. It is impossible to track just how often the above happens. Prosecutors acknowledged to us that they often might not realize whether a certain offense was related to a gambling habit. Indeed, one counselor told us she was counseling a client who embezzled from his employer, and the embezzlement had not yet been detected. Counselors also noted that a number of pathological gamblers have turned around their lives in their efforts to stop gambling. They noted that the earlier a gambler comes in for treatment, the more likely he or she is to overcome gambling addiction.

Examining problem gambling in Iowa is complicated by two factors: (1) There are no data available for the type of gambling associated with a problem gambler’s behavior, whether it is casino, lottery, racing, or betting; and (2) comorbidity, meaning other mental-health or behavioral issues often also impact the problem gambler.

Other health and social issues can be quantified and compared on the basis of casino counties vs. non-casino communities, as noted above. And, as noted throughout this report, while there may be a correlation between a certain health or social issue and incidence in a casino county or control county, the presence or absence of a casino in that county does not imply causation. There are many factors that lead to the incidence factors in a given county or community.

For the most part, we found that the non-casino counties had higher incidence rates for quantifiable social and health issues than the casino counties in the categories we analyzed. A summary of findings, which are discussed in more throughout this section:

- Family life: Non-casino counties had higher rates of divorce, child abuse, and single-parent families.
- Homelessness: Casino counties had higher rates of recipients of homelessness services.

¹¹⁰ Gambling Attitudes, p. vi.

- Education: Casino counties had a higher rate of truancy but a lower rate of high school dropout. Casino counties had slightly higher rates of high school graduation and college graduation.
- Health: Non-casino counties had higher rates of death than did the casino counties for the three leading causes of death in Iowa – heart disease, cancer, and chronic lower respiratory disease.
- Substance abuse: Non-casino counties had a higher rate per 1,000 residents than did the casino counties.
- Suicide: Non-casino counties had higher rates of suicide than the casino counties.

Family

In an effort to assess the possible impacts of casino gambling on family issues, the Research Team obtained and analyzed government data regarding divorce, spousal abuse, child abuse, and single-parent families.

Divorce

The Research Team examined data from the Iowa Department of Public Health, Center for Health Statistics, Statistical Support, in regard to the dissolution (divorce and annulments) rate by county. The rate is per 1,000 residents. The data were provided by the agency's annual reports.¹¹¹ We analyzed reports from 2003 through 2012 (the latest year available) to measure the dissolution rate by county and then compared average rates for the 10-year period. We found that the casino counties (2.4) had a lower rate than did the non-casino counties (3.0). The state, as a whole, had a dissolution rate of 2.6, higher than the casino counties but less than the non-casino counties. The statewide rate is trending downward, from a high of 2.8 in 2003 and 2004 to a low 2.2 in 2012.

Four of the 14 casino counties had a higher rate than the state. Seven of the eight non-casino counties had a higher rate than the state. Among the 22 total subject counties, of the eight counties with the highest rate, six were casino counties and two were non-casino counties. Among the 22 counties, of the 11 counties with the lowest rate, 10 were casino counties and one was a control county. We further found:

¹¹¹ See https://www.idph.state.ia.us/apl/.../pdf/health_statistics/.../vital_stats.

- Overall, the county with the highest dissolution rate was Muscatine (a control county), with a rate (4.3), which was significantly higher than the statewide rate.
- Of the casino counties, Pottawattamie had the highest dissolution rate (4.1), which was significantly higher than the statewide average.

Table 9.1 Iowa Divorces and Annulments per 1,000 Population, 2003-2012

County	Casino	Non-Casino
Black Hawk	1.7	
Cerro Gordo		3.1
Clarke	2.5	
Clayton	2.3	
Clinton	2.0	
Delaware		2.5
Des Moines	1.6	
Dubuque	2.7	
Hardin		3.1
Linn		2.8
Lyon	1.6	
Muscatine		4.3
Palo Alto	2.7	
Pocahontas		2.8
Polk	2.6	
Pottawattamie	4.1	
Scott	2.6	
Wapello		3.1
Washington	3.0	
Webster		2.7
Woodbury	2.5	
Worth	1.4	
Average	2.4	3.0
Iowa statewide average: 2.6		

Source: Iowa Department of Public Health, Center for Health Statistics, Statistical Support

Spousal Abuse

The Research Team was tasked with examining spousal abuse, which from a criminal standpoint is termed “domestic abuse” and is examined in Chapter 7 (“Gambling Impacts on Criminal Activity”). Law enforcement agencies with which we spoke said they were unaware of, or did not detect any, correlation between spousal abuse and the presence of a casino.

Child Abuse

The Research Team analyzed data prepared by the Iowa Department of Human Services relating to the number of confirmed incidents involving Iowa juveniles under age 18 who were victims of either child abuse or child neglect. The data were provided by the Kids Count Data Center, a project of the Annie E. Casey Foundation.¹¹² The reports show incidents per 1,000 juveniles. We reviewed reports from 2003-2012 (the latest year available) to measure the child-abuse and child-neglect rates for casino counties and non-casino counties, and for Iowa as a whole. We then compared average rates for two five-year periods: from 2003-2007 and from 2008-2012, as well as for rates for the 10-year period ending in 2012.

The non-casino counties had a higher rate, 24, than did the casino counties, 18.8, for the 10-year period. The statewide rate was 18.5, slightly less than the casino counties but much lower than the rate for non-casino counties. Nine of the 14 casino counties had higher incident rates than the state. Six of the eight non-casino counties had higher incident rates than the state.

We also developed an average incident rate for the two five-year periods ending in 2007 and 2012. The trend shows significant reductions in child-abuse incidents per 1,000 juveniles, but more so among the casino counties. There, the incident rate declined by 28%. Statewide, the rate declined by 25%, and for the non-casino counties, the rate declined by 19%. Worth County, which has a casino, registered the largest decline, at 95%.

Worth, Palo Alto, and Washington counties opened casinos in 2006. We analyzed the periods 2003-2005 and compared them to 2007-2009. We found:

- Worth saw its average incidence rate increase from 3.3% to 4.7%
- Palo Alto saw its average increase from 3.5% to 5.1%
- Washington saw its average increase from 4.5% to 6.7%
- Iowa's rate increased from 6.1% to 8.2%.

¹¹² See <http://datacenter.kidscount.org/data#IA/2/0>.

Table 9.2 Iowa Child-Abuse and Child-Neglect Rates per 1,000 Juveniles, 2003-2012

County	Casino	Non-Casino
Black Hawk	26.8	
Cerro Gordo		29.4
Clarke	20.7	
Clayton	13.7	
Clinton	19.8	
Delaware		13.8
Des Moines	25.1	
Dubuque	18.0	
Hardin		20.5
Linn		18.2
Lyon	9.0	
Muscatine		24.8
Palo Alto	21.8	
Pocahontas		18.9
Polk	16.4	
Pottawattamie	21.2	
Scott	19.6	
Wapello		40.4
Washington	13.3	
Webster		26.0
Woodbury	19.2	
Worth	19.3	
Average	18.8	24.0
Iowa statewide average: 18.5		

Source: Iowa Department of Human, Kids Count Data Center

Single-Parent Families

The Research Team analyzed data from the U.S. Census Bureau and the Child and Family Policy Center of Des Moines in regard to the percentage of families with children that are headed by a single parent. The data were provided by the Kids Count Data Center.¹¹³ We reviewed the data for 2005-2009, which was the only set of years available for which an average was computed. We captured rates for families with children that are headed by a single parent for casino counties and for non-casino counties.

For 2005-2009, we found that the average rate for non-casino counties was 30%, which was higher than the rate for casino counties, 28.8%, and for Iowa statewide, 28.9%. Eight of the

¹¹³ See <http://datacenter.kidscount.org/data/tables/6752-single-parent-families?loc=17&loct=5#16-child-and-family-policy-center>.

14 casino counties had higher rates than the state as a whole. Black Hawk, at 36.6%, had the highest rate for casino counties. Two of the eight non-casino counties had higher rates than the state as a whole. Webster, at 39.6%, had the highest rate for non-casino counties.

We also tracked the change in single-parent families from 2000 to 2010. There has been a significant increase in Iowa in the percentage of families headed by a single parent. We found that the average percentage increase for non-casino counties was 30%, which was higher than the rate for casino counties, 27%, and for Iowa statewide, 23%.

Table 9.3 Percentage Iowa Families Headed by a Single Parent, Average Rate 2005-2009

County	Casino	Non-Casino
Black Hawk	36.6%	
Cerro Gordo		34.4%
Clarke	35.5%	
Clayton	27.0%	
Clinton	31.8%	
Delaware		20.1%
Des Moines	36.5%	
Dubuque	25.2%	
Hardin		30.3%
Linn		31.5%
Lyon	13.6%	
Muscatine		30.5%
Palo Alto	14.7%	
Pocahontas		21.2%
Polk	29.9%	
Pottawattamie	31.5%	
Scott	34.1%	
Wapello		32.7%
Washington	28.8%	
Webster		39.6%
Woodbury	36.2%	
Worth	21.4%	
Overall rates	28.8%	30.0%
Iowa statewide rate: 28.9%		

Source: United States Census Bureau and Child and Family Policy Center, provided by Kids Count

Impact of Casino Employment

An examination of the impact of casino employment vs. non-casino employment on a person's family life must first recognize there is, to our knowledge, scant research or data on

the subject. “I have never seen any research done in this area. There simply is no data,” said Bob Kerksieck, a health facilities surveyor with the Iowa Department of Public Health.

In an effort to assess the matter qualitatively, the Research Team spoke with law enforcement, substance-abuse counselors, family-counseling agencies, and state- and local-government officials. We did not find any evidentiary difference between the impacts of casino employment vs. non-casino employment on a person’s family life. To be sure, casino employment has potential sources of stress that can include working overnight shifts, working under constant supervision and surveillance in a tightly regulated environment, being on one’s feet continuously, dealing with demanding or agitated customers who may be losing considerable amounts of money, and inhaling secondhand smoke.

“I don’t think working in a casino has anything to do with family issues where we’re involved,” said Captain Scott Crabill, support services captain with the Dubuque Police Department, alluding to domestic violence cases. “And there is no way anyone is going to be able to run those statistics, because when we enter information in a computer, we don’t care about employment. I’ve arrested thousands of people, and don’t know who works in a casino or doesn’t, and I don’t care.”

Northeast Iowa Behavioral Health in Decorah, which offers mental-health and family-counseling services, is the closest facility of the type to the Lady Luck Casino Marquette and is where Lady Luck employees would be likely to seek treatment. Marcia Oltrogge, the facility’s executive director, said there is no evidence that casino employment has a different impact on family dynamics than working in a non-casino environment. “We’ve seen some people who work in the casino, but we really haven’t seen anyone where the source of the problem is the casino. I can’t say there isn’t a problem, but I’m just not aware of it, and I keep up with all the research,” Oltrogge said.

Lindsay Spack, a gambling-treatment counselor and prevention educator at Pathways Behavioral Sciences in Waterloo, concurred. “I haven’t had anyone come in and tell me something that would directly link the problem to the casino. I don’t think it’s any different than growing up in any other household,” Spack said. She noted that someone growing up in a family where one or more parents works in a casino might encourage gambling behavior, but adding: “I’m not saying it does. It just could, like growing up in a family where one of the parents works in a bar might encourage drinking.”

One possible, indirect impact on the family was suggested by David Osterberg, founder of the Iowa Policy Project at the University of Iowa. “Casinos are one of the few working environments left where you still have to suffer from smoke. Who knows how many people have developed cancer or other problems from secondhand smoke,” he said.

Wes Ehrecke, President and CEO of the Iowa Gaming Association (“IGA”), said casino employment can have a positive impact on the family. “Casinos are generally good employers. There are opportunities for advancement, health benefits and good wages. Stability is important, and even though there are occasional layoffs due to the economy, casino jobs are generally stable,” he said. The IGA conducted a survey of member employees a few years ago, asking if they were better off than they were a few years before, and “the overwhelming answer was ‘yes,’” Ehrecke said.

Homelessness

Although there are no comprehensive, statewide data on Iowa’s homeless population, the annual report published by the Homelessness Programs Division within the Iowa Finance Authority shows that of 14 counties (among our 22 subject counties used throughout this report) with reported statistics (nine casino counties and five non-casino counties), five of the six with the highest rates of homelessness are casino counties.

Table 9.4 Recipients of Homelessness Services, Selected Counties 2006-2011, Rate per 1,000 Residents

County	Casino	Non-Casino
Black Hawk	7.5	
Cerro Gordo		6.5
Clinton	20.0	
Des Moines	2.4	
Dubuque	6.8	
Linn		11.6
Muscatine		7.2
Polk	12.2	
Pottawattamie	18.3	
Scott	9.7	
Wapello		6.4
Washington	4.0	
Webster		6.4
Woodbury	12.4	
Average	10.4	6.8
Iowa statewide average: 5.8		

Source: Iowa Council on Homelessness Annual Reports, 2006-2011

The report, which is produced for the state by the Iowa Institute for Community Alliances (“IICA”), is of questionable value, according to Dr. Ehren Stover-Wright, the Institute’s Director, who does not believe the presence of a casino in a community has an impact on homelessness. “It’s a huge methodological problem, because the scope of the impact of a casino goes well beyond the community. But I don’t think there is an impact. The chronically

homeless are not going into casinos,” Stover-Wright said. Moreover, as he noted in the IICA’s 2012 Annual Report,¹¹⁴ “Homeless people come from every county in Iowa, but services providers are in population centers,” such as Des Moines, Cedar Rapids, Council Bluffs, and Sioux City.

The county with the highest rate of homelessness was Clinton County (a casino county), which is sparsely populated and mostly rural. According to Jean Horn, in general assistance with the county, the high rates in 2006-2009 occurred because “lots of companies here closed, and there was no work,” she said. “We also had huge numbers of people moving here from the South because they heard there was work on the farms here, but that simply wasn’t true. Our shelters were turning away people.”

The report understates the problem because it counts only the number of people who actually receive services, according to Stover-Wright. The report does not include homeless people such as those who live in makeshift structures under bridges and on riverbanks. Further, Stover-Wright said, only about 75% of the facilities offering either emergency-services beds or transitional-services beds file reports with the Homeless Management Information System, through which he compiles the homelessness data.

According to the report,¹¹⁵ among clients who stated a reason for their homelessness when entering a shelter, “Overall, 57 percent said economics was the most important or second most important reason for their homelessness.” Moreover, the report says,¹¹⁶ Iowa has more than 400,000 families that are below 30% of area median income, and most homeless families would have to spend up to 100% of their income on housing to rent a unit that would hold their family. “There are many causes and explanations for this, but a shortage of affordable housing is chief among them,” Stover-Wright said in the report.

Another important consideration in analyzing the causes of homelessness is that 34% of heads of households entering the Iowa shelter and transitional housing system (shelters generally provide beds and services for up to 90 days, transitional housing can be up to 24 months, depending on funding availability) have a severe disability.¹¹⁷ Almost a quarter of those have mental disabilities (22%), while another 17% have serious substance-abuse issues.

Stover-Wright said the presence of a casino may have an impact on homelessness in a community, because “most of the economic impact is a downstream effect, and as liquid

¹¹⁴ Dr. Ehren Stover-Wright, Iowans Experiencing Homelessness, January-December 12 Snapshot of Service and Shelter Use, p.4

¹¹⁵ Ibid., p. 12.

¹¹⁶ Ibid., p. 17.

¹¹⁷ Ibid., p. 13.

wealth comes into a community, there's less room for the marginal population." That effect cannot be quantified, he said.

The only county where homelessness data exist before and after a casino opening is Black Hawk, where the Isle of Capri Casino Hotel Waterloo opened in June 2007. The number of homeless people served declined in 2007, from 840 in 2006, to 813, but then increased by more than 25% in 2008 and another 10% in 2009. The number stayed relatively steady in the following three years. Stover-Wright said of those data: "It's just too small a subset to make any valid conclusions."

Marilyn Fisher, housing director of the Community Housing Initiative, which provides emergency and transitional housing in Black Hawk County, said: "From the people we've seen and talked to, I don't think it's (the casino) an issue in this area. The problem we see is people moving into town who can't afford the rent. A lot of people are leaving Chicago and end up here, and they just don't earn enough." If anything, according to Fisher, the impact of the Isle of Capri on community homelessness is positive. "One of our clients just got a job in the casino and now he and his family can afford to move out and find an apartment."

Education

To help understand whether the presence of casinos may have an impact on education, the Research Team examined data from the Iowa Department of Education and the U.S. Census Bureau. Specifically, we compared rates of truancy, discipline, dropout, and educational attainment for the casino counties, non-casino counties, and Iowa statewide.

Truancy

The Research Team analyzed data prepared by the Iowa Department of Education relating to the number of school truancies in Iowa public schools from the school years 2008-2009 through 2012-2013. We computed the average number of truancies for the five years, along with the average enrollment for the five years. We then computed a truancy rate per 1,000 students to account for enrollment differences. The Department of Education provided us with a custom spreadsheet that contained the information we sought.

We developed rates for the 14 casino counties as if they were one large county and did the same as well for the eight non-casino counties. The casino counties had a much higher truancy rate per 1,000 students during the five-year period ending with the 2012-2013 school year than did the non-casino counties or the state as a whole. The truancy rate for casino counties was 27.5, the control-county rate was 15.9, and the statewide rate was 20.8. Six of the 14 casino counties had higher incident rates than the state. Black Hawk had the highest rate at

47.7, more than double the state rate of 20.8. Four of the eight non-casino counties had higher rates than the state. Wapello had the highest rate, 72.7, of any casino or control county.

Table 9.5 Iowa Truancy Public-Schools Rate per 1,000 Students, 2008-09 through 2012-2013

County	Casino	Non-Casino
Black Hawk	47.7	
Cerro Gordo		1.7
Clarke	16.3	
Clayton	5.1	
Clinton	19.0	
Delaware		3.5
Des Moines	44.2	
Dubuque	17.4	
Hardin		9.0
Linn		5.8
Lyon	24.0	
Muscatine		27.2
Palo Alto	4.7	
Pocahontas		44.8
Polk	41.3	
Pottawattamie	10.8	
Scott	39.0	
Wapello		72.7
Washington	5.7	
Webster		26.7
Woodbury	28.0	
Worth	7.8	
Overall	27.5	15.9
Student Enrollment	183,103	64,755
Iowa statewide rate: 20.8		

Source: Iowa Department of Education

Discipline

The Research Team analyzed data prepared by the Iowa Department of Education relating to the number of in-school suspensions in Iowa public schools for the school years from 2008-2009 through 2012-2013. We computed an average number of truancies for the five years along with an average enrollment for the five years. We then computed an in-school suspension rate per 1,000 students to account for enrollment differences. The Department of Education provided us with a custom spreadsheet that contained the information we sought.

We developed rates for the 14 casino counties as if they were one large county and did the same as well for the eight non-casino counties. We found that the casino counties and non-casino counties had identical rates per 1,000 students, 80.8. That number was lower than the overall statewide rate of 86.2. Seven of the 14 casino counties had higher suspension rates than the state. Black Hawk, which had the highest truancy rate of the casino counties, also had the highest suspension rate of casino counties, at 219. Three of the eight non-casino counties had higher rates than the state.

Table 9.6 Iowa Public-Schools In-School Suspension per 1,000 Students, 2008-09 through 2012-13

County	Casino	Non-Casino
Black Hawk	218.5	
Cerro Gordo		119.8
Clarke	123.2	
Clayton	51.1	
Clinton	91.8	
Delaware		49.8
Des Moines	91.6	
Dubuque	38.6	
Hardin		64.0
Linn		64.4
Lyon	27.2	
Muscatine		115.6
Palo Alto	25.5	
Pocahontas		79.0
Polk	84.8	
Pottawattamie		65.1
Scott	112.8	
Wapello		115.7
Washington	93.4	
Webster	84.9	
Woodbury	100.0	
Worth	42.8	
Overall rate	80.8	80.8
Statewide rate: 86.2		

Source: Iowa Department of Education

Dropout Rate

The Research Team analyzed data prepared by the Iowa Department of Education relating to school dropout rates in Iowa. The state agency tracked students who dropped out of public high schools between October 1, 2012, and September 30, 2013.

The casino counties had average dropout rates that were lower (2.64%) than the non-casino counties (3.78%) or the state as a whole (2.82%). Seven of the 14 casino counties had higher rates than the state. Clinton had the highest dropout rate, 4.15%. Palo Alto had the lowest rate, 0.40%. Five of the eight non-casino counties had higher rates than the state. Webster had the highest rate, 5.84%, of any casino or control county. Delaware had the lowest rate, 2.05%.

Table 9.7 Iowa Public High School Dropout Rate, 2012-2013 School Year

County	Casino	Non-Casino
Black Hawk	2.68%	
Cerro Gordo		2.24%
Clarke	3.33%	
Clayton	1.28%	
Clinton	4.15%	
Delaware		2.05%
Des Moines	3.44%	
Dubuque	2.09%	
Hardin		5.99%
Linn		3.66%
Lyon	1.38%	
Muscatine		4.43%
Palo Alto	0.40%	
Pocahontas		3.95%
Polk	3.95%	
Pottawattamie	2.35%	
Scott	3.32%	
Wapello		2.06%
Washington	3.09%	
Webster		5.84%
Woodbury	3.12%	
Worth	2.44%	
Averages	2.64%	3.78%
Statewide rate: 2.82%		

Source: Iowa Department of Education

Education Level

The Research Team analyzed data from the US Census Bureau to determine the percentage of high school and college graduates (bachelor’s degree and higher) in selected Iowa counties. The data covered the years 2009-2012. Persons included in the information were 25 years or older.

High School

The casino and non-casino counties had virtually identical high school graduation rates; the average rate for casino counties was 89.7% vs. 89.5% for the non-casino counties. The statewide rate was 90.7%. Five of the 14 casino counties had higher rates than the state. Scott had the highest high school graduation rate, 92.3%. Woodbury had the lowest rate, 85.7%. Five of the eight non-casino counties had lower rates than the state. Cerro Gordo had the highest rate, 91.9%, of any control county. Wapello had the lowest rate, 83.7%.

Table 9.8 Percent of Iowans Age 25+ Who are High School Graduates, 2009-2012

County	Casino	Non-Casino
Black Hawk	89.5%	
Cerro Gordo		91.9%
Clarke	88.8%	
Clayton	91.4%	
Clinton	89.5%	
Delaware		90.1%
Des Moines	90.9%	
Dubuque	90.9%	
Hardin		91.5%
Linn		93.4%
Lyon	88.8%	
Muscatine		85.4%
Palo Alto	89.1%	
Pocahontas		91.7%
Polk	91.5%	
Pottawattamie	89.2%	
Scott	92.3%	
Wapello		83.7%
Washington	88.2%	
Webster		88.0%
Woodbury	85.7%	
Worth	90.0%	
Averages	89.7%	89.5%
Statewide average: 90.7%		

Source: U.S. Census Bureau

College

Both the casino and non-casino counties had lower rates of college graduates (bachelor's degree or higher) than the state as a whole. The average rate for casino counties was 20.6% vs. 19.3% for the non-casino counties. The statewide rate was 25.3%. Three of the

14 casino counties had higher rates than the state. Polk had the highest rate, 34.3%. Clarke had the lowest rate, 12.9%. One of the eight non-casino counties had higher rates than the state. Linn had the highest rate, 30.9%, of any control county. Delaware had the lowest rate, 15.2%.

Table 9.9 Percent of Iowans Age 25+ Who are College Graduates, 2009-2012

County	Casino	Non-Casino
Black Hawk	25.5%	
Cerro Gordo		21.0%
Clarke	12.9%	
Clayton	15.4%	
Clinton	17.3%	
Delaware		15.2%
Des Moines	19.5%	
Dubuque	26.4%	
Hardin		18.4%
Linn		30.9%
Lyon	16.3%	
Muscatine		16.9%
Palo Alto	15.0%	
Pocahontas		17.5%
Polk	34.3%	
Pottawattamie	18.2%	
Scott	30.8%	
Wapello		15.4%
Washington	20.0%	
Webster		18.7%
Woodbury	20.7%	
Worth	16.5%	
Averages	20.6%	19.3
Statewide average: 25.3%		

Source: U.S. Census Bureau

Gambling Addiction

While the vast majority of casino patrons can and do gamble without experiencing any problems, a small percentage do exhibit problems. Some gamblers may develop enough criteria to be classified as a problem or pathological gambler, while others may be concerned enough to call a helpline or visit an assistance organization. To understand how a gambling problem may impact Iowans' health and well-being, we examine both the addiction rates and how certain organizations help gamblers in need of assistance in controlling their behavior.

Addiction Rates

Iowans have seen a dramatic increase in gambling opportunities during the past 20 years. There are 18 casinos licensed by the Iowa Racing and Gaming Commission, three tribal casinos, 2,400 lottery outlets, and 3,350 social and charitable gaming licenses, along with an ability to gamble (illegally) on the Internet, according to the Iowa Gaming Treatment and Prevention (“IGTP”) program, an agency within the Iowa Department of Public Health.

IGTP notes in a January 2014 Fact Sheet that most people can gamble “recreationally,” but for some, gambling leads to serious problems. Problem gambling results from activity that creates a negative consequence for the gambler, his or her family, employer or community. The symptoms can include jeopardizing or losing a job or a significant relationship due to gambling, relying on others to cover gambling losses, and lying about the extent of gambling activity.¹¹⁸

In 2011, the Iowa Department of Public Health released a study titled *Gambling Attitudes and Behaviors: A 2011 Survey of Adult Iowans*. The University of Northern Iowa Center for Social and Behavioral Research conducted the study to develop prevalence rates for adult Iowans. A survey questionnaire was completed by 1,700 adult Iowans that was weighted to reflect the Iowa adult population and provided the following gambling trends for all forms of gambling:

- 91% had gambled during their lifetime, 69% during the past 12 months, and 42% during the past 30 days.
- 14.5% reported experiencing at least one symptom associated with problem gambling in their lifetime and 12.1% reported at least one symptom during the past 12 months.
- 22% said they have been negatively affected by the gambling behavior of someone they know.

In order to be considered a pathological gambler, one has to have acknowledged experiencing at least four of the criteria established for measuring pathological gambling.¹¹⁹ According to the 2011 University of Northern Iowa study, the prevalence estimate of “lifetime probable pathological gambling among adult Iowans” was 0.6%. When limited to the past 12 months, the figure declined to 0.3% of adult Iowans. Using these rates today, as many as 9,000 Iowans in the past year may be pathological gamblers. And as many as 18,000 may have been pathological gamblers at some point during their lifetime.¹²⁰

¹¹⁸ Iowa Office of Problem Gambling Treatment and Prevention, *Fact Sheet January 2014*, p. 1.

¹¹⁹ Diagnostic and Statistical Manual of Mental Disorders IV (DSM).

¹²⁰ Ibid.

“We know we are just touching the tip of the iceberg,” said Diane Thomas, who oversees a state-funded treatment program for 10 Iowa counties in northeastern Iowa. “There are a lot of people out there who do not seek treatment and think they can overcome their problem on their own. Too often, that’s not the case.”

As of April 2014, Thomas said her agency, Substance Abuse Services Center (based in Dubuque), has 60 problem-gambling clients in the program. While many are having marriage/relationship issues, she said only one has thus far experienced divorce. She said all 60 clients meet the criteria for being a pathological gambler, as they have met four or more of the gambling-disorder criteria established by the American Psychiatric Association’s *Diagnostic and Statistical Manual of Mental Disorders* (“DSM”).

The Research Team obtained data from IGTP that identified the resident county of those seeking help. The person seeking help either enrolled in a treatment program or called the state seeking help for a gambling problem. We note that these gamblers may or may not have met the criteria for pathological gambling. Some of the calls may have been from family members who are not gamblers. In FY 2012, state-funded providers in Iowa treated 728 problem and pathological gamblers. In FY 2013, the figure was 678. Some Iowans elected to seek treatment on their own through private sources, but the number is unknown. As noted earlier, as many as 9,000 Iowans in the past year may have been pathological gamblers. It is clear that only a fraction of problem and or pathological gamblers are seeking treatment.

We reviewed data for fiscal years 2012 and 2013. Some counties, based on their population, have a disproportionate number of residents seeking treatment for a gambling problem in Iowa while others, such as Polk, have fewer in treatment than one would expect based on population. It is important to note that the IGTP does not document/disclose the type of gambling – whether it is casino, lottery, sports betting, etc. (or a combination thereof) – that is the source of the problem for those being treated or calling for help. Therefore, the correlation of gambling-help programs to the presence of casinos is of questionable value.

As to whether the percentage of problem or pathological gamblers is higher in a community with a casino, we note that there are no reliable data that addresses the issue, as previous studies for the state, including the previously referenced 2011 study, developed statewide prevalence numbers but did not break them down on a countywide basis. Eric Preuss, director of the IGTP program, told us that he has not seen any information that indicates casino counties have a higher prevalence rate than non-casino counties. Preuss posed the question to the authors of the University of Northern Iowa 2011 study. Their response to Preuss on March 24, 2014:

The rate of problem gambling (3 or more DSM-IV Criteria) is too low to create a prevalence rate within the counties with casinos. What we found is that there is some indication that people who live in more urban areas have a higher rate of gambling problem (and here I am including those with 1 or 2 DSM-IV Criteria), yet it cannot be linked to specific county with casinos. This initial association has not been analyzed yet in a model to see if the higher prevalence in more urban areas holds after controlling for other factors such as income.

We obtained data from IGTP that shows that the vast majority of people who seek assistance for gambling problems reside in casino counties. This analysis was not undertaken by University of Northern Iowa researchers. Our analysis shows, for example, that in FY 2013, residents in the casino counties accounted for 40% of the state's population yet they comprised 61% of the state's IGTP client-treatment count.¹²¹ In FY 2012, residents in casino counties accounted for 40% of the state's population yet they comprised 82% of the state's IGTP client-treatment count.¹²²

In FY 2012, 10 of Iowa's 99 counties accounted for 73% of the problem gamblers who obtained treatment. Seven of the 10 counties were counties with casinos. At 14%, Polk County accounted for the highest percentage of clients – but more than 15% of Iowans live in Polk County, so the number is in line with its population. However, we note that Woodbury, with 11.8% of clients, has just 3.5% of the state's population; Dubuque, with 8.1% of clients, has 3.2% of the state's population; and Des Moines, with 7.6% of clients, has 1.4% of population. Conversely, three non-casino counties – Linn, Johnson and Cerro Gordo – were among the 10 counties with the highest number of clients who obtained treatment in 2012.

¹²¹ IGTP provided data only for counties that had 10 or more residents in treatment. Therefore, we used only the counties that had 10 or more residents who were in treatment.

¹²² Ibid.

Table 9.10 IGTP Clients Seeking Problem-Gambling Treatment 2012-2013, Top 10 Counties

County	IGTP Office in County?	Problem Gambling Treatment Client Count	Percent of Total Clients	% of population	Casino County?
2013					
Polk	Yes	83	12.2%	15.4%	Yes
Woodbury	Yes	82	12.1%	3.5%	Yes
Wapello	Yes	78	11.5%	1.2%	No
Linn	Yes	51	7.5%	7.2%	No
Black Hawk	Yes	48	7.1%	4.5%	Yes
Dubuque	Yes	41	6.0%	3.2%	Yes
Des Moines	Yes	41	6.0%	1.4%	Yes
Scott	Yes	39	5.8%	5.6%	Yes
Pottawattamie	Yes	35	5.2%	3.2%	Yes
Johnson	Yes	21	3.1%	4.5%	No
		Total in top 10 counties: 519	76.5%		
		State total client count: 678			
2012					
Polk	Yes	102	14.0%	15.4%	Yes
Woodbury	Yes	86	11.8%	3.5%	Yes
Dubuque	Yes	59	8.1%	3.2%	Yes
Linn	Yes	59	8.1%	7.2%	No
Des Moines	Yes	55	7.6%	1.4%	Yes
Scott	Yes	49	6.7%	5.6%	Yes
Pottawattamie	Yes	43	5.9%	3.2%	Yes
Black Hawk	Yes	41	5.6%	4.4%	Yes
Johnson	Yes	21	2.9%	4.5%	No
Cerro Gordo	Yes	14	1.9%	1.5%	No
		Total in top 10 counties: 529	72.7%		
		State total clients: 728			

Source: Iowa Department of Public Health, Office of Problem Gambling Treatment and Prevention

Preuss said one reason why a county may have a disproportionate number of clients is due to the presence of a treatment program in that county or in a neighboring county. With 99 counties, the 10 regional providers in the state lack the resources to have an office in each of the counties, so many Iowans have to travel out of county to seek treatment. In addition, a particular provider may be doing a much better job at outreach than other providers, Preuss noted.

For FY 2013, 10 of Iowa's 99 counties accounted for 77% of the problem gamblers who obtained treatment; seven of the 10 counties were counties with casinos. At 12%, Polk County accounted for the highest percentage of clients, but more than 15% of Iowans live in Polk

County, so the number is in line with its population. However, we note that Woodbury, with 12.1% of clients, has just 3.5% of the state's population; Dubuque, with 6% of clients, has 3.2% of the state's population; and Des Moines, with 6% of clients, has 1.4% of population. Conversely, Wapello County, which does not have a casino, had a client-treatment count of 78, third highest, and it accounted for 11.5% of the state's clients – yet it has just 1.2% of the state's population. Preuss attributed the high number in Wapello County to “great networking with a Criminal Justice halfway house in Ottumwa.” The facility screens new residents to determine if they would benefit from treatment. Criminal populations, Preuss noted, have an increased risk for problem gambling.

We also examined telephone calls made to providers that were offering programs. 10 of Iowa's 99 counties accounted for 71% of the problem gamblers who directly contacted the State's problem gambling providers for assistance in FY 2012. Scott, with 12.6% of the calls, has 5.6% of the state's population; Dubuque, with 11.4% of the calls, has 3.2% of the state's population; and Des Moines, with 4.7% of the calls, has 1.4% of the state's population. There were three non-casino counties that were among the 10 counties that registered the highest number of calls seeking assistance: Linn, Muscatine, and Johnson.

Table 9.11 IGTP Calls Inquiring about Problem-Gambling Treatment 2012 and 2013, Top 10 Counties

County Name	IGTP Office in County?	Crisis Calls Logged at Program	Percent of Calls	% of population	Casino County
2013					
Scott	Yes	167	14.9%	5.6%	Yes
Linn	Yes	117	10.4%	7.2%	No
Polk	Yes	110	9.8%	15.4%	Yes
Dubuque	Yes	77	6.9%	3.2%	Yes
Black Hawk	Yes	75	6.7%	4.4%	Yes
Des Moines	Yes	67	6.0%	1.4%	Yes
Muscatine	No (Scott)	52	4.6%	1.5%	No
Louisa	Yes	48	4.3%	0.4%	No
Clinton	No (Scott)	42	3.7%	1.7%	Yes
Pottawattamie	Yes	41	3.7%	3.2%	Yes
Top 10 counties total: 796			71.0%		
State total calls: 1,121					
2012					
Polk	Yes	174	13.0%	15.4%	Yes
Scott	Yes	168	12.6%	5.6%	Yes
Dubuque	Yes	153	11.4%	3.2%	Yes
Linn	Yes	133	9.9%	7.2%	No
Black Hawk	Yes	105	7.9%	4.4%	Yes
Des Moines	Yes	63	4.7%	1.4%	Yes
Clinton	No (Scott)	44	3.3%	1.7%	Yes
Louisa	Yes	39	2.9%	0.4%	No
Muscatine	No (Scott)	39	2.9%	1.5%	No
Johnson	Yes	35	2.6%	4.5%	No
Top 10 counties total: 953			71.3%		
State total calls: 1,337					

Source: Iowa Department of Public Health, Office of Problem Gambling Treatment and Prevention

In terms of phone calls to IGTP providers, 10 counties generated 71% of the calls and eight of the 10 counties had casinos in 2012 and 2013. Scott County had the highest number of calls at 167, or 15% of calls, despite having 6% of the state’s population. Louisa County, a non-casino county with less than one-half of 1% of the state’s population, generated 4.3% of the phone calls placed to IGTP.

As to the question of whether the presence of a gambling treatment program in a community in which a casino is located impacts the percentage of problem or pathological gamblers in the community, Preuss said he again posed the question to UNI researchers. Their

response was that their “initial analysis suggested no association.” That analysis was based on a review of a respondent’s ZIP Code, casino locations and problem-gambling rates.

Assistance Programs

As noted previously, the Iowa Department of Public Health (“IDPH”) contracts with 10 private entities across the state to provide problem gamblers with treatment. Services include individual counseling, group treatment, family therapy, couples counseling, and referrals to budget-counseling services. Providers also develop programs aimed at preventing Iowa residents from becoming problem gamblers. The providers do not offer a residential treatment program. Each provider is responsible for a multi-county region. Several providers told us that their client count is down largely due to a cut in the state budget to advertise the gambling hotline (1-800-BETSOFF). Once that funding was reduced in FY 2006, referrals from the helpline plummeted, they said.

The promotion budget for the helpline has fallen from \$856,397 in FY 2009 to \$212,100 in FY 2013, a decline of 75%. The number of referrals fell 52% during that period. Overall, referrals to treatment providers fell from 905 to 678, a decline of 25%. But some providers, such as Problem Gambling Services, which is based in Des Moines and covers nine counties in central Iowa, saw its referrals decline from 528 in 2009 to 238 in 2013, down 54%. River Hills Jackson Recovery Center and Family Service, which is based in Sioux City and covers 11 counties in western Iowa, sustained referral declines in excess of 60%.¹²³ As recently as 2006, the promotion budget stood at \$1.35 million. The \$212,100 appropriation for FY 2013 was the second-lowest appropriation since 1995, but represented a slight increase over the 2012 figure of \$182,020.¹²⁴

Iowa also has Gamblers Anonymous (“GA”) chapters that hold a meeting every day of the week somewhere in the state. Seven of the 15 locations are in two counties, Woodbury and Polk; GA also holds meetings in nine other counties. That leaves 88 of 99 Iowa counties without a GA meeting location, causing problem gamblers to travel longer distances to attend meetings. Five of the 15 meeting locations are in two cities, Dubuque and Sioux City. Treatment providers said in interviews they believe problem gamblers are staying in treatment longer than they would otherwise if there were more of a GA presence throughout the state

IDPH has a similar problem in terms of trying to cover the entire state. With 11 regions to serve, some state-contracted providers have offices in more than one county, but many do not. Heartland Family Service covers Region 9 in southwestern Iowa. It is responsible for

¹²³ Iowa Department of Public Health (file provided by the agency).

¹²⁴ Ibid.

providing nine counties with problem gambling counseling. Clinical Supervisor T.J. Gorman said there is no question that having an office in each of the nine counties would result in more problem gamblers seeking treatment. She noted that southwest Iowa has some impoverished areas, and that it is difficult for some people to get to a treatment center. "It would be great if we could get into each of the counties but the funding just is not there," she said. Gorman said that counselors will travel to other counties to meet with problem gamblers but acknowledged that is not the same as having a full-time physical presence in those counties. As it is, she said, Heartland counsels an average of 30 problem gambling clients per month.

ADDS Gambling Treatment Services, a state-funded problem gambling treatment program, covers 10 counties in southeastern Iowa. It has increased its client count by developing an outreach program that includes working with a prison in Ottumwa, Wapello County. Nicolas Foss, who oversees the program, said he and prison officials recognized that many of the inmates may have a gambling problem. Foss said he thought it would be beneficial to offer counseling to inmates, who quickly embraced the program. The agency also did radio interviews and spoke with newspapers to promote its programs. ADDS is counseling as many as 25 problem gamblers per month. Foss, like Gorman, said his counselors try to overcome the fact that offices are not in all 10 counties by traveling to areas in the region that do not have a full-time office. The prison-outreach program as well as other efforts undertaken by Foss resulted in Wapello County (where the prison is located) having a client count of 78 in FY 2013. That was third-highest of Iowa's 99 counties. Wapello has just 1.2% of the state's population but in FY 2013 it accounted for 11.5% of the state's client count.

Christy Zinc is the principal therapist at Jackson Recovery Centers in Sioux City. The provider counsels problem gamblers in 11 counties. Because of the distances involved, she often speaks with clients by telephone. She tries, if possible, to persuade the client to come into the office for an in-person session but sometimes, she acknowledged, that is not possible. There have been some problem gamblers who have declined to seek treatment because of "the travel barrier," she said. Jackson Recovery Centers emphasize prevention as well, she noted. At least twice a year, it sets up a booth at the Argosy casino in Sioux City to educate patrons about problem gambling. Argosy is cooperative, she noted.

The state providers receive referrals from calls made by problem gamblers or their families, or both, to the state's gaming helpline, 1-800-BETSOFF. Most of the phone counselors have taken the National Airs Certification Test and are Certified Information and Referral Specialists. Staff undergoes ongoing training at least every three to four months, which has included marriage and family therapy, according to IDPH.

According to IDPH, 1-800-BETSOFF counselors in FY 2012 fielded 5,485 calls seeking assistance due to gambling problems. In FY 2013, the figure declined to 4,122. The residence of

the person making the call was not identified more than half the time, making it impossible to do meaningful county-by-county comparisons. We also note that these calls may or may not have resulted in a referral or any follow-up action.

Substance Abuse

The Research Team analyzed data prepared by the Iowa Department of Public Health relating to Iowans in selected counties who entered into substance-abuse treatment programs for the 10-year period ending 2013. We found that the non-casino counties had a higher rate per 1,000 population than did the casino counties or the state as a whole. The control rate was 10, the casino rate was 8.2, and the statewide rate was 8.1. Eight of the 14 casino counties had higher incident rates than the state. Scott had the highest rate at 11.3. Six of the eight non-casino counties had higher rates than the state. Wapello had the highest rate, 15.6, of any casino or control county.

Table 9.12 Substance Abuse Treatment Rate per 1,000 Residents, 2004-2013

County	Casino	Non-Casino
Black Hawk	9.5	
Cerro Gordo		13.7
Clarke	11.1	
Clayton	5.5	
Clinton	9.8	
Delaware		5.1
Des Moines	6.6	
Dubuque	11.2	
Hardin		6.2
Linn		9.0
Lyon	3.5	
Muscatine		8.2
Palo Alto	6.1	
Pocahontas		8.8
Polk	8.9	
Pottawattamie	8.6	
Scott	11.3	
Wapello		15.6
Washington	4.9	
Webster		13.2
Woodbury	11.1	
Worth	7.0	
Average	8.2	10
Statewide: 8.1		

Source: Iowa Department of Public Health

Health and Life Expectancy

The Research Team consulted with, and analyzed data from, several state and federal agencies to assess any differences in health issues between casino and non-casino communities.

Health Problems

The Research Team analyzed data prepared by the Iowa Department of Public Health, Bureau of Vital Statistics to compare the state's three leading causes of death in casino counties and non-casino counties, as well for the state as a whole. We reviewed annual reports from the Bureau for the five-year period ending in 2012. We then developed an average rate for the five-year period. The rates are per 100,000 population. We chose to review the three leading causes of death in Iowa in each of the years from 2008-2012: heart disease, cancer, and chronic lower respiratory disease, respectively.¹²⁵

Heart Disease

The non-casino counties had significantly higher rates of death by heart disease than did the casino counties, 291.2 vs. 256.3, a difference of 14%. Both the casino and non-casino counties had a higher rate than did the state as a whole, 229. Six of the eight non-casino counties had rates that exceeded the state average. Pocahontas had the highest rate of the non-casino counties, 387.7. Nine of the 14 casino counties had rates that exceeded the state average. Palo Alto had the highest rate of the casino counties, 359.7.

¹²⁵ Vital Statistics of Iowa, Iowa Department of Public Health, p. 7.

Table 9.13 Rates of Death by Heart Disease per 100,000 Population, 2008-2012

County	Casino	Non-Casino
Black Hawk	210.2	
Cerro Gordo		312.1
Clarke	316.2	
Clayton	257.3	
Clinton	329.0	
Delaware		276.7
Des Moines	282.9	
Dubuque	255.7	
Hardin		336.5
Linn		207.1
Lyon	301.4	
Muscatine		216.5
Palo Alto	359.7	
Pocahontas		387.7
Polk	150.0	
Pottawattamie	212.3	
Scott	191.0	
Wapello		325.0
Washington	296.5	
Webster		268.3
Woodbury	186.5	
Worth	239.4	
Averages	256.3	291.2
Statewide: 229		

Source: Iowa Department of Public Health, Vital Statistics of Iowa

Cancer

The non-casino counties had a slightly higher rate of death by cancer than did the casino counties, 230.6 vs. 228.3, a difference of 1%. Both the casino and non-casino counties had a higher rate than did the state as a whole, 211.6. Six of the eight non-casino counties had rates that exceeded the state average. Hardin had the highest rate of the non-casino counties, 297.4. Nine of the 14 casino counties had rates that exceeded the state average. Palo Alto had the highest rate of the casino counties, 276.2.

Table 9.14 Rates of Death by Cancer per 100,000 Population, 2008-2012

County	Casino	Non-Casino
Black Hawk	201.1	
Cerro Gordo		233.6
Clarke	253.7	
Clayton	256.2	
Clinton	262.8	
Delaware		213.8
Des Moines	237.1	
Dubuque	216.1	
Hardin		297.4
Linn		184.2
Lyon	202.1	
Muscatine		202.0
Palo Alto	276.2	
Pocahontas		232.8
Polk	173.8	
Pottawattamie	229.3	
Scott	212.3	
Wapello		252.7
Washington	250.9	
Webster		228.5
Woodbury	192.5	
Worth	232.3	
Averages	228.3	230.6
Statewide: 211.6		

Source: Iowa Department of Public Health, Vital Statistics of Iowa

Chronic Lower Respiratory Diseases

Chronic lower respiratory disease was the third-leading cause of death in Iowa over the study period. Three casino and non-casino counties – Worth, Palo Alto and Clarke – were excluded from analysis due to the fact that Bureau of Vital Statistics suppressed the rates when the number of deaths was between one and five.

The non-casino counties had a slightly higher rate of death by chronic lower respiratory disease during the five-year period ending in 2012 than the casino counties, 65.3 vs. 65.1. One of the three non-casino counties had rates that exceeded the state average. Both the casino and control rate was about 10% higher than the state rate. Six of the 10 casino counties had higher rates than the state. The highest casino rate belonged to Des Moines, 79.1. Five of the nine non-casino counties had higher rates than the state. The highest control county rate belonged to Webster, 87.1.

Table 9.15 Rates of Death by Chronic Lower Respiratory Disease per 100,000 Population, 2008-2012

County	Casino	Non-Casino
Black Hawk	63.2	
Cerro Gordo		69.8
Clayton	55.2	
Clinton	54.8	
Delaware		45.7
Des Moines	79.1	
Dubuque	55.8	
Hardin		57.6
Linn		50.7
Muscatine		53
Pocahontas		83.1
Polk	49.9	
Pottawattamie	72.7	
Scott	59.8	59.8
Wapello		67.7
Washington	76.9	
Webster		87.1
Woodbury	74.7	
Averages	65.1	65.3
Statewide: 59.8		

Source: Iowa Department of Public Health, Vital Statistics of Iowa

Suicide

Several casino and non-casino counties – namely Clarke, Clayton, Clinton, Delaware, Hardin, Muscatine, Palo Alto, Pocahontas, Wapello, Washington, Webster, and Worth – were excluded from analysis for suicide because the Bureau of Vital Statistics, citing privacy concerns, did not provide a rate for years in which the number of deaths caused by suicide in those counties was less than four. As a result, our analysis includes only seven casino counties and three non-casino counties.

The three non-casino counties had higher rates of suicide per 100,000 population than did the seven casino counties, 13.7 vs. 12.9, a difference of 7%. The statewide suicide rate of 12.8 was nearly identical to the casino rate. One of the three non-casino counties had rates that exceeded the state average. Cerro Gordo had the highest rate of the non-casino counties, 17.8. Four of the seven casino counties had rates that exceeded the state average. Des Moines had the highest rate of the casino counties, 16.9.

Table 9.16 Suicides per 100,000 Population, Available Counties, 2008-2012

County	Casino	Non-Casino
Black Hawk	9.48	
Cerro Gordo		17.78
Des Moines	16.86	
Dubuque	13.02	
Linn		10.44
Muscatine		13.02
Polk	13.22	
Pottawattamie	13.04	
Scott	11.86	
Woodbury	12.5	
Averages	12.9	13.7
Statewide: 12.8		

Source: Iowa Department of Public Health, Vital Statistics of Iowa

Average Age of Death

The Research Team were unable to determine average age of death, as there is no state or federal agency that publicly disseminates such data on a countywide basis for Iowa. Both the U.S. Census Bureau and the state Bureau of Vital Statistics reported to us that they do not collect or distribute these data.

10. Fiscal Impacts

This chapter addresses the direct fiscal impacts that the casino industry has on the State of Iowa. Fiscal impacts are broadly defined to include taxes paid by the casinos, their patrons, and employees, as well as contributions to charitable and civic organizations.

The first section in this chapter presents information on charitable contributions made by the casinos. Section two covers State and local gambling taxes and fees. The third section addresses property taxes. Section four looks at hotel-motels taxes. Section five looks at State and local option sales taxes. The sixth section provides estimates of personal income taxes paid by casino employees. Indirect tax impacts have already been addressed in Chapter 3 of the report that presented the results of the REMI analysis.

Charitable Contributions

The *Iowa Code*, Section 99F.4D, requires excursion gambling boats and gaming structures to distribute a portion of adjusted gross receipts as contributions for “educational, civic, public, charitable, patriotic, or religious uses.” For agreements entered into after May 6, 2004, the minimum amount for these distributions must equal 3% of adjusted gross receipts for each license year unless operating agreements provide otherwise.¹²⁶

Table 10.1 provides information on the shares of gambling facility adjusted gross receipts committed to charitable and civic contributions. In addition, this table presents the amounts of gambling revenue contributed to non-profit organizations, other organizations, and to city and county governments for 2013.

As the table shows, the total commitments to charitable and civic contributions made in casino operating agreements for 10 of the casinos exceeds the 3% minimum. For four casinos, agreements only specify contributions equal the 3% minimum required by State law. For one, the Lady Luck Riverboat in Marquette, the contribution amount is set at \$0.50 per admission. No set amount is specified for either the Mystique Racetrack and Casino in Dubuque or for Prairie Meadows Racetrack and Casino in Altoona. These two facilities are owned by local governments and so the City of Dubuque and Polk County receive profit distributions from these facilities. The 1.5% rate listed for Lakeside Casino is the result of a bankruptcy proceeding. Agreements that have been negotiated in the past five years have resulted in more generous charitable donation rates. Wild Rose Emmetsburg has the highest rate at 6%.

¹²⁶ Iowa Legislative Services Agency, “Gambling – Casinos and Racetracks,” Legislative Guide (December 2012), p. 16.

Table 10.1 Iowa Casinos Charitable and Civic Donations, 2013

	Not-for-Profit Contribution	Donation(s) - Other	Other(s) - City/County Contributions	Total	Operating Agreement Share
Ameristar	\$4,940,290	\$2,175,960	\$1,646,763	\$8,763,013	3.00%
Argosy	\$363,369	\$6,037	\$382,119	\$751,525	3.00%
Bettendorf	\$2,978,540	\$13,631	\$0	\$2,992,171	4.1% min \$3M
Bluffs Run	\$0	\$263	\$0	\$263	3.00%
Catfish Bend	\$1,220,511	\$53,374	\$0	\$1,273,885	3.16%
Diamond Jo *					4.5%
Diamond Jo Worth	\$4,978,091	\$32,005	\$0	\$5,010,096	5.75%
Grand Falls	\$2,169,497	\$25,858	\$229,450	\$2,424,805	4.50%
Harrah's	\$2,124,684	\$27,506	\$0	\$2,152,190	3.00%
Lady Luck	\$164,003	\$11,075	\$3,000	\$178,078	\$0.50/admit
Lakeside	\$748,226	\$22,650	\$0	\$770,876	1.50%
Mystique	\$390,078	\$1,941,456	\$982,035	\$3,313,569	
Prairie Meadows	\$2,993,728	\$1,497,007	\$31,084,834	\$35,575,570	
Rhythm City	\$1,869,383	\$12,708	\$0	\$1,882,091	4.1% min \$2M
Riverside	\$3,353,024	\$476,052	\$1,066,091	\$4,895,167	5.00%
Waterloo	\$4,903,532	\$25,857	\$0	\$4,929,389	5.75%
Wild Rose Clinton	\$1,476,117	\$6,925	\$351,456	\$1,834,498	4.00%
Wild Rose Emmetsburg	\$1,923,263	\$55,244	\$0	\$1,978,508	6.00%
Total	\$36,596,335	\$6,383,609	\$35,745,749	\$78,725,693	

*Information for the Diamond Jo Casino in Dubuque was incomplete.

State and Local Gambling Fees and Taxes

Different fee and tax regimes apply to racetracks and casinos. Racetracks are required to pay a regulatory fee set by the Iowa Racing and Gaming Commission to cover the cost of up to three Division of Criminal Investigation special agents. In addition, a license fee equal to \$200 per racing day is assessed.

For the horse track at Prairie Meadows, a tax of 6% is imposed on the sum of gross wagers. However, a tax credit of up to 5% of gross wagers is provided to the track to cover debt retirement and track operating costs. If the gross wager amount is less than \$90 million, the tax credit equals 6% with the credit first applied to the city share, next the county share, and finally the State share of taxes. For tracks located inside cities, which applies to Prairie Meadows, five-

sixths of the wager tax is deposited with the Iowa Racing and Gaming Commission, one-twelfth is deposited with the city (Altoona), and one-twelfth is deposited with the county (Polk).¹²⁷

For the dog tracks at Horseshoe Casino – Bluffs Run Greyhound Park and at Mystique Casino – the wager tax rates depend on the gross sum of wagers per season. If total wagers equal \$55 million or more, the tax rate equals 6%. If wagers equal at least \$30 million, but less than \$55 million, the tax rate is 5%. If the total amount of wagers is less than \$30 million, the tax rate equals 4%. However, as with the horse track, credits against the tax levies are allowed for the retirement of debt, for capital improvements, to fund possible future operating losses, and for charitable giving. The credit amounts are not as great as for the horse track. If the 6% tax rate applies the credit equals one-sixth of the tax liability. If the 5% tax rate applies the credit equals one-fifth of the tax liability. And if the 4% tax rate applies the set aside amount equals half of the tax liability.¹²⁸

Since both dog tracks are located in cities, taxes are distributed with one-half of 1% of gross wagers going to the city, one-half of 1% of gross wagers going to the county, and the remainder of the tax going to the State. The State share of these taxes is deposited in a variety of different funds.¹²⁹

For simulcast horse and dog races the State imposes a tax at a rate of 2% of gross wagers. These tax revenues are in lieu of the other taxes imposed on horse and dog racing. Revenues from this tax are distributed according to the same formula as for horse and dog racing.¹³⁰

Iowa Code Chapter 99F specifies the fees and taxes imposed on casinos. Casinos are assessed five types of fees.

- An **Initial License Fee** is imposed on establishments for which licenses were approved after January 1, 2004. The fee is payable in five installments over four years. The amount of the fee depends on the population of the host county. For counties with populations of 15,000 or less the fee equals \$5 million. For counties with populations greater than 15,000 but less than 100,000 the fee equals \$10 million. For counties with populations equal to or greater than 100,000 the fee equals \$20 million.
- Excursion boat and land-based gambling facilities pay an **Annual License Fee** at a rate of \$5 per person capacity for non-racetracks and \$1,000 per year for racetracks.

¹²⁷ Ibid, p. 11.

¹²⁸ Ibid., pp. 11 – 12.

¹²⁹ Ibid., pp. 4 and 12.

¹³⁰ Ibid., p. 12.

- A one-time **Table Games License Fee** is imposed on racetracks based on the amount of receipts generated by gambling games. If such receipts equaled less than \$100 million the prior fiscal year the fee equals \$3 million. If such receipts equal or exceed \$100 million the fee equals \$10 million. However, this fee may be offset against wagering taxes at a rate of 20% per year for five years.
- A **Regulatory Fee** is imposed by the Iowa Racing and Gaming Commission adequate to cover the cost of up to two special agents, five gaming enforcement officers, plus direct and indirect Division of Criminal Investigation support costs.
- Cities where casinos are located may impose a **Local Fee** of up to \$0.50 per person embarking on an excursion boat. For excursion boats located outside cities counties may by ordinance impose a similar fee.¹³¹

A wagering tax is imposed on casinos with the amount of the tax determined based on each facility's annual gross receipts during the fiscal year. Taxes are imposed according to the following graduated scale:

- 5% of adjusted gross receipts on the first \$1 million
- 10% of adjusted gross receipts on the next \$2 million
- For excursion gambling boats and gambling structures, and for racetracks not otherwise required to pay 24%, 22% of adjusted gross receipts over \$3 million
- For racetracks with table game licenses and with \$100 million or more in adjusted gross receipts from table games or that are located in a county without another licensee, 24% of adjusted gross receipts over \$3 million¹³²

Taxes paid by gambling boats and land-based casinos are distributed to cities, counties, charitable organizations, specific programs administered by State government agencies, and to the State. An amount equal to one-half of 1% of adjusted gross receipts is distributed to the host city or to the nearest city. An equal amount is distributed to the host county.

An amount equal to 1% of adjusted gross receipts goes to various charitable and governmental organizations. Of this amount, eight-tenths goes to County Endowment Funds for allocation to qualified organizations in counties that do not have a gambling game licensee. Of the remaining two-tenths, \$520,000 goes to the Department of Cultural Affairs for the Iowa Community Cultural Grant Program. Of the remainder of this 1%, half goes to the Community

¹³¹ Ibid, pp. 16 – 17.

¹³² Ibid, p. 18.

Development Division of the Iowa Economic Development Authority for regional tourism marketing and the other half is used to fund the Endow Iowa tax credit.

The remaining tax goes to various State funds with the principal funds being the Rebuild Iowa Infrastructure Fund, the Vision Iowa Fund, and the General Fund.¹³³

Table 10.2 summarized State and local taxes and fees by fiscal year from 1991-2013. During 1991 the total amount of taxes and fees equaled \$10.6 million, which was 16.15% of adjusted gross receipts. By 2013 the total taxes and fees amount increased to \$336.0 million, which equals 23.57% of adjusted gross receipts.

Casino Property Assessments and Taxes

Land-based casinos are taxed as commercial property. Excursion boat casinos are not subject to property tax. However, the landside improvements associated with excursion boat casinos are subject to property tax. Mystique Casino and Greyhound Park is owned by the City of Dubuque and it is not assessed for property taxes, but the casino makes payments in lieu of property tax. Also, Prairie Meadow Racetrack and Casino is owned by Polk County, but this facility does pay property tax.

The amount of assessment and property tax data available for the different racetrack and casino facilities varies. The most years of data exists for Prairie Meadows. These data are available for selected years back to assessment year 2002. Table 10.3 shows for available years the full assessed value for Prairie Meadows, for all of Altoona, and the Prairie Meadows share of the Altoona total.

This shows that Prairie Meadows accounts for almost 10% of the total assessed value of property located in the City of Altoona. This facility's importance to the tax base is even greater because for 2013 commercial property is taxed on 95% of its assessed value, while residential property is taxed on only a little over half its full market value. So, for assessment year 2013, Prairie Meadows taxable value equals \$112.6 million compared to a total taxable value of \$821.9 million for Altoona, which means Prairie Meadows accounts for 13.70% of the taxable value in the city.

Table 10.4 summarizes full assessed values for casino properties and for the jurisdictions in which they are located. In most cases the data are for assessment year 2013. In two cases – the Wild Rose Casino in Clinton and the Grand Falls Casino and Resort in Lyon County – the data are for assessment year 2012. In four instances there are no assessed values for the casinos

¹³³ Ibid, pp 4, 18 and 19.

because they are riverboats. These cases include the Rhythm City Casino in Davenport, the Lucky Lady Casino in Marquette, Lakeside Casino in Osceola, and the Argosy Casino in Sioux City. The valuation amounts provided for the Lucky Lady Casino and for Lakeside Casino pertain only to their associated hotel-motel facilities.

Table 10.2 State and Local Gambling Taxes and Fees

Year	Adjusted Gross Receipts	Fees	State Taxes	City Tax	County Tax	Endowment Fund
1991	\$65,729,197	\$0	\$9,947,858	\$335,039	\$335,039	\$0
1992	\$69,806,983	\$0	\$12,154,784	\$349,540	\$349,540	\$0
1993	\$45,447,292	\$0	\$7,632,707	\$231,072	\$231,072	\$0
1994	\$100,732,652	\$0	\$16,801,036	\$503,654	\$503,654	\$0
1995	\$262,406,339	\$1,447,599	\$46,576,715	\$1,312,030	\$1,312,030	\$0
1996	\$618,188,561	\$6,700,862	\$118,012,081	\$3,191,366	\$3,149,329	\$0
1997	\$696,879,410	\$6,945,207	\$133,126,616	\$3,484,399	\$3,484,399	\$0
1998	\$763,620,322	\$7,105,046	\$151,232,067	\$3,818,102	\$3,818,102	\$0
1999	\$829,435,357	\$7,056,902	\$170,082,659	\$4,147,178	\$4,147,178	\$0
2000	\$892,691,129	\$7,529,973	\$186,535,720	\$4,463,453	\$4,463,453	\$0
2001	\$922,869,665	\$7,655,054	\$199,967,137	\$4,614,353	\$4,614,353	\$0
2002	\$969,974,443	\$8,539,789	\$195,218,953	\$4,849,873	\$4,849,873	\$0
2003	\$1,015,752,906	\$9,256,030	\$200,306,662	\$5,078,764	\$5,078,764	\$0
2004	\$1,073,976,358	\$8,989,968	\$223,452,060	\$5,369,881	\$5,369,881	\$2,741,092
2005	\$1,122,748,256	\$9,306,466	\$233,643,078	\$5,613,741	\$5,613,741	\$5,613,741
2006	\$1,234,511,815	\$11,562,556	\$258,790,542	\$6,172,559	\$6,172,559	\$6,172,559
2007	\$1,367,670,988	\$13,607,686	\$288,100,129	\$6,838,356	\$6,838,356	\$8,961,422
2008	\$1,417,163,753	\$14,957,564	\$299,901,389	\$6,959,950	\$6,959,950	\$11,135,919
2009	\$1,380,744,369	\$14,160,163	\$286,298,599	\$6,777,854	\$6,777,854	\$25,463,428
2010	\$1,368,074,037	\$14,756,846	\$277,830,146	\$6,503,575	\$6,503,575	\$10,405,719
2011	\$1,423,998,178	\$18,524,735	\$289,387,590	\$6,811,143	\$6,811,143	\$10,897,849
2012	\$1,466,756,573	\$19,807,873	\$300,587,514	\$7,072,903	\$7,072,903	\$11,316,658
2013	\$1,425,439,678	\$17,794,926	\$293,239,185	\$6,939,013	\$6,939,013	\$11,102,447

Table 10.3 Prairie Meadows Assessed Value

Year	Prairie Meadows Valuation	Total Altoona Valuation	Prairie Meadows Share
2002	\$63,716,920	\$692,805,706	9.20%
2003	\$67,643,500	\$813,431,585	8.32%
2005	\$73,423,000	\$982,313,429	7.47%
2006	\$83,923,000	\$1,018,469,446	8.24%
2007	\$106,486,400	\$1,052,576,123	10.12%
2008	\$107,717,400	\$1,109,702,013	9.71%
2009	\$107,717,400	\$1,161,469,700	9.27%
2011	\$102,909,000	\$1,190,686,927	8.64%
2012	\$116,703,000	\$1,252,532,700	9.32%
2013	\$118,519,000	\$1,210,574,070	9.79%

Table 10.4 Casino Valuation Shares

City	Casino Valuation	City Valuation	Casino Share
Altoona	\$118,519,000	\$1,210,574,070	9.79%
Bettendorf	\$85,002,320	\$3,120,825,260	2.72%
Burlington	\$27,820,000	\$1,052,801,523	2.64%
Clinton	\$24,000,000	\$1,527,306,837	1.57%
Council Bluffs	\$201,875,070	\$3,666,738,691	5.51%
Davenport	NM	\$6,169,992,844	NM
Dubuque	\$57,890,650	\$3,619,675,018	1.60%
Emmetsburg	\$21,189,360	\$184,844,370	11.46%
Marquette	\$4,517,649	\$32,504,832	13.90%
Osceola	\$26,805,220	\$253,580,849	10.57%
Sioux City	NM	\$3,855,975,249	NM
Waterloo	\$64,833,320	\$3,555,035,830	1.82%
County			
Lyon	\$61,494,851	\$1,197,409,195	5.14%
Washington	\$62,181,500	\$1,803,930,100	3.45%
Worth	\$31,484,694	\$1,042,714,414	3.02%

The casino property with the highest assessed value is Prairie Meadows, at \$118.5 million. The three casinos in Council Bluffs have a combined assessed value of \$201.9 million for 2013 and this equaled 5.51% total assessed valuations for Council Bluffs. The total value of casino properties equaled \$787.6 million. The total amount of property tax paid by casinos equaled \$29.2 million during the most recent year for which data are available. Prairie

Meadows generated \$4.9 million in property tax during fiscal year 2014. The three casinos in Council Bluffs paid just under \$9 million in property tax during fiscal year 2014.

Hotel-Motel Tax

Iowa imposes a 5% State hotel-motel excise tax. Local governments may impose up to a 7% hotel-motel tax. In 2013 all of the cities with casinos imposed a hotel-motel tax at the 7% rate. The last of the cities to impose the tax was Marquette where the tax took effect on January 1, 2012.

Similar to the presentation in Chapter 5, Table 10.5 shows the amounts of local hotel-motel tax collected by the 12 cities where casinos are located and for 12 non-casino comparison cities for 2006 and 2012, as well as the change and percent change between these two years. The amounts are presented in inflation-adjusted 2012 dollars.

For the casino cities, the amount of hotel-motel tax collected increased from \$10.5 million in 2006 to \$12.2 million in 2012, or by \$1.7 million (16.67%). For the non-casino cities, the amount of taxes collected increased from \$6.3 million to \$7.1 million, or by \$0.8 million (12.39%) over the seven years. The two smallest non-casino cities – Lehigh (population 404) and Thornton (population 419) – do not have hotel-motel taxes because they do not have any transient lodging businesses. Statewide local option hotel-motel tax receipts increased from \$37.6 million in 2006 to \$44.6 million in 2012, or by \$6.9 million (18.45%).

Seven of the 12 casino cities realized hotel-motel tax increases in excess of 10% for the period, but two cities experienced decreases. These two cities are Bettendorf (-27.87%) and Osceola (-8.45%). The highest rate of growth occurred in Emmetsburg (44.53%), where the Wild Rose Casino and Resort opened in May 2006.

The comparison with the 12 non-casino cities is somewhat distorted by Coralville. Much of the lodging provided in this city serves patients of University of Iowa Hospitals. A sense of the extent to which this one city distorts the comparison can be seen by looking at local hotel-motel taxes per capita. For the State, this measure equaled \$16.08 in 2006 and increased to \$18.29 in 2012. For Coralville, local hotel-motel taxes per capita equaled \$112.01 in 2006 and \$116.79 in 2012. Excluding Coralville from the comparison cities group, local hotel-motel taxes per capita declined from \$18.32 in 2006 to \$17.93 in 2012 for the non-casino cities, while for the casino cities the per capita amounts equaled \$22.27 in 2006 and \$25.28 in 2012.

The Socioeconomic Impact of Gambling on Iowans, 2014

Table 10.5 Local Hotel-Motel Taxes

	\$2012			
	2006	2012	Change	Percent Change
Casino Cities				
Altoona	579,410	774,484	195,074	33.67%
Bettendorf	1,065,701	768,715	-296,986	-27.87%
Burlington	517,075	724,976	207,901	40.21%
Clinton	326,188	363,884	37,696	11.56%
Council Bluffs	2,455,805	2,568,519	112,714	4.59%
Davenport	1,548,048	2,149,108	601,060	38.83%
Dubuque	1,788,132	1,932,918	144,786	8.10%
Emmetsburg	82,825	119,707	36,882	44.53%
Marquette	0	14,078	14,078	NM
Osceola	271,340	248,400	-22,939	-8.45%
Sioux City	979,609	1,378,376	398,767	40.71%
Waterloo	873,669	1,192,621	318,952	36.51%
Non-Casino Cities	2006	2012	Change	Percent Change
Cedar Rapids	\$2,884,848	\$2,906,352	\$21,504	0.75%
Coralville	\$1,942,674	\$2,299,803	\$357,128	18.38%
Fort Dodge	\$461,792	\$545,229	\$83,437	18.07%
Iowa Falls	\$104,560	\$105,190	\$630	0.60%
Lehigh	\$0	\$0	\$0	NM
Manchester	\$0	\$61,743	\$61,743	NM
Marion	\$162,164	\$165,292	\$3,128	1.93%
Mason City	\$346,098	\$571,504	\$225,405	65.13%
Muscatine	\$375,489	\$313,087	-\$62,402	-16.62%
North Liberty	\$0	\$60,168	\$60,168	NM
Pocahontas	\$0	\$26,744	\$26,744	NM
Thornton	\$0	\$0	\$0	NM
	2006	2012	Change	Percent Change
Casino Cities	\$10,487,803	\$12,235,788	\$1,747,985	16.67%
Non-Casino Cities	\$6,277,626	\$7,055,112	\$777,486	12.39%
State Total	\$37,627,613	\$44,569,125	\$6,941,512	18.45%
Casino Metro	\$9,290,375	\$10,764,742	\$1,474,367	15.87%
Casino Non-Metro	\$1,197,428	\$1,471,046	\$273,618	22.85%
Non-Casino Metro	\$4,989,686	\$5,431,615	\$441,928	8.86%
Non-Casino Non-Metro	\$1,287,940	\$1,623,497	\$335,557	26.05%

Actual hotel-motel tax payments made by lodging facilities owned by the casinos are proprietary. Thus, hotel-motel tax payments cannot be revealed by casino. However, aggregate estimates for both local and State hotel-motel taxes have been developed based on room rental income information provided by the casinos for this study. Table 10.6 presents these estimates.

Table 10.6 Direct Casino Hotel-Motel Tax Payments

Year	Hotel-Motel Receipts	Local Hotel-Motel Tax	State Hotel-Motel Tax	Total Hotel-Motel Tax
2006	\$20,685,453	\$1,447,982	\$1,034,273	\$2,482,255
2007	\$25,661,866	\$1,796,331	\$1,283,093	\$3,079,424
2008	\$32,266,257	\$2,258,638	\$1,613,313	\$3,871,951
2009	\$31,348,662	\$2,194,406	\$1,567,433	\$3,761,839
2010	\$31,924,811	\$2,234,737	\$1,596,241	\$3,830,978
2011	\$33,056,854	\$2,313,980	\$1,652,843	\$3,966,823
2012	\$38,957,316	\$2,727,012	\$1,947,866	\$4,674,878

State and Local Option Sales Taxes

Iowa imposes a statewide sales tax at a rate of 6%. The tax applies to purchases of tangible goods and to certain enumerated services. The State also imposes a use tax at the same rate as the sales tax on purchases made out-of-state for goods and services consumed in Iowa. Cities and the unincorporated areas of counties may impose up to a 1% local option sales tax if approved by voters. All except one of the jurisdictions where a casino is located impose a 1% local option sales tax. The one exception is Altoona the home of Prairie Meadows Racetrack and Casino.

Chapter 5 presents comparisons of changes in taxable sales by county for counties where casinos are located and for eight non-casino comparison counties. Those comparisons address total taxable sales (excluding transportation and utilities), bar and restaurant sales, and taxable sales by traditional bricks-and-mortar retailers. For that analysis, see Chapter 5.

Wagers made at racetracks and casinos are not subject to either State or local sales taxes. As discussed in the prior section, expenditures on transient lodging facilities are subject to a State hotel-motel excise tax and to a local hotel-motel tax rather than to sales tax. The only major types of transactions that occur at racetracks and casinos that are subject to sales taxes are food and beverage sales, entertainment fees, and charges related to resort activities, such as golf and spa charges. Table 10.7 provides estimates of State and local sales taxes associated with these types of casino patron expenditures for 2006-2012. The local option tax estimate is

overstated because it assumes all jurisdictions have such a tax. The estimate is presented in this manner as to avoid inadvertently revealing proprietary information related to Prairie Meadows Racetrack and Casino.

Table 10.7 State and Local Option Sales Tax Estimates (\$ Current)

Year	Food and Beverages	Other Sales	Total Sales	State Tax	Local Option Tax
2006	\$ 101,380,899	\$ 34,612,618	\$ 135,993,517	\$ 8,159,611	\$ 1,359,935
2007	\$ 118,106,997	\$ 41,264,948	\$ 159,371,945	\$ 9,562,317	\$ 1,593,719
2008	\$ 123,850,444	\$ 42,557,451	\$ 166,407,896	\$ 9,984,474	\$ 1,664,079
2009	\$ 127,285,159	\$ 43,291,869	\$ 170,577,028	\$ 10,234,622	\$ 1,705,770
2010	\$ 123,486,531	\$ 45,542,037	\$ 169,028,568	\$ 10,141,714	\$ 1,690,286
2011	\$ 127,287,552	\$ 47,878,957	\$ 175,166,508	\$ 10,509,991	\$ 1,751,665
2012	\$ 128,726,870	\$ 47,847,614	\$ 176,574,484	\$ 10,594,469	\$ 1,765,745

Personal Income Tax

Iowa has a progressive personal income tax with nine brackets and marginal tax rates ranging from 0.36% to 8.98%. For tax year 2013, the top marginal tax rate applies to taxable income over \$67,230. During 2011, the most recent year for which Iowa income tax statistics are available, the average effective tax rate – tax divided by adjusted gross income – for Iowa residents equaled 3.75%.

Adjusted gross income, taxable income, and tax liability data obtained from the 2011 Iowa Department of Revenue (“Iowa DOR”) Individual Income Tax Statistical Report was used to estimate the amount of Iowa personal income tax paid by casino employees. Wage and salary income data for the years 2006 through 2012 was obtained from all State-licensed casinos. The tax estimates are provided only in aggregate for all State-licensed casinos to prevent the disclosure of proprietary information.

The Iowa DOR statistical report provides adjusted gross income, taxable income, and tax liability data for 17 adjusted gross income categories ranging from \$0 to \$1 million and over. This analysis uses statistics from the nine adjusted gross income ranges between \$10,000 and \$149,999. Based on wage and salary data obtained from the Iowa Gaming Association, the pay for almost all casino employees fall within this range. It is assumed for these employees that all of their adjusted gross income is wage and salary income. Based on 2011 Iowa personal income tax returns for taxpayers in the selected income range, 77.10% of adjusted gross income is taxable and the average tax rate applied to taxable income equaled 4.87%. A final adjustment recognizes that 5.80% of casino employees are Illinois residents. This adjustment is necessary because Iowa and Illinois have a reciprocity agreement that results in the taxpayers’ state of

residence having first claim on personal income tax payments. For all other taxpayers personal income tax is owed in the state where the income is earned. Table 10.8 provides estimates of the Iowa personal income tax liability of Iowa casino employees (excluding Illinois resident employees) for 2006-2012.

Table 10.8 Iowa Personal Income Tax Estimate (\$ Current)

Year	Employment	Wages & Salaries	Taxable Share	Iowa Tax Liability
2006	9,704	\$215,184,098	\$165,906,939	\$7,611,047
2007	10,262	\$233,322,133	\$179,891,365	\$8,252,588
2008	9,997	\$239,202,554	\$184,425,169	\$8,460,578
2009	9,546	\$231,029,058	\$178,123,404	\$8,171,482
2010	8,977	\$224,329,914	\$172,958,364	\$7,934,534
2011	9,363	\$229,026,134	\$176,579,150	\$8,100,639
2012	9,264	\$232,991,956	\$179,636,798	\$8,240,910

Summary of Fiscal Impacts

During 2013 State-licensed casinos made contributions to charitable and civic organizations totaling \$78.7 million. State and local wagering taxes and fees for 2013 totaled \$336.0 million. Property taxes paid on casino owned property during the most recent fiscal years for which data are available equaled \$29.2 million. The estimated amount of State and local hotel-motel tax generated by casino owned lodging facilities during 2012 equaled \$1.9 million and \$2.7 million, respectively. State sales tax collections and local option sales tax collections derived from purchases of goods and services provided by casinos and associated enterprises equaled an estimated \$10.6 million and \$1.8 million, respectively. Finally, the estimated Iowa personally income tax liability of casino employees for tax year 2012 equaled \$8.2 million. Thus, the total annual fiscal impact of the casino industry in Iowa equals just short of \$470 million.

Appendix

About this Report

This report was prepared by Strategic Economic Group of Des Moines, Iowa, and Spectrum Gaming Group of Linwood, New Jersey (collectively, “the Research Team,” “we” or “our”).

Per the terms of the IRGC Request for Proposals (“RFP”), this is a research project and, as such, we did not make recommendations. The Research Team assembled the content of this report in what we believe to be a natural order based on our research, analysis and findings; it does not necessarily conform to the order provided in the RFP. It should be noted that, per the RFP, the focus of this project is casino gambling and not other forms of gambling such as lottery, pari-mutuel, and charitable.

The Research Team analyzed considerable volumes of data from national, state, county and municipal government sources; and from casino industry sources, academic papers, and economic models. Data as they pertain to Iowa were in some cases limited or not available for some research categories; such limitations are noted where appropriate in this report. We also made site visits in Iowa, and conducted interviews in person, by telephone, and by email.

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