



IN COLLABORATION WITH STRATEGIC ECONOMICS GROUP

SOCIOECONOMIC STUDY AND MARKET ANALYSIS: CASINO GAMING IN IOWA

Prepared for the Iowa Racing and Gaming Commission
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Executive Summary

The Executive Summary of this report is provided in a separate document.

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Introduction

Pursuant to Iowa Code Chapter 99F.4(24), the Iowa Department of Administrative Services on behalf of the Iowa Racing and Gaming Commission (“IRGC”) is required to conduct a socioeconomic study on the impact of gambling on Iowans every eight years.¹ Spectrum Gaming Group (“Spectrum,” “we” or “our”) on July 27, 2021, was contracted to undertake this study as a result of competitive bidding via a Request for Proposals (“RFP”) No. 0620429086. Spectrum completed this study in collaboration with Strategic Economics Group of West Des Moines.

As required in our contract with the State of Iowa, this study covers the following 11 subject areas:

- Local economic effect on the community as a whole from gambling
- Local economic effect of the casino on the business community
- Casino effect on the local job market
- Effect on the community from problem gambling and treating those individuals who are problem gamblers
- Health-related issues for individuals who live in a community in which a casino is located
- Effect on family life due to the existence of a nearby casino
- Casino effect on household finances
- Current state of the Iowa gaming market
- Current state of the gaming markets in states contiguous to Iowa
- Future of gambling in the State of Iowa
- Impact of sports wagering on Iowa casinos

In short, this study focuses on the state-regulated casinos in Iowa and the impacts they have on residents and their communities.

Spectrum’s response to the 73 distinct questions put forth in the RFP is necessarily limited to fit into an overall report that can be reasonably read in whole. Some topic areas are worthy of more comprehensive treatment, and for those who seek more information we have provided source material in footnotes throughout this report.

¹ Spectrum Gaming Group and Strategic Economic Group jointly completed the previous study, which was begun in 2013 and completed in 2014; see http://www.spectrumgaming.com/wp-content/uploads/2018/04/studysocioeconomicimpact2014_0.pdf

A. Studying Social Impacts

Significantly, the State² did not seek to determine whether the presence of a casino was responsible for negative social impacts. That point will be emphasized throughout the social-impacts sections of this report. No such study has even been undertaken in Iowa, and it is beyond the scope of this report to proffer such conclusions. Rather, this report was commissioned to determine whether communities with casinos experienced greater impacts in a variety of areas such as crime, bankruptcies, and divorces. And, for the most part, Spectrum found that they did. It is important to note that correlation does not equal causation.

The literature on social costs and their monetary measurement continues to evolve, with wide variations. By way of example, past studies on a national level have suggested that the monetary cost of each disordered gambler, per year, ranged from around \$1,000 up to \$50,000.³ The wide range of estimated costs obviously indicates differences in how social costs have been measured, while a narrower range of social cost estimates is \$9,400 to \$10,330.⁴

The estimate of \$10,330, by Earl Grinols, is based on an average of a number of studies, most of which were not peer-reviewed or published in academic journals.⁵ Nevertheless, the Grinols estimate is one that is commonly cited, probably because it is based on a variety of other work. Grinols also suggests that the benefits of legal gambling are outweighed by the costs, at a ratio of 3:1.⁶

With that background in mind, the nature of an examination such as this must recognize from the outset that economic and social impacts can correlate to a variety of factors, and when examining the impact of casinos, care must be taken to recognize that certain impacts are the result of changes in general economic conditions, and are not the effect of the particular nature of the casino industry.

The work by Spectrum professionals in this area, which extends back more than four decades, demonstrates that effects on bankruptcies and crime, for example, must be reviewed in the proper context. The authorization of a casino in a local community can have a profound economic effect simply by adding significant employment and disposable income to the local economy. Such increases can, in turn, create opportunities for additional business development. Small businesses that might have been able to survive in a pre-casino environment can find themselves facing new competition that might, in certain instances, be highly competitive in terms of the quality of goods. So, while some businesses may

² Where “State” is capitalized in this report, it refers to the State government and/or its departments.

³ For a more detailed discussion of these studies, see Douglas M. Walker, *Casinomics: The Socioeconomic Impacts of the Casino Industry*. New York, NY: Springer, 2013, p. 162.

⁴ William N. Thompson, Ricardo C. Gazel, and Dan Rickman, “Social and Legal Costs of Compulsive Gambling,” *Gaming Law Review*, Volume 1 (1997), pp. 81-89; Earl L. Grinols, *Gambling in America: Costs and Benefits*. New York, NY: Cambridge University Press, 2004.

⁵ See Grinols (2004), pp. 172-174.

⁶ See Grinols (2004), p. 180.

fail, are such failures related to increased economic activity, or to the particular nature of the casino industry?

At the same time, an increase in crime may be the result of an increase in opportunity, as well as an increase in specialized criminal activity. For example, criminals who prey on thefts from casino players will not gravitate toward communities that do not have casinos. Those are examples of the broader context in which such analyses and findings need to be reviewed.

We note that the US General Accounting Office (now known as the Government Accountability Office) also found in its 2000 report titled *Impact of Gambling: Economic Effects More Measurable Than Social Effects* that measuring social impacts of casino gaming was difficult. The report concluded:

The social effects of gambling on communities are more difficult to measure than the economic effects, primarily because of limited quality data on social effects, the complexity of identifying and measuring social effects, and the difficulty of establishing a cause-effect relationship between gambling and social problems due to the difficulty of isolating any one factor that causes social problems. NGISC (the National Gambling Impact Study Commission) made no conclusion on whether or not gambling has increased family problems, crime, or suicide for the general population.⁷

Fortunately for the purposes of this report, data were available on both the federal and state level to address and answer the social-impact questions asked by the State of Iowa. To accomplish the task, we relied on data maintained by Iowa Problem Gambling Services, the Iowa Racing and Gaming Commission, the Iowa Department of Public Health, and the US Census and Federal Reserve.

Although the volume and depth of data related to the social impacts of gambling cannot compare to the economic data at our disposal, we have collected and used such data to answer the State's questions to the extent reasonably possible.

B. Overview of Iowa Casino Gaming

Iowa is home to 19 state-regulated casinos. Each has an agreement with a qualified sponsoring organization ("QSO"), which are nonprofit corporations that receive a portion of their respective casino operator's gaming revenue as stipulated in each agreement. The nonprofits then reinvest in designated causes in their community, region or state. The QSOs also receive 0.75% of sports wagering net receipts. Further, 0.8% of adjusted gross receipts ("AGR")⁸ is deposited in the county endowment fund under the control of the Department of Revenue and distributed to the 84 counties without casinos.

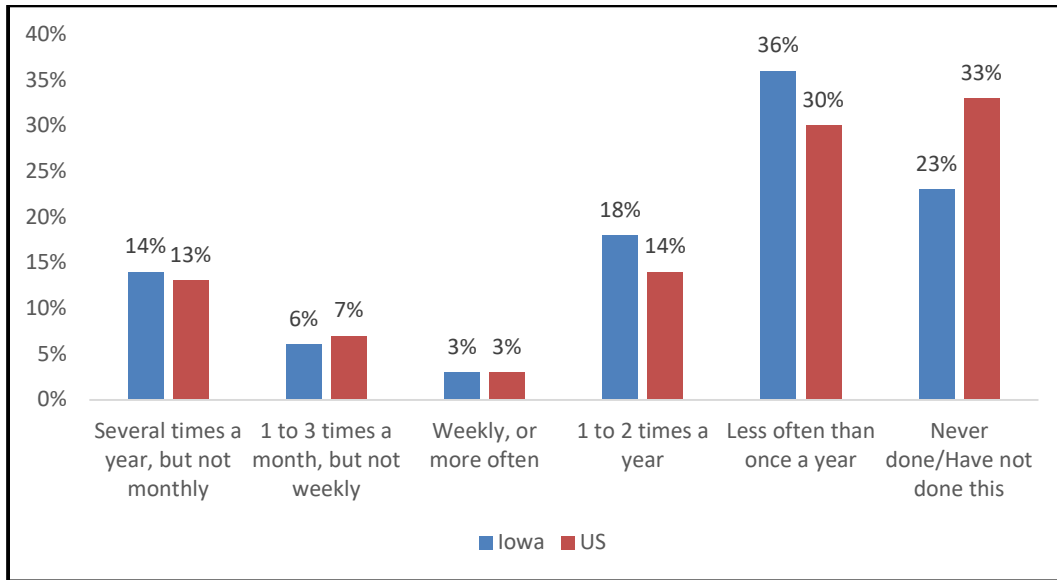
The following chart highlights some differences between casino visitation trends in Iowa and those of visitation trends nationally. Note that this survey was conducted in late 2018 by market research

⁷ "Impact of Gambling: Economic Effects More Measurable Than Social Effects," US General Accounting Office, April 2000, p. 8. <https://www.gao.gov/assets/ggd-00-78.pdf>

⁸ Adjusted gross receipts means the gross receipts less winnings paid to wagerers on gambling games. It is synonymous with the more widely used term "gross gaming revenue."

firm IPSOS for the National Council on Problem Gambling. While 3,000 surveys were conducted nationally, only 29 surveys were of lowans.⁹ The survey shows a generally close correlation in visitation.

Figure 1: Visitation at a casino for any reason (gambling or otherwise)



Source: National Survey of Gambling Attitudes and Gambling Experiences

The Iowa casinos at year-end 2020 employed 6,237 people, of whom 73% were lowans. The casinos' total payroll for the year was \$243.5 million.¹⁰ The Iowa casinos in calendar year 2020, which was impacted by the Covid-19 pandemic, generated AGR of \$1.13 billion, a decline of 23.3% over both 2019 and 2018. The casinos pay a State tax on their gaming revenues, as shown in the following schedule:

Figure 2: Iowa gaming tax rates

Type of Facility	First \$1M of AGR	AGR >\$1M to \$3M	AGR >\$3M
Riverboat and Gambling structures	5%	10%	22%
Racetrack enclosures with a table game license and no other licensees in the same county	5%	10%	24%
Racetrack enclosures issued a table game license in the same county as other licensees	5%	10%	22% (24% if AGR is >\$100M)

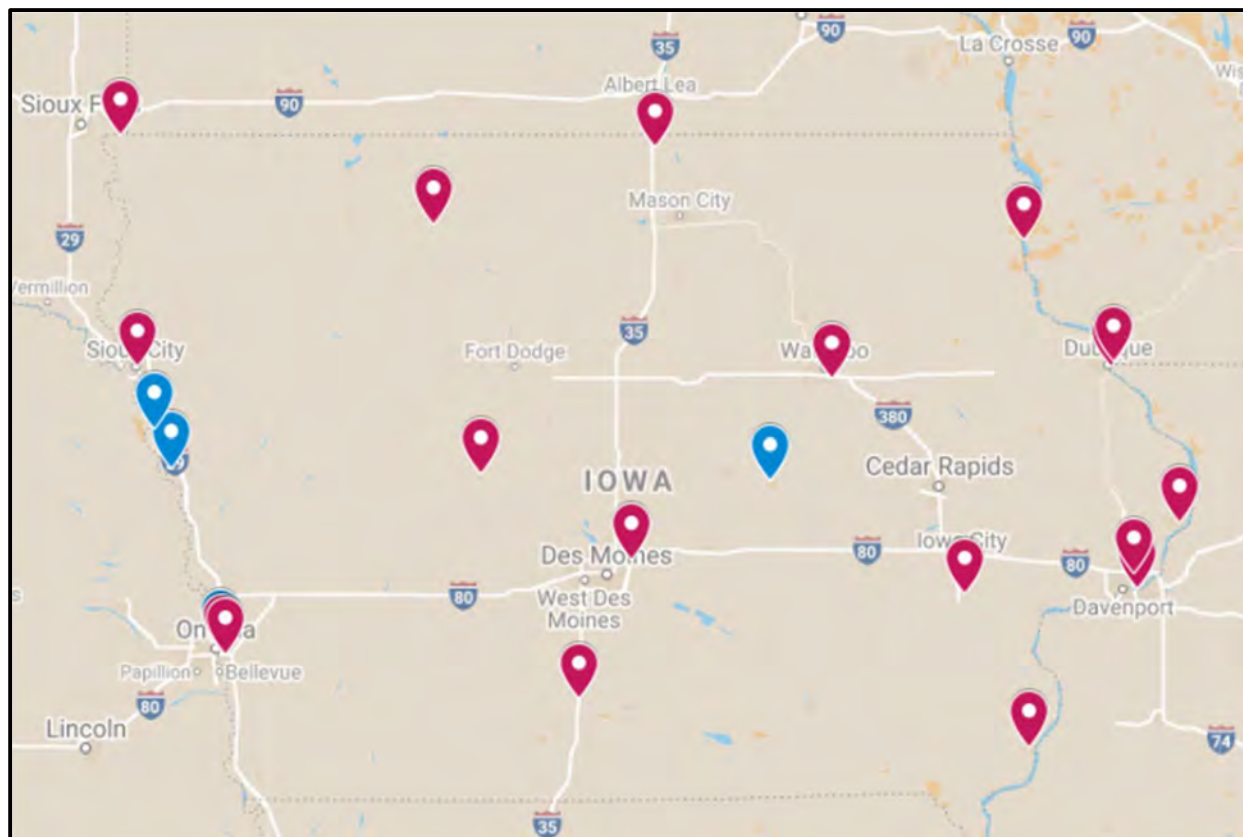
Source: Iowa Racing and Gaming Commission

Iowa's 19 state-regulated casinos are well distributed throughout the state based on geography, population and proximity to state borders, as shown in the following map. In addition, there are four Native American casinos in the state.

⁹ National Council on Problem Gambling, "National Survey on Gambling Attitudes and Gambling Experiences." <https://www.ncpgsurvey.org/research-methodology/> (accessed October 21, 2021)

¹⁰ Iowa Racing and Gaming Commission, "Annual Report 2021," p. 23. <https://irgc.iowa.gov/sites/default/files/documents/2021/03/Annual%20Report%202020.pdf>

Figure 3: Map of Iowa casino locations



Source: Google Maps. State-regulated casinos shown in red markers, Native American casinos shown in blue markers. (Some markers overlap or may be obscured in certain markets.)

C. Study Methodology

Spectrum deployed a seven-person team to undertake this study, four of whom were key contributors to the 2013-2014 Iowa socioeconomic gaming study, including a principal of Iowa-based Strategic Economics Group. The Spectrum team relied on the following primary methods for our research and analysis:

- Data collection: The IRGC detailed performance metrics on a monthly basis for the state-regulated casinos. Data used in this study were the latest available. Spectrum also relied on extensive public data from other Iowa state agencies.
 - Spectrum further solicited via the Iowa Gaming Association private data from individual casino operators for use in our analysis. Representatives from each of the state's 19 casinos provided proprietary information and data on the condition that neither they nor their respective casinos be identified in this report.
- Interviews: Spectrum interviewed 34 people in person, by telephone, or by email (Appendix A). We endeavored to contact a wide range of stakeholders, whether they worked in the gaming realm or not.
 - In addition, we undertook an informal survey of Iowa city officials (mayors, city administrators, city clerks, and county auditors and supervisors) in communities

where casinos are located. Completed surveys were returned for 9 of the 16 casino communities. The surveys requested information on how their communities have been impacted by the casinos. The surveys asked about how the casinos impacted city finances as well as requirements for additional services. In addition, respondents were asked to comment on any beneficial and adverse impacts arising from the casinos.

- Financial modeling: Spectrum used a number of analytical tools and models to analyze gaming data, demographics, and geography to help with our assessment of the current and future casino and sports wagering industries.
- Our experience: Spectrum has been providing independent research and professional services related to the gaming industry since 1993. We have conducted studies or consultations in 42 US states and territories and in 48 countries on six continents, including for numerous state, tribal and national governments. Among Spectrum's projects are statewide gaming studies for the state governments of Connecticut, Florida, Iowa, Louisiana, Massachusetts, New York, North Carolina, Ohio, and Washington. Spectrum professionals participating in this project included experts in financial analysis, economics, finance, regulation, casino operations, sports wagering analysis, public policy, and journalism.

Unlike in our report in 2014 for the IRGC in which Spectrum developed an average rate for casino counties vs. non-casino counties, this report compares casino counties individually with non-casino counties that are demographically similar. We believe doing so gives a more accurate picture. We developed data for metropolitan counties, non-metropolitan counties and rural counties.

Throughout the course of this project, we received a high level of cooperation from our research sources and interview subjects throughout the state.

D. About Spectrum Gaming Group

This report was prepared by Spectrum Gaming Group in collaboration with Strategic Economics Group ("SEG"). Spectrum is a non-partisan consultancy founded in 1993 that specializes in the economics, regulation and policy of legalized gambling worldwide. Our principals have backgrounds in operations, economic analysis, law enforcement, regulation, research and journalism.

Spectrum holds no beneficial interest in any casino operating companies or gaming equipment manufacturers or suppliers. We employ only senior-level executives and associates who have earned reputations for honesty, integrity and the highest standards of professional conduct. Our work is never influenced by the interests of past or potential clients.

Each Spectrum project is customized to our client's specific requirements and developed from the ground up. Our findings, conclusions and recommendations are based solely on our research, analysis and experience. Our mandate is not to tell clients what they want to hear; we tell them what they need to know. We will not accept, and have never accepted, engagements that seek a preferred result.

Our clients in 42 US states and territories, and in 48 countries on six continents, have included government entities of all types and gaming companies (national and international) of all sizes, both public and private. In addition, our principals have testified or presented before the following governmental bodies:

- Brazil Chamber of Deputies
- British Columbia Lottery Corporation
- California Assembly Governmental Organization Committee
- Connecticut Public Safety and Security Committee
- Florida House Select Committee on Gaming
- Florida Senate Gaming Committee
- Georgia House Study Committee on the Preservation of the HOPE Scholarship Program
- Georgia Joint Committee on Economic Development and Tourism
- Illinois Gaming Board
- Illinois House Executive Committee
- Indiana Gaming Study Commission
- Indiana Horse Racing Commission
- International Tribunal, The Hague
- Iowa Racing and Gaming Commission
- Louisiana House and Senate Joint Criminal Justice Committee
- Massachusetts Gaming Commission
- Massachusetts Joint Committee on Bonding, Capital Expenditures, and State Assets
- Michigan Senate Regulatory Reform Committee
- National Gambling Impact Study Commission
- New Hampshire Gaming Study Commission
- New Jersey Assembly Regulatory Oversight and Gaming Committee
- New Jersey Assembly Tourism and Gaming Committee
- New Jersey Senate Legislative Oversight Committee
- New Jersey Senate Wagering, Tourism & Historic Preservation Committee
- New York Senate Racing, Gaming and Wagering Committee
- New York State Economic Development Council
- North Dakota Taxation Committee
- Ohio House Economic Development Committee
- Ohio Senate Oversight Committee
- Pennsylvania Gaming Control Board
- Pennsylvania House Gaming Oversight Committee
- Puerto Rico Racing Board
- US House Congressional Gaming Caucus
- US Senate Indian Affairs Committee
- US Senate Permanent Subcommittee on Investigations
- US Senate Select Committee on Indian Gaming
- US Senate Subcommittee on Organized Crime
- Washington State Gambling Commission
- West Virginia Joint Standing Committee on Finance
- World Bank, Washington, DC

Project partner Strategic Economics Group is an Iowa-based economic, public policy, and planning consultancy. Its staff possess experience in the areas of urban and regional planning, economic development planning, transportation planning, energy market analysis, retail trade analysis, housing analysis, gaming and recreation development studies, policy analysis and fiscal analysis. SEG has served business, government and trade association clients in Iowa and the Midwest since 2001. The SEG team

develops economic impact studies, fiscal impact estimates, cost-benefit models, planning studies, and management information systems. In addition, SEG has extensive knowledge of state and regional tax and other business incentive programs. SEG's partners previously served in high-level economic, planning, and public policy positions in Iowa State government, and they have served as faculty at Iowa State University and Drake University.

Disclaimer

Spectrum has made every reasonable effort to ensure that the data and information contained in this study reflect the most accurate and timely information possible. The data are believed to be generally reliable. This study is based on estimates, assumptions, and other information developed by Spectrum from its independent research effort, general knowledge of the gaming industry, and consultations with the IRGC. The data presented in this study were the latest available through September 2021. Spectrum has not undertaken any effort to update this information since this time.

Some significant factors that are unquantifiable and unpredictable – including, but not limited to, economic, governmental, managerial and regulatory changes; and acts of nature – are qualitative by nature and cannot be readily used in any quantitative projections. No warranty or representation is made by Spectrum that any of the projected values or results contained in this study will actually be achieved. We shall not be responsible for any deviations in the project's actual performance from any predictions, estimates, or conclusions contained in this study.

1. Economic Impacts of Casinos on Host Communities

Iowa authorized riverboat and then casino gambling in large measure to stimulate and diversify local economies. This chapter analyzes the role casinos have played in their host communities. Because the economic impacts of casinos extend beyond the city where they are located, the analysis of economic impacts focuses on the counties in which casinos are located. Also, for less populated counties, economic data for sub-county jurisdictions are often not publicly available. However, city-level statistics are presented for some of the metropolitan-area casinos.

Nineteen state-regulated casinos currently operate in Iowa. They are located in fifteen counties. One county (Pottawattamie) contains three casinos. Two counties (Dubuque and Scott) contain two casinos each. The remaining 12 casinos are one per county.

Ten of the casinos are in metropolitan areas, and nine are not. Because casinos located in metropolitan counties represent a smaller share of total economic activity in their counties than do casinos located in non-metropolitan counties, economic impacts for the two groups of casinos are separately analyzed. In addition, because statistical analysis can only discern some of the impacts that casinos have on their local economies, information gathered from government officials is used to supplement the statistical analysis.

This chapter addresses the following questions:

- How have casinos impacted the overall economic climate of the communities where they are located?
- How have casinos impacted employment levels and opportunities in the communities where they are located?
- How have casinos impacted entertainment and recreation activities in the communities where they are located?
- How have casinos impacted the level of retail trade in the communities where they are located?
- How have casinos impacted local tax revenues in the communities where they are located?

A. Data Sources

The casino impact analysis begins by providing an overview of economic activity within casino communities. Three measures of economic activity from national data sources are used for this analysis. The measures are:

- Population
- Employment
- Personal Income

Data for these measures of economic activity are available back to 1990 and in some cases earlier. This allows the analysis to cover the period from when riverboat gambling began in Iowa in 1991 up

through 2019. We considered using county-level gross domestic product data, but those data are only available back to 2001.

In addition to the national data sources, two state data sources are used in this analysis. These data sources are retail sales statistics and real property valuations. Most of these data sources are only available back to 2000.

Following are brief discussions of the data sources for each of the measures.

1. Population

The US Census annually estimates total populations for states, counties, and places, which consist primarily of incorporated cities but also include some unincorporated areas. The estimates for states and counties are available back to 1969. The population estimates for cities are available only back to 1990.

This chapter presents population trends for counties in which casinos are located. These trends are traced from 1990 through 2020. The focus of the population analysis is twofold: first, population growth from five years before to five years after casino openings are compared; second, comparisons are made between the population growth in casino host counties relative to the state over the same periods. Similar comparisons are made for selected metropolitan-area cities where casinos are located when the countywide population changes obscure the local impacts of the casinos.

2. Employment

Multiple federal agencies produce employment estimates. They are the Bureau of Labor Statistics (“BLS”), the Census Bureau (“Census”), and the Bureau of Economic Analysis (“BEA”).

County employment estimates are made by the 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 county total non-farm and industry sector employment estimates back to 1990. 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 US Census Bureau’s County Business Patterns (“CBP”) series provides another source of employment estimates. Due to the Census Bureau’s retirement of the American Factfinder application, the CBP data are only readily available online back to 2012. However, databases from the 2014 *Socioeconomic Impact of Gambling in Iowa* study do contain data from earlier years.

Similar to the BLS data, the level of detail by industry in the CBP 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. The CBP estimates exclude government employment.

The BEA employment estimates start with the BLS employment data but then adjust for employment not covered by the Unemployment Insurance (“UI”) and the Unemployment Compensation for Unemployed Federal Civilian Employees (“UCFE”) programs. Types of workers excluded from the BLS estimates but counted by the BEA include:

- Employees of nonprofit organization not covered by the UI program
- Students and their spouses employed by public colleges or universities
- Elected officials and members of the judiciary
- Interns employed by hospitals and social service agencies
- Insurance agents classified as statutory employees
- Workers engaged in farming
- Workers in private households
- Private elementary and secondary school employees
- Employees of religious membership organizations
- Railroad workers
- Members of the active-duty military
- US residents employed by international organizations and by foreign embassies and consulates

Also, the BEA estimates distinguish between proprietors and wage and salary employees.

For consistency, like in the 2014 study, this study uses the CBP employment estimates in most cases. The employment analysis focuses on five sectors of the economy: bars and restaurants, lodging places, entertainment and recreation establishments, retailers, and construction companies. BEA employment estimates are used for the government sector.

3. Personal Income

The 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 net outflows of income.

Personal income data are available for 1969-2019. For 1969-2000, the industry data are summarized by SIC (Standard Industrial Classification) and from 2001-2019 the industry data corresponds to the NAICS 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.

4. Retail Sales

The Iowa Department of Revenue (“Iowa DOR”) has compiled and published quarterly taxable retail sales statistics reports dating back to the enactment of the state’s sales tax in 1934. The quarterly statistical reports are available in electronic form only back to the first quarter of 2000. Although sales tax statistics are compiled for 250 types of retail establishments, the quarterly reports summarize sales into twelve broad categories to prevent the disclosure of proprietary information. The twelve summary categories are:

- Apparel stores
- Building materials, garden and hardware stores
- Eating and drinking places (i.e., restaurants and bars)
- Food dealer (grocery and convenience) stores
- General merchandise (i.e., department, discount and variety) stores
- Home furnishings and appliance stores
- Miscellaneous (e.g., manufacturers and construction contractors)
- Motor vehicle dealers and accessories stores
- Personal and business services providers
- Specialty retail stores
- Utilities and transportation service providers
- Wholesale goods dealers

For this study two groups of taxable retail sales are analyzed. Taxable sales by restaurants and bars is the first group. The second group is referred to as traditional retailers and will include: (1) apparel stores, (2) building materials, garden and hardware stores, (3) food dealers, (4) general merchandise stores, (5) home furnishings and appliance stores, and (6) specialty retail stores.

5. Real Property Valuations

Iowa’s county and city assessors estimate the value of real property, which provides the basis for assessing property taxes. The Iowa Department of Management (“Iowa DOM”) publishes annual summaries of the valuations by county and city for ten property classes. The years for which data are readily available are 2000 to 2019. The primary property classes and their shares of total valuations statewide for 2019 are: residential (58.4%), agricultural land (13.5%), commercial (13.3%), gas and electric utilities (6.6%), industrial (3.5%), and multifamily residential (2.1%). The multifamily residential class has only existed since 2015. Prior to that time these properties were included in the commercial class. For consistency across all years, the commercial and multifamily residential valuations are combined in this analysis.

For this study, the residential and commercial valuations are used to evaluate the impact of casinos on economic development in their host communities. Valuations for other property classes are determined by exogenous factors, such as the prices of agricultural commodities and national and international demands for manufactured goods. Consequently, it is unlikely the valuations of other types of real property are influenced by the existence of casinos.

B. Statewide Economic Trends

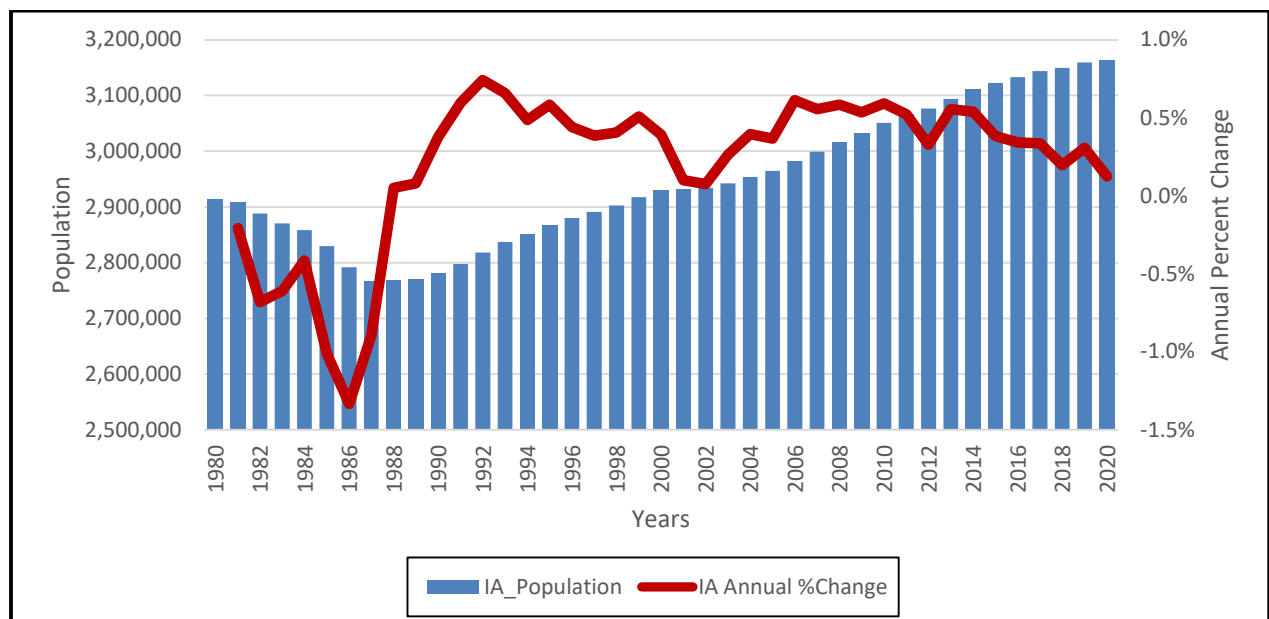
Before addressing the economic impacts casinos have on their host communities, perspective for that analysis is provided by looking at population, employment, and personal income trends for the state. Data for each of these measures extend back to at least 1990. The state taxable retail sales and property valuation data only extend back to the early 2000s, but nevertheless they provide perspective for most of the past two decades.

1. Population

Figure 4 shows Iowa's population and annual percent changes in population from 1980 through 2020. During the farm recession of the 1980s, Iowa experienced a 147,012 (5.0%) decline in population between 1980 and 1987. By 1990 it recovered only about 10% of the loss, reaching a population of 2,781,018. By 2000, Iowa's population increased to 2,929,067, which equaled an increase of 148,049 (5.3%) over the decade. Between 2000 and 2010 Iowa gained another 121,752 (4.2%). Over the past decade Iowa grew another 112,742 (3.7%) reaching a total population of 3,163,561 in 2020.

As the chart shows, Iowa's rate of population growth has been declining since the early 1990s. It took a deep dive during the 2001 dot-com recession. Then, it took about five years to recover. Another smaller decline in the population growth rate occurred during the housing collapse of the Great Recession of 2008-2009. But due to a strong agricultural sector during that economic downturn, Iowa experienced less of an impact than did the nation overall. Since 2014, Iowa's rate of population growth has declined noticeably, falling to just 0.13% during 2020.

Figure 4: Iowa population and annual growth rate, 1980-2020



Source: US Census

2. Employment

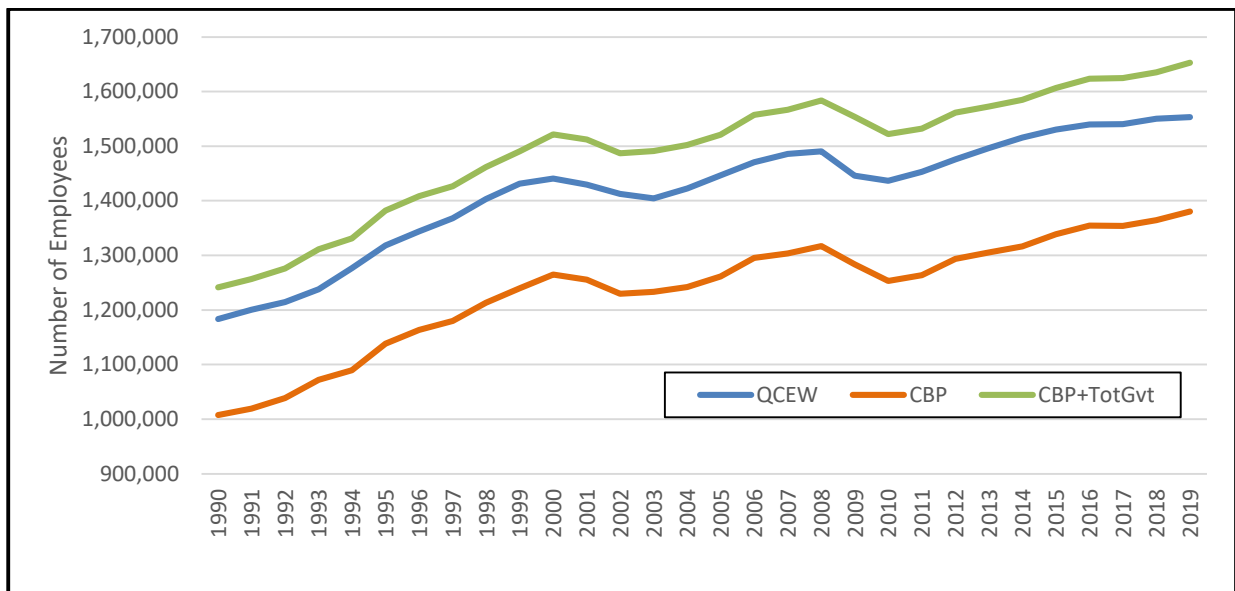
Figure 5 shows three estimates of total employment by year from 1990-2019. The sources of the three estimates are:

- Quarterly Census of Employment and Wages (“QCEW”)
- County Business Patterns (“CBP”)
- County Business Patterns plus Total Government Employment (“CBP+TotGvt”)

The most comprehensive of the estimates is the CBP estimates based on the annual March 12 counts plus the government employment estimates derived by the BEA. On average over the 30 years, the ratio of the QCEW to CBP+TotGvt estimates equals 94.9% and the ratio of the CBP to CBP+TotGvt estimates equals 82.7%. Over the 30 years, total employment in Iowa represented by the CBP+TotGvt estimates increased from 1,241,489 to 1,652,705, or by 411,216 (33.1%). Also, over this period, the ratio of this measure of total employment to population for Iowa increased from 44.6% to 52.3%.

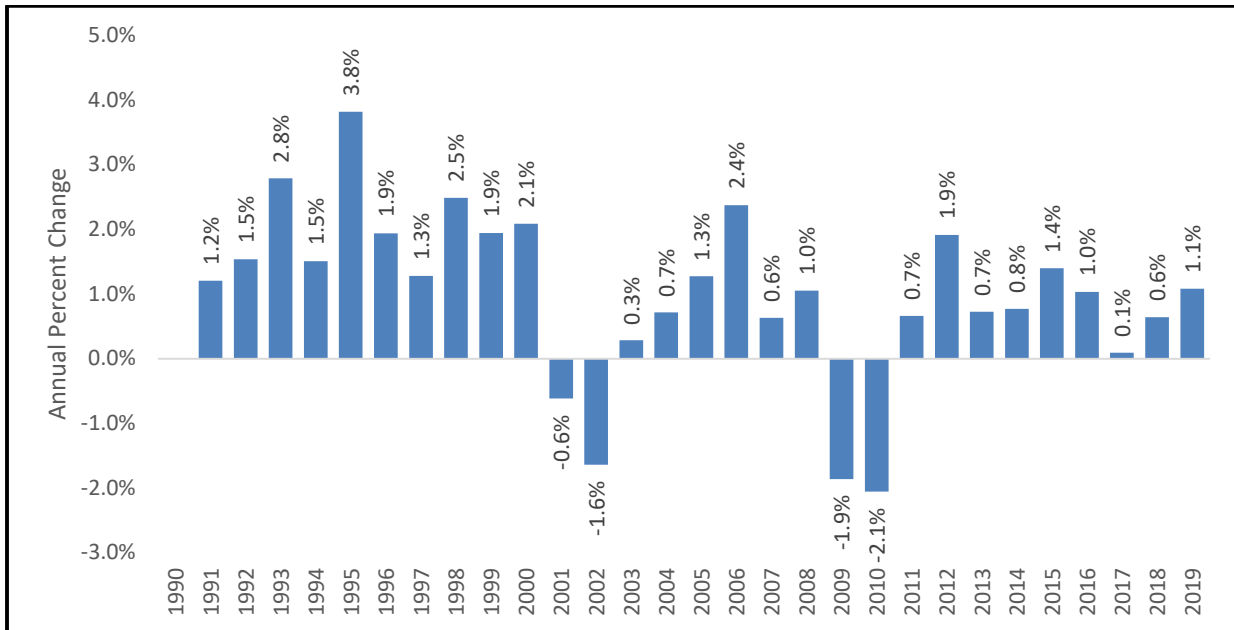
However, as Figure 6 shows, the growth in employment has not been steady. The recessions of 2001 and 2008-2009 caused employment declines. Also, the rate of employment growth has declined over the 30 years. The average annual rates of change equaled 2.1% between 1990 and 2000, but only 0.9% from 2010 to 2019. During the middle decade, 2000 to 2010, which began and ended with recessions, there was no growth on an average annual basis.

Figure 5: Alternative measures of Iowa total employment, 1990-2019



Source: US Bureau of Labor Statistics, US Census, US Bureau of Economic Analysis

Figure 6: Annual percent change in Iowa total employment, 1990-2019



Source: US Census, US Bureau of Economic Analysis

Figure 7 presents annual statewide CBP employment estimates from 1990 through 2019 for the construction, bar and restaurant, lodging, entertainment, and retail sectors of the economy. Also, included in the table are government employment estimates from the BEA.

Changes in employment and percent changes are summarized in Figure 8 by decade for each of the six economic sectors. Some key observations about employment changes over the three decades include:

- The greatest percentage growth for all sectors occurred between 1990 and 2000.
- The construction and retail sectors experienced large employment losses between 2000 and 2010.
- The entertainment sector, which includes gambling, experienced strong growth between 1990 and 2000, minimal growth between 2000 and 2010, and a 12.5% decline since 2010.
- The construction and lodging sectors have both experienced strong growth since 2010.

Figure 7: Iowa statewide employment estimates for selected sectors, 1990-2019

Year	Total Non Farm	Construction	Bars & Restaurants	Lodging Places	Entertainment	Retail	Gov't
1990	1,007,900	41,443	76,202	12,031	12,945	160,118	233,589
1991	1,019,245	41,969	75,794	11,813	13,589	162,866	237,192
1992	1,038,327	44,368	78,500	13,288	14,631	163,390	237,398
1993	1,071,996	44,888	80,450	13,308	16,632	159,633	239,267
1994	1,089,774	46,999	80,531	12,047	16,017	163,481	241,199
1995	1,138,402	51,070	82,700	12,961	19,141	166,828	243,339
1996	1,163,559	53,031	84,364	14,017	23,234	170,038	244,927
1997	1,179,660	57,971	84,948	15,379	18,549	171,296	246,806
1998	1,213,285	58,557	87,450	16,191	17,843	177,723	248,650
1999	1,239,354	61,269	87,608	16,811	18,434	179,815	250,930
2000	1,265,064	65,122	88,338	16,740	19,829	183,999	256,256
2001	1,255,162	58,895	87,082	15,895	19,301	181,794	256,745
2002	1,229,609	57,740	87,711	16,073	19,874	176,903	257,482
2003	1,232,865	58,159	87,717	16,472	19,819	176,596	258,400
2004	1,241,864	61,166	91,580	15,691	20,397	178,251	260,026
2005	1,261,108	62,855	92,977	15,462	21,811	178,216	259,867
2006	1,295,258	64,574	96,410	15,367	22,688	181,376	261,801
2007	1,303,436	63,715	96,285	17,426	21,458	180,441	263,411
2008	1,317,121	62,669	95,962	19,107	22,824	180,264	266,157
2009	1,283,769	59,574	95,385	18,360	21,696	177,640	270,022
2010	1,253,095	55,283	93,431	17,538	20,758	174,080	268,724
2011	1,263,665	53,104	94,490	17,269	20,769	174,126	268,201
2012	1,293,694	56,878	96,197	18,456	21,020	175,899	267,464
2013	1,305,216	56,983	96,608	18,757	20,346	178,668	267,218
2014	1,316,447	59,784	98,047	18,327	21,366	180,421	268,079
2015	1,338,418	64,083	98,650	20,083	19,792	184,663	268,198
2016	1,354,487	66,874	101,338	20,094	20,389	187,275	268,713
2017	1,353,681	67,984	102,454	21,222	19,108	179,727	270,980
2018	1,364,250	66,871	102,635	22,373	18,190	180,366	270,812
2019	1,380,747	65,488	100,802	21,363	18,170	187,226	271,958

Source: County Business Patterns, Bureau of Economic Analysis

Figure 8: Change and percent change in employment for selected sectors by decade

Change	Total Non Farm	Construction	Bars & Restaurants	Lodging Places	Entertainment	Retail	Gov't
1990-2000	257,164	23,679	12,136	4,709	6,884	23,881	22,667
2000-2010	-11,969	-9,839	5,093	798	929	-9,919	12,468
2010-2019	127,652	10,205	7,371	3,825	-2,588	13,146	3,234
Percent Change							
1990-2000	25.51%	57.14%	15.93%	39.14%	53.18%	14.91%	9.70%
2000-2010	-0.95%	-15.11%	5.77%	4.77%	4.69%	-5.39%	4.87%
2010-2019	10.19%	18.46%	7.89%	21.81%	-12.47%	7.55%	1.20%

Source: County Business Patterns, Bureau of Economic Analysis

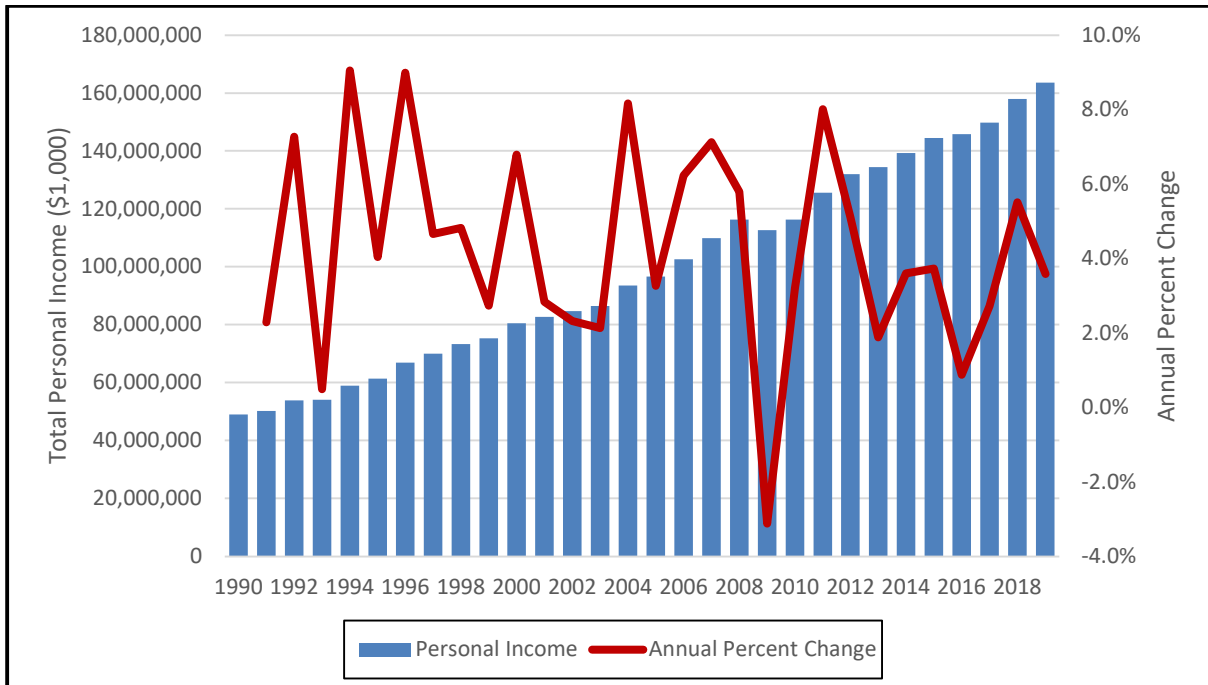
3. Personal Income

In addition to population and the share of population that is employed, how much workers and business proprietors earn explains a great deal about the condition of an area's economic vitality. As with population and employment, Iowa's share of national personal income has declined over the past three decades. In 1990, Iowans earned about 1.0% of personal income nationally. In 2019, Iowa's share of national personal income dropped below 0.9%.

As shown in Figure 9, Iowa has experienced significant variability in year-to-year growth in total personal income since 1990. Annual growth rates varied from a high of 9.1% in 1994 to a low of -3.1% in 2009. Iowa's agricultural sector explains much of the variability. Figure 10 illustrates this by comparing growth rates of total and non-farm personal income. Over the 30 years, farm personal income growth averaged 15.9% per year and ranged from -67.6% to 226.9%.

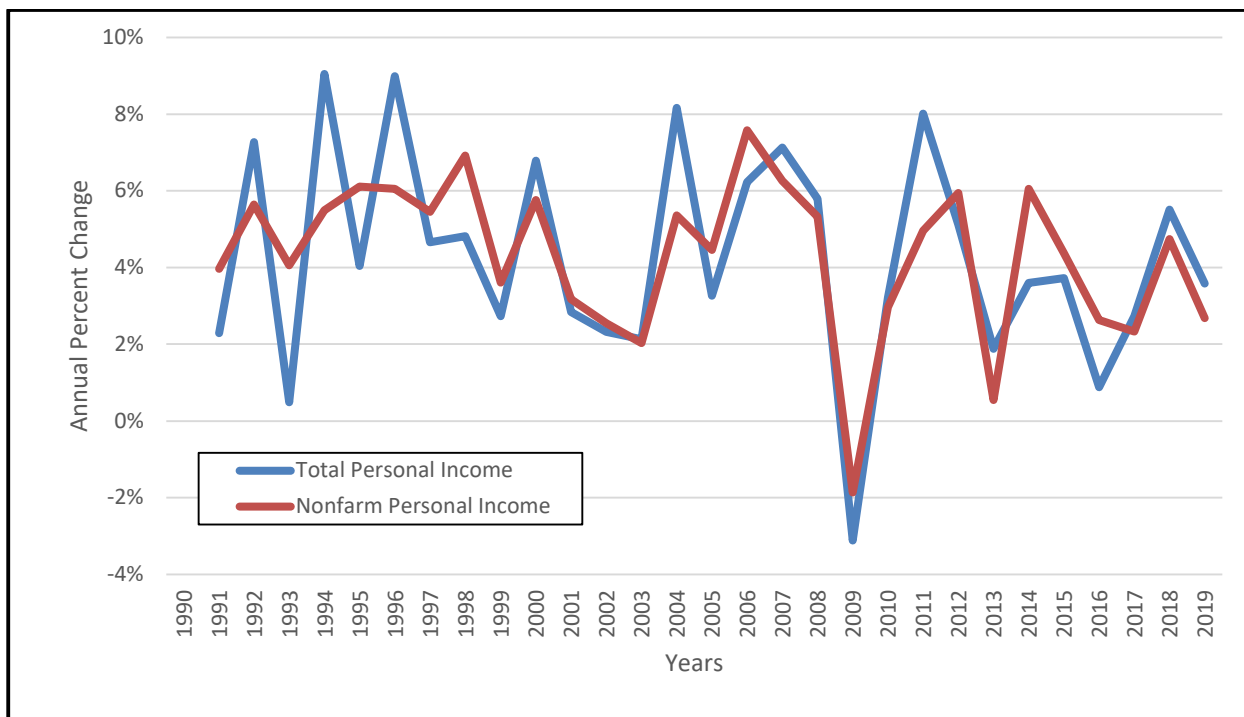
Figure 10 shows the percent change by decade of the five major components of personal income from 1980 through 2020. Most noteworthy for this study, the growth rates for both the wage and salary and the benefits components of Iowa personal income declined over the past 40 years. In 1980, wages and salaries accounted for 50.6% of total Iowa personal income, but in 2020 the wage and salary share equaled only 42.4%. On the other hand, the share of total personal income accounted for by benefits did increase, but only slightly from 8.6% in 1980 to 10.9% in 2020. Transfers accounted for the largest share of growth – from 11.4% in 1980 to 20.7% in 2020. There was a particularly large jump between 2010 and 2020, which likely is due to social insurance and agricultural subsidies.

Figure 9: Iowa total personal income, 1990-2019



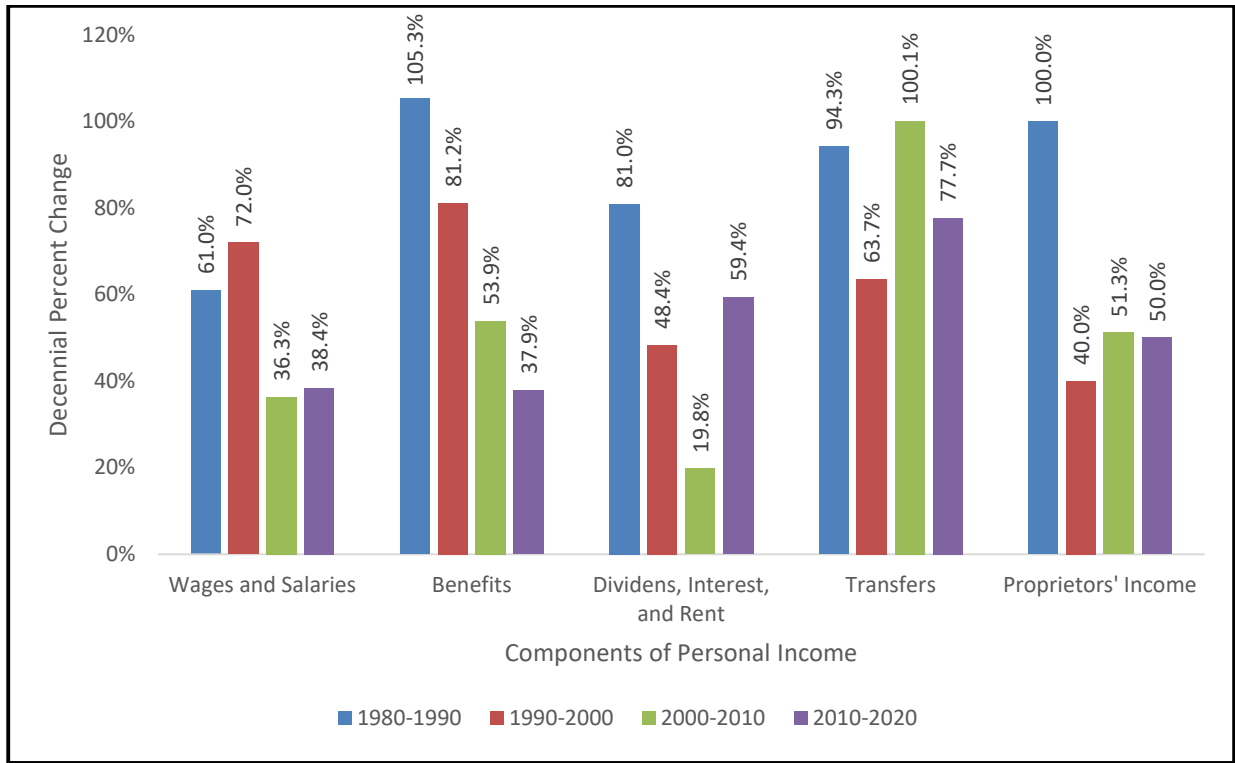
Source: US Bureau of Economic Analysis

Figure 10: Total and non-farm Iowa personal income annual growth rates, 1990-2019



Source: US Bureau of Economic Analysis

Figure 11: Decennial percent change for Iowa personal income components, 1980-2020



Source: Bureau of Economic Analysis

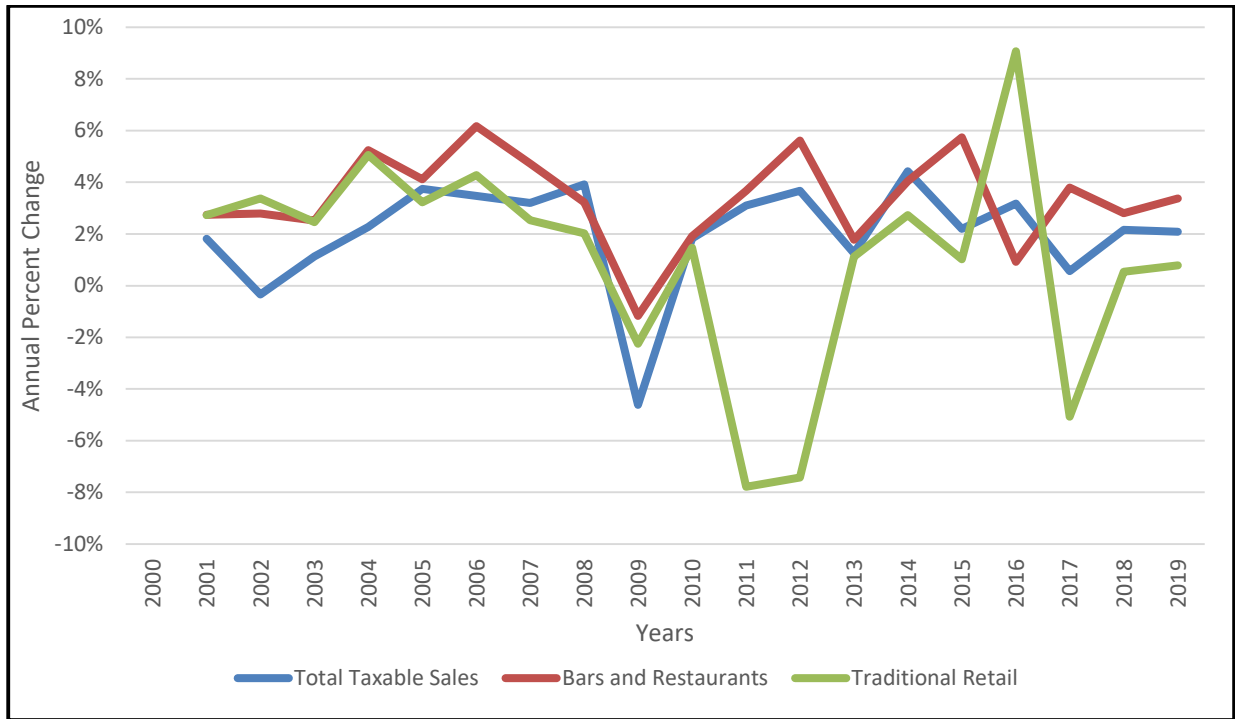
4. Retail Sales

Taxable retail sales provide a measure of economic vitality that may be considered a composite of many singular measures. It subsumes the population, employment, and personal income of an area's resident population, but in addition it reflects economic activity related to in-bound visitation. Also, taxable retail sales provide a gauge of economy-wide price changes and general fluctuations of economic activity during business cycles.

Two groupings of retail sales statistics published by the Iowa DOR provide particularly useful insights into the influence of casinos on their host communities. One group consists of traditional retailers, which includes stores that sell apparel, building materials and supplies, home furnishings and appliances, grocery and convenience items, as well as department stores, discount stores, and specialty retailers. The other group includes bars and restaurants, for which sales are particularly sensitive to recreation, entertainment, and tourism activities.

Figure 12 shows the year-to-year fluctuations in total, traditional retail, and bar and restaurant taxable sales in Iowa from 2000 through 2019. The chart for total taxable sales corresponds well with cyclical fluctuations in the overall economy. The declines in 2002 and 2009 correspond with national recessions, and the 2017 dip matches a regional slowdown at least partially due to the agricultural sector.

Figure 12: Taxable sales annual percent change, 2000-2019



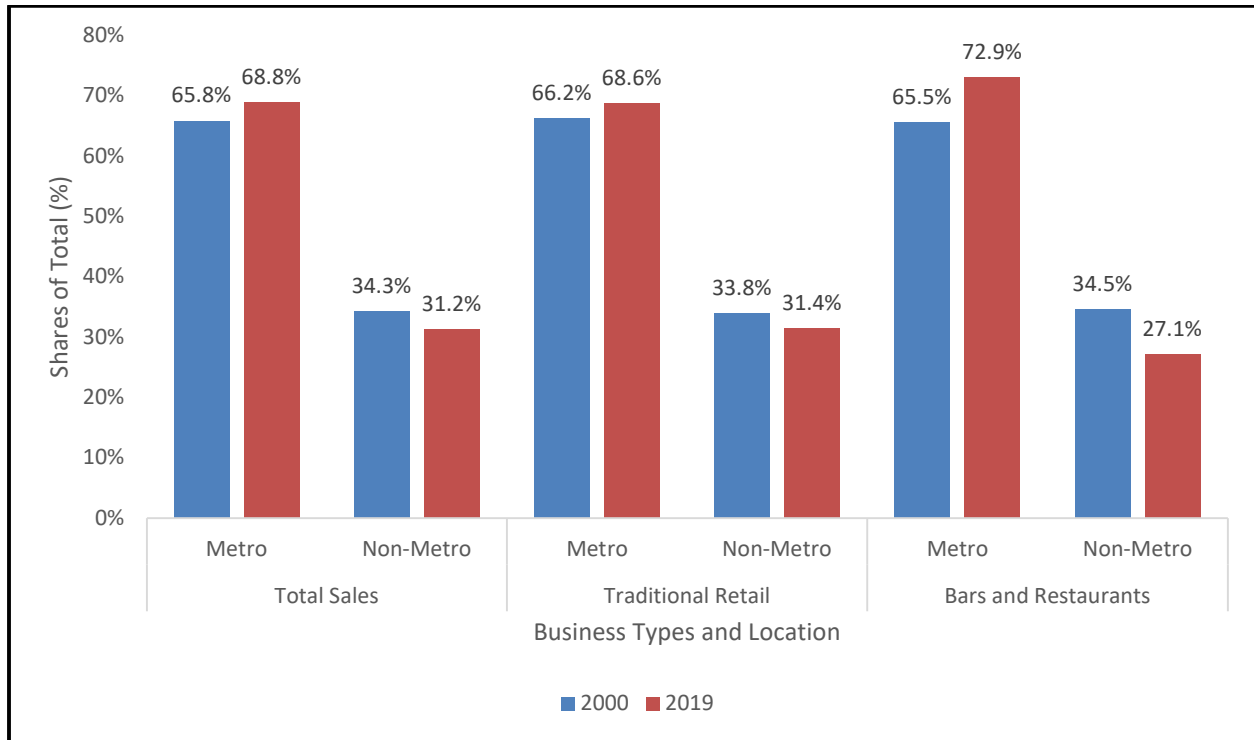
Source: Iowa Department of Revenue

On average, traditional retail sales accounted for 48.6% of total taxable sales in Iowa from 2000-2019. This group’s share reached a high of 54.4% in 2007 and a low of 40.7% in 2019. The annual growth rate for traditional retail sales experienced three large drops over the period. Sales declined by 2.3% in 2009 and then by a much larger and sustained drop of 7.8% in 2011 and another 7.4% in 2012. During 2017, the growth rate dropped by 5.1%.

Bars and restaurants accounted for an average of 10.2% of total taxable sales over the two decades. The share of total taxable sales captured by bars and restaurants grew from 8.9% to 11.3%. The annual sales growth rate for these businesses fluctuated less than it did for total sales and for sales by traditional retailers, ranging from a decline of 1.2% during 2009 to a high of 6.2% during 2006. In comparison, the annual growth rate for taxable sales by traditional retailers ranged from a low of -7.8% in 2011 to a high of 9.1% during 2016.

Another important feature of retail sales for the analysis of casino impacts is the split between sales that occur in metropolitan area versus non-metropolitan area counties. Figure 13 shows changes in the metropolitan and non-metropolitan area taxable sales shares between 2000 and 2019 for total, traditional retail, and bar and restaurant sales.

Figure 13: Metro and non-metro taxable sales shares, 2000 and 2019



Source: Iowa Department of Revenue

Most of our analysis concludes in 2019 rather than 2020. Due to the coronavirus pandemic, many businesses were forced to close for two or more months during the spring and summer of 2020, and then, even when they reopened for business they had to operate at a reduced scale. Bars, restaurants and entertainment and recreation businesses suffered greatly from these restrictions. For example, during 2020, bars and restaurants experienced a 13.5% drop in taxable sales. On the other hand, sales by many traditional retailers – such as businesses that sold building materials, exercise equipment, paper and cleaning products, etc. – experienced strong sales during the same period. In Iowa, traditional retailers showed taxable sales growth of 4.9%. Service companies, building contractors, remote sellers, and other service companies saw their taxable sales jump by more than 100%. Clearly, 2020 was not a typical year.

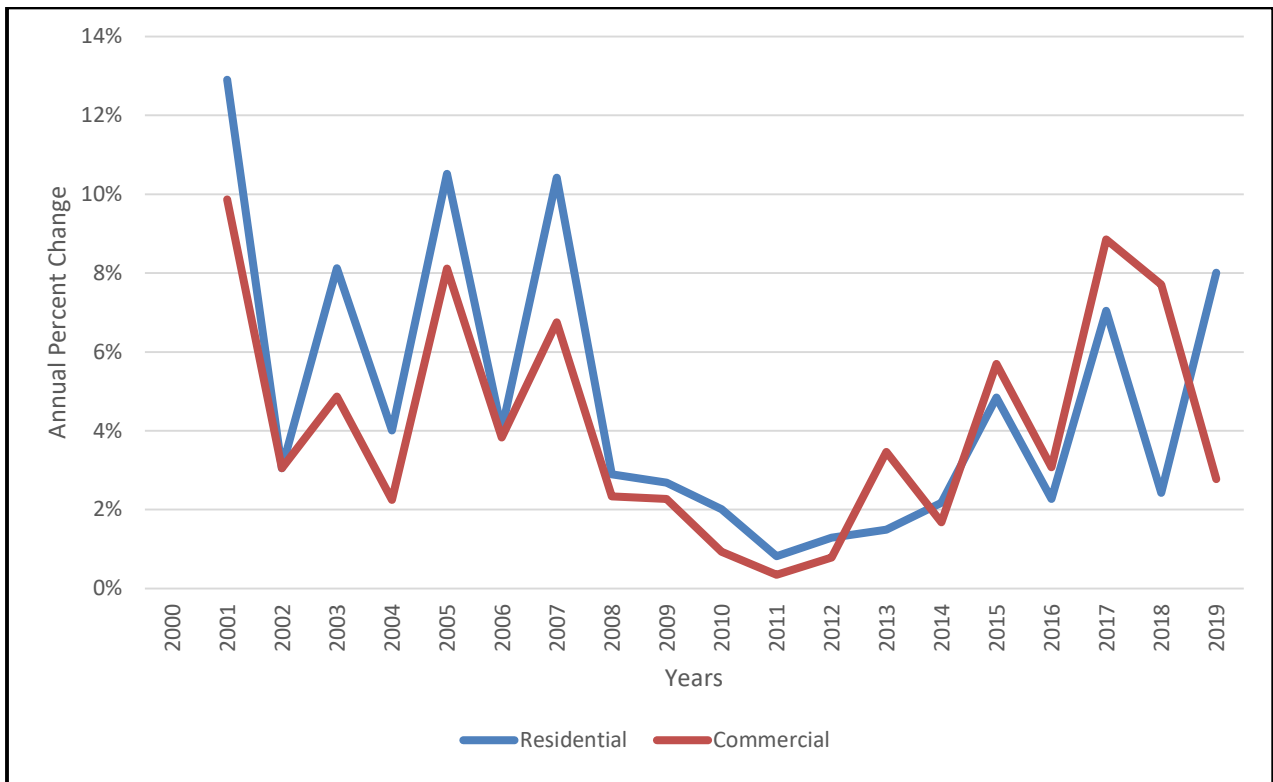
5. Real Property Valuations

Year-to-year growth rates for residential and commercial property valuations provide reasonable surrogates for measures of economic development activity. From 2000 through 2019, the value of residential property in Iowa increased by 140.8% and the value of commercial property increased by 114.6%. In comparison, consumer prices increased by 48.5%.

As Figure 14 shows, annual growth rates for residential and commercial property values followed fluctuations in general economic activity. The low growth rates exhibited between 2008 and 2014 result from the collapse of the residential and commercial real estate markets during the Great Recession. On the other hand, the sawtooth pattern over the entire period reflects the biannual equalization of valuations required by Iowa law every two years.

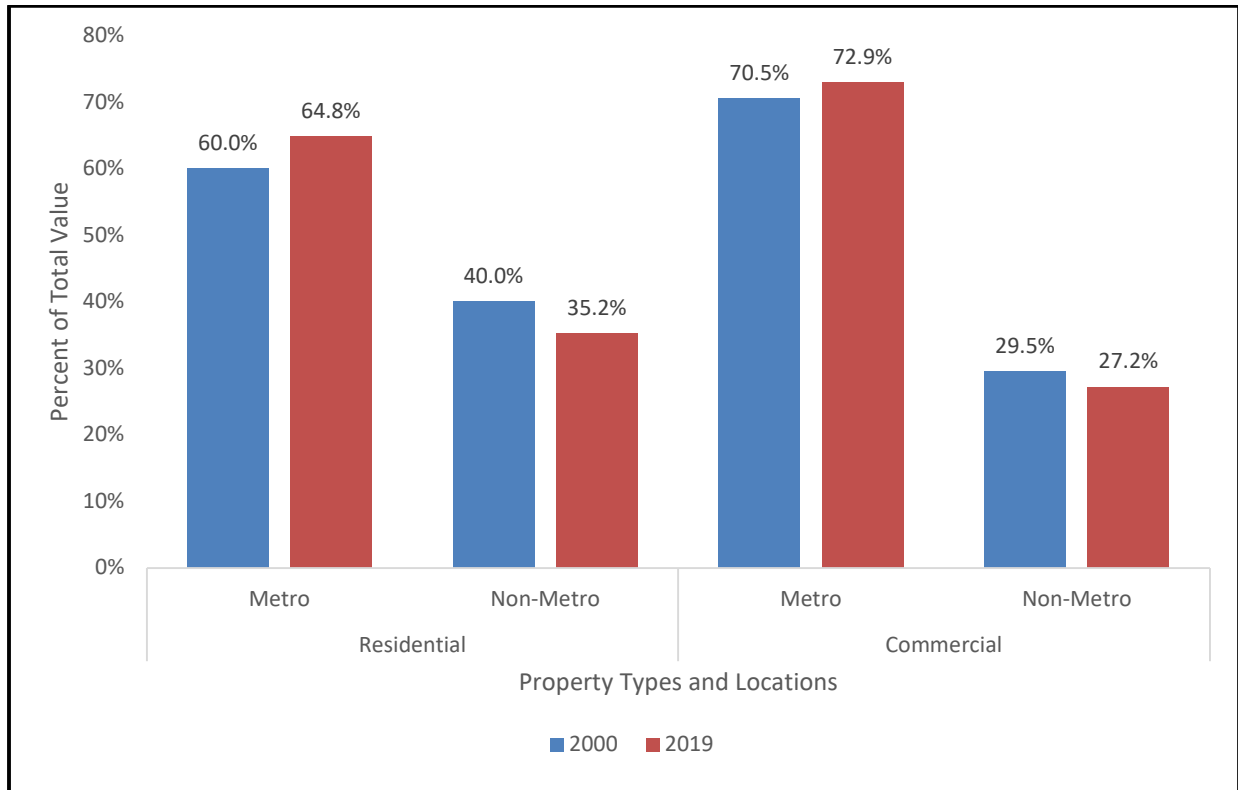
The division between metropolitan and non-metropolitan counties reveals an important feature of residential and commercial property valuations. In 2000, metropolitan counties accounted for 60.0% of the value of residential property and 70.5% of the value of commercial property statewide. As Figure 15 shows, by 2019 the metropolitan-area residential and commercial property valuations grew to 64.8% and 72.9% of the statewide totals. These shares show that in 2000 the state's 20 metropolitan area counties already accounted for well over half of values of residential and commercial property. Furthermore, even though the metropolitan area valuation shares grew more by 2019, the growth was modest.

Figure 14: Annual percent change in residential and commercial property values, 2000-2019



Source: Iowa Department of Management

Figure 15: Metro and non-metro shares of residential and commercial property values, 2000 and 2019



Source: Iowa Department of Management

6. Summary of Statewide Trends

Figure 16 summarizes changes between 2010 and 2019 for key measures of economic activity for Iowa. In addition, the table distinguishes between changes in metropolitan and non-metropolitan counties and indicates the share of the statewide totals accounted for by metropolitan counties.

The statewide trend analysis provides a frame of reference for the analysis of the economic impacts Iowa's casinos have had on their host counties. Where data exists, the community impacts analysis presents comparisons between the five years before and the five years after casinos opened for business. These comparisons rely mainly on county-level data. However, because casinos located in metropolitan areas generally represent a much smaller share of economic activity in their host counties than do casinos located in non-metropolitan areas, the metropolitan and non-metropolitan area casinos are separately analyzed. Furthermore, in a few cases the county level data are supplemented with city level data to provide a tighter focus on community level economic impacts.

Figure 16: Statewide, metro and non-metro economic activity measures, 2010-2019

Statistics	2010	2019	Change	% Change
Total Population	3,050,819	3,159,596	108,777	3.6%
Metro Population	1,726,161	1,873,607	147,446	8.5%
Nonmetro Population	1,324,658	1,285,989	-38,669	-2.9%
Metro Share	56.6%	59.3%	2.7%	4.8%
Total Employment	1,950,444	2,093,635	143,191	7.3%
Metro Employment	1,177,690	1,288,325	110,635	9.4%
Nonmetro Employment	798,270	805,310	7,040	0.9%
Metro Share	60.4%	61.5%	1.2%	1.9%
Total Nonfarm Personal Income (\$1,000)	112,733,009	157,573,382	44,840,373	39.8%
Metro Nonfarm Personal Income	68,252,307	97,537,273	29,284,966	42.9%
Nonfarm Nonmetro Personal Income	44,480,702	60,036,109	15,555,407	35.0%
Metro Share	60.5%	61.9%	1.4%	2.2%
Total GDP (\$1,000)	142,016,651	194,658,065	52,641,414	37.1%
Metro GDP	88,139,124	123,454,280	35,315,156	40.1%
Nonmetro GDP	53,877,527	71,203,785	17,326,258	32.2%
Metro Share	62.1%	63.4%	1.4%	2.2%
Traditional Retail Sales (\$)	17,645,790,552	16,580,500,633	-1,065,289,919	-6.0%
Metro Traditional Retail Sales	12,064,532,137	11,377,399,323	-687,132,814	-5.7%
Nonmetro Traditional Retail Sales	5,581,258,415	5,203,101,310	-378,157,105	-6.8%
Metro Share	68.4%	68.6%	0.2%	0.4%
Bar and Restaurant Sales (\$)	3,384,871,078	4,617,775,786	1,232,904,708	36.4%
Metro Bar and Restaurant Sales	2,358,947,875	3,368,077,215	1,009,129,340	42.8%
Nonmetro Bar and Restaurant Sales	1,025,923,203	1,249,698,571	223,775,368	21.8%
Metro Share	69.7%	72.9%	3.2%	4.7%
Residential Property Value (\$)	133,663,356,107	179,726,234,415	46,062,878,308	34.5%
Metro Residential Property Value	84,054,324,252	116,424,291,800	32,369,967,548	38.5%
Nonmetro Residential Property Value	49,609,031,855	63,301,942,615	13,692,910,760	27.6%
Metro Share	62.9%	64.8%	1.9%	3.0%
Commercial Property Value (\$)	33,752,197,864	47,142,803,542	13,390,605,678	39.7%
Metro Commercial Property Value	24,448,419,034	34,341,587,728	9,893,168,694	40.5%
Nonmetro Commercial Property Value	9,303,778,830	12,801,215,814	3,497,436,984	37.6%
Metro Share	72.4%	72.8%	0.4%	0.6%

Source: US Census, Bureau of Labor Statistics, Bureau of Economic Analysis, Iowa Department of Revenue, Iowa Department of Management

C. Economic Impacts of Casinos on Host Communities

Following methods of analysis comparable to the 2014 *Socioeconomic Impact of Gambling on Iowans* study, the first part of the analysis as to how casinos have impacted their host communities consists of making comparisons of three categories of economic measures from five years prior to casinos opening for business to five years after. The first part of the analysis looks at population change in host

counties by year from five years prior to each casino's opening to five years after. Because the counties vary in size, the comparisons are made in percentage terms. In addition, because the casinos opened for business in different years, the percentage changes in population for the host counties are compared to and adjusted for percentage changes in population statewide over the same years. These comparisons provide a control for cyclical economic fluctuations.

Second, similar five-years-before and five-years-after comparisons are made looking at measures of employment. The measures of employment are total private, construction, bars and restaurants, lodging and entertainment, and retail. Third, similar comparisons are made for two measures of personal income, total nonfarm income and employee compensation, which consists of wage and salary income plus benefits.

Some additional analysis is made using retail sales data and property tax data. However, these two sources are only available for the year 2000 and later. Therefore, these measures are used primarily to address issues related to the persistence of the economic impacts of casinos on their host communities.

1. Population

Figure 17 presents actual percent changes in population by year for the host counties of Iowa's state-regulated casinos from five years prior to five years after the year in which they opened for business. At the bottom of the table are three rows of summary statistics. The first row provides a simple average of the year-to-year percentage changes for all casinos. The second and third rows provide simple averages summarized separately for casinos located in metropolitan and non-metropolitan counties. The separate metropolitan and non-metropolitan summaries reduce the impact of county size on the analysis results.

This summary of statistics for all casinos shows only a minimal change in population growth rates shortly before and after the casinos opened for business. The separate metropolitan and non-metropolitan county summary statistics show a slightly more noticeable change in population growth rates around the time that casinos opened. For example, for the metropolitan area casinos, the average county population growth rate increased from 0.65% the year prior to open to 0.69% the year after opening. For non-metropolitan counties the growth increased from -0.08% to 0.20%.

Figure 17: Percent change in host county population by year before and after opening

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 to 4 Years	4 to 3 Years	3 to 2 Years	2 to 1 Years	1 to 0 Years	0 to 1 Years	1 to 2 Years	2 to 3 Years	3 to 4 Years	4 to 5 Years
President/Rhythm City Riverboat	1991	-1.12%	-0.45%	-0.12%	0.84%	1.27%	1.10%	0.30%	0.23%	0.34%	0.31%
Wild Rose Casino & Resort Clinton	1991	-1.39%	-0.69%	-0.59%	0.06%	-0.05%	0.67%	0.16%	-0.33%	-0.10%	-0.93%
Diamond Jo Dubuque	1994	-0.21%	0.61%	0.79%	0.67%	0.45%	0.32%	0.18%	-0.11%	-0.25%	0.18%
Catfish Bend Casino	1994	0.15%	0.48%	0.33%	0.21%	0.02%	-0.41%	-0.26%	-0.48%	0.00%	-0.25%
Argosy Riverboat Sioux City	1994	0.78%	1.02%	0.93%	1.19%	0.73%	0.94%	0.63%	-0.26%	-0.07%	0.14%
Horseshoe Casino and Bluffs Run	1995	0.20%	0.78%	0.16%	-0.12%	0.52%	1.21%	0.81%	1.09%	0.63%	1.00%
Prairie Meadows Casino	1995	1.53%	1.82%	1.62%	1.22%	1.36%	1.10%	0.84%	1.14%	1.51%	1.36%
Isle of Capri Bettendorf	1995	1.27%	1.10%	0.30%	0.23%	0.34%	0.31%	0.30%	0.33%	0.64%	-0.10%
Mystique/Q Casino	1995	0.61%	0.79%	0.67%	0.45%	0.32%	0.18%	-0.11%	-0.25%	0.18%	0.30%
Harrah's Hotel & Casino	1996	0.78%	0.16%	-0.12%	0.52%	1.21%	0.81%	1.09%	0.63%	1.00%	-0.08%
Ameristar II	1996	0.78%	0.16%	-0.12%	0.52%	1.21%	0.81%	1.09%	0.63%	1.00%	-0.08%
Lakeside Hotel Casino	2000	2.09%	0.44%	1.61%	0.76%	3.21%	0.14%	0.07%	0.75%	0.27%	-1.36%
Casino Queen	2000	0.31%	0.12%	-0.27%	-0.40%	-1.14%	-0.44%	-0.86%	-0.07%	0.01%	-0.48%
Diamond Jo Worth	2006	-0.03%	-0.78%	-0.04%	0.14%	-1.20%	0.08%	-0.30%	-0.29%	-0.37%	-0.29%
Wild Rose Casino Emmetsburg	2006	-1.54%	-1.50%	0.05%	-0.52%	-1.20%	-0.09%	-0.95%	0.25%	-1.18%	-0.47%
Riverside Casino and Golf Resort	2006	0.21%	0.39%	0.32%	0.43%	0.57%	0.54%	0.45%	0.03%	-0.02%	0.64%
Isle Casino Hotel Waterloo	2007	-0.30%	0.15%	0.27%	0.37%	0.21%	1.13%	1.08%	0.44%	0.33%	0.23%
Grand Falls Casino Resort	2011	-0.59%	0.08%	0.10%	0.10%	1.08%	0.57%	-0.52%	0.08%	0.39%	0.38%
Hard Rock Hotel and Casino	2014	0.80%	0.34%	-0.38%	-0.03%	0.02%	0.19%	0.12%	-0.54%	0.31%	0.70%
Wild Rose Jefferson	2015	-0.33%	-1.61%	-0.25%	-0.34%	-1.97%	0.72%	-0.58%	0.13%	-1.00%	-0.97%
(New) Rhythm City	2016	1.05%	1.12%	0.67%	0.36%	0.17%	0.19%	0.19%	0.22%	-0.11%	n/a
Average for All Casinos		0.24%	0.22%	0.28%	0.32%	0.34%	0.48%	0.18%	0.17%	0.17%	0.01%
Metropolitan Area Casinos		0.51%	0.63%	0.39%	0.52%	0.65%	0.69%	0.54%	0.30%	0.46%	0.36%
Non-Metropolitan Area Casinos		-0.12%	-0.34%	0.14%	0.05%	-0.08%	0.20%	-0.31%	0.01%	-0.22%	-0.42%

Source: US Census, Strategic Economics Group

Figure 18: Percent change in host county population by year before and after opening
(adjusted for statewide growth)

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 to 4 Years	4 to 3 Years	3 to 2 Years	2 to 1 Years	1 to 0 Years	0 to 1 Years	1 to 2 Years	2 to 3 Years	3 to 4 Years	4 to 5 Years
President/Rhythm City Riverboat	1991	-0.22%	-0.50%	-0.20%	0.46%	0.67%	0.36%	-0.36%	-0.25%	-0.24%	-0.13%
Wild Rose Casino & Resort Clinton	1991	-0.49%	-0.74%	-0.67%	-0.32%	-0.65%	-0.08%	-0.50%	-0.81%	-0.68%	-1.37%
Diamond Jo Dubuque	1994	-0.59%	0.01%	0.04%	0.01%	-0.04%	-0.26%	-0.26%	-0.50%	-0.65%	-0.33%
Catfish Bend Casino	1994	-0.23%	-0.12%	-0.41%	-0.45%	-0.47%	-0.99%	-0.70%	-0.86%	-0.40%	-0.76%
Argosy Riverboat Sioux City	1994	0.40%	0.43%	0.19%	0.53%	0.25%	0.36%	0.19%	-0.64%	-0.48%	-0.37%
Horseshoe Casino and Bluffs Run	1995	-0.39%	0.03%	-0.50%	-0.61%	-0.06%	0.77%	0.42%	0.68%	0.12%	0.61%
Prairie Meadows Casino	1995	0.94%	1.08%	0.96%	0.73%	0.78%	0.66%	0.45%	0.73%	1.00%	0.97%
Isle of Capri Bettendorf	1995	0.67%	0.36%	-0.36%	-0.25%	-0.24%	-0.13%	-0.08%	-0.07%	0.13%	-0.49%
Mystique/Q Casino	1995	0.01%	0.04%	0.01%	-0.04%	-0.26%	-0.26%	-0.50%	-0.65%	-0.33%	-0.09%
Harrah's Hotel & Casino	1996	0.03%	-0.50%	-0.61%	-0.06%	0.77%	0.42%	0.68%	0.12%	0.61%	-0.18%
Ameristar II	1996	0.03%	-0.50%	-0.61%	-0.06%	0.77%	0.42%	0.68%	0.12%	0.61%	-0.18%
Lakeside Hotel Casino	2000	1.65%	0.05%	1.20%	0.25%	2.82%	0.04%	-0.01%	0.48%	-0.13%	-1.73%
Casino Queen	2000	-0.13%	-0.27%	-0.68%	-0.91%	-1.53%	-0.54%	-0.94%	-0.33%	-0.39%	-0.85%
Diamond Jo Worth	2006	-0.10%	-1.05%	-0.43%	-0.22%	-1.81%	-0.48%	-0.88%	-0.82%	-0.96%	-0.81%
Wild Rose Casino Emmetsburg	2006	-1.62%	-1.76%	-0.34%	-0.89%	-1.81%	-0.65%	-1.53%	-0.28%	-1.77%	-0.99%
Riverside Casino and Golf Resort	2006	0.13%	0.12%	-0.07%	0.07%	-0.04%	-0.02%	-0.13%	-0.51%	-0.61%	0.11%
Isle Casino Hotel Waterloo	2007	-0.57%	-0.24%	-0.10%	-0.25%	-0.34%	0.55%	0.54%	-0.16%	-0.19%	-0.10%
Grand Falls Casino Resort	2011	-1.14%	-0.51%	-0.43%	-0.49%	0.56%	0.24%	-1.07%	-0.46%	0.01%	0.04%
Hard Rock Hotel and Casino	2014	0.21%	-0.18%	-0.71%	-0.59%	-0.52%	-0.19%	-0.22%	-0.88%	0.11%	0.39%
Wild Rose Jefferson	2015	-0.85%	-1.94%	-0.81%	-0.88%	-2.35%	0.37%	-0.91%	-0.06%	-1.31%	-1.09%
(New) Rhythm City	2016	0.72%	0.57%	0.13%	-0.02%	-0.17%	-0.14%	-0.01%	-0.09%	-0.23%	n/a
Average for All Casinos		-0.07%	-0.27%	-0.21%	-0.19%	-0.18%	0.02%	-0.25%	-0.25%	-0.28%	-0.35%
Metropolitan Area Casinos		0.10%	0.05%	-0.15%	-0.01%	0.13%	0.21%	0.13%	-0.13%	0.04%	0.01%
Non-Metropolitan Area Casinos		-0.31%	-0.69%	-0.29%	-0.43%	-0.59%	-0.23%	-0.74%	-0.41%	-0.69%	-0.83%

Source: US Census, Strategic Economics Group

Figure 18 presents the same analysis as presented in Figure 17 but adjusted for statewide growth rates over the same years, separately computed for each casino. The adjustment simply involves the subtraction of the statewide annual growth rates from the corresponding unadjusted growth rates for each casino. It is noteworthy that for many years the casino population growth rates minus the statewide growth rates are negative. Nevertheless, comparison of the year-before to the year-after growth rates exhibits slight positive movement for both metropolitan and non-metropolitan host counties. Some of the largest positive changes were associated with the Wild Rose Jefferson Casino, the Diamond Jo Worth County Casino, and the Wild Rose Emmetsburg Casino. The largest decline was associated with the Lakeside Casino in Osceola.

The fact that there was little change in population growth rates around the times when casinos opened for business is not surprising. In metropolitan counties, casinos account for only a small share of total employment. In non-metropolitan counties, casinos have a larger relative economic impact, but it is likely that many casino employees commute from other counties rather than relocate to the counties where the casinos are located. Casino labor sheds will be addressed later in this report. The next section takes a closer look at employment impacts of casinos by presenting before-opening and after-opening comparisons for five economic sectors as well as overall private employment for casino host counties.

2. Employment

Figure 19 presents comparisons of total private employment growth rates by year from five years prior to casino openings to five years after. Similar to the population analysis, the impacts are summarized separately for metropolitan and non-metropolitan casino counties. The growth rates presented in the table are adjusted for statewide changes to reduce the impact of economy cycles by subtracting the statewide rate from each county rate.

For both the metropolitan and non-metropolitan casino counties there were upticks in employment during the years immediately preceding and following the opening of casinos. Notably, for the non-metropolitan casino counties the adjusted growth rates increased each year during the four years prior to opening. They rose from an average rate of -0.2% four years prior to opening to 3.0% the year prior to opening. Then, during the year of opening the non-metropolitan private employment growth rate averaged 6.9%, but then declined each of the following four years.

Individual casino counties exhibit somewhat different patterns of overall private sector employment growth. Some had higher growth the year prior to opening than the year of opening. At least some of the variation is likely due to the time of year during which different casinos opened. Construction workers and some casino workers were likely hired a year or more prior to opening.

Figure 19: Percent change in host county total private employment by year before and after opening
(adjusted for statewide growth)

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 to 4 Years	4 to 3 Years	3 to 2 Years	2 to 1 Years	1 to 0 Years	0 to 1 Years	1 to 2 Years	2 to 3 Years	3 to 4 Years	4 to 5 Years
President/Rhythm City Riverboat	1991	-0.23%	-3.50%	-2.81%	-0.79%	2.19%	-2.70%	-1.19%	1.29%	0.02%	0.76%
Wild Rose Casino & Resort Clinton	1991	1.04%	0.55%	-1.75%	-1.58%	1.68%	4.15%	-5.76%	-1.36%	-2.13%	-4.00%
Diamond Jo Dubuque	1994	0.13%	0.36%	-1.60%	1.60%	-0.43%	0.45%	-2.43%	0.22%	-4.66%	-0.80%
Catfish Bend Casino	1994	-2.96%	-1.39%	-2.92%	-0.59%	-0.86%	0.00%	-0.28%	-1.55%	-1.74%	-2.72%
Argosy Riverboat Sioux City	1994	2.73%	-5.45%	-0.17%	1.34%	-2.48%	1.05%	1.07%	-0.74%	-0.53%	-3.26%
Horseshoe Casino and Bluffs Run	1995	-0.32%	1.64%	-4.51%	2.08%	-3.74%	14.87%	-3.59%	0.80%	-0.95%	-0.28%
Prairie Meadows Casino	1995	0.94%	-0.25%	-0.89%	0.65%	0.17%	-1.76%	-0.19%	-1.07%	2.36%	-0.33%
Isle of Capri Bettendorf	1995	2.19%	-2.70%	-1.19%	1.29%	0.02%	0.76%	1.99%	1.81%	0.03%	0.52%
Mystique/Q Casino	1995	0.36%	-1.60%	1.60%	-0.43%	0.45%	-2.43%	0.22%	-4.66%	-0.80%	1.57%
Harrah's Hotel & Casino	1996	1.64%	-4.51%	2.08%	-3.74%	14.87%	-3.59%	0.80%	-0.95%	-0.28%	5.40%
Ameristar II	1996	1.64%	-4.51%	2.08%	-3.74%	14.87%	-3.59%	0.80%	-0.95%	-0.28%	5.40%
Lakeside Hotel Casino	2000	18.77%	-6.81%	6.37%	8.99%	21.26%	-5.89%	-5.55%	-4.40%	-4.75%	0.07%
Casino Queen	2000	16.83%	3.51%	-6.47%	4.12%	-2.43%	-8.82%	3.57%	-1.44%	-8.86%	0.34%
Diamond Jo Worth	2006	0.51%	-7.84%	13.58%	8.85%	-3.77%	32.95%	0.00%	-8.49%	-0.85%	-2.80%
Wild Rose Casino Emmetsburg	2006	11.67%	2.30%	2.51%	-0.59%	-2.03%	0.41%	-1.35%	0.40%	-5.18%	-4.46%
Riverside Casino and Golf Resort	2006	2.88%	0.71%	-6.01%	1.14%	5.90%	12.60%	-6.30%	-1.42%	5.15%	-2.23%
Isle Casino Hotel Waterloo	2007	2.42%	0.58%	-1.70%	-1.59%	-1.76%	0.79%	3.93%	3.42%	0.14%	1.17%
Grand Falls Casino Resort	2011	3.24%	1.11%	0.00%	-1.24%	1.34%	21.32%	-3.08%	-0.86%	-0.89%	2.57%
Hard Rock Hotel and Casino	2014	-0.80%	-2.80%	-3.48%	0.33%	0.31%	-1.89%	-0.92%	-2.06%	4.87%	-0.22%
Wild Rose Jefferson	2015	-2.12%	5.72%	-3.28%	0.03%	6.09%	5.31%	-5.38%	-3.46%	4.78%	n/a
(New) Rhythm City	2016	-2.53%	1.74%	-2.11%	-0.84%	-1.18%	-0.18%	0.62%	0.52%	n/a	n/a
Average for All Casinos*		2.76%	-1.10%	-0.51%	0.73%	2.40%	3.04%	-1.10%	-1.19%	-0.73%	-0.17%
Metropolitan Area Casinos		0.68%	-1.75%	-1.06%	-0.32%	1.94%	0.15%	0.09%	-0.20%	-0.01%	0.90%
Non-Metropolitan Area Casinos		5.54%	-0.24%	0.23%	2.12%	3.02%	6.89%	-2.68%	-2.51%	-1.61%	-1.65%

Source: US Census – County Business Patterns, Strategic Economics Group

The next five parts of the analysis address five sectors of the economy that may logically be expected to exhibit somewhat different impacts associated with the opening of casinos. The sectors are: (1) lodging and entertainment, (2) bars and restaurants, (3) retail, (4) construction, and (5) local government.

Lodging and Entertainment

County Business Patterns (“CBP”) presents separate employment estimates for the lodging (accommodation) and entertainment (arts, entertainment, and recreation) sectors, but employment associated with gambling enterprises sometimes is reported under one of the two sectors and other times presented under the other sector. How gambling enterprise employment is reported depends on the

dominant activity of the business during the reporting year. Therefore, for this analysis the two sectors are combined.

Figure 20 presents the year-to-year lodging and entertainment adjusted employment growth rates from five years before to five years after each casino's opening. On average, casinos located both in metropolitan and non-metropolitan counties experienced large percentage increases in these sectors' employment the year before opening and the year after opening. For metropolitan area casinos, employment in these sectors increased by 35.3% the year prior to opening and by 32.8% the first year the casinos were open. For non-metropolitan area casinos, lodging and entertainment sectors' employment jumped by 248.6% the year prior to opening and by an even greater 486.4% the first year after opening.

For some host counties, employment experienced modest declines after the opening years, but generally employment in these sectors remained at higher levels than before the years when casinos opened for business. Overall, from 1990 through 2019, employment in the lodging and entertainment sector grew from 13,050 to 23,691, or by 10,641 (81.5%). In metropolitan area casino counties, employment in these sectors grew from 11,828 to 19,626, or by 7,798 (65.9%). In non-metropolitan casino counties, employment grew from 1,222 to 4,065, or by 2,843 (232.7%). In comparison, in non-casino counties lodging and entertainment sectors' employment increased by only 3,916 (32.8%) over the three decades since 1990.

Bars and Restaurants

Figure 21 shows that, averaged over all casinos, bar and restaurant employment increased in host counties the two years preceding casino openings and the first year after openings. For metropolitan-area casino counties, adjusted bar and restaurant employment decreased by 2.0% three years prior to opening, but then increased by 0.7% two years prior to opening and by 0.8% one year prior to opening, but decreased 1.2% one year after opening.

**Figure 20: Percent change in host county lodging and entertainment employment
by year before and after casino opening**

(adjusted for statewide growth)

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 to 4 Years	4 to 3 Years	3 to 2 Years	2 to 1 Years	1 to 0 Years	0 to 1 Years	1 to 2 Years	2 to 3 Years	3 to 4 Years	4 to 5 Years
President/Rhythm City Riverboat	1991	9.17%	-6.09%	-0.80%	-4.54%	38.93%	53.03%	-18.88%	-7.11%	-8.24%	22.25%
Wild Rose Casino & Resort Clinton	1991	0.03%	31.39%	-14.40%	33.21%	-12.67%	52.65%	-36.27%	1.55%	10.94%	-22.43%
Diamond Jo Dubuque	1994	-4.62%	2.22%	24.29%	-14.30%	-14.44%	22.63%	1.65%	17.06%	-22.02%	2.60%
Catfish Bend Casino	1994	-6.28%	34.48%	-19.62%	16.81%	-3.68%	-1.07%	-30.54%	23.54%	-11.54%	-2.98%
Argosy Riverboat Sioux City	1994	56.81%	-1.81%	-8.20%	5.68%	-3.32%	31.70%	-14.07%	28.60%	-3.37%	-6.89%
Horseshoe Casino and Bluffs Run	1995	-5.72%	-14.29%	-10.26%	-2.64%	44.50%	182.18%	15.36%	-3.89%	4.17%	-9.26%
Prairie Meadows Casino	1995	-3.54%	-14.73%	12.75%	4.78%	-4.82%	-8.90%	11.70%	-9.45%	-2.35%	-4.06%
Isle of Capri Bettendorf	1995	38.93%	53.03%	-18.88%	-7.11%	-8.24%	22.25%	-7.44%	19.75%	0.36%	-4.23%
Mystique/Q Casino	1995	2.22%	24.29%	-14.30%	-14.44%	22.63%	1.65%	17.06%	-22.02%	2.60%	-4.28%
Harrah's Hotel & Casino	1996	-14.29%	-10.26%	-2.64%	44.50%	182.18%	15.36%	-3.89%	4.17%	-9.26%	9.87%
Ameristar II	1996	-14.29%	-10.26%	-2.64%	44.50%	182.18%	15.36%	-3.89%	4.17%	-9.26%	9.87%
Lakeside Hotel Casino	2000	1112.53%	-69.22%	-54.57%	22.02%	9.21%	2.12%	9.53%	-24.84%	328.01%	160.94%
Casino Queen Marquette	2000	1033.96%	11.09%	-1.61%	-4.04%	-4.60%	-35.44%	-12.71%	0.61%	-0.32%	-6.61%
Diamond Jo Worth	2006	-60.03%	11.54%	78.34%	-9.53%	224.57%	773.33%	-9.00%	4.47%	4.39%	0.67%
Wild Rose Casino Emmetsburg	2006	170.59%	22.38%	65.42%	14.75%	-47.93%	913.21%	-5.82%	3.48%	3.14%	2.95%
Riverside Casino and Golf Resort	2006	-0.25%	86.08%	13.43%	-20.83%	1.09%	769.99%	-8.07%	3.76%	6.30%	1.26%
Isle Casino Hotel Waterloo	2007	-3.45%	1.02%	-3.40%	7.74%	-5.76%	31.40%	35.71%	11.39%	-3.24%	-0.41%
Grand Falls Casino Resort	2011	-45.42%	56.45%	-15.82%	-11.97%	2005.0%	14.61%	-3.07%	28.31%	-35.75%	-5.64%
Hard Rock Hotel and Casino	2014	8.10%	1.28%	-10.58%	-1.96%	1.35%	10.65%	8.24%	-1.37%	-9.10%	-8.60%
Wild Rose Jefferson	2015	67.34%	-3.78%	20.94%	-1.51%	66.21%	1888.48%	5.91%	7.52%	-6.27%	n/a
(New) Rhythm City	2016	-0.49%	0.39%	-8.01%	1.73%	-11.31%	16.24%	2.07%	2.73%	n/a	n/a
Average for All Casinos*		111.49%	9.77%	1.40%	4.90%	126.72%	227.21%	-2.21%	4.40%	11.96%	7.11%
Metropolitan Area Casinos		5.74%	2.07%	-3.55%	5.33%	35.32%	32.80%	3.64%	3.67%	-5.43%	0.62%
Non-Metropolitan Area Casinos		252.50%	20.05%	8.01%	4.32%	248.58%	486.43%	-10.01%	5.38%	33.21%	16.02%

Source: US Census – County Business Patterns, Strategic Economics Group

Figure 21: Percent change in host county bar and restaurant employment by year before and after casino opening

(adjusted for statewide growth)

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 to 4 Years	4 to 3 Years	3 to 2 Years	2 to 1 Years	1 to 0 Years	0 to 1 Years	1 to 2 Years	2 to 3 Years	3 to 4 Years	4 to 5 Years
President/Rhythm City Riverboat	1991	-2.54%	-3.93%	-6.71%	-0.29%	2.54%	2.59%	-3.07%	7.28%	5.54%	-3.14%
Wild Rose Casino & Resort Clinton	1991	-12.44%	-7.09%	-9.69%	6.50%	-2.57%	6.61%	-9.83%	1.16%	-2.62%	-8.75%
Diamond Jo Dubuque	1994	-2.12%	-6.08%	0.32%	-1.01%	-0.36%	-2.20%	-2.50%	13.30%	-8.94%	4.19%
Catfish Bend Casino	1994	0.11%	-2.37%	3.79%	-1.69%	-1.92%	15.10%	2.91%	4.19%	-10.27%	2.23%
Argosy Riverboat Sioux City	1994	2.79%	-2.44%	-6.60%	5.69%	-2.93%	-3.28%	0.26%	0.44%	5.16%	-0.07%
Horseshoe Casino and Bluffs Run	1995	4.15%	5.47%	-10.69%	3.70%	-4.33%	6.21%	-4.68%	2.85%	-2.67%	-3.81%
Prairie Meadows Casino	1995	1.46%	-4.30%	5.53%	0.66%	-1.75%	0.80%	-0.34%	0.52%	-0.24%	-1.12%
Isle of Capri Bettendorf	1995	2.54%	2.59%	-3.07%	7.28%	5.54%	-3.14%	3.52%	2.46%	1.77%	7.94%
Mystique/Q Casino	1995	-6.08%	0.32%	-1.01%	-0.36%	-2.20%	-2.50%	13.30%	-8.94%	4.19%	2.06%
Harrah's Hotel & Casino	1996	5.47%	-10.69%	3.70%	-4.33%	6.21%	-4.68%	2.85%	-2.67%	-3.81%	-3.03%
Ameristar II	1996	5.47%	-10.69%	3.70%	-4.33%	6.21%	-4.68%	2.85%	-2.67%	-3.81%	-3.03%
Lakeside Hotel Casino	2000	17.29%	16.22%	-12.69%	-23.18%	1.43%	-6.10%	-13.16%	-5.47%	42.99%	-25.84%
Casino Queen Marquette	2000	-2.87%	5.39%	-9.50%	16.49%	11.20%	36.99%	-5.18%	-2.60%	-28.87%	3.05%
Diamond Jo Worth	2006	-9.98%	20.40%	-29.83%	23.47%	65.40%	63.57%	-39.80%	-0.50%	3.16%	-5.53%
Wild Rose Casino Emmetsburg	2006	-5.54%	5.06%	-4.40%	-23.21%	19.38%	-5.70%	1.22%	53.23%	-19.22%	-20.84%
Riverside Casino and Golf Resort	2006	7.94%	-9.19%	-3.34%	-6.00%	-7.27%	7.56%	-3.12%	0.05%	-2.66%	-1.42%
Isle Casino Hotel Waterloo	2007	14.38%	-2.90%	-1.37%	-2.49%	-0.88%	-4.48%	2.36%	1.87%	-1.84%	2.05%
Grand Falls Casino Resort	2011	-25.19%	15.59%	-37.63%	43.72%	-8.70%	23.65%	-1.15%	-9.52%	3.35%	-4.25%
Hard Rock Hotel and Casino	2014	-0.66%	-2.58%	-5.30%	0.39%	1.73%	-2.77%	-1.62%	-5.19%	1.34%	-1.27%
Wild Rose Jefferson	2015	-5.56%	7.45%	6.35%	36.61%	9.16%	-11.63%	-28.11%	2.19%	-2.83%	n/a
(New) Rhythm City	2016	-4.16%	-0.03%	-2.94%	3.09%	-0.79%	3.53%	1.01%	0.20%	n/a	n/a
Average for All Casinos*		-0.74%	0.77%	-5.78%	3.84%	4.53%	5.50%	-3.92%	2.48%	-1.01%	-3.19%
Metropolitan Area Casinos		1.73%	-2.94%	-2.04%	0.67%	0.75%	-1.22%	1.16%	0.79%	-0.30%	0.07%
Non-Metropolitan Area Casinos		-4.03%	5.72%	-10.77%	8.08%	9.57%	14.45%	-10.69%	4.75%	-1.88%	-7.67%

Source: US Census – County Business Patterns, Strategic Economics Group

For non-metropolitan casino host counties, the pattern of growth rates before and after openings is more apparent than for metropolitan-area casino host counties. The magnitudes of the adjusted growth rates for the non-metropolitan counties are substantially greater than for the metropolitan-area counties. This is understandable because the changes in bar and restaurant employment in non-metropolitan area counties are compared to smaller initial employment levels than in metropolitan counties.

Over the period from 1990 to 2019, bar and restaurant employment in casino counties increased from 33,728 to 49,171, or by 15,443 (45.8%). Almost all the growth occurred in the six metropolitan casino counties. In these counties bar and restaurant employment increased by 15,192 (50.4%). In the nine non-metropolitan casino counties bar and restaurant employment increased by only 251 (7.0%). As will be

discussed later, there are more bar and restaurant workers in all of the casino counties, but those who work for casinos are included in the lodging and entertainment sector employment numbers.

Over this period, statewide bar and restaurant employment grew from 76,202 to 100,802, or by 24,600 (32.3%). So, the casino counties account for 62.8% of statewide employment growth in this sector.

Retail Trade

The opening of casinos does not appear to have had a discernible effect on employment in retail businesses in Iowa. As shown in Figure 22, for all casino counties, the years with the greatest rates of retail employment growth in excess of the statewide growth rate for the retail sector occurred five years before casinos opened and two years after. The pattern is somewhat different for non-metropolitan casino counties. For these nine counties, adjusted retail employment increased on average by 3.6% the year prior to casinos openings, but then three of the five years after casinos opened in these counties retail employment contracted relative to the state. One possible explanation for this pattern of employment growth and decline is that while the casinos were being constructed workers made extra local purchases, but once the construction ended the workers and their consumer dollars disappeared.

Statewide, from 1990 to 2019 retail employment grew from 160,118 to 187,266, or by 27,148 (17.0%). In the metropolitan casino counties retail employment increased by 10,711 (16.7%), which is slightly less than the statewide growth rate. In non-metropolitan casino counties retail employment growth was even less at 7.8%. In 1990, casino counties accounted for 45.6% of retail employment statewide, and in 2019 the share was marginally less at 45.1%.

One explanation for the lack of an apparent spillover effect from casinos to retail businesses is that people who patronize casinos are not tourists. They just come to gamble.

Figure 22: Percent change in host county retail employment by year before and after casino opening
(adjusted for statewide growth)

Casino	Year Open	Years Before Opening					Years After Opening				
		5 to 4 Years	4 to 3 Years	3 to 2 Years	2 to 1 Years	1 to 0 Years	0 to 1 Years	1 to 2 Years	2 to 3 Years	3 to 4 Years	4 to 5 Years
President/Rhythm City Riverboat	1991	-4.32%	-1.05%	-4.84%	2.23%	-0.44%	-0.96%	1.83%	1.52%	1.78%	-1.03%
Wild Rose Casino & Resort Clinton	1991	1.11%	-8.32%	-1.07%	-4.40%	0.18%	-1.68%	-0.29%	-2.57%	5.18%	-2.53%
Diamond Jo Dubuque	1994	2.04%	-0.42%	-0.61%	4.12%	5.56%	1.71%	0.91%	0.75%	-2.77%	-1.12%
Catfish Bend Casino	1994	4.21%	-3.09%	-0.39%	1.60%	2.38%	-4.77%	8.07%	8.65%	-9.98%	-2.28%
Argosy Riverboat Sioux City	1994	-2.47%	-0.90%	1.23%	3.75%	6.52%	-2.18%	-1.58%	-3.70%	1.42%	-3.22%
Horseshoe Casino and Bluffs Run	1995	-4.47%	-2.13%	4.29%	4.79%	-0.40%	1.95%	-2.74%	4.75%	7.54%	-1.36%
Prairie Meadows Casino	1995	-0.17%	7.02%	-5.30%	-1.49%	-2.59%	0.81%	-1.43%	-5.47%	-1.90%	2.08%
Isle of Capri Bettendorf	1995	-0.44%	-0.96%	1.83%	1.52%	1.78%	-1.03%	0.72%	0.55%	2.51%	-3.05%
Mystique/Q Casino	1995	-0.42%	-0.61%	4.12%	5.56%	1.71%	0.91%	0.75%	-2.77%	-1.12%	6.82%
Harrah's Hotel & Casino	1996	-2.13%	4.29%	4.79%	-0.40%	1.95%	-2.74%	4.75%	7.54%	-1.36%	-1.94%
Ameristar II	1996	-2.13%	4.29%	4.79%	-0.40%	1.95%	-2.74%	4.75%	7.54%	-1.36%	-1.94%
Lakeside Hotel Casino	2000	10.71%	2.19%	-6.12%	4.41%	8.02%	6.62%	-8.38%	6.84%	-5.94%	-5.46%
Casino Queen Marquette	2000	0.02%	0.85%	7.34%	-4.27%	-3.63%	5.17%	7.78%	-7.23%	-8.20%	-2.96%
Diamond Jo Worth	2006	2.20%	-8.69%	4.47%	3.10%	-18.19%	-12.58%	32.29%	7.67%	-28.73%	12.65%
Wild Rose Casino Emmetsburg	2006	19.50%	-26.97%	0.06%	3.98%	-5.82%	-0.73%	-16.74%	3.87%	6.13%	-2.29%
Riverside Casino and Golf Resort	2006	0.51%	-7.86%	3.91%	0.94%	-4.61%	-1.09%	-5.85%	1.05%	15.41%	-5.53%
Isle Casino Hotel Waterloo	2007	-2.37%	1.63%	-4.92%	0.16%	-2.20%	1.59%	1.44%	0.30%	2.30%	-0.90%
Grand Falls Casino Resort	2011	-4.70%	-1.40%	4.76%	-7.33%	-5.18%	2.98%	10.79%	2.44%	-0.93%	-3.75%
Hard Rock Hotel and Casino	2014	1.25%	1.47%	1.08%	-0.69%	1.97%	-2.95%	-2.48%	1.46%	-0.82%	-2.92%
Wild Rose Jefferson	2015	6.93%	-7.52%	0.74%	6.95%	59.59%	-18.92%	-2.06%	-3.08%	1.12%	n/a
(New) Rhythm City	2016	1.05%	1.73%	0.61%	-1.09%	-0.44%	0.25%	0.92%	1.93%	n/a	n/a
Average for All Casinos		1.23%	-2.21%	0.99%	1.10%	2.29%	-1.45%	1.59%	1.53%	-0.99%	-1.09%
Metropolitan Area Casinos		-1.22%	1.20%	0.59%	1.51%	1.28%	-0.45%	0.65%	1.20%	0.57%	-0.78%
Non-Metropolitan Area Casinos		4.50%	-6.76%	1.52%	0.55%	3.64%	-2.78%	2.85%	1.96%	-2.88%	-1.52%

Source: US Census – County Business Patterns, Strategic Economics Group

Construction

Construction employment growth rates show a somewhat different pattern compared to other sectors, but one that is easy to explain. Average adjusted growth rates for all casino counties, and for metropolitan and non-metropolitan casino counties separately, exhibit sizable jumps in the two years prior to casino openings. The pattern of employment increase almost certainly corresponds with the periods over which casinos were constructed.

As Figure 23 shows, for all casino counties, the adjusted construction employment growth rate equaled -4.0% three years prior to opening and -1.1% the year prior to opening, but 8.9% two years prior to opening. For metropolitan casino counties, the adjusted construction employment growth rates the three years prior to casino opening years are 1.0%, 2.9%, and 1.2%, respectively. Then, following the opening years the adjusted construction employment growth rates showed declines four of the next five

years. The pattern for non-metropolitan casino counties is even more pronounced. Over the three years preceding casino opening years the average adjusted construction employment growth rates equal – 10.7%, 17.0%, and -4.2%, respectively. Somewhat surprisingly, there is a jump back to 10.0% growth the year after opening. This may have to do with some subsequent work on the casinos or possibly work on other facilities intended to serve casino patrons, such as hotels, bars, and restaurants.

Over the period from 1990 to 2019, construction employment in Iowa grew by 24,045 jobs (58.0%). Over the same period, construction employment in all casino counties grew by 12,369 jobs (61.8%). Most of the casino county growth occurred in metropolitan counties, which experienced an increase of 11,495 construction jobs (67.2%). On the other hand, in non-metropolitan casino counties the number of construction jobs increased by only 774 (28.3%).

To what extent the growth of construction jobs in metropolitan casino counties can be attributed to the casinos is questionable. Certainly, during the two years preceding casino openings the construction of the casino buildings – and in many cases associated hotel and resort facilities – boosted construction jobs, but beyond these years the growth of jobs in this sector is likely due to other factors.

Local Government

Whether the growth of the casino industry has necessitated local governments to increase staffing for public safety, public works, and other services is of interest to state and local policymakers. The data used to address this issue come from the US Bureau of Economic Analysis because County Business Patterns only addresses private sector employment.

Figure 23: Percent change in host county construction employment by year before and after casino opening

(adjusted for statewide growth)

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 to 4 Years	4 to 3 Years	3 to 2 Years	2 to 1 Years	1 to 0 Years	0 to 1 Years	1 to 2 Years	2 to 3 Years	3 to 4 Years	4 to 5 Years
President/Rhythm City Riverboat	1991	-0.01%	13.63%	7.66%	0.89%	-7.91%	-1.62%	5.82%	-1.41%	5.10%	-3.07%
Wild Rose Casino & Resort Clinton	1991	-4.05%	10.94%	-6.00%	8.68%	-6.74%	9.05%	-2.05%	-15.77%	-11.95%	-8.57%
Diamond Jo Dubuque	1994	3.31%	3.46%	-5.01%	4.09%	0.49%	6.66%	5.94%	-4.91%	-24.92%	5.13%
Catfish Bend Casino	1994	-19.08%	1.40%	-19.07%	13.60%	-5.26%	6.07%	-10.71%	-6.07%	8.77%	-15.40%
Argosy Riverboat Sioux City	1994	-5.04%	-0.39%	-0.88%	-0.01%	8.92%	11.93%	1.73%	63.58%	-19.57%	-34.53%
Horseshoe Casino and Bluffs Run	1995	21.75%	-16.13%	-4.35%	7.01%	-0.86%	-7.75%	-4.01%	-2.18%	4.62%	0.88%
Prairie Meadows Casino	1995	-3.64%	-4.80%	-3.03%	2.93%	-3.04%	0.15%	-3.14%	-3.74%	15.15%	5.02%
Isle of Capri Bettendorf	1995	-7.91%	-1.62%	5.82%	-1.41%	5.10%	-3.07%	2.17%	5.73%	-9.41%	1.28%
Mystique/Q Casino	1995	3.46%	-5.01%	4.09%	0.49%	6.66%	5.94%	-4.91%	-24.92%	5.13%	4.90%
Harrah's Hotel & Casino	1996	-16.13%	-4.35%	7.01%	-0.86%	-7.75%	-4.01%	-2.18%	4.62%	0.88%	-1.79%
Ameristar II	1996	-16.13%	-4.35%	7.01%	-0.86%	-7.75%	-4.01%	-2.18%	4.62%	0.88%	-1.79%
Lakeside Hotel Casino	2000	-20.23%	-42.65%	-12.78%	82.04%	-43.79%	38.13%	-9.15%	4.27%	6.73%	29.15%
Casino Queen Marquette	2000	19.02%	10.45%	-17.13%	17.59%	-4.21%	-5.47%	10.04%	-10.22%	0.86%	6.50%
Diamond Jo Worth	2006	2.85%	3.66%	-10.21%	14.05%	-19.40%	12.24%	3.28%	-5.55%	14.41%	-2.78%
Wild Rose Casino Emmetsburg	2006	39.22%	-0.73%	-13.74%	30.05%	20.79%	2.28%	-18.17%	4.94%	-5.74%	-1.46%
Riverside Casino and Golf Resort	2006	12.54%	-3.43%	3.18%	0.66%	23.09%	4.49%	-5.50%	4.66%	4.59%	-2.56%
Isle Casino Hotel Waterloo	2007	3.27%	2.18%	-3.90%	2.84%	5.40%	-8.00%	8.43%	-1.75%	-2.53%	-7.11%
Grand Falls Casino Resort	2011	4.11%	2.32%	22.39%	-18.51%	-1.44%	19.72%	-2.75%	10.22%	-6.62%	4.74%
Hard Rock Hotel and Casino	2014	-5.64%	7.91%	5.37%	8.10%	7.53%	-4.34%	-19.40%	-7.72%	12.99%	1.62%
Wild Rose Jefferson	2015	28.43%	11.75%	-42.94%	4.72%	-0.60%	3.89%	-9.28%	-28.26%	-2.34%	n/a
(New) Rhythm City	2016	-6.69%	9.08%	-7.97%	11.36%	7.18%	-3.88%	-5.14%	1.56%	n/a	n/a
Average for All Casinos		1.59%	-0.32%	-4.02%	8.93%	-1.12%	3.73%	-2.91%	-0.39%	-0.15%	-1.04%
Metropolitan Area Casinos		-2.45%	-0.03%	0.98%	2.88%	1.16%	-1.00%	-1.41%	2.79%	-1.06%	-2.68%
Non-Metropolitan Area Casinos		6.98%	-0.70%	-10.70%	16.99%	-4.17%	10.04%	-4.92%	-4.64%	0.97%	1.20%

Source: US Census – County Business Patterns, Strategic Economics Group

Figure 24: Percent change in host county local government employment by year before and after casino opening

(adjusted for statewide growth)

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 to 4 Years	4 to 3 Years	3 to 2 Years	2 to 1 Years	1 to 0 Years	0 to 1 Years	1 to 2 Years	2 to 3 Years	3 to 4 Years	4 to 5 Years
President/Rhythm City Riverboat	1991	0.18%	-1.89%	-0.41%	-1.65%	1.11%	1.09%	-0.15%	-0.12%	-1.24%	-0.45%
Wild Rose Casino & Resort Clinton	1991	-2.66%	1.75%	-0.68%	-0.06%	-6.06%	-7.91%	2.43%	8.67%	-1.37%	2.11%
Diamond Jo Dubuque	1994	-1.01%	-2.00%	-1.21%	-0.96%	0.74%	0.01%	0.41%	1.08%	-0.33%	2.37%
Catfish Bend Casino	1994	0.79%	-0.53%	-2.09%	-3.09%	-3.28%	2.91%	-0.22%	-3.24%	1.57%	2.10%
Argosy Riverboat Sioux City	1994	-3.93%	0.03%	3.29%	6.90%	2.98%	-6.07%	3.14%	-0.14%	-1.24%	0.26%
Horseshoe Casino and Bluffs Run	1995	0.20%	-3.89%	1.05%	-0.20%	-0.62%	-0.78%	-0.05%	0.84%	1.01%	0.72%
Prairie Meadows Casino	1995	-0.73%	0.88%	0.35%	-1.43%	1.01%	1.87%	0.55%	-0.02%	1.46%	0.16%
Isle of Capri Bettendorf	1995	-2.94%	-0.47%	-0.50%	-1.19%	-0.83%	-0.20%	0.73%	-0.72%	-1.77%	0.69%
Mystique/Q Casino	1995	-2.00%	-1.21%	-0.96%	0.74%	0.01%	0.41%	1.08%	-0.33%	2.37%	-1.19%
Harrah's Hotel & Casino	1996	-3.89%	1.05%	-0.20%	-0.62%	-0.78%	-0.05%	0.84%	1.01%	0.72%	-0.46%
Ameristar II	1996	-3.89%	1.05%	-0.20%	-0.62%	-0.78%	-0.05%	0.84%	1.01%	0.72%	-0.46%
Lakeside Hotel Casino	2000	1.34%	3.13%	-0.79%	1.44%	0.96%	0.22%	1.95%	-0.24%	1.97%	3.52%
Casino Queen Marquette	2000	-1.06%	-3.23%	-1.05%	0.13%	-1.55%	-0.39%	-2.14%	0.08%	-2.83%	4.27%
Diamond Jo Worth	2006	1.17%	-0.22%	-3.37%	1.27%	3.91%	-0.14%	-1.88%	2.79%	-2.33%	7.56%
Wild Rose Casino Emmetsburg	2006	-1.70%	-0.64%	-0.83%	-1.46%	2.12%	-2.77%	-2.17%	3.23%	0.03%	3.06%
Riverside Casino and Golf Resort	2006	0.79%	2.39%	2.43%	0.48%	-0.20%	0.88%	1.85%	-1.95%	-1.32%	0.05%
Isle Casino Hotel Waterloo	2007	1.88%	-1.60%	-0.55%	-0.70%	-2.07%	-2.59%	1.71%	6.22%	-0.22%	-1.48%
Grand Falls Casino Resort	2011	3.02%	1.69%	-0.43%	1.42%	1.52%	0.76%	0.97%	-0.13%	-0.15%	1.15%
Hard Rock Hotel and Casino	2014	0.97%	1.35%	-0.53%	1.20%	-0.67%	0.53%	-0.92%	0.82%	-2.87%	-3.40%
Wild Rose Jefferson	2015	0.05%	-2.02%	-1.66%	1.10%	-4.83%	2.97%	-6.72%	0.32%	6.78%	n/a
(New) Rhythm City	2016	-1.20%	1.04%	2.57%	-1.69%	1.78%	4.43%	-0.88%	-2.54%	n/a	n/a
Average for All Casinos*		-0.70%	-0.16%	-0.28%	0.05%	-0.26%	-0.23%	0.06%	0.79%	0.05%	1.08%
Metropolitan Area Casinos		-1.36%	-0.47%	0.23%	-0.02%	0.16%	-0.12%	0.61%	0.59%	-0.13%	-0.29%
Non-Metropolitan Area Casinos		0.19%	0.26%	-0.94%	0.14%	-0.82%	-0.38%	-0.66%	1.06%	0.26%	2.98%

Source: US Bureau of Economic Analysis, Strategic Economics Group

Figure 24 shows that, on average, the growth rates for local government employment in casino counties were exceeded by statewide growth rates four of the five years before casino openings. Then after casinos opened the adjusted growth rates were somewhat higher in the casino counties four of the five years. If this growth is attributable to the casinos, it is logical the growth would happen after the casinos opened for a variety of reasons. First, when it comes to adding new positions, local government budgets are generally reactive rather than proactive. Second, any new tax and fee revenues resulting from the casinos only materialize after the casinos are open for some period of time. For example, property tax payments do not begin to be paid until a year and a half after the value of the property is assessed. Third, hiring qualified people for police, fire, and emergency medical positions takes time, particularly in rural areas.

Over the period from 1990 to 2019, local government employment grew by 29.5% in casino counties, but by a slightly lower rate of 25.3% in non-casino counties. It is hard to attribute this difference to the growth in the number of casinos in Iowa. This is because there is a large difference between the growth rates for metropolitan and non-metropolitan casino counties – 33.5% versus 12.8%, respectively. If casinos cause more demand for public services and local government employment, then higher rates of growth would be expected for the non-metropolitan casino counties because casinos account for larger shares of economic development and budgets in those counties than in the metropolitan casino counties.

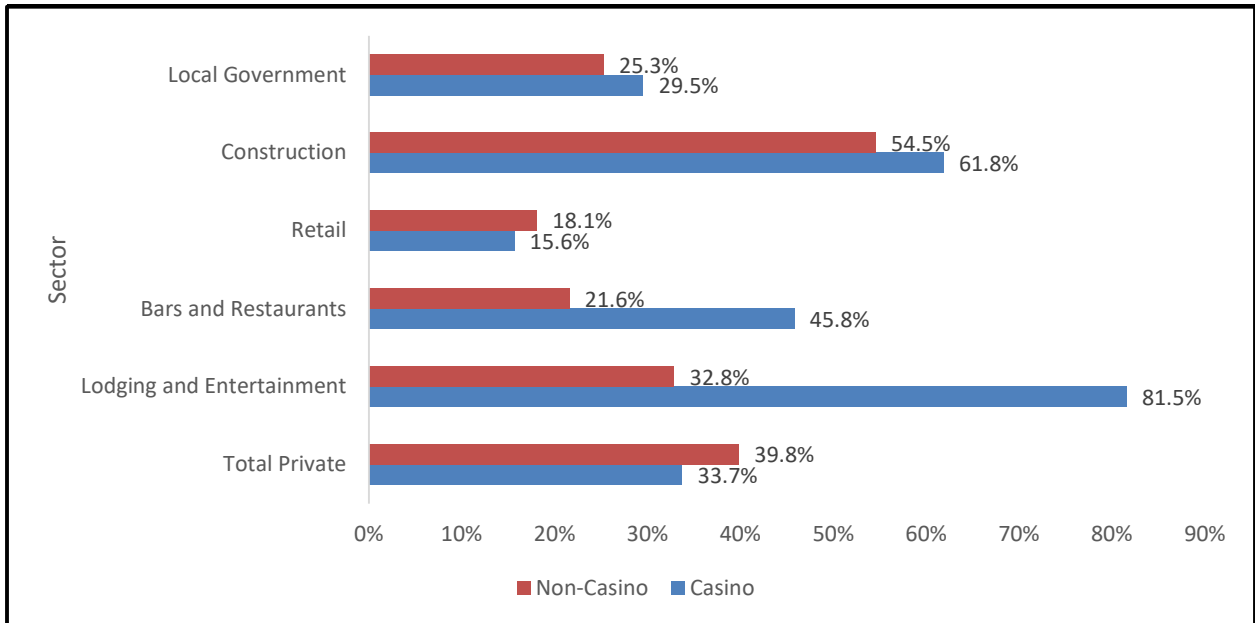
Long-Term Employment Impacts

The preceding analysis of the employment impacts of casino development in Iowa focused primarily on the five years before and the five years after the opening of each casino. The persistence of impacts over the long term is even more important. To address the long-term impacts of casinos on employment, Figure 25 compares the percent change in employment by business sector in casino counties versus non-casino counties from 1990 to 2019. In addition, Figure 26 compares employment growth from 1990 to 2019 by sector for both metropolitan and non-metropolitan casino counties.

The comparison between casino and non-casino counties finds that private-sector employment overall grew by 6.1% more in non-casino counties than in casino counties. On the other hand, lodging and entertainment sector jobs increased by 48.7% more in casino counties and bar and restaurant jobs increased by 24.2% more in casino counties than in non-casino counties. Construction and local government jobs grew by slightly more, 7.3% and 4.3%, respectively, in casino counties than in non-casino counties. Retail jobs also grew by slightly more in non-casino counties.

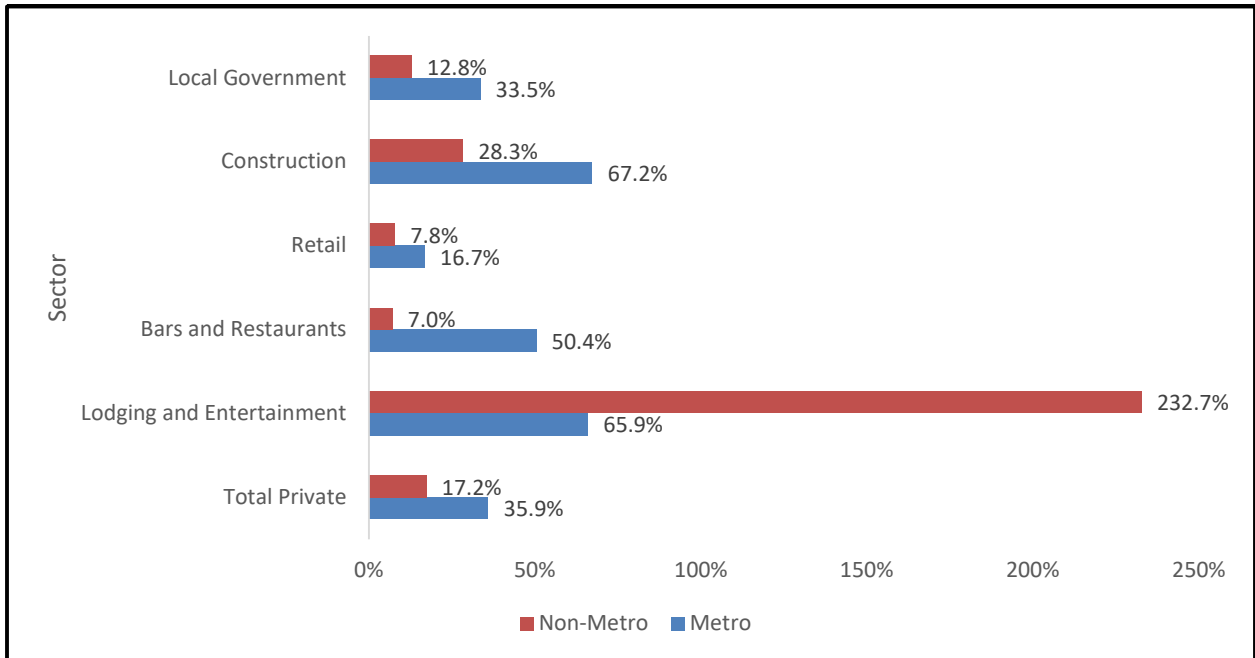
For casino counties, jobs grew by greater percentages in metropolitan areas than in non-metropolitan areas. For all private sector jobs, the different equaled 18.7 percentage points.

Figure 25: Percent change in jobs for casino and non-casino counties, 1990-2019



Source: US Census – County Business Patterns, US Bureau of Economic Analysis, Strategic Economics Group

Figure 26: Percent change in jobs for metro and non-metro casino counties, 1990-2019



Source: US Census – County Business Patterns, US Bureau of Economic Analysis, Strategic Economics Group

Lodging and entertainment is the one sector in which the percent change was greater in non-metropolitan casino counties. In these nine counties the number of jobs grew by 232.7% compared to 65.9% in the six metropolitan casino counties. But the number of new jobs in this sector increased by 2.7 times more in metropolitan casino counties than in non-metropolitan casino counties, or by 7,798 versus 2,843.

The bar and restaurant sector experienced a growth of 15,192 jobs (50.4%) in metropolitan casino counties versus only 251 (7.0%) in non-metropolitan casino counties. This large difference begs the question “How does population growth in these two sets of counties compare?” For the nine non-metropolitan casino counties population decreased by 9,887 (-5.5%). On the other hand, for the six metropolitan casino counties population increased by 217,834 (25.0%).

So, it is likely population growth played some role in the difference in the growth of bar and restaurant jobs in the two sets of casino counties. Another factor that almost certainly distorts the comparison is that the bar and restaurant jobs created inside casinos are counted in the lodging and entertainment sectors. It may be surmised that in the smallest of the rural counties that the bar and restaurant services offered by the casinos make it hard for independent bars and restaurants to compete for workers and customers.

Looking at long-term changes in retail employment reveals limited grow rates for metropolitan casino counties (16.7%), non-metropolitan casino counties (7.8%), and counties without state-regulated casinos (18.1%). The comparable population growth rates for these three sets of counties equal 25.0%, -5.5%, and 9.9%. This comparison shows that in metropolitan casino counties, population increased by a greater percentage that did the number of retail jobs, but in both non-metropolitan casino counties and in counties without casinos, retail jobs grew by greater percentages than did their populations. There is no obvious explanation for the differences between retail jobs and population growth rates. However, two possible explanations are:

- Consumers in metropolitan areas are more likely to make purchases from online retailers than are consumers who live in rural areas and smaller towns.
- New types of convenience and discounts retailers, such as Casey’s, Dollar General, Family Dollar, and Walmart, have moved into small towns as replacements for former locally owned Main Street retailers and these new businesses use many more part-time workers than the stores they replaced. The businesses that were replaced were often family-run, with mostly full-time employees.

The numbers of people who are employed by different types of businesses only addresses one aspect of how casinos may impact their local economies. Another factor of equal importance is the level of compensation earned by salaried and hourly workers and profits earned by business owners. The next section of this chapter addresses the combination of employment and income effects by looking at non-farm personal income and wages, salaries, and benefits.

3. Personal Income

The personal income analysis is based on US Bureau of Economic Analysis data, which is available for counties back to 1969. Iowa’s first casino opened in 1991, so this analysis uses personal income data only back to 1986.

The BEA estimates five major components of personal income which are (1) wages and salaries, (2) supplements to wages and salaries (benefits), (3) dividends, interest and rent, (4) personal current transfer payments, and (5) proprietors’ income. Also, the estimates make a distinction between total farm and non-farm income and between farm and non-farm proprietors’ income.

This analysis focuses on total non-farm income and on wages, salaries, and benefits. Farm income is excluded from the analysis because this component of personal income is unlikely to be impacted by casinos to any great extent. Although there is the possibility that some people who are engaged in farming may also work part-time for casinos, this overlap should be minimal. Similarly, dividend, interest, and rental income, as well as transfer payments, are determined by exogenous factors unrelated to the existence of a casino in a county, and so are excluded from this analysis.

For the analysis, all years of personal income values have been converted to 2019 dollars to reduce the impact of inflation.

Non-Farm Personal Income

As Figure 27 shows, average adjusted non-farm personal income for all casino counties and for non-metropolitan casino counties experienced sizable jumps the year prior to casinos opening for business. Also, for the metropolitan casino counties, non-farm personal income exhibited a slight increase relative to the statewide growth rates during both the year prior to and the year following casino openings. But for non-metropolitan casino counties, the adjusted non-farm personal income growth rates were negative four of the five years following casino opening years. For metropolitan casino counties the adjusted growth rates were negative three of the five years following casino opening years.

This pattern of transient relative non-farm personal income increases around the times when casinos first opened for business implies activities associated with the construction and initial staffing of new casinos boosted income growth above the statewide rate, but then the impact waned.

Figure 27: Percent change in host county real non-farm personal income by year before and after casino opening
(adjusted for statewide growth)

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 to 4 Years	4 to 3 Years	3 to 2 Years	2 to 1 Years	1 to 0 Years	0 to 1 Years	1 to 2 Years	2 to 3 Years	3 to 4 Years	4 to 5 Years
President/Rhythm City Riverboat	1991	0.76%	-1.10%	-0.78%	0.70%	0.36%	-0.05%	-1.06%	-1.05%	0.44%	0.26%
Wild Rose Casino & Resort Clinton	1991	-1.76%	-0.35%	-0.78%	-1.05%	0.56%	-0.26%	-2.72%	-1.56%	-0.74%	-0.08%
Diamond Jo Dubuque	1994	-0.68%	0.30%	1.67%	0.43%	1.20%	0.84%	-3.07%	-1.09%	-0.27%	-2.14%
Catfish Bend Casino	1994	-0.17%	-0.66%	-1.13%	-1.07%	-1.00%	-2.03%	-1.15%	-1.27%	-0.46%	-1.42%
Argosy Riverboat Sioux City	1994	1.30%	-0.73%	1.69%	-0.69%	-0.51%	1.42%	1.18%	-3.63%	-0.77%	-1.99%
Horseshoe Casino and Bluffs Run	1995	0.90%	-0.60%	-0.83%	1.12%	0.20%	1.58%	0.50%	0.23%	2.05%	0.92%
Prairie Meadows Casino	1995	-0.98%	1.03%	0.38%	0.62%	0.98%	-0.14%	0.08%	1.71%	1.37%	0.16%
Isle of Capri Bettendorf	1995	0.36%	-0.05%	-1.06%	-1.05%	0.44%	0.26%	-0.40%	0.30%	-1.19%	-0.72%
Mystique/Q Casino	1995	0.30%	1.67%	0.43%	1.20%	0.84%	-3.07%	-1.09%	-0.27%	-2.14%	-0.67%
Harrah's Hotel & Casino	1996	-0.60%	-0.83%	1.12%	0.20%	1.58%	0.50%	0.23%	2.05%	0.92%	-0.44%
Ameristar II	1996	-0.60%	-0.83%	1.12%	0.20%	1.58%	0.50%	0.23%	2.05%	0.92%	-0.44%
Lakeside Hotel Casino	2000	2.93%	2.59%	1.93%	4.62%	3.87%	1.56%	-0.80%	0.62%	-5.06%	-1.60%
Casino Queen Marquette	2000	0.58%	1.13%	-3.04%	-0.05%	-0.72%	1.05%	-0.85%	-0.70%	-2.16%	-1.55%
Diamond Jo Worth	2006	-1.94%	0.08%	6.93%	-2.81%	46.32%	-1.68%	-14.89%	-14.77%	-2.17%	3.42%
Wild Rose Casino Emmetsburg	2006	-2.19%	-0.59%	-2.20%	0.66%	33.37%	-0.69%	-9.88%	-10.91%	-1.95%	6.31%
Riverside Casino and Golf Resort	2006	0.51%	-0.44%	-2.52%	-0.87%	-0.12%	-1.25%	1.07%	1.37%	1.99%	1.01%
Isle Casino Hotel Waterloo	2007	0.29%	0.02%	-1.08%	-1.70%	-0.82%	0.23%	2.19%	-1.01%	0.61%	-0.46%
Grand Falls Casino Resort	2011	1.56%	2.44%	2.32%	3.71%	3.68%	0.63%	-0.97%	-0.47%	2.27%	-0.20%
Hard Rock Hotel and Casino	2014	-4.87%	-4.93%	-4.70%	0.15%	-1.21%	0.85%	0.57%	-3.56%	0.00%	1.02%
Wild Rose Jefferson	2015	-1.75%	2.86%	-2.47%	-1.56%	-2.28%	-0.73%	-2.18%	-0.90%	0.04%	n/a
(New) Rhythm City	2016	-2.64%	-0.82%	-2.15%	-1.90%	-0.32%	1.50%	-0.89%	0.18%	n/a	n/a
Average for All Casinos		-0.41%	0.01%	-0.25%	0.04%	4.19%	0.05%	-1.61%	-1.56%	-0.32%	0.07%
Metropolitan Area Casinos		-0.54%	-0.57%	-0.35%	-0.06%	0.36%	0.37%	-0.13%	-0.34%	0.18%	-0.41%
Non-Metropolitan Area Casinos		-0.25%	0.78%	-0.11%	0.18%	9.30%	-0.38%	-3.60%	-3.18%	-0.92%	0.74%

Source: US Bureau of Economic Analysis, Strategic Economics Group

The fact that the growth rate for non-farm personal income in casino counties falls below the statewide growth rate during most of the years after casinos open for business does not mean that personal income levels fall below their pre-casino opening levels. It just means that after opening the growth rates slow down to below the prevailing statewide growth rate.

Over the 30 years from 1990 through 2019, real non-farm personal income in all the casino counties grew at a slightly slower rate than for the state, 70.8% versus 73.1%. In the non-casino counties, the rate of growth was a little higher at 74.6%. In comparing metropolitan and non-metropolitan casino counties, there is a fairly large difference between the growth rates. Real non-farm personal income grew by 73.9% for the metropolitan casino counties, but by only 52.0% for the non-metropolitan casino counties.

Wages, Salaries and Benefits

Figure 28 shows increases in the adjusted average rate of growth of real wages, salaries, and benefits each of the five years preceding the opening of casinos. Specifically, compared to the statewide average growth rates, the adjusted growth rates for all casino counties rise from -0.1% five years prior to opening to 3.1% the year prior to opening. Then the first year after opening the growth rate for casino counties continues to exceed the statewide growth rate by 1.6 percentage points. After that, the average casino county growth rates fall below the statewide rates from Year 2 to Year 5 following casino opening years.

For metropolitan casino counties the adjusted average real wages, salaries, and benefits growth rate rises from -0.8% five years prior to casinos opening to 1.8% the year prior to opening. The metropolitan casino counties maintain higher growth rates than the statewide average the first year after opening, but then the next three years the metropolitan county growth rates fall below the statewide rates. The adjusted growth rates for the non-metropolitan casino counties are similar, rising from 0.9% five years prior to opening years to 4.8% the years before opening and still a positive 2.8% one year after opening. But then for years 2 through 4 after the opening years the casino county growth rates fall below the statewide rates.

There is considerable variation in adjusted growth rates among the casinos. The highest growth rates are exhibited by the least populous casino counties. For example, for the year prior to opening in 2000 Clarke County (Lakeside Hotel Casino) had an adjusted growth rate of 15.9%, and the year after opening its adjusted growth rate equaled 4.4%, but then for years 2 through 5 after opening its growth rates fell below the statewide averages.

**Figure 28: Percent change in host county real wages, salaries, and benefits
by year before and after opening**
(adjusted for statewide growth)

Casino	Year Opened	Years Before Opening					Years After Opening				
		5 to 4 Years	4 to 3 Years	3 to 2 Years	2 to 1 Years	1 to 0 Years	0 to 1 Years	1 to 2 Years	2 to 3 Years	3 to 4 Years	4 to 5 Years
President/Rhythm City Riverboat	1991	-1.27%	-4.21%	-0.93%	0.37%	-0.04%	-0.27%	-0.75%	0.16%	0.28%	1.41%
Wild Rose Casino & Resort Clinton	1991	-4.08%	0.25%	-1.26%	-2.44%	0.87%	0.60%	-4.14%	-2.64%	-1.61%	1.09%
Diamond Jo Dubuque	1994	-1.21%	0.58%	1.66%	-0.45%	1.18%	-0.59%	-3.76%	-1.24%	-2.18%	-2.94%
Catfish Bend Casino	1994	0.44%	-1.20%	-2.73%	-2.24%	-0.57%	-2.24%	-0.95%	-1.86%	-0.84%	-1.92%
Argosy Riverboat Sioux City	1994	-1.05%	-0.52%	1.59%	-0.47%	0.34%	1.37%	-1.80%	-2.61%	-1.99%	-1.06%
Horseshoe Casino and Bluffs Run	1995	-2.14%	-2.15%	-1.08%	1.72%	2.82%	7.95%	-2.66%	-1.26%	0.24%	0.87%
Prairie Meadows Casino	1995	0.82%	0.89%	0.03%	-0.59%	0.95%	1.01%	0.64%	0.63%	2.06%	-0.63%
Isle of Capri Bettendorf	1995	-0.04%	-0.27%	-0.75%	0.16%	0.28%	1.41%	0.78%	-0.95%	-2.24%	-0.85%
Mystique/Q Casino	1995	0.58%	1.66%	-0.45%	1.18%	-0.59%	-3.76%	-1.24%	-2.18%	-2.94%	-1.25%
Harrah's Hotel & Casino	1996	-2.15%	-1.08%	1.72%	2.82%	7.95%	-2.66%	-1.26%	0.24%	0.87%	1.81%
Ameristar II	1996	-2.15%	-1.08%	1.72%	2.82%	7.95%	-2.66%	-1.26%	0.24%	0.87%	1.81%
Lakeside Hotel Casino	2000	4.23%	6.86%	7.03%	9.38%	15.91%	4.38%	-1.65%	-5.36%	-7.89%	-3.98%
Casino Queen Marquette	2000	-0.06%	1.86%	-4.70%	0.56%	-0.31%	-3.52%	-0.45%	-3.41%	-1.76%	-3.17%
Diamond Jo Worth	2006	-3.42%	0.76%	9.20%	1.06%	11.19%	14.15%	2.41%	-4.26%	-0.84%	3.39%
Wild Rose Casino Emmetsburg	2006	-0.54%	-0.43%	1.00%	1.17%	2.02%	3.58%	-3.01%	-0.49%	-4.10%	0.27%
Riverside Casino and Golf Resort	2006	3.16%	1.44%	-6.20%	0.02%	3.17%	3.86%	1.65%	2.25%	0.99%	1.42%
Isle Casino Hotel Waterloo	2007	-0.20%	1.89%	-1.01%	-1.40%	0.38%	1.26%	2.45%	-0.97%	1.54%	0.99%
Grand Falls Casino Resort	2011	6.54%	-1.68%	3.47%	2.88%	10.53%	3.61%	-2.31%	0.89%	-1.15%	0.38%
Hard Rock Hotel and Casino	2014	-0.89%	-5.64%	-0.94%	2.38%	1.36%	5.76%	3.12%	-12.86%	0.14%	0.77%
Wild Rose Jefferson	2015	1.55%	1.24%	-1.46%	0.61%	0.68%	0.71%	-0.35%	-0.96%	1.41%	n/a
(New) Rhythm City	2016	0.69%	-1.78%	-1.93%	0.25%	-1.47%	0.06%	0.02%	0.39%	n/a	n/a
Average for All Casinos		-0.06%	-0.12%	0.19%	0.94%	3.08%	1.62%	-0.69%	-1.73%	-0.96%	-0.08%
Metropolitan Area Casinos		-0.75%	-0.98%	-0.03%	0.73%	1.76%	0.74%	-0.48%	-1.70%	-0.30%	0.08%
Non-Metropolitan Area Casinos		0.87%	1.01%	0.48%	1.22%	4.83%	2.79%	-0.98%	-1.76%	-1.75%	-0.31%

Source: US Bureau of Economic Analysis, Strategic Economics Group

In the long term, real wages, salaries, and benefits increased by \$18.3 billion (67.0%) between 1990 and 2019 for the 15 casino counties. The increase statewide equaled \$40.6 billion (69.9%). So, the casino counties accounted for 45.1% of the statewide growth. Over the same period, the casino counties accounted for 54.9% of the state's growth in population.

A comparison of the six metropolitan casino counties with the nine non-metropolitan casino counties finds that real wages, salaries, and benefits increased by \$17.2 billion (71.3%) in the metropolitan counties but by only \$1.1 billion (33.9%) in the non-metropolitan counties. Thus, the metropolitan counties accounted for 94.3% of the total casino counties' growth.

Additional analysis of the impact of casinos on employment and worker compensation is addressed in a following chapter. The next section of this chapter looks at how casinos have impacted

their host communities through charitable contributions and other types of community involvement and assistance.

4. Charitable Contributions and Community Involvement

The operators of each of Iowa's state-regulated casinos must have an agreement with a qualified sponsoring organization ("QSO"). These organizations are the holders of the State's gaming licenses. These non-profits serve as vehicles for directing contributions from the casinos to a variety of charitable and civic organizations. Beyond making charitable contributions in their host cities and counties, Iowa Code 99F.11(3)(c) requires that eight-tenths of 1% of AGR be deposited in the county endowment fund for distribution to the 84 counties without casinos. In addition, pursuant to Iowa Code 99F.11(2), casinos must contribute three-quarters of 1% of net receipts from sports wagering to their QSOs.

The QSOs, by agreement with the casino operators, receive a percentage of gaming revenues. Based on a survey of casinos conducted for this study, for 2019 the shares of gaming revenues contributed to the QSOs averaged 4.1% and ranged from 0.08% to 10.5%. The median value was 4.3%.

The boards of the QSOs each determine their own priorities for making contributions to charitable and civic organizations. The Iowa Council of Foundations and the Iowa Gaming Association each year summarize the philanthropic work of the organizations they represent in an annual report. The 2020 annual report, which summarizes activities for 2019, indicates that the QSOs made grants to 1,628 organizations totaling almost \$95 million. Some casinos make other charitable contributions that do not flow through the QSOs. In addition, because Polk County owns the Prairie Meadows property, \$31,457,000 was paid to Polk County and other local units of government during 2019. The amount contributed to county endowment funds in 2019 equaled \$11,741,496. Figure 29 below summarizes the grants made by QSOs during 2019.

Figure 29: Qualified Sponsoring Organization grants, 2019

Qualified Sponsoring Organizations	Casinos	2019	
		Grants	Amounts
Black Hawk County Gaming Association	Isle Casino Hotel Waterloo	57	\$4,538,958
Clark County Development Corporation	Lakeside Hotel Casino	24	\$1,200,000
Clinton County Development Association	Wild Rose Casino & Resort Clinton	79	\$807,000
Dubuque Racing Association	Q Casino, Diamond Jo Dubuque	132	\$1,425,422
Grow Greene County Gaming Corporation	Wild Rose Jefferson	25	\$1,018,733
Iowa West Racing Association	Ameristar, Harrah's, Horseshoe Casinos	94	\$20,713,526
Lyon County Riverboat Foundation	Grand Falls Casino Resort	26	\$1,889,000
Missouri River Historical Development, Inc	Hard Rock Hotel and Casino	63	\$3,578,946
Palo Alto County Gaming Development Corp	Wild Rose Casino Emmetsburg	85	\$1,600,007
Prairie Meadows	Prairie Meadows Casino	223	\$6,327,000
Regional Development Authority	Rhythm City	116	\$2,648,766
Scott County Regional Authority	Isle of Capri Bettendorf	130	\$2,956,688
Southeast Iowa Regional Riverboat Commission	Catfish Bend Casino	55	\$1,187,686
Upper Mississippi Gaming Corporation	Casino Queen Marquette	33	\$379,828
Washington County Riverboat Foundation	Riverside Casino and Golf Resort	88	\$2,673,689
Worth County Development Authority	Diamond Jo Worth	74	\$4,913,270

Source: Iowa Gaming Association

5. Fees and Taxes

The State of Iowa imposes fees and taxes on gaming and racing activities. In addition, fees are imposed on certain gaming-related occupations and on manufacturers and distributors of gambling games and implements. The fees imposed on gambling establishments, employees, and suppliers are:

- **Occupational License Fees (Iowa Code 99F.4)** – By administrative rule, the IRGC requires persons working in any capacity at racing and gaming facilities be licensed and the individuals participating in internet fantasy sports contests be licensed. Depending on the occupation, the license fee is either \$10 or \$20.
- **Annual License Fee (Iowa Code 99F.4A, Subsection 5)** – An annual fee of \$5 per person (based on capacity) is imposed on gambling structures. An annual fee of \$1,000 is imposed on pari-mutuel racetracks that operate gambling games.
- **Daily License Fee (Iowa Code 99D.14)** – A fee of \$250 per day is imposed on each horse-race or dog-race meeting.
- **Regulatory Fees (Iowa Code Iowa Code 99D.14 and 99F.10, Subsection 2)** – The amount of the regulatory fee varies by casino and racetrack and is intended to cover the cost of special agents and gaming enforcement officers, plus any associated indirect and direct support costs.

- Manufacturers and Distributors License Fees (Iowa Code 99F.17) – Manufacturers and distributors of gambling games or implements of gambling must obtain licenses annually from the IRGC. The license fee for manufacturers is \$250 and the fee for distributors is \$1,000.
- Sports Wagering Fee (Iowa Code 99F.7A) – Iowa imposes a \$45,000 initial sports wagering license fee and a \$10,000 annual license renewal fee.

In addition to fees, the State of Iowa imposes taxes on pari-mutuel wagers at racetracks, on AGR from gambling games at casinos, and on net receipts from sports wagering.

The pari-mutuel wagering tax (Iowa Code 99D.15) is imposed at a rate of 6.0% on the gross sum wagered on horse races. Also, the tax is imposed on dog races at a rate of 6.0% if the gross sum wagered in the racing season is \$55 million or more. The tax rate is 5.0% if the gross sum wagered in the racing season is at least \$30 million but less than \$55 million. The tax rate is 4.0% if the gross sum wagered is less than \$30 million.

Pari-mutuel tax revenues are distributed as follows:

- One-half of 1% of the gross sum wagered to the city where the racetrack is located,
- One-half of 1% of the gross sum wagered to the county where the racetrack is located,
- One-half of 1% of the gross sum wagered to the gambling treatment fund, and
- The remainder to the State General Fund.

A 2.0% pari-mutuel wagering tax is imposed on the gross sum wagered on horse races and dog races that are simultaneously telecast. The revenue from this tax is distributed as follows:

- One-half of 1% of the gross sum wagered to the city where the racetrack is located,
- One-half of 1% of the gross sum wagered to the county where the racetrack is located, and
- 1% of the gross sum wagered to the State General Fund.

For casinos, a wagering tax is imposed according to a graduated rate structure and depending on the type of gaming facility. The tax structure is as follows:

- The tax rate is 5.0% on the first \$1 million and 10.0% on the next \$2 million of AGR from gambling games, and then for AGR over \$3 million,
- The tax rate for licensed excursion gambling boats equals 22%.
- The tax rate equals 22% for racetracks with a table games license and AGR the prior fiscal year under \$100 million.
- The tax rate equals 24% for racetracks with a table game license and AGR over \$100 million.
- The tax rate equals 24% for racetracks with a table game license and if there is no licensee with an excursion gambling boat located in the same county.

Proceeds from the casino wagering tax are distributed as follows:

- One-half of 1% of AGR to the city where the facility is located,
- One-half of 1% of AGR to the county where the facility is located,

- Eight-tenths of 1% of AGR to the county endowment fund,
- Two-tenths of 1% of AGR to the state miscellaneous fund, and
- The remainder to the General Fund of the state.

The tax on sports wagering and fantasy sports is imposed at a rate of 6.75% of net receipts. Sports wagering in Iowa began on August 15, 2019, and the first fantasy sports wagering event occurred on October 25, 2019.

The table below summarizes all racetrack and casino fee and tax payments for the years 2015 through 2020. As the table shows, from 2015 through 2019 total receipts were quite stable increasing by just \$12.7 million (3.9%) from \$330.8 million to \$343.5 million. Then, between 2019 and 2020 total revenues dropped by \$78.2 million (22.8%) to \$265.3 million. This decrease is no doubt largely due to the coronavirus pandemic.

Even though they do not amount to a large share of total revenues, the drop in revenues related to racing is noteworthy. For example, from 2015 to 2019, daily license fees dropped by 78.4% and pari-mutuel taxes dropped by 46.7%.

Figure 30: Iowa racing and gaming fees and taxes, 2015-2020

Revenue Sources	2015	2016	2017	2018	2019	2020
Annual Licensing Fees	\$242,065	\$230,085	\$249,580	\$252,685	\$252,145	\$250,090
IRGC and DCI Regulatory Fees	\$16,692,078	\$15,302,272	\$16,785,782	\$17,381,253	\$17,567,615	\$15,779,177
Daily License Fee	\$182,000	\$82,000	\$37,000	\$37,800	\$39,400	\$34,200
Occupational License Fees	\$160,670	\$139,920	\$151,950	\$71,820	\$123,660	\$101,150
Manufacturers/ Distributors License Fees	\$32,750	\$30,500	\$30,750	\$31,750	\$30,500	\$27,500
Fines	\$196,775	\$171,325	\$112,050	\$177,875	\$248,950	\$200,150
Sports Wagering/ Fantasy Sports License Fees	\$0	\$0	\$0	\$0	\$870,000	\$196,000
Sports Wagering Tax	\$0	\$0	\$0	\$0	\$1,312,510	\$2,858,853
Pari-Mutuel Tax	\$382,179	\$63,455	\$174,011	\$252,634	\$203,705	\$116,642
Gaming Tax - State	\$284,169,103	\$288,578,149	\$290,703,637	\$292,577,364	\$293,323,798	\$222,926,170
Gaming Tax - City and County	\$14,243,480	\$14,461,596	\$14,563,126	\$14,645,420	\$14,680,432	\$11,263,566
State Miscellaneous Fund	\$2,848,696	\$2,892,322	\$2,912,626	\$2,929,086	\$2,938,939	\$2,254,312
Unclaimed Winnings	\$216,204	\$143,982	\$132,278	\$153,675	\$143,842	\$122,135
Other Reimbursements	\$0	\$0	\$0	\$0	\$19,350	\$161,229
County Endowment Fund	\$11,394,783	\$11,569,281	\$11,650,502	\$11,716,336	\$11,741,496	\$9,009,255
Totals	\$330,760,783	\$333,664,887	\$337,503,292	\$340,227,698	\$343,496,342	\$265,300,429

Source: Iowa Racing and Gaming Commission

Gaming taxes, which are split among host cities and counties, the state General Fund, the state Miscellaneous Fund, and the county endowment funds of counties without casinos, account for about 94% of total fee and tax revenues per year. Figure 31 shows the distribution of gaming taxes for 2019. Most of the gaming tax revenue goes to the state General Fund (90.9%).

Figure 31: Gaming taxes distribution, 2019

Casino Name	City Tax	County Tax	County Endowment	State Misc.	State Tax	Totals
Ameristar II	\$795,674	\$795,674	\$1,273,079	\$318,270	\$31,416,969	\$34,599,666
Casino Queen Marquette	\$106,904	\$106,904	\$171,047	\$42,762	\$3,866,186	\$4,293,803
Catfish Bend Casino	\$198,411	\$198,411	\$317,458	\$79,365	\$7,526,470	\$8,320,115
Diamond Jo Dubuque	\$354,268	\$354,268	\$566,829	\$141,707	\$13,760,729	\$15,177,801
Diamond Jo Worth	\$423,450	\$423,450	\$677,520	\$169,380	\$16,528,003	\$18,221,803
Grand Falls Casino Resort	\$316,841	\$316,841	\$504,093	\$129,588	\$12,263,630	\$13,530,993
Hard Rock Hotel and Casino	\$384,502	\$384,502	\$615,204	\$153,801	\$14,970,085	\$16,508,094
Harrah's Hotel & Casino	\$359,291	\$359,291	\$574,866	\$143,716	\$13,961,658	\$15,398,822
Horseshoe Casino and Bluffs Run	\$864,803	\$864,803	\$1,383,684	\$345,921	\$37,581,324	\$41,040,535
Isle of Capri Bettendorf	\$316,404	\$316,404	\$506,246	\$126,562	\$12,246,164	\$13,511,780
Isle Casino Hotel Waterloo	\$417,406	\$417,406	\$667,849	\$166,962	\$16,286,238	\$17,955,861
Lakeside Hotel Casino	\$248,464	\$248,464	\$397,542	\$99,385	\$9,528,559	\$10,522,414
Prairie Meadows Casino	\$1,041,436	\$1,041,436	\$1,666,298	\$416,575	\$45,353,209	\$49,518,954
Q Casino	\$248,658	\$248,658	\$397,854	\$99,463	\$9,536,348	\$10,530,981
Rhythm City	\$374,199	\$374,199	\$598,718	\$149,679	\$14,557,954	\$16,054,749
Riverside Casino and Golf Resort	\$464,614	\$464,614	\$743,383	\$185,846	\$18,174,583	\$20,033,040
Wild Rose Casino & Resort Clinton	\$147,098	\$147,098	\$235,356	\$58,839	\$5,473,914	\$6,062,305
Wild Rose Casino Emmetsburg	\$134,344	\$134,344	\$214,951	\$53,738	\$4,963,787	\$5,501,164
Wild Rose Jefferson	\$143,449	\$143,449	\$229,519	\$57,380	\$5,327,988	\$5,901,785
Totals	\$7,340,216	\$7,340,216	\$11,741,496	\$2,938,939	\$293,323,798	\$322,684,665

Source: Iowa Racing and Gaming Commission

In most cases, the greatest source of additional direct payments to units of government comes from property taxes paid by the casinos. As shown in Figure 32, according to information obtained from city and county assessors' web sites, casinos paid \$29.7 million to units of government in their host counties and cities during fiscal year 2021 (July 2020-June 2021). Jurisdictions in Dubuque and Polk counties receive additional payments because the City of Dubuque owns the Q Casino and Polk County owns Prairie Meadows. For example, during 2019 Prairie Meadows paid Polk County \$26.2 million, the City of Des Moines \$4.4 million, and Polk County school districts \$784,000. Also, during 2019, the Dubuque Racing Association provided \$11.6 million to local governments and charitable organizations.

Figure 32: Iowa casino property tax payments based on 2019 assessments

Casino Name	Assessed Value 2019	Taxable Value 2019	Property Tax 2019	Bldg. Area (Sq Ft)	Land Area (Acres)
Ameristar	\$57,559,100	\$51,803,190	\$2,336,279	118,016	59
Casino Queen Marquette	\$4,796,315	\$4,316,684	\$124,778	20,658	31
Catfish Bend Casino	\$27,000,000	\$24,300,000	\$941,413	448,382	10
Diamond Jo Dubuque	\$61,978,594	\$55,780,735	\$1,798,924	188,600	7
Diamond Jo Worth	\$33,292,208	\$29,962,987	\$686,574	107,013	47
Grand Falls Casino Resort	\$81,080,580	\$72,972,522	\$1,512,788	245,392	207
Hard Rock Hotel and Casino	\$49,960,300	\$49,960,300	\$1,764,190	147,630	16
Harrah's Hotel & Casino	\$42,325,900	\$38,093,310	\$1,714,602	328,840	114
Horseshoe Casino and Bluffs Run	\$64,979,200	\$58,481,280	\$2,637,455	248,178	63
Isle of Capri Bettendorf	\$65,286,690	\$58,758,021	\$1,933,598	380,664	24
Isle Casino Hotel Waterloo	\$54,393,550	\$48,951,195	\$1,977,625	165,000	54
Lakeside Hotel Casino	\$26,500,000	\$23,850,000	\$1,017,538	101,207	100
Prairie Meadows Casino	\$136,000,000	\$122,400,000	\$4,626,380	527,539	233
Q Casino	\$22,801,680	\$285,120	\$6,728	122,162	43
Rhythm City	\$68,532,390	\$61,679,151	\$2,430,018	270,000	40
Riverside Casino and Golf Resort	\$69,367,600	\$62,430,840	\$2,010,796	300,000	375
Wild Rose Casino & Resort Clinton	\$24,000,000	\$21,600,000	\$884,142	119,000	28
Wild Rose Casino Emmetsburg	\$18,710,430	\$16,839,387	\$603,162	118,316	87
Wild Rose Jefferson	\$17,788,200	\$16,009,380	\$654,882	70,585	29
Totals	\$926,352,737	\$818,474,102	\$29,661,872	4,027,182	1,567

Source: City and county assessors websites

6. Economic Development Impacts

When policymakers promoted and then enacted legislation to first allow horse and dog racing, then riverboat gambling, then casino gaming, and most recently sports wagering, one of their primary goals was to provide stimulus for other economic development in the state. There are a variety of examples of such spillover development in the vicinity of some casinos. In other cases, surrounding development has been limited. Location and the length of time since casinos opened for business are likely two important explanatory factors as to how much other development has occurred.

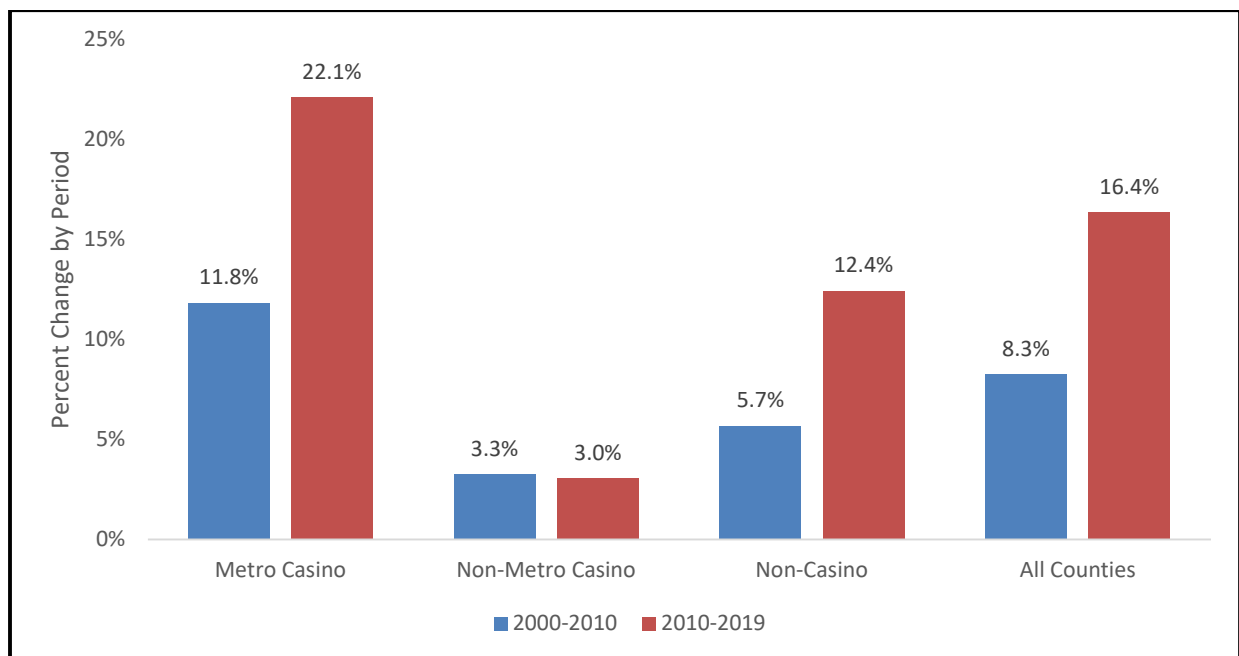
Starting at a macro level, four measures of economic change have been used to assess the extent to which casino and non-casino county development trends compare. Two of the measures relate to consumer expenditures, and the other two measures relate to real property valuations. Consumer expenditure data are available for bar and restaurant expenditures and for traditional retail expenditures from 2000 through 2019. The source for these data is Iowa Department of Revenue ("Iowa DOR") quarterly sales and use-tax reports. Real property valuation data are available for residential and commercial classifications from 1990 through 2019. The source for these data is the Iowa Department of

Management (“Iowa DOM”). All the expenditure comparisons are presented in constant 2019 dollars to limit the impact of inflation.

Consumer Expenditures Comparisons

Figure 33 shows the percent change in inflation adjusted taxable expenditures at bars and restaurants over the periods 2000-2010 and 2010-2019 for metropolitan casino counties, non-metropolitan casino counties, counties without state regulated casinos, and for all of Iowa. These comparisons show that growth in expenditures was greatest over both periods in the metropolitan casino counties. On the other hand, growth was the slowest in the non-metropolitan casino counties.

Figure 33: Percent change in bar and restaurant expenditures, 2000-2019



Source: Iowa Department of Revenue, Strategic Economics Group

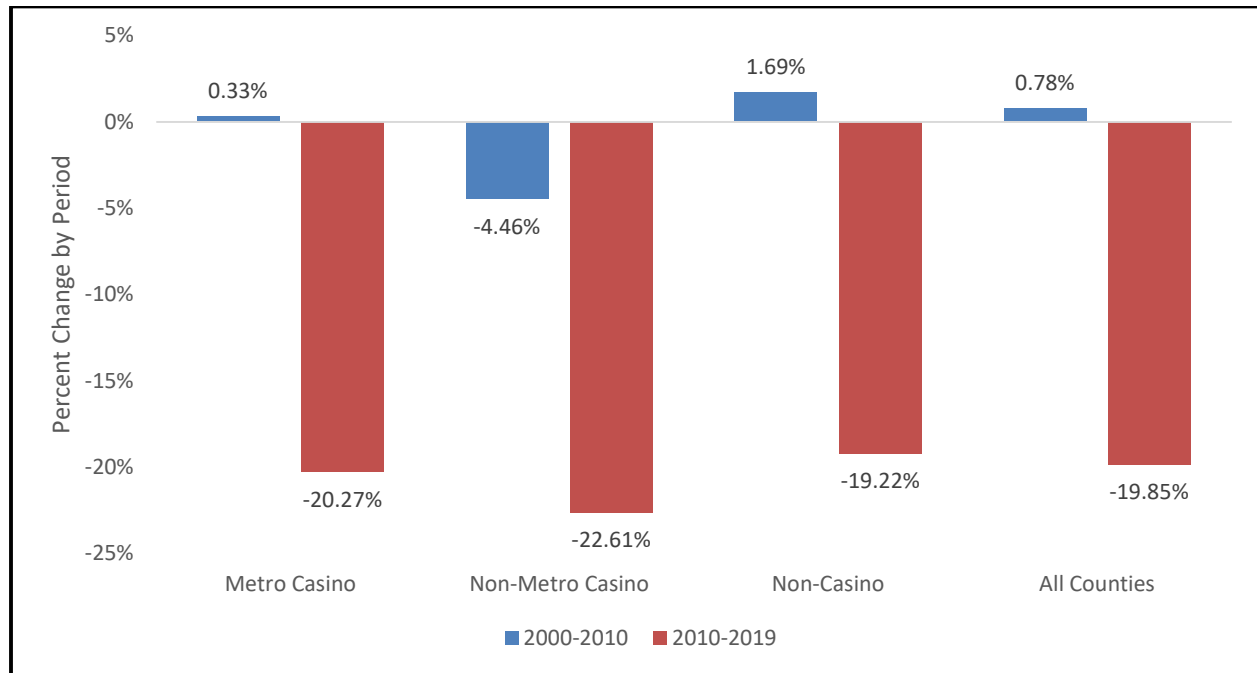
In viewing this comparison, one thing to keep in mind is that all of the casinos offer bar and restaurant facilities on-site. Sales by these facilities are not counted by the Iowa DOR as bar and restaurant sales unless these facilities are separately licensed from other casino activities, which is generally not the case. Thus, bar and restaurant sales are likely undercounted in casino counties and the undercount almost certainly has a bigger impact on the sales statistics for the non-metropolitan area casino counties. Also, it is likely that bars and restaurants located in the non-metropolitan casino counties suffered more from competition with the casinos than in the metropolitan casino counties. For example, in Lyon County the Iowa DOR has processed 31 sales tax registration cancelations for bars and restaurants since 2011, when the Grand Falls Casino opened.

On the other hand, in at least some metropolitan counties the presence of casinos has contributed to growth in the number of bars and restaurants by becoming the focus of a cluster of entertainment activities. The primary example of this phenomenon is in the city of Altoona, in Polk County. There are currently 63 bars, restaurants, cafes, and coffee shops registered in this city of 19,565 residents. At least

48 of these businesses are located within about one mile of the Prairie Meadows Casino and Racetrack. Also, there are over a dozen hotels and motels in the same area.

A look at the broad array of consumer spending accounted for by traditional retailers shows more about the state of retailing than the impact of casinos. First, as a reminder, traditional retailing includes discount and department stores, grocery and convenience stores, hardware and home furnishing stores, and a wide variety of specialty retailers, such as jewelers, sporting goods stores, bookstores, clothing stores, etc. Figure 34 shows that – adjusted for inflation – purchases from these businesses experienced a significant decline over the past decade and only minimal growth the prior decade.

Figure 34: Percent change in traditional retail expenditures, 2000-2019



Source: Iowa Department of Revenue, Strategic Economics Group

One concern associated with gambling is that money lost at casinos results in reductions for other types of spending. Traditional retail expenditures have suffered over the past two decades, but this seems to be a statewide phenomenon and is not just restricted to counties where casinos are located. Such sales in metropolitan casino counties increased by a meager 0.3% from 2000 to 2010 and then dropped by 20.3% from 2010 to 2019. In comparison, the increase statewide between 2000 and 2010 equaled 0.8%, followed by a decrease of 19.9% from 2010 to 2019. Possible explanations for these large reductions in expenditures at traditional retailers include: (1) an aging population, (2) smaller family sizes, (3) slow and no growth in real personal income for most households, and (4) a shift in purchases from goods to services, particularly health care.

A comparison between bar and restaurant expenditures and expenditures at traditional retailers does seem to imply a shift in consumer spending from goods to services. In addition, the statistical comparison along with information from individual community government officials do imply that casinos

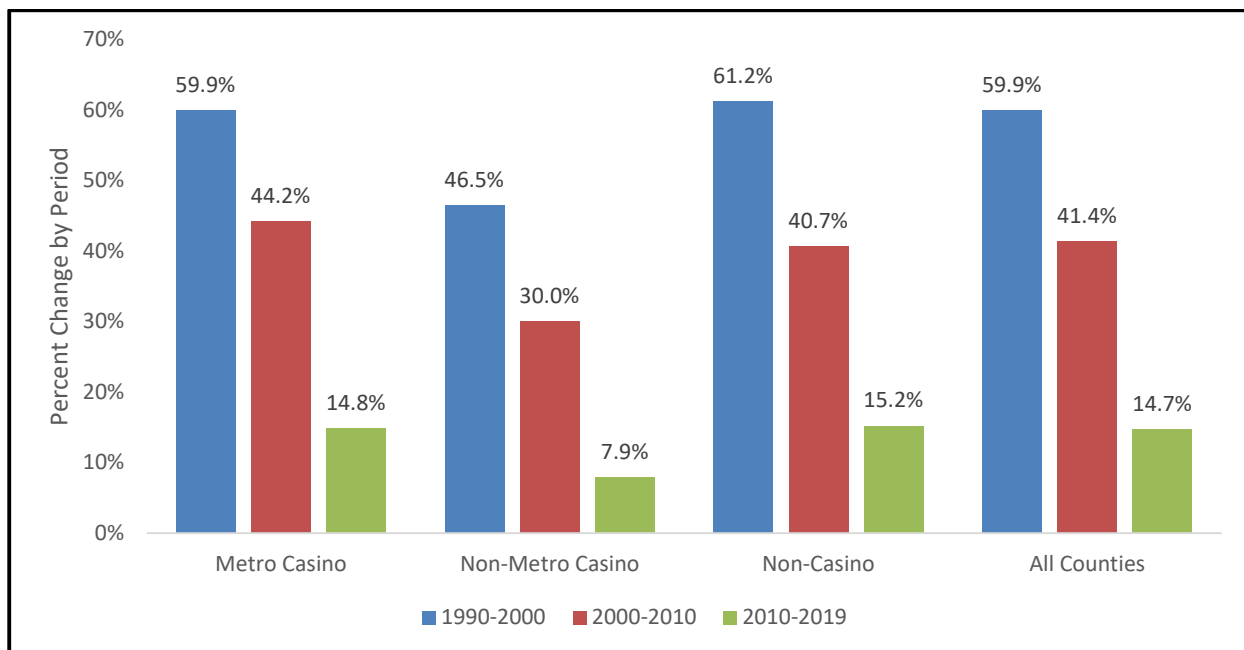
do have some positive economic growth effects on their host communities. The next section looks at how casino impacts have been manifested through investment in residential and commercial property.

Residential and Commercial Property Valuation Comparisons

As with consumer purchases, the comparisons of percent changes in residential and commercial property valuations among different groups of counties and the state are made on a constant 2019-dollar basis. However, because the inflation adjustments reflect average changes in consumer prices, it is likely that some of the changes in property valuations still include an inflation component in addition to the value of new investment.

For residential property, Figure 35 shows very similar rates of change for each of the three time periods for metropolitan casino counties, non-casino counties, and the state. The valuation growth rates for non-metropolitan casino counties are the lowest over all periods. So, it does not appear that the presence of a casino in a county has a significant impact on residential property investment or changes in the values of existing residential property.

Figure 35: Percent change in real residential property valuations, 1990-2019



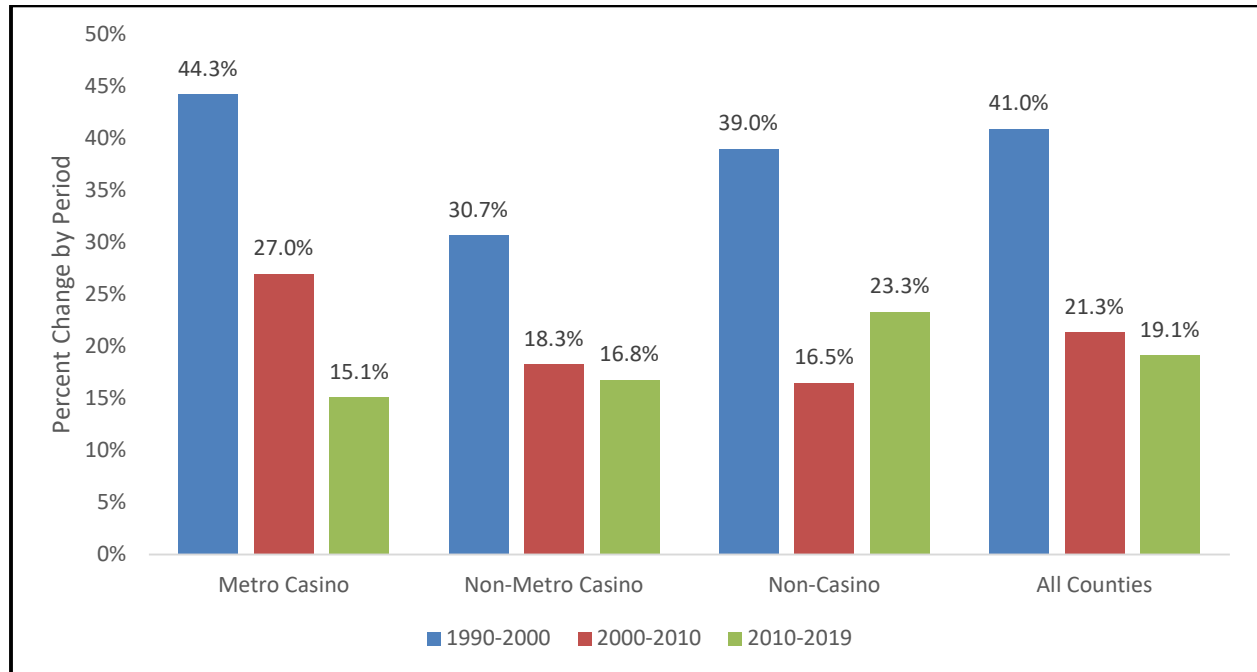
Source: Iowa Department of Management, Strategic Economics Group

For commercial property, as Figure 36 shows, the comparison yields slightly different results. For the periods 1990-2000 and 2000-2010, commercial valuation growth rates are the highest among the three subsets of counties and the state. But then from 2010 to 2019, the highest rate of growth for commercial property values was in the non-casino counties. In fact, the growth rate for the metropolitan casino counties was the lowest among the county categories.

So, changes in the valuations of residential and commercial property do not provide any clear indication that the existence of a casino in a county significantly impacts property investment. Some of the lack of clarity may be due to counties covering too large an area to identify possible spillover effects

of the casinos on to other development. To address this limitation, the final part of this chapter narrows the geographic focus to a sample of host cities.

Figure 36: Percent change in real commercial property valuations, 1990-2019



Source: Iowa Department of Management, Strategic Economics Group

7. Casino Economic Development Examples

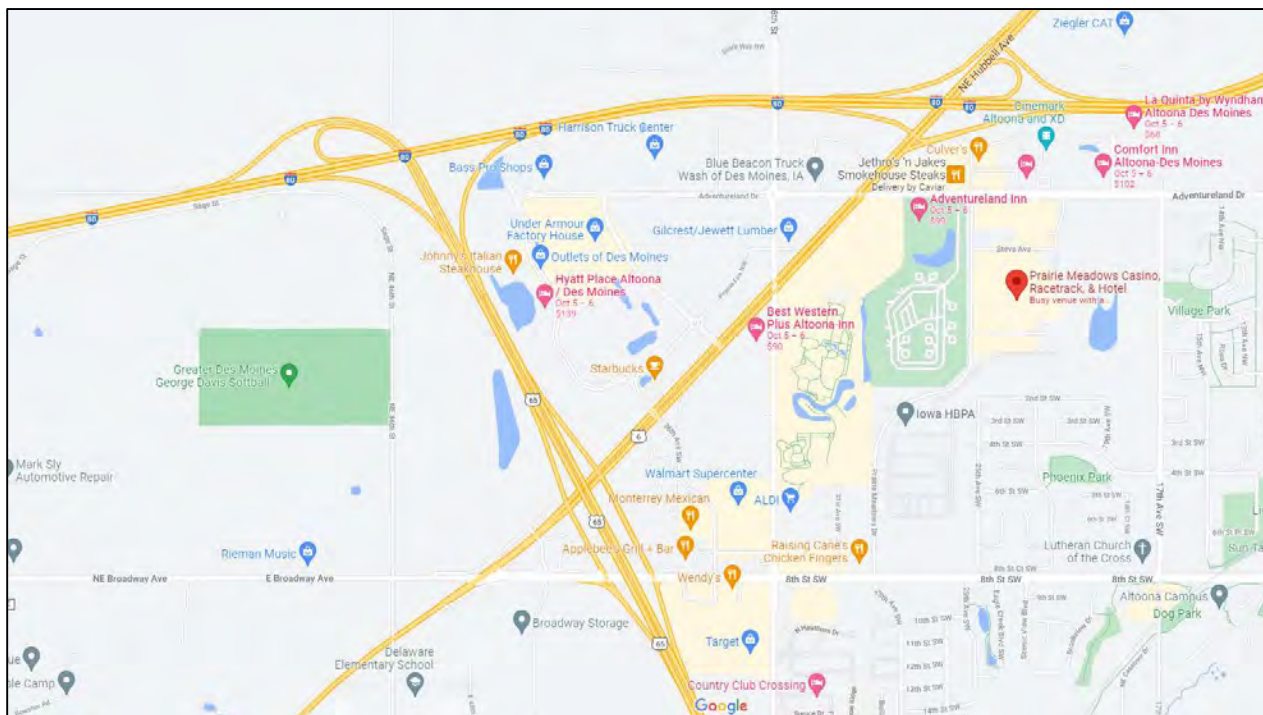
Many aspects of the economic impact of casinos extend over a relatively large geographic area. This is particularly true for the draw areas for workers, vendors, and patrons. By extension, the wages earned by workers and payments made to vendors impact retail purchases over a relatively expansive area. On the other hand, investment in new businesses that benefit from patrons drawn to casinos generally occurs within a small area close to where casinos are located.

There are a number of examples of spillover development that have occurred near several of Iowa's casinos. Most of these examples are located in the state's metropolitan areas. Following are descriptions of several of these examples.

Prairie Meadows Racetrack and Casino in Altoona

The area of Altoona south and east of the I-80/US 65 Interchange and north of SW 8th Street has become an entertainment, recreation, and retail hub for the Des Moines metropolitan area and nearby communities. Figure 37 shows this area of Altoona.

Figure 37: Map of Altoona entertainment hub



Source: Google Maps

Horseracing began at Prairie Meadows Racetrack on March 1, 1989. But by itself the racetrack proved to not be viable. After Polk County voters approved a referendum to allow slot machines at Prairie Meadows, the casino opened on April 1, 1995. However, Prairie Meadows was not the first entertainment venue to open in Altoona. That honor goes to the Adventureland Amusement Park, which opened in August 1974. At that time the population of Altoona equaled about 4,000. The population had doubled to 8,345 in 1995 when slot machines were introduced to Prairie Meadows. Today, the city's population totals 19,565.

Located in the vicinity of Prairie Meadows are 48 bars, restaurants, cafes, and coffee shops. In addition to the Prairie Meadows hotel, there are fourteen other lodging places. A large number of retail establishments have also located in this area, including a 146,000-square-foot Bass Pro Shop and a 36-store outlet mall.

Changes in the valuations of residential and commercial property for Altoona compared to all of Polk County show the impact of the recent development of the area around Prairie Meadows. From 2000 to 2019, residential and commercial property valuations for Altoona grew by 202.1% and 148.6%, respectively. Comparable rates of growth for all of Polk County are 85.0% for residential property and 50.3% for commercial property.

Isle Casino Hotel in Waterloo

Similar to Altoona, the area around the Isle Casino in Waterloo is becoming an entertainment, recreation, and retail hub for north-central Iowa. Isle Casino is located just to the southwest of the US 218/I-380/US 20 Interchange. Figure 38 shows the casino and its surroundings.

Figure 38: Map of Isle Casino Hotel Waterloo and surrounding area



Source: Google Earth

North of the interchange is Waterloo's main shopping mall, Crossroads Mall, which opened in 1969 and has approximately 850,000 square feet of retail space. However, like many malls nationally, Crossroads has suffered hard times over the past decade, losing four of its five anchor stores. South of US 20 to the south and west of the Isle Casino are several recreation venues. Just to the southwest is the Lost Island Waterpark, and beyond it the South Hills Golf Course. West of the casino is a large KOA campground. And to the south, a new 42-acre, \$100 million theme park is under development.

Diamond Jo Casino in Dubuque

The Diamond Casino is located in the area of Dubuque known as the Port of Dubuque, which is between US 151 and the Mississippi River. Like the previous two examples, this area of Dubuque has become an entertainment and recreation hub. Other attractions located in this area include:

- The National Mississippi River Museum and Aquarium, which is an affiliate of the Smithsonian Institution
- The Grand Harbor Resort and Waterpark
- The Grand River Center, which is an 86,000 square foot conference and convention center
- The Port of Dubuque Marina
- The Stone Cliff Winery, which is in the former Star Brewery Building

Also, a short distance away is Dubuque's downtown with many restored historic buildings, such as the Julien Dubuque Hotel, the former Roshek Department Store, and the 4th Street Elevator.

Dubuque has a second casino, the Q Casino, which is owned by the city. The Q Casino is located on Chaplin Schmitt Island below the US 61/US 151 Mississippi River Bridge. Located adjacent to the casino is a Hilton Garden Inn Hotel, Houlihan's Restaurant, and Iowa Greyhound Park, the state's lone remaining dog racing facility, which is scheduled to close after this year. Most of the remainder of the island is occupied by public recreation facilities including:

- Miller Riverview Park and Campground
- McAlece Park and Recreation Complex
- Mystique Community Ice Center
- Schmitt Harbor Marina

Figure 39 shows the area surrounding the Diamond Jo Dubuque Casino, and Figure 40 shows the area surrounding the Q Casino.

Revenues from the Dubuque Racing Association (“DRA”), rent from the Q Casino, and taxes during 2019 totaled \$13.2 million. Funds from the distributions and rent are used for various types of capital expenditures in the city, such as street lighting, street improvements, the Civic Center, parks and recreation facilities, vehicle and equipment replacement, and economic development and tourism projects.

Figure 39: Map of Diamond Jo Casino in Dubuque and surrounding area



Source: Google Maps

Figure 40: Map of Q Casino in Dubuque and surrounding area



Source: Google Maps

According to information provided by the city, since its inception in 1985 the DRA has provided almost \$1 billion in financial benefits to local governments, charitable organizations, workers, greyhound owners, and the state. Among the many projects that have received funding from the DRA include:

- Crescent Community Health Center, which provides medical and dental services to underserved individuals and families,
- Emergency Responder Training Facility, which is located on an 11-acre site west of the city, and consists of two buildings, a training plaza, and outdoor training props,
- Mystique Community Ice Center, which is a 66,000-square-foot facility with seating for 3,200 spectators and is the home arena for the Dubuque Fighting Saints, a USHL hockey team, and
- Veteran’s Memorial Plaza Enhancements, a \$3.2 million project entirely funded by the DRA.

Other Metropolitan Area Casinos

There are six additional metropolitan-area casinos. Three of these casinos are in Council Bluffs along I-80 and I-29 near the Missouri River. The Horseshoe Casino is surrounded by a considerable amount of other development including:

- Hilton Garden Inn, Courtyard, Country Inn and Suites, and Springhill Suites hotels
- Mid-America Center, a 150,000-square-foot conference, entertainment, and sports complex
- Iowa West Field House Sports Complex
- Bass Pro Shop
- Full Fledged Brewing Company

The Ameristar and Harrah's Casinos are located along the Missouri River about 1.5 miles northwest of the Horseshoe Casino. Because they are constrained by the river on the west and I-29 on the east, neither of these casinos has other entertainment, recreation, or retail businesses in its immediate vicinity, although Harrah's is just south of a golf course.

The Hard Rock Casino in Sioux City is located on the southwest corner of the city's downtown. There was already a considerable amount of other development in the area when it opened in August 2014. There are at least a dozen bars and restaurants and five hotels within a half-mile of the casino. In addition, the casino is located three blocks from the Tyson Events Center.

There are plans being considered for additional development in the vicinity of the Isle Casino and Hotel in Bettendorf. But this will likely not happen until the replacement of the I-74 Mississippi River Bridge is completed. Also, the change in ownership of the Isle may influence development plans in the area. The prior owners were a local family, which continues to own several parcels of land to the east of the casino that could be developed. According to information obtained from the city, wagering and property tax revenues generated from the casino are used to support recreational development projects throughout the city. These recreation venues include an aquatics center, fitness center, golf course, family museum, and a new large private sports complex in the northern part of the city.

The Rhythm City Casino and Hotel relocated to the northeast corner of Davenport in 2016. Previously, Rhythm City was a riverboat located in downtown Davenport – about 5.5 miles from its new location near the I-74/I-80 Interchange. The new location is at the north end of Elmore Avenue, a major retail corridor for the Quad-Cities Metropolitan Area. Currently, there is little other commercial development in the immediate vicinity of the casino, but there are several large parcels of vacant land nearby that could be – and likely will be – developed in the future.

Non-Metropolitan Area Casinos

There are nine state-regulated casinos located outside of metropolitan areas. Three are located outside cities (Grand Falls, Riverside, and Diamond Jo Worth). Three are located on the edges of small county seat cities (Wild Rose Emmetsburg, Wild Rose Jefferson, and Lakeside). One is located between two small cities in a popular tourist area (Casino Queen). Two are located in micropolitan area cities (Catfish Bend and Wild Rose Clinton).

Among these nine casinos, Catfish Bend Casino is surrounded by the most other commercial development. Being adjacent to the intersection of US 61 and US 34, this area of Burlington has attracted many bars, restaurants, lodging, and recreation businesses. Within about a half mile of the casino are six hotels and motels; 30 bars, restaurants, and other eating and drinking establishments; and a waterpark.

The Wild Rose Casino Clinton is located on the west edge of the City of Clinton just off US 30. Other than a number of chain restaurants and bars, there is not much entertainment development in the immediate vicinity of the casino. However, there is a considerable amount of undeveloped land nearby. It is likely the major impediment to other development in the area is the city's sizable decline in population over the past 50 years. Since 1970, the population of Clinton has declined from 34,719 to 24,469 in 2020.

The other two Wild Rose casinos, located in Emmetsburg and Jefferson, are similar in terms of location on the outskirts of their respective cities along two-lane highways. There is little commercial

development near either of these casinos. Yet, according to information obtained from the City of Emmetsburg, tax revenues generated by the casino have supported a number of local investments, such as for parks, fire equipment, and equipment for the local hospital.

The third casino located in a county seat city, Lakeside Casino in Osceola, is also located on the edge of the city. However, it has three advantages over the Emmetsburg and Jefferson casinos. First, it is located adjacent to an interstate highway (I-35). Second, it is located just 34 miles north of the Missouri border. Third, as its name implies, it is located on the 320-acre West Lake. The only development at the same interstate exit as the casino is a truck stop and RV park, but at the next exit a mile to the south there are four motels and several eating places.

The Diamond Jo Worth Casino – like Lakeside Casino – is located adjacent to I-35. This casino is only four miles south of the Minnesota border. Located adjacent to the casino are two hotels, two convenience stores, and a fast-food restaurant. The county economic development authority is aggressively pursuing additional development for an 11-acre tract south of the casino.

Riverside Casino and Resort includes an 18-hole golf course among its amenities. Location is a major advantage of this casino. It is just a half mile east of US 218, a four-lane divided expressway that connects St. Louis to Minnesota’s Twin Cities, and it is just 15 miles south of Iowa City. Washington County, which is the county that hosts Riverside Casino and Resort, has one of the most vital economies of the state’s rural counties. Since 2000, the inflation-adjusted values of residential and commercial property have increased by 54.1% and 88.7%, respectively. There is not much additional commercial development in the immediate vicinity of the casino, but there are several housing developments in the area.

Grand Falls Casino and Resort is located in Lyon County in the far northwest corner of Iowa and is just south of the Iowa-South Dakota border. It is located less than 10 miles from Sioux Falls, SD. Lyon County has a population of only 11,756, but the Sioux Falls metropolitan area has a population of approximately 275,000. Many Iowa casinos are located near to borders with other states to attract out-of-state customers from states that do not have much casino gambling. But South Dakota does allow casino gambling and there are 19 such establishments in the Sioux Falls metropolitan area. However, these casinos are small and without any amenities. Among the amenities offered by the Grand Falls Casino and Resort are a golf course, spa, RV park, and swimming pool. To date, no other development has occurred in the immediate vicinity of the casino. Tax revenues and grants generated by the casino amount to about 2.4% of the county’s budget. Some of these funds are used to support other county recreation facilities. Also, the casino has necessitated some increase in law enforcement activity.

The Marquette and McGregor, IA, and Prairie Du Chien, WI, area has been a tourist draw for many decades. The Casino Queen casino adds another attraction to the area. There is not much room for additional development immediately adjacent to the casino. The site is constrained by the Mississippi River to the east; Bloody Run Creek, a railroad line, and US18 to the north; and woodlands and a small housing tract to the south and west. Financially, casino tax payments have allowed investment in a variety of public works and park improvements without the city having to incur additional debt. Tax and other revenues from the casino accounted for 29.6% of Marquette’s budget during 2019.

2. Impacts of Casinos on Public Safety, Infrastructure

People are understandably concerned about crime rates in their communities. Most people would prefer to live where crime rates are relatively low and where they and their friends and families feel safe. Of course, there are various types of crimes, and it's important to distinguish between petty theft, robbery, assault, homicide, and a multitude of other crimes. Citizens of a community are also concerned about whether the community's number of first responders – the police department, the fire department, emergency medical technicians and others – is adequate to respond to emergencies.

This chapter addresses the following questions:

- Is the overall crime rate in a community in which a casino is located higher, lower, or the same as a similar community in which a casino is not located? Are the types and rates of crimes committed in a community in which a casino is located different than in similar non-casino communities?
- How does the number of emergency calls in a community in which a casino is located compare to the number in a similar community in which a casino is not located?
- If the emergency call rate has increased in a community in which a casino is located, are the calls from local residents or visitors to the community?
- Does the presence of a casino impact the infrastructure costs of a community, such as costs associated with providing police protection, with providing and maintaining adequate utilities, and with maintaining and building roads in the community?

A. Crime Reports

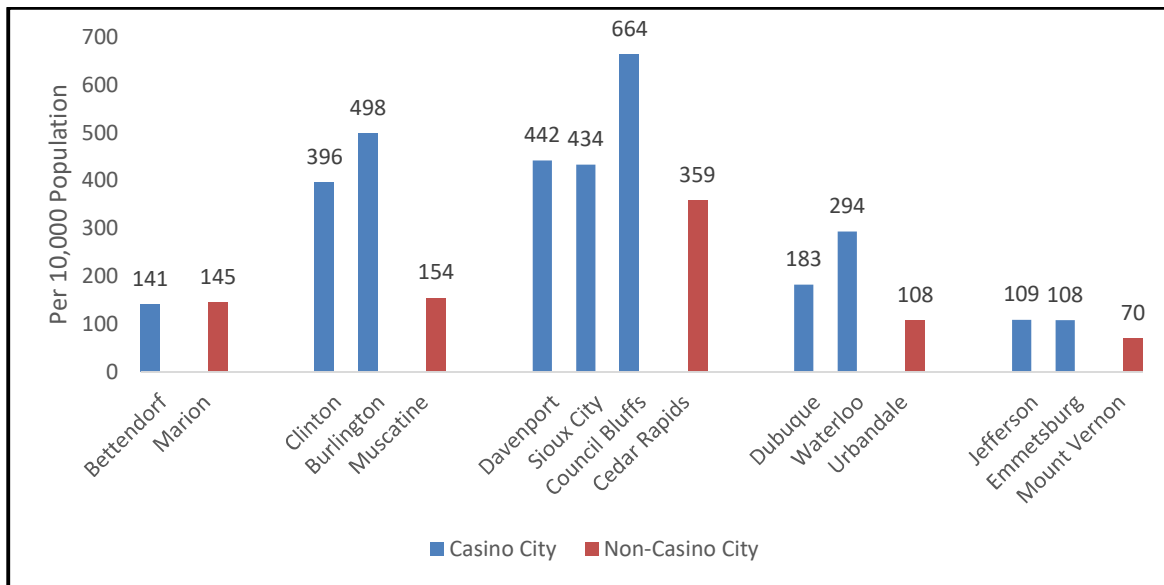
Spectrum's analysis of 2019 Uniform Crime Reports ("UCR") maintained by the FBI indicates that overall crime rates in communities in which a casino is located are, for the most part, higher than similar communities where casinos are not located.¹¹ We arrived at a similar conclusion in our previous report for the IRGC, in 2014. That report noted, "Those studies which calculate the crime rate using only the jurisdiction's resident population tend to find that casinos increase crime rates."¹² In arriving at our conclusion for this report, we analyzed UCR data for 2019 for a number of casino communities and compared them with non-casino communities that had, for the most part, similar per-capita income, population and demographics.

The UCR crime index consists of four types of violent crime – murder, rape, aggravated assault and robbery – and four types of property crime – burglary, larceny-theft, motor vehicle theft and arson.

¹¹ "Crime in the United States," FBI, Table 8, 2019. <https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/tables/table-8/table-8-state-cuts/iowa.xls>

¹² Spectrum Gaming Group and Strategic Economics Group, "The Socioeconomic Impact of Gambling on Iowans, 2014," May 23, 2014, p. 40 https://www.spectrumgaming.com/wp-content/uploads/2018/04/studysocioeconomicimpact2014_0.pdf

Figure 41: Crime index, casino cities vs. non-casino cities, 2019, per 10,000 population



Source: FBI Uniform Crime Reports

Bettendorf, a casino city, had overall crime rates that were similar to its comparison city of Marion. The casino cities of Davenport, Council Bluffs and Sioux City had overall crime rates that were significantly higher than their comparison city, Cedar Rapids. Clinton and Burlington, two towns with casinos, had overall crime rates nearly double that of their comparison city, Muscatine. Council Bluffs, a city with three casinos (the most of any city in Iowa) had the highest crime index rate of any of the cities we analyzed.

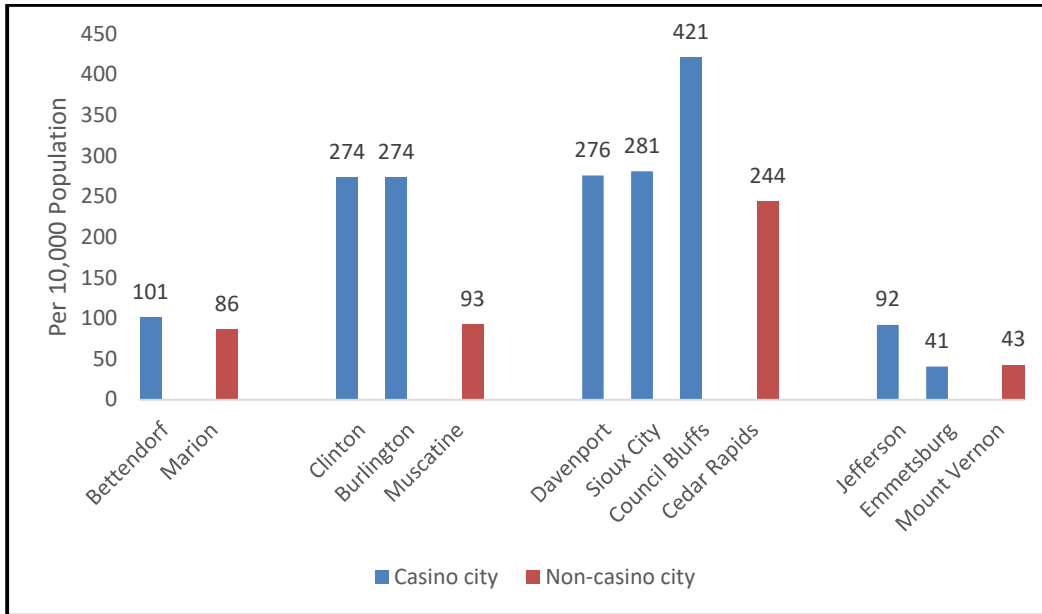
Spectrum also analyzed crime rates in a rural casino county, Jefferson, with a population of just 4,123, according to 2019 Census data. Its rate per 10,000-resident rate was 109; its comparison city of Mount Vernon was 70. As we pointed out in our 2014 study for the IRGC, the higher rates do not necessarily imply a connection between the presence of casinos and higher crime rates. To make such a determination would require a separate, more-detailed study about the causes and relationship between casinos and crime.

Higher crime rates in casino areas might be due to the rates not being adjusted to account for the influx of casino patrons. Casinos can attract thousands of patrons daily – many of whom live outside the host county or even outside of Iowa – but crime rates are calculated in proportion to the resident population, not the resident-plus-visitor population. Some states, such as New Jersey, for instance, have long recognized that municipalities that attract tourists should have their year-round populations adjusted to account for the impact of tourists. There is no such adjustment made in Iowa.

Our review of the UCR data indicated that the types and rates of crimes committed in a community in which a casino is located is different than in a similar community in which a casino is not located. We found that property crime, which consists of non-violent crimes such as robberies and thefts, were higher for the most part in casino towns than in non-casino towns. For example, Clinton and Burlington, two towns with casinos, have populations that are nearly identical with the non-casino town of Muscatine. Clinton and Burlington had property crimes nearly three times that of Muscatine. And the

casino towns of Council Bluffs, Waterloo and Davenport each had property crime significantly higher than its comparison city of Urbandale. The burglary rate for Council Bluffs, a city with three casinos, was seven times that of its comparison city, Urbandale; the larceny-theft rate was seven times higher and motor vehicle theft rate was nearly 14 times greater. The two other casino cities, Dubuque and Waterloo, also had much higher rates for those types of crimes than did Urbandale.

Figure 42: Larceny thefts per 10,000 population, casino cities vs. non-casino cities, 2019



Source: FBI Uniform Crime Reports

In addition to the UCR data from the FBI annual report, Spectrum reviewed the 2019 annual report from the Division of Criminal Investigation, a state agency that investigates crimes at casinos. Fraud/theft investigations were by far the highest category.

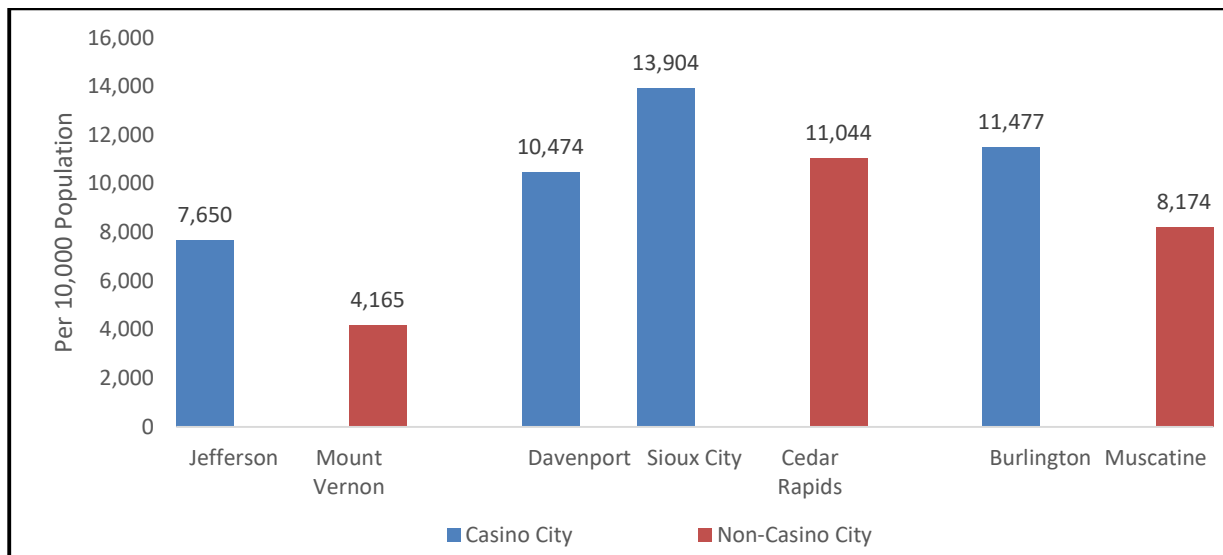
During the 12-month period ending on June 30, 2019, there were 655 such investigations. Counterfeiting and forgery were among the most frequent offenses investigated along with trespassing, theft and drunkenness. Casinos often call on police to arrest someone who they have banned from their facilities or to remove someone who has caused a disturbance or placed himself or herself on the self-exclusion list.

B. Emergency Calls

Determining whether the number of emergency calls in a community in which a casino is located is higher than in a similar community in which a casino is not located is difficult to ascertain because there is no single database maintained by law enforcement for emergency calls. Individual police and fire departments were contacted. Some cooperated; others did not. In most cases, a fee was levied for work involved to provide the data, which limited the extent of our analysis.

Based on the limited survey Spectrum undertook, we found that the number of emergency calls or calls for service in a community in which a casino is located is, for the most part, higher than in a similar community in which a casino is not located.

Figure 43: Calls for service, 2019, casino cities vs. non-casino cities, per 10,000 population



Source: Local police departments, US Census

We reviewed emergency calls in Jefferson, where the Wild Rose Casino & Resort opened in August 2015. We analyzed emergency calls for the two calendar years prior to its opening and compared the number with the two full calendar years after it opened. The information was provided by the Jefferson Police Department.

The calls for service for Jefferson increased by 15%, from 6,112 to 7,043. Thefts and trespass incidents increased by roughly one-third.¹³ Jefferson is a small town with a population of 4,123, according to the most recent US Census numbers.

We reviewed calls for service in 2019 at Sioux City, a metropolitan town with a casino, and compared the data with that of Cedar Rapids, a metropolitan area without one. Sioux City had an emergency call rate per 10,000 residents that was 25% greater than Cedar Rapids, according to data obtained from police departments in Sioux City and Cedar Rapids. We compared Burlington and Muscatine, cities with a population of around 24,000. Burlington, with a casino, had 40% more calls for service in 2019 than did Muscatine.¹⁴ And we also compared the casino town of Bettendorf with the non-casino town of Marion. Bettendorf had a call-for service rate nearly 50% higher than that of Marion.¹⁵

Of the casinos that provided information to us, they reported that the overwhelming number of emergency calls involved visitors to the community. At one casino, the figure was 85%. Wild Rose Casino

¹³ Interview Jefferson Police Chief Mark Clouse, August 27, 2021.

¹⁴ Public records requests obtained September 9, 2021.

¹⁵ Ibid, obtained September 13, 2021.

& Resort opened in August 2015 in Jefferson. The rural police force there saw a significant increase in calls for service once it opened. Chief Mark Clouse told Spectrum that his best guess is that the emergency calls involved mostly non-residents. Anecdotally, Council Bluffs Fire Chief Justin James told Spectrum that the emergency calls to that city’s three casinos routinely involved out-of-city residents and often out-of-state residents from nearby Omaha.

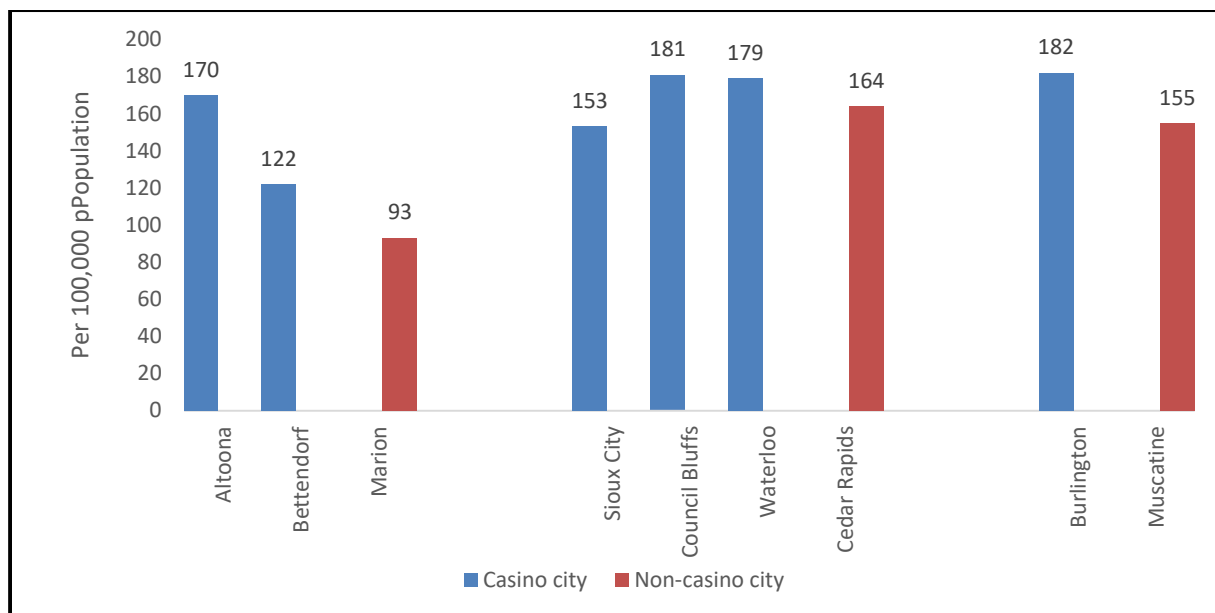
C. Infrastructure Impact

The consensus among the public officials Spectrum interviewed was that casinos do have some impact on municipal operations and infrastructure, especially on police and emergency services. Some casino towns feel the impact more than others. But in all cases, the impact was somewhat or totally offset by increased tax revenue generated by the casinos. In some cases, public officials indicated that the positives far outweighed the negatives.

As of the current fiscal year, Iowa taxpayers have begun to pay for some of the oversight at casinos. Casinos had been paying 100% of the costs incurred by the state for Division of Criminal Investigation (“DCI”) for personnel assigned to casinos. Iowa taxpayers, through the state’s general fund, are now paying for the salaries of seven casino special agents. Now, for the first time, there is a financial impact to Iowa taxpayers for state oversight of casinos by DCI.¹⁶

We found that cities with casinos, for the most part, had more police officers per 100,000 residents than did comparison cities without casinos. Council Bluffs, with three casinos, had 181 officers per 100,000 residents, 10% more than its comparison city of Cedar Rapids.

Figure 44: Police officers per 100,000 population, casino cities vs. non-casino cities, 2019



Source: FBI Uniform Crime Reports, 2019

¹⁶ Iowa FY 2021-2022 Appropriations Bill, p. 22.

Altoona, the city with the state's largest casino, Prairie Meadows, had 170 officers per 100,000 residents, a rate more than 80% higher than that of its comparison city, Marion.¹⁷ Jeff Mark, who has been Altoona's city administrator since 1996, noted that Prairie Meadows casino has been "extremely important and valuable" to the city and is "an integral part of our economy." He said the city promotes itself as the entertainment capital of central Iowa, and Prairie Meadows is probably the biggest draw. He said the city now has 13 hotels and credits the casino for making that possible.¹⁸ Mark noted that Altoona receives one-half of 1% of the casino's gaming revenue, which amounts to nearly \$1 million a year. The money goes into the general fund, where it can be used to address infrastructure needs.¹⁹

According to data provided by Altoona police, the department responded to nearly 1,500 incidents at the casino from 2016 through 2019. Only a Walmart Supercenter had a greater impact on the department in terms of calls for service. The Polk County Sheriff's office also frequently responds to calls for service at the casino in Altoona.

In an interview, Bettendorf Police Capt. Justin Paul noted that budget cuts at DCI have put a greater burden on local police departments to police the casinos. The Legislature recently approved a bill limiting the number of agents assigned to a casino to three.²⁰ DCI agents now work primarily during the day. Evening calls are, for the most part, handled by local police.²¹ This represents a new development that did not exist when the previous Spectrum report was published in 2014. Paul added that casinos have reduced their security as well, resulting in calls for service to police that had previously been handled by casino security personnel.

One of the largest infrastructure impacts occurred in Sioux City. A \$5.5 million parking ramp was built for the Hard Rock Casino but it is also used by the city's Tyson Event Center, according to Finance Director Teresa Fitch. She added that there has been an infrastructure impact concerning parking. A large surface lot was built for the casino, forcing the closure of a city street. The move has hampered efforts to create a pedestrian-friendly downtown, she noted. Sioux City police responded to more than 400 incidents at the casino in 2019. They were called on to remove subjects 84 times, according to data obtained from Sioux City police department.

In some instances, towns, such as Marquette, have had to expend money to provide utility service to its casino, the Casino Queen.²² In Osceola, additional police officers have had to be hired to adequately respond to calls for service at the Lakeside Hotel Casino, but City Administrator Ty Wheeler noted that it

¹⁷ "Crime in the United States 2019," FBI. <https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/tables/table-8/table-8-state-cuts/iowa.xls>

¹⁸ Interview with Jeff Mark, Altoona City Administrator, October 10, 2021.

¹⁹ Ibid.

²⁰ House File 861, Section 25, p. 21.

²¹ Interview Troy Nelson, DCI spokesman, September 9, 2021.

²² Spectrum survey of public officials in areas with casinos, October 1, 2021.

would not be accurate to say that the casino is the only reason for the increased hiring. He added, though, that its presence does consume law enforcement resources from time to time.²³

In Burlington, City Manager Chad Bird reported that calls for service have increased since the inception of the casino. However, it has not been at a level that has been a tremendous burden on either patrol or investigations.

Lyon County Economic Development Director Steve Simons said that police overtime has increased due to the presence of a casino. Officers often have to respond to an incident at the end of their shift and are required to make court appearances, he noted, which results in increased overtime costs to the county.²⁴

We also analyzed data for Council Bluffs, a city with three casinos. Calls are dispatched from a center operated by the sheriff of Pottawattamie County. The three casinos are major generators of emergency calls. As in Altoona, only a Walmart generated more calls for service than did the three casinos among commercial establishments. The three casinos generated nearly 1,400 calls for service. EMS crews responded to 51, 8 and 57 calls to Ameristar, Harrah's and Horseshoe casinos, respectively, according to data supplied by Fire Chief Justin James. In terms of responses, the three casinos generated the most calls of commercial establishments in 2019. "They have been here so long that we know that we are going to be responding to situations at the casinos," James said. "There is clearly an infrastructure impact, but we just deal with it."

Public Safety officials in Dubuque and Emmetsburg said the presence of casinos in their communities has had little impact on their operations. Dubuque Police Chief Mark Dalsing said the casino in Dubuque is far less of an issue than retail stores, especially larger chain, big-box stores.²⁵

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid.

3. Economic Comparison of Casino and Non-Casino Communities

This chapter analyzes the impacts casinos have had on Iowa's economy by making comparisons between communities where casinos are located and similar communities that do not host casinos. Most of the analysis involves counties as the basis for comparison. Counties are used as the primary unit for comparison for two reasons. First, the economic reach of casinos often spreads beyond the borders of the cities where they are located. Second, most economic data are not available for geographic units smaller than counties. However, there are a few issues that will be addressed through city comparisons because in these cases the size of counties obscures the comparisons and data are available for cities.

The main issues that are addressed in this chapter include:

- How do the rates of change in population over the past decade compare between casino and non-casino counties and cities?
- How do the rates of job creation in total and for selected economic sectors (i.e., lodging and entertainment, bars and restaurants, and retail) over the past decade compare between casino and non-casino counties?
- How do the rates of change in employee compensation (i.e., wage and salary income plus benefits) over the past decade compare between casino and non-casino counties?
- How do the rates of change in bar and restaurant sales and traditional retail sales over the past decade compare between casino and non-casino counties?
- How do the rates of change in residential and commercial property valuations over the past decade compare between casino and non-casino counties?
- How do rates of change for property tax revenues and total revenues compare for casino and non-casino cities?

Similar to the prior analysis of the impact casinos have had on their host communities, the analysis in this chapter is done separately for metropolitan and non-metropolitan areas. Separating the two groups of communities reduces the impact of population size on the comparisons.

Several factors were taken into consideration in matching casino communities with non-casino comparison communities. These factors include population, region of the state, highway access, and nature of the local economy. As shown in Figure 45, the nine non-metropolitan casino counties are matched to eight non-metropolitan counties without casinos. Both Clinton County and Des Moines County are matched with Muscatine County because all three counties are similar in size, are located on the Mississippi River, have economies dominated by heavy industry, and have similar highway access. The six metropolitan casino counties are matched to just two metropolitan counties without casinos. Because Iowa has only nine core metropolitan counties and six have casinos, there remains a limited universe of other counties available for the match analysis. Story County was not used as a match because its economy is so heavily influenced by Iowa State University. Johnson County is also home to a large university, but its economy is more diverse than is Story County's economy.

Figure 45: Casino and non-casino comparison counties

	Year Opened	Casino County	Comparison County
Non-Metropolitan Areas			
Wild Rose Clinton	1991	Clinton	Muscatine
Casino Queen	1994	Clayton	Delaware
Catfish Bend	1994	Des Moines	Muscatine
Lakeside Hotel Casino	2000	Clarke	Hardin
Wild Rose Emmetsburg	2006	Palo Alto	Pocahontas
Riverside Casino and Golf Resort	2006	Washington	Henry
Diamond Jo Worth	2006	Worth	Franklin
Grand Falls Casino and Golf Resort	2011	Lyon	Osceola
Wild Rose Jefferson	2015	Greene	Carroll
Metropolitan Areas			
Diamond Jo Dubuque	1994	Dubuque	Johnson
Q Casino	1995	Dubuque	Johnson
Prairie Meadows	1995	Polk	Linn
Isle Bettendorf	1995	Scott	Linn
Horseshoe	1995	Pottawattamie	Linn
Harrah's	1996	Pottawattamie	Linn
Ameristar	1996	Pottawattamie	Linn
Isle Waterloo	2007	Black Hawk	Linn
Hard Rock	2014	Woodbury	Linn
Rhythm City	2016	Scott	Linn

Source: Strategic Economics Group

Figure 46 shows the casino and matching non-casino cities used for some of the comparative analysis. Similar to the county level matches, the nine non-metropolitan cities that host casinos are matched with eight non-metropolitan cities without casinos. The City of Muscatine is matched with both the City of Clinton and Burlington. Three of the non-metropolitan casinos are not actually located in cities. For these casinos nearby cities are used as the basis for comparison. These casinos are Riverside Casino and Golf Resort, Diamond Jo Worth, and Grand Falls Casino and Golf Resort. The seven metropolitan-area cities that host casinos are matched with three metropolitan area cities without casinos. The three metropolitan area cities without casinos used in the analysis are Iowa City, Marion, and Cedar Rapids.

A. Population Comparisons

Population growth rates between 2010 and 2020 are presented for casino counties and their comparison counties in Figure 47. Similarly, population growth rate comparisons for casino cities and their comparison cities are presented in Figure 48. The population numbers used in both comparisons come from the annual US Census estimates. The most recent estimates for the years 2010 through 2020 were released in May 2021.

Figure 46: Casino and non-casino comparison cities

	Year Opened	Casino City	Comparison City
Non-Metropolitan Areas			
Wild Rose Clinton	1991	Clinton	Muscatine
Casino Queen	1994	Marquette	Dyersville
Catfish Bend	1994	Burlington	Muscatine
Lakeside Hotel Casino	2000	Osceola	Eldora
Wild Rose Emmetsburg	2006	Emmetsburg	Pocahontas
Riverside Casino and Golf Resort	2006	Riverside	Mt. Pleasant
Diamond Jo Worth	2006	Northwood	Hampton
Grand Falls Casino and Golf Resort	2011	Larchwood	Sibley
Wild Rose Jefferson	2015	Jefferson	Carroll
Metropolitan Areas			
Diamond Jo Dubuque	1994	Dubuque	Iowa City
Q Casino	1995	Dubuque	Iowa City
Prairie Meadows	1995	Altoona	Marion
Isle Bettendorf	1995	Bettendorf	Marion
Horseshoe	1995	Council Bluffs	Cedar Rapids
Harrah's	1996	Council Bluffs	Cedar Rapids
Ameristar	1996	Council Bluffs	Cedar Rapids
Isle Waterloo	2007	Waterloo	Cedar Rapids
Hard Rock	2014	Sioux City	Cedar Rapids
Rhythm City	2016	Davenport	Cedar Rapids

Source: Strategic Economics Group

Iowa's population statewide grew by 112,742 (3.7%) over the past decade. Almost all of the growth occurred in metropolitan area counties where net population increased by 157,078 (8.9%). Seven of Iowa's nine core metropolitan counties experienced population growth. The nine core metropolitan counts experienced a net change of 120,948 (8.3%). Only half of the state's other 12 metropolitan area counties experienced growth in population. The net population growth for these other metropolitan area counties equaled 36,130 (11.3%).

Only two of Iowa's 16 micropolitan counties experienced population growth over the past decade, and in aggregate the population for this group of counties declined by 13,922 (-2.9%). Fifty-four of Iowa's remaining rural counties lost population, and the net loss for the state's 62 rural counties equaled 30,414 (-3.8%).

Focusing on counties with casinos and comparable counties without casinos, there are similarities to the statewide population growth experience and to the experiences of the different subgroups of counties just discussed. Looking first at the non-metropolitan counties, six of the nine casino counties lost population over the past decade. All of the non-metropolitan comparison counties without casinos lost population.

Figure 47: Population change comparison for casino and non-casino counties, 2010-2020

Casino County	2010	2020	Change	Percent Change	Match County	2010	2020	Change	Percent Change	Percent Change Difference
Non-Metro Counties										
Clarke	9,321	9,353	32	0.3%	Hardin	17,543	16,575	-968	-5.5%	5.9%
Clayton	18,080	17,321	-759	-4.2%	Delaware	17,763	16,937	-826	-4.7%	0.5%
Clinton	49,091	46,392	-2,699	-5.5%	Muscatine	42,804	42,394	-410	-1.0%	-4.5%
Des Moines	40,243	38,708	-1,535	-3.8%	Muscatine	42,804	42,394	-410	-1.0%	-2.9%
Greene	9,362	8,795	-567	-6.1%	Carroll	20,823	19,914	-909	-4.4%	-1.7%
Lyon	11,569	11,756	187	1.6%	Osceola	6,458	5,987	-471	-7.3%	8.9%
Palo Alto	9,398	8,845	-553	-5.9%	Pocahontas	7,290	6,607	-683	-9.4%	3.5%
Washington	21,687	21,992	305	1.4%	Henry	20,112	19,697	-415	-2.1%	3.5%
Worth	7,582	7,359	-223	-2.9%	Franklin	10,706	9,971	-735	-6.9%	3.9%
Subtotal	176,333	170,521	-5,812	-3.3%	Subtotal	143,499	138,082	-5,417	-3.8%	0.5%
Metro Counties										
Black Hawk	131,164	130,786	-378	-0.3%	Linn	211,713	227,854	16,141	7.6%	-7.9%
Dubuque	93,933	97,590	3,657	3.9%	Johnson	131,344	153,740	22,396	17.1%	-13.2%
Polk	432,360	494,281	61,921	14.3%	Linn	211,713	227,854	16,141	7.6%	6.7%
Pottawattamie	93,363	93,328	-35	0.0%	Linn	211,713	227,854	16,141	7.6%	-7.7%
Scott	165,291	173,216	7,925	4.8%	Linn	211,713	227,854	16,141	7.6%	-2.8%
Woodbury	102,393	103,138	745	0.7%	Linn	211,713	227,854	16,141	7.6%	-6.9%
Subtotal	1,018,504	1,092,339	73,835	7.2%	Subtotal	343,057	381,594	38,537	11.2%	-4.0%

Sources: US Census, Strategic Economics Group

Figure 48: Population change for comparison casino and non-casino cities, 2010-2020

Casino County	2010	2020	Change	Percent Change	Match City	2010	2020	Change	Percent Change	Percent Change Difference
Non-Metro Cities										
Burlington	25,534	24,516	-1,018	-4.0%	Muscatine	23,766	23,523	-243	-1.0%	-3.0%
Clinton	26,849	25,039	-1,810	-6.7%	Muscatine	23,766	23,523	-243	-1.0%	-5.7%
Emmetsburg	3,895	3,667	-228	-5.9%	Pocahontas	1,789	1,630	-159	-8.9%	3.0%
Jefferson	4,355	4,075	-280	-6.4%	Carroll	10,135	9,664	-471	-4.6%	-1.8%
Larchwood	865	918	53	6.1%	Sibley	2,798	2,586	-212	-7.6%	13.7%
Marquette	464	448	-16	-3.4%	Dyersville	4,090	4,441	351	8.6%	-12.0%
Northwood	1,987	1,958	-29	-1.5%	Hampton	4,475	4,162	-313	-7.0%	5.5%
Osceola	4,949	5,285	336	6.8%	Eldora	2,731	2,571	-160	-5.9%	12.6%
Riverside	997	1,021	24	2.4%	Mt. Pleasant	8,653	8,508	-145	-1.7%	4.1%
Subtotal	69,895	66,927	-2,968	-4.2%	Subtotal	58,437	54,514	-3,923	-6.7%	2.5%
Metro Cities										
Altoona	14,703	19,503	4,800	32.6%	Marion	35,324	40,780	5,456	15.4%	17.2%
Bettendorf	33,281	36,665	3,384	10.2%	Marion	35,324	40,780	5,456	15.4%	-5.3%
Council Bluffs	62,358	62,216	-142	-0.2%	Cedar Rapids	126,889	134,027	7,138	5.6%	-5.9%
Davenport	99,683	101,799	2,116	2.1%	Cedar Rapids	126,889	134,027	7,138	5.6%	-3.5%
Dubuque	57,694	57,781	87	0.2%	Iowa City	68,053	76,608	8,555	12.6%	-12.4%
Sioux City	82,855	82,759	-96	-0.1%	Cedar Rapids	126,889	134,027	7,138	5.6%	-5.7%
Waterloo	68,488	67,292	-1,196	-1.7%	Cedar Rapids	126,889	134,027	7,138	5.6%	-7.4%
Subtotal	419,062	428,015	8,953	2.1%	Subtotal	230,266	251,415	21,149	9.2%	-7.0%

Sources: US Census, Strategic Economics Group

Comparing the 10-year population growth rates between each non-metropolitan casino county and its matching non-casino county finds that the casino counties had either higher percentage increases or lower percentage losses for six of the nine matches. In aggregate, the percent change in population for the non-metropolitan casino counties exceeded the percent change for their matching non-casino counties by 0.5 percentage point. It should be noted that the subtotal for the non-casino counties counts each county only once.

The comparisons for each metropolitan casino county find that only Polk County has a higher growth rate over the decade than its match, Linn County, which is Iowa’s second most-populous county. Comparing the aggregate growth rates for the casino and non-casino metropolitan counties finds that both groups had population growth over the decade, but the growth rate for the non-casino counties was 4.0 percentage points greater than for the casino counties.

The city comparisons are similar to the county comparisons. For the non-metropolitan city comparisons, five of the nine casino cities had population growth rates that are greater than for their matched non-casino cities. In aggregate, the growth rate for the non-metropolitan casino cities is 2.5 percentage points greater than for the non-casino cities. Only one of the metropolitan casino cities had a higher population growth rate over the decade than its non-casino city match. In aggregate, the non-casino cities had a growth rate 7.0 percentage points greater than for the metropolitan casino cities.

As noted in the prior analysis for host communities, it is likely that the development of Iowa's casino industry has not had much impact on population growth or where people live. There tends to be high turnover among workers in the entertainment, recreation, and hospitality industries. So, people working in these industries are more likely to extend their commutes rather than move.

B. Employment Comparisons

County-level comparisons are made for total non-farm, entertainment and lodging, bar and restaurant, and retail employment. The growth rates for the period from 2010 through 2019 are compared for counties with casinos and similar counties without casinos. Figure 49 presents the total non-farm employment comparisons. Figure 50 presents the comparisons for the combined entertainment and lodging sectors. Figure 51 presents the comparisons for the bar and restaurant sector. Figure 52 presents the retail sector comparisons. The comparisons are based on employment estimates from County Business Patterns.

1. Total Non-Farm Employment

Seven of the nine non-metropolitan casino counties experienced growth in non-farm employment over the past decade. Clinton, where one of the Wild Rose Casinos is located, lost 3,215 jobs – a 15.9% decline. Washington County, the home of Riverside Casino and Golf Resort, had a loss of 50 jobs (-0.8%). Lyon County experienced the greatest percentage increase, with employment increasing by 36.1%. Greene County had the second highest rate of growth among the non-metropolitan casino counties at 17.7%. The opening of casinos during these years in the two counties – the Grand Falls Casino Resort (Lyon County) in 2011 and the Wild Rose Casino and Resorts Jefferson (Greene County) in 2015 – explains these high growth rates.

Four of the non-metropolitan counties without casinos gained non-farm jobs and four lost non-farm jobs over the past decade. Carroll County, which is located just west of Greene County, experienced the greatest percentage loss of 8.9%. Delaware County, which is located adjacent to two counties with casinos – Clayton County and Dubuque County, had the greatest percentage increase at 23.9%. In aggregate, the non-metropolitan counties without casinos experienced job growth of 4.1% compared to just 0.2% growth for the casino counties.

Among the six metropolitan counties with casinos, all except Black Hawk County (Isle Casino Waterloo) gained jobs. In aggregate, these counties experienced 15.0% growth in non-farm jobs. Its comparison group experienced just 5.1% growth in non-farm jobs.

2. Entertainment and Lodging Employment

In aggregate, the non-metropolitan casino counties experienced a decline of 95 jobs in the entertainment and lodging sectors over the past decade, which equaled a 2.3% decrease. But without the opening of casinos in Lyon County and Greene County, the losses would have been much greater. The loss of jobs in these sectors was much larger for the comparison group of non-metropolitan counties without casinos, equaling a 28.3% decline.

For the metropolitan casino counties, the entertainment and lodging sectors increased employment by just four jobs (0.0%). There was a sizable gain in Polk County, 1,483 jobs (22.5%), and a small gain in Scott County, 56 jobs (1.8%). It is likely the opening of the new Rhythm City land-based casino contributed to the Scott County gain. The other four casino counties had losses of between 2.6% (Black Hawk County) and 21.4% (Pottawattamie County). The non-casino comparison counties experienced a 9.8% increase in entertainment and lodging jobs.

3. Bar and Restaurant Employment

Seven of the nine non-metropolitan casino counties lost bar and restaurant jobs between 2010 and 2019. In aggregate, the loss equaled 274 jobs (-6.7%). For the two counties that had casinos open during these years, Lyon County lost five jobs (-4.2%), while Greene County realized a 11-job (9.7%) gain. The non-metropolitan comparison counties lost just 18 bar and restaurant jobs during this period, which equaled just a 0.6% decline.

The metropolitan casino counties experienced a 12.8% gain in bar and restaurant jobs. Among the casino counties, only Woodbury County lost jobs in this sector during the last decade. The metropolitan counties without casinos experienced an almost equal 12.0% gain in jobs for this sector.

Figure 49: Change in non-farm jobs for casino and non-casino comparison counties, 2010-2019

Casino County	2010	2019	Change	Percent Change	Match County	2010	2019	Change	Percent Change	Percent Change Difference
Non-Metro Counties										
Clarke	3,209	3,469	260	8.1%	Hardin	5,389	5,046	-343	-6.4%	14.5%
Clayton	5,061	5,460	399	7.9%	Delaware	5,026	6,229	1,203	23.9%	-16.1%
Clinton	20,238	17,023	-3,215	-15.9%	Muscatine	18,526	20,619	2,093	11.3%	-27.2%
Des Moines	19,000	19,924	924	4.9%	Muscatine	18,526	20,619	2,093	11.3%	-6.4%
Greene	2,589	3,046	457	17.7%	Carroll	11,264	10,264	-1,000	-8.9%	26.5%
Lyon	2,705	3,682	977	36.1%	Osceola	1,514	1,607	93	6.1%	30.0%
Palo Alto	2,712	2,987	275	10.1%	Pocahontas	1,882	1,800	-82	-4.4%	14.5%
Washington	6,587	6,537	-50	-0.8%	Henry	7,783	7,745	-38	-0.5%	-0.3%
Worth	1,734	1,831	97	5.6%	Franklin	2,929	3,232	303	10.3%	-4.8%
Subtotal	63,835	63,959	124	0.2%	Subtotal	54,313	56,542	2,229	4.1%	-3.9%
Metro Counties										
Black Hawk	64,244	63,661	-583	-0.9%	Linn	112,641	120,891	8,250	7.3%	-8.2%
Dubuque	50,579	56,000	5,421	10.7%	Johnson	57,673	66,359	8,686	15.1%	-4.3%
Polk	234,631	297,067	62,436	26.6%	Linn	112,641	120,891	8,250	7.3%	19.3%
Pottawattamie	30,824	30,984	160	0.5%	Linn	112,641	120,891	8,250	7.3%	-6.8%
Scott	77,606	84,229	6,623	8.5%	Linn	112,641	120,891	8,250	7.3%	1.2%
Woodbury	46,488	48,232	1,744	3.8%	Linn	112,641	120,891	8,250	7.3%	-3.6%
Subtotal	504,372	580,173	75,801	15.0%	Subtotal	170,314	187,250	16,936	9.9%	5.1%

Sources: US Census – County Business Patterns, Strategic Economics Group

**Figure 50: Change in entertainment and lodging jobs
for casino and non-casino comparison counties, 2010-2019**

Casino County	2010	2019	Change	Percent Change	Match County	2010	2019	Change	Percent Change	Percent Change Difference
Non-Metro Counties										
Clarke	448	302	-146	-32.6%	Hardin	67	70	3	4.5%	-37.1%
Clayton	291	210	-81	-27.8%	Delaware	67	29	-38	-56.7%	28.9%
Clinton	777	552	-225	-29.0%	Muscatine	414	312	-102	-24.6%	-4.3%
Des Moines	945	835	-110	-11.6%	Muscatine	414	312	-102	-24.6%	13.0%
Greene	3	207	204	6,800.0%	Carroll	189	99	-90	-47.6%	6,847.6%
Lyon	23	441	418	1,817.4%	Osceola	14	0	-14	-100.0%	1,917.4%
Palo Alto	395	205	-190	-48.1%	Pocahontas	38	33	-5	-13.2%	-34.9%
Washington	854	869	15	1.8%	Henry	75	110	35	46.7%	-44.9%
Worth	424	444	20	4.7%	Franklin	82	25	-57	-69.5%	74.2%
Subtotal	4,160	4,065	-95	-2.3%	Subtotal	946	678	-268	-28.3%	26.0%
Metro Counties										
Black Hawk	1,789	1,742	-47	-2.6%	Linn	2,512	2,666	154	6.1%	-8.8%
Dubuque	2,801	2,254	-547	-19.5%	Johnson	1,326	1,547	221	16.7%	-36.2%
Polk	6,604	8,087	1,483	22.5%	Linn	2,512	2,666	154	6.1%	16.3%
Pottawattamie	3,721	2,925	-796	-21.4%	Linn	2,512	2,666	154	6.1%	-27.5%
Scott	3,054	3,110	56	1.8%	Linn	2,512	2,666	154	6.1%	-4.3%
Woodbury	1,653	1,508	-145	-8.8%	Linn	2,512	2,666	154	6.1%	-14.9%
Subtotal	19,622	19,626	4	0.0%	Subtotal	3,838	4,213	375	9.8%	-9.8%

Sources: US Census – County Business Patterns, Strategic Economics Group

**Figure 51: Change in bar and restaurant jobs
for casino and non-casino comparison counties, 2010-2019**

Casino County	2010	2019	Change	Percent Change	Match County	2010	2019	Change	Percent Change	Percent Change Difference
Non-Metro Counties										
Clarke	180	157	-23	-12.8%	Hardin	334	317	-17	-5.1%	-7.7%
Clayton	348	279	-69	-19.8%	Delaware	267	284	17	6.4%	-26.2%
Clinton	1,222	1,230	8	0.7%	Muscatine	914	1,163	249	27.2%	-26.6%
Des Moines	1,410	1,367	-43	-3.0%	Muscatine	914	1,163	249	27.2%	-30.3%
Greene	113	124	11	9.7%	Carroll	617	646	29	4.7%	5.0%
Lyon	119	114	-5	-4.2%	Osceola	80	72	-8	-10.0%	5.8%
Palo Alto	274	208	-66	-24.1%	Pocahontas	129	57	-72	-55.8%	31.7%
Washington	344	284	-60	-17.4%	Henry	554	329	-225	-40.6%	23.2%
Worth	91	64	-27	-29.7%	Franklin	123	132	9	7.3%	-37.0%
Subtotal	4,101	3,827	-274	-6.7%	Subtotal	3,018	3,000	-18	-0.6%	-6.1%
Metro Counties										
Black Hawk	5,487	5,945	458	8.3%	Linn	7,942	8,693	751	9.5%	-1.1%
Dubuque	3,373	3,508	135	4.0%	Johnson	6,326	7,286	960	15.2%	-11.2%
Polk	16,803	20,733	3,930	23.4%	Linn	7,942	8,693	751	9.5%	13.9%
Pottawattamie	2,661	2,859	198	7.4%	Linn	7,942	8,693	751	9.5%	-2.0%
Scott	7,381	8,143	762	10.3%	Linn	7,942	8,693	751	9.5%	0.9%
Woodbury	4,497	4,156	-341	-7.6%	Linn	7,942	8,693	751	9.5%	-17.0%
Subtotal	40,202	45,344	5,142	12.8%	Subtotal	14,268	15,979	1,711	12.0%	0.8%

Sources: US Census – County Business Patterns, Strategic Economics Group

Figure 52: Change in retail jobs for casino and non-casino comparison counties, 2010-2019

Casino County	2010	2019	Change	Percent Change	Match County	2010	2019	Change	Percent Change	Percent Change Difference
Non-Metro Counties										
Clarke	606	548	-58	-9.6%	Hardin	856	987	131	15.3%	-24.9%
Clayton	681	767	86	12.6%	Delaware	698	675	-23	-3.3%	15.9%
Clinton	2,690	2,472	-218	-8.1%	Muscatine	2,207	2,099	-108	-4.9%	-3.2%
Des Moines	3,145	3,328	183	5.8%	Muscatine	2,207	2,099	-108	-4.9%	10.7%
Greene	345	488	143	41.4%	Carroll	1,714	1,687	-27	-1.6%	43.0%
Lyon	369	374	5	1.4%	Osceola	173	136	-37	-21.4%	22.7%
Palo Alto	353	375	22	6.2%	Pocahontas	252	242	-10	-4.0%	10.2%
Washington	1,108	1,126	18	1.6%	Henry	861	913	52	6.0%	-4.4%
Worth	142	170	28	19.7%	Franklin	334	359	25	7.5%	12.2%
Subtotal	9,439	9,648	209	2.2%	Subtotal	7,095	7,098	3	0.0%	2.2%
Metro Counties										
Black Hawk	8,784	9,224	440	5.0%	Linn	13,566	15,678	2,112	15.6%	-10.6%
Dubuque	7,053	7,325	272	3.9%	Johnson	8,260	9,797	1,537	18.6%	-14.8%
Polk	27,757	32,468	4,711	17.0%	Linn	13,566	15,678	2,112	15.6%	1.4%
Pottawattamie	5,836	5,779	-57	-1.0%	Linn	13,566	15,678	2,112	15.6%	-16.5%
Scott	11,287	12,543	1,256	11.1%	Linn	13,566	15,678	2,112	15.6%	-4.4%
Woodbury	7,133	7,388	255	3.6%	Linn	13,566	15,678	2,112	15.6%	-12.0%
Subtotal	67,850	74,727	6,877	10.1%	Subtotal	21,826	25,475	3,649	16.7%	-6.6%

Sources: US Census – County Business Patterns, Strategic Economics Group

4. Retail Employment

Among the nine non-metropolitan casino counties, seven gained retail jobs during the past decade. Greene County experienced the greatest increase, jumping by 41.4%. The two casino counties that lost retail jobs were Clarke (-9.6%) and Clinton (-8.1%). In aggregate, the number of retail jobs grew by 2.2% in the non-metropolitan casino counties, while the number remained flat in the non-metropolitan counties without casinos.

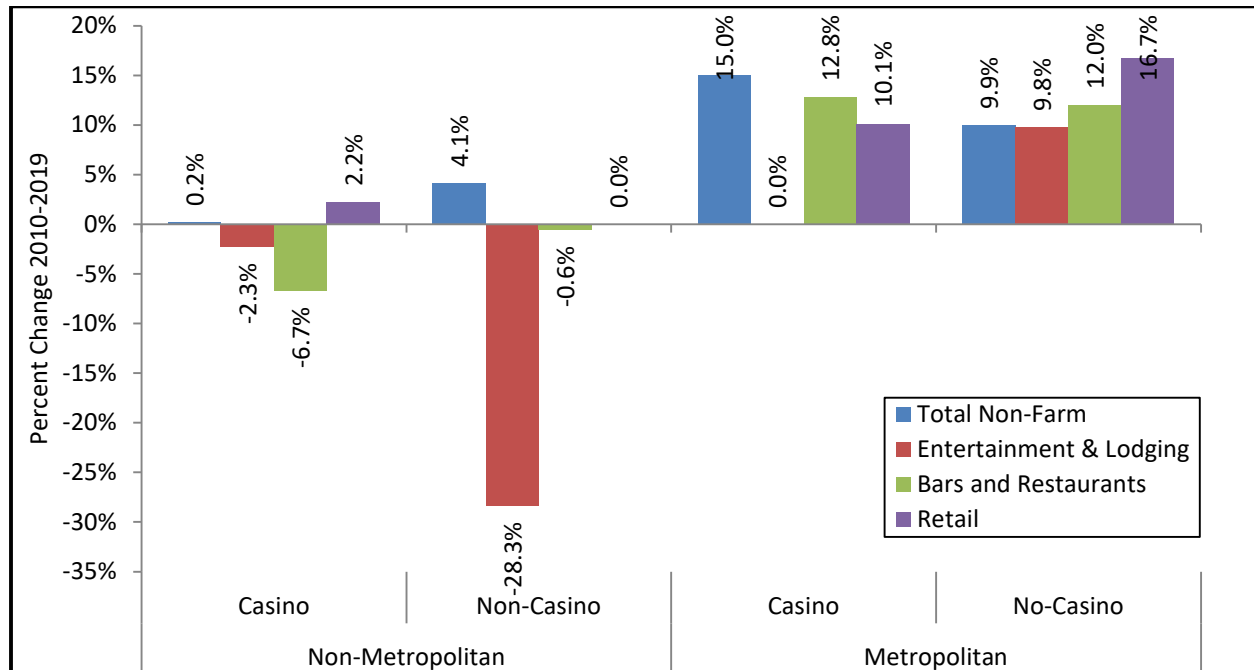
Among the six metropolitan casino counties, only Pottawattamie County lost retail jobs and its loss equaled only 57 jobs (-1.0%). Overall, the metropolitan casino counties gained 6,877 retail jobs (10.1%). The retail sector for the non-casino metropolitan counties increased its number of jobs by 16.7%.

5. Employment Change Comparisons Summary

Figure 53 presents a summary of the employment change comparisons. For the non-metropolitan counties, those with casinos either gained more jobs or lost fewer jobs for two of the sectors – entertainment and lodging and retail. Both the non-metropolitan casino counties and the non-casino counties lost entertainment and lodging jobs over the period from 2010 to 2019, but the casino counties experienced a much lower rate of loss. The bar and restaurant sector is interesting in that the non-

metropolitan casino counties lost more jobs than their comparison counties without casinos. It is likely that the bar and restaurant options offered by casinos reduced the demand for similar establishments elsewhere in their counties.

Figure 53: Summary of casino and non-casino job change percentages by sector, 2010-2019



Source: US Census – County Business Patterns, Strategic Economics Group

The metropolitan casino counties experienced a higher rate of total non-farm jobs growth than did their comparison counties, 15.0% versus 9.9%. Also, they experienced a slightly higher rate of bar and restaurant job growth, 12.8% versus 12.0%. The non-casino counties experienced higher rates of growth for both the entertainment and lodging sectors and the retail sector.

As observed in a prior chapter, it is much harder to reach conclusions about the impact that casinos have had on employment growth for metropolitan counties than for non-metropolitan counties. This is because generally casinos only account for a small share of total employment in metropolitan counties, while in some non-metropolitan counties, particularly those with fewer than 10,000 residents, casinos can account for a large share of total employment.

C. Personal Income Comparisons

Personal income is a more comprehensive measure of economic activity than employment. It incorporates the impacts of population, employment, investment returns, transfer payments, wage and salary income, employee benefits, proprietor profits, and inflationary price changes. Two measures of personal income are used to compare the economic performance of counties with and without casinos. These measures are non-farm income and worker compensation, which consists of wage and salary income plus benefits. The comparisons are made in terms of nominal dollars.

Figure 54 presents the non-farm income comparisons and Figure 55 presents the worker compensation comparisons.

1. Non-Farm Income

First, focusing on the non-metropolitan casino counties, all eight experienced increases – ranging from 23.4% in Clinton County to 46.4% in Lyon County. The average rate of growth equaled 34.8%. Also, all eight of the comparison group of non-metropolitan counties without casinos experienced increases, which ranged from 29.9% for Franklin County to 44.6% for Delaware County. The aggregate average rate of growth for these counties equaled 34.7%. So, the non-farm personal income growth rates for both groups of non-metropolitan counties are essentially the same.

The metropolitan casino counties experienced increases ranging from 24.1% for Woodbury County to 44.5% for Polk County. The average growth for this group of counties over the past decade equaled 38.6%. For the two metropolitan counties without casinos, the average growth rate equaled 44.9%. Non-farm personal income grew 6.3 percentage points more in the metropolitan counties without casinos than in the counties with casinos. However, as noted previously, in metropolitan areas the impact of casinos on the economies of the counties where they are located is generally small. Therefore, the presence or absence of a casino in a metropolitan county may not be the determining factor for personal income growth rates.

Figure 54: Change in non-farm personal income for casino and non-casino comparison counties, 2010-2019

Casino County	2010	2019	Change	Percent Change	Match County	2010	2019	Change	Percent Change	Percent Change Difference
Non-Metro Counties										
Clarke	275,293	385,210	109,917	39.9%	Hardin	596,792	780,450	183,658	30.8%	9.2%
Clayton	589,581	813,966	224,385	38.1%	Delaware	570,657	825,151	254,494	44.6%	-6.5%
Clinton	1,717,289	2,118,316	401,027	23.4%	Muscatine	1,539,051	2,044,585	505,534	32.8%	-9.5%
Des Moines	1,421,047	1,954,584	533,537	37.5%	Muscatine	1,539,051	2,044,585	505,534	32.8%	4.7%
Greene	324,882	414,936	90,054	27.7%	Carroll	759,398	1,028,420	269,022	35.4%	-7.7%
Lyon	374,392	548,222	173,830	46.4%	Osceola	196,009	269,910	73,901	37.7%	8.7%
Palo Alto	299,857	432,851	132,994	44.4%	Pocahontas	232,615	311,364	78,749	33.9%	10.5%
Washington	806,888	1,175,083	368,195	45.6%	Henry	637,458	859,064	221,606	34.8%	10.9%
Worth	241,161	312,187	71,026	29.5%	Franklin	344,456	447,528	103,072	29.9%	-0.5%
Subtotal	6,050,390	8,155,355	2,104,965	34.8%	Subtotal	4,876,436	6,566,472	1,690,036	34.7%	0.1%
Metro Counties										
Black Hawk	4,552,964	6,035,822	1,482,858	32.6%	Linn	8,797,077	12,105,680	3,308,603	37.6%	-5.0%
Dubuque	3,438,543	4,927,584	1,489,041	43.3%	Johnson	5,259,308	8,261,910	3,002,602	57.1%	-13.8%
Polk	18,248,044	26,377,014	8,128,970	44.5%	Linn	8,797,077	12,105,680	3,308,603	37.6%	6.9%
Pottawattamie	3,114,692	4,317,269	1,202,577	38.6%	Linn	8,797,077	12,105,680	3,308,603	37.6%	1.0%
Scott	7,235,238	9,608,357	2,373,119	32.8%	Linn	8,797,077	12,105,680	3,308,603	37.6%	-4.8%
Woodbury	3,691,253	4,582,655	891,402	24.1%	Linn	8,797,077	12,105,680	3,308,603	37.6%	-13.5%
Subtotal	40,280,734	55,848,701	15,567,967	38.6%	Subtotal	14,056,385	20,367,590	6,311,205	44.9%	-6.3%

Sources: U. S. Bureau of Economic Analysis, Strategic Economics Group. Amounts are in thousands of dollars.

Figure 55: Change in worker compensation for casino and non-casino comparison counties, 2010-2019

Casino County	2010	2019	Change	Percent Change	Match County	2010	2019	Change	Percent Change	Percent Change Difference
Non-Metro Counties										
Clarke	162,915	233,200	70,285	43.1%	Hardin	315,175	366,884	51,709	16.4%	26.7%
Clayton	274,859	376,897	102,038	37.1%	Delaware	269,355	391,328	121,973	45.3%	-8.2%
Clinton	1,026,090	1,148,625	122,535	11.9%	Muscatine	1,142,089	1,472,369	330,280	28.9%	-17.0%
Des Moines	959,721	1,208,387	248,666	25.9%	Muscatine	1,142,089	1,472,369	330,280	28.9%	-3.0%
Greene	140,013	198,504	58,491	41.8%	Carroll	487,891	606,444	118,553	24.3%	17.5%
Lyon	155,789	238,927	83,138	53.4%	Osceola	89,477	123,803	34,326	38.4%	15.0%
Palo Alto	139,662	196,996	57,334	41.1%	Pocahontas	110,000	206,409	96,409	87.6%	-46.6%
Washington	313,921	424,978	111,057	35.4%	Henry	414,611	519,437	104,826	25.3%	10.1%
Worth	90,092	122,872	32,780	36.4%	Franklin	176,079	224,069	47,990	27.3%	9.1%
Subtotal	3,263,062	4,149,386	886,324	27.2%	Subtotal	3,004,677	3,910,743	906,066	30.2%	-3.0%
Metro Counties										
Black Hawk	3,623,828	4,640,428	1,016,600	28.1%	Linn	6,964,947	9,146,131	2,181,184	31.3%	-3.3%
Dubuque	2,551,957	3,575,760	1,023,803	40.1%	Johnson	4,339,377	6,126,910	1,787,533	41.2%	-1.1%
Polk	15,575,068	22,456,530	6,881,462	44.2%	Linn	6,964,947	9,146,131	2,181,184	31.3%	12.9%
Pottawattamie	1,668,989	2,348,732	679,743	40.7%	Linn	6,964,947	9,146,131	2,181,184	31.3%	9.4%
Scott	4,106,618	5,504,027	1,397,409	34.0%	Linn	6,964,947	9,146,131	2,181,184	31.3%	2.7%
Woodbury	2,297,994	2,925,724	627,730	27.3%	Linn	6,964,947	9,146,131	2,181,184	31.3%	-4.0%
Subtotal	29,824,454	41,451,201	11,626,747	39.0%	Subtotal	11,304,324	15,273,041	3,968,717	35.1%	3.9%

Sources: U. S. Bureau of Economic Analysis, Strategic Economics Group. Amounts are in thousands of dollars.

2. Compensation for Workers

Worker compensation in the nine non-metropolitan casino counties increased by between 11.9% and 53.4%. Clinton County experienced the lowest rate of increase, while Lyon County experienced the highest rate of increase. It is likely that the opening of the Grand Falls Casino in 2011 contributed to the high growth rate for Lyon County. The average rate of increase for these counties equaled 27.2%. The average rate of increase for the eight non-metropolitan counties without casinos equaled 30.2%. So, the group of comparison counties had a slightly higher rate of increase than the casino counties.

The average growth rate for the metropolitan casino counties equaled 39.0%. The average growth rate for the metropolitan counties without casinos equaled 35.1%. So, the growth rate in the casino counties is slightly higher than in the non-casino counties. But as stated previously, because the number of people employed by casinos in metropolitan areas accounts for only a small share of total employment in these counties, the small difference between the two growth rates is not particularly meaningful.

D. Retail Sales Comparisons

Retail sales are used as an indicator of the extent to which growth of the casino sector spills over into the remainder of the Iowa economy. The following comparisons use bar and restaurant sales as a

surrogate measure of the extent to which tourists attracted by casinos make other expenditures in casino counties. More broadly, sales by traditional retailers (i.e., discount and departments stores, clothing store, home and garden stores, grocery and convenience stores, furniture and appliance stores, and specialty stores) are used as an indicator of other tourism spillovers and spending spillovers by casino employees and suppliers.

1. Bar and Restaurant Retail Sales

As shown in Figure 56, eight of the nine non-metropolitan counties with casinos experienced increased bar and restaurant sales from 2010 to 2019. Lyon County suffered a marginal decrease of 0.6%. This decrease stands out because Grand Falls Casino and Resort opened for business in Lyon County during 2011. As speculated based on other data, this decrease in bar and restaurant sales in Lyon County implies that bar and restaurant services offered by the casino likely crowded out similar businesses elsewhere in the county.

Seven of the eight non-metropolitan comparison counties that do not have casinos also experienced bar and restaurant sales increases. Pocahontas was the one county that experienced a decrease in sales. There is no clear explanation why this occurred. However, Pocahontas County is one of Iowa's least populous counties with only 7,078 residents, and one that has lost population every decade since 1940.

Figure 56: Change in bar and restaurant sales for casino and non-casino comparison counties, 2010-2019

Casino County	2010	2019	Change	% Change	Match County	2010	2019	Change	% Change	% Change Diff.
Non-Metro Counties										
Clarke	7,656,293	10,396,109	2,739,816	35.8%	Hardin	10,631,032	11,403,187	772,155	7.3%	28.5%
Clayton	10,484,630	11,598,664	1,114,034	10.6%	Delaware	8,355,873	12,109,089	3,753,216	44.9%	-34.3%
Clinton	49,589,019	60,827,393	11,238,374	22.7%	Muscatine	37,039,740	51,656,776	14,617,036	39.5%	-16.8%
Des Moines	53,581,339	64,776,296	11,194,957	20.9%	Muscatine	37,039,740	51,656,776	14,617,036	39.5%	-18.6%
Greene	4,412,914	5,472,276	1,059,362	24.0%	Carroll	20,777,195	26,716,298	5,939,103	28.6%	-4.6%
Lyon	4,575,608	4,548,142	-27,466	-0.6%	Osceola	2,737,573	2,986,879	249,306	9.1%	-9.7%
Palo Alto	6,918,466	7,794,156	875,690	12.7%	Pocahontas	2,646,910	1,974,503	-672,407	-25.4%	38.1%
Washington	13,854,413	17,114,827	3,260,414	23.5%	Henry	14,621,593	17,215,164	2,593,571	17.7%	5.8%
Worth	3,488,594	4,176,574	687,980	19.7%	Franklin	6,003,454	7,171,075	1,167,621	19.4%	0.3%
Subtotal	154,561,276	186,704,437	32,143,161	20.8%	Subtotal	102,813,370	131,232,971	28,419,601	27.6%	-6.8%
Metro Counties										
Black Hawk	181,987,209	223,987,941	42,000,732	23.1%	Linn	283,200,494	386,275,922	103,075,428	36.4%	-13.3%
Dubuque	122,914,566	161,810,332	38,895,766	31.6%	Johnson	232,721,858	324,101,683	91,379,825	39.3%	-7.6%
Polk	687,415,293	1,074,836,146	387,420,853	56.4%	Linn	283,200,494	386,275,922	103,075,428	36.4%	20.0%
Pottawattamie	122,294,263	166,452,286	44,158,023	36.1%	Linn	283,200,494	386,275,922	103,075,428	36.4%	-0.3%
Scott	266,550,287	364,080,052	97,529,765	36.6%	Linn	283,200,494	386,275,922	103,075,428	36.4%	0.2%
Woodbury	149,886,623	200,487,407	50,600,784	33.8%	Linn	283,200,494	386,275,922	103,075,428	36.4%	-2.6%
Subtotal	1,531,048,241	2,191,654,164	660,605,923	43.1%	Subtotal	515,922,352	710,377,605	194,455,253	37.7%	5.5%

Sources: Iowa Department of Revenue, Strategic Economics Group

Figure 57: Change in traditional retail sales in casino and non-casino comparison counties, 2010-2019

Casino County	2010	2019	Change	Percent Change	Match County	2010	2019	Change	Percent Change	Percent Change Difference
Non-Metro Counties										
Clarke	42,671,868	47,897,061	5,225,193	12.2%	Hardin	67,215,112	57,917,813	-9,297,299	-13.8%	26.1%
Clayton	49,159,260	40,131,096	-9,028,164	-18.4%	Delaware	57,058,531	67,030,393	9,971,862	17.5%	-35.8%
Clinton	248,458,711	211,172,734	-37,285,977	-15.0%	Muscatine	213,848,925	191,195,407	-22,653,518	-10.6%	-4.4%
Des Moines	319,742,994	285,699,410	-34,043,584	-10.6%	Muscatine	213,848,925	191,195,407	-22,653,518	-10.6%	-0.1%
Greene	23,892,482	22,459,031	-1,433,451	-6.0%	Carroll	145,457,574	151,529,520	6,071,946	4.2%	-10.2%
Lyon	23,183,076	23,875,554	692,478	3.0%	Osceola	12,616,018	10,063,660	-2,552,358	-20.2%	23.2%
Palo Alto	31,188,998	18,714,532	-12,474,466	-40.0%	Pocahontas	13,744,221	14,958,013	1,213,792	8.8%	-48.8%
Washington	72,910,335	76,802,869	3,892,534	5.3%	Henry	74,313,147	68,321,611	-5,991,536	-8.1%	13.4%
Worth	11,126,946	19,275,360	8,148,414	73.2%	Franklin	23,848,316	24,746,142	897,826	3.8%	69.5%
Subtotal	822,334,670	746,027,647	-76,307,023	-9.3%	Subtotal	608,101,844	585,762,559	-22,339,285	-3.7%	-5.6%
Metro Counties										
Black Hawk	1,022,252,005	934,611,353	-87,640,652	-8.6%	Linn	1,507,677,089	1,298,948,131	-208,728,958	-13.8%	5.3%
Dubuque	709,687,890	616,275,802	-93,412,088	-13.2%	Johnson	1,029,759,250	900,058,117	-129,701,133	-12.6%	-0.6%
Polk	3,442,975,847	3,338,860,590	-104,115,257	-3.0%	Linn	1,507,677,089	1,298,948,131	-208,728,958	-13.8%	10.8%
Pottawattamie	597,773,662	578,875,087	-18,898,575	-3.2%	Linn	1,507,677,089	1,298,948,131	-208,728,958	-13.8%	10.7%
Scott	1,299,951,385	1,148,268,078	-151,683,307	-11.7%	Linn	1,507,677,089	1,298,948,131	-208,728,958	-13.8%	2.2%
Woodbury	829,148,250	769,133,215	-60,015,035	-7.2%	Linn	1,507,677,089	1,298,948,131	-208,728,958	-13.8%	6.6%
Subtotal	7,901,789,039	7,386,024,125	-515,764,914	-6.5%	Subtotal	2,537,436,339	2,199,006,248	-338,430,091	-13.3%	6.8%

Sources: Iowa Department of Revenue, Strategic Economics Group

As a group the non-metropolitan counties without casinos experienced a 27.6% increase in bar and restaurant sales over the past decade. The increase for the non-metropolitan casino counties equaled only 20.8%. It bears repeating that bar and restaurant sales by casinos do not show up in these statistics.

All six of the metropolitan casino counties experienced increases in bar and restaurant sales over the past decade. As a group the increase equaled 43.1%. The aggregate rate of increase for the two comparison metropolitan counties without casinos equaled 37.7%.

2. Traditional Retail Sales

As Figure 57 shows, five of the nine non-metropolitan casino counties experienced decreases in sales of traditional retail goods between 2010 and 2019. The greatest decline was 40.0% experienced by Palo Alto County. On the other hand, Worth County realized a gain of 73.2%. This is an unusually large increase for a county with only 7,443 residents. A possible explanation is that two convenience stores were constructed during this period adjacent to the Diamond Jo Casino.

In aggregate, sales by traditional retailers decreased by 9.3% in the non-metropolitan casino counties. There was also a somewhat smaller decrease of 3.7% in the non-metropolitan counties without casinos.

Traditional retail sales declined in all six of the metropolitan casino counties. Dubuque experienced the greatest decrease – 13.2% – and Polk County had the smallest decrease of 3.0%. The metropolitan comparison counties – Johnson and Linn Counties – experienced similar decreases of 12.6% and 13.8%.

The difference between the experiences of bars and restaurants versus other traditional retailers illustrates broad structural changes in the economy much more than it does the influences of casinos. The rise in bar and restaurant expenditures indicates a shift of spending from goods to services. The decline in expenditures on tangible goods represents the flip side of the same trend. In addition, the continued growth of online sales is reflected by the large decreases in purchases at brick-and-mortar stores.

E. Real Property Valuation Comparisons

Changes in the valuations of residential and commercial property in excess of inflation provide an indication of new investment in different parts of the state. The average rate of consumer inflation from 2010 to 2019 equaled 17.2%. Statewide, the value of residential property increased by 34.5%, and the value of commercial property increased by 39.7% over this period.

1. Residential Property Valuations

As shown in Figure 58, all of the non-metropolitan casino counties had residential property value increases over the years from 2010 to 2019. However, the rates of increase in Clinton, Greene, and Worth Counties were below the average rate of inflation. Lyon County experienced the greatest change in the value of residential property at 57.0%. The rate of increase for all of the non-metropolitan casino counties equaled 26.5%.

Among the non-metropolitan comparison counties without casinos, Hardin and Muscatine Counties experienced residential property value growth below the average rate of inflation. For all of the non-metropolitan counties without casinos, the average increase in the values of residential property over the past decade equaled 27.5%. So, the non-metropolitan casino and non-casino counties experienced almost the exact same rate of valuation increase.

For metropolitan counties, the ones with casinos had an average valuation increase for residential property of 34.6%. For the ones without casinos the average increase was slightly higher at 38.4%.

2. Commercial Property Valuation

As shown in Figure 59, the average value of commercial property in non-metropolitan casino counties increased by 36.9%. However, there was a higher degree of variability among these counties. The increase equaled only 5.9% in Clinton County, which is well below the rate of inflation. Lyon County and Greene County realized rates of increase of 215.7% and 146.5%, respectively. Much of these increases can be attributed to the construction of the Grand Falls Casino Resort, which has an assessed value of \$81.1 million, and the Wild Rose Casino and Resort, which has an assessed value of \$16.0 million.

For the eight non-metropolitan comparison counties, the average rate of increase equaled 51.9%. The rates of increase for these counties ranged from 20.1% for Washington County to 100% for Delaware County.

The rates of increase for the six metropolitan casino counties range between 23.2% for Black Hawk County to 39.9% for Polk County. The average rate of increase for these counties equaled 34.9%. For the two comparison metropolitan counties, the average rate of increase equaled 47.5%.

For both the non-metropolitan and the metropolitan counties, the ones without casinos had significantly higher rates of commercial property value growth between 2010 and 2019 than did the counties with casinos.

Figure 58: Change in residential property values for casino and non-casino comparison counties, 2010-2019

Casino County	2010	2019	Change	Percent Change	Match County	2010	2019	Change	Percent Change	Percent Change Difference
Non-Metro Counties										
Clarke	289,132	377,682	88,550	30.6%	Hardin	517,275	596,765	79,490	15.4%	15.3%
Clayton	726,215	948,784	222,569	30.6%	Delaware	839,919	1,156,656	316,737	37.7%	-7.1%
Clinton	1,849,147	2,103,536	254,390	13.8%	Muscatine	1,805,291	2,093,527	288,236	16.0%	-2.2%
Des Moines	1,389,943	1,836,147	446,204	32.1%	Muscatine	1,805,291	2,093,527	288,236	16.0%	16.1%
Greene	266,922	311,706	44,784	16.8%	Carroll	754,629	1,082,897	328,268	43.5%	-26.7%
Lyon	388,172	609,378	221,206	57.0%	Osceola	154,676	210,528	55,852	36.1%	20.9%
Palo Alto	315,488	389,236	73,748	23.4%	Pocahontas	146,310	212,433	66,123	45.2%	-21.8%
Washington	926,723	1,230,055	303,332	32.7%	Henry	651,105	864,952	213,846	32.8%	-0.1%
Worth	269,809	314,272	44,463	16.5%	Franklin	299,461	369,788	70,327	23.5%	-7.0%
Subtotal	6,421,551	8,120,795	1,699,244	26.5%	Subtotal	5,168,665	6,587,546	1,418,880	27.5%	-1.0%
Metro Counties										
Black Hawk	5,507,985	6,709,021	1,201,036	21.8%	Linn	10,881,788	13,781,249	2,899,460	26.6%	-4.8%
Dubuque	4,303,880	5,953,874	1,649,994	38.3%	Johnson	7,378,454	11,497,822	4,119,368	55.8%	-17.5%
Polk	22,037,829	31,143,261	9,105,432	41.3%	Linn	10,881,788	13,781,249	2,899,460	26.6%	14.7%
Pottawattamie	4,200,149	4,712,888	512,739	12.2%	Linn	10,881,788	13,781,249	2,899,460	26.6%	-14.4%
Scott	8,277,989	10,970,892	2,692,903	32.5%	Linn	10,881,788	13,781,249	2,899,460	26.6%	5.9%
Woodbury	3,168,515	4,430,181	1,261,666	39.8%	Linn	10,881,788	13,781,249	2,899,460	26.6%	13.2%
Subtotal	47,496,346	63,920,116	16,423,770	34.6%	Subtotal	18,260,243	25,279,071	7,018,828	38.4%	-3.9%

Sources: Iowa Department of Management, Strategic Economics Group. Amounts are in thousands of dollars.

Figure 59: Change in commercial property values in casino and non-casino comparison counties, 2010-2019

Casino County	2010	2019	Change	Percent Change	Match County	2010	2019	Change	Percent Change	Percent Change Difference
Non-Metro Counties										
Clarke	80,373	92,818	12,445	15.5%	Hardin	96,996	133,356	36,359	37.5%	-22.0%
Clayton	103,090	132,722	29,632	28.7%	Delaware	90,617	181,192	90,575	100.0%	-71.2%
Clinton	425,662	450,889	25,227	5.9%	Muscatine	320,553	460,538	139,985	43.7%	-37.7%
Des Moines	364,389	524,731	160,341	44.0%	Muscatine	320,553	460,538	139,985	43.7%	0.3%
Greene	37,452	92,312	54,859	146.5%	Carroll	218,173	352,075	133,902	61.4%	85.1%
Lyon	60,877	192,188	131,311	215.7%	Osceola	31,028	53,664	22,636	73.0%	142.7%
Palo Alto	79,267	92,143	12,876	16.2%	Pocahontas	39,400	64,570	25,170	63.9%	-47.6%
Washington	174,675	237,005	62,329	35.7%	Henry	158,795	190,758	31,964	20.1%	15.6%
Worth	75,417	103,789	28,372	37.6%	Franklin	61,132	108,323	47,191	77.2%	-39.6%
Subtotal	1,401,203	1,918,596	517,393	36.9%	Subtotal	1,016,694	1,544,476	527,783	51.9%	-15.0%
Metro Counties										
Black Hawk	1,524,113	1,877,973	353,860	23.2%	Linn	2,668,027	4,019,918	1,351,892	50.7%	-27.5%
Dubuque	1,244,381	1,703,597	459,215	36.9%	Johnson	2,264,783	3,254,497	989,714	43.7%	-6.8%
Polk	8,302,483	11,611,849	3,309,366	39.9%	Linn	2,668,027	4,019,918	1,351,892	50.7%	-10.8%
Pottawattamie	1,250,115	1,663,840	413,725	33.1%	Linn	2,668,027	4,019,918	1,351,892	50.7%	-17.6%
Scott	2,530,961	3,154,184	623,223	24.6%	Linn	2,668,027	4,019,918	1,351,892	50.7%	-26.0%
Woodbury	1,162,263	1,594,255	431,992	37.2%	Linn	2,668,027	4,019,918	1,351,892	50.7%	-13.5%
Subtotal	16,014,316	21,605,698	5,591,382	34.9%	Subtotal	4,932,810	7,274,416	2,341,606	47.5%	-12.6%

Sources: Iowa Department of Management, Strategic Economics Group. Amounts are in thousands of dollars.

F. Local Tax Revenue Comparisons

The local tax revenue comparisons are made for the cities where casinos are located or for nearby cities for the three rural casinos to similar cities without casinos. The data used for these comparisons come from annual budget reports filed with the Iowa Department of Management (“Iowa DOM”). Due to data availability limitations, these comparisons cover growth rates over the fiscal years 2015 to 2019. The comparisons are made in terms of nominal dollars.

The first part of the analysis focuses on property tax revenues. The property tax revenues consist of the sum of current period property taxes and tax increment finance (“TIF”) taxes allocated to the current budget year. The second part of the analysis takes into consideration all city revenues. Major components of total city revenues in addition to property taxes include fees from local government services and enterprises, local option taxes, intergovernmental transfers, and proceeds of the issuance of debt.

1. Property Tax Revenue

As shown in Figure 60, eight of the nine non-metropolitan cities that host casinos realized an increase in property tax revenues between fiscal years 2015 and 2019. Clinton, which hosts a Wild Rose

Casino, experienced a decrease of 10.9%. The City of Clinton's population has declined by 15.1 percent since 1990. This decline is related to a drop of almost 20 percent in manufacturing employment in the county over the past 20 years. Riverside experienced a 111.3% increase over the four years.

Of the eight non-metropolitan comparison communities without casinos, seven realized increased property tax revenues. The City of Hampton experienced a small decrease of 0.8%. As a group, property tax revenues for the non-metropolitan cities without casinos increased by 11.8% compared to 4.4% growth for the cities with casinos.

All seven of the metropolitan cities with casinos experienced increases in property tax revenues over the five fiscal years. As a group, property tax revenues for these cities grew by 11.0%. For the three comparison metropolitan cities without casinos, property tax revenues increased by a slightly greater 14.4%.

2. Total City Revenues

As shown in Figure 61, six of the nine non-metropolitan cities with casinos realized increases in total revenues between fiscal years 2015 and 2019. The three casino cities that experienced revenue decreases are Emmetsburg and Jefferson with Wild Rose Casinos and Larchwood near the Grand Falls Casino. As a group, the non-metropolitan casino cities experienced a 15.8% increase in total revenues.

Among the eight non-metropolitan cities without casinos, six experienced revenue increases. As a group, these cities experienced an 8.6% increase in total revenues. So, the non-metropolitan casino cities had total revenue growth 7.2 percentage points greater than the non-casino cities.

Figure 60: Change in property tax revenue for casino and comparison non-casino cities, 2015-2019

Casino City	2015	2019	Change	Percent Change	Match City	2015	2019	Change	Percent Change	Percent Change Difference
Non-Metro Cities										
Burlington	12,978,368	14,562,298	1,583,930	12.2%	Muscatine	13,617,729	15,889,752	2,272,023	16.7%	-4.5%
Clinton	18,474,408	16,456,276	-2,018,132	-10.9%	Muscatine	13,617,729	15,889,752	2,272,023	16.7%	-27.6%
Emmetsburg	1,802,565	2,049,425	246,860	13.7%	Pocahontas	779,685	959,000	179,315	23.0%	-9.3%
Jefferson	2,012,251	2,918,545	906,294	45.0%	Carroll	6,592,627	6,734,689	142,062	2.2%	42.9%
Larchwood	261,883	424,593	162,710	62.1%	Sibley	1,361,214	1,533,321	172,107	12.6%	49.5%
Marquette	496,666	506,158	9,492	1.9%	Dyersville	2,682,698	3,193,224	510,526	19.0%	-17.1%
Northwood	922,423	1,125,817	203,394	22.0%	Hampton	1,687,907	1,674,418	-13,489	-0.8%	22.8%
Osceola	3,072,781	3,296,370	223,589	7.3%	Eldora	1,226,834	1,292,913	66,079	5.4%	1.9%
Riverside	430,846	910,571	479,725	111.3%	Mt. Pleasant	3,911,900	4,347,351	435,451	11.1%	100.2%
Subtotal	40,452,191	42,250,053	1,797,862	4.4%	Subtotal	31,860,594	35,624,668	3,764,074	11.8%	-7.4%
Metro Cities										
Altoona	15,845,996	17,508,819	1,662,823	10.5%	Marion	19,559,769	25,848,759	6,288,990	32.2%	-21.7%
Bettendorf	25,542,960	29,725,174	4,182,214	16.4%	Marion	19,559,769	25,848,759	6,288,990	32.2%	-15.8%
Council Bluffs	45,318,012	50,492,677	5,174,665	11.4%	Cedar Rapids	98,834,838	107,530,989	8,696,151	8.8%	2.6%
Davenport	69,894,836	81,791,322	11,896,486	17.0%	Cedar Rapids	98,834,838	107,530,989	8,696,151	8.8%	8.2%
Dubuque	33,088,462	36,334,323	3,245,861	9.8%	Iowa City	52,133,230	61,678,184	9,544,954	18.3%	-8.5%
Sioux City	50,546,088	54,073,680	3,527,592	7.0%	Cedar Rapids	98,834,838	107,530,989	8,696,151	8.8%	-1.8%
Waterloo	46,227,317	47,929,326	1,702,009	3.7%	Cedar Rapids	98,834,838	107,530,989	8,696,151	8.8%	-5.1%
Subtotal	286,463,671	317,855,321	31,391,650	11.0%	Subtotal	170,527,837	195,057,932	24,530,095	14.4%	-3.4%

Sources: Iowa Department of Management, Strategic Economics Group

Figure 61: Change in total revenue for casino and non-casino comparison cities, 2015-2019

Casino City	2015	2019	Change	Percent Change	Match City	2015	2019	Change	Percent Change	Percent Change Difference
Non-Metro Cities										
Burlington	56,933,470	72,488,689	15,555,219	27.3%	Muscatine	70,865,784	65,857,256	-5,008,528	-7.1%	34.4%
Clinton	80,472,734	89,544,160	9,071,426	11.3%	Muscatine	70,865,784	65,857,256	-5,008,528	-7.1%	18.3%
Emmetsburg	12,586,433	10,018,312	-2,568,121	-20.4%	Pocahontas	6,017,743	7,651,936	1,634,193	27.2%	-47.6%
Jefferson	10,178,715	9,886,276	-292,439	-2.9%	Carroll	23,809,879	28,664,247	4,854,368	20.4%	-23.3%
Larchwood	3,227,033	2,528,266	-698,767	-21.7%	Sibley	9,301,105	13,824,692	4,523,587	48.6%	-70.3%
Marquette	2,411,935	2,503,033	91,098	3.8%	Dyersville	11,360,861	15,340,000	3,979,139	35.0%	-31.2%
Northwood	4,109,278	4,335,368	226,090	5.5%	Hampton	8,278,986	6,732,499	-1,546,487	-18.7%	24.2%
Osceola	15,337,550	22,266,537	6,928,987	45.2%	Eldora	5,708,808	5,969,613	260,805	4.6%	40.6%
Riverside	4,500,718	6,218,505	1,717,787	38.2%	Mt. Pleasant	23,176,373	28,083,490	4,907,117	21.2%	17.0%
Subtotal	189,757,866	219,789,146	30,031,280	15.8%	Subtotal	158,519,539	172,123,733	13,604,194	8.6%	7.2%
Metro Cities										
Altoona	46,621,606	61,583,964	14,962,358	32.1%	Marion	70,088,127	104,166,550	34,078,423	48.6%	-16.5%
Bettendorf	84,208,709	94,673,119	10,464,410	12.4%	Marion	70,088,127	104,166,550	34,078,423	48.6%	-36.2%
Council Bluffs	155,523,904	166,804,488	11,280,584	7.3%	Cedar Rapids	636,762,114	635,706,883	-1,055,231	-0.2%	7.4%
Davenport	256,574,981	294,693,834	38,118,853	14.9%	Cedar Rapids	636,762,114	635,706,883	-1,055,231	-0.2%	15.0%
Dubuque	224,591,237	194,820,367	-29,770,870	-13.3%	Iowa City	193,353,789	220,160,792	26,807,003	13.9%	-27.1%
Sioux City	264,923,816	302,244,433	37,320,617	14.1%	Cedar Rapids	636,762,114	635,706,883	-1,055,231	-0.2%	14.3%
Waterloo	151,410,792	163,009,521	11,598,729	7.7%	Cedar Rapids	636,762,114	635,706,883	-1,055,231	-0.2%	7.8%
Subtotal	1,183,855,045	1,277,829,726	93,974,681	7.9%	Subtotal	900,204,030	960,034,225	59,830,195	6.6%	1.3%

Sources: Iowa Department of Management, Strategic Economics Group

Six of the seven metropolitan cities with casinos experienced growth in total revenues between fiscal years 2015 and 2019. Dubuque, which hosts both the Q Casino and a Diamond Jo Casino, saw a decrease of 13.3%. As a group, the metropolitan casino cities realized total revenue growth of 7.9%.

For the three metropolitan comparison cities without casinos, Cedar Rapids experienced a small 0.2% decline in total revenues. The other two cities in this group experienced total revenue increases. As a group, the total revenues of these cities increased by 6.6% over the five fiscal years.

G. Summary and Conclusions

The comparison of various demographic and economic changes in counties and cities that host casinos with similar counties and cities without casinos does provide some evidence of how the presence of casinos impacts Iowa. However, due to the small number of casinos and the correspondingly small number of comparable non-casino communities to which they can be matched, the results of this part of the analysis should be viewed only as indicative of the influence of casinos on Iowa's economy, not as a definitive statement on the relationship.

This chapter has made comparisons between jurisdictions with and without casinos using 14 demographic and economic measures. Given the large number of measures, this final part of this chapter

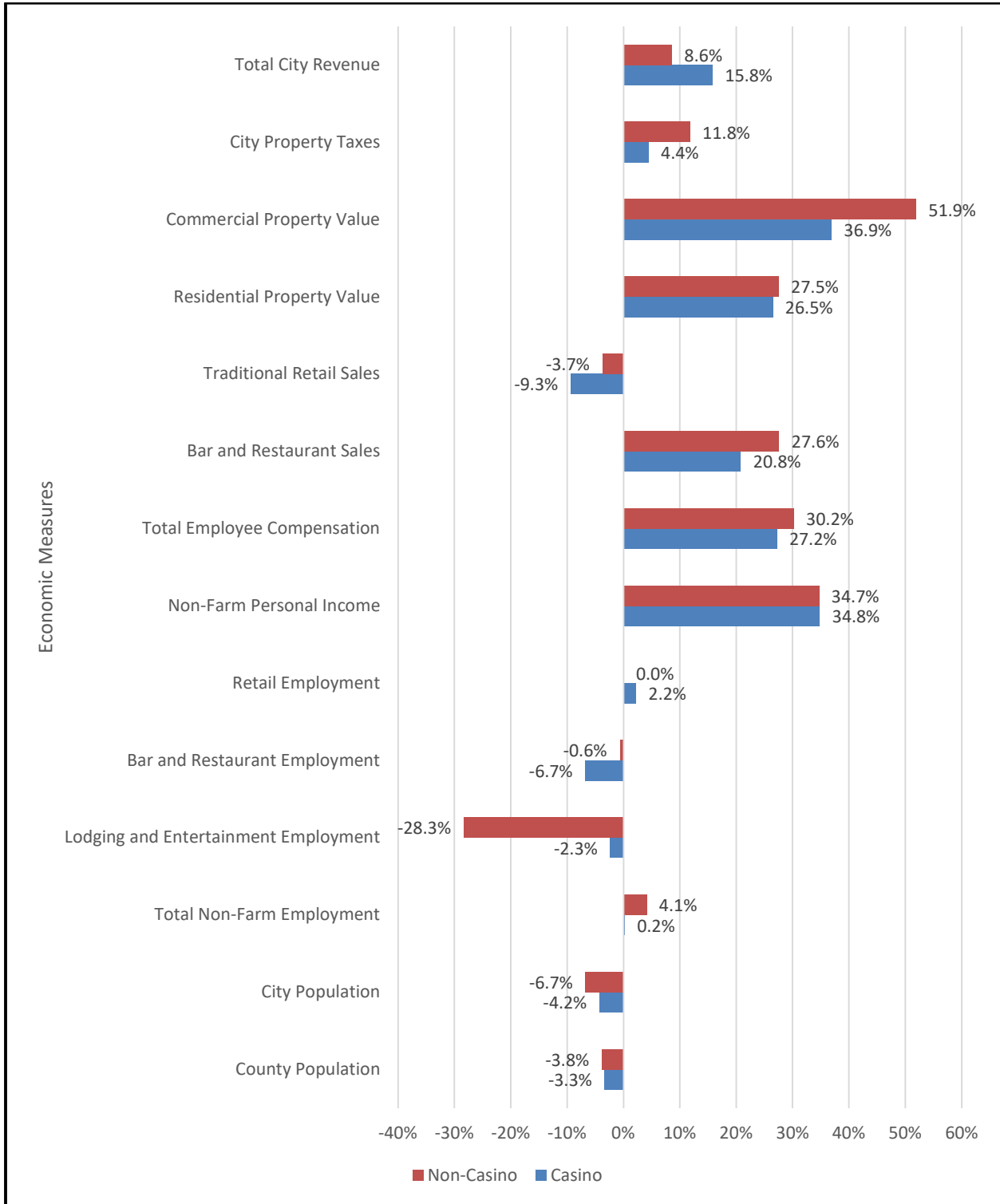
summarizes the comparisons in two charts. The comparisons are made on the basis of group average. Figure 62 summarizes the comparisons for non-metropolitan jurisdictions, and Figure 63 provides a summary of the comparisons for metropolitan jurisdictions.

1. Non-Metropolitan Comparisons

For the non-metropolitan jurisdictions, the casino group had greater average growth rates than did the non-casino group for six of the 14 measures. For two of the measures – lodging and entertainment employment and total city revenue – the changes are more than five percentage points greater for the casino jurisdictions. The higher growth rates by the casino jurisdictions for these two measures make sense. The casinos and associated amenities added a large number of jobs in the lodging and entertainment sectors. Also, the casinos brought new tax revenue to the communities where they located.

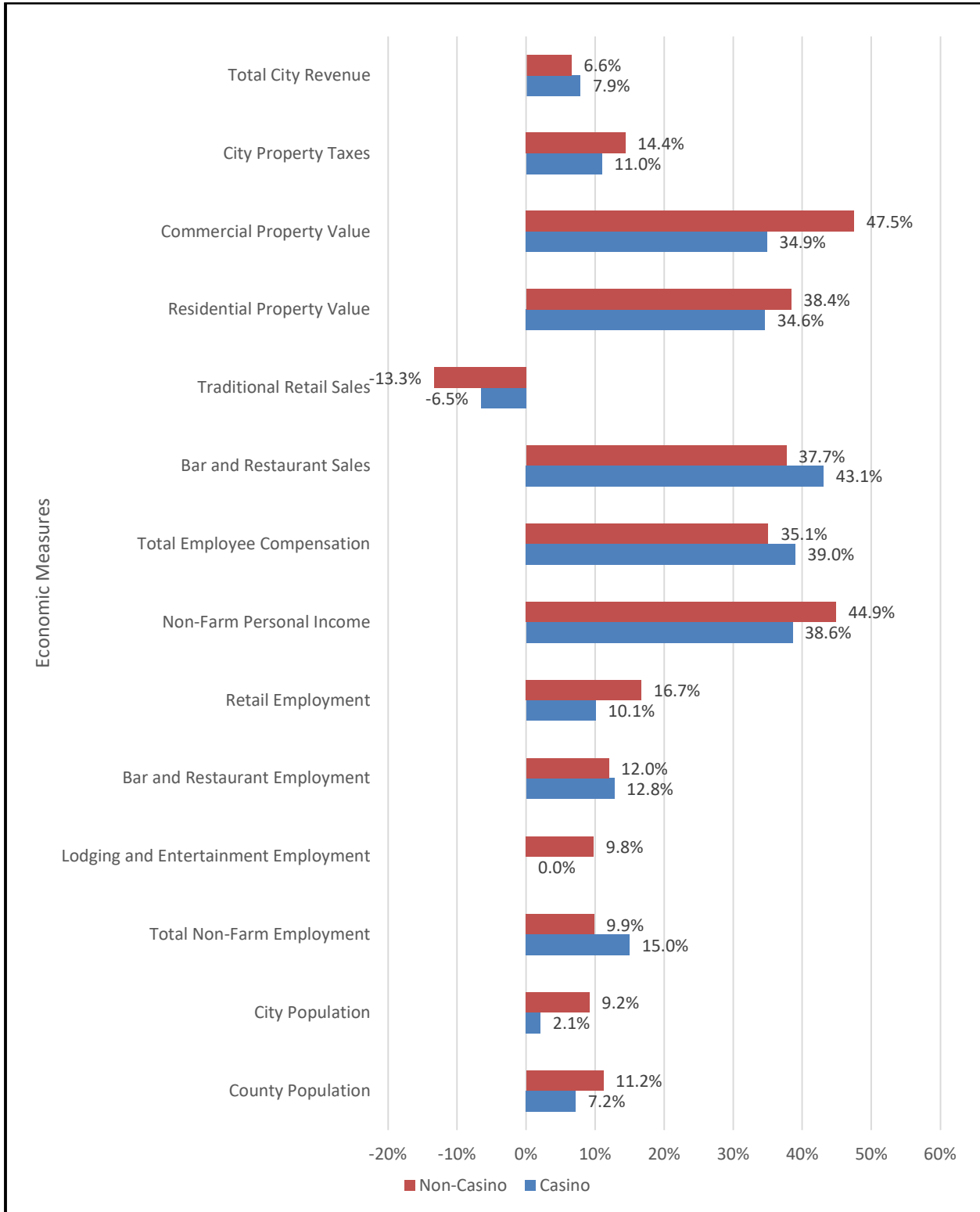
Two of the measures for which the non-casino jurisdictions had growth rates substantially higher than the casino jurisdictions are bar and restaurant employment and bar and restaurant sales. As stated previously, all the casinos offer bar and restaurant services that get classified in the statistics for the lodging and entertainment sectors. Furthermore, in areas with limited population, the casinos crowd out other bar and restaurant businesses.

Figure 62: Summary of demographic and economic comparison measures for non-metropolitan jurisdictions



Source: Strategic Economics Group. City comparisons cover 2015-2019, county comparisons cover 2010-2019.

Figure 63: Summary of demographic and economic comparison measures for metropolitan jurisdictions



Source: Strategic Economics Group. Group. City comparisons cover 2015-2019, county comparisons cover 2010-2019.

2. Metropolitan Comparisons

The metropolitan casino jurisdictions have higher growth rates for six of the 14 demographic and economic measures than the non-casino jurisdictions. The casino jurisdictions only have growth rates more than five percentage points higher than the non-casino jurisdictions for three of the measures. These are total non-farm employment, bar and restaurant sales, and traditional retail sales. The non-casino metropolitan areas have growth rates more than five percentage points greater than the casino jurisdiction for five of the measures – city population, lodging and entertainment employment, retail employment, non-farm personal income, and commercial property valuations.

The differences in the growth rates for the metropolitan jurisdictions with and without casinos do not really indicate either a long-term benefit or detriment due to the location of casinos. The fact is that casinos only represent a small share of economic activity in the metropolitan areas where they are located. For example, the total employment of casinos in metropolitan jurisdiction equaled just 6,250 workers in 2019. Total employment in core metropolitan counties in 2019 equaled 580,173. So, casino employment accounted for just a little over 1% of employment in these counties.

The analysis earlier in this report found that the development of casinos did result in a boost to many types of economic activity around the time when casinos were constructed and opened for business. This chapter's analysis focuses on the persistence of economic growth in casino communities versus communities without casinos. Generally, the analysis in this chapter finds that the higher level of economic activity associated with the presence of casinos persists but that the casinos do not continue to stimulate higher economic growth rates in their host communities compared to other similar communities without casinos after the casinos have been in operation for a number of years.

4. Labor Market Impacts of the Iowa Casino Industry

Iowa's casinos employ about 9,700 workers. Because many of Iowa's casinos are in border counties, about one-quarter of the workers reside outside Iowa. The impact of casinos on labor markets varies by location. The impact in counties with small populations has been much greater than in the state's metropolitan areas.

This chapter addresses a variety of issues related to labor markets throughout Iowa. Among the issues are:

- Employment levels for metropolitan and non-metropolitan casino counties
- Unemployment rates in casino counties versus the state
- Workforce draw areas and commuting distances
- Wages and salaries paid by casinos for different types of occupations
- Wages and salaries in the general population for occupations like those of casinos
- Types of employee benefits offered by casinos

A. Employment Levels by Occupation and Region

A survey was sent to each of Iowa's casinos requesting information regarding their operations. Completed surveys were returned by 16 of the 19 state-regulated casinos, and another casino provided a partial response. The survey included a number of questions regarding their workforces. One question requested employee counts for seven categories of workers.

- Gaming employees
- Bar and restaurant employees
- Hospitality employees
- Buildings and grounds maintenance employees
- Administrative employees
- Security employees
- Other employment

In addition, the survey asked for counts to be split between full-time and part-time employees. Also, the casinos were asked to provide employee counts by home five-digit ZIP Code, which will be addressed later in this chapter.

Figure 64 provides employee count information summarized separately for casinos located in metropolitan and non-metropolitan counties. The partial aggregations of the survey responses were done to protect confidential information for individual casinos. Employee counts were estimated for the casinos for which survey data were missing.

Figure 64: Casino employee counts for metro and non-metro casinos, 2019

Employment Category	Metro Casinos		Non Metro Casinos		All Casinos	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Total	4,465	1,785	2,565	849	7,030	2,634
Gaming	1,509	527	868	136	2,377	663
Bar and Restaurant	937	723	516	409	1,453	1,132
Hospitality	414	117	275	110	689	227
Buildings and Grounds	312	35	187	17	499	52
Administrative	413	11	159	7	572	18
Security	370	185	247	27	617	212
Other	510	187	313	143	823	330

Source: Casino Survey, Strategic Economics Group

Total employment for the metropolitan-area casinos in December 2019 equaled 6,250. Non-metropolitan casinos employed 3,414. The total number of employees equaled 9,664. The greatest number of employees worked in the gaming area (3,040). The second-highest number of employees worked in the bar and restaurant areas of the casinos (2,585). The “other” category accounts for the third greatest number of employees (1,153). But the employees in the other category largely work for Prairie Meadows in the racetrack area and for Catfish Bend, which offers a wide variety of family entertainment amenities.

Figure 65 presents the percentage of employees by employment category, and Figure 66 presents the shares of employees split between full-time and part-time by employment category.

Figure 65: Percentage of employees by category for metro and non-metro casinos, 2019

Employment Category	Metro Casinos		Non Metro Casinos		All Casinos	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Gaming	33.8%	29.5%	33.8%	16.0%	33.8%	25.2%
Bar and Restaurant	21.0%	40.5%	20.1%	48.2%	20.7%	43.0%
Hospitality	9.3%	6.6%	10.7%	13.0%	9.8%	8.6%
Buildings and Grounds	7.0%	2.0%	7.3%	2.0%	7.1%	2.0%
Administrative	9.2%	0.6%	6.2%	0.8%	8.1%	0.7%
Security	8.3%	10.4%	9.6%	3.2%	8.8%	8.0%
Other	11.4%	10.5%	12.2%	16.8%	11.7%	12.5%

Source: Casino Survey, Strategic Economics Group

One interesting observation from Figure 65 is that the distribution of full-time employees across the different activities is very similar for metropolitan and non-metropolitan casinos. However, there are some differences for part-time employees. The non-metropolitan casinos have larger shares of part-time employees working in the bar and restaurant and hospitality activities than the metropolitan casinos and smaller shares in the gaming and security activities.

Figure 66: Percentages of full-time and part-time employees by category, 2019

Employment Category	Metro Casinos		Non Metro Casinos		All Casinos	
	Full Time	Part Time	Full Time	Part Time	Full Time	Part Time
Total	71.4%	28.6%	75.1%	24.9%	72.7%	27.3%
Gaming	74.1%	25.9%	86.5%	13.5%	78.2%	21.8%
Bar and Restaurant	56.4%	43.6%	55.8%	44.2%	56.2%	43.8%
Hospitality	78.0%	22.0%	71.4%	28.6%	75.2%	24.8%
Buildings and Grounds	89.9%	10.1%	91.7%	8.3%	90.6%	9.4%
Administrative	97.4%	2.6%	95.8%	4.2%	96.9%	3.1%
Security	66.7%	33.3%	90.1%	9.9%	74.4%	25.6%
Other	73.2%	26.8%	68.6%	31.4%	71.4%	28.6%

Source: Casino Survey, Strategic Economics Group

The non-metropolitan casinos have a slightly higher share of their workforces employed full-time than do the metropolitan area casinos, 75.1% versus 71.4%. The activity with the greatest share of part-time employees is bars and restaurants.

B. Unemployment Rates

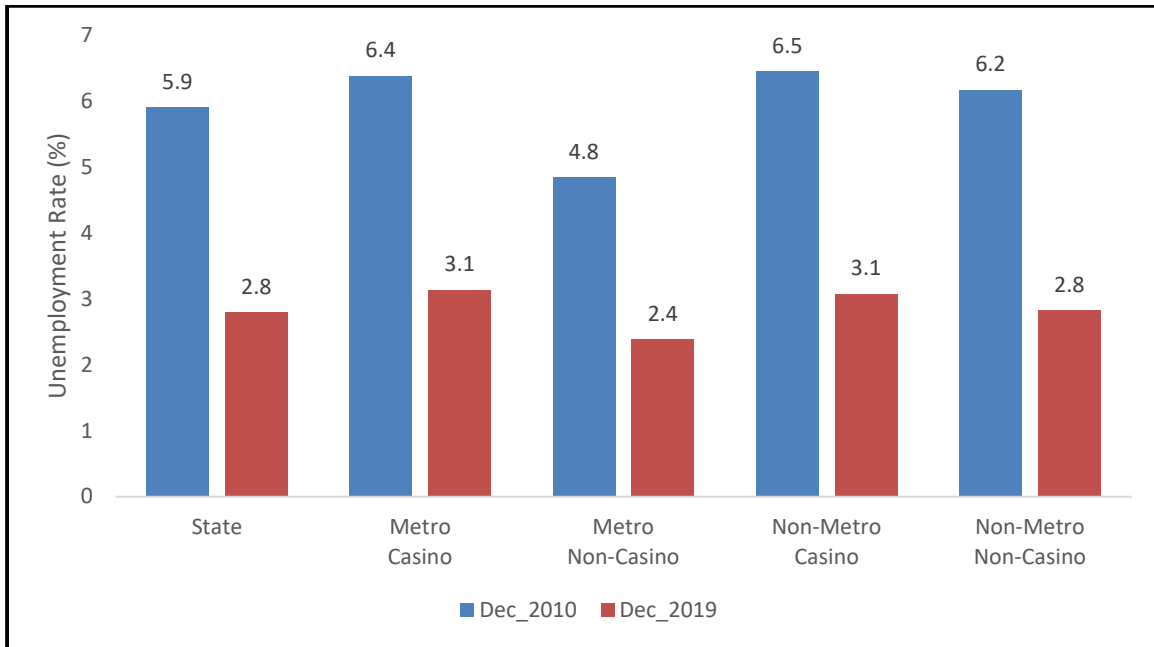
At the end of the Great Recession, Iowa’s statewide unemployment rate in December 2010 stood at 5.9%. By the end of 2019 the rate had dropped to just 2.8%. Figure 67 shows the unemployment rates for the following four groups of Iowa counties and the state at the ends of 2010 and 2019. The four county groups are:

- Metropolitan counties with casinos
- Metropolitan counties without casinos
- Non-metropolitan counties with casinos
- Non-metropolitan counties without casinos

For both the metropolitan county and the non-metropolitan county groups, those without casinos had lower unemployment rates in December 2010 and December 2019. In December 2010, the metropolitan casino counties had an average unemployment rate of 6.4% compared to a rate of 4.8% for the metropolitan counties without casinos. Similarly, in the same month, non-metropolitan counties with casinos had an average unemployment rate of 6.5% versus a rate of 6.2% for the non-metropolitan counties without casinos. The relationships are similar in December 2019.

However, as stated before, it is hard to draw any definitive conclusion regarding the impact of casinos on unemployment rates. This is especially true for metropolitan counties, in which casinos account for very small shares of total employment. For example, in Polk County total employment in December 2019 equaled 305,382, while employment in the entertainment and lodging sectors equaled 9,826, and the county’s casino accounts for only a fraction of that amount.

Figure 67: Unemployment rates for casino and non-casino counties, 2010 and 2019



Source: US Bureau of Labor Statistics, Strategic Economics Group

Another way of viewing the unemployment rates is through a comparison of each county that hosts a casino with a similar Iowa county that does not have a casino. Figure 68 presents these comparisons. In December 2010, four of the nine non-metropolitan casino counties had lower unemployment rates than their matched non-casino counties. In December 2019, only two of the non-metropolitan casino counties had lower unemployment rates than their matched non-casino counties.

As a group, the non-metropolitan casino counties had average unemployment rates of 6.5% in December 2010 and 3.1% in December 2019. The matched non-casino counties had average unemployment rates of 6.0% in December 2010 and 2.4% in December 2019.

As previously stated, it is very unlikely that casinos have much impact on unemployment rates in metropolitan counties. Nevertheless, for the metropolitan casino counties, the unemployment in December 2010 averaged 6.4% versus 5.1% in the non-casino metropolitan counties. Similarly, in December 2019, the unemployment rates for the casino and non-casino metropolitan counties were 3.1% and 2.7%, respectively.

One confounding factor that confuses the relationship between the existence of casinos in a county and the local unemployment rate is the fact that many casino workers commute to their jobs from residences outside the counties where the casinos are located. The draw areas for casino employees are addressed in the next section.

Figure 68: Unemployment rates for casino and non-casino comparison counties, December 2010 and December 2019

Casino Counties	2010	2019	Change	Match County	2010	2019	Change	Percent Change Difference
Non-Metro Counties								
Clarke	8.5%	2.8%	-5.7%	Hardin	6.4%	3.1%	-3.3%	-2.4%
Clayton	7.8%	4.6%	-3.2%	Delaware	5.9%	2.5%	-3.4%	0.2%
Clinton	7.2%	4.1%	-3.1%	Muscatine	7.5%	3.0%	-4.5%	1.4%
Des Moines	7.2%	4.2%	-3.0%	Muscatine	7.5%	3.0%	-4.5%	1.5%
Greene	5.7%	2.1%	-3.6%	Carroll	4.2%	1.9%	-2.3%	-1.3%
Lyon	3.5%	2.0%	-1.5%	Osceola	4.9%	1.9%	-3.0%	1.5%
Palo Alto	5.6%	2.3%	-3.3%	Pocahontas	5.2%	1.8%	-3.4%	0.1%
Washington	4.9%	2.6%	-2.3%	Henry	7.9%	2.9%	-5.0%	2.7%
Worth	7.7%	3.0%	-4.7%	Franklin	6.3%	2.3%	-4.0%	-0.7%
Average	6.5%	3.1%	-3.4%	Average	6.0%	2.4%	-3.6%	0.2%
Metro Counties								
Black Hawk	6.2%	3.5%	-2.7%	Linn	6.0%	3.1%	-2.9%	0.2%
Dubuque	6.0%	3.1%	-2.9%	Johnson	4.1%	2.2%	-1.9%	-1.0%
Polk	6.0%	2.9%	-3.1%	Linn	6.0%	3.1%	-2.9%	-0.2%
Pottawattamie	5.9%	2.6%	-3.3%	Linn	6.0%	3.1%	-2.9%	-0.4%
Scott	6.8%	3.7%	-3.1%	Linn	6.0%	3.1%	-2.9%	-0.2%
Woodbury	7.4%	3.0%	-4.4%	Linn	6.0%	3.1%	-2.9%	-1.5%
Average	6.4%	3.1%	-3.3%	Average	5.1%	2.7%	-2.4%	-0.9%

Source: US Bureau of Labor Statistics, Strategic Economics Group

C. Casino Workforce Draw Areas

Many members of the Iowa Gaming Association provided information on place of residence by ZIP Code. These data were summarized for the received responses, which cover 16 of the state's 19 licensed casinos. The data relates to casino employees as of December 2019.

Because most of Iowa's casinos are located near to borders with other states, about a quarter of Iowa casino employees reside outside Iowa. Figure 69 summarizes the number and share of casino employees by state of residence.

In addition, the ZIP Code data were used to analyze the workforce draw areas for casino employees. Driving distances were computed for one non-metropolitan and one metropolitan casino to estimate distances that workers commute to their casino jobs. This analysis is summarized in Figure 70.

Figure 69: Casino employees by state of residence, December 2019

State	Number of Employees	Share of Total	Cumulative Percent
Iowa	5,772	75.0%	75.0%
South Dakota	746	9.7%	84.7%
Illinois	476	6.2%	90.9%
Nebraska	470	6.1%	97.0%
Wisconsin	101	1.3%	98.4%
Minnesota	48	0.6%	99.0%
Other	78	1.0%	100.0%
Total	7,691	100%	

Source: 2021 Casino Survey, Strategic Economics Group

Figure 70: Casino employees' commuting distances, December 2019

Commuting Distance	Non Metro Casino	Metro Casino
Less than 5 miles	45.6%	47.2%
5 to 9.99 miles	0.0%	5.8%
10 to 19.99 miles	20.3%	31.7%
20 to 29.99 miles	11.5%	6.1%
30 to 39.99 miles	11.5%	5.1%
40 to 49.99 miles	4.4%	0.8%
50 to 74.99 miles	1.6%	1.5%
75 to 99.99 miles	0.5%	1.0%
100 miles and over	4.4%	0.8%
Average Commute (miles)	18.56	12.36

Source: 2021 Casino Survey, Strategic Economics Group

Of the 25% of employees who reside outside Iowa, South Dakota is home to 9.7%, Illinois is home to 6.2%, Nebraska is home to 6.1%, Wisconsin is home to 1.3%, and Minnesota is home to 0.6%.

The analysis of how far workers commute to casinos finds that workers at the non-metropolitan casinos travel about 50% further than those who work at the metropolitan casinos. However, given that travel speeds are generally slower in urban areas versus rural areas, travel times are likely about equal for both casinos' workers.

Another labor market issue concerns the differences in pay between casino jobs and similar jobs in other enterprises. This is addressed in the next section.

D. Comparison of Worker Pay by Casinos and Other Employers

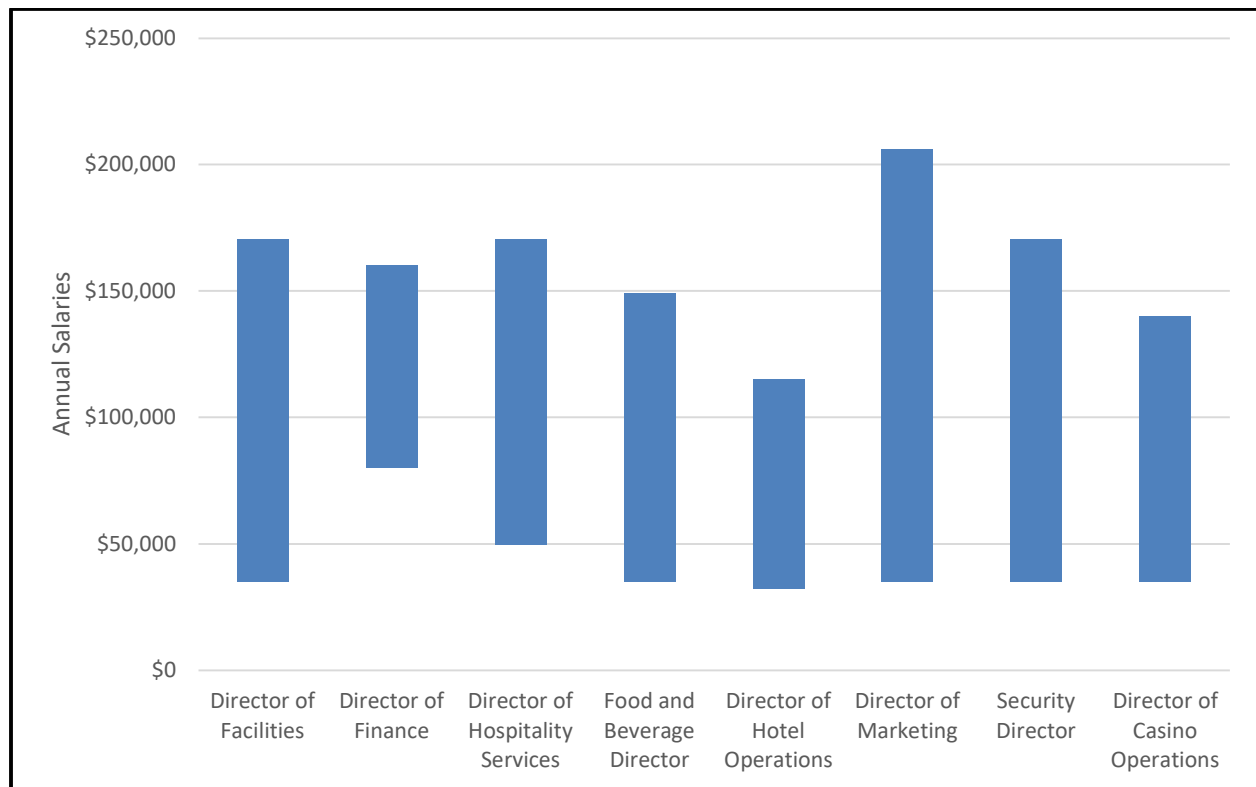
Every couple of years, the Iowa Gaming Association ("IGA") compiles information on pay levels for a broad range of job classifications used by the state's casinos. The most recent study was completed in 2018. Due to the coronavirus pandemic, no study was done in 2020. The 2018 study contains pay

information for more than 200 occupations ranging from top-level managers to entry-level front-line workers. For each occupation, the study reports the minimum, maximum, and midpoint of the pay range.

This section provides comparisons between casino-industry jobs and similar jobs in the state’s broader economy. In this section of the report, comparisons are made for three groups of occupations: top managers, middle managers and supervisors, and front-line workers. For each of these three groups, information is provided on the pay ranges offered by casinos. In addition, comparisons are made between the midpoint of the casinos’ pay ranges and the average pay for similar jobs statewide.

The first comparison is for eight top management jobs. Types of jobs covered by this analysis include Director of Facilities, Director of Finance, Food and Beverage Service Director, and Director of Marketing. Figure 71 presents the casino salary range information. The annual salaries for these top jobs mostly range from \$35,000 to \$170,000.

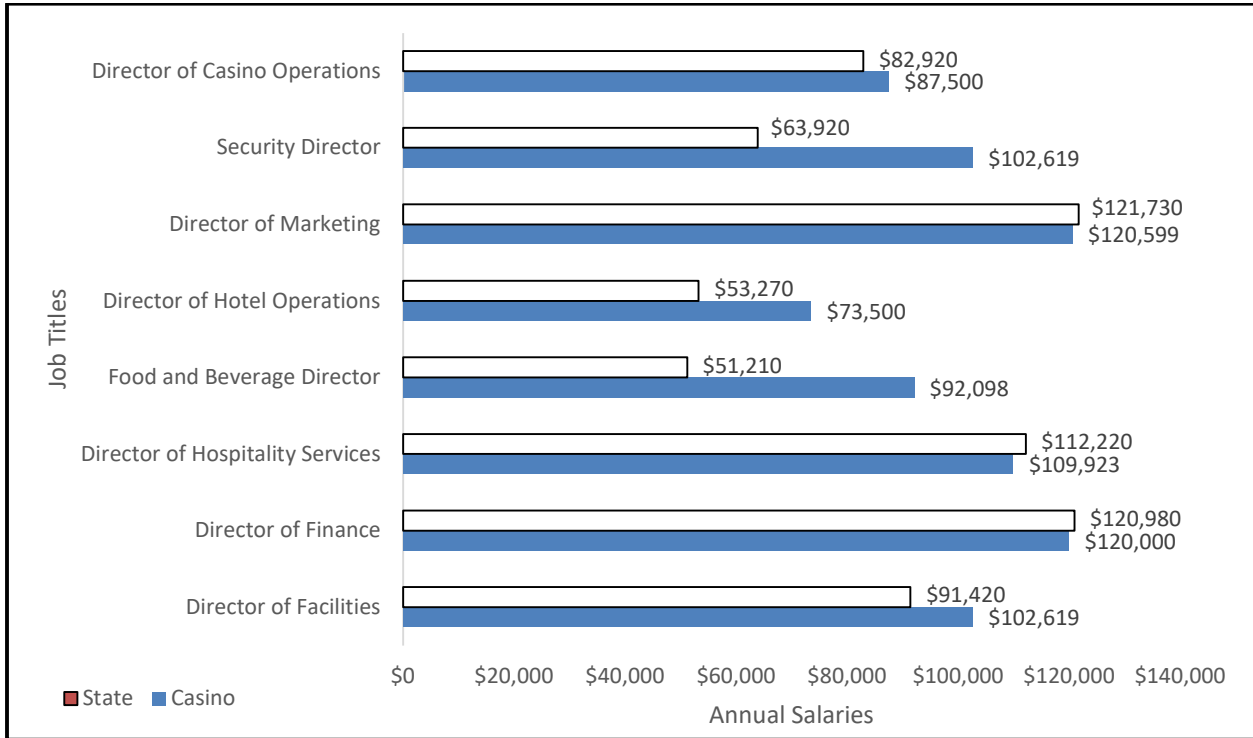
Figure 71: Casino salary ranges for top management jobs, 2018



Source: Iowa Gaming Association.

Figure 72 presents the comparison between pay levels for top management jobs at casinos and for the state’s economy overall. For five of the eight jobs, the casino salary midpoints exceed the average statewide salaries. For the other three job titles the average salaries are about equal. The greatest difference is for Food and Beverage Directors. The midpoint of the casino salaries for this job is \$92,098, while for the overall economy the average equals only \$51,210.

Figure 72: Comparison of casino salary midpoints to state average salaries for top management jobs, 2018

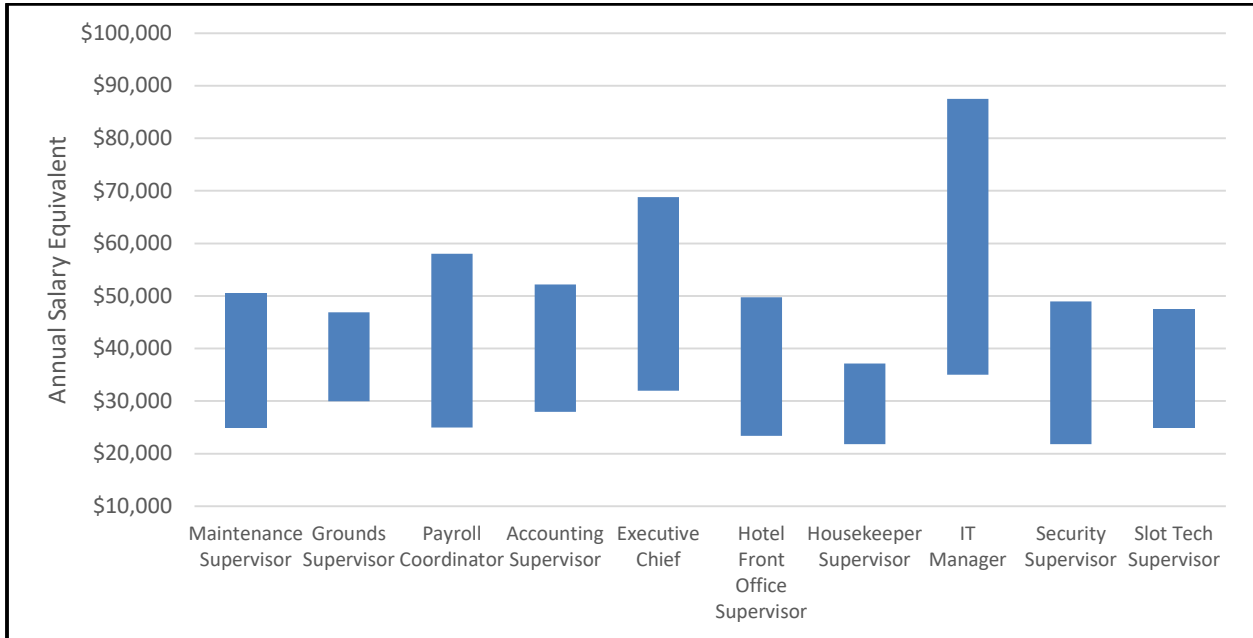


Source: Iowa Gaming Association, US Bureau of Labor Statistics

According to the IGA study, some middle managers and supervisors are paid salaries and others are paid an hourly wage. To make comparisons over all the job classifications in this group, hourly wages have been converted to equivalent annual salaries by multiplying the hourly wage amounts by 2,080 hours, which equates to 40 hours per week for 52 weeks. Casino salary ranges are presented in Figure 73 for 10 types of jobs. Some of these jobs are maintenance supervisor, payroll coordinator, executive chef, and housekeeping supervisor. The minimum salary equivalents for these casino jobs are in the low to mid-\$20,000 range. The maximum salary equivalents for these jobs are in the high \$40,000 to high \$50,000 range. One exception is for IT managers, for which the top salary is \$87,500.

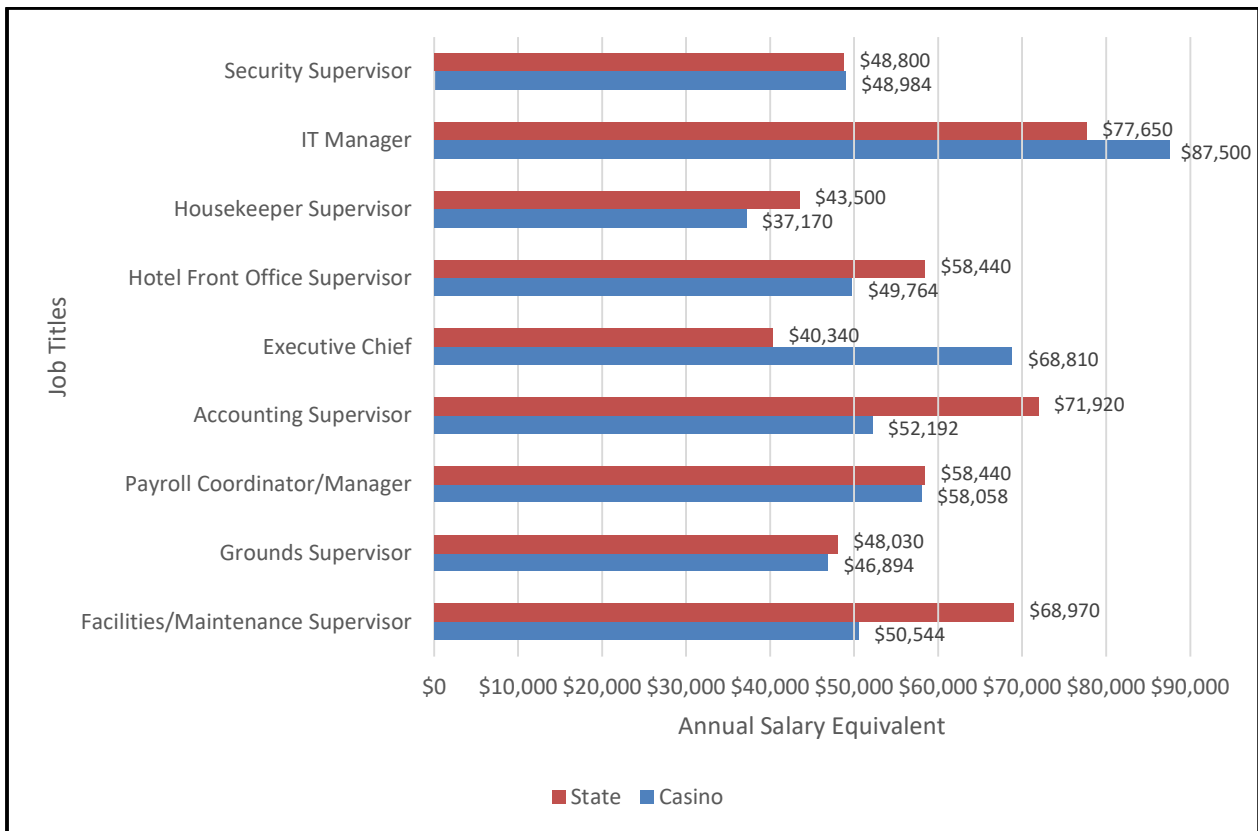
Figure 74 presents comparisons between the midpoints for nine of the casino middle management jobs and average salaries for similar jobs statewide. The most prominent difference is for executive chef, for which the casino midpoint is 170.6% of head chef salaries statewide.

Figure 73: Casino salary equivalent ranges for middle management and supervisory jobs, 2018



Source: Iowa Gaming Association

Figure 74: Comparison of casino salary midpoints to statewide salaries for middle-management jobs, 2018

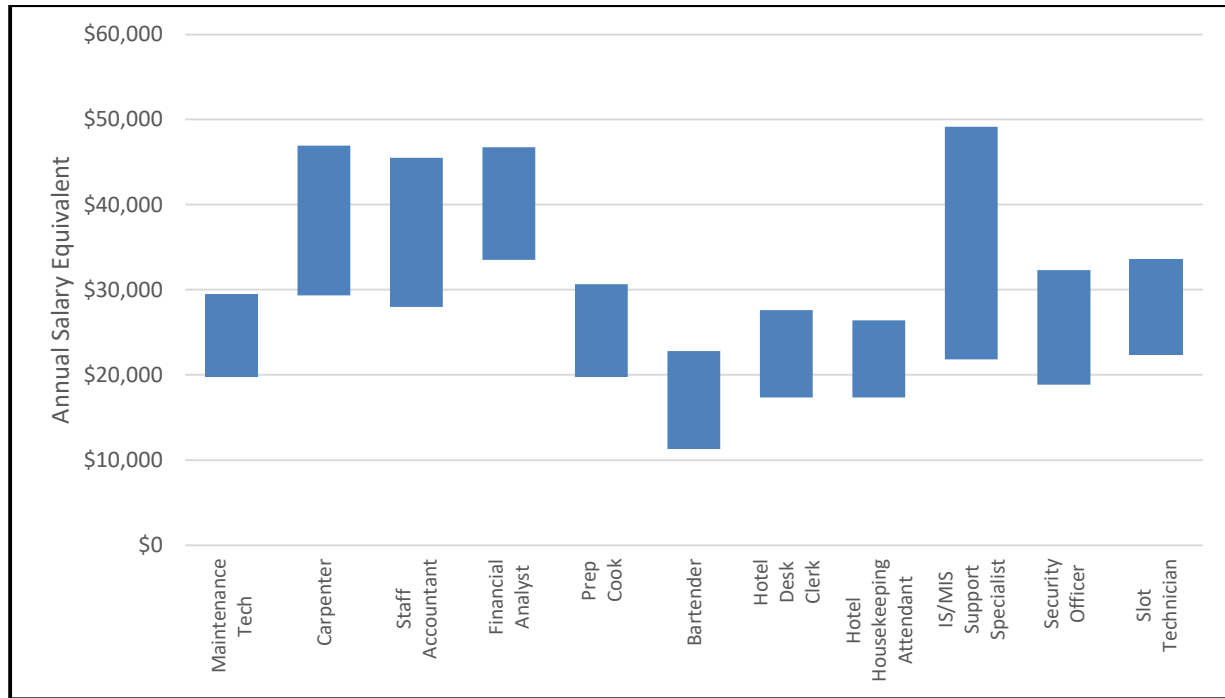


Source: Iowa Gaming Association, US Bureau of Labor Statistics

The casino salary midpoints for facilities/maintenance supervisors and for accounting supervisors are only about 70% of the statewide averages for these occupations. The casino salary midpoints for hotel front-office supervisors and for housekeeper supervisors are about 85% of the state average salaries for similar jobs.

Figure 75 presents the wage and equivalent salary ranges for 11 casino front-line worker occupations. Included among these occupations are maintenance technician, staff accountant, prep cook, bartender, and hotel housekeeping attendant.

Figure 75: Casino salary equivalent ranges for front-line jobs, 2018

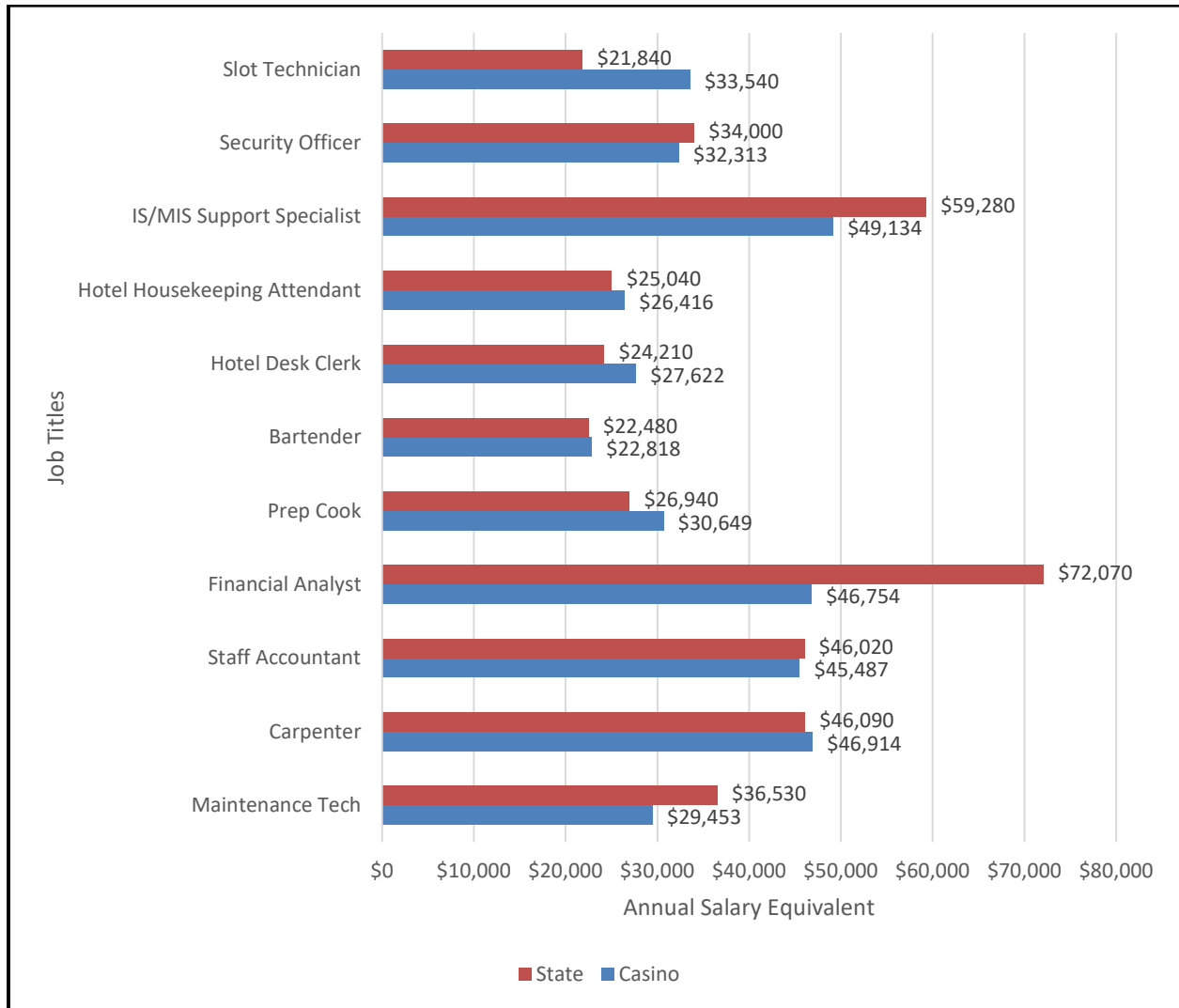


Source: Iowa Gaming Association

The pay range for most of these jobs starts in the high teens to high twenties, but actual pay is often considerably less because many of these jobs are part-time. Pay for most of these jobs tops out in the range from \$40,000 to \$65,000. The highest pay is earned by financial and technology jobs, which likely require a college degree. Bartenders have the distinction of the lowest pay, ranging from \$11,315 to \$34,320 per year for full-time positions.

Figure 13 presents comparisons between the midpoints of salary equivalents for the front-line casino jobs with similar jobs statewide. For most of the jobs, average pay at the casinos is comparable to similar jobs throughout the state's economy. The biggest percentage exception is for slot technicians, which is compared to the pay earned by coin, vending, and amusement machine servicers and repairers. Also, financial analysts in the overall economy earn considerably more than workers with similar titles at casinos.

Figure 76: Comparison of casino midpoints with average salary equivalents statewide for front-line workers, 2018



Source: Iowa Gaming Association, US Bureau of Labor Statistics

In summary, casinos appear to pay their top managers somewhat higher salaries than other companies in the state. On the other hand, the pay levels of middle managers and supervisors seem to be slightly lower than for comparable jobs at other Iowa businesses. The pay for front-line workers is about the same at casinos and at other businesses in the state.

E. Employee Benefits

The Spectrum survey sent to each state-regulated casino asked six questions related to the benefits they offer to employees. Two of the questions asked for separate responses regarding whether casinos offer health care coverage to full-time and part-time employees. The next two questions asked if the casinos make pension contributions to full-time and part-time employees. The final two questions requested information on other types of employee benefits offered by the casinos. Sixteen of the 19

casinos provided responses to these questions. Due to the coronavirus pandemic, casinos were asked to provide responses for 2019 rather than 2020.

To provide perspective, the survey results are compared to the Iowa Workforce Development (“IWD”) Employer Benefit Analysis (released 2019). This report provides information on 28 types of benefits divided into the following three groups:

- Insurance Benefits
- Paid Leave
- Other Benefits

The report provides information on the share of surveyed businesses that provide each of the benefits. The responses are provided separately for full-time and part-time employees. In addition, the report provides separate information for 17 sectors of the economy. The responses for the casinos are compared to those for the following two sectors from the IWD report:

- Accommodation and Food Services
- Arts, Entertainment, and Recreation

The comparisons for full-time employees are presented in Figure 77. Figure 78 presents the comparisons for part-time employees.

Most full-time casino employees are offered medical, dental, and vision insurance. A total of 87.5% of casinos offer medical coverage for their full-time employees. This is a slightly higher share than businesses in the two comparison sectors. Also, 81.3% of casinos offer dental and vision insurance to full-time employees. The casinos are much more likely to provide dental and vision insurance than are businesses in the accommodation and food services and the arts, entertainment, and recreation sectors.

The other benefits most offered by casinos to full-time employees include 401(k) retirement plans (87.5%), term life insurance (62.5%), short-term disability insurance (56.3%), long-term disability insurance (50.0%), and flexible spending accounts for health care (50.0%).

It appears from the survey responses that less than half of the casinos offer paid vacations (6.3%), paid sick leave (12.5%), or paid holidays (18.8%). Rather, 43.8% of the casinos offer all-purpose paid time off.

Among other categories of benefits, the most common is access to an employee assistance program (43.8%). Benefits offered to full-time employees by a small number of casinos include education assistance, wellness programs or subsidized gym memberships, employee discounts, and access to telemedicine services.

**Figure 77: Summary of benefits offered to full-time employees
by casinos and comparable businesses, 2019**

Employee Benefits	Accommodation & Food Services	Arts, Entertainment & Recreation	Casinos
Insurance Coverage			
Accidental Death & Dismemberment	13.5%	40.8%	12.5%
Dental Coverage	40.1%	59.2%	81.3%
Life Insurance	18.0%	45.6%	62.5%
Long-term Disability	10.1%	33.0%	50.0%
Medical Insurance	69.1%	83.5%	87.5%
Prescription Drug Coverage	35.5%	60.2%	N/A
Short-term Disability	9.5%	30.1%	56.3%
Vision Coverage	24.5%	39.8%	81.3%
Paid Leave			
Bereavement/Funeral Leave	27.5%	58.3%	6.3%
Maternity/Paternity Leave	11.0%	33.0%	0.0%
Paid Holidays	29.4%	60.3%	18.8%
Paid Sick Leave	18.7%	39.8%	12.5%
Paid Vacation	55.0%	54.4%	6.3%
Paid-time-off	34.9%	58.3%	43.8%
Personal Days/Floating Holidays	12.2%	30.1%	N/A
Training Leave	6.7%	11.7%	N/A
Other Benefits			
Bonuses	53.5%	50.5%	N/A
Child Care Assistance	0.6%	6.8%	N/A
Company Vehicle/Mileage	14.7%	35.9%	N/A
Employee Assistance Program	3.7%	17.5%	43.8%
Flex Spending Account	7.6%	26.2%	50.0%
Profit Sharing/Stock Options	6.1%	5.8%	N/A
Relocation/Moving Expense	2.4%	9.7%	N/A
Retirement Package/ 401(k)	15.3%	22.3%	87.5%
Shift Differential Pay	4.9%	7.8%	N/A
Tuition Assistance	4.6%	7.8%	31.3%
Uniform Allowance	22.3%	24.3%	N/A
Wellness Program	4.0%	15.6%	12.5%

Source: Iowa Workforce Development, Iowa Casino Survey

Figure 78: Summary of benefits offered to part-time employees by casinos and comparable businesses, 2019

Employee Benefits	Accommodation & Food Services	Arts, Entertainment & Recreation	Casinos
Insurance Coverage			
Accidental Death & Dismemberment	0.6%	5.8%	0.0%
Dental Coverage	4.0%	3.9%	18.8%
Life Insurance	1.2%	5.8%	6.3%
Long-term Disability	0.3%	1.9%	0.0%
Medical Insurance	5.8%	4.9%	12.5%
Prescription Drug Coverage	3.1%	3.9%	N/A
Short-term Disability	0.9%	2.9%	0.0%
Vision Coverage	1.5%	2.9%	12.5%
Paid Leave			
Bereavement/Funeral Leave	4.6%	6.8%	0.0%
Maternity/Paternity Leave	0.9%	2.9%	0.0%
Paid Holidays	3.1%	5.8%	12.5%
Paid Sick Leave	1.8%	3.9%	0.0%
Paid Vacation	6.7%	4.9%	0.0%
Paid-time-off	4.9%	8.7%	25.0%
Personal Days/Floating Holidays	1.2%	3.9%	0.0%
Training Leave	0.6%	0.0%	N/A
Other Benefits			
Bonuses	9.8%	4.9%	N/A
Child Care Assistance	0.6%	2.9%	N/A
Company Vehicle/Mileage	0.9%	5.8%	N/A
Employee Assistance Program	0.9%	7.8%	25.0%
Flex Spending Account	1.5%	3.9%	0.0%
Profit Sharing/Stock Options	1.2%	2.9%	N/A
Relocation/Moving Expense	0.0%	0.0%	N/A
Retirement Package/ 401(k)	3.1%	4.9%	62.5%
Shift Differential Pay	1.2%	1.9%	N/A
Tuition Assistance	1.8%	1.0%	6.3%
Uniform Allowance	5.5%	3.9%	N/A
Wellness Program	1.5%	4.9%	0.0%

Source: Iowa Workforce Development, Iowa Casino Survey

Casinos provide limited benefits to part-time employees, but this is no different than similar companies in other sectors of the economy. In fact, casinos seem to be more generous in the provision of medical insurance coverages than do businesses in the accommodation and food services sector and in the arts, entertainment, and recreation sector. While 12.5% of casinos provide basic medical insurance,

only 5.8% of accommodation and food services businesses and 4.9% of arts, entertainment, and recreation enterprises provide medical insurance to their part-time employees.

Finally, the casino survey seems to indicate that more than half the casinos provide a retirement benefit option to part-time workers. This is much more generous than other similar businesses. The type of retirement option available is a 401(k) plan. What is not clear is the extent to which the casinos match employee contributions.

5. Effects on Communities of Problem Gambling

Wherever gambling exists – legal or illegal – there will be problem gamblers. And problem gambling can affect more than the people with the problem. It can affect families, friends, neighbors, and employers. It can even have an effect on the whole community, as examples in this chapter will show. Some gamblers with addictions commit crimes to feed their habit or in an attempt to cover up their habit.

This chapter addresses the following questions:

- Is the percentage of problem or pathological gamblers in a community in which a casino is located higher, lower, or the same as in a similar community in which a casino is not located?
- Does the presence of a gambling treatment program in a community in which a casino is located impact the percentage of problem or pathological gamblers in the community?
- Does the number of problem or pathological gamblers in a community have an economic and criminal impact on the community?
- How does the presence of a casino in a community impact the level of illegal gambling and gambling by minors in that community?

A. Incidences of Problem Gambling

Spectrum analyzed data provided by the Iowa Racing and Gaming Commission and Iowa Problem Gambling Services (“IPGS”), a division within the Iowa Department of Public Health, to help determine whether jurisdictions with casinos have a higher rate of problem gamblers than do those jurisdictions without casinos.

Clearly, the universe of problem gamblers in Iowa is much greater than the numbers Spectrum was provided. Eric Preuss, program manager for IPGS, told Spectrum that only a small fraction of problem gamblers ever seek help through IPGS and that a self-excluded gambler is not necessarily a problem gambler. And there are problem gamblers who seek counseling from therapists not associated with State programs.

The IRGC provided Spectrum with a spreadsheet that contained the city where self-excluded gamblers resided. There were more than 5,000 self-exclusions from 2015 to 2019. IPGS provided us with data that identified the county where problem gamblers who sought treatment resided. Preuss said he would like to analyze the list of self-excluded gamblers but has been unsuccessful thus far in obtaining it from the IRGC. He would want to see how many self-excluded gamblers opted to receive treatment through his agency, noting that a self-excluded gambler is not required to be diagnosed to see if he or she fits the criteria for a problem gambler.

A prevalence study done for the State in 2018 estimated that more than 18,000 Iowans are problem gamblers and that another 315,000 are at risk of falling into that category.²⁶ In FY 2019, IPGS reported that 2,152 Iowans sought help from IPGS to address their gambling problems.

Spectrum's analysis shows that Iowans who sought treatment from the state and those who self-excluded themselves from casinos came primarily from areas where casinos were located. Preuss cautioned that correlation does not mean causation. The 2018 prevalence study did not break down by county or municipality the residence of those who participated in its survey. Preuss said that, to his knowledge, no such study has ever been undertaken in Iowa to determine the residence of problem gamblers.

Notably, while self-exclusion is widely utilized throughout the United States, it is an imperfect system. Experts recently informed the National Council of Legislators from Gaming States that porous state borders are problematic in limiting the effectiveness of such programs. One such expert, Tammi Barlow, Director of Corporate Social Responsibility at Rush Street Interactive, noted:

- There is currently no multi-jurisdictional or national database to ensure anyone who self-excludes from gambling activity will be protected when they travel from one state to another in the United States.
- The current approach to self-exclusion is outdated, and legislators and regulators should work to modernize the current self-exclusion process to prevent a person who identifies as having a gambling problem from crossing from one state to another and continuing to gamble.²⁷

B. Impacts of State's Self-Exclusion Program

Iowa's self-exclusion program allows gamblers to exclude themselves for life or for five years from licensed gaming establishments. If an individual enrolled on or before June 30, 2017, and has been in the program for five years or more, the enrollee can request to be removed from the program, a move that would allow the gambler to again legally frequent a casino.²⁸

The self-excluder is required to sign a document acknowledging that a licensed establishment is required to bar the person from entering its premises and that a self-excluded gambler can be arrested for trespassing if he or she enters the floor of a gaming facility. Additionally, the person forfeits the right to any and all winnings. And licensed entities are required to remove individuals in the program from their marketing lists and deactivate any slot/player club memberships or online accounts used for sports betting or fantasy sports betting.²⁹

²⁶ "Prevalence of Gambling: Gambling Attitudes and Behaviors: A 2018 Survey of Adult Iowans," University of Northern Iowa Center for Social and Behavioral Research, prepared for the Iowa Department of Public Health, July 2019, p. 12. https://www.sieda.org/wp-content/uploads/2019/09/2018_A_Prevalence_07-08-2019.pdf

²⁷ Presentation at Responsible Gaming Committee, NCLGS Winter Meeting, December 13, 2021

²⁸ Iowa Racing and Gaming Commission "Voluntary Self Exclusion Program." <https://irgc.iowa.gov/self-exclusion-program> (accessed October 2, 2021)

²⁹ Ibid.

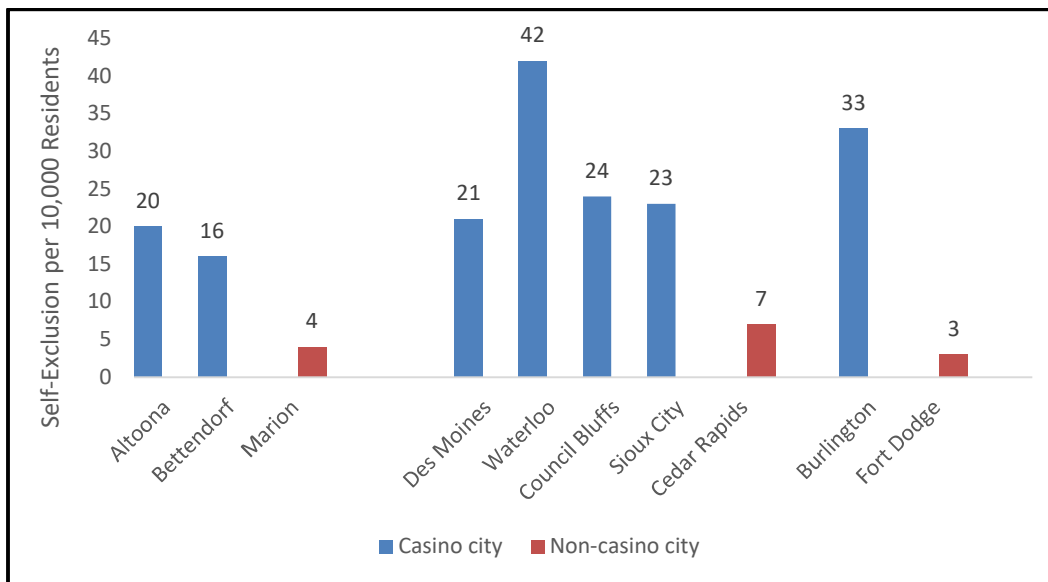
The data provided listed the residences of 5,000 gamblers who self-excluded from 2015 through 2019. Spectrum’s analysis marks the first time that the residences of those who self-excluded themselves was reviewed, according to Michael Poundstone, the director of the self-exclusion program. We compared a number of casino municipalities with municipalities that did not have casinos. The towns were demographically similar and, in most cases, the populations were as well.

As we previously indicated, a self-excluder is not necessarily a problem gambler. There is no requirement that they seek treatment in order to exclude themselves. But Iowans who do so have made the decision that it is clearly not in their best interest to continue gambling at casinos and that such activity has adversely affected them.

The self-exclusion rate per 10,000 population was significantly higher in the casino towns. Burlington, for example, had a rate of 33 per 10,000 population, which was 10 times that of its comparison city, Fort Dodge. Sioux City had a rate triple that of Cedar Rapids. Even so, the self-exclusion rate for Waterloo, the highest in the state, equates to 0.44 percent of the population

Nearly one-third of the self-excluders did not reside in Iowa. Interestingly, the city with the highest number of self-excluders was Omaha, NE, a metropolitan area on the Missouri River that borders Iowa. Three casinos in Council Bluffs are within an easy drive of Omaha. Omaha had 543 self-excluders; the city that came in second was Des Moines with 449. Des Moines does not have a casino, but Prairie Meadows, the state’s largest casino, is located in Altoona, a suburb of Des Moines.

Figure 79: Self-exclusion rate per 10,000 residents, casino cities vs. non-casino cities, 2014-2019



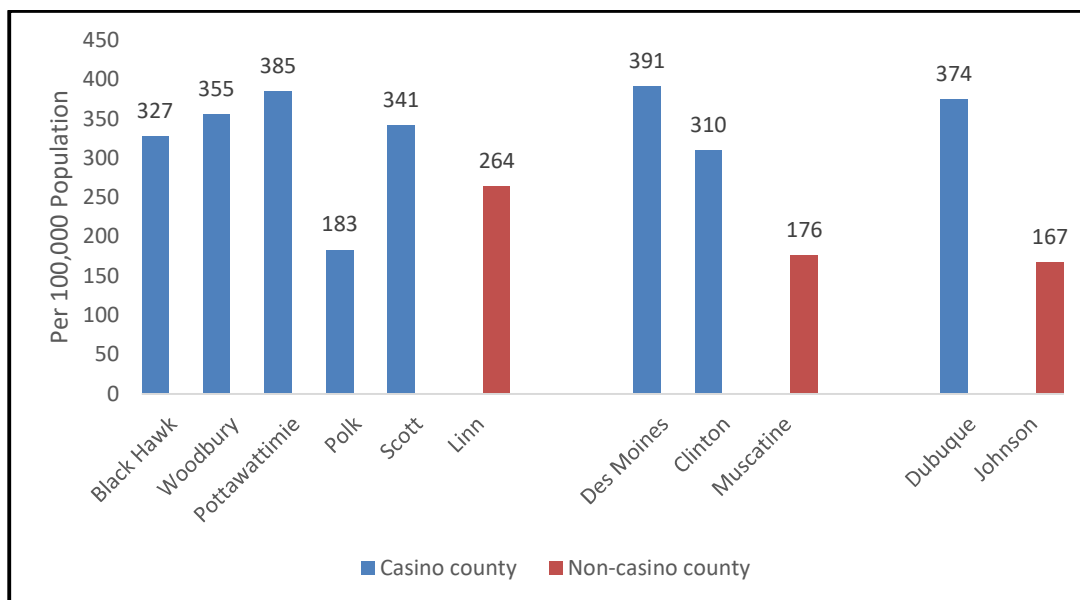
Source: Iowa Racing and Gaming Commission. Note: Prairie Meadows casino is located adjacent to Des Moines.

The Iowa Department of Public Health defines problem gambling as “participation in any form of gambling activity that creates one or more negative consequences to the gambler, their family or loved

ones, employer or community. If unchecked, can lead to a Gambling Disorder.” For most people, gambling is recreational; however, for some people, gambling leads to serious problems.³⁰

We received an IPGS report that broke out by county the number of “contacts” with the agency. Not all of those contacts resulted in people receiving counseling. The data covered the years 2015 through 2019. Similar to the self-exclusion analysis, the data show that the majority of the contacts with IPGS came from counties with casinos. We matched the casino counties and compared with comparison counties that have no casinos.

Figure 80: Contacts with Iowa Problem Gambling Services, 2015-2019, casino counties vs. non-casino counties, per 100,000 population



Source: Iowa Problem Gambling Services

As the chart above shows, the casino counties, for the most part, had significantly higher numbers of contacts than did non-casino counties. This comports with findings from our 2014 study in which we noted 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 client-treatment count. 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.³¹ Even so, Des Moines, with the highest rate for contacts, equates to just 0.004% of the city’s population.

We also analyzed annual IPGS reports from 2015 through 2019. The reports list the number of Iowans who received counseling for problem gambling in the 19 service areas operating during that

³⁰ Iowa Problem Gambling Services FY 2019 annual report, p. 3. <https://www.legis.iowa.gov/docs/publications/DF/1139805.pdf>

³¹ Spectrum Gaming Group and Strategic Economics Group, “The Socioeconomic Impact of Gambling on Iowans, 2014,” p. 249, May 23, 2014. https://www.spectrumgaming.com/wp-content/uploads/2018/04/studysocioeconomicimpact2014_0.pdf

period. The number of service areas has since been reduced to 11. Our analysis again showed that service areas with casinos had far greater numbers of problem gamblers who sought assistance than those without casinos. For example, Muscatine and Scott counties consist of one region. There are two casinos in Scott County – Rhythm City in Davenport and Isle Bettendorf in Bettendorf. Scott and Muscatine counties account for 25% of the statewide caseload but only 7% of the state’s population. Jasper and Marion counties, which do not have casinos, account for 2% of the state’s population, and only 0.5% of the caseload. The state’s largest casino, Prairie Meadows, is in Polk County. Its service region accounts for 11% of the population and 17% of the cases. Nearly 400 people in Polk County sought treatment from 2015 to 2019.

C. Impacts of Presence of a Gambling Treatment Program

There are no available data to determine whether the presence of a gambling treatment program in a community in which a casino is located impacts the percentage of problem gamblers or pathological gamblers. Spectrum spoke to a number of gaming treatment counselors who argued that the presence of a gambling treatment program in a community in which a casino is located does impact the percentage of problem or pathological gamblers in the community in a beneficial way.

Jordan Dunn, clinical director of Pathways Behavioral Services in Waterloo, one of the state-funded problem gambling treatment centers, said in an interview on September 30, 2021, that he believes it reduces the number. The key, though, Dunn said, is making gamblers aware that there are programs to help them if they develop a problem. Sometimes, the casino will make them aware of it. “The more the program is publicized, the more likely a problem gambler might seek help, although we know that only a small percentage of problem gamblers ever seek help,” he said.

Jerry Bauerkemper, a consultant with IPGS, said the presence of a treatment program will result in some problem gamblers seeking assistance. It does not, though, impact the number of problem gamblers. The easy access to a program may encourage the problem gambler to seek assistance, or it may encourage a family member to convince the problem gambler to seek assistance. There is no way of knowing how many problem gamblers actually are in an area where a treatment program exists as only a small fraction of problem gamblers ever seek help, he noted.

Lorelle Mueting, the prevention director at Heartland Family Service in Council Bluffs, said the presence of a treatment center could significantly impact the problem gambling issue in a positive way if funds were spent to make problem gamblers aware that they can receive treatment. The problem, she said in a November 4, 2021, interview, was that there was very little money available from the State to make people aware of the treatment programs. “This is a hidden addiction,” she said. “Most problem gamblers do not seek treatment because they believe they do not have a problem. Who knows how many out there would have sought treatment if they knew a program was out there to help them?”

Lana Emrys, a gambling counselor with Community and Family Resources based in Ft. Dodge, provides gambling treatment for residents in eight counties. She said the presence of a treatment program can have positive impacts on lowering the percentage of problem gamblers. The issue, she said (echoing Mueting), is a lack of awareness of the presence of treatment programs. She said problem gamblers who seek help tend to do well in overcoming their gambling addiction. “Many of my clients go on to have

successful lives, and if they do relapse they come back for treatment to stop gambling,” she noted. “There have been significant cuts that prevent us from doing what needs to be done. This issue is not getting the attention that it deserves.”

D. Problem Gambling Impacts on the Community

During the course of our research, we came across horrific examples of problem gamblers in Iowa undertaking conduct that had devastating consequences on their communities. For most people, gambling is recreational; however, for some, gambling leads to serious problems. Problem gambling is defined as participation in any form of gambling activity that creates one or more negative consequences to the gambler, their family or loved ones, employer or community.³²

A 2005 University of Northern Iowa report quoted a gaming treatment counselor who related that many of her clients suffer severe depression and suicidal ideation:³³

“Nothing is worse for a therapist than murder or suicide of a client and their spouse. My client, who failed outpatient gambling treatment services three times (no funding for intense residential-type services was available), ended up killing his wife, then himself, in front of their three children. All that was ever said publicly was that he was suffering serious financial difficulties.

“So often I have worked with clients who identify crimes such as company embezzlement or forgery of a spouse’s signature that never gets reported. When it does get reported, the truth about the problem gambling is not revealed.”³⁴

In July, a former director of the Omaha Sports Academy was charged with embezzling nearly \$400,000, and much of the money was allegedly used to gamble at Iowa casinos, according to prosecutors.³⁵ The sports academy is a popular youth basketball organization that consists of more than 600 local teams.³⁶

Muetting, the prevention director at Heartland Family Service in Council Bluffs, noted that Omaha is just across the river from Council Bluffs. She oversees the gambling treatment program in Council Bluffs. “There clearly will be a significant impact on the operations of the sports academy,” she noted. “We often see instances of embezzlement committed by problem gamblers. The problem gambler often has relationship issues with his or her children and the partner.”

³² Iowa Problem Gambling Services, annual report, 2020, p.5.

<http://publications.iowa.gov/38628/1/SFY%202020%20Problem%20Gambling%20Services%20Annual%20Report%20%28Final%29.pdf>

³³ “Socioeconomic Impact of Gambling on Iowans,” University of Northern Iowa, prepared for Iowa Legislative Council, p. 68, June 2005. <https://www.legis.iowa.gov/docs/publications/SD/19979.pdf>

³⁴ Ibid.

³⁵ Alai Conley, “Omaha Sports Academy founder charged in embezzlement of almost \$400,000,” *Omaha World Herald*, August 19, 2021. https://omaha.com/news/local/crime-and-courts/omaha-sports-academy-founder-charged-in-embezzlement-of-almost-400-000/article_dadc3614-e026-11eb-acb6-574063764255.html#:~:text=A%20founder%20of%20the%20Omaha,to%2040%20years%20in%20prison

³⁶ Ibid.

One embezzlement case that received national publicity involved a problem gambler who embezzled \$4.1 million in 2013 to gamble at Ameristar Casino in Council Bluffs. The case resulted in a 54-year-old woman being sentenced to 14 to 20 years in prison for embezzling the money from her employer, Omaha-based Colombo Candy & Tobacco. She, in turn, has sued Ameristar for failing to recognize that she was a problem gambler. Her employer has also sued Ameristar, making the same argument. Carolyn Richardson was the controller at Colombo when she embezzled the money.³⁷ The embezzlement has taken its toll on Colombo. The company had to lay off 30 employees, reducing its work force by more than half.³⁸

Mueting noted that Omaha and Council Bluffs are interconnected. “It is like going from one town into another,” she said. “A number of Omaha residents are receiving treatment from our treatment center in Nebraska. The one in Council Bluffs can only treat Iowa residents, she added. Another impact of problem gambling is substance abuse, according to Mueting. It is difficult to say whether the gambling issue caused substance abuse or whether substance abuse caused the gambling problem, she noted, but many of the clients suffer from both issues.

Community Opportunities operates a treatment program in five rural counties – Guthrie, Audubon, Carroll, Greene and Sac. Christie Jenkins told us in an interview on November 4, 2021, that there are no current cases, but she noted that does not mean that there are no problem gamblers in those five counties. She said there has been little, if any, money for outreach and attributed that fact to the lack of clients. “Anecdotally, we know people are suffering from the impacts caused by problem gambling. But getting them in for help is a real problem.”

Christian Raudabaugh of Prelude Behavioral Services in Des Moines said she has had clients who have resorted to fraud to feed their gambling habits. Some clients have had to file for bankruptcy, and out-of-control gambling also has led to divorce, she added.

Lana Emrys, counselor with Community and Family Resources based in Fort Dodge, said that problem gambling often results in “devastating impacts” to the community. She said she had one client who stole from her husband’s business to gamble. The business went bankrupt, and the gambling resulted in a divorce. She had another client who lost his job and became homeless after he gambled at a casino. He was a truck driver who could not resist the temptation to stop and gamble as he drove by a casino in Iowa.

Tom Coates, executive director of Consumer Credit of Des Moines, said his agency is quite familiar with how gambling addiction can adversely impact a community. He said he will always remember a pathological gambler from the Des Moines area who sought counseling from his agency. The client was deeply distressed, unable to pay his bills and saw no way of getting out of debt. “A day after he came to

³⁷ Todd Cooper, “\$4.1 Million embezzlement: Big theft brings big prison term for ex-accountant from Gretna,” *Omaha World-Herald*, January 1, 2020. https://omaha.com/news/4-1m-embezzlement-big-theft-brings-big-prison-term-for-ex-accountant-from-gretna/article_0e2dce83-d747-5f52-83fc-d564a08429cf.html

³⁸ Ibid.

us he ended his life in a motel room,” Coates said, noting the story was front-page news in the *Des Moines Register*.³⁹

The Iowa Department of Public Health funded a survey undertaken in 2018 of *Gambling Attitudes and Behaviors* of adult Iowans. More than 1,800 adult Iowans were surveyed at random by the University of Northern Iowa. The report concluded that slightly less than 1% of adult Iowans, or 18,504, met the criteria for a problem gambler during the past 12 months. But another 13% – more than 300,000 Iowans – were “at-risk” of becoming problem gamblers, according to the report.⁴⁰

The vast majority of problem gamblers are not receiving treatment for their gambling addiction. In FY 2019, only 488 problem gamblers sought treatment from Iowa Problem Gambling Services.⁴¹

People with a gambling disorder are unable to control their gambling, are preoccupied with gambling, have lost a job or a relationship due to gambling, have lied about their gambling activity and or feel the need to gamble with increasing amounts of money to satisfy their gambling habit.⁴²

Jordan Dunn, clinical director of Pathways Behavior Services in Waterloo, told Spectrum in an interview September 30, 2021, that some of his “problem gambling” clients have resorted to embezzlement to gamble, a decision that sometimes results in criminal charges being brought. The gambling disorder often leads to marital problems and divorce, he added.

In its most recent annual report, IPGS said “gambling disorder is a serious public health issue demanding a comprehensive solution involving not only federal programs, but also efforts on the part of states, counties, cities, communities, families, civic groups, the gambling industry, the nonprofit sector, professions such as medicine, law and finance, and other organizations.”

E. Extent of Illegal Gambling

The Iowa Gaming Association says it knows that illegal gambling exists, but it does not have “definitive data” on the subject. Association President Wes Ehrecke testified before the State Legislature that it was important that the State crack down on illegal gambling, noting that the State’s regulatory structure ensures the integrity of gaming in the state. He used the anecdotal example of a person who told him he had won \$1,000 on an illegal site and did not get paid. The gambler has no one to complain to. Said Ehrecke: “I noted that wouldn’t happen in a legalized environment.”⁴³

³⁹ Interview, Oct. 1, 2021

⁴⁰ “Gambling Attitudes and Behaviors A 2013 Survey of Adult Iowans,” University of Northern Iowa.

https://csbr.uni.edu/sites/default/files/2013_gambling_prevalence_09-16-2014_final.pdf

⁴¹ “Iowans Receiving Problem Gambling Treatment by Service Area,” Iowa Gambling Treatment Program.

<https://idph.iowa.gov/Portals/1/userfiles/83/Reports%20and%20Studies/SFY2019%20Problem%20Gambling%20Persons%20Receiving%20Treatment%20By%20Service%20Area.pdf> (accessed October 4, 2021)

⁴² Ibid.

⁴³ Interview with Wes Ehrecke, President of Iowa Gaming Association, October 5, 2021.

Spectrum reviewed a number of newspaper articles that described instances of illegal gambling; we note, however, that the instances we could find are relatively old. Notable examples:

- In the Clinton County town of Camanche, police broke up a high-stakes poker game in 2014 and filed felony charges against seven lowans for operating a high-stakes illegal weekly poker game.⁴⁴
- In 2005, two men were sentenced to prison for operating an illegal gambling ring in Cedar Rapids. The city is in Linn County, a metropolitan area without a casino. Four other defendants were placed on probation. The illegal gambling ring may have been operating for more than 10 years, according to prosecutors who indicated that gaming receipts may have been as high as \$500,000 a year.⁴⁵
- More than a dozen residents of Storm Lake were arrested in 2009 for their role in an illegal gambling operation. The arrests followed the search of a Storm Lake home that resulted in the seizure of gambling records, items used for gambling, a safe, over \$10,000 cash and methamphetamine packaged for sale.⁴⁶
- And in Indianola, law enforcement broke up a sports betting and money laundering operation in 2003. The city is in Warren County, where no casinos exist. Eight people were arrested, including the owner of a car dealership.⁴⁷

A public purpose for many states in legalizing casino gambling – as well as sports betting, distributed gaming,⁴⁸ online casino gaming, and other forms of gambling – was to eliminate or at least materially reduce the illegal market for those games, breed public confidence in this form of entertainment, and generate fiscal receipts through the collection of gaming taxes. Of course, the illegal market for such games continues to some extent in many states, but it is unknown – and unknowable – whether the presence of a legal casino fuels illegal casino activity.

⁴⁴ Rachel Fredericksen, “Seven charged for illegal gambling,” *Clinton Herald*, November 18, 2014.

https://www.clintonherald.com/news/crime_courts/seven-charged-for-illegal-gambling/article_932cbe90-2a8f-5569-bd7c-58027d79b34c.html

⁴⁵ “Two men sentenced to prison for illegal gambling,” *Sioux City Journal*, December 27, 2005.

https://siouxcityjournal.com/news/state-and-regional/article_eb75188f-b2b0-543a-b3bd-e2c550ecc557.html

⁴⁶ “Storm Lake arrest 13 for illegal gambling,” Radio Iowa, July 22, 2009.

<https://www.radioiowa.com/2009/07/22/storm-lake-police-arrest-13-for-illegal-gambling>

⁴⁷ “Gambling ring bust includes several prominent people from Indianola,” Radio Iowa, April 4, 2003.

<https://www.radioiowa.com/2003/04/04/gambling-ring-bust-includes-several-prominent-people-from-indianola/#:~:text=A%20total%20of%20eight%20people,auto%20repair%20shop%20in%20Indianola>

⁴⁸ Distributed gaming involves the placement of a limited number of electronic gaming devices in non-casino retail locations such as bars, taverns, cafes and other authorized location. Illinois offers the most successful example of distributed gaming.

6. Health-Related Issues in Casino vs. Non-Casino Communities

There are many ways to attempt to measure a community's health, and it is difficult to determine how – or if – a casino plays a role in any of these. Health includes illness, addiction, and mental health, and all of these can be affected by a wide range of factors. As noted throughout this report, however, Spectrum's task was to compare differences in casino vs. non-casino communities, and not whether the presence of a casino accounts for any such differences.

This chapter addresses the following questions:

- Is the average age of death in casino communities higher, lower, or the same as in similar communities that do not have a casino?
- Do people living in a community in which a casino is located have more, fewer, or the same number of health problems as those living in a similar community in which a casino is not located?
- Is the suicide rate in a community in which a casino is located higher, lower, or the same as in a similar community in which a casino is not located?
- Is the percentage of persons with addictive disorders, including drug and alcohol abuse, and mental illness, including depression, in a community in which a casino is located higher, lower, or the same as in a similar community in which a casino is not located?

Our analysis, for the most part, found that Iowans who reside in casino communities have more health-related issues than those who reside in communities without casinos.

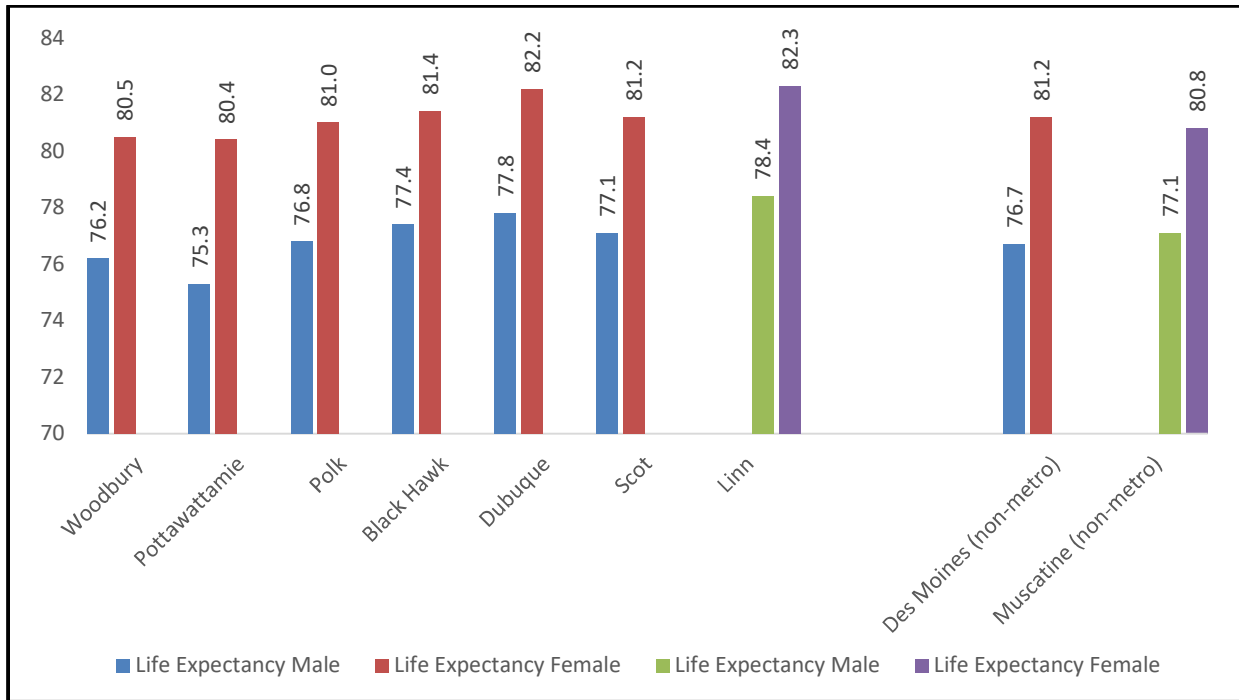
A. Life Expectancy

We reviewed life expectancy on a county level for 2019.⁴⁹ We analyzed data for five metropolitan casino counties – Woodbury, Pottawattamie, Polk, Dubuque and Scott – and compared life expectancy in those counties with that of Linn County, the only metropolitan county in Iowa without a casino. Linn County had a life expectancy of 78.4 for males, and 82.3 for females. Those numbers were higher when compared with the casino counties, although not appreciably. We also compared a non-metropolitan casino county, Des Moines, with a non-metropolitan county without a casino, Muscatine. In that comparison, Muscatine, had a slightly higher life expectancy for males and slightly lower life expectancy for females.⁵⁰

⁴⁹ World Life Expectancy, Iowa Health Rankings. <https://www.worldlifeexpectancy.com/usa/iowa> (accessed September 15, 2021)

⁵⁰ Ibid.

Figure 81: Life expectancy, casino counties vs. non-casino counties, 2019



Source: World Life Expectancy, Iowa Health Rankings

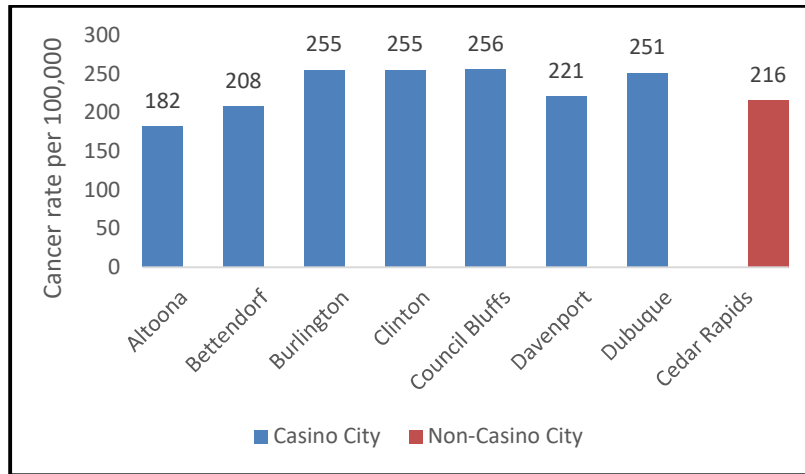
B. Cancer Rates/General Health

The most recent annual report from the Iowa Bureau of Health Statistics computed death rates by county for people who contracted cancer, major cardiovascular or heart diseases, and chronic lower respiratory diseases for 2019. Those three categories were the leading causes of death in Iowa. We compared five metropolitan casino counties with Linn County, the one metro-county in Iowa, without a casino. The casino counties we reviewed included Black Hawk, Polk, Pottawattamie, Scott and Sioux. Linn County had lower cancer rates than four of the five counties with casinos.⁵¹

We also reviewed data on a citywide basis. The chart below shows that Cedar Rapids, a metropolitan city without a casino, had cancer rates lower than five of the seven casino comparison cities. Only Altoona and Bettendorf had lower rates.

⁵¹ Spectrum analysis of 2019 Vital Statistics of Iowa report.

Figure 82: Cancer rates per 100,000 residents for casinos cities vs. non-casino cities, 2019



Source: County Health Rankings, Building a Culture of Health, County by County, University of Wisconsin

The Iowa Bureau of Health Statistics’ annual report noted that the use of small numbers “are generally considered unstable for use in most statistical computations.” Therefore, we chose not to review rates for casinos in rural areas with small populations.

We analyzed data for a non-metropolitan county, Des Moines, and compared it with Muscatine County, a non-metropolitan county without a casino. Des Moines County had higher rates for heart and lung disease.

Our analysis was based on a review of data published by The County Health Rankings, a program of the University of Wisconsin Population Health Institute. The rankings measure the health of nearly all counties in the nation and ranks them within states. The report compiled its data using county-level measures from a variety of national and state data sources.⁵² The report ranks counties in four categories: least healthy, lower middle range, higher middle range and most healthy. It measures health outcomes and health factors. The report examines high school graduation rates, access to healthy foods, and rates of smoking, obesity, and teen births.

It reported that the metropolitan casino counties of Pottawattamie and Woodbury were among the least healthy counties in Iowa. It found that Black Hawk and Scott counties were in the lower middle range. Linn County, the one metropolitan county without a casino, was found to be in the upper middle range.

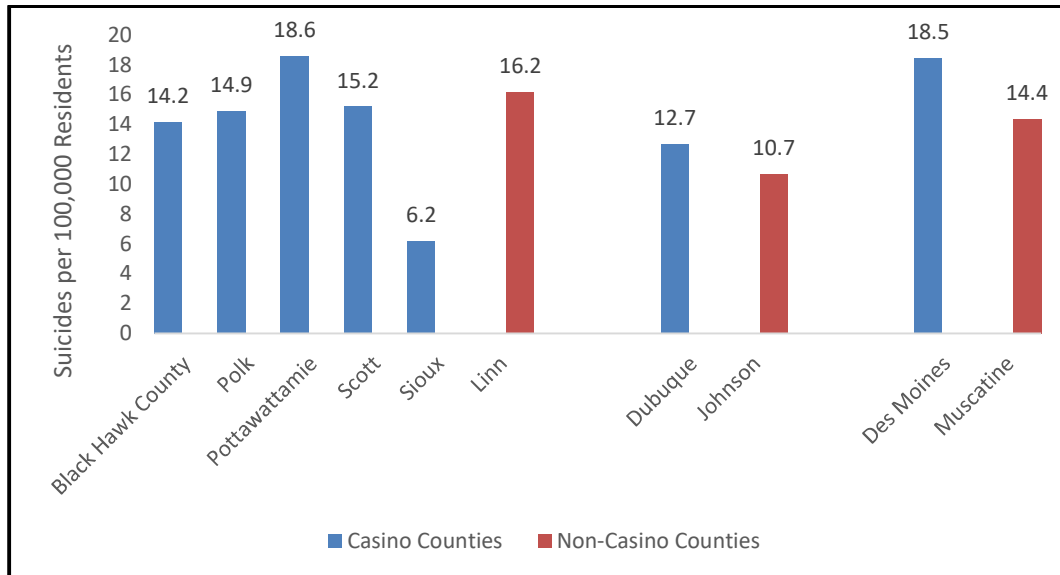
We compared the casino county of Dubuque with the non-casino county of Johnson. Both were reported to be among the healthiest counties in the state.

⁵² County Health Rankings, Building a Culture of Health, County by County, University of Wisconsin Population Health Institute. <https://www.countyhealthrankings.org/> (accessed September 20, 2021)

C. Suicide

We examined suicide rates for the years 2014-2019 per 100,000 population for selected counties with casinos and compared them with counties without casinos. The data was provided (after a public records request) by the Iowa Department of Public Health, Division of Behavioral Health. We reviewed data for five metropolitan counties with casinos and compared them with Linn County, the one metropolitan county without a casino. Four of the counties with casinos had lower rates than Linn.

Figure 83: Suicide rates per 100,000 residents, casino counties vs. non-casino counties, 2014-2019



Source: Iowa Department of Public Health

Pottawattamie County, at 18.6, had the highest rate of any county we reviewed. Council Bluffs, which is in Pottawattamie County, has three casinos.

We also compared the rate for a non-metropolitan casino county, Des Moines, with that of Muscatine, which does not have a casino. Des Moines County's rate of 18.5 was higher than that of Muscatine's 14.4.

Some of these county results differ materially from similar data points in our 2014 study, which examined the issue from the 2008-2012 timeframe. For example, Black Hawk County reported 9.48 suicides per 100,000 adults in the earlier study, which has since risen to 14.2. Pottawattamie County went from 13.04 to 18.6 in the latest study.

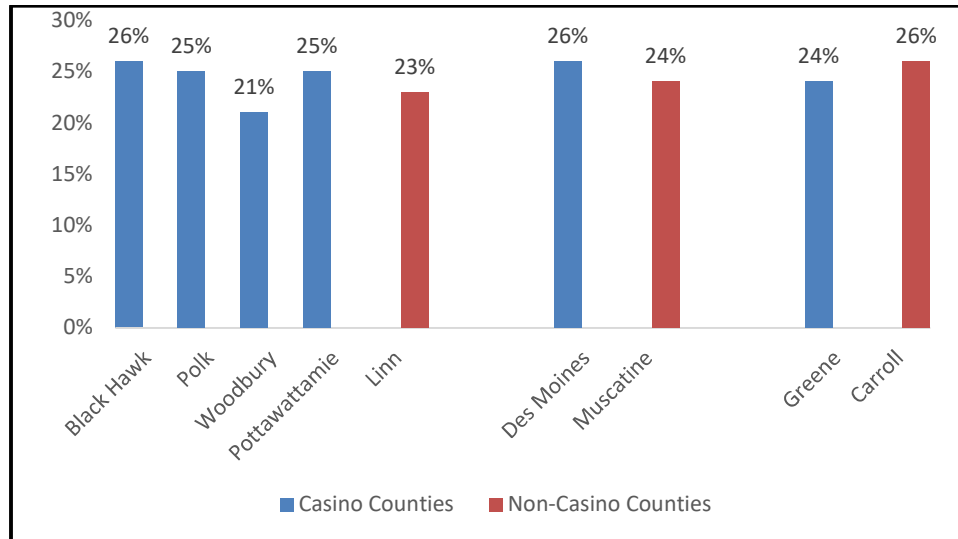
D. Addictive Disorders

Spectrum also researched whether people with addictive disorders (including drug and alcohol abuse) and mental illness (including depression) were greater in a community in which a casino is located than in a similar community in which a casino is not located. We compared 2017-2019 data from four metropolitan counties – Black Hawk, Polk, Woodbury and Pottawattamie – with data from Linn County, the state's one metropolitan county without a casino. We found, for the most part, that the percentage of people with addictive disorders, including drug and alcohol abuse, and mental illness, including

depression, was higher in a community in which a casino is located than in a similar community in which a casino is not located.⁵³

We analyzed data published by The County Health Rankings, a program of the University of Wisconsin Population Health Institute. The rankings measure the health of nearly all counties in the nation and ranks them within states. The report compiled its data using county-level measures from a variety of national and state data sources.

Figure 84: Percentage of residents engaging in binge drinking, casino counties vs. non-casino counties, 2017-2019



Source: County Health Rankings, Building a Culture of Health, County by County, University of Wisconsin

According to the rankings, 23% of Linn County residents engaged in excessive or binge drinking, a rate that is below the 26% statewide average. It was also below three of the four metropolitan counties we surveyed, but not appreciably. The rankings also identified “the average number of mentally unhealthy days reported in the past 30 days.” The number of mentally unhealthy days was slightly higher in the casino counties. Both Linn County and the casino counties had a higher number than the statewide average of 3.5.

Another area that the rankings examined was smoking. Linn County had lesser numbers than did the casino counties but not appreciably. Four of the five casino counties had higher smoking rates than did Linn.

The University of Iowa published a report in 2017 that listed opioid addiction rates by county.⁵⁴ Three of the metropolitan casino counties had higher rates than Linn. We also analyzed the findings for non-metropolitan counties. Des Moines County, which has a casino, had a higher rate than its comparison

⁵³ Ibid.

⁵⁴ “The Prescription Opioid Crisis: Policy and Program Recommendations to Reduce Opioid Overdose and Deaths in Iowa” University of Iowa, Aug. 1, 2017. https://iprc.public-health.uiowa.edu/wp-content/uploads/2017/09/UIIPRC_Opioid_Report-17.web.pdf

county, Muscatine, while Greene, a rural area with a casino, had a higher rate than its comparison county, Carroll.

Figure 85: Opioid addiction ranges, casino counties vs. non-casino counties, 2017

Casino County	Addiction Range (per 1,000 people)	Non Casino Match County	Addiction Range (per 1,000 people)
Metro Counties			
Black Hawk	2.21-3.59	Linn	2.21-3.59
Polk	3.59-7.07		
Pottawattamie	3.59-7.07		
Scott	3.59-7.07		
Woodbury	2.21-3.59		
Non-Metro Counties			
Des Moines	3.59-7.07	Muscatine	1.07-2.21
Greene	3.59-7.07	Carroll	2.21-3.59

Source: The Prescription Opioid Crisis, University of Iowa

It is beyond the scope of the study to determine whether the presence of casinos was in any way responsible for the conclusions arrived at in this section of the report.

7. Effects on Family Life in Casino Communities

Families are affected in countless ways by a wide variety of internal and external factors, including social and environmental factors. Examining a situation and determining the combination of factors that caused it is difficult, to say the least. Despite this, Spectrum attempted to determine the effect on family life due to the existence of a nearby casino. We addressed this question on a county-level basis when data was not available on a municipal basis.

This chapter will examine whether the following situations are different in a casino community than they are in similar communities that do not have a casino:

- Divorce rate
- The percentage of single-parent families
- Domestic abuse and child abuse reports, per capita
- Arrest rates
- School drop-out rates
- School attendance rates

We will also examine the following questions:

- Is the average education level of people living in a community in which a casino is located higher, lower, or the same as in a similar community in which a casino is not located?
- Does employment by a casino impact the employee's family life differently as compared to non-casino-related employment?

A. Child Abuse

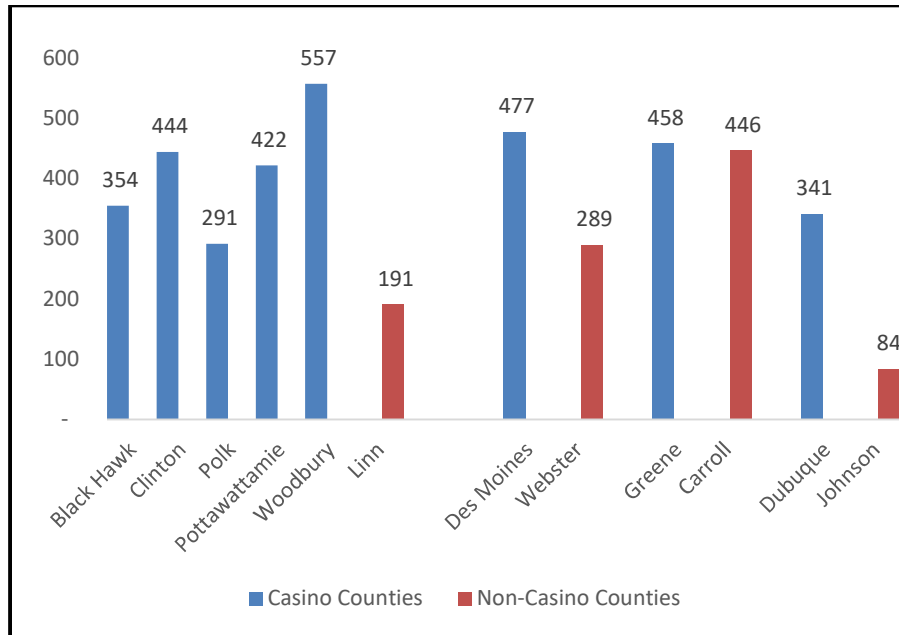
We found that counties with casinos had higher child-abuse and neglect rates than did counties without casinos. We reported a similar finding in our 2014 analysis.⁵⁵ We compared five metropolitan counties – Black Hawk, Clinton, Polk, Woodbury and Pottawattamie – with Linn County, the state's one metropolitan county without a casino. Linn County had a child abuse and neglect rate for 2019 of 191 per 100,000 residents, a figure that was considerably below the rates for the five metropolitan casino counties. Clinton, Pottawattamie and Woodbury all had rates that were more than double that of Linn's.⁵⁶ Des Moines County, a non-metropolitan area with a casino, had a rate of 477, a rate 65% greater than the rate for its comparison county, Webster. Dubuque, another non-metro county, had a rate of 341, 300% higher than its comparison county, Johnson. Woodbury had one of the highest rates in Iowa. Greene

⁵⁵ Spectrum Gaming Group and Strategic Economics Group, "The Socioeconomic Impact of Gambling on Iowans, 2014," May 23, 2014, p. 236 https://www.spectrumgaming.com/wp-content/uploads/2018/04/studysocioeconomicimpact2014_0.pdf

⁵⁶ "Iowa Child Abuse Occurrences by Year, County and Type of Abuse," Iowa Department of Human Services, <https://data.iowa.gov/Child-Adult-Welfare/Iowa-Child-Abuse-Occurrences-by-Year-County-and-Ty/mh9d-fias> (accessed October 6, 2021)

County, a rural county with a casino, had a rate that was slightly higher than that of its comparison county, Carroll.

Figure 86: Child abuse rates, casino counties vs. non-casino counties, per 100,000 population, 2019



Source: Iowa Department of Human Resources

B. Impact of Casino Employment on Family Life

No metrics can reasonably address the question as to whether employment by a casino impacts an employee’s family life differently than non-casino-related employment in a particular community. For the most part, a casino job is similar to a job with equal pay and benefits in the retail industry or a factory or other industries, assuming the worker’s job satisfaction is similar. One difference is that most casinos are busy in the evenings and on weekends, meaning that perhaps a higher percentage of employees are working those hours. The effect of working such hours depends on the individual and the family. Working such hours can have advantages and disadvantages.

Even anecdotally, the public and casino officials we spoke to indicated that there is no way to definitively answer the question.

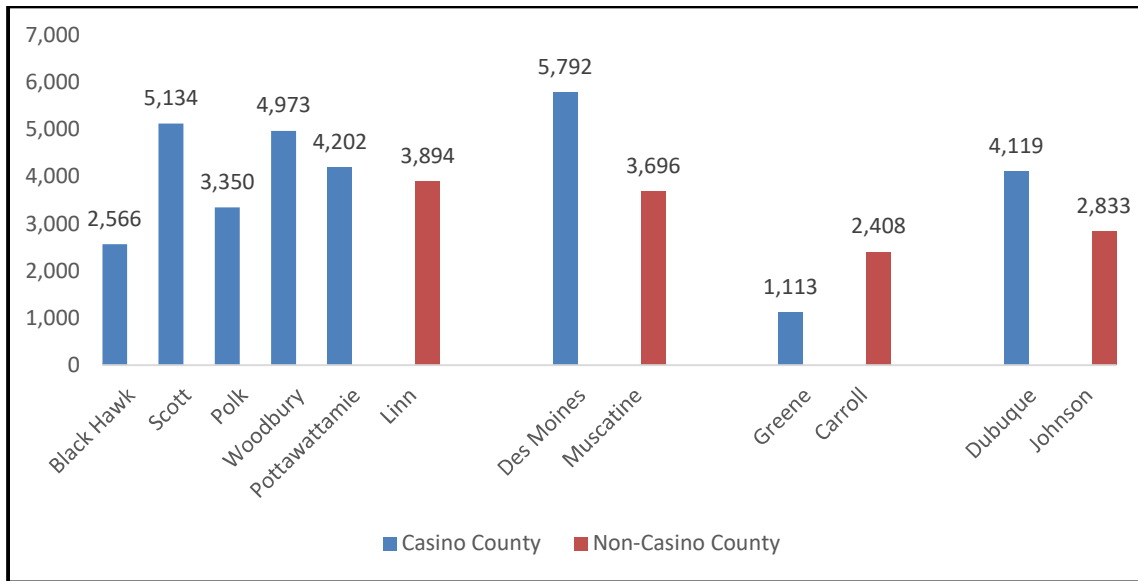
C. Arrest Rates

In determining whether arrest rates in a community in which a casino is located are any different than in a similar community in which a casino is not located, Spectrum found that, for the most part, arrest rates were higher in counties with casinos than in counties without them. We arrived at that conclusion based on 2019 data provided by the Iowa Department of Public Safety, which provided us with arrest rates for 12 counties. We reviewed rates for counties that were metropolitan, non-metropolitan and rural in nature.

Linn, a metropolitan county without a casino, had lower rates than three of its five comparison counties and higher rates for two of them. Dubuque and Des Moines had higher rates than their comparison county. But Carroll, a rural county without a casino, had a significantly higher arrest rate than its comparison county, Greene.

The arrest rate was calculated using the total number of Group A and Group B arrests. The rate was computed based on population of 100,000. Group A offenses include more serious crimes such as murder, assault, rape and robbery. Group B offenses include such offenses as driving under the influence, trespassing and disorderly conduct.

Figure 87: Arrest rates, casino counties vs. non-casino counties, per 100,000 population, 2019



Source: Iowa Department of Public Safety

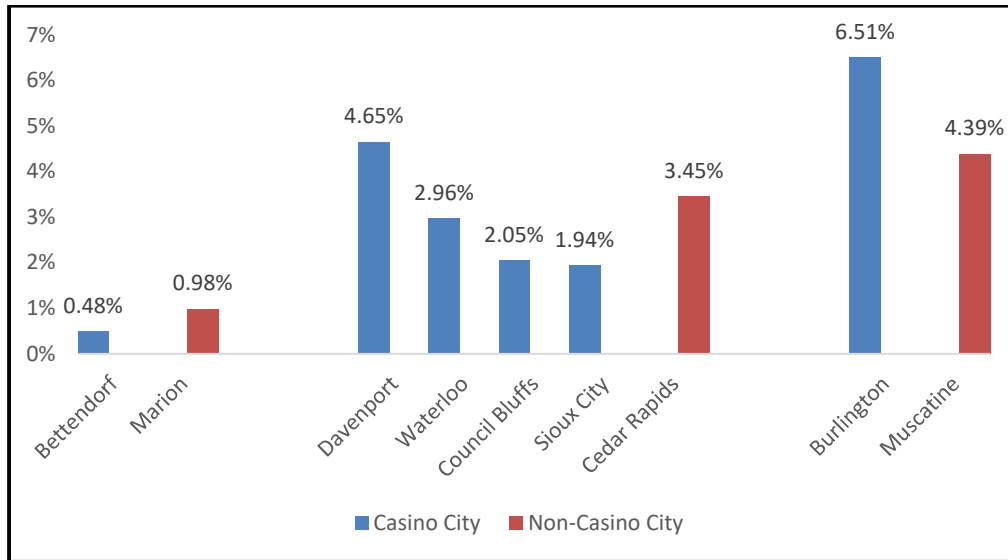
D. School Drop-Out Rate

An analysis of Iowa Department of Education data shows there was little difference in the school drop-out rate for communities with casinos versus those without them.⁵⁷ We found that three comparison cities, all metropolitan in nature, had higher rates than did metropolitan cities with casinos. The exception was the casino city of Davenport.

We also compared Bettendorf, a non-metropolitan community with a casino, with Marion, a non-metropolitan city without a casino. Marion had a higher dropout rate. Burlington, a casino city, had a higher rate than its comparison city, Muscatine.

⁵⁷ "Iowa Public School District Grade 7-12 Dropout Rate, 2018-2019," Iowa Department of Education, <https://educateiowa.gov/documents/dropouts-district/2020/03/iowa-public-school-district-2018-2019-grade-7-12-dropout-data> (accessed October 4, 2021)

Figure 88: Percentage of students who dropped out of school, casino cities vs. non-casino cities, 2018-2019



Source: Iowa Department of Education

The Iowa Department of Education defines a dropout as a student who was enrolled in school at some time during the previous school year and was not enrolled as of count day of the current year.⁵⁸

E. School Attendance Rates

An analysis of Iowa Department of Education data shows that attendance rates for the 2018-2019 school year were about the same for communities with a casino versus those without one.⁵⁹ We compared the metropolitan casino cities of Davenport, Waterloo, Council Bluffs and Sioux City with Cedar Rapids, a metropolitan city without a casino. Cedar Rapids' attendance rate was slightly higher than Davenport's, higher than Waterloo's but lower than Council Bluffs' and Sioux City's. Muscatine had a higher school attendance rate than its casino comparison city, Burlington.⁶⁰

Average Daily Attendance equals aggregate days of student attendance in a district divided by aggregate days of student enrollment.⁶¹

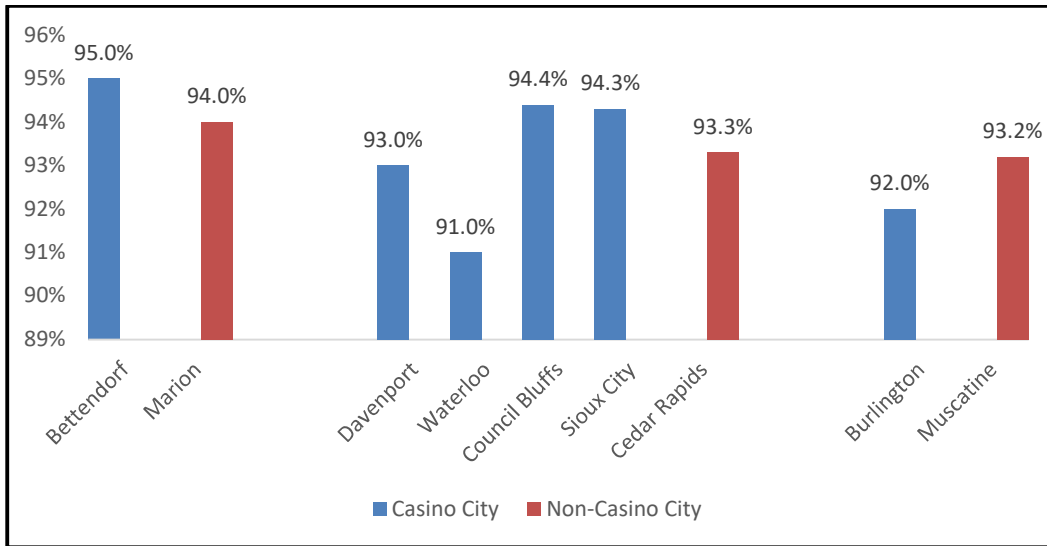
⁵⁸ Iowa Department of Education, "Graduation Rates and Dropout Rates." <https://educateiowa.gov/graduation-rates-and-dropout-rates> (accessed October 14, 2021)

⁵⁹ Iowa Department of Education, "Iowa Public School District Grade K-12 average Daily Attendance Rate." <https://educateiowa.gov/documents/average-daily-attendance/2021/05/2019-2020-iowa-public-school-district-k-8-and-k-12> (accessed October 4, 2021)

⁶⁰ Ibid.

⁶¹ Ibid.

Figure 89: School attendance rates, casino cities vs. non-casino cities, 2018-2019

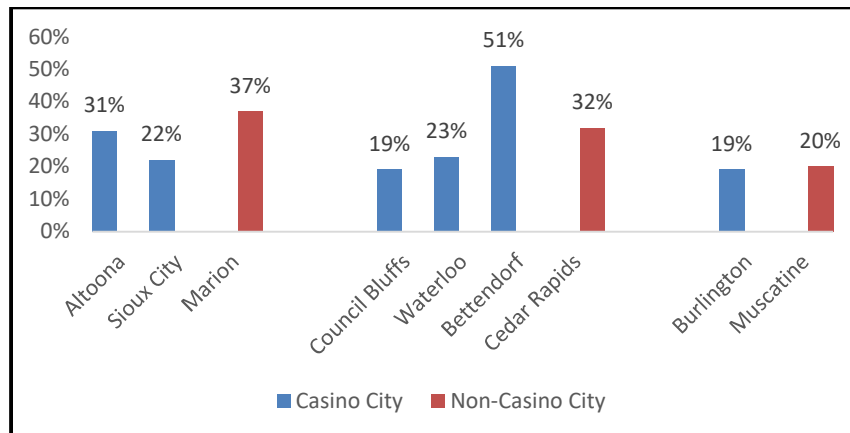


Source: Iowa Department of Education

F. Education level

We found, for the most part, that the average education level of those persons living in a community in which a casino is located was lower than in a community in which a casino is not located. We arrived at that conclusion through an analysis of US Census data.⁶²

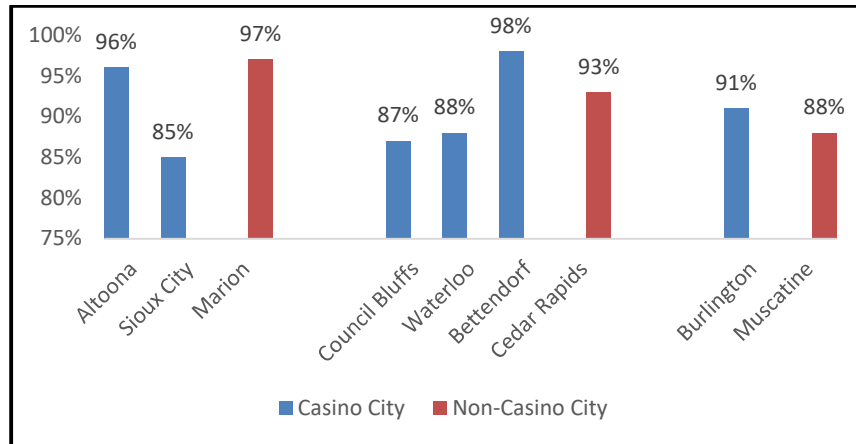
Figure 90: Percentage of college graduates, casino cities vs. non-casino cities, 2015-2019



Source: US Census

⁶² "Quick Facts," US Census Bureau. <https://www.census.gov/quickfacts/fact/table/US/RHI125219> (accessed October 2, 2021)

Figure 91: Percentage of high school graduates, casino cities vs. non-casino cities, 2015-2019



Source: US Census

G. Single-Parent Families

We compared five metropolitan counties – Black Hawk, Clinton, Polk, Woodbury and Pottawattamie – with Linn County, the state’s one metropolitan county without a casino to see if there was a difference in the percentage of single-parent families.

Our analysis showed that the casino counties had a much higher percentage, for the most part, of single-parent families than did the counties without casinos. Reports prepared by the Federal Reserve Bank of St. Louis show single-parent households with children as a percentage of households with children. The data is broken down by county throughout the country.⁶³

We relied on 2019 data. The percentage of single-parent families in Linn County was 31%; the rate for the comparison counties ranged from 32% in Polk County to a high of 40% in Woodbury County. The rates were also higher for non-metropolitan counties with casinos as compared to those without casinos.⁶⁴

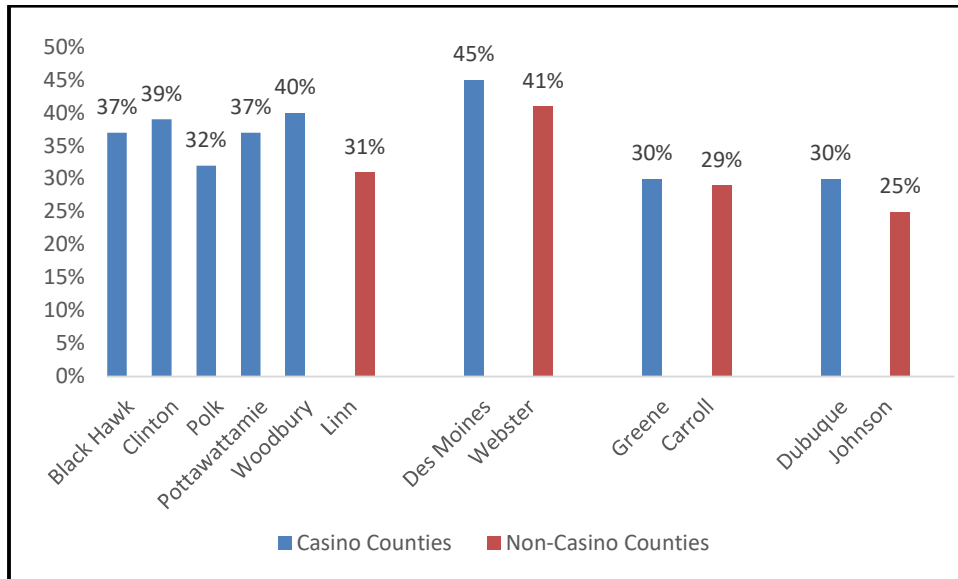
Children in single-parent families typically do not have the same economic or human resources available in two-parent families. They are more likely to drop out of school and experience divorce in adulthood.⁶⁵

⁶³ “Single-parent households with children as a percentage of households with children,” Federal Reserve Bank. <https://fred.stlouisfed.org/series/S1101SPHOUSE019113> (accessed October 20, 2021)

⁶⁴ Ibid

⁶⁵ “Single-parent families,” Common Good Iowa. <https://www.commongoodiowa.org/> (accessed October 20, 2021)

Figure 92: Single-parent families with children as a percentage of households with children, casino counties vs. non-casino counties, 2019



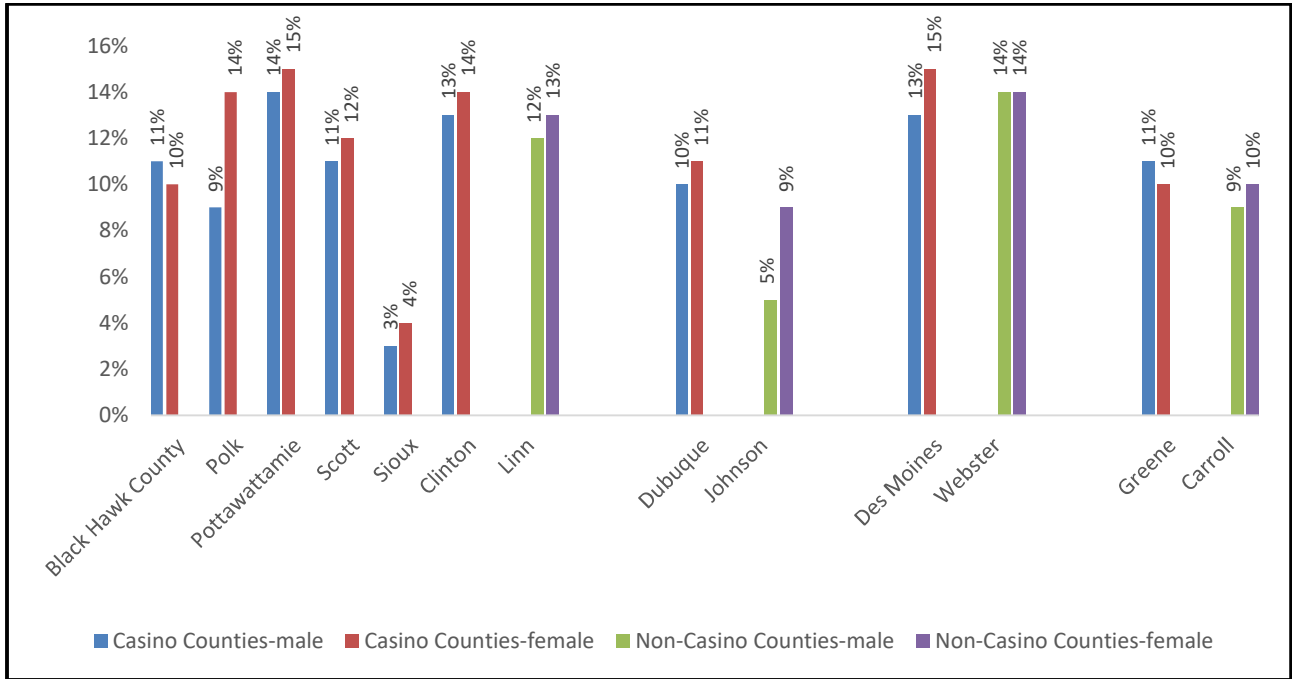
Source: Federal Reserve Bank of St. Louis

H. Divorce

We compared five metropolitan counties – Black Hawk, Clinton, Polk, Woodbury and Pottawattamie – with Linn County, the state’s one metropolitan county without a casino to determine if there were differences in divorce between casino and non-casino communities. For the most part, there was little difference. The percentage of males and females divorced ranged from 10% to 13%. The exception was the casino county of Sioux, which had significantly lower percentages than did Linn County.⁶⁶ The casino county of Dubuque had a percentage rate that was double that of its comparison county, Johnson.

⁶⁶ Census Reporter. <https://censusreporter.org/profiles/05000US19027-carroll-county-ia/> (accessed October 21, 2021)

Figure 93: Percentage of residents divorced, 2019



Source: US Census Bureau, American Community Survey

As we have pointed out in other sections of this report, no reasonable methodology is available to determine if the presence of casinos have any relationship to the numbers cited in this section.

8. Household Finance Issues in Casino vs. Non-Casino Communities

Statistics on economic conditions and household finances abound. Money is a concern in nearly every household, in one way or another. For some, the question is whether the time is right to make a big purchase. Can we afford to replace our aging vehicle? For others, there are concerns about paying the rent, or the utility bills. Worry about debt keeps some people awake when they should be sleeping.

Spectrum analyzed the effect of casinos on the household finances of Iowans. This chapter addresses the following topics by attempting to compare communities that have a casino with similar communities that do not have a casino:

- The percentage of individuals on public assistance
- The amount of personal debt
- The percentage of personal bankruptcies
- The percentage of people seeking credit counseling
- Household income level
- The percentage of reports of people stealing from businesses and friends and family
- Homelessness
- Percentages of home improvements, car purchases, or other large purchases

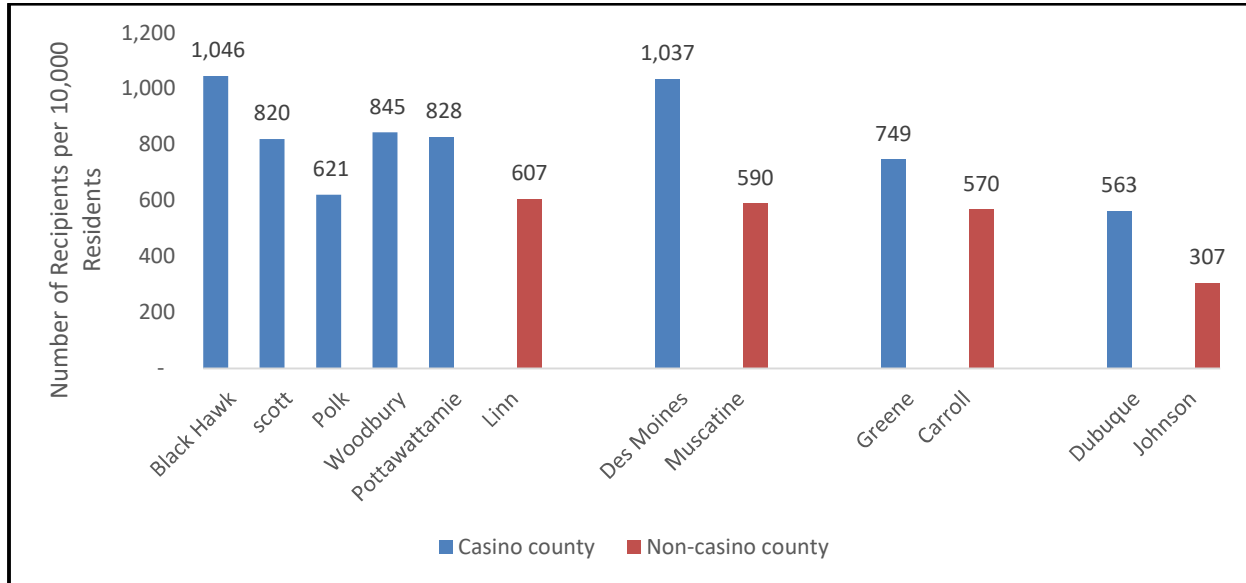
A. Public Assistance

Spectrum's analysis of data published by the Iowa Department of Human Services indicates that the number of individuals receiving public assistance in a community in which a casino is located is, for the most part, higher than in a similar community in which a casino is not located. We make that conclusion based on a review of two programs designed to help Iowans in need: Temporary Assistance to Needy Families ("TANF")⁶⁷ and the state food assistance program.⁶⁸

⁶⁷ Recipients of Temporary Assistance to Needy Families, Iowa Department of Human Services. <https://data.iowa.gov/Economic-Supports/Avg-FIP-Cases-and-Recipients-and-Total-Grants-by-C/mbvs-mggu>

⁶⁸ Federal Reserve Bank, Economic Research. <https://fred.stlouisfed.org/series/CBR19163IAA647NCEN> (accessed October 4, 2021)

Figure 94: Temporary Assistance to Needy Families, casino counties vs. non-casino counties, per 10,000 residents, 2019



Source: Iowa Department of Human Services

TANF provides cash assistance to needy families as they become self-supporting so children may be cared for in their own homes or in the homes of relatives. We analyzed the total number of individuals receiving assistance through TANF in calendar year 2019 and computed a rate per 10,000 of population.

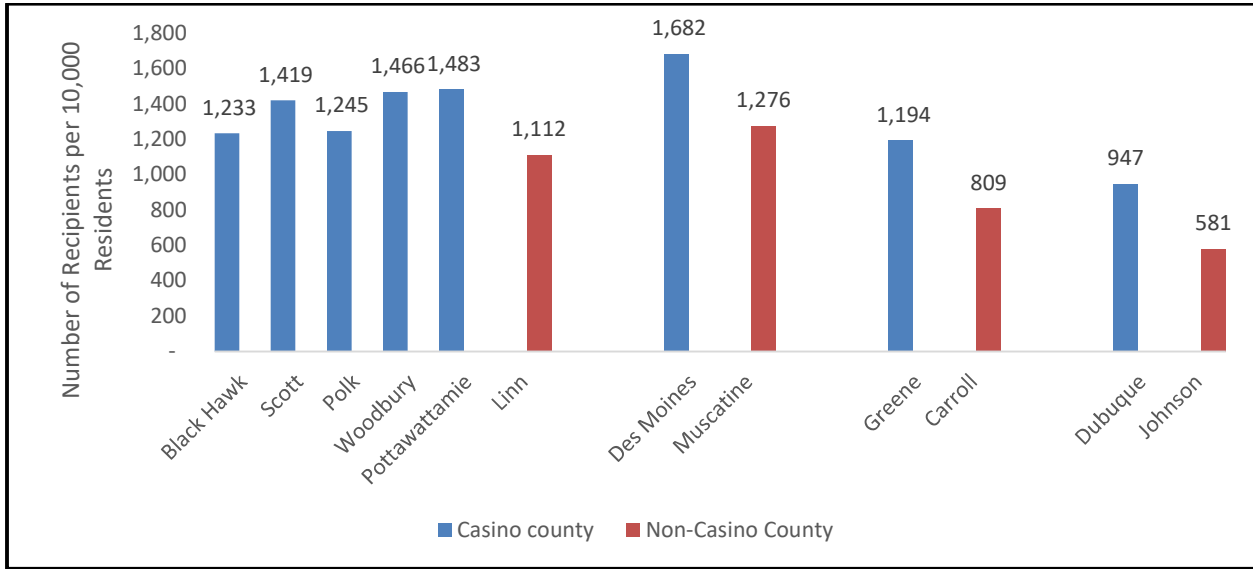
Metropolitan counties with casinos had significantly more people receiving assistance than did Linn County, the metropolitan county without a casino. Black Hawk’s rate was nearly two-thirds higher than Linn’s rate of 607. Polk’s rate was just slightly higher than that of Linn’s, but the other four comparison counties had rates in excess of 800, much higher than Linn’s rate. And the non-metropolitan counties we reviewed also had significantly higher rates than their comparison non-casino counties.

We also analyzed food assistance data for metropolitan casino counties and compared them with Linn County, the only metropolitan county in Iowa without a casino. We reviewed data for the month of January 2019. We adjusted the number of recipients based on a per-10,000-resident population. Linn County had a much lower rate than its casino comparison counties. In addition, the non-metropolitan casino county of Des Moines had a much higher rate than its comparison county, Muscatine, as did the rural casino county of Greene compared with Carroll. Dubuque’s rate was nearly double that of its non-casino comparison county, Johnson.

The Food Assistance Program provides Electronic Benefit Transfer (“EBT”) cards that can be used to buy groceries at supermarkets, grocery stores and some farmers markets.⁶⁹

⁶⁹ Iowa Food Assistance Program Statistics, <https://data.iowa.gov/Economic-Supports/Iowa-Food-Assistance-Program-Statistics-by-Month-a/nqiw-f9td> (accessed October 21, 2021)

Figure 95: Food Assistance Program recipients, casino counties vs. non-casino counties, January 2019, per 10,000 residents



Source: Iowa Department of Human Services

B. Bankruptcy

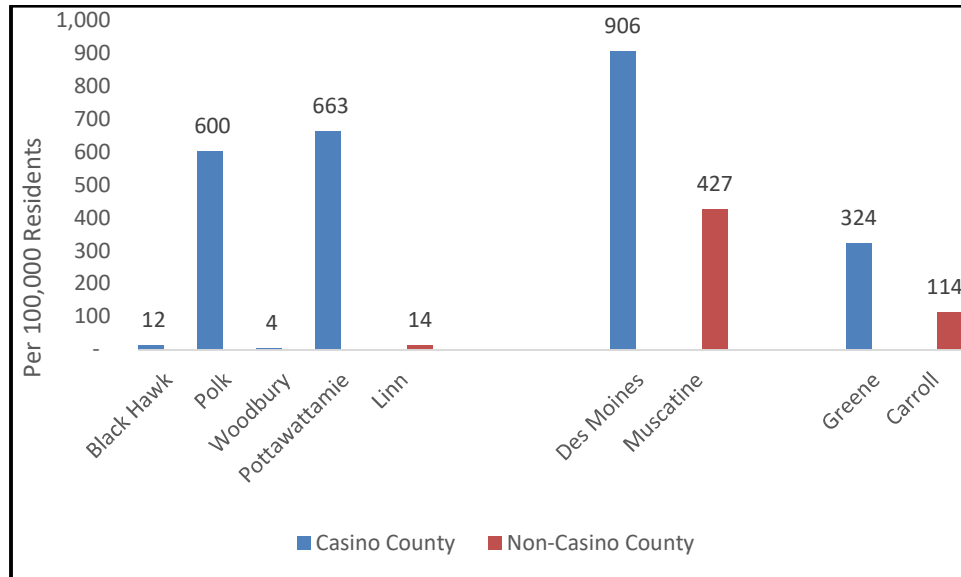
Spectrum’s analysis of 2016-2019 US Bankruptcy Court data for Iowa shows that the percentage of personal bankruptcies in a community in which a casino is located is, for the most part, higher than it is in a similar community in which a casino is not located.⁷⁰ This fully comports with our 2014 findings.

We reviewed personal bankruptcies that were filed in four metropolitan counties – Black Hawk, Polk, Woodbury and Pottawattamie – and compared them with Linn County, a metropolitan county that does not have a casino. We adjusted bankruptcy rates on a per-10,000-population basis. Linn’s rate of 14 was about the same as Black Hawk’s and higher than Woodbury but much lower than the rate for Polk and Pottawattamie.

We also reviewed the rates for two non-metropolitan counties with casinos – Des Moines and Greene – and compared those rates with two counties without casinos, Muscatine and Carroll, respectively. The casino counties had much higher rates, as shown in the following chart.

⁷⁰ “Bankruptcy Statistics,” United States Bankruptcy Court, Southern District of Iowa, <https://www.iasb.uscourts.gov/bankruptcy-statistics-filings-county-chapter> (accessed October 4, 2021)

Figure 96: Personal bankruptcies, casino counties vs. non-casino counties, 2016-2019, per 100,000 residents



Source: US Bankruptcy Court

The University of Iowa, in a 2005 report prepared for the state Legislature, found that personal bankruptcies were higher in the casino counties they analyzed relative to similar counties that had no casinos.⁷¹

We were also asked to review commercial bankruptcies. According to the United States Courts, individuals and business entities can enter into Chapter 11 bankruptcy. Typically, this type of bankruptcy is a reorganization of a business. Through the bankruptcy, the debtor restructures and then creates and implements a plan to pay back creditors.

We analyzed Chapter 11 bankruptcies in Iowa over a five-year period ending in 2019. The complicated bankruptcy process can take years to complete. The plan must be approved by a Trustee appointed by the court. The Trustee is typically in charge of implementing and overseeing the plan, ensuring that the business has the income and resources to follow through with it. Once the plan is completed and confirmed, any remaining debts under the bankruptcy are discharged. None of the comparison counties we have used in this report had a single Chapter 11 reorganization. There were only a handful in the casino counties: Polk had 15, Scott, 7 and Pottawattamie, 5.⁷²

⁷¹ "Socioeconomic Impact of Gambling on Iowans," prepared for Iowa Legislative Council, University of Northern Iowa, June 2005.

⁷² US Bankruptcy Court, Southern District of Iowa. <https://www.iasb.uscourts.gov/bankruptcy-statistics-filings-county-chapter> (accessed October 21, 2021)

C. Credit Counseling

In seeking to determine the extent of credit counseling in casino counties vs. non-casino counties, we found there is no state or federal agency that compiles data relating to people seeking such counseling. Such data is considered to be confidential. However, the research we did concerning bankruptcies will help to at least partially address the question because anyone who files for bankruptcy is required to undertake credit counseling. We refer the reader to the section above that details bankruptcy filings.

Our analysis of US Bankruptcy Court data for Iowa in 2019 showed that the percentage of personal bankruptcies in a community in which a casino is located is, for the most part, higher than it is in a similar community in which a casino is not located.⁷³ We note that a number of Iowans seek credit counseling who have not filed for bankruptcy, and there is no way to capture that number.

Tom Coates, executive director of Consumer Credit of Des Moines, Iowa's largest credit counseling agency, said his "best guess estimate" is that more Iowans from casino areas are seeking counseling than those who reside in non-casino areas. Coates is an outspoken critic of casino gambling, calling it a predatory industry. He acknowledged that his statement is based on anecdotal evidence, and that he has not reviewed enough data to make a definitive statement on the issue. About one in 10 clients, he said, sought credit counseling from his agency due to debts incurred as a result of casino gambling.⁷⁴

D. Median Household Incomes

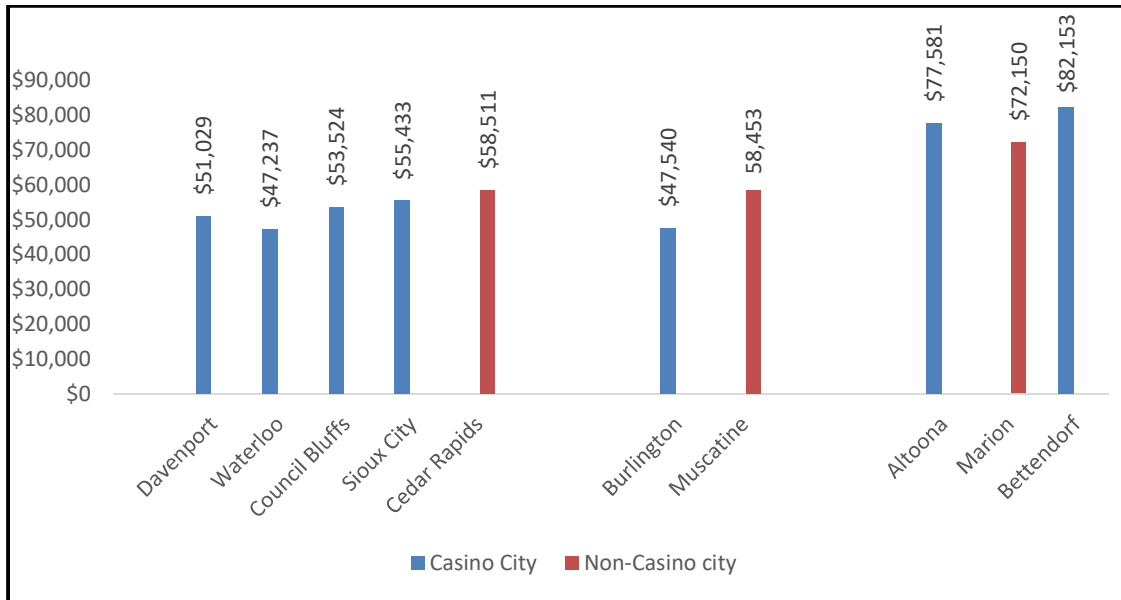
Household incomes in communities in which a casino is located, for the most part, are lower than in similar communities in which a casino is not located, based on 2019 data.⁷⁵ We arrived at that conclusion after reviewing US Census data to compare household income for municipalities with casinos versus towns without casinos. Our analysis showed that Cedar Rapids, a metropolitan city without a casino, had a higher median household income than four metropolitan comparison cities with casinos: Davenport, Waterloo, Council Bluffs and Sioux City.

⁷³ "Bankruptcy Statistics," US Bankruptcy Court, Southern District of Iowa, <https://www.iasb.uscourts.gov/bankruptcy-statistics-filings-county-chapter> (accessed October 4, 2021)

⁷⁴ Interview, October 1, 2021.

⁷⁵ "Quick Facts," US Census Bureau. <https://www.census.gov/quickfacts/fact/table/US/PST045219> (accessed October 6, 2021)

Figure 97: Median household income, casino cities vs. non-casino cities, 2019



Source: US Census

Two casino cities, however – Bettendorf and Altoona – had higher numbers than did their comparison city, Marion.

E. Reports of People Stealing

There is no state or federal agency that tracks reports of people stealing from businesses and friends and family in a community in which a casino versus reports in a similar community in which a casino is not located. Nonetheless, searches we undertook identified 10 instances of embezzlement during the past five years in Iowa that were publicized. At least one involved the use of embezzled funds to gamble at casinos. The small sample does not allow for any definitive conclusions to be reached. Credit counselors told Spectrum that their clients often do not reveal that they have resorted to stealing from businesses, friends and family so the number would be grossly underreported. And sometimes, they do not acknowledge that they stole due to a gambling addiction.

Three of the 10 embezzlement reports occurred in casino cities – two in Waterloo and one in Sioux City. In some cases, the alleged offender resided in a casino city. In other instances, the alleged offender resided in a casino city but committed the offense at a business that was located in a casino city.⁷⁶

In addition, we accessed the website of the Iowa Insurance Division. It posts press releases detailing its arrests for insurance fraud. We reviewed the last 10 arrests that were made since June of this year. Six were from counties with casinos.⁷⁷

⁷⁶ Spectrum research of various newspaper accounts of thefts in Iowa

⁷⁷ Iowa Insurance Division, Press Releases, <https://iid.iowa.gov/press-releases> (accessed October 24, 2021)

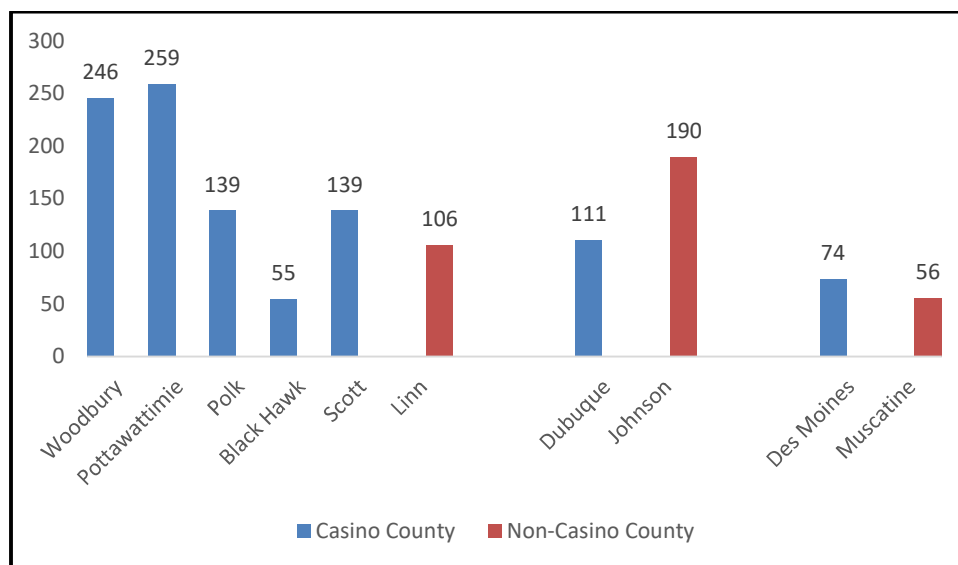
F. Extent of Homeless Problem

Spectrum sought to determine whether the percentage of homeless people in a community in which a casino is located is higher than in a similar community in which a casino is not located. We concluded that, for the most part, it is. We reviewed 2019 data compiled by the Institute for Community Alliances (“ICA”) based in Des Moines. The vast majority of homeless people are in temporary housing as opposed to being on the street or unsheltered.⁷⁸ We compared homeless rates per 100,000 of population for the metropolitan casino counties of Woodbury, Pottawattamie, Polk, Black Hawk and Scott and compared them with Linn County, a metropolitan county without a casino.⁷⁹

The numbers we cited are called “point in time” counts by ICA, which is involved in a yearly census of homeless people in Iowa. Researchers go out on a certain day and try to identify the homeless. The actual count could be higher or lower at a different time of the year.⁸⁰ Woodbury and Pottawattamie had homeless rates that were double that of Linn. We also analyzed a non-metropolitan county with a casino, Des Moines, and compared it with Muscatine, a county without a casino. Des Moines had a higher rate.⁸¹

There were some instances, however, where the homeless rate was higher in the non-casino county. Black Hawk’s rate of 55, for example, was much lower than that of Linn’s. And so, too, was the casino county of Dubuque when compared with that of the non-casino county of Johnson.

Figure 98: Homeless rate per 100,000 of population, casino counties vs. non-casino counties, 2019



Source: Institute for Community Alliances

⁷⁸ Institute for Community Alliances, Breakdown by county of homeless counts. <https://icalliances.org/pit>

⁷⁹ Ibid.

⁸⁰ Interview, ICA spokesman, October 6, 2021.

⁸¹ Ibid.

Dr. Ehrin Stover-Wright, a research analyst for ICA, said one reason for higher homeless counts in casino counties is that many of those counties offer programs and temporary shelter for the homeless. Stover-Wright, who has been examining this issue for many years, was quoted in our 2014 report as noting that “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. ... Homeless people come from every county in Iowa, but services providers are in population centers.”⁸²

We note that no reasonable methodology exists to determine if the presence of casinos contributed in any way to people becoming homeless. Still, as noted in our introduction, general economic activity that can offer myriad impacts on housing-related issues must be considered in any such analysis.

G. Major Purchases

Spectrum sought to determine whether the percentages of home improvements, car purchases, or other large purchases in a community in which a casino is located is higher, lower, or the same as in a similar community in which a casino is not located.

Spectrum was unable to find data regarding major purchases on a county level in Iowa, except for those regarding automobile sales. The Iowa Automobile Dealers Association supplied county-by-county data on automobile registration for 2019 and 2020, as shown in Figure 99 below. The numbers show that automobile registrations per capita were higher in casino counties than in our comparison counties and in all non-casino counties in both 2019 and 2020. The registrations in casino counties are about one percentage point higher than in the comparison counties in both years.

Comparing casino counties vs. all non-casino counties is problematic. The casino counties make up 15.2% of Iowa counties but have 39.8% of the population, meaning they are less rural. Perhaps the difference in registrations can be explained by lifestyle differences in more-rural and less-rural counties.

Figure 99: Registrations of new automobiles by counties with and without casinos, 2019-2020

	2020 Population	2019 Registrations	2019 Registrations Per Capita	2020 Registrations	2020 Registrations Per Capita
Casino Counties (15)	1,268,958	59,002	4.65%	54,474	4.29%
Comparison Counties (10)	525,285	18,303	3.48%	17,556	3.34%
All Non-Casino Counties (84)	1,921,411	67,594	3.52%	63,973	3.33%

Source: Iowa Automobile Dealers Association Note: Automobiles are registered in the county where the purchaser resides.

⁸² Spectrum Gaming Group and Strategic Economics Group, “The Socioeconomic Impact of Gambling on Iowans, 2014,” May 23, 2014, p. 239-240 https://www.spectrumgaming.com/wp-content/uploads/2018/04/studysocioeconomicimpact2014_0.pdf

9. Current State of Iowa Gaming Market

A. Assessment of Comparison States

As the pioneer in riverboat gaming, Iowa set the standards for what could become a robust riverboat industry in the Midwest and South – including in Illinois, Indiana, Louisiana, Mississippi and Missouri. For purposes of this report, we will focus on the most relevant comparison states – Illinois, Indiana and Missouri. The Iowa gaming industry was remarkably stable in the 2017-2019 period; we did not include 2020 in our analysis due to the extraordinary impacts of the Covid-19 pandemic. Among the reasons for the stability is the fact that the competitive set did not change substantially in this period. Much the same is true in Indiana and Missouri. It should be noted that Iowa has no statutory restriction on the number of casino licenses, whereas the three other Midwestern riverboat casino states do.

1. Iowa

Figure 100: Iowa casino performance metrics, 2017-2021

Calendar Year	Slot Win (\$M)	Win per Slot per Day	Table Win (\$M)	Win per Table per Day	Total Win (\$M)	Win per Square Foot per Casino per Day
2017	\$1,310.4	\$215.7	\$142.7	\$899.6	\$1,453.2	\$5.64
2018	\$1,310.5	\$218.9	\$147.4	\$908.3	\$1,457.9	\$5.71
2019	\$1,305.4	\$220.9	\$153.6	\$926.4	\$1,459.0	\$5.77
2020 (290 days open)	\$1,015.4	\$223.3	\$107.0	\$870.0	\$1,122.5	\$5.66
9 Mos. '21 Annualized	\$1,580.6	\$288.3	\$161.1	\$1,082.7	\$1,741.7	\$6.98

Source: Spectrumatrix, Iowa Racing and Gaming Commission

That Iowa was the first riverboat casino state did not ensure that the industry would continue to be successful. The legislature and gaming commission have continued to amend statutes and regulations to keep the industry vibrant. Among the first revisions to the law was the elimination of the maximum bet and maximum loss limits established in the original legislation.

A major problem with the \$5 maximum bet was that it made blackjack, the most popular table game, unprofitable. An example will bear this out. The example in Figure 101 shows a typical blackjack table with four players. Each player is making 75 decisions, or bets, each hour. Blackjack has a low house advantage, meaning that the house will win only 1% more hands than a coin flip, or 51 out of every 100 hands. In the top line (with the \$5 maximum bet) the table earns only \$15 for the casino, barely enough to pay a dealer and buy new decks of cards. In the second row (when players are allowed to bet \$25) the house still only wins 1%, but it is 1% of the at-risk \$7,500. Now the casino can pay the dealer, buy new cards, run the air conditioner and vacuum the carpet.

Figure 101: Example of differences between blackjack low and high betting limits

Players at Table	Bet per Hand	Decisions per hour	Dollars at Risk	House Advantage	Win per Hour
4	\$5.00	75	\$1,500	1.0%	\$15.00
4	\$25.00	75	\$7,500	1.0%	\$75.00

Source: Spectrum Gaming Group

Removing the low bet limit kept the Iowa casino industry viable. Missouri had a similar rule when it commenced riverboat gaming but also subsequently removed it.

The State of Iowa first required that casino boats had to sail to conduct gaming operations. This was changed in 1994 for public safety reasons to allow the boats to remain moored to reduce traffic on the rivers and reduce the potential for a runaway tow to collide with a passenger vessel. In 2007, the legislature changed the law again to permit gambling in permanent structures. This change allowed for more efficient operations, spurred new investment in land-based operations, and promoted development of other entertainment amenities not viable in a riverboat environment.

Perhaps the most important aspect of the Iowa gaming law is the tax rate,⁸³ which has been consistent and stable since the initial casinos opened. A fair, stable tax rate allows companies to invest and plan for the future and be confident they will get a return on their investment. By allowing the industry to adapt and grow, Iowa has seen employment, revenue, and taxes increase.

Several changes made by the Legislature and the Gaming Commission have helped keep the industry a vibrant economic development tool. It is expected that the Legislature and the IGRC will continue to allow the casino industry to adopt new technology and revise regulations to maintain the employment and tax revenues accruing to the State.

Among the more important changes over time are:

- 1994: Elimination of \$5 maximum bet and betting limits
- 2004: Approval of table games at race tracks
- 2007: Eliminating the “over water” provision, allowing casinos to move on land
- 2008: Retaining smoking on the casino floor when Illinois banned it
- 1991 – 2021: Maintaining a stable, fair, consistent tax rate that enables businesses to invest for the future and plan for growth.

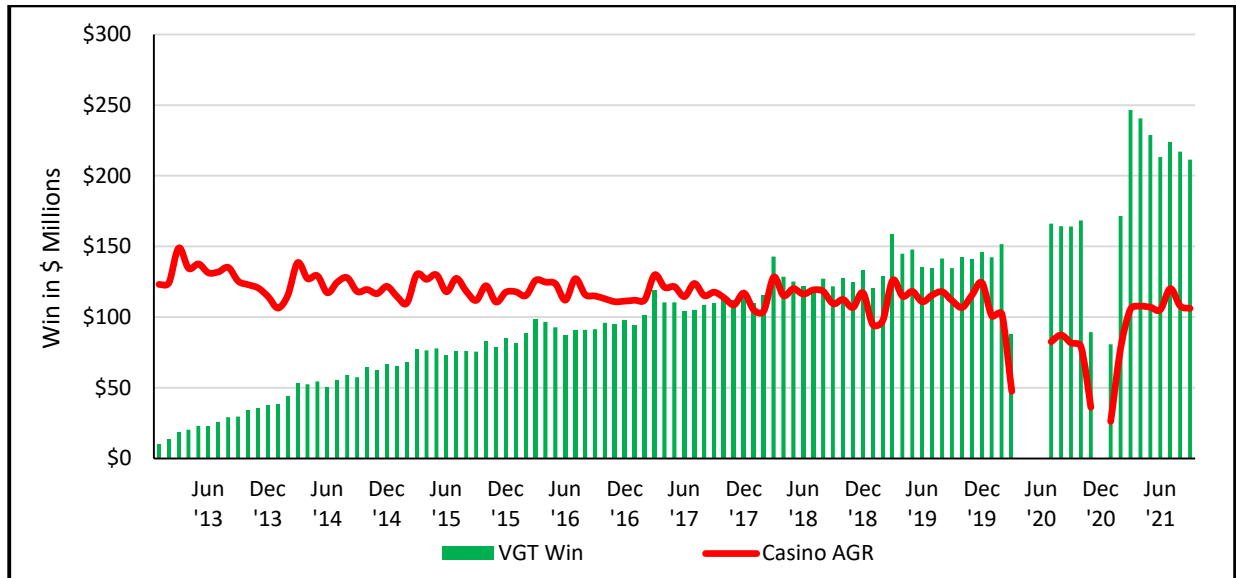
2. Illinois

The Illinois gambling industry overall has outperformed the Iowa gambling industry. However, the Illinois casino industry has underperformed relative to Iowa. The distinction is important. In 2012, Illinois commenced video gaming terminal (“VGT”) operations throughout the state. VGT expansion has continued to be robust, cannibalizing casino revenue along the way. With the increased competition,

⁸³ See gaming-tax schedule in Figure 2.

many casino operators scaled back on capital investments. Many customers preferred the convenience of playing slot machines locally to driving to a casino for the full entertainment experience.

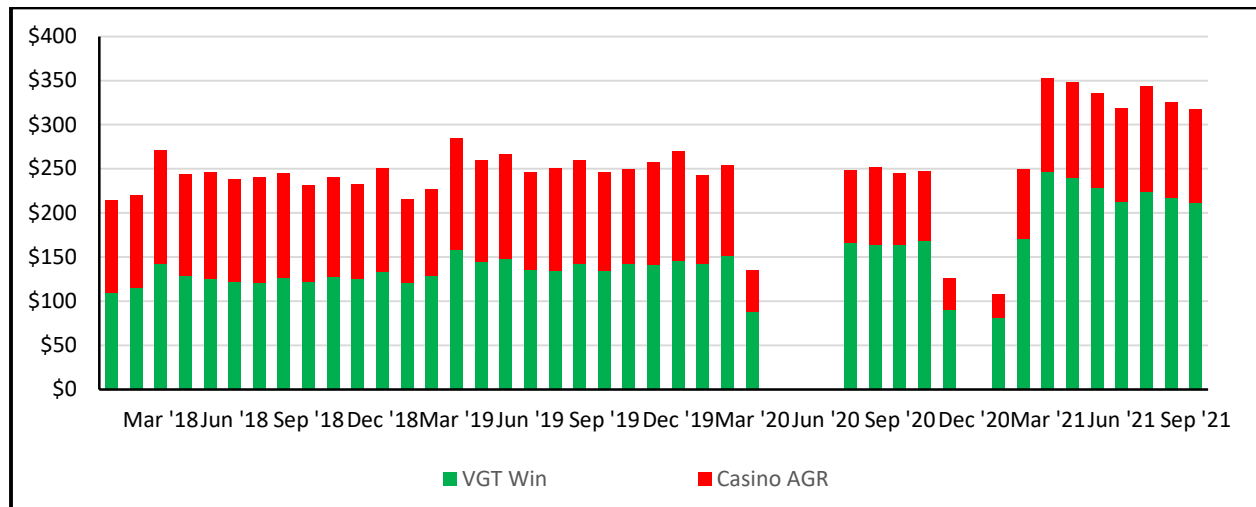
Figure 102: Illinois casino AGR and video game terminal revenue, 2013-2021



Source: Illinois Gaming Board. Gaps represent closures during pandemic.

The trend has accelerated since the pandemic began in 2020. Data in Figure 103 show the shift in revenue to VGTs that has occurred since 2018. VGTs gaming revenue is now nearly double that of the state’s 11 casinos. Until November Illinois had 10 casinos. The newest casino in Rockford opened in a temporary facility on November 10, 2021. The Illinois Gaming Board is in the process of reviewing license applications for Waukegan, Danville, the southern Chicago suburbs, and the city of Chicago.

Figure 103: Monthly Illinois casino AGR and video game terminal win, 2018-2021

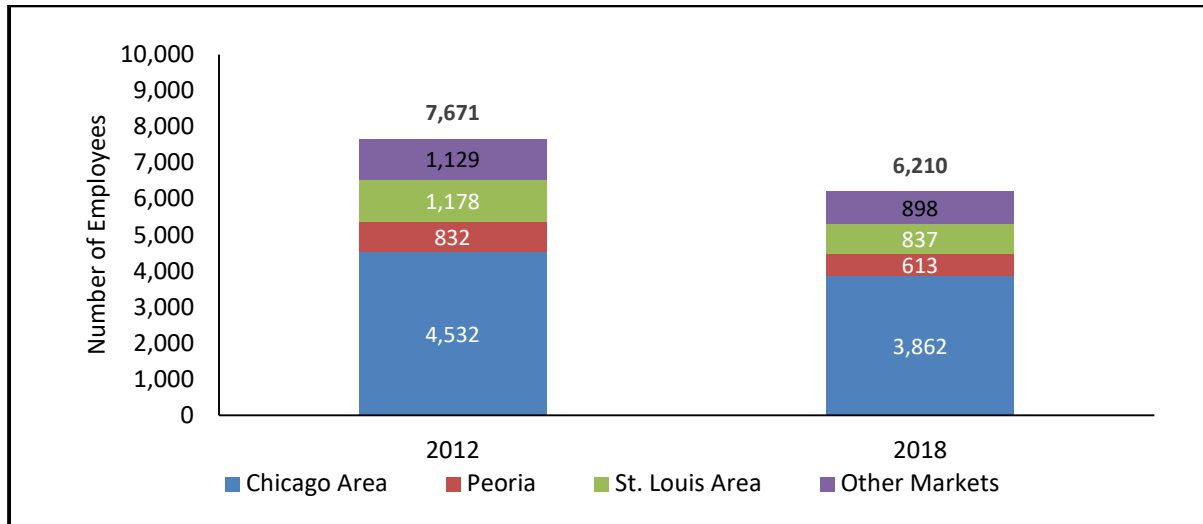


Source: Illinois Gaming Board. Gaps represent closures during pandemic.

The decline in Illinois casino revenue caused a decline in casino employment. The Illinois Gaming Board, in its most recent annual report (2018), documented the employment at each casino. Spectrum

has organized the state into four market segments. From 2012, the first year VGTs were implemented until 2018, casino employment declined by 1,451, or by almost 20%.

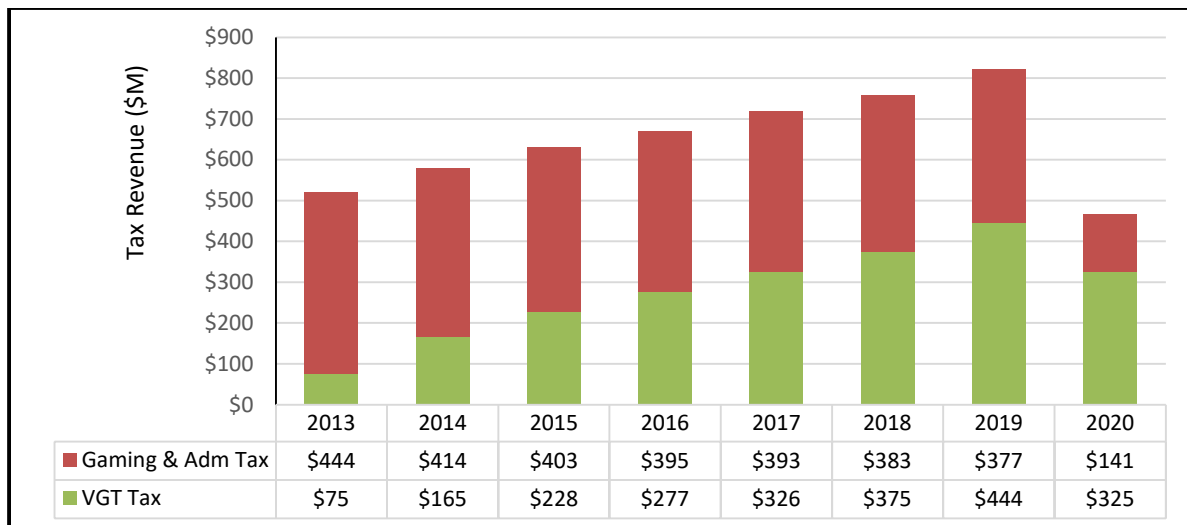
Figure 104: Illinois casino employment, 2012 and 2018



Source: Illinois Gaming Board

The goal of the addition of VGTs to the gaming market in Illinois was to generate more state tax revenue. The VGT program was extremely successful in this regard. In 2013, the first full year with VGTs, the State of Illinois earned \$519 million in combined gaming taxes from VGTs and casinos. In 2019, the last full year before the pandemic, the VGT tax revenue from these two sources totaled \$821 million.

Figure 105: Illinois state tax revenue from casino gaming and VGTs, 2013-2020



Source: Illinois Gaming Board

The Illinois VGT program increased state tax revenues but may have cost the state jobs and investment in casino gaming properties. Since the implementation, the casino industry in Illinois has underperformed other Midwest states.

Figure 106: Illinois casino performance metrics, 2017-2021

Calendar Year	Slot Win (\$M)	Win per Slot per Day	Table Win (\$M)	Win per Table per Day	Total Win (\$M)	Win per Square Foot per Casino per Day
2017	\$1,104.5	\$302.3	\$301.9	\$2,723.4	\$1,406.5	\$10.72
2018	\$1,072.8	\$300.4	\$300.6	\$2,614.1	\$1,373.5	\$10.46
2019	\$1,057.1	\$301.9	\$297.1	\$2,570.7	\$1,354.2	\$10.36
2020 (142 days open)	\$373.5	\$367.4	\$120.5	\$3,238.7	\$494.0	\$9.75
9 Mos. '21 Annualized	\$931.7	\$370.6	\$303.2	\$3,285.7	\$1,234.9	\$9.48

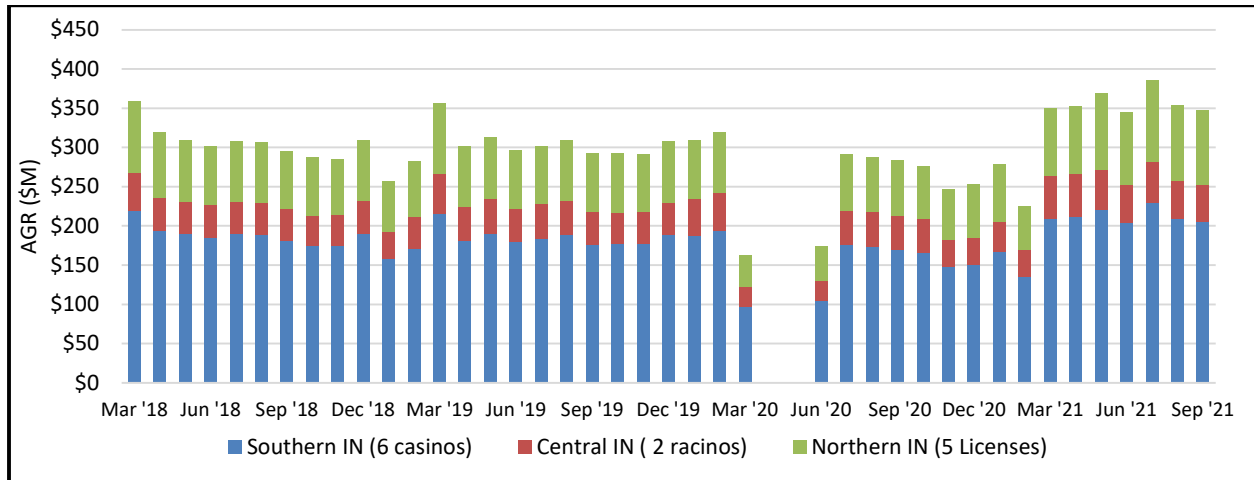
Source: Spectrumetrix, Illinois Gaming Board

The Illinois casino performance metrics look fairly strong when compared with other states. Until recently, Illinois restricted casinos to a maximum of 1,200 positions, increasing the win per unit relative to other states without position limits.

3. Indiana

Indiana permits 11 casino licenses in the state plus two racetrack casino licenses (or “racinos”). Since 2013, the Indiana casino industry has faced significant competition from casinos in western Ohio. More recently, Kentucky authorized historical horse racing (“HHR”) machines, which are slot-like gaming devices that have effectively made Kentucky another casino state.

Figure 107: Indiana casino adjusted gross receipts by region, 2018-2021



Source: Spectrumetrix, from state gaming commission data

Initially four casino licenses were allocated to Lake County, near Chicago: one license in Hammond, one in East Chicago, and two in Gary. When first enacted, the law required gaming boats to sail. Having two licenses at the Gary location meant there was always one casino boat available for boarding. As the market matured and the sailing requirement was lifted, the legislature sought to increase the value to the state of the licenses while promoting the original intent of the law. In order to modernize the industry and increase investment, employment and state revenue, the legislature changed the gaming act to permit one of the Gary licenses to move inland and the second to move to Terre Haute.

The revisions to the statute have been successful. The new Gary casino (Hard Rock Northern Indiana) opened in May 2021, and has more than doubled the revenues from the previous two licenses. Several factors play into this success. The new location is along Interstate 80. The old location was located in an industrial harbor along Lake Michigan. The new casino is on a single-level, and it has a spacious gaming floor with high ceilings and excellent air handling. The old casinos were first-generation casino boats designed to cruise the waters of Lake Michigan, and therefore limited by naval architecture.

Figure 108: Increased Gary, Indiana, adjusted gross receipts, 2021 vs. 2019

Casino AGR (M)	May	June	July	Aug.	Sept.	5 Mo.
Hard Rock Northern Indiana 2021	\$20.58	\$25.91	\$32.06	\$30.24	\$29.51	\$138.30
Majestic Star (2 Gary Licenses) 2019	\$13.02	\$11.95	\$12.57	\$12.09	\$11.46	\$61.08
AGR Increase from Move	\$7.56	\$13.96	\$19.49	\$18.15	\$18.06	\$77.22
Percent Increase from Move	58.1%	116.8%	155.1%	150.2%	157.6%	126.4%

Source: Spectrumatrix, from state gaming commission data

In addition to the increase in revenue, there was a great increase in employment with the transition from the Majestic Star casinos on the lake to Hard Rock. In 2019, the last full year of operations that was not pandemic-impacted, the Indiana Gaming Commission reported that the two Majestic Star licenses employed 964. In 2021, the single Hard Rock license employed 1,328, an increase of 364 jobs.

Figure 109: Lake County Indiana casino employment, FY 2019-FY2021

	2019	2020	2021
Ameristar East Chicago	1,242	991	741
Hard Rock Northern Indiana			1,328
Horseshoe Hammond	1,835	1,745	1,091
Majestic Star (2 Gary Licenses)	964	906	681

Source: Indiana Gaming Commission

Statutory changes have kept the Indiana casino industry healthy and have grown employment revenue and investment. While the second “Gary license” is dormant at the moment, the Indiana Gaming Commission is considering four proposals to build the casino in Terre Haute, a previously underserved area of the state.

Figure 110: Indiana casino performance metrics, 2017-2021

Calendar Year	Slot Win (\$M)	Win per Slot per Day	Table Win (\$M)	Win per Table per Day	Total Win (\$M)	Win per Square Foot per Casino per Day
2017	\$1,908.6	\$274.5	\$312.4	\$1,530.1	\$2,220.9	\$7.16
2018	\$1,891.7	\$281.1	\$330.9	\$1,621.9	\$2,222.6	\$7.17
2019	\$1,864.1	\$285.5	\$324.0	\$1,614.0	\$2,188.1	\$7.06
2020 (274 days open)	\$1,292.2	\$364.2	\$276.1	\$1,765.7	\$1,568.2	\$5.06
9 Mos. '21 Annualized	\$1,969.2	\$449.9	\$418.1	\$2,133.9	\$2,387.2	\$7.70

Source: Spectrumatrix, from state gaming commission data

4. Missouri

The casino industry in Missouri is performing well. As is the case in Indiana and Illinois, there is a restriction on the number of casino licenses available. The most recent casino to open in Missouri was River City in 2010. There have been renovations to properties and ownership changes, but the competitive landscape has been fixed for over a decade.

Figure 111: Missouri casino performance metrics, 2017-2021

Calendar Year	Slot Win (\$M)	Win per Slot per Day	Table Win (\$M)	Win per Table per Day	Total Win (\$M)	Win per Square Foot per Casino per Day
2017	\$1,489.8	\$240.5	\$237.3	\$1,417.6	\$1,727.1	\$5.57
2018	\$1,501.5	\$245.5	\$242.7	\$1,456.0	\$1,744.2	\$5.62
2019	\$1,472.7	\$246.5	\$246.8	\$1,498.4	\$1,719.4	\$5.54
2020 (290 days open)	\$1,084.2	\$245.3	\$165.5	\$1,375.5	\$1,249.7	\$5.07
9 Mos. '21 Annualized	\$1,647.7	\$309.5	\$236.2	\$1,559.9	\$1,883.9	\$5.73

Source: Spectrumtrix, from state gaming commission data

The stability in the industry is helped by the fact that the legislature has continued to view the casino industry as an economic development tool rather than a source for new tax revenue. The gaming tax rate is a flat 21%, with an admission tax of \$2 per person, which makes the effective rate approximately 25.2% of gaming revenue.⁸⁴ Importantly, the rate has been stable, giving casino operators a stable environment for investing and operating.

5. Summary Analysis of Casino Comparison States

A key measurement to compare state casino industries is to examine the win per capita and population per slot machine. This can, however, be misleading. Iowa seems to have a very high win per capita and the most machines per capita of any of the states cited. The casinos in Council Bluffs and other properties near the Iowa border attract significant play from neighboring states. This population is not counted in the figures in Figure 112, making it appear that Iowa has an outsized number of slots and a very high win per capita. This is a strong indicator that Iowa is a net importer of gaming revenue from other states.

⁸⁴ Missouri Gaming Association, "How Gaming Tax Revenue Benefits Missouri."

<https://www.missouricasinos.org/missouri-wins/#:~:text=Missouri%20is%20one%20of%20the,addition%20to%20other%20business%20taxes> (accessed November 10, 2021)

Figure 112: Midwest state electronic gaming devices per capita and win per capita, last 12 months ending June 2021

	Iowa	Illinois	Missouri	Indiana
Population (2020)	3,190,369	12,812,508	6,154,913	6,785,528
EGDs = Slots + VGTs	15,318	42,421	14,361	14,780
Population per EGD	208	302	429	459
AGR Casino + VGT	\$1,575,410,919	\$2,609,595,848	\$1,726,261,904	\$2,134,515,976
Per Capita AGR	\$494	\$204	\$280	\$315

Sources: State gaming commissions, US Census

Another key comparison measure is to simply analyze total gaming revenue by state and look for trends in the data. As can be seen in Figure 113, casino revenue in Iowa was stable from 2017 to 2019 and is growing in 2021 as the casinos rebound from the pandemic. Another tool to review a market over time is to look at the compound annual growth rate (“CAGR”). Looking at the CAGR for Iowa from 2017 to the annualized CY 2021 number shows a compound annual growth rate of 4.6%, more than double the rate of Missouri and Indiana.

Figure 113: Midwest casino revenue, 2017-2021

Total Win CY (M)	IL Casino	IL VGT	IN	IA	MO
2017	\$1,406.5	\$1,302.8	\$2,220.9	\$1,453.2	\$1,727.1
2018	\$1,373.5	\$1,500.0	\$2,222.6	\$1,457.9	\$1,744.2
2019	\$1,354.2	\$1,676.7	\$2,188.1	\$1,459.0	\$1,719.4
2020	\$494.0	\$1,134.4	\$1,568.2	\$1,122.5	\$1,249.7
9 Mo. 2021 Annualized	\$1,234.9	\$2,444.8	\$2,387.2	\$1,741.7	\$1,883.9
Change 2017-2019	-\$52.3	\$373.9	-\$32.8	\$5.8	-\$7.7
CAGR 2017 to 2021 Annualized	-3.20%	17.0%	1.8%	4.6%	2.2%

Source: Spectrumatrix, Spectrum Gaming Group

If evaluated on the basis of projected growth, the Iowa casino industry is performing better than any of the peer states reviewed. The stable environment means that the gaming industry in Iowa is financially healthy.

6. Analysis of Sports Betting States

To assess how Iowa is faring with regards to sports betting compared with other states that recently legalized the activity, Spectrum studied several metrics including total handle and GGR for both retail and digital sports betting for the last 12 months (“LTM”) period through September 2021 (Virginia does not yet include retail). As a way of benchmarking Iowa vs. other states, we calculated the GGR per adult as adjusted for household income. On the high end, New Jersey generated \$80 of GGR per capita and on the low end, Virginia generated only \$23. Iowa generated \$41 of GGR per capita, which is the median across all states and just below the average of \$43.

Spectrum believes that Iowa’s low tax rate of 6.75% on sports betting GGR (tied with Nevada for lowest in the country) is a positive contributing factor of higher GGR per capita metrics because it enables operators to invest in marketing and promotions. Nevertheless, it is conceivable that operators in Iowa

do not prioritize the market as much as other higher-grossing markets. Additionally, other factors that inhibit the overall GGR generating from sports betting include Iowa's smaller population, limited representation by pro sports teams and low median household income relative to other states.

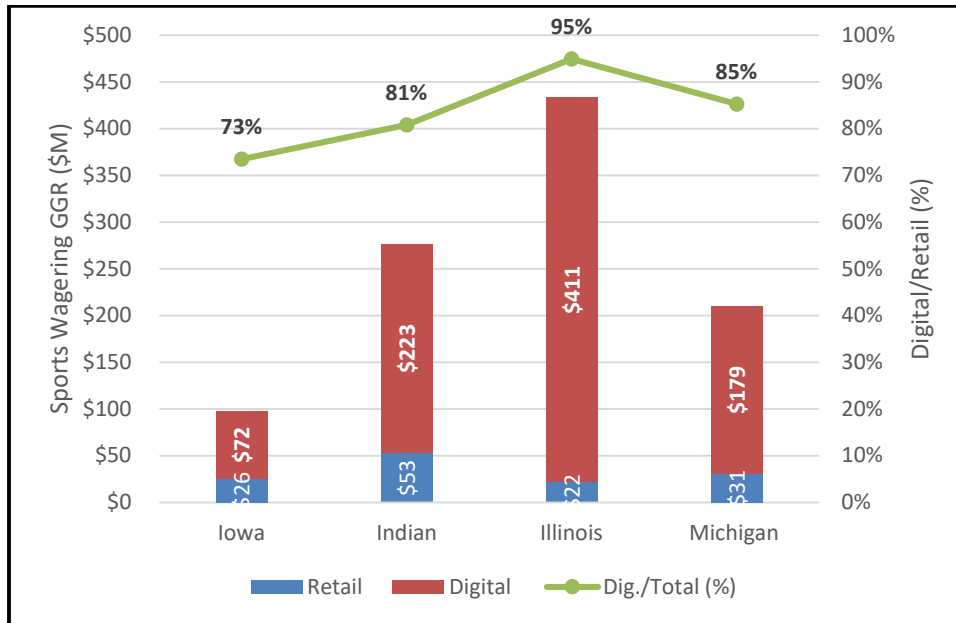
Figure 114: Sports betting performance, Iowa vs. select states, last 12 months*

State	Adult Pop. (M)	Household Income	Start Date		Tax Rate on Sports Betting GGR		LTM Retail (M)		LTM Digital (M)		LTM Total (M)		Hold %	GGR per Adult	
			Retail	Digital	Retail	Digital	Handle	GGR	Handle	GGR	Handle	GGR		Actual	Adj. for Average Household Income
CO	4.5	\$72,331	J-20	M-20	13.75%	18.00%	\$54	\$2	\$3,092	\$211	\$3,146	\$213	6.8%	\$47	\$41
DC	0.6	\$86,420	J-20	M-20	10.00%	10.00%	\$147	\$22	\$42	\$8	\$189	\$30	15.9%	\$50	\$36
IA	2.4	\$60,523	A-19	A-19	6.75%	6.75%	\$247	\$28	\$1,435	\$69	\$1,682	\$97	5.7%	\$40	\$41
IL	9.9	\$65,886	M-20	J-20	17.00%	17.00%	\$223	\$22	\$5,460	\$411	\$5,683	\$433	7.6%	\$44	\$42
IN	5.2	\$56,303	S-19	O-19	9.50%	9.50%	\$435	\$53	\$2,832	\$223	\$3,267	\$276	8.4%	\$53	\$59
MI	7.8	\$57,144	M-20	J-21	8.40%	9.65%	\$301	\$31	\$2,234	\$179	\$2,535	\$210	8.3%	\$27	\$29
NH	1.1	\$76,768	A-20	D-19	50.00%	50.00%	\$110	\$9	\$471	\$34	\$581	\$43	7.4%	\$39	\$32
NJ	7.0	\$82,545	J-18	A-18	8.50%	13.00%	\$815	\$75	\$9,060	\$658	\$9,875	\$733	7.4%	\$105	\$80
PA	10.0	\$56,951	N-18	M-19	36.00%	36.00%	\$464	\$52	\$5,365	\$430	\$5,829	\$482	8.3%	\$48	\$53
RI	0.9	\$67,167	N-18	S-19	51.00%	51.00%	\$180	\$19	\$200	\$21	\$380	\$40	10.5%	\$44	\$42
VA	6.6	\$74,222	n/a	J-21	10.00%	15.00%	n/a	n/a	\$1,965	\$176	\$1,965	\$176	9.0%	\$27	\$23
WV	1.4	\$46,711	S-18	J-19	10.00%	10.00%	\$157	\$18	\$333	\$27	\$490	\$45	9.1%	\$32	\$43

Source: State gaming and lottery commissions, US Census, Spectrum Gaming Group. *Iowa LTM is for period ending October 2021; others are for period ending September 2021; Virginia and Michigan results are for last nine months.

The following chart graphically shows how Iowa sports betting performance compares to the four most proximate states with sports betting. For Iowa, although during the last 12 months ended August 2021 digital GGR represented 73% of the total, some recent months were as high as 86%, which is more in line with other states such as Illinois and Michigan.

Figure 115: Sports betting performance, Iowa vs. Midwestern states, last 12 months



Source: State gaming commissions, Spectrum Gaming Group. Iowa LTM is for period ending October 2021; others are ending September 2021.

B. Financial Health of Iowa Casino Industry

There are several ways to evaluate the overall health of an industry. Revenue, employment, and investment are all tools to measure the health of an industry. The gaming industry uses a metric of earnings before interest, taxes, depreciation, and amortization (“EBITDA”). Simply, EBITDA is a means to measure how much cash is left at the company after paying all the bills but before paying financing costs and taxes. Industry executives use EBITDA as a measure of the operational efficiency and the overall health of a property or company.

Twelve of the members of the Iowa Gaming Association shared with Spectrum income statements from their properties. We have combined the income statements and developed a summary income statement for the industry in Figure 116. While this is not by any means a complete accounting of the industry’s condition, Spectrum believes the data we reviewed present a picture of a healthy industry. We used 2019 as the base for this analysis due to the Covid-19 interruptions in 2020.

Figure 116: Summary income statement for 12 Iowa casinos, CY 2019

Metric	Combined total
Gaming Revenue	\$908,149,838
Non-Gaming Revenue	\$180,443,758
Gross Revenue	\$1,088,593,596
Operating Expenses	\$814,868,199
EBITDA	\$273,725,397
EBITDA Margin on Gross	25.1%

Sources: 12 members of the Iowa Gaming Association

Placing the EBITDA margin number in context is important to gauge the health of the industry. Figure 117 below presents the EBITDA margins for several publicly traded gaming companies. All except CCM, the operator of Motor City casino in Detroit, operate multiple properties in multiple jurisdictions. This makes a difference when comparing the EBITDA due to differences in tax rates, tax policy and economies of scale in purchasing, marketing, and other areas. The Iowa income statements we viewed were for single properties, not corporations.

Overall, the sample public companies had a combined EBITDA margin of 27.3% for 2019 – only slightly above the 25.1% blended EBITDA margin from the 12 Iowa casinos that provided their financial results to Spectrum. It should be noted that the public companies sampled had combined revenues 13 times the combined revenue of the Iowa sample. This level of EBITDA margin is generally considered healthy by industry observers.

Figure 117: Revenue and EBITDA for select gaming companies, 2019

Casino Company	Revenue	EBITDA	Margin
Caesars Entertainment	\$3,473.4	\$789.2	22.7%
Motor City (CCM)	\$486.1	\$119.2	24.5%
Boyd Gaming	\$3,326.1	\$896.7	27.0%
Penn National	\$5,301.4	\$1,605.2	30.3%
Bally's Corporation	\$523.6	\$167.1	31.9%
Total	\$13,110.6	\$3,577.4	27.3%

Sources: Deutsche Bank, Jefferies

C. Assessing the Types of Iowa Casinos

The shape of the building or purpose of a casino building – be it a racetrack, a moored barge, a fixed building, or a riverboat – makes little overall difference in its performance in Iowa. In competitive markets – i.e., where consumers could easily move from one casino property to another – such differences could be profound, as a casino stuffed into a racetrack grandstand or an aging riverboat with a casino on three levels could be viewed by players as less appealing than a purpose-built, land-based casino across the street.

Assessing this issue in Iowa, a key issue in evaluating the most productive or successful type of structure is what to use as the benchmark. The IGRC publishes operational metrics as part of the year-end reporting. The data in Figure 118 present various means of measurement. So which to choose?

In Figure 118 we present each of the Iowa commercial casinos measured across a variety of metrics. The green bars in the table indicate the relative strength of that attribute for the casino.

Figure 118: Iowa commercial casino performance metrics, FY 2021

FY Ending June30, 2021	Slots	Slot Win	Win/Slot/Day	Tables	Table Win	Win/ Table/Day	Adjusted Gross Revenue	Casino SF	Win/SF /Day	Win per Visit
Ameristar II	1,416	\$148,868,946	\$288	26	\$16,944,586	\$1,786	\$165,813,532	35,125	\$12.93	\$119
Casino Queen - Marquette	422	\$17,877,540	\$116	6	\$244,507	\$112	\$18,122,047	17,514	\$2.83	\$136
Catfish Bend Casino	643	\$39,870,872	\$170	25	\$3,441,814	\$377	\$43,312,686	26,815	\$4.43	\$70
Diamond Jo - Dubuque	787	\$62,251,105	\$217	23	\$5,824,110	\$694	\$68,075,215	41,408	\$4.50	\$113
Diamond Jo - Worth	869	\$88,168,743	\$278	28	\$7,710,697	\$754	\$95,879,440	34,873	\$7.53	\$100
Grand Falls Casino Resort	714	\$68,148,655	\$261	39	\$9,836,963	\$691	\$77,985,618	42,042	\$5.08	\$91
Hard Rock Casino	642	\$78,892,533	\$337	21	\$8,179,257	\$1,067	\$87,071,790	41,134	\$5.80	\$61
Harrah's Casino & Hotel	486	\$51,306,055	\$289	19	\$6,813,101	\$982	\$58,119,156	21,687	\$7.34	\$86
Horseshoe Casino	1,372	\$148,101,370	\$296	66	\$32,247,212	\$1,339	\$180,348,582	58,315	\$8.47	\$113
Isle of Capri - Bettendorf	902	\$63,953,051	\$194	18	\$4,590,779	\$699	\$68,543,830	35,459	\$5.30	\$105
Isle Casino Hotel Waterloo	883	\$79,329,240	\$246	26	\$9,074,269	\$956	\$88,403,509	38,448	\$6.30	\$113
Lakeside Casino	664	\$45,410,352	\$187	12	\$2,196,633	\$502	\$47,606,985	24,475	\$5.33	\$130
Prairie Meadows	1,461	\$188,749,855	\$354	44	\$17,900,330	\$1,115	\$206,650,185	79,100	\$7.16	\$102
Q Casino	777	\$45,056,248	\$159	20	\$5,201,065	\$712	\$50,257,313	44,359	\$3.10	\$88
Rhythm City Casino	850	\$100,886,001	\$325	24	\$9,372,957	\$1,070	\$110,258,958	38,022	\$7.94	\$84
Riverside Casino	896	\$105,326,759	\$322	43	\$10,957,607	\$698	\$116,284,366	51,598	\$6.17	\$84
Wild Rose - Clinton	534	\$30,966,755	\$159	9	\$1,953,760	\$595	\$32,920,515	19,574	\$4.61	\$85
Wild Rose - Emmetsburg	486	\$26,161,368	\$147	7	\$1,257,159	\$492	\$27,418,527	16,790	\$4.47	\$97
Wild Rose - Jefferson	514	\$30,482,493	\$162	13	\$1,856,172	\$391	\$32,338,665	17,162	\$5.16	\$88
Total Commercial Casinos	15,318	\$1,419,807,941	\$254	469	\$155,602,978	\$909	\$1,575,410,919	683,900	\$6.31	\$96

Source: IGRC, Spectrum Gaming Group. Green bars indicate the relative strength of that attribute for the casino.

On a total-win basis and win-per-slot-machine basis, Prairie Meadows is No. 1. Does that mean a racetrack enclosure is the most successful form of casino? On a win-per-square-foot and win-per-table basis, the Ameristar II moored barge casino in Council Bluffs is the runaway leader. Prairie Meadows generated only 55% of Ameristar’s win per square foot. Does that mean a moored barge is the most successful? The riverboat Casino Queen in Marquette generated the highest win per visitor, nearly 42% more than the statewide average. Is it the most successful? On the other hand, Casino Queen generated the least AGR of any casino in the state. Overall, the type of facility – be it a racetrack, riverboat or casino – is not as important as the quality of the facility.

Choosing which form of building is the most successful depends on what you measure and what is important. From the standpoint of the industry, the metric that matters the most is EBITDA, as discussed in a prior section.

D. Assessment of Laws Hindering Iowa Casino Industry

As noted above, Iowa has been progressive in adapting statutes and adopting rules to keep the industry meeting the goal of economic development. This has allowed the industry operators to operate at a healthy level, as also discussed above, and thus contribute to their communities and their respective Qualified Sponsoring Organizations.

Based on Spectrum’s independent assessment of the Iowa casino industry, as well as interviews with stakeholders and the Iowa Gaming Association, we could identify no state policies that are materially hindering their operations.

If Iowa were to follow the lead of Illinois and allow what is known as “distributed gaming” – the placement of a limited number of video gaming terminals in hundreds or thousands of non-casino locations throughout the state – this would surely increase overall gambling revenue in the state, but at a significant cost to the existing casino industry. As discussed above in the section on Illinois, the Illinois casino industry saw steep declines in revenue after the opening of VGTs or distributed gaming. The state of Illinois took in more revenue, but employment in the casinos fell. Investors lost confidence that adding to their Illinois properties would show a good rate of return.

Spectrum believes this matter bears watching, as numerous states are considering the addition of distributed gaming, either to outright generate fiscal receipts or as a means of eliminating the thousands of unregulated gaming devices already operating within their states.

E. Impacts of Tribal Gaming in Iowa

In addition to the casinos licensed by the IRGC, Iowa is host to four tribal casinos that operate under gaming compacts with the State. Although the Iowa tribal casinos do not publish revenue or attendance figures, by combining data from the commercial casinos with some of the knowns about the tribal properties, Spectrum can develop estimates of the revenues at each.

Using statewide data for commercial casinos of \$254 win per slot, \$909 win per table, and \$6.31 win per square foot, we developed the estimates shown in Figure 119. It is interesting to note that the two methods arrive at similar estimates for the gaming revenues.

Figure 119: Estimated Iowa tribal casino revenue

Tribal Casino	Slots	Est. Slot Win at Commercial WPU	Tables	Est. Table Win at Commercial WPU	Est. Adjusted Gross Revenue Using Win per Unit	Casino Square Feet	Est. Casino Win Using Commercial Win/SF
Prairie Flower	200	\$18,537,772	-	\$0	\$18,537,772	9,500	\$21,883,907
WinnaVegas	750	\$69,516,644	10	\$3,317,761	\$72,834,405	24,300	\$55,976,730
Meskwaki	1,350	\$125,129,960	21	\$6,967,298	\$132,097,257	67,553	\$155,613,005
Blackbird Bend	400	\$37,075,544	7	\$2,322,433	\$39,397,976	10,000	\$23,035,691
All Tribal Gaming	2,700	\$250,259,919	38	\$12,607,491	\$262,867,410	111,353	\$256,509,332
Commercial Casinos	15,318	\$1,419,807,941	469	\$155,602,978	\$1,575,410,919	683,900	\$1,575,410,919
<i>Tribal as % of Commercial</i>	17.6%	17.6%	8.1%	8.1%	16.7%	16.3%	16.3%

Sources Casino websites, Iowa Racing and Gaming Commission, Spectrum Gaming Group

For the state as a whole, it appears the tribal casinos are capturing approximately 17% of the market. However, using the estimates developed in Figure 119, in the markets where the tribal casinos compete we believe they perform well.

Meskwaki, the largest of the tribal casinos, competes with four commercial casinos in the middle of the state: Prairie Meadows, Isle Waterloo, Riverside Casino, and Wild Rose Emmetsburg. For FY 2021, those four commercial casinos combined for \$438.7 million in AGR. Using the middle estimate of \$132 million from Figure 119 means that Meskwaki is capturing approximately 23% of the market in this area.

Applying a similar methodology, the much smaller Prairie Flower casino in Carter Lake – which competes with the three commercial casinos in Council Bluffs – captures approximately 5% of the market. WinnaVegas and Blackbird Bend compete with Hard Rock Sioux City. Combined, these two tribal casinos are capturing an estimated \$196.5 million in revenue, or 55% of the potential market.

There is another method we can apply to Prairie Flower to triple-check our estimate. Prairie Flower is the newest tribal casino in Iowa. Recently, the Ponca celebrated the third anniversary of the opening of the casino.⁸⁵ The tribe reported that there were 800,000 guests at the casino in the first three years of operation. By again applying a statewide average from Figure 118 – in this case \$96 per win per visit – we can develop an estimate of the revenue attracted to the Prairie Flower Casino, as shown below.

Figure 120: Estimate of Prairie Flower Casino revenue using statewide win per visit

Tribal Casino	Visits since opening 11/1/18	Commercial Casino Win per Visit	Total Win Since Opening	Est. Annual Win at \$96 per visit	Class II Bingo Discount	Est. Annual Win
Prairie Flower	800,000	\$96	\$76,800,000	\$25,600,000	20%	\$20,480,000

Sources: WOWT, Iowa Racing and Gaming Commission, Spectrum Gaming Group

Because the Ponca did not have a gaming compact with the State of Iowa until recently, Prairie Flower offered electronic bingo machines – not true slot machines as the other casinos in the state do. Class II machines, as this type of electronic game is called, typically earn 20% less than standard slot machines with random number generators. The estimates of revenue for Prairie Flower using any of the three methods are very close.

Each of Iowa’s four tribal casinos directly competes with one or more commercial casinos, and thus they are capturing revenues that would otherwise accrue to the commercial casinos. However, as shown in our financial analyses earlier in this chapter, the commercial casinos are financially healthy and thus not hurting as a result of the tribal gaming operations.

F. Assessing Market Coverage by Iowa Casinos

Because Iowa does not have a statutory restriction on the number of casino licenses, there have been continual discussions over the years about establishing additional casinos. A question arises about the proper role of the State and the IGRC in this instance. Some make the case that if a private company wishes to put its capital at risk to develop an additional casino, and if the community has passed the referendum, the State should welcome the investment and let the market sort out the winners and losers. Others take a view that the Iowa casino industry has been successful because there has been a reluctance on the part of regulators to approve additional licenses. The State is in some ways a partner in every casino – collecting 22% to 24% of all AGR over \$3 million – and it has an interest in maintaining the health of the

⁸⁵ John Chapman, “Celebrating three years with a casino, Carter Lake officials says city sees economic boost,” WOWT, October 28, 2021. <https://www.wowt.com/2021/10/28/carter-lake-officials-says-city-sees-economic-boost-celebrate-three-years-casino/>

industry and the employment that comes with it. With 19 commercial casinos and four tribal casinos, Iowa is well served by existing casino options.

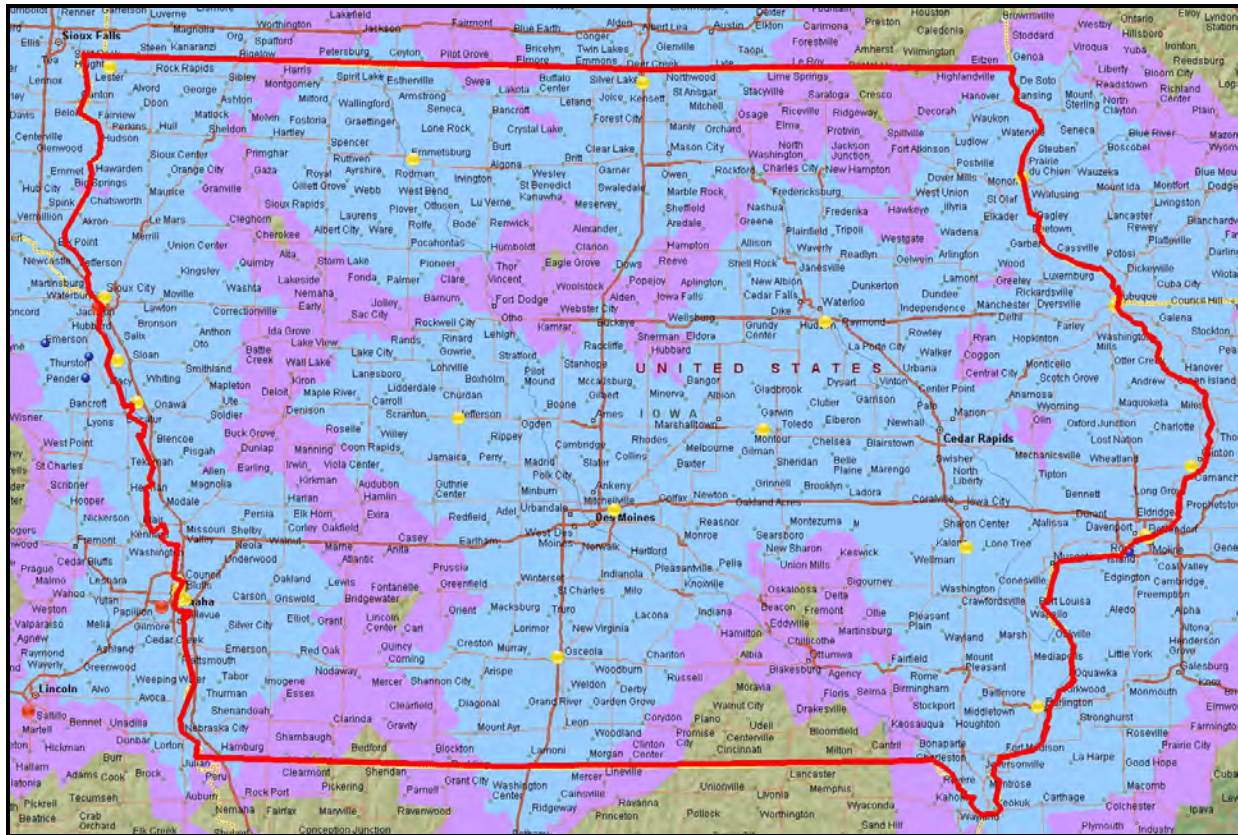
Whether Iowa has a sufficient number of casinos – and whether there are markets overserved and underserved with casino gaming – can be assessed from an independent, analytical perspective, as Spectrum has done below. But viewing the private sector’s reaction to marketplace conditions is also telling.

Two of the largest markets, Council Bluffs and the Quad Cities, straddle state lines and have multiple casinos. A new, large casino is planned for Omaha, across the river from Council Bluffs. The Quad Cities market has been fairly stable for a long time.

Other areas are served by a single operator. Are Burlington, Clinton, Osceola, Jefferson and Larchwood overserved by the sole operator in each city? If the operators believed this were the case, they would reduce gaming positions to better reflect demand. If they believed there was demand for more gaming, they would expand their casino floors.

From an analytical perspective, there are several ways to assess if an area is well served by casinos. The simplest is to look at access to casino gaming by mapping the drive time to casinos. The map in Figure 121 presents the 60-minute drive time reach in light blue, and the 90-minute drive time reach in lavender. As the map shows, there are few areas on the state that are more than a 90-minute drive to a casino. All the major Iowa cities are within a one-hour drive of at least one casino.

Figure 121: Map of Iowa casinos and 60-minute and 90-minute drive time coverage



Sources: Iowa Racing and Gaming Commission, Microsoft MapPoint. Note: 60-minute drive time reach in light blue, 90-minute drive time reach in lavender. Existing Iowa casinos are represented by yellow circles. Existing competing casinos are blue dots, and planned casinos in Nebraska are indicated by red circles.

There is also a population and income model that weighs the household income, population and distance to a casino. This estimate relies on three pillars: the percentage of adults who gamble, the number of casino trips each player makes on average, and the amount of spending by each player.

Participation is defined as the percentage of adults that will visit a casino over a year. Participation increases with the number and accessibility of facilities, and there are now more than 1,000 casinos of some type in 44 states. According to the American Gaming Association’s 2021 *State of the States* survey, 35% of the US adult population visited a casino in the past year, whether for gaming or non-gaming purposes, or both. Based on this information, as well as our experience in analyzing multiple gaming markets, we believe the casino participation rate for adults who live near a casino, or casinos, may reasonably approach 40% annually. Casino gaming participation is higher in areas with more accessible gaming options, which is consistent across the hundreds of operations with which Spectrum’s team has worked. Because Iowa has had casino gaming for over 25 years, and because there are 23 casinos in the state, we believe participation is higher than the national average.

Frequency is the average number of annual visits an adult will make to a casino. Like participation, frequency is influenced by the number and accessibility of facilities available to any particular market area. The more distant a facility, the fewer trips a player makes. However, those individuals who travel farther

generally have higher gaming budgets on those occasions, which to a certain extent offsets less frequent visitation.

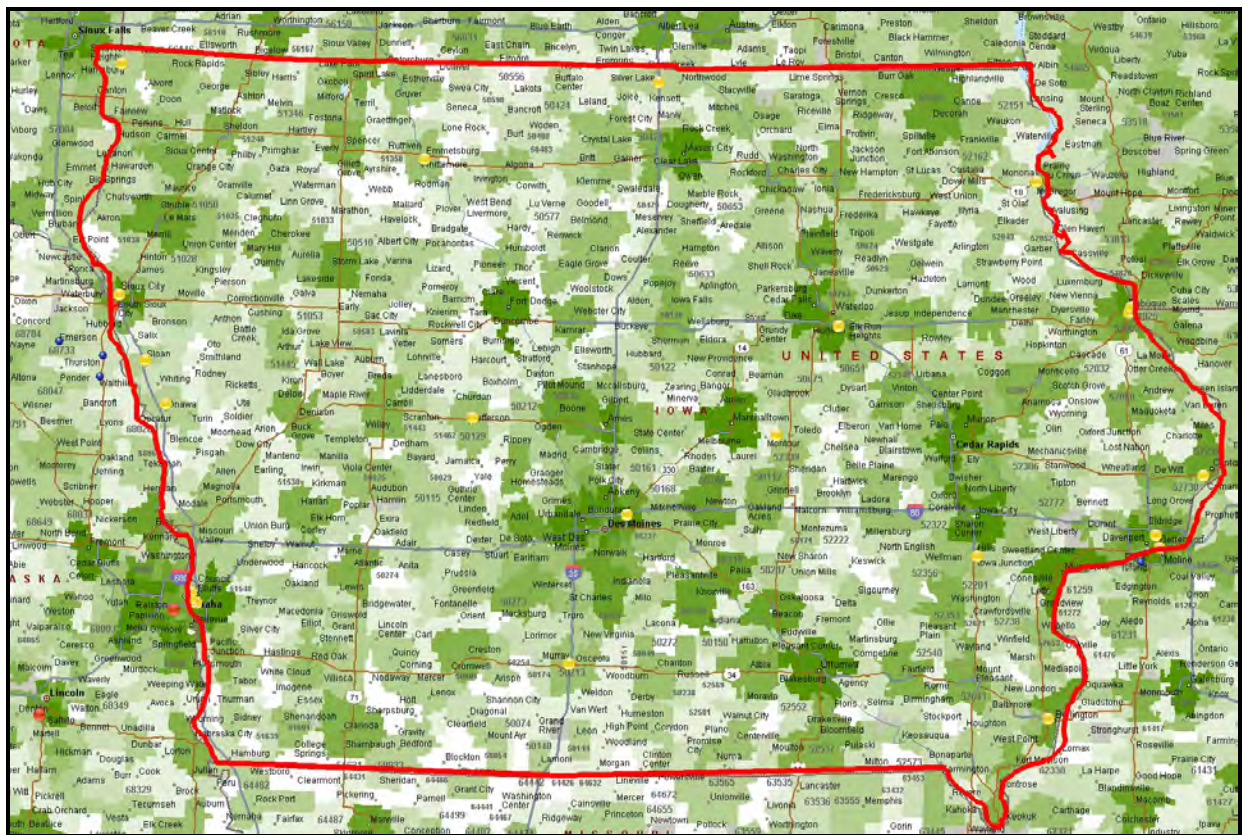
Spend is the amount spent by a player in a casino visit. Spend tends to increase with distance, and decrease with frequency. People who live closer to a casino visit more often but spend less on each visit.

The factors of adult population, participation and frequency are used to distribute player visits originating in each postal code to each casino. The distribution of player visits therefore also incorporates information including the size of a casino, its amenities, its marketing efforts, its rewards programs, and its appeal to calculate and distribute player visits within the catchment area. Average win (also called win per visit) is the average revenue generated from each player per visit and is estimated based on public reports, player surveys, and proprietary information shared by specific operators in other market areas.

Casino gaming is a form of entertainment. Entertainment spending tends to increase with disposable income levels. Projected GGR is then calculated by multiplying the estimated number of visits and the average win. Using the latitude and longitude coordinates of each property and ZIP Code, we were able to establish distances to the closest casino from each ZIP Code in the Iowa market area.

The map below in presents Spectrum’s estimate of the casino revenue density potential from each ZIP Code. Deeper shades of green represent more potential revenue. As can be seen, the ZIP Codes that are closer to casinos and those with higher populations generate more revenue.

Figure 122: Estimated Iowa casino revenue potential by ZIP Code

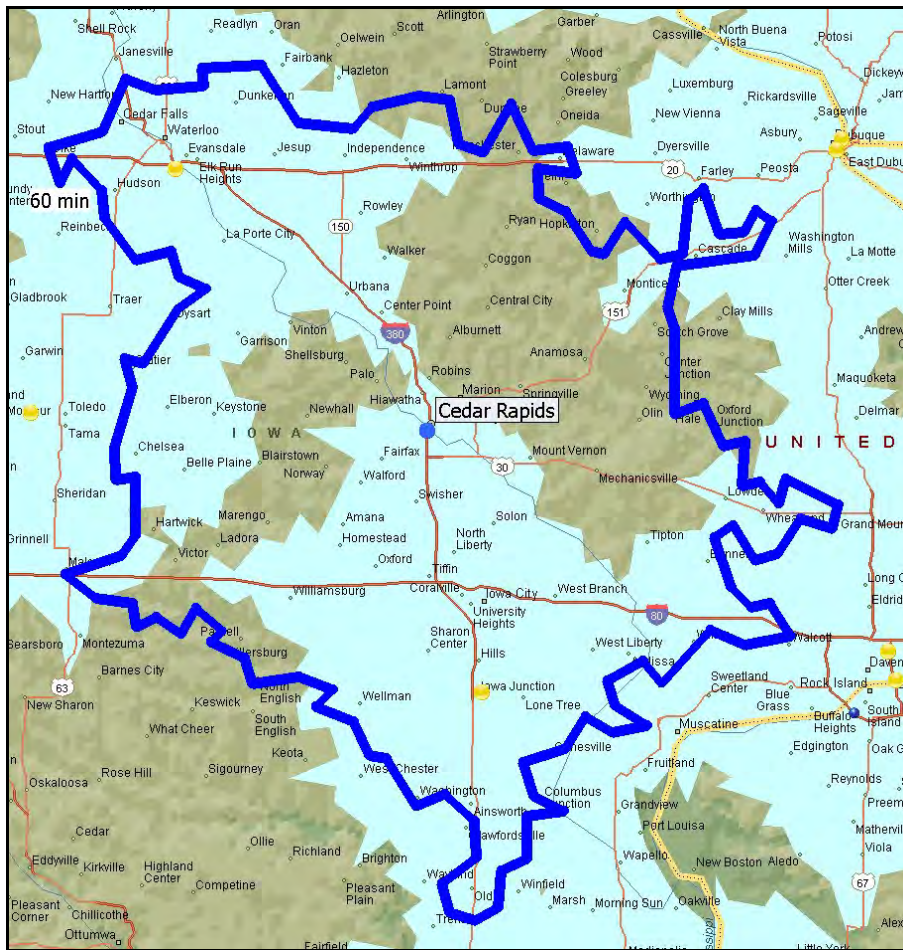


Source: US Census, Microsoft MapPoint, Spectrum Gaming Group

One market that has been cited for years as a potentially underserved with casino gaming is Cedar Rapids. Using the methodology described above, Spectrum developed estimates of AGR potential from each ZIP Code in the state. We focused on Cedar Rapids in particular as a potentially underserved market. After developing the estimated potential for AGR for each ZIP Code, we drew a 60-minute drive-time zone around Cedar Rapids to determine the total available potential market. In the 111 ZIP Codes in that zone, Spectrum estimates total potential AGR of \$215 million. Next, we sought to estimate the AGR from the existing casinos that serve the Cedar Rapids market. The existing Iowa casinos are denoted by yellow dots on the map below. For our estimate we used a 45-minute drive time from each of the casinos.

The map in Figure 123 shows the 60-minute drive from Cedar Rapids as a blue line. The reach of the existing Iowa casinos' 45-minute drive-time zones is shaded in light blue to present the degree of overlap between the 45-minute drive from existing Iowa casinos and a 60-minute drive from Cedar Rapids. Spectrum's analysis shows that there are 82 ZIP Codes within 60 minutes of Cedar Rapids and within 45 minutes of an existing Iowa casino, with an overlap in AGR of \$163.6 million within the market potential of \$215 million.

Figure 123: Cedar Rapids 60-minute drive time and 45-minute drive from existing Iowa casinos



Source: Microsoft MapPoint, Spectrum Gaming Group. Blue line shows 60-minute drive from Cedar Rapids; light-blue shading shows 45-minute drive from existing Iowa casinos. Yellow dots show sites of existing casinos.

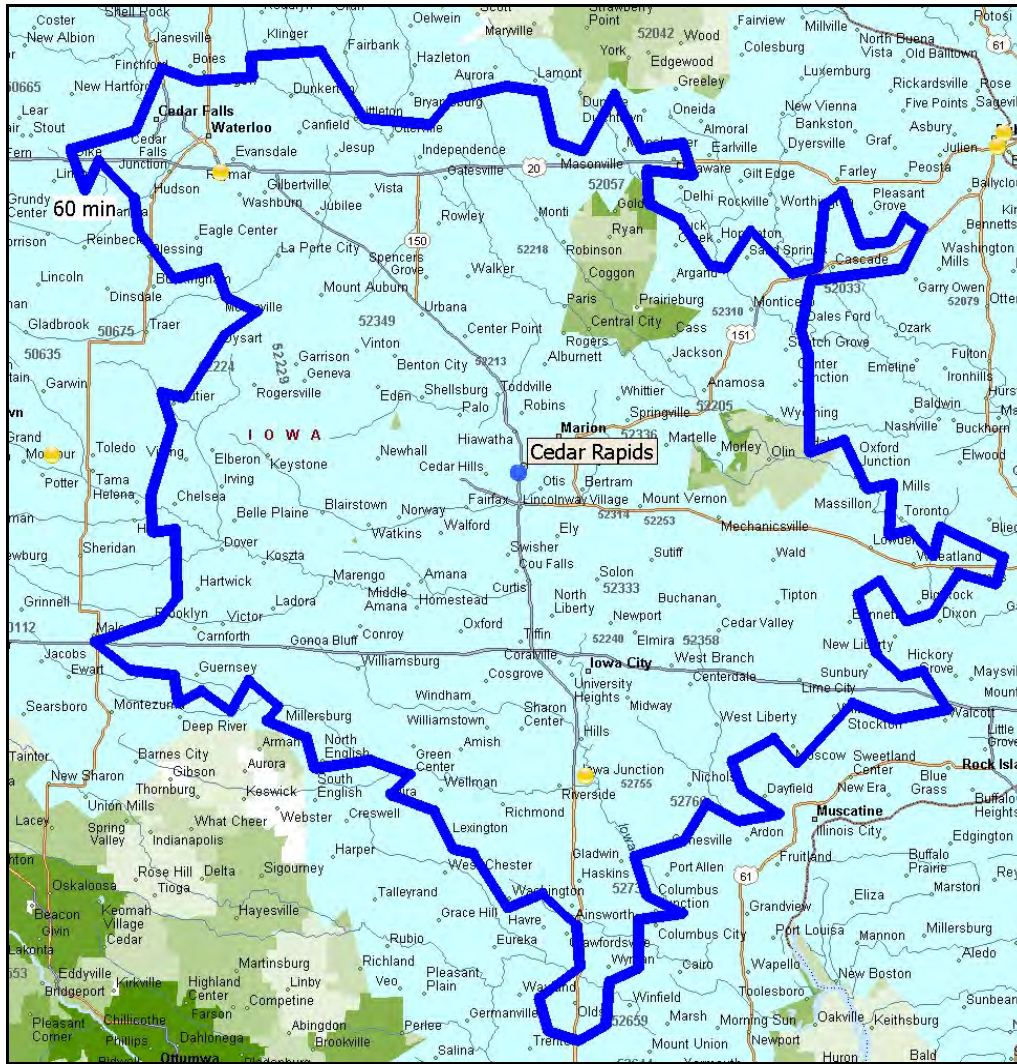
Figure 124: Estimated Cedar Rapids gaming market and overlap with other gaming markets

Drive Time Market	Estimated AGR
Estimated Casino Revenue within 60 Minutes of Cedar Rapids	\$214,970,000
Estimated Overlap with Existing Casino 45-Minute Drive	\$163,560,000
Percent Overlap with 45-Minute Drive	76.1%
Potential Available for Cedar Rapids Casino	\$51,410,000

Source: Spectrum Gaming Group

We know from experience that casinos generally draw players from more than 45 minutes away. We next examined the potential overlap of the 60-minute drive times. Using the same model and the same methodology for mapping, we found that there is nearly complete coverage of the 60-minute drive time market from existing Iowa casinos, as shown in Figure 125.

Figure 125: Cedar Rapids existing casino 60-minute drive times



Source: Microsoft MapPoint, Spectrum Gaming Group. Blue line shows 60-minute drive from Cedar Rapids; light-blue shading shows 60-minute drive from existing Iowa casinos. Yellow dots show sites of existing casinos.

Based on Spectrum’s analysis, it appears that Cedar Rapids is well served by casinos in Waterloo and Riverside, both within an hour of Cedar Rapids. Adding a casino to Cedar Rapids holds the prospect of cannibalizing these two properties significantly.

G. Iowa Casinos: Underperformance, Overperformance

In Figure 118, we presented the performance metrics of each property. The question of which casinos may be underperforming and overperforming expectations depends on what is being counted as success. Is a property with \$100 million in AGR and \$40 million in EBITDA more or less successful than a property with \$150 million in AGR and \$50 million in EBITDA? Some would argue that the smaller property is outperforming the larger one as it derived a higher EBITDA margin. Others would argue that \$50 million is more than \$40 million so the larger property is more successful. Further, the amount invested into a property can determine whether it is performing to expectations, as a lower-producing casino that cost comparatively little to build may have a higher return on investment (“ROI”) than a fancier, higher-volume casino that cost three times as much to build.

Because there is no precise definition of performance, industry analysts often resort to an analysis known as “fair share.” A fair share analysis looks at the percentage of slots, tables, admissions, or square feet of gaming each property has and compares it to the percentage of slot revenue, table revenue, and overall revenue. In a fair share analysis, if a casino has 10% of the slots statewide and is earning 10% of the statewide slot AGR, the casino would be at 100% fair share. A casino with 10% of the slots but 12% of the slot AGR would be at 120% of fair share.

In Iowa, there are three markets that have multiple operations: Council Bluffs, Dubuque, and Quad Cities. In Figure 126, we present the fair share analysis for each property in these markets for the fiscal year ended June 30, 2021.

Figure 126: Fair share analysis for Iowa markets with multiple operators, FY 2021

Percentage of Fair Share by Metric	Adjusted Gross Revenue	Win per Admission Fair Share	Table Win Fair Share	Slot Win Fair Share	Win per Square Foot Fair Share
Ameristar II	41%	108%	129%	99%	134%
Harrah’s Casino & Hotel	14%	78%	71%	99%	76%
Horseshoe Casino	45%	102%	97%	102%	88%
Diamond Jo - Dubuque	58%	112%	99%	115%	119%
Q Casino	42%	87%	101%	85%	82%
Isle of Capri - Bettendorf	32%	114%	101%	85%	102%
Rhythm City Casino	51%	92%	155%	142%	153%
Bally’s Quad Cities (IL)	17%	104%	40%	70%	47%

Source: Iowa Racing and Gaming Commission, Spectrum Gaming Group

Many consider win-per-admission to be the most important indicator of success, as it measures the revenue derived from each visitor. Using this metric, Isle Bettendorf is outperforming the rest of the Quad Cities market. However, Rhythm City is making better use of its slots and tables as it is far outperforming the market in these categories.

Another means to look at overperformance or underperformance would be to look at each casino in the context of the entire state. Figure 127 presents the data from Figure 118 excluding the casinos in the Quad Cities, Council Bluffs, and Dubuque markets. This analysis reviews how each non-metro property is performing against its statewide fair share excluding the metro-area casinos.

Figure 127: Statewide fair share analysis in casinos in one-property markets

Commercial Casino Metrics Fiscal Year end June30, 2021	% Slots	% Slot Win	Fair Share Slot Win	% Tables	% Table Win	Fair Share Table Win	Adjusted Gross Revenue	% Casino SF	Fair Share win/SF	% Admissions	Fair Share win per Admission
Casino Queen	4.8%	2.2%	46.3%	2.2%	0.3%	14.9%	2.1%	4.3%	48.5%	1.4%	149.4%
Catfish Bend Casino	7.4%	5.0%	67.7%	9.2%	4.6%	50.4%	5.0%	6.5%	75.7%	6.5%	76.3%
Diamond Jo - Worth	10.0%	11.0%	110.8%	10.3%	10.3%	100.8%	11.0%	8.5%	128.8%	10.0%	110.1%
Grand Falls Casino Resort	8.2%	8.5%	104.2%	14.3%	13.2%	92.3%	8.9%	10.3%	86.9%	9.0%	99.3%
Hard Rock Casino	7.4%	9.9%	134.2%	7.7%	11.0%	142.5%	10.0%	10.0%	99.2%	14.9%	67.0%
Isle Casino Waterloo	10.1%	9.9%	98.1%	9.5%	12.2%	127.7%	10.1%	9.4%	107.7%	8.2%	123.5%
Lakeside Casino	7.6%	5.7%	74.7%	4.4%	2.9%	67.0%	5.4%	6.0%	91.1%	3.8%	142.9%
Prairie Meadows	16.7%	23.6%	141.1%	16.1%	24.0%	148.9%	23.6%	19.3%	122.4%	21.1%	112.2%
Riverside Casino	10.3%	13.2%	128.3%	15.8%	14.7%	93.2%	13.3%	12.6%	105.6%	14.4%	92.3%
Wild Rose - Clinton	6.1%	3.9%	63.3%	3.3%	2.6%	79.4%	3.8%	4.8%	78.8%	4.0%	93.2%
Wild Rose - Emmetsburg	5.6%	3.3%	58.8%	2.6%	1.7%	65.7%	3.1%	4.1%	76.5%	2.9%	106.6%
Wild Rose - Jefferson	5.9%	3.8%	64.8%	4.8%	2.5%	52.2%	3.7%	4.2%	88.3%	3.8%	96.3%

Source: Iowa Racing and Gaming Commission, Spectrum Gaming Group

H. Assessment of Iowa's Casino Amenities

Iowa has developed a successful casino entertainment industry. The casino operations include a variety of amenities and other attractions that make the properties more than a place to gamble. Golf, bowling, restaurants hotels and headline entertainment are some of the amenities offered at the Iowa casinos.

Operators generally see amenities as tools for driving guests to the casino floor, and as an integrated part of the casino property. Some operators look at the ability of the amenity to generate cash revenue sufficient to cover the actual cost of the product or service. Others look at the “profitability” of the outlet, with comp revenue included. Generally, determining the profitability or appeal of one amenity or type of amenity relative to another is difficult.

Comps, or complimentaries, are offered to players as inducements to visit the casino. They may include dinners, show tickets, hotel rooms, golf or other items. Many casino amenities operate as cash flow negative. That is, the comp “revenue” from casino patrons is recorded in the amenity departmental income statement as revenue. In reality, there is a true cost to providing a steak dinner, a hotel room, etc. The comp “revenue” usually is recorded in the outlet income statement, while the comp expense is usually charged to the marketing department. No real money changes hands.

Based on Spectrum’s review of Iowa operator data and on our considerable experience operating and analyzing casinos for decades, we have found that the following amenities generally contribute to the overall performance of a casino property, as follows:

1. Hotel: This segment is critical to both attract and reward premium players. In some markets the hotels and meeting spaces market to businesses as sites for meetings and conventions, attracting more play.
2. Food and Beverage (“F&B”): This segment is critical to both attracting customers and keeping them on the property longer, thus increasing their expenditures. Casinos heavily market their restaurants and use them in differentiating their property from others. The beverage segment – namely bars – is important in attracting younger players.
3. Entertainment: Casinos host singers, comedians, and other shows to draw guests to the property. Tickets are often reserved and comped for premium players and discounted for lower-value players. Hosting these events creates an additional draw for the property and adds to the entertainment offerings in the area.
4. Spa: Many properties have a small spa within the hotel. The spas at casinos typically are used as an attraction for premium players and as a means for guests to extend their stays and turn a casino night into a retreat.

Even within a property, determining the most successful amenity for driving casino revenue, or the most profitable amenity is difficult, if not impossible. Each casino is unique, and each player is unique. Each casino offers a range of amenities that the owners believe serve the market. Golf may be a successful amenity in Riverside, while bowling may perform well in Dubuque.

Measuring the profitability of an amenity department is difficult. Usually the casino assigns a value to the comped service or item and looks at it as a marketing expense for that particular player. But does that really get at the value of the comp?

Suppose a player is comped a \$50 steak dinner and that day wins \$250 at a slot machine. Was comping the steak dinner a profitable decision? We cannot know that from one encounter. That same player may have been comped a \$100 hotel room a month earlier and that day lost \$250. Does that mean that the player should only be comped hotel rooms? Comp policies generally look at the value of a player’s losses to the casino over a period of time – the last 3, 6, or 12 months. The player is generally comped a percentage of the value of play.

Comps can also be used as a loyalty tool. Once a bowling alley or golf course is built, the variable cost of adding another round of golf or line of bowling is minimal. To the casino player, the implied value of that golf round or session of bowling may build loyalty to the property, increasing the likelihood of return visits.

10. Current State of Gaming Markets in Contiguous States

In assessing the performance of Iowa's \$1.5 billion⁸⁶ state-regulated casino industry, it is helpful to understand the scope and performance of gaming in the surrounding states. Figure 128 below shows the numbers of casinos, gaming units, and gross gaming revenue for Iowa and the surrounding states. Note that data for tribal gaming casinos generally are not publicly disclosed; for that sector we relied on the latest available data published (and estimated) by the American Gaming Association (2016 data) and Casino City's *Indian Gaming Report* (2017 data). Although the tribal gaming data are dated and surely have changed since their publication, we believe that they are useful here to provide a big picture of the scope of casino gaming surrounding Iowa.

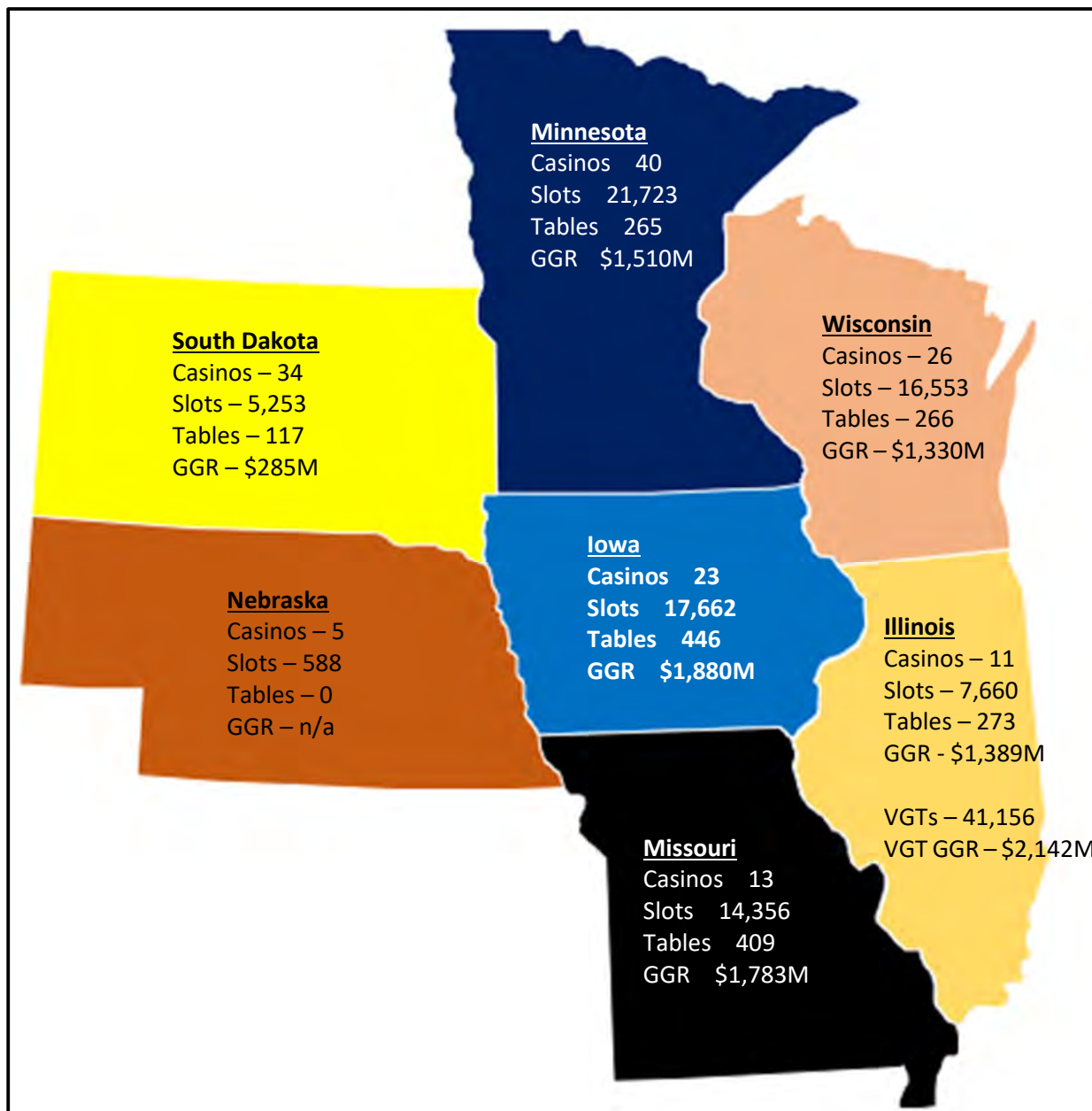
In total, the seven-state casino region – Iowa and the six states with which it shares a border – is large, with casino totals of:

- 152 casinos
- 83,795 slot machines (excluding the VGTs in Illinois)
- 1,776 table games (excluding poker tables)
- \$8.18 billion in gross gaming revenue (“GGR”)

It is important to recognize this as a region and not as a gaming market, as only those out-of-state casinos within a roughly two-hour drive of an Iowa casino would be considered competitors in the same market.

⁸⁶ As measured by adjusted gross receipts for FY 2021.

Figure 128: Map showing scope of casino gaming, annual gross gaming revenue in surrounding states



Source: State gaming commissions, American Gaming Association, Casino City *Indian Gaming Industry Report*, Spectrum Gaming Group. Notes: Commercial casino data are for last 12 months (“LTM”) ending August 2021. Illinois VGT data is LTM ending October 2021. Tribal gaming data are for 2016 (GGR and number of casinos) and 2017 (number of units). Table-game counts exclude poker tables.

Casino gaming does not operate in a vacuum. Many casinos in Iowa and – and in states across the country – are located near state lines for the express purpose of drawing players from out of state. The commercial operations in Council Bluffs and the tribal casino in Carter Lake draw substantial patronage from the Omaha area of Nebraska. Similarly, the casinos in Bettendorf and Davenport compete with the casino in Rock Island, IL, as well as with the Illinois video gaming terminal (“VGT”) industry. As such, developments in neighboring states can have a dramatic impact on the Iowa gaming industry.

Rather emphatically, Iowa is a net importer of casino gaming revenues:

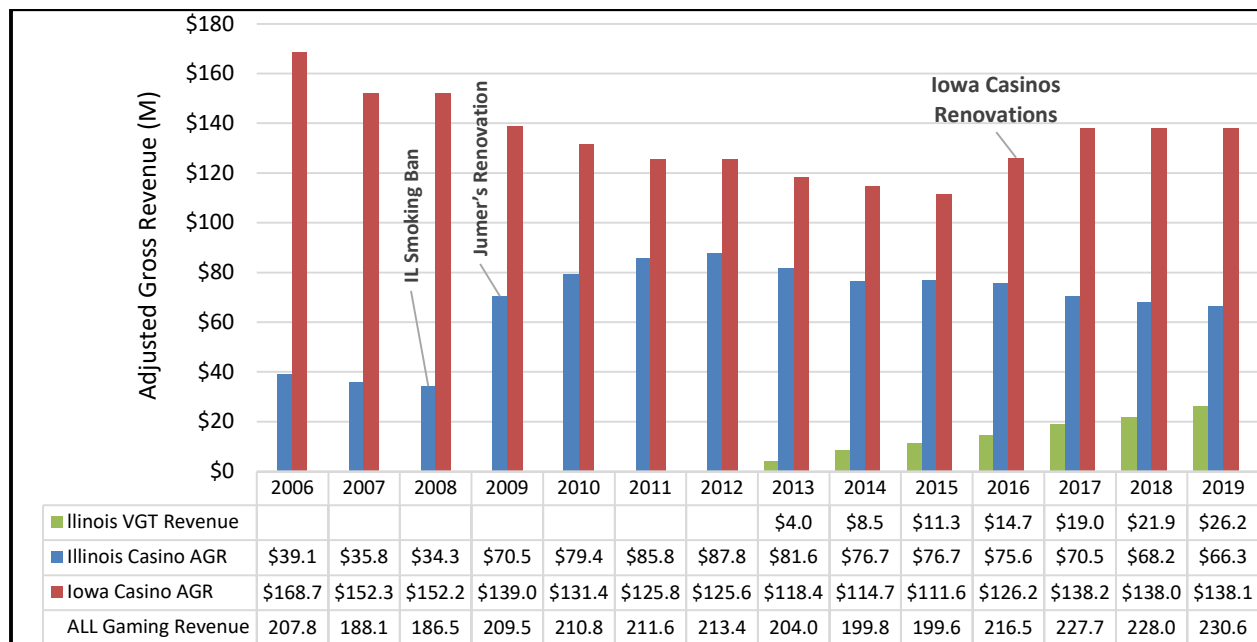
- There are 16 Iowa casinos positioned at its state borders with Nebraska (8, including 3 Native American casinos), Minnesota (1), Illinois (4), Illinois/Wisconsin (2), and Wisconsin (1).
- There is only one true out-of-state casino positioned at the Iowa border: Bally's Quad Cities (formerly Jumer's) in Rock Island, IL.
 - There are three small slot halls in Nebraska south/southwest of Sioux City as well as casinos 45 minutes to 90 minutes beyond Iowa borders that, collectively, present minimal competition to Iowa due to their limited scope and/or distance from the Iowa population centers.

Three casinos comprise the Quad Cities, IA/IL gaming market:

- Bally's Quad Cities in Rock Island, IL
- Isle Casino Hotel Bettendorf in Bettendorf, IA
- Rhythm City Casino in Davenport, IA

The chart below shows the ebb and flow of the Quad Cities bistate market through significant events that impacted revenues and market-share shifts among the three casinos.

Figure 129: Quad Cities gaming market, 2006-2019



Source: H2 Gambling Capital, Illinois Gaming Board, Iowa Racing and Gaming Commission

Several events impacted the Quad Cities market and thus at which casinos – and in which state – players gambled:

- As can be seen in Figure 129, casino revenue in the market declined due to the Great Recession.

- In 2008, Illinois banned smoking on casino floors while Iowa retained smoking in casinos. Smokers living in the Quad Cities area, in essence, now had two casinos to choose from rather than three. Casino revenue declined on the Illinois side of the border.
- In 2009, Jumer's moved the location of its casino to a land-based, single-floor operation with better air handling and a new hotel. Players in the Quad Cities market reacted strongly, as revenue at the Rock Island casino doubled in the year following the renovation, as seen in Figure 129. Revenues at the Iowa casinos declined slowly from 2009 through 2015.
- In 2016 both of the Iowa casinos went through major renovations. The market shifted in the direction of Iowa and the newer casinos.

The chart above also shows the rise of the VGT industry in Illinois. VGTs are generally a convenience form of gaming. Based on Spectrum's extensive study of the Illinois VGT market over the last several years, we believe it is unlikely Iowans are bypassing the full-service casinos in Bettendorf and Davenport to play VGTs at a truckstop or cafe in Illinois. It is more likely that the VGTs may have captured some play from Illinois residents who had been going to Iowa casinos. Overall, the Quad Cities gaming market has been stable, with shifts driven by casino renovations. Since 2006, the market has only grown about \$23 million – a compound annual growth rate of just 0.8%.

From a statewide perspective, by positioning most of its casinos along the Missouri and Mississippi rivers Iowa has a net positive pull from other states. Spectrum's interviews with executives at Council Bluffs casinos indicated that as much as 80% of the revenue at the Council Bluffs casinos is from residents of Nebraska.⁸⁷ The general manager of Hard Rock Sioux City shared that roughly 25% of its business comes from Nebraska and South Dakota.⁸⁸

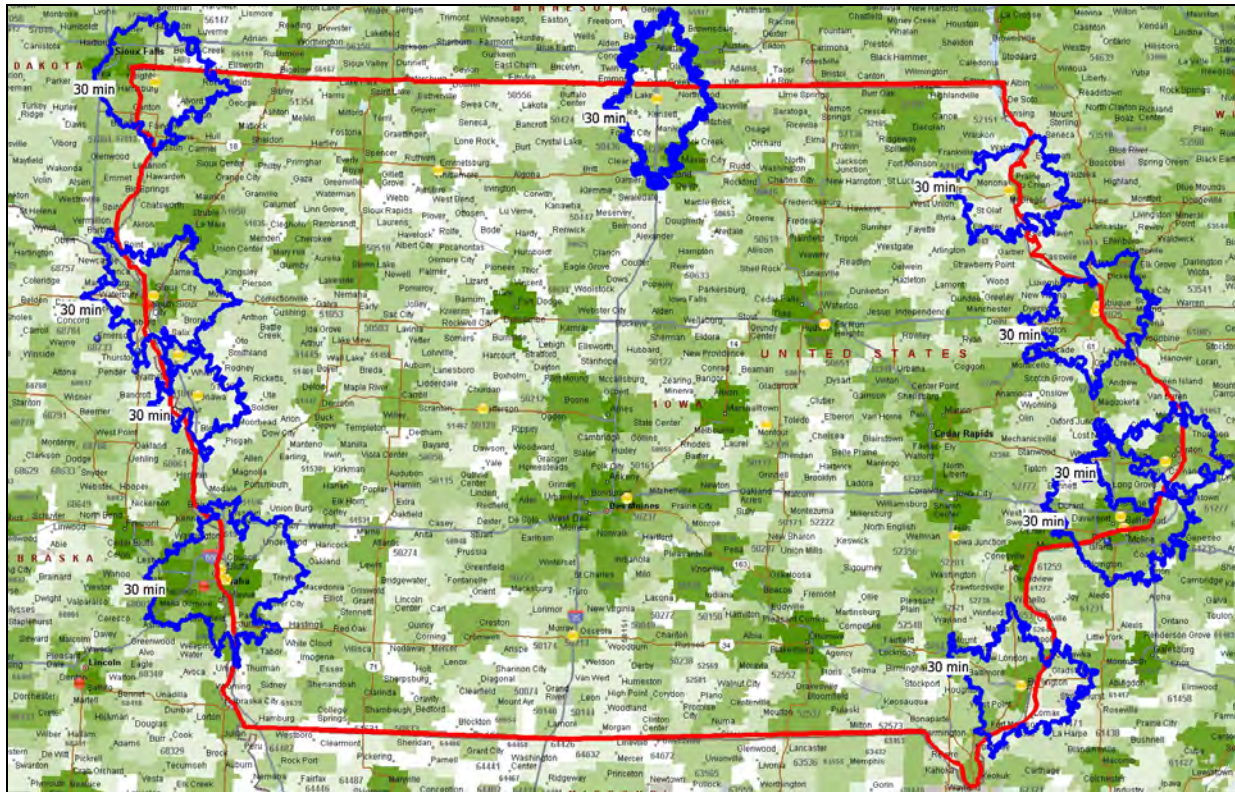
The map in Figure 130 presents the estimated adult population by ZIP Code and 30-minute drive times from the Iowa casinos located near the border with other states. As can be seen in the map, only Bally's Quad Cities in Illinois is in a competitive position to draw players from Iowa. Otherwise, as noted above, the closest out-of-state gaming facilities are either too small or too distant to present meaningful competition to Iowa's casinos.

However, as discussed in Chapter 11 of this report, there are plans to add casinos in Omaha, Lincoln, South Sioux City and other locations in Nebraska (as indicated by the red dots on the map below). These new developments will significantly restrict the flow of Nebraska players to Iowa casinos.

⁸⁷ Phone interviews with Paul Czak and Janae Sternberg, November 4, 2021, and November 11, 2021, respectively.

⁸⁸ Phone interview with Doug Fisher, November 5, 2021.

Figure 130: Estimated adult population by ZIP Code and 30-minute drive bands from border casinos



Sources: US Census Bureau, Iowa Racing and Gaming Commission. Spectrum Gaming Group, Microsoft MapPoint. **Yellow dots** are Iowa casino locations; **red dots** are anticipated Nebraska casino locations. **Blue lines** indicate 30-minute market catchment area for Iowa border casinos. Deeper **shades of green** indicate higher population.

As seen in the map above, 13 of Iowa's 19 commercial casinos are positioned along state borders to capture revenues from residents of Nebraska, Minnesota, South Dakota, Wisconsin and Illinois. Note in the map above that almost all of the higher-population areas in Iowa are within easy reach of an in-state casino. Through legislation, regulatory oversight and developer business sense, Iowa has done an excellent job of locating casinos in metro areas and in areas that draw from across state lines.

11. Future of Casino Gambling in Iowa

The gaming landscape is rapidly evolving, due primarily to the 2018 US Supreme Court decision overturning the prohibition on sports betting outside of Nevada (and three other states) and states' desires to generate fiscal receipts in the wake of the Covid-19 pandemic. Today, there are more than 1,000 casinos of some type in 44 states – and even non-casino states such as Tennessee (with digital sports betting) and Georgia (with slot-like, coin-operated amusement machines, or “COAMs”) have major gaming industries. Meanwhile, state lotteries are entering the digital world with online games in some states that resemble – and sometimes compete with – casino slot machines.

There is no holding back expanded gaming – in Iowa or elsewhere. While some new gaming may have little to no effect on casino revenues, other forms can present major challenges to casinos. Through this expansion of gaming, traditional land-based casinos remain important to states because of the fiscal receipts and the employment they generate. The American Gaming Association, which represents the commercial casino industry in Washington, DC, in 2018 reported that the US casino industry (including Native American facilities) directly employed 559,000 people and generated \$10.7 billion in gaming taxes.⁸⁹ In Iowa in 2019, the casino industry directly employed nearly 8,800 people and generated \$402.5 million in local, county and state taxes.⁹⁰

Therefore, it is vital that Iowa and other states with significant gaming industries understand what the future holds.

A. Projected Iowa Casino Performance, Next Three Years

The Iowa casino industry has prospered since its inception in 1991, due largely to the absence of out-of-state competition (as discussed in the previous chapter). That is about to change, as Nebraska voters in November 2020 overwhelmingly approved constitutional amendments to allow casinos at the state's six licensed horse-racing tracks – with the potential for additional casinos at newly built racetracks in the state. Spectrum anticipates that the Nebraska casinos will open in FY 2023 and will not reach full maturity until 2025.

Figure 131 below shows Spectrum's statewide forecast for the Iowa casino industry as measured by admissions, adjusted gross receipts, and employment. The estimates of AGR for the coming three years were built from admissions estimates and estimates of spend per customer using historical data from the IRGC and estimates of population growth and economic activity to guide the forecasts. Player database information and interviews with casino operators helped inform our estimates, including the potential

⁸⁹ American Gaming Association, “National Economic Impact of the U.S. Gaming Industry,” June 1, 2018. <https://www.americangaming.org/resources/economic-impact-of-the-u-s-gaming-industry-2/>

⁹⁰ Iowa Gaming Association, “Reinvesting In Iowa: Gaming Benefits Iowa,” 2019. https://www.iowagaming.org/reinvesting_in_iowa/gaming_benefits.aspx

loss of players and revenues to Nebraska. We further factored in 4% annual inflation into our estimates.⁹¹ For our employment forecast, we factored in figures provided to Spectrum by Iowa casino operators, and we estimated the impacts of the Nebraska casinos on employment based on interviews with Iowa casino operators. We have not included any changes in employment that may arise from changes in technology such as cashless wagering or online casino gaming. Our forecast also factors in the industry’s continuing reaction to any lingering impacts in operating procedures and policies regarding marketing, staffing and other operational issues lingering from the Covid-19 pandemic.

Spectrum anticipates that new Nebraska casinos will require a ramp-up period before reaching maturity. The ramp-up will be accelerated because these primary border markets of Omaha and Sioux City are already well-established gaming markets.

Figure 131: Three-year Iowa casino industry forecast of estimated admissions, AGR and employment

Year	Admissions	Change from 2021	AGR	Change from 2021	Employment	Change from 2021
FY 2021	16,394,655		\$1,575,410,919		8,009	
2022	16,503,952	0.7%	\$1,587,050,860	0.7%	8,090	1.0%
2023	15,260,000	-6.9%	\$1,537,420,000	-2.4%	7,934	-0.9%
2024	14,580,000	-4.5%	\$1,516,540,000	-3.7%	7,575	-5.4%

Source: Spectrum Gaming Group, Iowa casino operators

Council Bluffs and Sioux City are the two gaming markets that will be impacted most directly by the anticipated new casinos in Nebraska. Below, we have modeled these two markets separately and developed estimates of the potential impacts. Executives at each of the Council Bluffs properties told Spectrum that they earn approximately 80% of their gaming revenue from Nebraska.

Omaha and Lincoln are important markets for these Iowa casinos, and developers have proposed building casinos in each of these cities. At the Lincoln Race Course, developers are planning a \$220 million casino hotel facility with 196 guest rooms and 682 employees, with anticipated revenues of \$141 million when fully operational.⁹² ⁹³ The \$200 million WarHorse Omaha project will be constructed at the Horsemen’s Park site, but it currently does not include a hotel.

⁹¹ The median three-year ahead expected inflation rate per Federal Reserve Bank of New York, Center for Microeconomic Data, “Survey of Consumer Expectations.” <https://www.newyorkfed.org/microeconomics/sce#/inflexp-1> (accessed November 16, 2021)

⁹² McKenzie Parsons, “WarHorse casino plan for Lincoln Omaha and South Sioux City announced,” KPTM, May 12, 2021. <https://fox42kptm.com/news/local/warhorse-casino-plan-for-lincoln-omaha-and-south-sioux-city-announced>

⁹³ Riley Johnson, “Development of WarHorse casino formally begins; complex could be tallest building outside Lincoln’s downtown,” *Journal Star.com*, January 21, 2021. https://journalstar.com/news/local/govt-and-politics/development-of-warhorse-casino-formally-begins-complex-could-be-tallest-building-outside-lincolns-downtown/article_6383e60c-d191-557c-bfd8-834e4793fd4e.html

The tables in Figure 132 below present Spectrum’s estimate of the current market and the potential change to Iowa casino revenues in Council Bluffs.

Figure 132: Estimated impact to Council Bluffs casinos of new casinos in Nebraska

	Visits	AGR
Current (FY 2021)	3,666,857	\$404,281,270
Est. loss to Nebraska	(1,506,000)	-\$183,900,000
Council Bluffs three years ⁹⁴ after Nebraska casinos open	2,160,857	\$220,381,270
% Retained	58.9%	54.5%

Source: Spectrum Gaming Group

The Council Bluffs market draws from Omaha and Lincoln. These areas have higher household income than the Iowa sector of the market. As such, these players are of higher value to the casinos, which is why the Iowa properties retain a greater portion of visits than revenue.

In the Sioux City market, a casino is planned for the Atokad Park racetrack in South Sioux City, NE. Access to the new casino will be excellent, as the racetrack is situated at the cloverleaf from US 77 to I-129, a major crossing over the river to Iowa, and less than five miles from the Hard Rock Hotel & Casino Sioux City.

Figure 133: Estimated impacts to Hard Rock Sioux City of a new casino in Nebraska

	Visits	AGR
Current (FY 2021)	1,425,562	\$87,071,790
Est. loss to Nebraska	(601,000)	-\$35,520,000
Hard Rock three years after Nebraska casinos open	824,562	\$51,551,790
% Retained	57.8%	59.2%

Source: Spectrum Gaming Group

Unlike with the Council Bluffs market, where the population center is across the river in Omaha, Sioux City is the population center of its gaming market. Further, household income levels are higher in Iowa, which explains why Spectrum has forecast that Hard Rock will retain a higher percentage of revenue than of visits.

B. The Role of Technology in Shaping Future of Iowa Casinos

Operators and regulators in Iowa have a demonstrated ability and willingness to adopt – and adapt to – changes in technology, having done so in areas ranging from ticket-in/ticket-out (“TITO”) technology to the authorization and implementation of retail sports betting. That proven ability will be tested in the future as technology continues its rapid advance.

The gaming industry in Iowa – as in other states that offer legal commercial casinos – includes operators that are part of large organizations with gaming properties in multiple states. Such operators,

⁹⁴ Casinos typically take two to three years to ramp up to a mature level.

by definition, have the ability to quickly adopt technologies across multiple states, while Iowa regulators have shown that they can keep pace.

Indeed, technology will play a role in the future of any business, and casinos are no different. Just as bill validators and TITO eliminated the need for hopper fills, future technological changes will be similarly transformative. As in the past, the expectation for future technological innovations will be judged by criteria that include:

- Will the technology save money, including the potential for streamlined staffing?
- Will these changes be accepted by the gaming public?
- Will such new technology enhance the player experience?
- Will it secure the necessary regulatory approvals?

1. Cashless Wagering

Some casinos are experimenting with cashless technology to provide better service to guests, track play, and improve the effectiveness of responsible-gaming programs. Advancing this evolution is clearly a priority for gaming operators, as evidenced by efforts put forth by the American Gaming Association, the Washington-based trade group that represents most commercial gaming operators as well as many suppliers. The AGA – which refers to this change as “payment modernization” – has published the following summary:

Adding new payments to the casino floor allows customers to make gaming transactions in a convenient form that gives them the choice they are used to in their daily lives; creates an omnichannel experience for the patron by reducing friction between gaming and non-gaming segments of an integrated resort; and extends digital payment options currently in use by sports betting and online casino apps.⁹⁵

Whether referred to as “payment modernization” or “cashless gaming,” this evolving change offers a range of potential benefits to operators, regulators and players. Operators would be able to track play as the guest moves around the floor. At present, if a player buys in at blackjack, then plays craps and roulette, the table drop is recorded at blackjack, but the action took place at another game. Better tracking of play will lead to better ratings and a better understanding of player behavior.

Another major benefit to operators would be the further shrinking or closing of count rooms. If there were no cash on the floor there would be no drop boxes to empty and no potential for theft in the count room. Surveillance costs would decrease, as would security costs and insurance costs. When TITO replaced coins on the casino floor, the hard-count process was eliminated, reducing expenses and eliminating the physically demand job of removing and replacing hoppers filled with coins.

Regulators will benefit from an enhanced ability to monitor transactions, including in the critical area of anti-money laundering. Each hand of blackjack, spin of the roulette wheel or roll of craps will be detailed and available to regulators, providing much better oversight of money handling. Regulators and

⁹⁵ “Why does payment modernization matter?” American Gaming Association
<https://www.americangaming.org/policies/payment-modernization/> (accessed November 13, 2021)

operators will benefit by being able to prevent underage gaming. Both regulators and operators will additionally benefit by being able to restrict play from excluded individuals.

Players would benefit from not having to handle large sums of cash. A player could also set a wallet limit and permit play only up to the limit set. Lines at the cashier cage would vanish.

With respect to the important issue of responsible gaming, operators and regulators will be much better positioned to identify player-spending patterns that may be red flags. Operators will find it easier to identify players who are on exclusion lists.

On the other hand, cashless wagering has the potential to cause gamblers to wager beyond their budget. Without a fixed amount of cash in their wallets, and without actually seeing the money fed into a slot machine or handed to a dealer at a table game, players may not be cognizant of how much they have actually spent. As the National Council on Problem Gambling (“NCPG”) notes, “Recent payment innovations such as e-wallets, along with the availability of on-demand access to digital payments, could increase the willingness of consumers to spend more or gamble beyond their means in the heat of play. These new systems also shift more risk to consumers and remove protective factors, such as the need to pause game play to replenish cash. But new technologies can also be part of the solution, by enabling individuals to set responsible limits for themselves.”⁹⁶

As such, the NCPG calls on all stakeholders to:

- encourage people who gamble to set their own limits of time and money
- deliver personalized responsible gambling messages
- allow players to self-exclude
- allow players to synchronize their exclusions with property and state exclusion lists
- research signs of problematic play
- utilize the payments data they collect to monitor performance
- develop models to help predict and prevent excessive usage⁹⁷

Cashless wagering is widely used already in online casino games and online sports betting in numerous states.

2. Other Technology

As technology advances, new suppliers will identify opportunities in multiple states, including Iowa. Such entrants can range from multi-national corporations to small startups. For example, TransUnion⁹⁸ is a multi-national corporation that recently formed an operating subsidiary, TransUnion

⁹⁶ “Payment Processors Have a Role in Reducing Gambling Harms: New Guidelines Advocate Consumer-Centric Approach,” National Council on Problem Gambling, February 3, 2020. <https://www.ncpgambling.org/wp-content/uploads/2020/02/02-03-20-NCPG-Payments-Processing-RG-Guidelines-Press-Release.pdf>

⁹⁷ “Guidelines for Payment Processing,” National Council on Problem Gambling, January 23, 2020. https://158bvz3v7mohkq9oid5904e0-wpengine.netdna-ssl.com/wp-content/uploads/2020/02/NCPG-Guidelines-for-Payments-Processing_.pdf

⁹⁸ At this writing, TransUnion is a Spectrum client, but such work has no relationship to this report.

Gaming Services, which it claims “will help operators throughout the entire player journey, from acquisition to onboarding and verification, while providing their players a friction-right experience. Its solutions will address industry fraud, such as bonus abuse, while protecting player accounts and offering reduced login friction.”⁹⁹

An example of a smaller startup with hopes of gaining traction in gaming is OneComply, a company that offers to streamline the licensing application process. The company notes: “We understand what goes into state regulatory compliance processes. OneComply is designed with the process of data collection in mind, not just document creation. The small things matter when trying to comply with regulator requests.”¹⁰⁰

The nature of technological improvements that will be developed over the next 10 years cannot be predicted with precision, as the technology is simply moving too rapidly. At the same time, however, there are certainties that must be considered:

- In Iowa as in many other states, there is an increasing need to find new ways to broaden the demographic appeal of casinos. Technology can help meet that need, which will likely include changes to slot-machine technology.
- The role of regulators, who have always played a central part in reviewing and adopting technologies, will grow more important in coming years, as regulators are best positioned to ensure that new technologies comport with established principles.

C. Assessing the Iowa Casino Model

In a narrow sense, the current Iowa casino model has not changed appreciably since its inception in 1991, when it became the first state outside of Nevada and New Jersey to commence casino gaming; the casino properties offer traditional slot machines and table games on a large gaming floor, surrounded by an array of non-gaming amenities to complement the casino experience.

Understanding the current casino model requires an understanding of the political evolution, which followed an economic upheaval. As it was in many other states at the time, the Iowa casino industry was established as a tool for economic development and tourism. A 2016 article in *The Gazette* that noted the 25-year anniversary of casinos summarized the evolution succinctly:

In the mid-1980s, Iowa was feeling the full effect of the farm crisis and an exodus of manufacturing jobs. Unemployment soared past 9 percent in 1983, more than double what it had been just three years before.

Tom Fey, a former state legislator from Davenport who now works as a Statehouse lobbyist, remembers people leaving the Quad Cities in such great numbers that the city of Rock Island, Ill., removed some traffic lights and replaced them with stop signs.

Fey and his fellow state lawmakers, scrambling for ways to spark the state’s economy, began considering riverboat gambling in the mid-1980s, a novel concept at the time.

⁹⁹ “TransUnion to Enter \$119 Billion US Gambling Market,” April 7, 2021. <https://newsroom.transunion.com/transunion-to-enter-119-billion-us-gambling-market/>

¹⁰⁰ About Us: OneComply. <https://onecomply.com/about-us/> (accessed November 13, 2021)

“Back then, it was a big deal,” said Don Avenson, who was Speaker of the House in the late 1980s and also now lobbies at the Statehouse.

The push for riverboat gambling was particularly strong in Eastern Iowa cities, such as Davenport and Dubuque, which were especially struggling at the time.

“The riverboat gambling concept came from Davenport,” Avenson said. “Davenport was struggling economically, and we thought it would help their economy.”

The interest had been stated, and the groundwork laid. But it would take state lawmakers four years to pass legislation legalizing riverboat gambling.¹⁰¹

The Iowa casino model is the residue of political and economic struggles, but the model itself has not been static. Other factors, most notably changes in technology, have joined in to prompt further changes, including:

- 1994: Elimination of \$5 maximum bet and betting limits
- 2004: Approval of table games at racetracks
- 2007: Approval of moving casino floors onto land and eliminating the “over water” provision
- 2008: Retaining smoking on the casino floor when Illinois banned it
- 2019: Authorizing retail and digital sports betting

By any measure, the 2022 Iowa casino model is not the 1991 model; it reflects that never-ending brew of political, economic and technological changes. The basic elements, however, remain in place. The model is built on a social entertainment experience that encompasses gaming, dining, entertainment and other amenities, including meetings. Those elements will – and should – remain in place.

Legislators and regulators in Iowa can be expected to stay atop the issues that will demand further refinement of the business model, and they can anticipate discussions taking place, and analyses being conducted, on issues ranging from changes in the tax structure to the authorization of new forms of wagering, such as esports and peer-to-peer skill-based contests.

Spectrum’s experience suggests that all such future discussions and amendments to the gaming law and regulations need to be grounded in the notion that brick-and-mortar gaming has been the centerpiece of gaming, and that should remain. The casino model as envisioned in 1991 and as presently constituted remains the most effective means of generating employment, promoting tourism, and offering the widest range of fiscal benefits – including but not limited to the tax on adjusted gross receipts.

At the same time, however, not all casinos in Iowa operate under the same business model. Differences in the offerings exist, and those differences can be attributed to factors that include the demographics and population density of the surrounding region, the distance from competitors, and the relative distance from state borders. In effect, not all properties have the same business model in large measure because not all properties can *afford* the same business model. By way of example, capital investment in non-gaming attractions that could generate an acceptable return in one market would not make financial sense in another.

¹⁰¹ Erin Murphy, “Iowa Riverboat Gambling Celebrates 25 years on the Water,” *The Gazette*, March 28, 2016.

<https://www.thegazette.com/news/iowa-riverboat-gambling-celebrates-25-years-on-the-water/>

The common thread among all the business models in Iowa is a dependence on laws and regulations that will be sufficiently flexible to accommodate future changes. The core business model, however, will remain unchanged.

The primary reason that the core business model will remain static for the foreseeable future is that the primary reason people visit casinos is to enjoy a convivial atmosphere – to leave their residences for a new environment where they can interact with friends, other players, and employees in a welcoming, escapist environment. Although there is continual discussion – and concern – within the industry about changing the casino experience to appeal to millennials by creating gaming machines that appeal to those brought up on video games, casino operators say that such a switch is premature, as suggested in the following graphic presented by Penn National Gaming (the operator of Ameristar Council Bluffs) in 2016. For local/regional casino markets such as those in Iowa, their core market remains the age 55+ customers – players with time and disposable income.

Figure 134: Comparison of demographics – Baby Boomers vs. Millennials

Baby Boomers	Born	Millennials
1946 – 1964		1980 – 2000
52 – 70	Age Today	16 – 36
74.9M	Population Size	75.4M
\$12.5K	Avg. Student Loans*	\$25.5K
\$35.8K	Full Time Earnings*	\$33.9K
22.9%	Live with Parents	30.3%
32	Age when First Purchased Mutual Funds	23

“Wait Another 15 Years”

* In today's dollars
Source: American Council on Education, College Board, Investment Company Institute, U.S. Census Bureau.

Source: Timothy Wilmott, then-CEO, Penn National Gaming, presentation to East Coast Gaming Congress, 2016

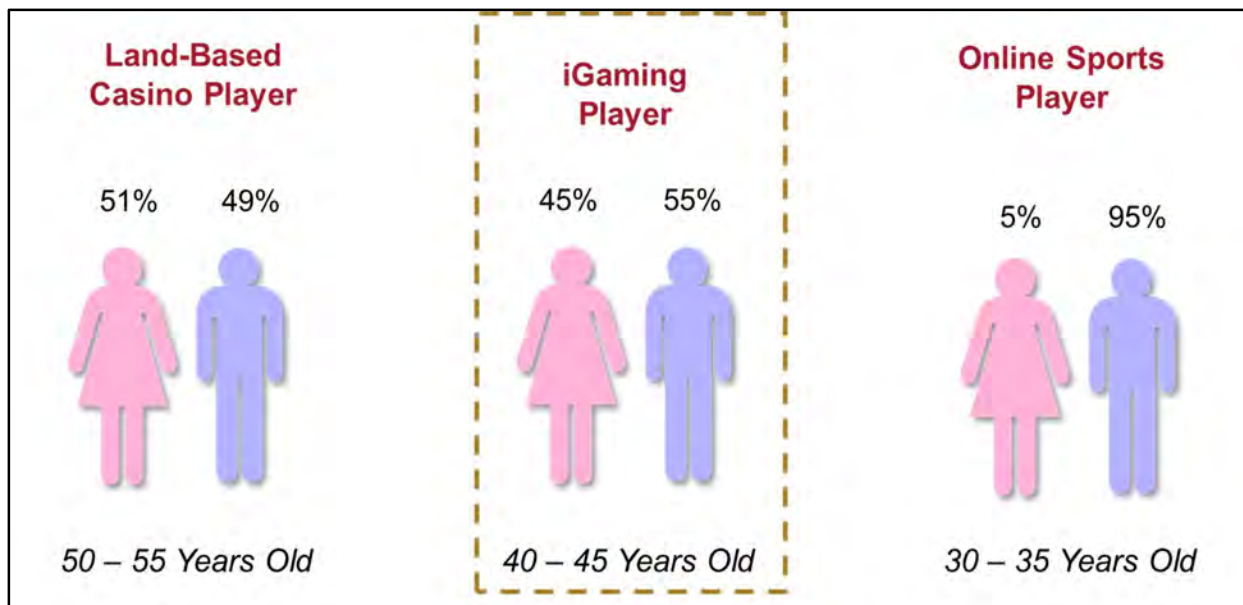
For as long as the casinos’ market remains demographically focused on older customers, the core model as typified in the Iowa casino industry will remain largely unchanged – while at the same time adapting to changes in technology, whether for operational efficiencies or as a result of changing consumer habits.

12. Impacts of Sports Wagering on Iowa Casinos

In this section we analyze and evaluate the impact of sports wagering (both retail and digital) on casino gaming. To do this we collected data on various markets that offer both casino gaming and sports wagering. We reviewed the gross gaming revenue (“GGR”) trends (GGR for slots and table games) before and after sports wagering commenced to quantitatively understand how casino revenue was impacted. The markets we analyzed include Iowa, Mississippi, New Jersey, Pennsylvania, and Rhode Island. We chose to analyze these states because they were the earliest adopters of sports wagering and there is a long enough sample size, prior to the pandemic, from which to draw conclusions. Additionally, we also conducted industry outreach via channel checks with the goal of providing a more qualitative analysis of the impacts.

At the outset of this analysis, we cite the infographic below, which illustrates the differing demographics among retail casino players, igaming¹⁰² players and online sports bettors. We highlight the differences across each demographic to emphasize that each form of gaming appears to cater to a distinct demographic. This infographic serves as a backdrop to our analysis in this chapter.

Figure 135: Demographic profile across differing gambling activities



Source: Golden Nugget Online Gaming

A. Experience in Other States

1. New Jersey

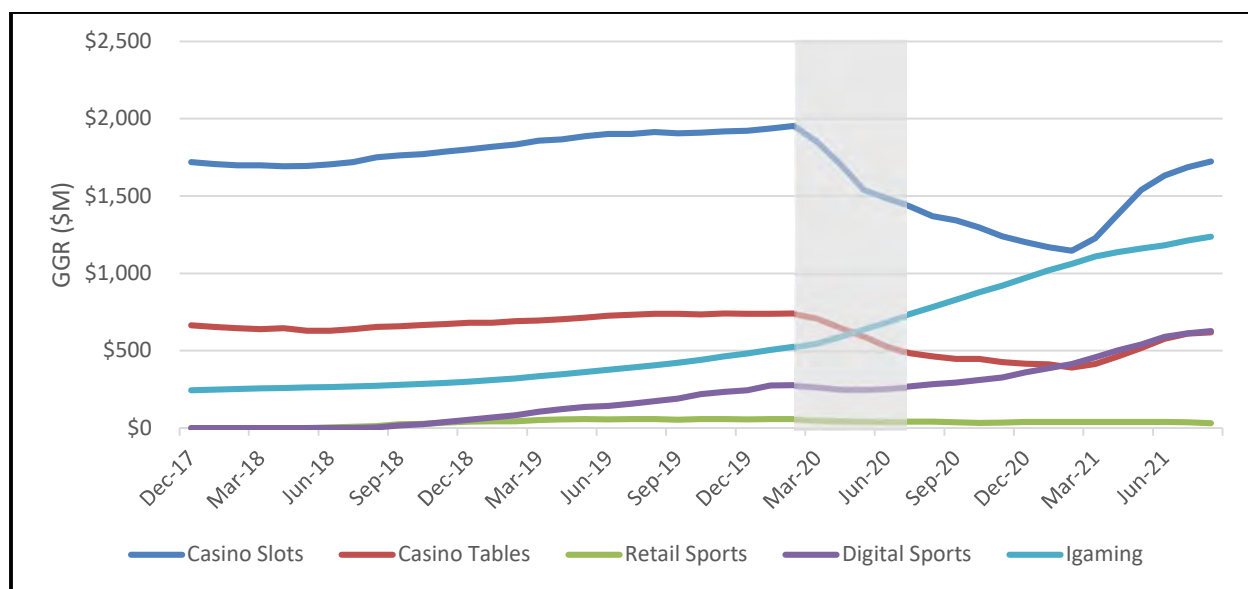
New Jersey was the first state to activate retail and digital sports wagering after the Supreme Court of the United States struck down the Professional and Amateur Sports Protection Act (“PASPA”).

¹⁰² “Igaming” refers to internet-based casino games played via online/digital channels.

Retail wagering was launched at New Jersey’s racetracks and casinos in Atlantic City in June of 2018, and the first digital apps were launched later that same month. The chart below illustrates the table games and slot machine performance on a rolling last twelve months (“LTM”) basis. In the New Jersey market we observed that in the six-month period prior to sports betting (Dec 2017-May 2018), rolling LTM slot revenue averaged about \$1.7 billion and table games revenue averaged \$650 million. After retail and digital sports betting commenced, we noticed a material increase in casino revenue from both tables and slots. For the six-month period from December 2018 through May 2019, rolling LTM slot machine revenue averaged \$1.85 billion and table game revenue averaged \$700 million, increases of 8.8% and 7.6%.

We note that New Jersey also has offered igaming since November 2013. For the six-month period prior to the rollout of sports betting, rolling LTM igaming revenue was about \$250 million. During the six-month period from December 2018 through May 2019, rolling LTM igaming revenue was \$330 million – an increase of 32%. This substantial increase is in large part due to the cross sell from digital sports wagering to igaming and was massively accelerated after the pandemic.

Figure 136: Rolling LTM slot, table game and sports wagering GGR for New Jersey, December 2017-August 2021



Source: New Jersey Division of Gaming Enforcement, Spectrum Gaming Group. Gray column shows period casinos were closed during the pandemic.

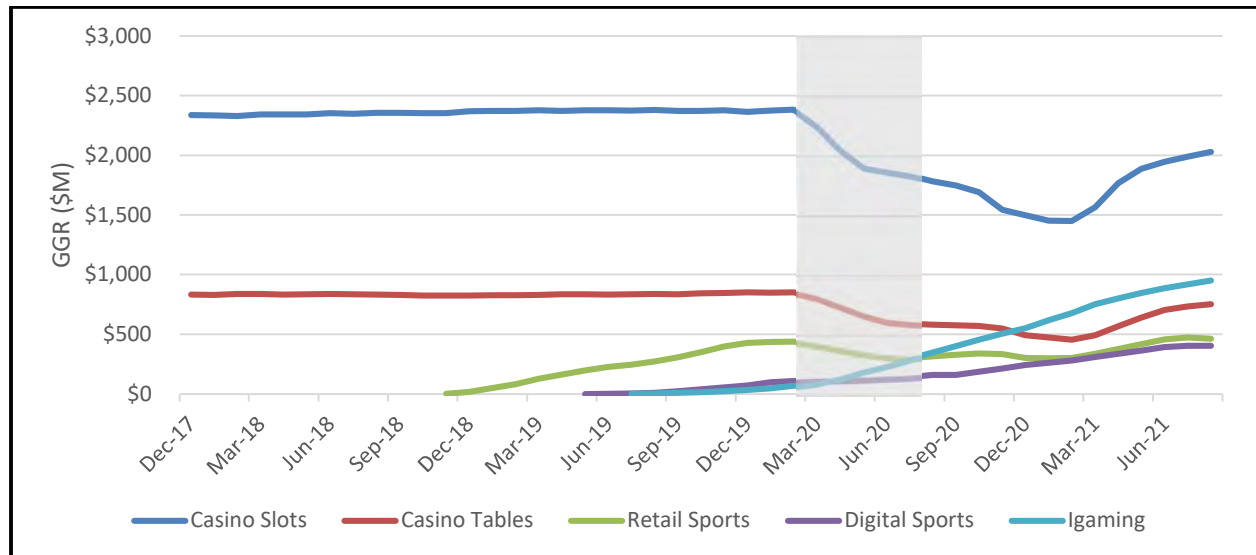
2. Pennsylvania

Pennsylvania commenced retail sports betting at its casinos in November of 2019 and digital in July 2019, about one year after New Jersey. In this market, rolling LTM GGR averaged \$2.35 billion from slots and \$830 million from tables from December 2018 through October 2019. After retail sports betting was launched, we observed a marginal (1%) increase in slot play to an average of \$2.37 billion; table game play was relatively flat.

We note that after digital sports wagering was introduced in July of 2019, table game play at the casinos improved to an average of \$845 million on a rolling LTM basis, an increase of 2%. Igaming was

introduced to this market in July 2019, which could have tempered growth in casino activity as gamblers tried the online product. Not surprisingly, after the pandemic began, both digital sports wagering and igaming activity increased significantly. Although the positive impact from sports betting on casino gaming is not as clear in Pennsylvania as it was in New Jersey, we conclude that sports betting may have marginally impacted casino gaming.

Figure 137: Rolling LTM slot and table game GGR for Pennsylvania, December 2017-August 2021



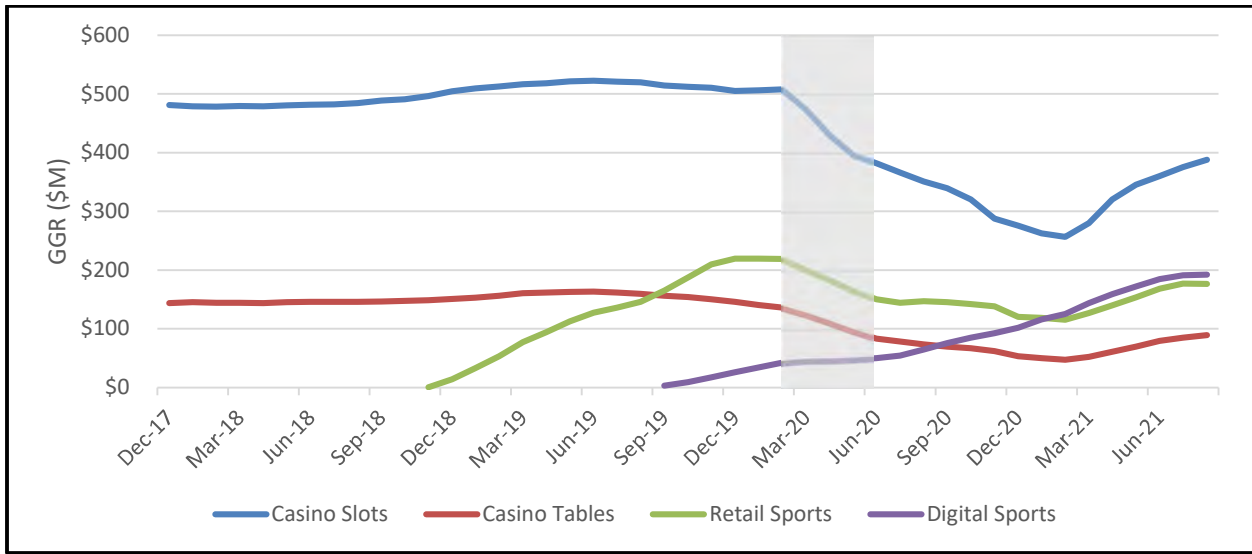
Source: Pennsylvania Gaming Commission, Spectrum Gaming Group. Gray column shows period casinos were closed during the pandemic.

3. Rhode Island

Rhode Island commenced retail sports betting in November 2018 and digital sports betting in September 2019. From December 2017 through October 2018, rolling LTM slot revenue was \$480 million and table revenue was \$145 million. From November 2018 through August 2019, when retail sports betting commenced, Rhode Island casinos generated \$515 million from slots and \$160 million from tables, increases of 7% and 10%. During the next six-month period, from September 2019 through February 2020, after digital sports betting commenced, casino revenue averaged \$509 million from slots and \$147 million from tables, still above pre-sports betting levels but lower than when only retail sports betting was live.

Because Rhode Island is a small state with significant out-of-state visitation, retail sports betting made a significant positive impact on casino revenue, attracting non-casino patrons from out of state. Once digital wagering went live in Rhode Island, the sports wagering enthusiasts no longer needed to visit a casino to place a bet.

Figure 138: Rolling LTM slot and table game GGR for Rhode Island, December 2017-August 2021

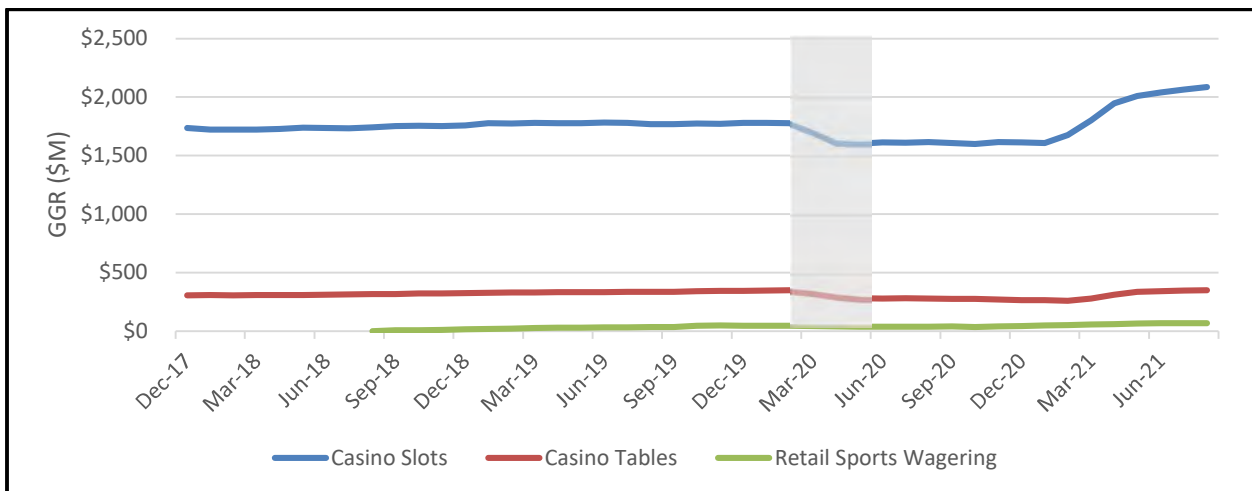


Source: Rhode Island Lottery, Spectrum Gaming Group. Gray column shows period casinos were closed during the pandemic.

4. Mississippi

Mississippi authorized retail sports wagering in August 2018. Mississippi still does not offer digital sports wagering. From December 2017 through July 2018, Mississippi casinos generated an average of \$1.73 billion in slot revenue and \$309 million in table revenue. From August 2018 through February 2020, Mississippi casinos averaged \$1.77 billion in slot revenue and \$332 million in table revenue, increases of 2.5% and 7.5%. Interestingly, table game revenue benefitted much more than slot revenue, which suggests there is a stronger crossover between table game players and sports bettors. This is in fact borne out by independent studies Spectrum has reviewed that suggest sports bettors and table game players skew younger than slot machine players. We believe that in Mississippi, table games were the largest beneficiary of retail sports betting.

Figure 139: Rolling LTM slot and table game GGR for Mississippi, December 2017-August 2021

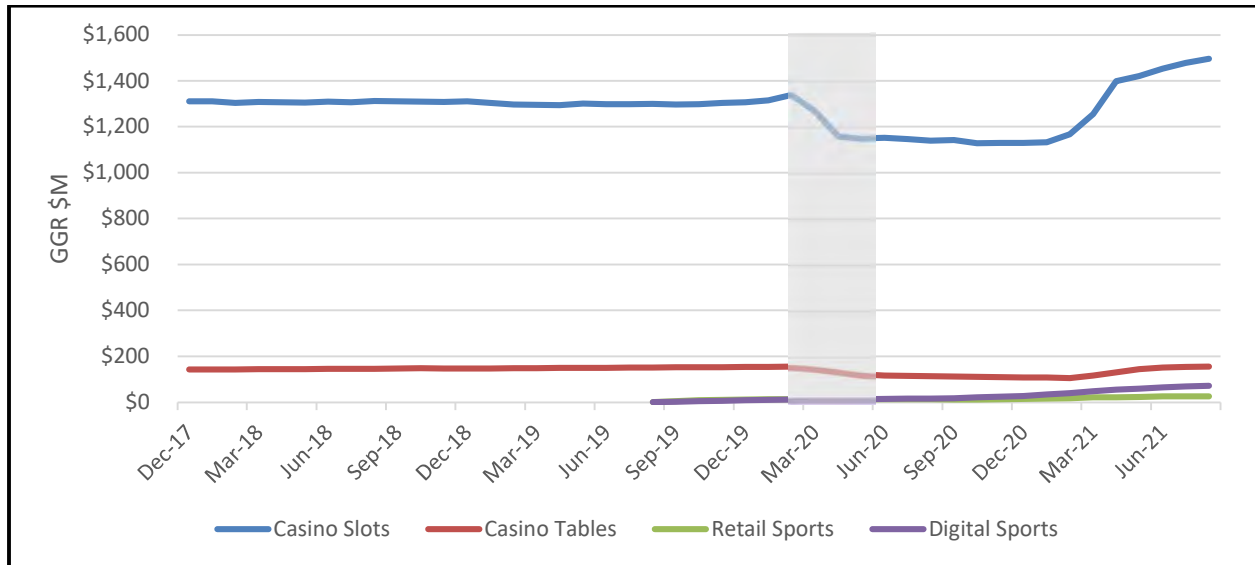


Source: Mississippi Gaming Commission, Spectrum Gaming Group. Gray column shows period casinos were closed during the pandemic.

5. Iowa

Iowa authorized retail and digital sports wagering in August 2019. For the period from December 2017 through July 2019, average slot revenue was \$1,304 million and table revenue was \$146 million. During the seven-month period after retail and digital sports betting was authorized, August 2019 through February 2020, slot revenue was \$1,308 million and table game revenue averaged \$153 million, increases of 0.3% and 4.7% respectively. Similarly, to Mississippi, table games revenue received a much more substantial positive increase as a result of sports betting than slot revenue.

Figure 140: Rolling LTM slot and table game GGR for Iowa, December 2017-August 2021



Source: State Gaming Commission, Spectrum Gaming Group.
Gray column shows period casinos were closed during the pandemic.

6. Conclusions, Insights

Across all states observed, Spectrum found that the addition of sports betting resulted in a positive uptick in casino revenue – more for table revenue than slot revenue. This comports with other studies and demographic analyses which observed that table game players skew younger and have greater overlap with the sports wagering demographic.

In our survey of Iowa casinos, we observed that in many cases there was an uptick in food and beverage sales when comparing the six-month periods before and after sports betting was introduced. In one case, the increase was 67%, however we believe this was an outlier and there was not a clear correlation between introduction of sports betting and an increase to food and beverage sales. In some cases, revenues were down after sports betting was introduced. We would suggest that differences in results are dependent on unique factors and cannot be assumed to be correlated to sports betting in all cases.

Our channel checks suggested that if a casino were to build a compelling sportsbook, it would drive some additional traffic at the casino. This in turn would result in a spill-over effect to other areas of a casino, including the gaming floor and food and beverage. However, in a market such as Iowa where

digital sports wagering exists, the sports fan who is interested in betting on sports will likely do so digitally instead of at the casino.

B. Adaptation of Sports Wagering Next Three Years

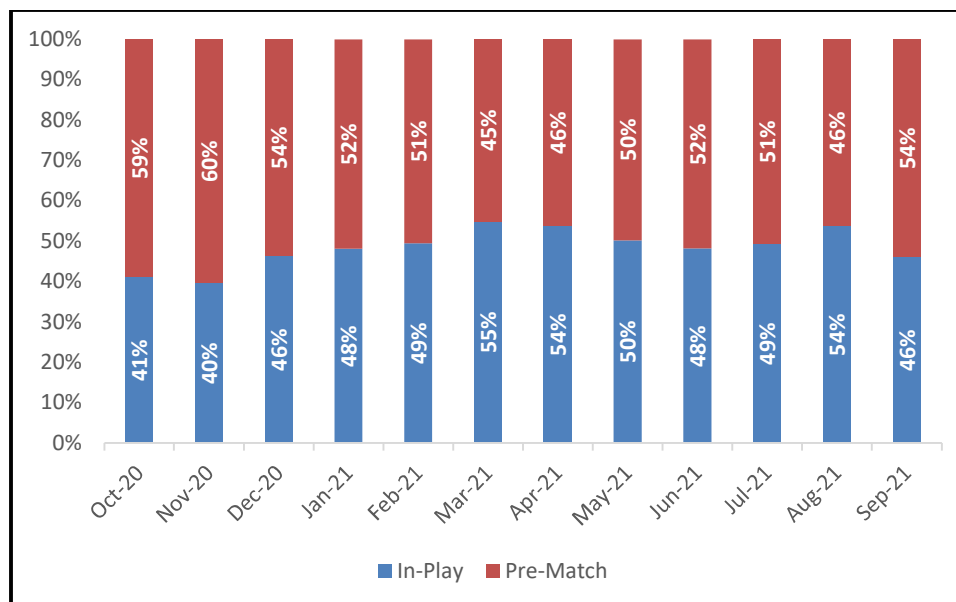
In this section we discuss some of the operating and evolving technological trends, which provide insight into the outlook for sports wagering adaptation. Specifically, our commentary and analysis is focused on the following topics:

- The evolution of in-play wagering
- The role media and its integration with gambling can impact sports wagering
- Wagering on non-traditional sports such as esports
- Other forms of wagering such as peer-to-peer/skill-based

1. In-Play Wagering

In-play wagering, which consists of placing wagers after a sporting event has started, is increasing in popularity and will be a strong area for growth as the sports betting industry and sports bettor evolve. In-play bettors seek a superior betting experience, fast-performing technology and bet acceptance, and a high degree of depth, breadth, and constancy of in-play betting options. Oregon, the only market to report the breakdown between in-play wagers vs pre match wagering, is already generating a 50%/50% split between the two wagering types as illustrated in Figure 141 below.

Figure 141: In-play handle and pre-match handle in Oregon, October 2020-September 2021



Source: Oregon Lottery

According to PointsBet management (which is a sports betting operator in Iowa and other states), 50% of all US handle is generated from in-play wagering. This is anticipated to increase to 75% within

three years.¹⁰³ Spectrum believes that US sports are ideally suited for in-play wagering due to regular breaks in the action. Improvement in latency and widespread adoption of faster technology, such as 5G, will lead to an increase in the prevalence of in-play wagering.

2. Media Integration

Increasing integration between media companies and sports wagering companies is also an emerging theme in the sports wagering industry that is likely to lead to broad “gambification” of sports viewing, sports broadcasting, and changing dynamics of customer acquisition. We are seeing major media companies that partner with sports betting operators as illustrated below.

Figure 142: List of select media partnerships with casino and/or sports wagering companies

Casino Company	Digital Sports Wagering Company	Media Company
Penn National		Barstool
	PointsBet	NBC Universal
	The Stars Group	Fox
Bally's		Sinclair
Caesars Entertainment	William Hill	ESPN
MGM Resorts	BetMGM	Yahoo Sports
	DraftKings	VSIN Network
	888 Gaming	Sports Illustrated

Source: Spectrum Gaming Group research

Gambling companies are viewing sports betting and media partnerships as customer acquisition tools to attract sports bettors into more profitable gambling activities such as igaming and casino gaming. We believe that as more states legalize sports wagering and eventually internet gaming, these partnerships will enable gambling operators to acquire customers for sports betting and cross sell them in to igaming or to induce visitation to a local retail casino.

3. Esports Betting

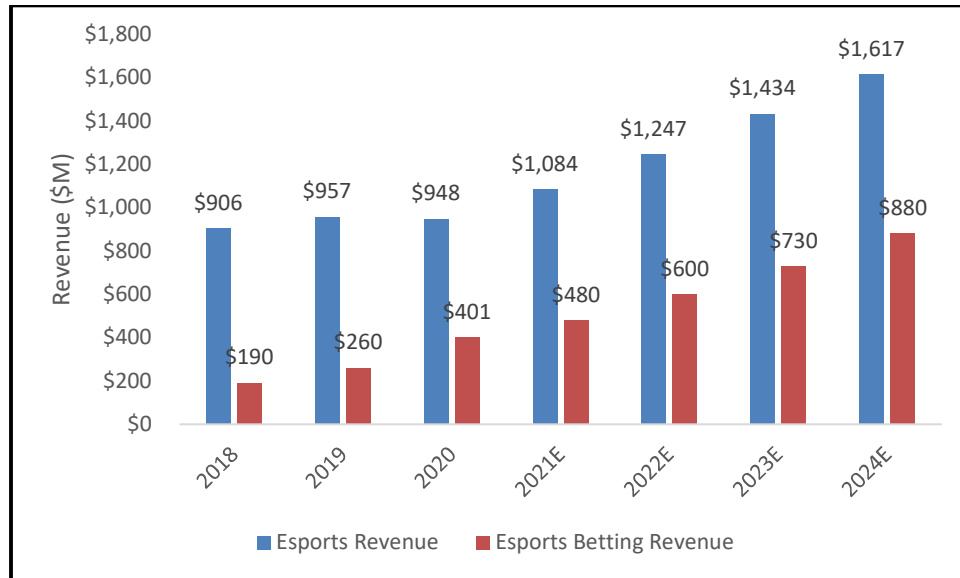
Video gaming competitions or esports is a widely popular playing and viewing activity and we believe esports betting will become an increasingly important subset of sports betting. According to Newzoo, a leading esports market research company, the global audience for esports is ~500 million and expected to reach 650 million by 2023.

Esports betting is a niche business and exists globally, with key markets believed to be in Europe, Asia and Russia. It is difficult to quantify the market size for esports betting, in part due to prevalence of illegal operators in gray markets. Figure 143 below illustrates revenue and projected revenue from esports betting and from esports according to H2 Gambling Capital. H2 believes the esports betting market will double by 2024 to reach \$776 million. Spectrum believes that as US states adopt regulations for better

¹⁰³ PointsBet investor presentation (Banach Technology). <https://investors.pointsbet.com.au/latest-results-and-presentations/> (accessed November 2, 2021)

oversight of video gaming competitions, esports betting can transition from a niche product to more mainstream, in the United States.

Figure 143: Revenue from esports, 2018-2024E



Source: Newzoo, H2 Gambling Capital, Spectrum Gaming Group

4. Peer-to-Peer/Skill-Based Wagering

The last emerging area that Spectrum believes could emerge as a major part of the future betting industry is skill-based wagering, also known as peer-to peer wagering. A simple definition of skill-based wagering would be a game where the outcome is primarily determined by physical or mental skill instead of purely by chance. Poker is the most prominent game of skill played online or at a casino. Gamblers compete head-to-head or peer-to-peer in poker, and the casino (or house) takes a rake from each pot. The rake is how a casino or poker operator generates revenue.

Over the past decade, daily fantasy sports, another skill-based game most prominently offered by DraftKings and FanDuel, increased in popularity, especially prior to the repeal of PASPA. Over the last several years, companies like Skillz and Mobile Premier League started to offer skill-based wagering mobile games in the US. We expect that as esports betting emerges as a more mainstream form of betting, skill-based wagering could also become a mainstream activity, with strong integration with the gambling and sports betting industry.

Appendix: People Interviewed for this Study

Spectrum interviewed the following individuals for this study, either in person, by telephone, or by email. Some individuals may have additional titles and affiliations.

Last	First	Affiliation	Title
Basemann	Bonnie	City of Marquette	City Clerk
Bauerkemper	Jerry	Iowa Department of Health	Consultant, Iowa Problem Gambling Services
Bird	Chad	City of Burlington	City Manager
Bungert	Brittany	Iowa Automobile Dealers Association	Vice President of Public Affairs & Operations
Chambers	Tony	Altoona Police Department	Captain
Clouse	Mark	Jefferson Police Department	Chief
Coates	Tom	Consumer Credit of Des Moines	Executive Director
Czak	Paul	Ameristar Council Bluffs	Vice President & General Manager
Dalsing	Mark	Dubuque Police Department	Chief
Divis	Marie	Sioux City Police Department	Crime Analyst, Sioux City
Dunn	Jordan	Pathways Behavioral Services	Clinical Director
Ehrecke	Wes	Iowa Gaming Association	President
Eland	Kristin	Burlington Police Department	Records Supervisor
Fisher	Doug	Hard Rock Sioux City	General Manager
Fitch	Teresa	City of Sioux City	Finance Director
Joyce	Billie Jo	City of Emmetsburg	City Clerk
Mark	Jeff	City of Altoona	City Administrator
Mueting	Lorelle	Heartland Family Service	Director of Problem Gambling Treatment Program
Neblett	Keri	Iowa Department of Health	Suicide Prevention Director
Nelson	Troy	Division of Criminal Investigation	Agent in Charge, Special Enforcement Investigations Bureau
Paul	Justin	Bettendorf Police Department	Captain
Ploehn	Decker	City of Bettendorf	City Administrator
Poundstone	Michael	Iowa Racing and Gaming Commission	Director of Self-Exclusion Program
Preuss	Eric	Iowa Department of Health	Director, Iowa Problem Gambling Services
Ross	Veronica	Pottawattamie County	911 Office Manager
Serck	Luann	Lyon County Sheriff's Department	Head Dispatcher
Simons	Steve	Lyon County	Economic Development Director
Sternberg	Janae	Harrah's Horseshoe	Vice President Finance
Stover-Wright	Ehrin	Institute for Community Alliances	Research Analyst
Van Milligan	Michael	City of Dubuque	City Manager
Walsh	Matt	City of Council Bluffs	Mayor
Weipert	Steve	City of Marquette	Mayor
Wheeler	Ty	City of Osceola	City Administrator
Whyte	Keith	National Council on Problem Gambling	Executive Director

Source: Spectrum Gaming Group