Strategic Economics Group

Analysis of the Iowa Casino Gaming Industry: Market Patterns, Economic Impact and the Likely Effects of an Expansion in the Number of Licensees

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Executive Summary

Currently, the Iowa Legislature is considering changes in the size and scope of the casino gaming industry in the state. For the past five years the Iowa Racing and Gaming Commission has maintained a moratorium on the issuance of new casino gaming licenses and the Commission asked the Legislature to address the issue.

Several studies have attempted to identify the economic impact and market potential of casino gaming in Iowa, but none of them have examined actual customer-based data.

This study started with a sample of actual customer records provided by each of the existing casino operations in the state. The data was collected for the first six months of 2003 and represented a 54% sample of all customers. The data revealed the customer origin by five-digit zip code, some demographic characteristics and the average customer spending pattern.

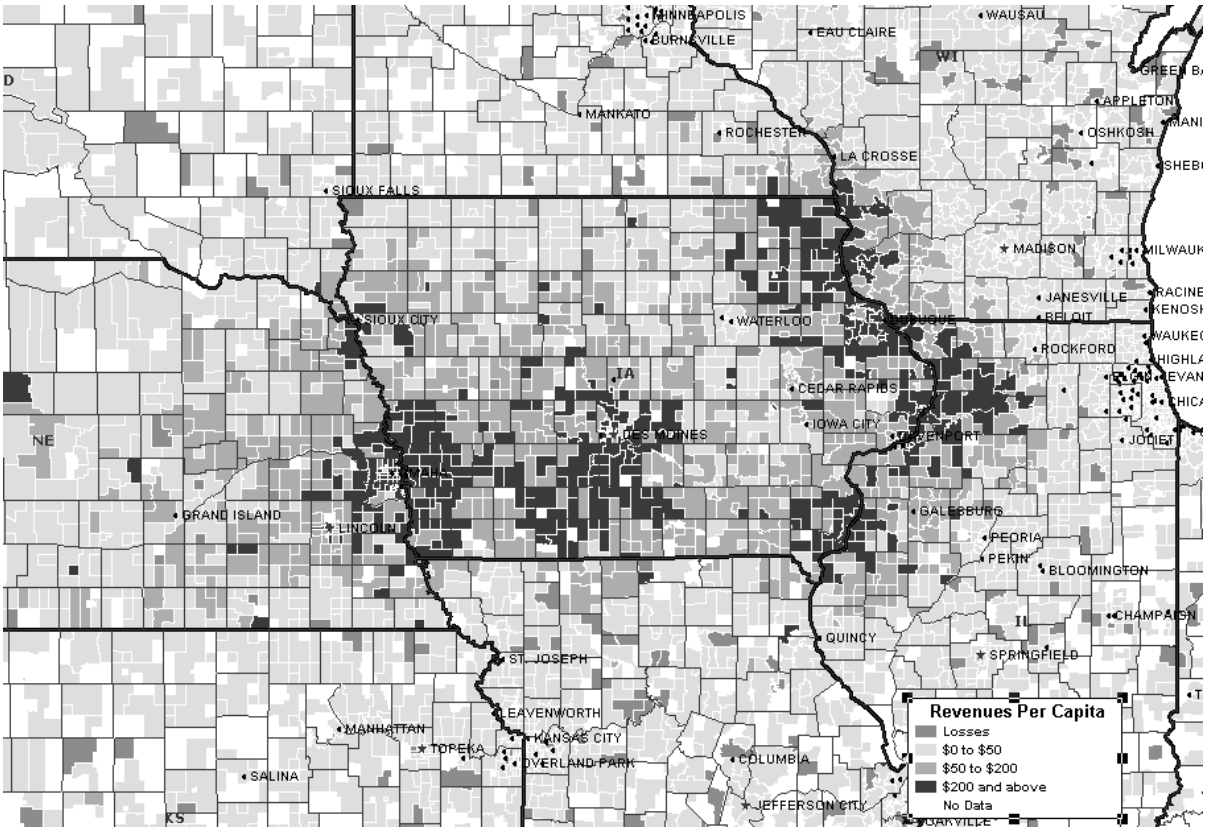
The study team developed trade area maps for each casino, based upon this data, identified the areas of market overlap and the areas of market potential. The team then examined the spending patterns of each casino to determine its impact on the state economy. Table 1 illustrates the baseline of the 13 current casinos and racetracks including their impact on the area restaurant and lodging businesses.

Table 1. Baseline Economic Effects of the Gaming Industry in Iowa Including Hospitality Gains, 2003

Measure	Baseline
Economic Effect:	
Gross Sales or Output	$1,567,552,997
Labor Income	$404,282,072
Value Added to the Economy	$840,345,195
Jobs	18,230
Local Taxes Paid:	
Direct Taxes Paid by Licensees	$10,246,152
Taxes Paid on Payroll, Direct & Indirect	$4,997,057
Total Local Taxes	$15,243,209
State Taxes Paid:	
Direct Taxes Paid by Licensees	$199,473,731
Taxes Paid on Direct Payroll	$33,367,153
Total State Taxes	$232,840,884

During 2003 and early 2004, the voters in five Iowa counties passed referenda to permit the establishment of a new casino, in the event that the Legislature and the Commission lift the moratorium. One more county is scheduled to vote on a similar referendum in February.

The study team examined the market potential for a casino in each of the six counties, identifying the likely customer base and the impact each new casino would have on all existing casinos and racetrack operations. In addition, the team examined the cross-border flow of customers and dollars from markets outside of Iowa. This is important because



during the first half of 2003, an average of 66% of the customers and 52% of the spending at Iowa gaming facilities came from out-of-state zip codes. A portion of the geographic spread can be seen in the map. Greater detail can be seen in the maps provided in Appendix A.

Table 2. Estimated Revenues from Proposed New Casinos (if Built Simultaneously)

Proposed Casino	Revenue from Primary and Secondary Areas	Tertiary Areas	Total Revenue	Captured from Other Casinos	Net New Revenues
Northwood	$19,057,090	$6,352,363	$25,409,453	$2,353,166	$23,056,287
Ottumwa	$21,393,552	$7,131,184	$28,524,736	$9,842,908	$18,681,828
Waterloo	$72,448,462	$24,149,487	$96,597,949	$13,887,506	$82,710,444
Emmetsburg	$5,792,074	$5,792,074	$11,584,148	$397,550	$11,186,598
Hampton	$12,210,182	$4,070,061	$16,280,243	$2,507,091	$13,773,152
Fort Dodge	$30,051,454	$10,017,151	$40,068,605	$10,629,269	$29,439,336
Total	$160,952,814	$57,512,321	$218,465,135	$39,617,490	$178,847,645

Note: Total figures may be off slightly due to rounding errors

Table 2 shows the estimated revenues that would result if all six casinos were to be built simultaneously. It also shows the amount that would be captured from other casinos. If it were not for the fact that each casino shares some of the trade area with other casinos, the $178.8 millions dollars in new revenue would have been as much as $218.5 million.

If all six referendum counties were to receive a casino license, the cumulative impact would be an increase of 3,413 new jobs and nearly $45 million in new state and local tax receipts.

The taxes paid directly by the new casinos would account for $37.8 million, 52% of which would result from out-of-state customers – or about $20 million.

Table 3. Economic Effects of the Gaming Industry in Iowa Including Hospitality Gains, All Expansion Scenarios

Measure	All Scenarios
Economic Effect:	
Gross Sales or Output	$276,193,887
Labor Income	$75,286,308
Value Added to the Economy	$159,544,827
Jobs	3,413
Local Taxes Paid:	
Direct Taxes Paid by Licensees	$1,788,476
Taxes Paid on Payroll, Direct & Indirect	$935,669
Total	$2,724,145
State Taxes Paid:	
Direct Taxes Paid by Licensees	$36,086,042
Taxes Paid on Direct Payroll	$6,247,799
Total	$42,333,841

Introduction

On May 21, 1998, the Iowa Racing and Gaming Commission filed administrative rules 491--1.6(99D, 99F) Limitation on Location and Number of Racetracks and Excursion Gambling Boats. On September 16, 1998, the rules became effective imposing a moratorium on the expansion of licenses for riverboat casinos.

On June 17, 2003, the residents of Palo Alto County approved a referendum to permit excursion boat gambling by a 71.1% majority. One week later the residents in Worth Country did the same by a 75% majority vote.

At its July 18, 2003 meeting, the Commission considered whether or not to lift the moratorium. The Commission authorized Will Cummings (Cummings Associates) to "look at areas of unmet demand for casino gambling, areas currently interested in licenses, and the impact on existing licensees if licenses were issued in those areas".

In July, October and November, similar referenda failed to pass in Dickinson, Cerro Gordo and Linn Counties. However, in October the voters in Black Hawk and Wapello Counties passed their referenda as did the voters in Franklin County on January 27, 2004.

The Cummings study indicated that the state has sufficient capacity to generate an additional $266 million of gaming revenue each year. The study did not address the broader economic impact issues of potential income, employment, vendor purchases and tax receipts. Also, the study was primarily based on gaming norms established in other states and applied to Iowa demographics.

At their November 20, 2003 meeting, the Commission voted unanimously to leave in place the five-year-old moratorium but agreed to reconsider the issue if the Legislature were to determine that more casino licenses should be issued.

The Iowa Association of Business and Industry (ABI) wished to assist the Legislature in its deliberations on this issue by underwriting the costs of a study that would expand on the work of Will Cummings and address a key economic issue that is likely to dominate the moratorium debate.

"ABI's mission is to enhance the competitiveness of Iowa business and industry by shaping a legislative and regulatory environment conducive to Iowa growth. ABI also strives to increase the understanding among policymakers, the media and the general public about the importance of business to Iowa's economic strength."

While ABI has taken no position on the moratorium issue, the association provides this study as another enrichment tool for Iowa decision-makers.

The study team acknowledges the limitations of this endeavor at the outset. We have attempted to identify the market patterns of existing gaming facilities in Iowa using customer origin data. We have also attempted to identify for those facilities the economic impact each has on their area and on the state with regard to receipts, employment, payroll, vendor purchases, value added and taxes generated. We have also examined the market potential in those five counties which have already approved a referendum and the one county which has scheduled a vote that will occur after the completion date of our study.

We have not addressed a number of issues outside the scope of our study. These issues include:

- Identifying and measuring the negative social consequences of gaming,
- Identifying the displacement effect of gaming facilities competing against other sources of entertainment for a fixed portion of the consumer's budget,
- Identifying the appropriate number or type of gaming activities for the state,
- Or identifying where those facilities should be located.

Those are the issues best left for the policy-makers. Our purpose was to provide a framework of economic impact data and to expand upon the earlier Cummings Associates study.

Gaming is part of the entertainment mix available to Iowans. We recognize that as spending on gaming in the state increases, it is likely to be at the expense of other recreational and entertainment options. However, gaming is also a tourist attraction both drawing in non-residents and helping to keep Iowa entertainment dollars from leaving the state.

It is our hope that this study will assist the Legislature in its deliberations on the casino license expansion debate.

Review of the 2003 Cummings Associates Study

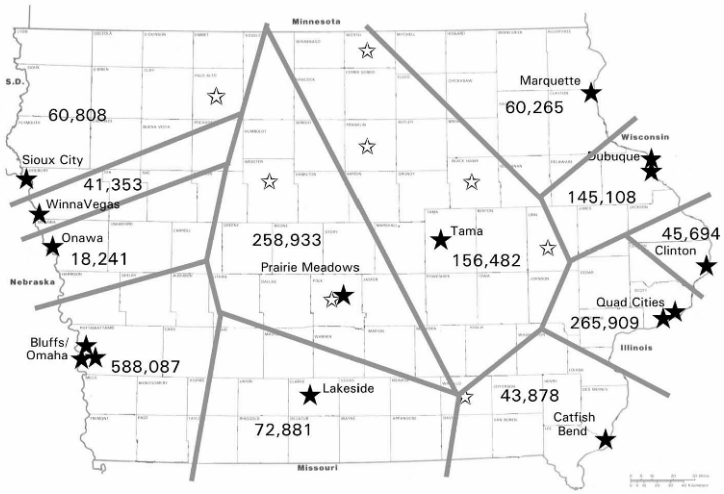
In July 2003, the Iowa Racing and Gaming Commission contracted with Will Cummings of Cummings Associates to assist the Commission in determining whether or not to lift the moratorium on the issuance of new riverboat casino licenses. The study was to "look at areas of unmet demand, areas currently interested in licenses, and the impact on existing licenses in those areas."[1]

The Cummings Associates study was released in September 2003. It used a standard gravity model based on casino size (square footage and slots/gaming tables) to devise a formula to estimate the attraction to casino sites based on the size and diversity of gaming options in relation to population size and distance. This method is commonly used in consumer studies and studies where factors such as mall square footage or sales are used as the attracting force.

The gravity model used in the Cummings study to relate casino gaming expenditures to market population in Iowa was based primarily on survey data of casino patrons in Mississippi (along with other analyses conducted by Cummings). The model constructed from this analysis was then used to conduct the policy simulations of possible casino configurations. If primary data from Iowa casino patrons were available, using this type of gravity model to estimate gaming expenditures would not have been the best strategy.

In the Cummings study, Iowa gaming revenues from each casino were allocated back to counties based on existing adult population in the counties. Since these revenues were reported in terms of current resident adult population, spending by out of state, or out-of-region tourists were not explicitly represented in these amounts.

Exhibit 3-3: Approximate Market Catchment Areas, with (Slot) Adjusted Adult Populations



Cummings Associates

However, Cummings indicated that they were captured as a part of the urban effects. Larger urban areas attract more outside tourists and business travelers who might recreate and spend at the casinos. This approach makes it difficult to assess what effect the out-of-state spending would have on overall revenues at the casinos. As a result of this methodology, the maps allocating gaming revenues from each of the casinos to its market area create some rather arbitrary looking boundaries (see Cummings' Exhibit 3.3).

[1] Minutes of the July 2003 meeting of the Iowa Racing and Gaming Commission.

In addition, the Cummings analysis did not include any secondary impacts that results from the purchases and payrolls of either the current casinos or those examined in the various scenarios.

Our Methodology

We have chosen to address the two specific shortcomings of the Cummings study:

1) casino market areas based on hypothetical or constructed data, and
2) disregarding the secondary economic impact of current and proposed casino spending.

We have solicited zip coded patron data from the Iowa casinos enabling us to map the actual trade area, or market region, for each of the casinos. This data also permitted the tracking of revenues from out of state residents. By studying how the current configuration of casinos and gaming options affect the trade area, we were then able to learn how altering the mix or introducing additional casinos would affect the level and distribution of gaming revenues and the consequent changes in area employment, payrolls, vendor purchases and tax receipts.

Each casino reported the customer count and dollars win/loss during the first six months of 2003 by each five-digit zip code. The data was a byproduct of a marketing mechanism employed by each casino called a 'players club'. Players club memberships are offered to all new customers as a tracking mechanism.

The players club members are offered prizes or gratuities in exchange for providing the casino with basic demographic information and for maintaining a log of their gaming activity while at that casino. The percentage of total facility revenue attributed to players club members varies from a low of 28% (Prairie Meadows) to a high of 67% (Isle of Capri Bettendorf and Rhythm City).

The casino managers indicated to us that their own marketing analysis showed very little difference between the demographic or spending characteristics of the players club member sample group and the remainder of the customers.

Table 4. Sample Size for 5-Digit Zip Coded Data Used in this Study

Facility Name	Size of Sample	Number of Sample Records	Estimated Annual Totals
Ameristar Casino & Hotel	66%	85,470	259,000
Argosy of Sioux City	42%	15,099	72,072
Bluffs Run Casino (Greyhound)	47%	228,584	970,633
Catfish Bend Casino	60%	17,793	59,310
Diamond Jo Casino	50%	31,761	127,044
Dubuque Greyhound Park & Casino	56%	24,347	87,579
Harrah's	63%	228,960	729,172
Isle of Capri Bettendorf	67%	70,320	208,975
Isle of Capri Marquette	64%	36,066	113,060
Lakeside Casino Resort	50%	33,205	133,891
Mississippi Belle II	50%	20,734	82,936
Prairie Meadows Racetrack & Casino (Horse)	28%	31,841	227,436
Rhythm City Casino	67%	70,257	211,299

The study team developed trade area maps for each gaming facility and for the aggregate of all six facilities by plotting the average spending levels per capita within each identified zip code area. The map categories were plotted in rising increments (losses, $0-$50, $50-$200 and $200 or more). In most of the maps the $50-$200 spending level is concentrated within a two county radius of the gaming facility with a smattering in other, more widely scattered zip codes.

The customer data received from the existing casinos in Iowa was current and accurate and thereby provided us with an excellent data base for making estimates of the potential revenue from proposed gaming facilities. Maps were generated showing primary, secondary and tertiary trade areas.

We chose to use Huff's retail gravitational model to make the revenue projections for the proposed gaming facilities. Huff's model determines the probability that a customer in a particular area will patronize a particular casino or gaming facility. Huff's model assumes that the likelihood of consumer patronage increases with the size of the gaming facility (number of slots and tables). Patrons are willing to travel greater distances as the size of a gaming facility increases. Conversely, as the travel time (distance) to a gaming facility increases, consumers are less willing to make the trip. Using Huff's model in conjunction with a mapping program allowed us to portray the estimated primary and secondary trade areas for each of the proposed casinos. Furthermore, the model allowed us to compute estimated revenues for the new casinos and to determine the impact (capture) from the existing gaming facilities. We examined the impact of each proposed gaming facility individually (that is, considering only the addition of that facility) and then in total (assuming all facilities were added). From this we were able to estimate net new revenues to the gaming facility and to the State.

Secondary Economic Impacts

The expansion of gaming activities in Iowa will generate employment and income growth at new or expanded casinos. The vendor purchases by these new casinos will generate secondary economic benefits in the Iowa economy through the purchase of supplies and services. Also, the workers hired by these casinos will spend their new payroll dollars on goods and services in the state. These direct and secondary impacts are estimated by using an Input-Output model for the Iowa economy. The I-O model uses the level of business activity of each new casino to estimate the changes in overall employment, payroll, contributions to the Gross State Product, and tax revenues for the economy.

The study team first used this approach to establish a baseline estimate of the contribution of the existing gaming industry to the Iowa economy. The team then used the Input-Output model to analyze the economic effects of alternative expansion scenarios. The team examined the incremental gains associated with a hypothetical casino in each of the five counties which passed a referendum and in the one county where a vote is pending. The team also examined a scenario where all six new casinos would be licensed.

Baseline Examination of Existing Gaming Facilities

Trade Areas of Existing Iowa Gaming Facilities

Each casino provided us with club player data for the first six months of calendar year 2003. The data showed the zip code of the customer as well as the total amount lost or won by the casino. In addition each casino provided us with club player revenues as a percent of total revenues, so that we could estimate total annual revenues. With this data we were able to produce maps showing total annual revenues (or losses) to each casino. It was decided that the best measure of market penetration was to compute revenues (or losses) per capita for each zip code.

Zip codes with annualized per capita revenues over $200 were considered to be the primary trade area and they are represented in red on the maps. Zip codes with annualized per capita revenues between $50 and $199 were considered to be the secondary trade area and they are represented in orange on the maps. Zip codes with annualized per capita revenues between $0 and $49 were considered to be the tertiary trade area and they are represented in green on the maps. Zip codes with annualized per capita revenues less than $0 indicate areas of revenue losses for the casino and are represented by blue on the maps.

Ameristar Casino of Council Bluffs. Figure 1 (Appendix A) shows the trade area map for Ameristar Casino at Council Bluffs, Iowa. In this case the primary trade area is not particularly well defined, but generally lies within Omaha and within several zip codes in Council Bluffs and to the north and south. It is also interesting to note a few widely distributed zip codes with heavy casino winnings (red color). In these cases, it is speculated that these zip codes are sparsely populated and that patrons may have come in groups (perhaps by bus) or were attending meetings or conferences in the area.

The average per capita winnings from the primary trade area (both on the Iowa and Nebraska sides of the Missouri River) was found to be $320. The secondary trade area extends roughly 50 miles in all directions from Council Bluffs. The average per capita winnings from the secondary trade area were $104. It is interesting to note that the tertiary trade area covers most zip codes in Iowa and Nebraska as well as substantial areas in other surrounding states. The average per capita winnings from the tertiary trade area were $2. As can be seen in figure 1, many of the losses to the casino came from widely scattered, sparsely populated zip codes. The average loss to the casino from these zip codes was -$144. Winnings by individuals in sparely populated zip code areas probably caused this high per capita loss figure for the casino.

Argosy Casino of Sioux City. Figure 2 shows that Argosy Casino in Sioux City has a small, but fairly well defined trade area. The greatest density of winnings (the primary trade area) included Sioux City and immediate surroundings on either side of the Missouri River. The average per capita winnings from the primary trade area were $296. The secondary trade area reached roughly 50 miles from Sioux City. The average per capita winnings from the secondary trade area were $108. The tertiary trade area reaches out to approximately 80 miles from Sioux City and the average per capita winnings were $2.

Bluffs Run Casino. Bluffs Run Casino's major winnings were concentrated more on the Iowa side of the Missouri River rather than on the Nebraska side as shown in figure 3. The average per capita winnings from the primary trade area were $370. The secondary trade area extended roughly 40-50 miles from Council Bluffs and the average per capita winnings were $98. The tertiary trade area covers most of Iowa and Nebraska as well as scattered areas in the surrounding states. The average per capita winnings were $2 in the tertiary trade area.

Catfish Bend Casino. Figure 4 shows that Catfish Bend Casino has a small, but well defined trade area. The primary trade area is concentrated on both sides of the Mississippi River for about 20-25 miles from Burlington. The average per capita winnings from the primary trade area were $348. The secondary trade area extends out to a radius of approximately 50 miles and the per capita winnings within it were $102. The tertiary trade area is mainly concentrated within a 100-mile radius of Burlington and has per capita winnings of $2.

Diamond Joe Casino. Figure 5 shows a fairly small, but well-defined trade area. The primary trade area is mainly concentrated on the Iowa side of the Mississippi River, largely in and around Dubuque. The average per capita winnings from the primary trade area were $378. The secondary trade area extends approximately 25-30 miles from Dubuque, about evenly split between Iowa, Illinois and Wisconsin. The average per capita winnings from the secondary trade area were $106. The tertiary trade area covers Eastern Iowa, Northern Illinois and Southern Wisconsin and the average per capita winnings were $2. The zip codes that caused losses for the casino were widely scattered and averaged -$10 per capita.

Dubuque Greyhound Park Casino. Figure 6 shows the trade area for Dubuque Greyhound Park Casino. Its primary trade area is not well defined (largely in Northern Illinois), but the per capita winnings were $310. The secondary trade area extends approximately 30 miles from Dubuque and has per capita winnings of $98. The tertiary trade area covers most of Eastern Iowa, Northern Illinois and Southern Wisconsin and the average per capita winnings were $2. The zip codes that caused losses for the casino were few and widely scattered but averaged per capita losses of -$2.

Harrah's Casino. Harrah's Casino in Council Bluffs has a small but highly lucrative primary trade area as shown in figure 7. Only nine zip codes in the Omaha area were in the primary trade area, but they averaged per capita winnings of $716 for the casino. The secondary trade area extends approximately 50 miles from Council Bluffs, but also includes widely scattered zip codes in East-Central Nebraska and Northwestern Iowa. The average per capita winnings for the secondary trade area were $84. The tertiary trade area covers most of Iowa and Nebraska and scattered areas of surrounding states and has average per capita winnings of $2 per zip code for the casino.

Isle of Capri Casino of Bettendorf. The Bettendorf Isle of Capri has a small primary trade area as shown in figure 8. There are only six zip codes in the primary trade area, but they are concentrated in the Quad Cities and average $526 per person in the zip code. The secondary

trade area covers 114 zip codes and leans heavily toward Illinois and averages $84 per person in the zip codes. The tertiary trade area covers Eastern Iowa, Northern Illinois, Southern Wisconsin and scattered areas of adjacent states. However, the average per capita winnings from the tertiary trade area were $2 per person. There were widely scattered zip codes from which the casino suffered losses, but they must have been small, because when divided by the total population of the zip codes, the average is essentially $0.

Isle of Capri Casino at Marquette. Figure 9 shows that the trade area for Isle of Capri Casino at Marquette is relatively small, but well defined. The primary trade area consists of nine zip codes within about a 15 miles radius around Marquette and the average per capita winnings for the casino were $310. The secondary trade area extends out approximately 50 miles and has average per capita winnings for the casino of $98 per person. The tertiary trade area covers primarily Eastern Iowa, Southern Wisconsin and a portion of Southeastern Minnesota and the per capita winnings were $2. The zip codes with losses for the casino were widely scattered and the per capita losses were virtually $0 when averaged over all the zip code populations.

Lakeside Casino Resort. Lakeside Casino Resort has a fairly well defined trade area as shown in figure 10. The primary trade area covers 31 zip codes, mainly concentrated around Southern Iowa, but reaching as far north as the Des Moines area. The average per capita winnings from the primary trade area were $564 per person in the zip code area. The secondary trade area extends for a radius of 50-60 miles and has average per capita winnings of $106 for the casino. The tertiary trade area covers most of Iowa, Northwestern Missouri and scattered parts of surrounding states and has per capita winnings of $2. The casino suffered losses from widely scattered zip codes, but they averaged only $2 per person in the zip codes.

Mississippi Belle II of Clinton. The Mississippi Belle II has a small trade area that reaches primarily into Northwestern Illinois as shown in Figure 11. There are 17 zip codes in the primary trade area with average per capita winnings of $496 per person in the zip code areas. The secondary trade area has average per capita winnings of $110 per person. The tertiary trade area covers far Eastern Iowa, Northern Illinois and the very southern tip of Wisconsin and has average per capita winnings of $2.

Prairie Meadows Racetrack and Casino. Figure 12 shows the trade area map for Prairie Meadows Racetrack and Casino. The Trade area is fairly well defined, however, the high winning zip codes (primary trade area) are somewhat widely scattered. There are 35 zip codes in the primary trade area, with a high concentration in Des Moines and Central Iowa. The average per capita winnings was $350 per person in the zip code area. There are 122 zip codes in the secondary trade area with average per capita winnings of $106 for the casino. The tertiary trade area covers most of Iowa and is widely scattered over adjoining states. The average per capita winnings from the tertiary trade area were $3 per person in the trade areas. The casino suffered minor losses from zip codes scattered mainly around Iowa and the average loss per capita was $2.46 per person in the zip code areas.

Rhythm City Casino. Rhythm City Casino in Davenport has a fair sized trade area around

Eastern Iowa and Northwestern Illinois. The primary trade area consists of 12 zip codes concentrated in the Quad City area. The average per capita winnings from these 12 zip codes was $532 per person. The secondary trade area covers 93 zip codes and averages $84 per person in the zip code areas. The tertiary trade area covers Eastern Iowa, Northern Illinois, Southern Wisconsin and scattered zip codes in adjacent states. The casino winnings from the tertiary trade area was $2.38 per person in the zip code areas. The casino suffered minimal losses (less than $1 per person) from a few widely scattered zip codes.

All Iowa Casinos (Except Tribal). Figure 14 shows the combined trade areas of all Iowa non-tribal casinos. As would be expected, the areas on either side of the Mississippi River are well covered and provide strong winnings for those casinos. Also the areas on either side of the Missouri River are well covered for the southern part of Iowa, but the coverage is somewhat spotty to the north. Central Iowa and South Central Iowa are also well covered, owing to Prairie Meadows Racetrack and Casino and Lakeside Casino Resort. It can be seen, however, that there is an avenue of less-served counties running roughly from Southeastern Iowa to Northwestern Iowa. In particular, the top two to four tiers of counties for the Western two-thirds of the state are under-served. For all the existing casinos, the average per capita winnings from primary trade areas was $411 per person in the trade areas. For the secondary trade areas, the average winnings were $108 per person. The average per capita winnings from the tertiary trade areas were $2.86 per person.

Economic Impact

In 2003, the 8,700 employees[2] at the 13 Iowa casinos and gaming facilities impacted the Iowa economy by making an estimated $300 million in annual purchases from Iowa suppliers and contributing $40 million to non-profit organizations. In addition, the industry had an indirect effect on the economy as the workers spent their earned income on consumer goods and services and as the gaming establishments made purchases from Iowa businesses and suppliers which stimulated other sectors of the State's economy.

To identify and estimate these multiplier effects, the study team configured an Input-Output (I-O) model based on the IMPLAN modeling system (see Appendix C) for the State of Iowa. The team then applied this model to identify those secondary economic effects. An I-O model is basically a general accounting system that details the transactions taking place among industries, businesses and consumers in an economy. The purchases and sales are adjusted for in-state and out-of-state sources. They are then summed to arrive at an estimate of the total effects that result from the initial economic event or activity. The activity in this case is the consumer spending at the gaming facilities.

In addition to constructing a baseline estimate of the impact during 2003, the study team developed estimates that simulated a number of alternative policy scenarios. Once the model was constructed, we were able to simulate how the addition of one or more new licensed

[2] Data as reported to the Iowa Racing and Gaming Commission.

gaming facilities or an expansion of existing gaming capacity would impact the baseline economic indicators.

The baseline scenario in this analysis looks at the overall importance and annual contribution of the gaming industry to the Iowa economy based on the estimated levels of expenditures and investments in property and equipment. This approach is similar to asking 'what would be the economic impact of removing the gaming industry from the state'. The resulting analysis incorporates the full set of linkages of the gaming industry ranging from their input purchases to multiplier effects associated with consumer-related purchases by employees.

The results of the I-O analysis are presented in Table 5. The direct effects used in the model are the $1.024 billion of adjusted gross receipts (industry output) and the 8,700 workers employed at the 13 Iowa gaming facilities. During 2003 the workers at the facilities earned an estimated $195.4 million in wages and salaries.

Based on linkages and economic relationships contained in the I-O model, the total effect of the state's gaming industry was 16,923 jobs for a total labor income of $386.6 million.

The $1.024 billion of adjusted gross revenue collected by the gaming industry resulted in an additional $517 million of spending in the Iowa economy – for a total impact of an estimated $1.52 billion of gross sales or output and $813 million of value added to the economy.

Table 5. Economic Effect of the Gaming Industry in Iowa, 2003

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	8,678,466	3,105,166	4,295,722	172
Mining	168,860	47,033	112,726	1
Construction	23,098,150	13,045,718	13,754,852	388
Manufacturing	67,255,320	15,831,851	22,567,594	472
Transp/Utilities	64,530,412	15,730,295	39,630,824	393
Trade	75,432,152	31,513,272	52,639,860	1,802
Finance.Ins.Real Estate	85,230,816	15,660,797	61,588,032	650
Services	1,176,899,328	284,525,408	610,155,136	12,844
Government	15,121,940	6,636,513	7,788,914	144
Households	480,434	480,434	480,434	56
Total	1,516,895,877	386,576,486	813,014,094	16,923

Source: IMPLAN Model for Iowa

Tourism and Hospitality Effects

The gaming industry is a major tourism attraction in Iowa because it draws a substantial number of visitors from the surrounding regions (see Table 6). In addition to the on-site employment and economic activity generated by the industry, the facilities also support complementary businesses. As a result, many of the visitors to Iowa casinos and racetracks

purchase other goods and services from Iowa businesses. Those purchases create an additional economic effect to the hotel and restaurant businesses in the area.

Table 6. Origin of Gaming Facility Customers

Facility Name	Number of Zip Codes	Customers		Spending	
		Iowans	Non-Iowans	Iowans	Non-Iowans
Ameristar	5,544	20%	80%	19%	81%
Argosy	1,259	62%	38%	69%	31%
Bluffs Run	5,789	25%	75%	27%	73%
Catfish Bend	1,281	52%	48%	67%	33%
Diamond Jo	1,996	44%	56%	60%	40%
Dubuque Greyhound	1,151	45%	55%	51%	49%
Harrah's	6,990	20%	80%	18%	82%
Isle of Capri Bettendorf	4,519	32%	68%	38%	62%
Isle of Capri Marquette	2,227	38%	62%	43%	57%
Lakeside	3,290	74%	26%	91%	9%
Mississippi Belle II	1,330	24%	76%	33%	67%
Prairie Meadows	2,517	90%	10%	97%	3%
Rhythm City	4,472	32%	68%	38%	62%
Averages		34%	66%	48%	52%

The study team examined the rate of growth in hotel and restaurant employment in the 13 counties with gaming facilities for the period between 1995 and 2002. During that time the hospitality businesses in those counties experienced an 11 percent growth in employment compared to an eight percent growth statewide. We believe the presence of the gaming facilities was a major factor in this higher growth. This three percent differential suggests that the presence of the gaming facilities results in an additional 1,024 hospitality sector jobs in the area. Including these jobs with the direct gaming facilities effect provides a more comprehensive estimate of the overall economic impact of the industry. These results are presented in Table 7.

Table 7. Total Economic Effects of the Gaming Industry in Iowa Including Hospitality Gains, 2003

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	9,332,183	3,311,155	4,565,423	179
Mining	175,050	48,756	116,891	1
Construction	23,677,870	13,367,444	14,093,734	398
Manufacturing	71,380,496	16,554,232	23,660,306	494
Transp/Utilities	66,549,796	16,251,570	40,856,032	407
Trade	103,921,008	41,604,472	67,537,920	2,730
Finance.Ins.Real Estate	88,397,920	16,306,638	63,904,796	674
Services	1,188,039,552	289,528,032	617,102,400	13,141
Government	15,576,685	6,807,335	8,005,256	148
Households	502,438	502,438	502,438	59
Total	1,567,552,997	404,282,072	840,345,195	18,230

The total employment effects of the gaming industry in the Iowa economy – including its impact on the restaurant and hospitality sector - are now estimated as 18,230 jobs along with $404.2 million of payroll effects. Total output is estimated as $1.57 billion and the contribution to the Gross State Product (value added) as $840.3 million.

Tax Consequences

The Iowa gaming industry also generates considerable state and local taxes from the 18,230 job holders who earn $404 million of personal income. Based on state and local tax revenue yields from income levels used in the Iowa Fiscal Model[3] it is possible to estimate aggregate levels of state and local taxes generated by the gaming industry in Iowa.

The $195 million of wages and salaries to the 8,700 gaming industry workers generates an estimated $16.4 million of personal state tax revenues and $2.6 million of local taxes.

The secondary impacts of $209 million of wage and salary income earned by 9,530 jobholders also generates state and local taxes, although the average income level is lower than for the direct gaming industry jobs. Earnings from these secondary jobs generate an estimated $16.6 million in state taxes and $2.2 million in local tax revenues.

In addition to the taxes generated by the gaming facility payrolls, casinos and racetracks also paid $10 million in taxes to city and county governments and another $199 million to the state in 2003.

Table 8. Taxes Collected from Gaming Establishments, 2003

Measure	Baseline
Economic Effect:	
Gross Sales or Output	$1,567,552,997
Labor Income	$404,282,072
Value Added to the Economy	$840,345,195
Jobs	18,230
Local Taxes Paid:	
Direct Taxes Paid by Licensees	$10,246,152
Taxes Paid on Payroll, Direct & Indirect	4,997,057
Total Local Taxes	$15,243,209
State Taxes Paid:	
Direct Taxes Paid by Licensees	$199,473,731
Taxes Paid on Direct Payroll	$33,367,153
Total State Taxes	$232,840,884

[3] Siegelman, Harvey et al, Iowa Public Impact Model developed for the Grow Iowa Values Fund to evaluate the public return on investment of publicly funded economic development projects.

Overall, Iowa's gaming establishments directly or indirectly paid an estimated $232.8 million in state taxes and an estimated $15.2 million to local governments last year.

Analysis of Alternative Expansion Scenarios

Proposed Casinos Trade Areas and Projected Revenues

The Huff Probability Model was used to estimate the size of each of the proposed casino trade areas. The average winnings per zip code area for the primary and secondary trade areas were estimated using the overall averages found from the study of existing casinos. Based on data from existing casinos, we assumed that the primary and secondary trade areas account for two-thirds of the casino's total revenue. It should also be noted that data from all casinos in Iowa and surrounding states (including tribal casinos) was utilized in the Huff Model in order to increase the accuracy of the projections.

Emmetsburg (Palo Alto County) Projections. Figure 15 shows the projected primary and secondary trade areas for a proposed casino at Emmetsburg. Only the outlines of the primary and secondary trade areas were shown so that the areas of impingement upon the trade areas of existing casinos would be apparent. The model calculated that the winnings from the primary and secondary trade areas would be only $10.2 million per year. However, due to the large summer population in this area it was estimated that an additional $10.2 million of revenue would be generated from the tertiary trade area for a total of $20.4 million annual revenue. We estimated that such a casino would capture $1.5 million from existing casinos. This will be discussed further in the following section.

Northwood (Worth County) Projections. Figure 16 shows the projected primary and secondary trade areas for a proposed casino at Northwood. This casino was assumed to be the same size as Lakeside Casino Resort with 900 slot machines and 33 gaming tables. Figure 16 shows that such a casino would fill an underserved area in North-Central Iowa as well as reaching deeply into Southern Minnesota. The model predicted that revenues from the primary and secondary trade areas would be approximately $34 million annually. Tertiary trade area revenues were predicted to be slightly over $11 million, resulting in total annual revenues of approximately $45 million. We estimated that this proposed casino would capture approximately $2.8 million from existing Iowa casinos.

Ottumwa (Wapello County) Projections. Figure 17 shows the proximate trade areas for a proposed casino at Ottumwa. It is fairly obvious that Ottumwa is somewhat surrounded by existing casinos. Consequently, the projected revenues for this casino are less robust than might be expected. It was assumed that the casino would be the same size as Lakeside Casino Resort (900 slot machines and 33 gaming tables). The model projected annual revenues of $24.6 million annually from the primary and secondary trade areas. We projected tertiary trade area revenues of $8.2 million for total annual revenues of $32.8 million. In order to reach this total revenue, we calculated that the casino would capture approximately $11 million annually from existing Iowa casinos.

Waterloo (Blackhawk County) Projections. It was assumed that the Waterloo trade area was large enough to justify 1,430 slot machines and 35 gaming tables (an average of the numbers at Ameristar and Harrah's in Council Bluffs). Figure 18 shows the relatively large trade area that would be generated by such a casino. The model estimated that the primary

and secondary trade areas would generate annual revenues of $85.9 million. We further estimated that the tertiary trade area would generate revenues of $28.6 million for a total of $114.5 million annually. However, such a casino would capture a substantial amount ($16.6 million annually) from existing Iowa Casinos.

Hampton (Franklin County) Projections. Franklin County voters approved their referendum on January 27. Figure 19 shows the proximate trade areas for a proposed casino at Hampton. It was assumed that the casino would be the same size as Lakeside Casino Resort (900 slot machines and 33 gaming tables). The model projected annual revenues of $23.7 million annually from the primary and secondary trade areas. We further projected tertiary trade area revenues of $7.9 million for total annual revenues of $31.6 million. In order to reach this total revenue, the model calculated that the casino would capture approximately $5.9 million annually from existing Iowa casinos.

Ft. Dodge (Webster County) Projections. The Webster County referendum is scheduled to occur sometime in February. The study team included the calculations in order to cover the possibility that the referendum would be approved. Figure 20 shows the proximate trade areas for a proposed casino at Ft. Dodge. It was also assumed that the casino would be the same size as Lakeside Casino Resort (900 slot machines and 33 gaming tables). The model projected revenues of $30.1 million annually from the primary and secondary trade areas. We further projected tertiary trade area revenues of $10 million for total annual revenues of $40.1 million. In order to reach this total revenue, the model calculated that the casino would capture approximately $10.6 million annually from existing Iowa casinos.

Summary of Projections for Individual Casinos

Table 9 summarizes the revenue projections for each proposed casino (assuming it alone was built).

Table 9. Estimated Revenues from Proposed New Casinos (if Built Separately and Alone)

Proposed Casino	Revenue from Primary and Secondary Areas	Revenue from Tertiary Areas	Total Revenue	Captured from Other Casinos	Net New Revenues
Northwood	$33,898,864	$11,299,621	$45,198,485	$2,809,778	$42,388,708
Ottumwa	$24,571,240	$8,190,413	$32,761,653	$11,349,563	$21,412,090
Waterloo	$85,881,386	$28,627,129	$114,508,515	$16,568,519	$97,939,996
Emmetsburg	$10,184,630	$10,184,630	$20,369,260	$1,461,837	$18,907,423
Hampton	$23,721,674	$7,907,225	$31,628,899	$5,898,730	$25,730,168
Fort Dodge	$41,637,162	$13,879,054	$55,516,216	$14,717,970	$40,798,246

Projections for All Six New Casinos, Simultaneously

The previous revenue projections assumed only one of the proposed casinos would be built. This projection will assume that all six proposed casinos were built simultaneously. Figure

21 shows the new trade areas for each of the casinos if they were to coexist. It can be seen that such a scenario would cause the primary and secondary trade areas of each casino to shrink slightly. In addition, the tertiary trade areas would overlap considerably. Based on this scenario (all six proposed casinos were to be built) we generated new revenue projections. These are summarized and shown in table 10.

Table 10. Estimated Revenues from Proposed New Casinos (if Built Simultaneously)

Proposed Casino	Revenue from Primary and Secondary Areas	Tertiary Areas	Total Revenue	Captured from Other Casinos	Net New Revenues
Northwood	$19,057,090	$6,352,363	$25,409,453	$2,353,166	$23,056,287
Ottumwa	$21,393,552	$7,131,184	$28,524,736	$9,842,908	$18,681,828
Waterloo	$72,448,462	$24,149,487	$96,597,949	$13,887,506	$82,710,444
Emmetsburg	$5,792,074	$5,792,074	$11,584,148	$397,550	$11,186,598
Hampton	$12,210,182	$4,070,061	$16,280,243	$2,507,091	$13,773,152
Fort Dodge	$30,051,454	$10,017,151	$40,068,605	$10,629,269	$29,439,336
Total	$160,952,814	$57,512,321	$218,465,135	$39,617,490	$178,847,645

Note: Total figures may be off slightly due to rounding errors.

Estimated Capture of Revenues from Existing Casinos by Proposed New Casinos

The total estimated capture of revenues from existing non-tribal Iowa Casinos was discussed above. The following tables show the detailed projections of revenues captured from each of the existing non-tribal casinos. Table 11 shows the estimated capture amounts for each of the individual proposed casinos under the scenario that it alone was built.

Table 11. Estimate of Amounts Each Proposed New Casino Would Capture from Existing Casinos

Existing Casino	Northwood	Ottumwa	Waterloo	Emmetsburg	Hampton	Fort Dodge
Ameristar	$87,149	$26,815	$151,446	$230,888	$84,743	$687,536
Argosy	$2,710	$1,703	$9,010	$337,424	$6,911	$234,800
Bluffs Run	$29,664	$35,811	$69,748	$37,595	$32,617	$321,154
Catfish Bend	$3,767	$2,953,663	$39,916	$305	$2,036	$4,305
Diamond Jo	$71,083	$14,303	$3,168,976	$7,418	$141,299	$25,438
Dubuque Greyhound	$11,865	$10,755	$1,488,369	$1,032	$44,857	$5,427
Harrahs	$45,458	$41,217	$116,093	$137,618	$68,481	$513,386
Isle of Capri Bettendorf	$80,021	$476,241	$1,192,814	$3,275	$127,804	$85,525
Isle of Capri Marquette	$907,163	$4,263	$6,873,263	$26,094	$1,016,511	$67,978
Lakeside	$283,727	$3,450,750	$373,961	$75,373	$613,280	$1,513,562
Mississippi Belle II	$3,235	$12,188	$122,018	$4,526	$16,782	$7,962
Prairie Meadows	$1,279,141	$4,003,989	$1,853,972	$662,712	$3,662,358	$11,508,431
Rhythm City	$80,983	$481,970	$1,207,164	$3,314	$129,341	$86,553
Total	$2,809,778	$11,349,563	$16,568,519	$1,461,837	$5,898,730	$14,717,970

From table 11 it can be seen that the proposed Emmetsburg casino would have the lowest capture of revenues from existing casinos at $1.46 million annually. The major portion of this would be captured from Prairie Meadows, Argosy and Ameristar. The proposed casino at Northwood would have about twice the capture of Emmetsburg ($2.8 Mil.), with Prairie Meadows and Isle of Capri at Marquette being the most negatively affected.

According to the model, the proposed casino at Ottumwa would capture approximately $11.3 million from existing non-tribal Iowa casinos. The biggest loses would be suffered by Prairie Meadows, Lakeside and Catfish Bend. The proposed casino at Waterloo would capture the greatest amounts from existing casinos ($16.6 Mil). Isle of Capri at Marquette would be the most adversely affected, followed by Diamond Jo, Prairie Meadows and Dubuque Greyhound.

Table 12 shows the estimated capture of revenues from existing non-tribal Iowa casinos if all six proposed casinos were built and operated simultaneously. The revenues captured by Northwood and Ottumwa would be reduced slightly. The capture by Waterloo would be reduced by nearly $3 million while the capture by Emmetsburg would be reduced from $1.5 million to $398,000. The capture by Hampton would be reduced from nearly $6 million to $2.5 million and the capture from Ft. Dodge would drop by more than $4 million.

The last column shows the estimated total losses to existing casinos if all six proposed casinos were built. Prairie Meadows would experience the biggest loses at $16.8 million, followed by Isle of Capri (Marquette) at $6.8 million and Lakeside at $5 million. Other casinos along the Mississippi River would suffer considerable losses, while the casinos along the Missouri River would suffer minimal losses. The total estimated capture from existing casinos under this scenario would be $39.6 million.

Table 12. Estimate of Amounts Each Proposed New Casino Would Capture from Existing Casinos
If All Six Casinos Were Built and Operated Simultaneously

Existing Casino	North wood	Ottumwa	Waterloo	Emmets-burg	Hampton	Fort Dodge	Total
Ameristar	$72,489	$26,399	$132,330	$93,913	$63,812	$502,072	$891,014
Argosy	$2,710	$155	$7,615	$43,267	$1,426	$150,283	$205,456
Bluffs Run	$25,531	$32,624	$64,392	$9,118	$21,197	$103,508	$256,372
Catfish Bend	$3,095	$1,971,949	$30,138	$305	$1,303	$3,939	$2,010,728
Diamond Jo	$66,168	$11,745	$2,994,246	$1,559	$62,093	$18,973	$3,154,783
Dubuque Greyhound	$4,336	$7,705	$1,393,329	$754	$17,983	$5,048	$1,429,155
Harrahs	$41,836	$35,124	$100,078	$63,480	$50,363	$322,652	$613,533
Isle of Capri Bettendorf	$68,158	$362,357	$939,373	$3,058	$49,037	$72,520	$1,494,502
Isle of Capri Marquette	$766,749	$4,157	$5,563,724	$5,229	$450,172	$52,997	$6,843,028
Lakeside	$216,547	$3,225,966	$323,191	$25,942	$156,583	$1,068,887	$5,017,116
Mississippi Belle II	$749	$11,603	$66,121	$1,789	$9,409	$6,173	$95,843
Prairie Meadows	$1,085,531	$3,923,194	$1,403,086	$198,483	$1,612,719	$8,545,815	$16,768,827
Rhythm City	$68,977	$366,716	$950,674	$3,095	$49,627	$73,392	$1,512,481
Total	$2,353,166	$9,842,908	$13,887,506	$397,550	$2,507,091	$10,629,269	$39,617,490

Economic Impact of Alternative Expansion Sites

By the end of January 2004, the voters in five counties had passed a gaming casino referendum. One more is on the ballot for a vote later in the year. We have prepared two sets of economic impact analyses. This first is based on the assumption that each casino might be individually approved for a license while the second set is based on the assumption that all six would be licensed simultaneously. The results are based on the more broadly defined impact of gaming induced growth in the local hospitality sector.

Tables 13 through 18 present the direct and secondary impacts of the scenario where gaming is expanded at only that individual site and none of the others. The gains are also calculated from the state's perspective and not that of the casino developer. For that reason, the market shares which that casino is expected to capture from all other casinos in Iowa have been deducted from the potential gains.

Table 13. Economic Effect - Proposed Black Hawk County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	867,235	304,035	417,960	16
Mining	16,111	4,489	10,770	0
Construction	2,103,161	1,183,846	1,247,960	35
Manufacturing	6,555,635	1,496,760	2,147,662	45
Transp/Utilities	5,978,196	1,460,226	3,671,474	37
Trade	10,464,410	4,195,735	6,776,781	280
Finance.Ins.Real Estate	8,366,742	1,538,660	6,051,963	63
Services	115,440,522	30,385,004	66,278,066	1,374
Government	1,419,251	611,892	723,691	13
Households	51,242	51,242	51,242	6
Total	151,262,506	41,231,889	87,377,568	1,869

Table 14. Economic Effect - Proposed Franklin County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	227,839	79,876	109,806	4
Mining	4,233	1,179	2,830	0
Construction	552,539	311,018	327,862	9
Manufacturing	1,722,287	393,227	564,231	12
Transp/Utilities	1,570,583	383,628	964,564	10
Trade	2,749,195	1,102,297	1,780,386	74
Finance.Ins.Real Estate	2,198,099	404,234	1,589,963	16
Services	30,328,369	7,982,705	17,412,479	361
Government	372,864	160,755	190,127	4
Households	13,462	13,462	13,462	2
Total	39,739,470	10,832,383	22,955,710	491

Table 15. Economic Effect - Proposed Palo Alto County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	167,411	58,691	80,683	3
Mining	3,110	866	2,079	0
Construction	405,995	228,530	240,907	7
Manufacturing	1,265,503	288,935	414,586	9
Transp/Utilities	1,154,034	281,883	708,743	7
Trade	2,020,054	809,947	1,308,193	54
Finance.Ins.Real Estate	1,615,120	297,024	1,168,274	12
Services	22,284,691	5,865,535	12,794,348	265
Government	273,973	118,120	139,702	3
Households	9,892	9,892	9,892	1
Total	29,199,783	7,959,422	16,867,405	361

Table 16. Economic Effect - Proposed Wapello County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	189,554	66,454	91,355	3
Mining	3,521	981	2,354	0
Construction	459,695	258,757	272,771	8
Manufacturing	1,432,887	327,152	469,422	10
Transp/Utilities	1,306,674	319,166	802,486	8
Trade	2,287,241	917,076	1,481,223	61
Finance.Ins.Real Estate	1,828,746	336,310	1,322,797	14
Services	25,232,215	6,641,350	14,486,615	300
Government	310,210	133,743	158,179	3
Households	11,200	11,200	11,200	1
Total	33,061,944	9,012,190	19,098,403	409

Table 17. Economic Effect - Proposed Webster County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	361,266	126,653	174,110	7
Mining	6,711	1,870	4,487	0
Construction	876,119	493,158	519,866	15
Manufacturing	2,730,897	623,509	894,657	19
Transp/Utilities	2,490,352	608,290	1,529,435	15
Trade	4,359,185	1,747,827	2,823,020	117
Finance.Ins.Real Estate	3,485,354	640,963	2,521,081	26
Services	48,089,338	12,657,555	27,609,615	572
Government	591,221	254,897	301,470	6
Households	21,346	21,346	21,346	3
Total	63,011,789	17,176,068	36,399,085	779

Table 18. Economic Effect - Proposed Worth County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	375,336	131,586	180,892	7
Mining	6,973	1,943	4,661	0
Construction	910,242	512,365	540,113	15
Manufacturing	2,837,258	647,793	929,502	19
Transp/Utilities	2,587,344	631,981	1,589,002	16
Trade	4,528,964	1,815,901	2,932,969	121
Finance.Ins.Real Estate	3,621,100	665,927	2,619,271	27
Services	49,962,296	13,150,535	28,684,939	595
Government	614,248	264,825	313,211	6
Households	22,178	22,178	22,178	3
Total	65,465,939	17,845,032	37,816,738	809

The magnitude of employment and income impacts are proportional to the projected adjusted gross revenue at each individual casino. When considering each casino separately, the employment effects range from 361 total jobs in Palo Alto County to 1,869 total jobs associated with the Waterloo facility. Payroll effects range from $7.96 million in Palo Alto County to $41.2 million of total income from a Waterloo facility.

Table 19 presents the direct and secondary impacts of the scenario where gaming licenses are issued at all six sites. The study team has deducted from the gains for each new casino the cumulative impact of each site competing for a market share against all other new sites as well as all existing sites.

Table 19. Economic Effect - All Proposed License Expansions
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	1,583,505	555,146	763,163	29
Mining	29,417	8,196	19,666	0
Construction	3,840,213	2,161,613	2,278,680	64
Manufacturing	11,970,094	2,732,970	3,921,469	82
Transp/Utilities	10,915,733	2,666,262	6,703,833	67
Trade	19,107,220	7,661,094	12,373,889	512
Finance.Ins.Real Estate	15,277,038	2,809,476	11,050,426	114
Services	210,785,656	55,480,717	121,018,732	2,509
Government	2,591,446	1,117,269	1,321,404	24
Households	93,565	93,565	93,565	11
Total	276,193,887	75,286,308	159,544,827	3,413

The $276.2 million of additional adjusted gross receipts at the six new casinos is expected to generate over 3,400 jobs and $75.3 million of additional labor income in the Iowa economy. The industry distribution of these impacts is presented in the individual tables 20 through 25 to show how widely the benefits are dispersed in the economy.

Table 20. Economic Effect - Proposed Black Hawk County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	732,378	256,757	352,966	14
Mining	13,606	3,791	9,096	0
Construction	1,776,114	999,755	1,053,899	30
Manufacturing	5,536,218	1,264,010	1,813,696	38
Transp/Utilities	5,048,572	1,233,157	3,100,551	31
Trade	8,837,169	3,543,288	5,722,975	237
Finance.Ins.Real Estate	7,065,694	1,299,394	5,110,868	53
Services	97,489,245	25,660,063	55,971,668	1,160
Government	1,198,554	516,741	611,155	11
Households	43,274	43,274	43,274	5
Total	127,740,824	34,820,231	73,790,147	1,579

Table 21. Economic Effect - Proposed Franklin County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	121,956	42,755	58,776	2
Mining	2,266	631	1,515	0
Construction	295,760	166,480	175,496	5
Manufacturing	921,895	210,484	302,018	6
Transp/Utilities	840,692	205,346	516,306	5
Trade	1,471,572	590,031	952,994	39
Finance.Ins.Real Estate	1,176,585	216,376	851,066	9
Services	16,233,980	4,272,932	9,320,443	193
Government	199,584	86,048	101,770	2
Households	7,206	7,206	7,206	1
Total	21,271,496	5,798,290	12,287,589	263

Table 22. Economic Effect - Proposed Palo Alto County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	99,021	34,715	47,723	2
Mining	1,840	513	1,230	0
Construction	240,139	135,172	142,492	4
Manufacturing	748,523	170,900	245,220	5
Transp/Utilities	682,591	166,729	419,209	4
Trade	1,194,827	479,069	773,773	32
Finance.Ins.Real Estate	955,315	175,684	691,014	7
Services	13,181,008	3,469,362	7,567,635	157
Government	162,050	69,866	82,631	2
Households	5,851	5,851	5,851	1
Total	17,271,165	4,707,860	9,976,778	213

Table 23. Economic Effect - Proposed Wapello County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	165,412	57,990	79,720	3
Mining	3,073	856	2,054	0
Construction	401,147	225,801	238,030	7
Manufacturing	1,250,390	285,485	409,635	9
Transp/Utilities	1,140,252	278,516	700,279	7
Trade	1,995,930	800,274	1,292,570	53
Finance.Ins.Real Estate	1,595,831	293,476	1,154,322	12
Services	22,018,560	5,795,487	12,641,554	262
Government	270,701	116,709	138,033	3
Households	9,774	9,774	9,774	1
Total	28,851,070	7,864,368	16,665,969	357

Table 24. Economic Effect - Proposed Webster County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	260,661	91,383	125,624	5
Mining	4,842	1,349	3,237	0
Construction	632,138	355,823	375,094	11
Manufacturing	1,970,398	449,874	645,513	13
Transp/Utilities	1,796,839	438,893	1,103,518	11
Trade	3,145,240	1,261,093	2,036,866	84
Finance.Ins.Real Estate	2,514,754	462,468	1,819,011	19
Services	34,697,434	9,132,683	19,920,898	413
Government	426,578	183,914	217,516	4
Households	15,402	15,402	15,402	2
Total	45,464,285	12,392,882	26,262,679	562

Table 25. Economic Effect - Proposed Worth County Licensee
Including Hospitality Gains

	Total Sales ($)	Labor Income ($)	Value Added ($)	Jobs
Agriculture	204,077	71,546	98,354	4
Mining	3,791	1,056	2,534	0
Construction	494,915	278,582	293,670	8
Manufacturing	1,542,670	352,217	505,387	11
Transp/Utilities	1,406,787	343,620	863,970	9
Trade	2,462,482	987,339	1,594,710	66
Finance.Ins.Real Estate	1,968,859	362,077	1,424,146	15
Services	27,165,429	7,150,190	15,596,535	323
Government	333,978	143,990	170,299	3
Households	12,058	12,058	12,058	1
Total	35,595,048	9,702,676	20,561,664	440

Again, the economic impacts are proportional to the level of projected adjusted gross receipts for each casino. The estimated labor income and employment effects are slightly lower than the first set of six tables because this scenario considers that all six casinos are built simultaneously and that they will reduce each other's market share. Total employment effects range from 213 in Palo Alto County to 1,579 in Waterloo. Total labor income effects range from $4.7 million in Palo Alto County to $34.8 in Waterloo.

Tax Consequences

If the Legislature were to permit an expansion in the gaming licenses and if licenses were to be issued in each of the six counties where a referendum has passed or is expected to pass, the economic effect would be additional state and local tax receipts. Adjusted gross receipts at the six casinos would equal $276.2 million a year, generate more than 3,400 new jobs with a payroll of $75.3 million, and result in an increase of nearly $42.3 million in state and $2.7 million in local tax receipts. Table 26 shows the detail.

Table 26. Economic Effects of the Gaming Industry in Iowa Including Hospitality Gains
For All Expansion Scenarios Simultaneously - Assuming All Are Licensed

Measure	Black Hawk	Franklin	Palo Alto	Wapello	Webster	Worth	All Additions
Economic Effect:							
Gross Sales	127,740,824	21,271,496	17,271,165	28,851,070	45,464,285	35,595,048	276,193,887
Labor Income	34,820,231	5,798,290	4,707,860	7,864,368	12,392,882	9,702,676	75,286,308
Value Added	73,790,147	12,287,589	9,976,778	16,665,969	26,262,679	20,561,664	159,544,827
Jobs	1,579	263	213	357	562	440	3,413
Local Taxes Paid:							
Licensee Taxes	827,104	137,732	111,866	186,818	294,393	230,563	1,788,476
Payroll Taxes	432,690	72,091	58,502	97,726	154,051	120,609	935,669
Total	1,259,795	209,823	170,368	284,544	448,444	351,172	2,724,145
State Taxes Paid:							
Licensee Taxes	16,753,548	2,759,279	2,234,207	3,755,739	5,939,514	4,643,754	36,086,042
Payroll Taxes	2,889,228	481,380	390,637	652,550	1,028,653	805,351	6,247,799
Total	19,642,776	3,240,659	2,624,845	4,408,289	6,968,167	5,449,105	42,333,841

Of course, each of the new casinos would capture some of the market share from the 13 existing casinos and racetracks and from each other. For that reason, the study team factored the aggregate growth as the net increase which each new casinos will add after deducting the decreases attributable to the other casinos. In order to see the impact each of the six would have if it were the only approved new licensee, the study team provides the data in table 27.

Table 27. Economic Effects of the Gaming Industry in Iowa Including Hospitality Gains
For Each Individual Expansion Scenario - Assuming No Other Expansions

Measure	Black Hawk	Franklin	Palo Alto	Wapello	Webster	Worth
Economic Effect:						
Gross Sales	151,262,506	39,739,470	29,199,783	33,061,944	63,011,789	65,465,939
Labor Income	41,231,889	10,832,383	7,959,422	9,012,190	17,176,068	17,845,032
Value Added	87,377,568	22,955,710	16,867,405	19,098,403	36,399,085	37,816,738
Jobs	1,869	491	361	409	779	809
Local Taxes Paid:						
Licensee Taxes	979,400	257,302	189,074	214,121	407,982	423,887
Payroll Taxes	512,315	134,589	98,954	112,112	213,533	221,756
Total	1,491,715	391,891	288,029	326,233	621,516	645,643
State Taxes Paid:						
Licensee Taxes	19,845,147	5,186,553	3,801,535	4,309,982	8,245,373	8,568,236
Payroll Taxes	3,420,911	898,698	660,754	748,610	1,425,837	1,480,747
Total	23,266,058	6,085,252	4,462,289	5,058,593	9,671,210	10,048,983

Miscellaneous Observations and Findings

- While the level of casino and racetrack spending that comes from non-residents is 52% on average, the rate varies:
    - Non-residents provide 74% of the spending at facilities located near or on the Missouri River, 54% of the spending at facilities near the Mississippi and only 16% at the facilities in the interior of the state.
    - Non-residents provide 34% of the slot machine receipts at racetracks and 67% of receipts at riverboat casinos.

- During 2003, employees at Iowa casinos earned an average pay of $22,159 with benefits worth an additional $6,458. At Iowa racetracks, the average wage was $23,408 with $6,693 in benefits.

- Of the 8,698 employees who worked at the Iowa riverboat casinos and racetracks during the first half of 2003, 67% or 5,796 of them were Iowa residents.

- Of the 18,230 Iowa employees whose jobs directly or indirectly are the result of the Iowa gaming industry, the largest share are in the services sector, are followed by 15% are in retail or wholesale trade, 4% work in the financial and real estate sector and 3% work in manufacturing.

- The Cummings Associates study projected $172,229,000 in annual receipts for the six casinos, if licensed and opened. Our analysis indicates that the receipts for the six would be $178,847,645 – a difference of only 3.8%.

- Our analysis indicated that during 2003, the ratio of adjusted gross receipts to the number of employees was 101,743 to one. Traditionally, the ratio of retail or shopping mall receipts to the number of employees is also about 100,000 to one.

Appendix A: Trade Area Maps

Figure 1. Ameristar Estimated Revenues Per Capita by Zip Code

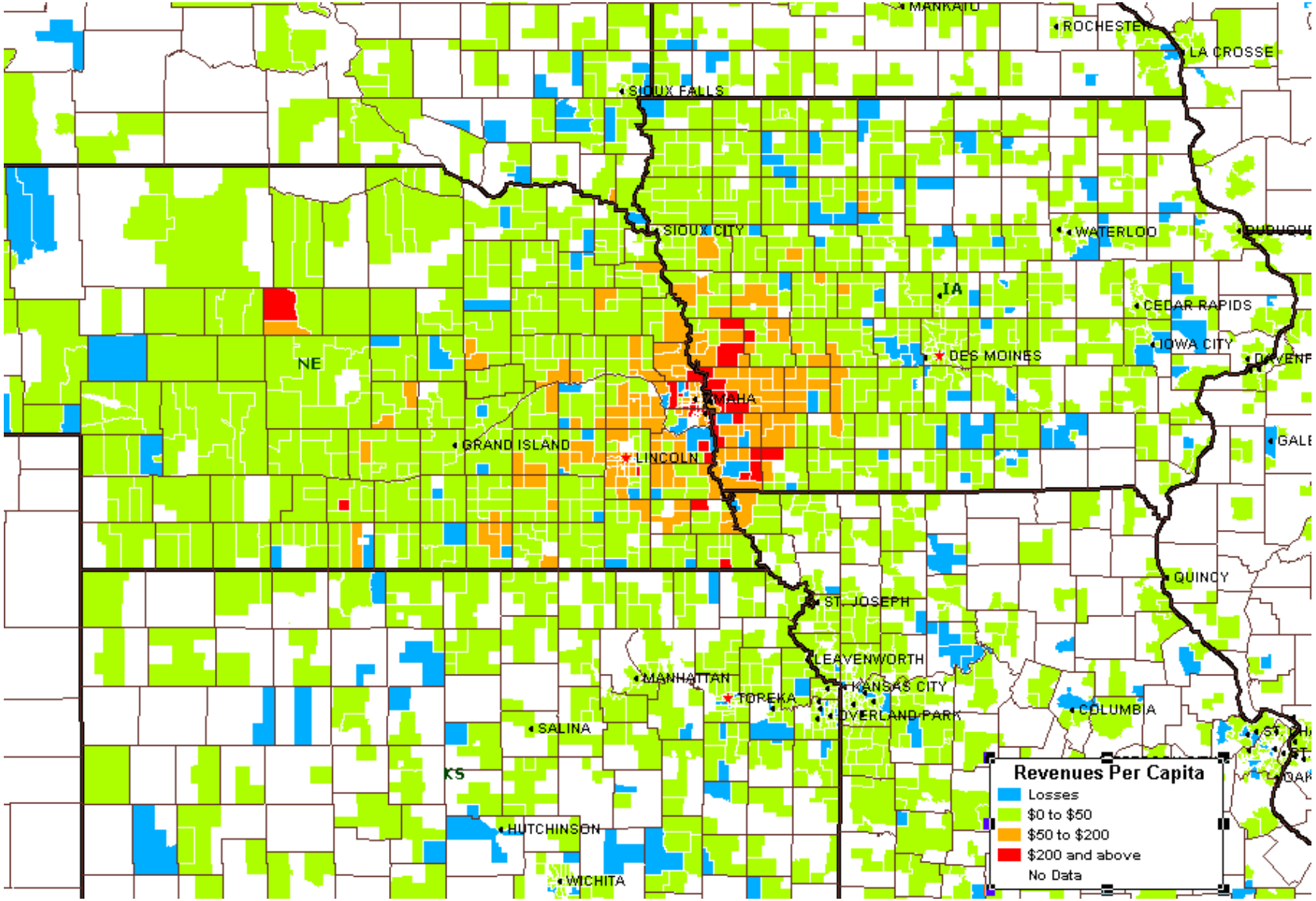


Figure 2. Argosy of Sioux City Estimated Revenues Per Capita by Zip Code

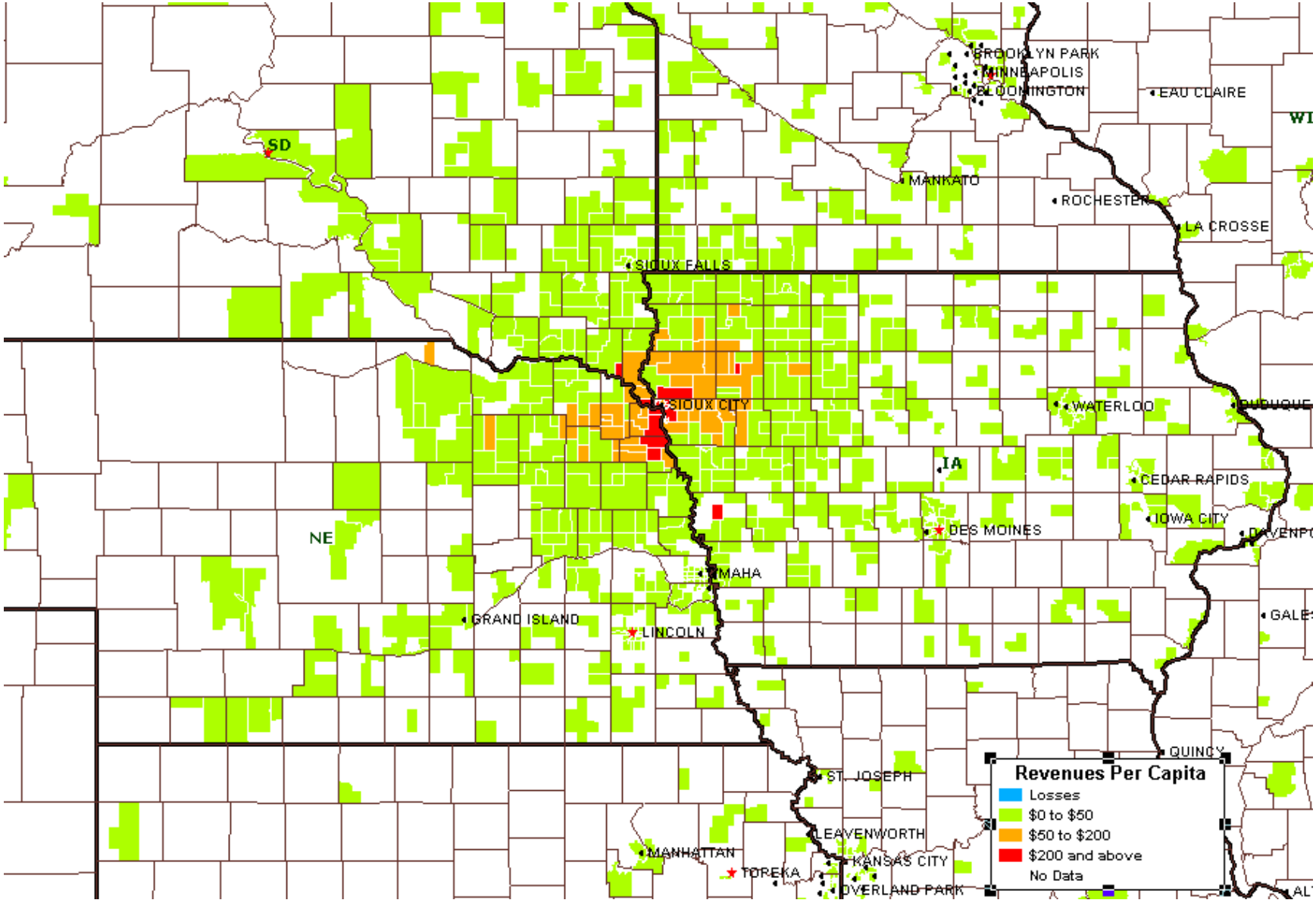


Figure 3. Bluffs Run Estimated Revenues Per Capita by Zip Code

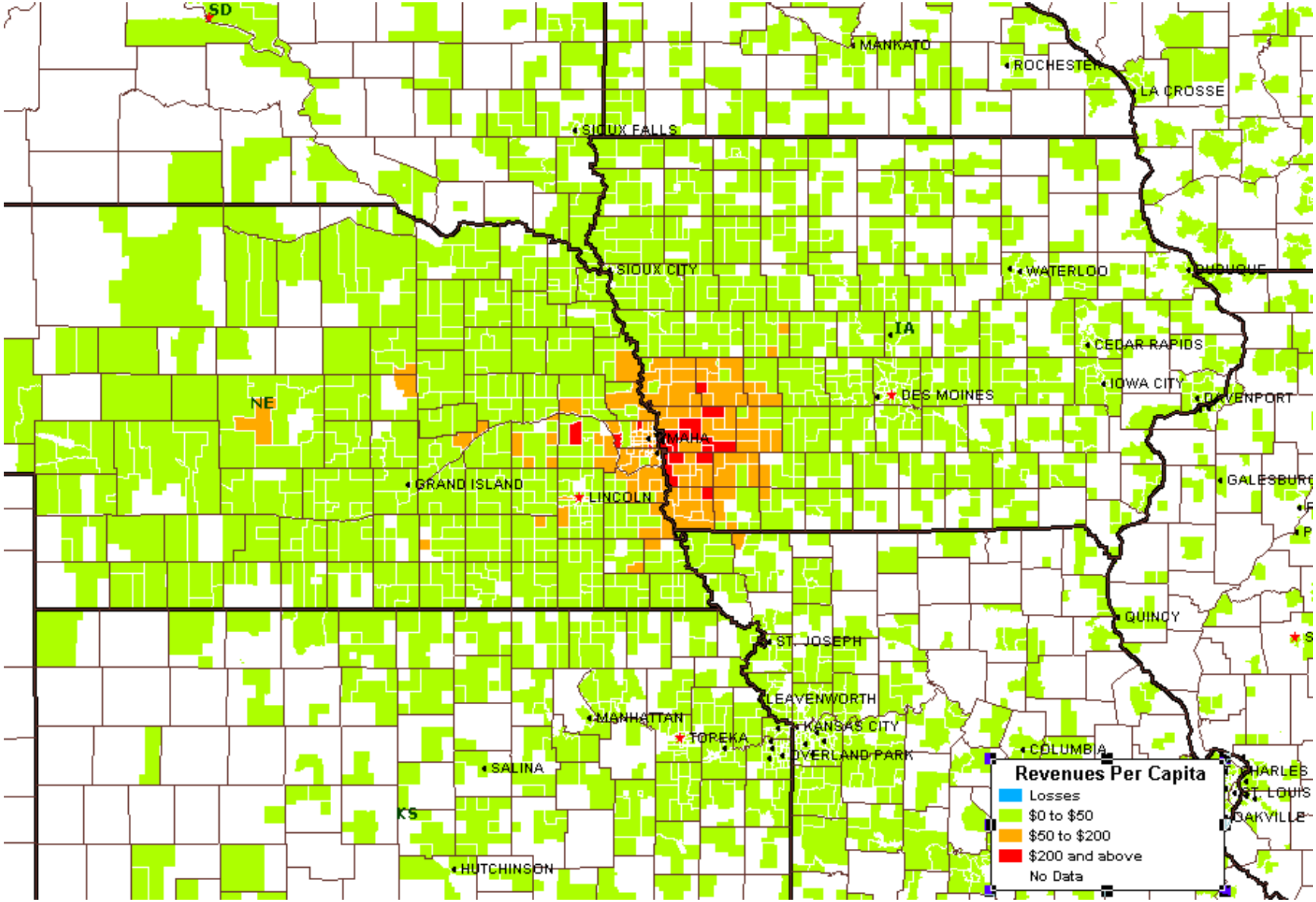


Figure 4. Catfish Bend Estimated Revenues Per Capita by Zip Code

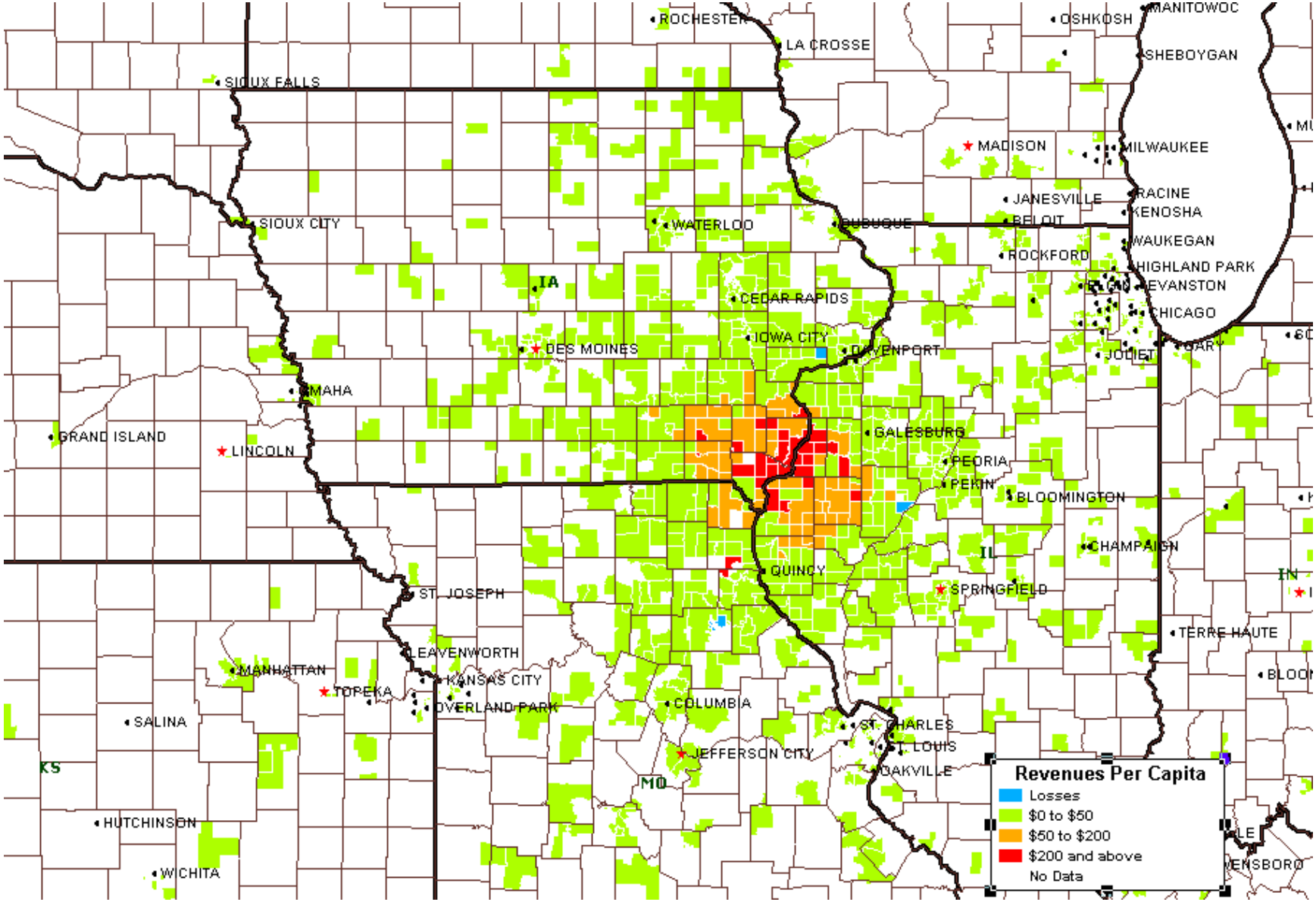


Figure 5. Diamond Jo Estimated Revenues Per Capita by Zip Code

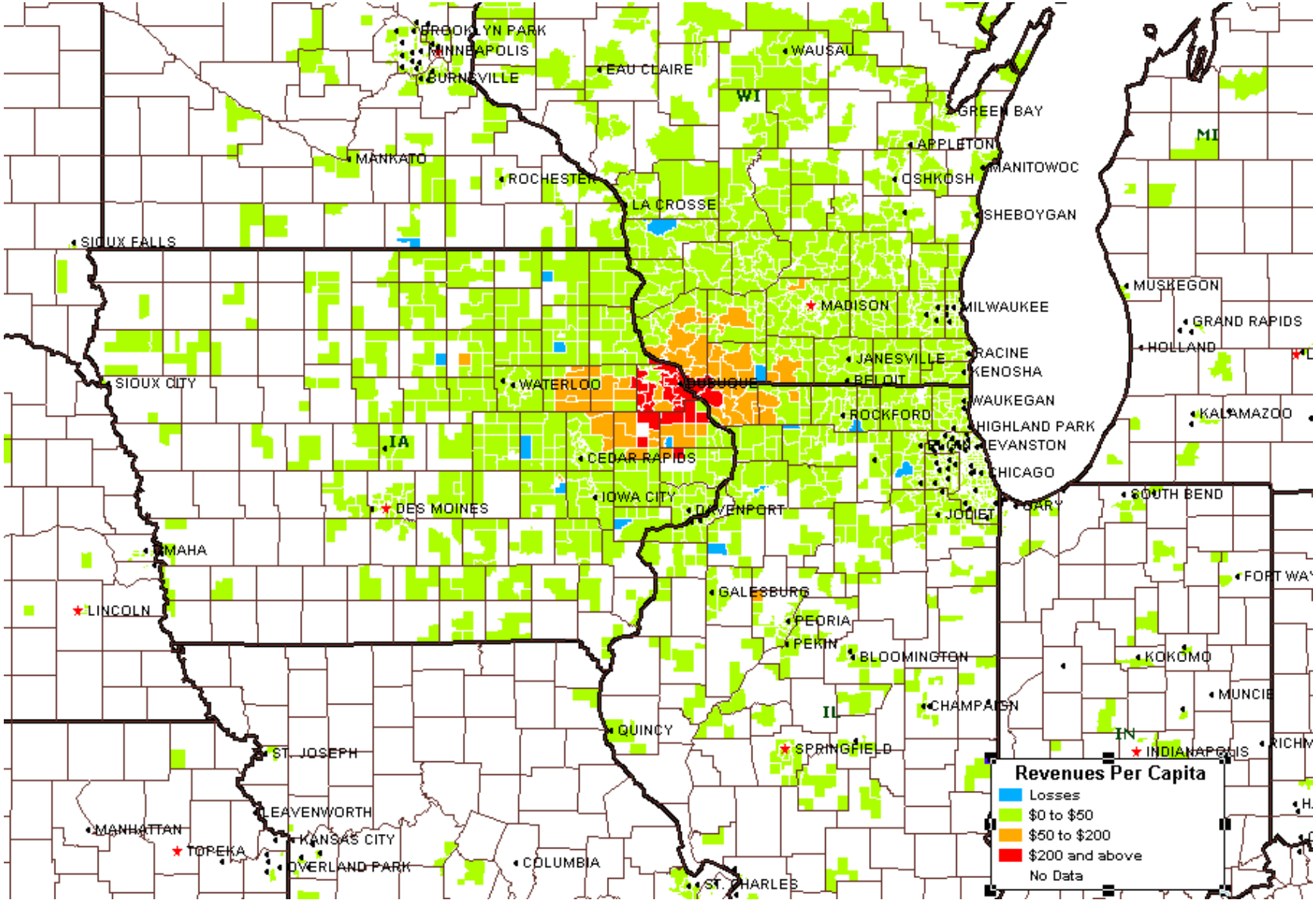


Figure 6. Dubuque Greyhound Park Estimated Revenues Per Capita by Zip Code

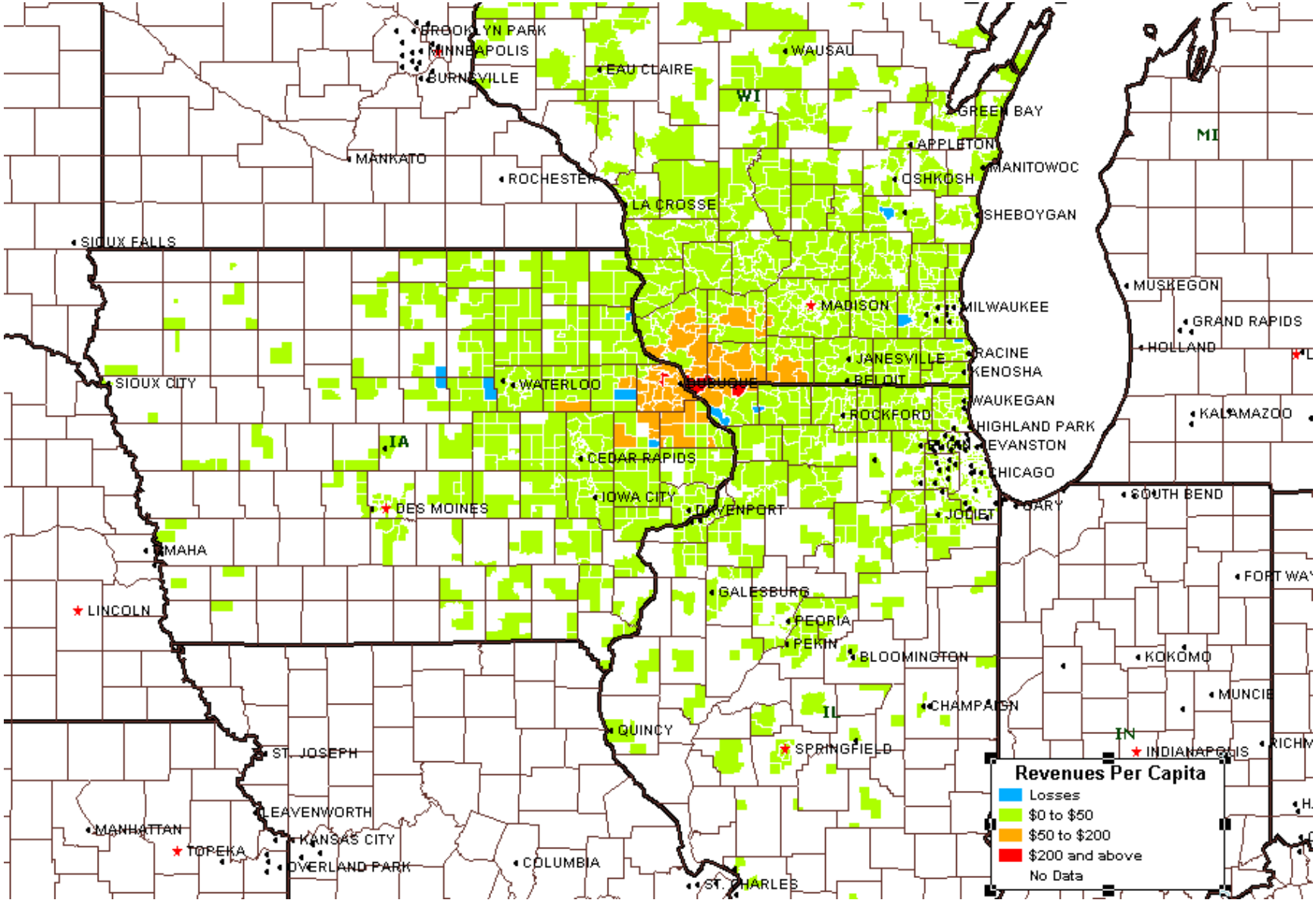


Figure 7. Harrah's Estimated Revenues Per Capita by Zip Code

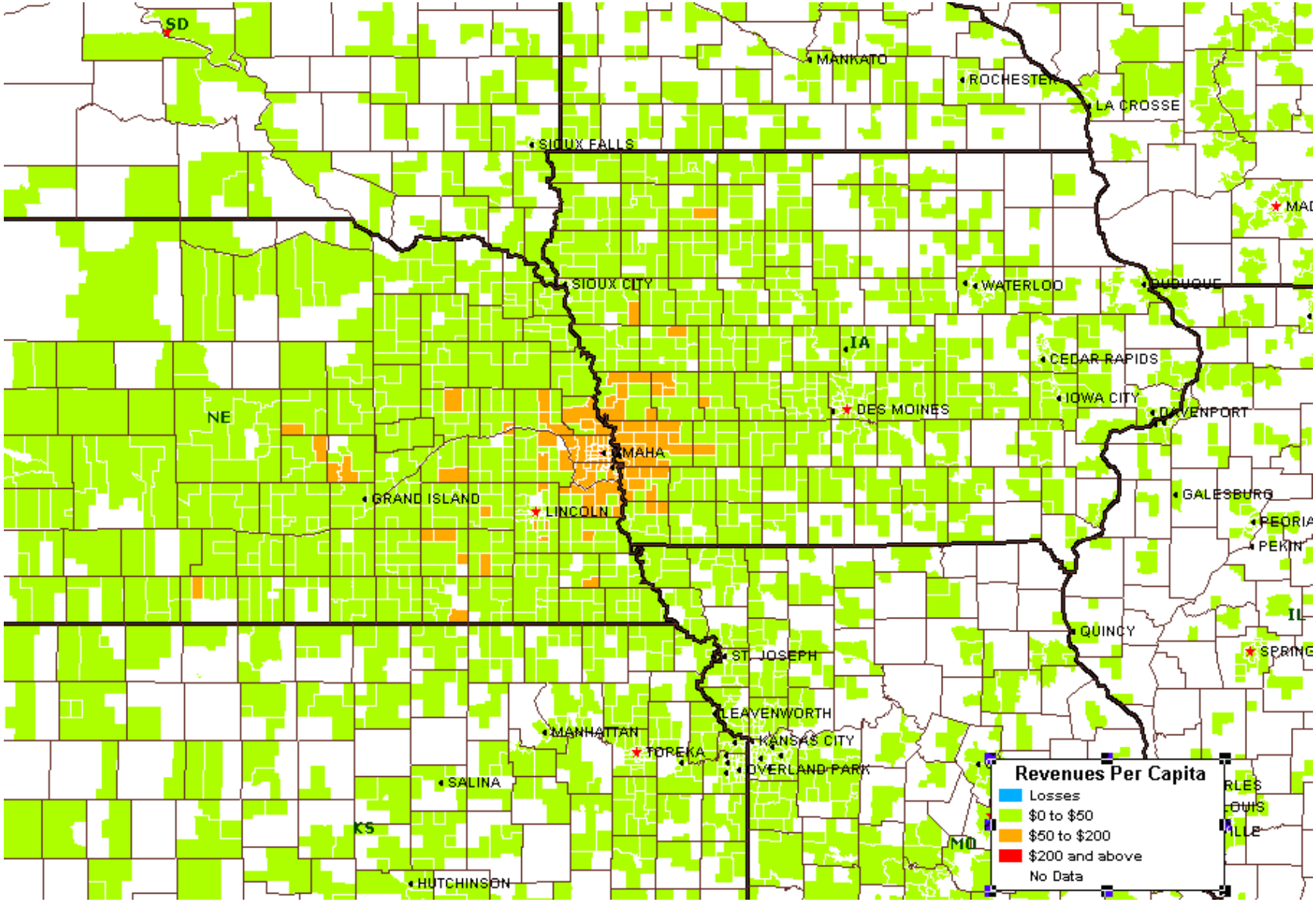


Figure 8. Isle of Capri Bettendorf Estimated Revenues Per Capita by Zip Code

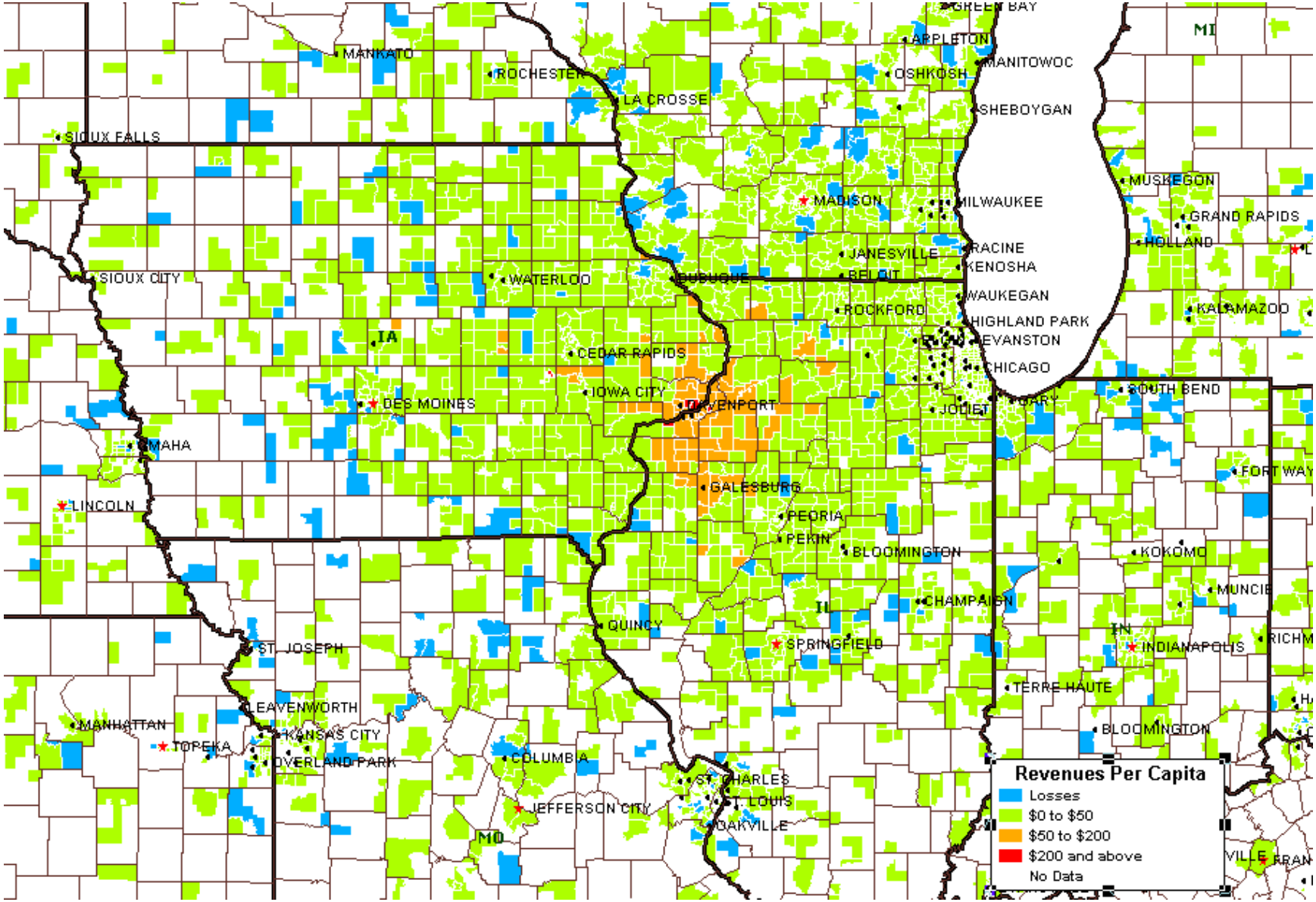


Figure 9. Isle of Capri Marquette Estimated Revenues Per Capita by Zip Code

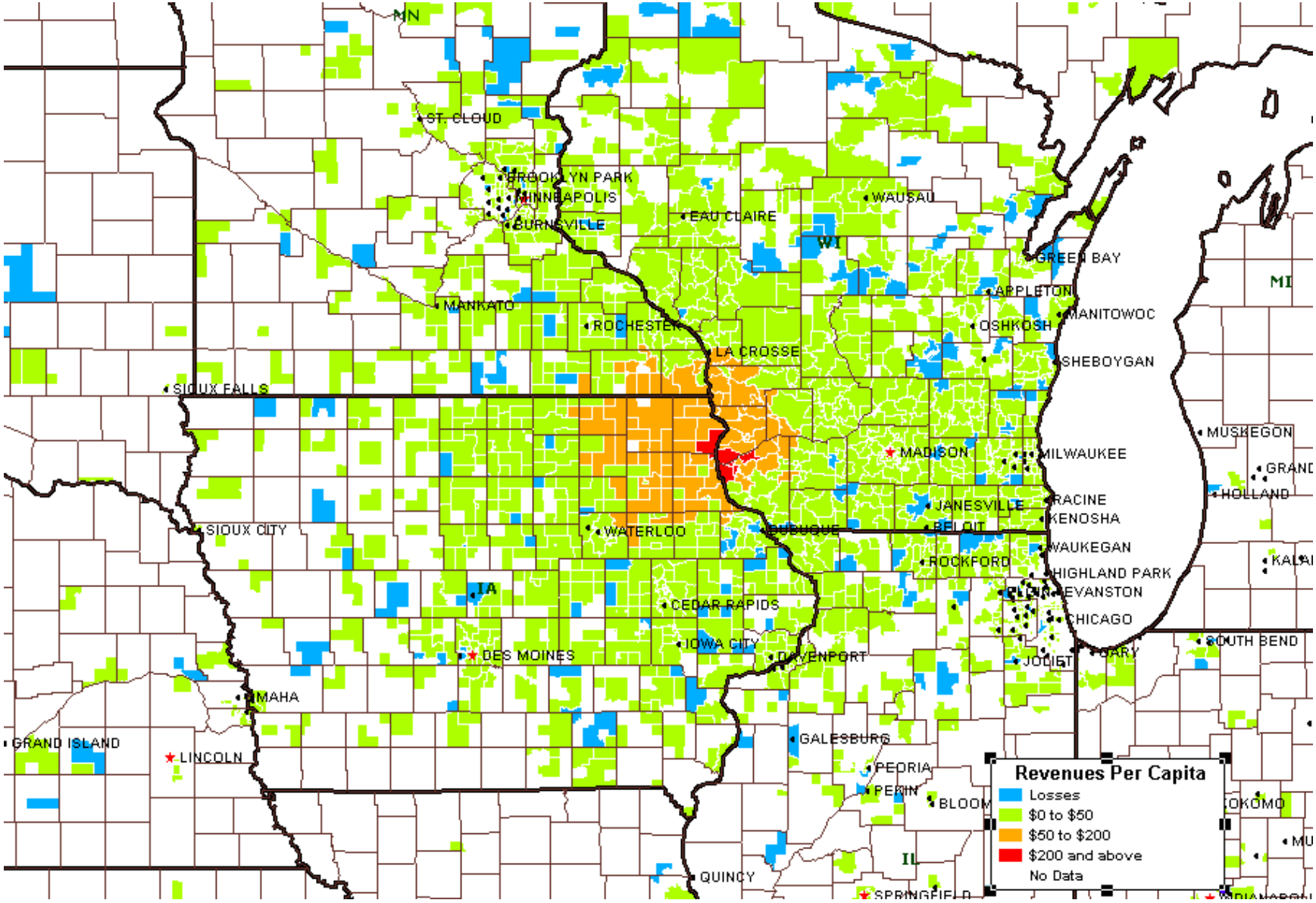


Figure 10. Lakeside Estimated Revenues Per Capita by Zip Code

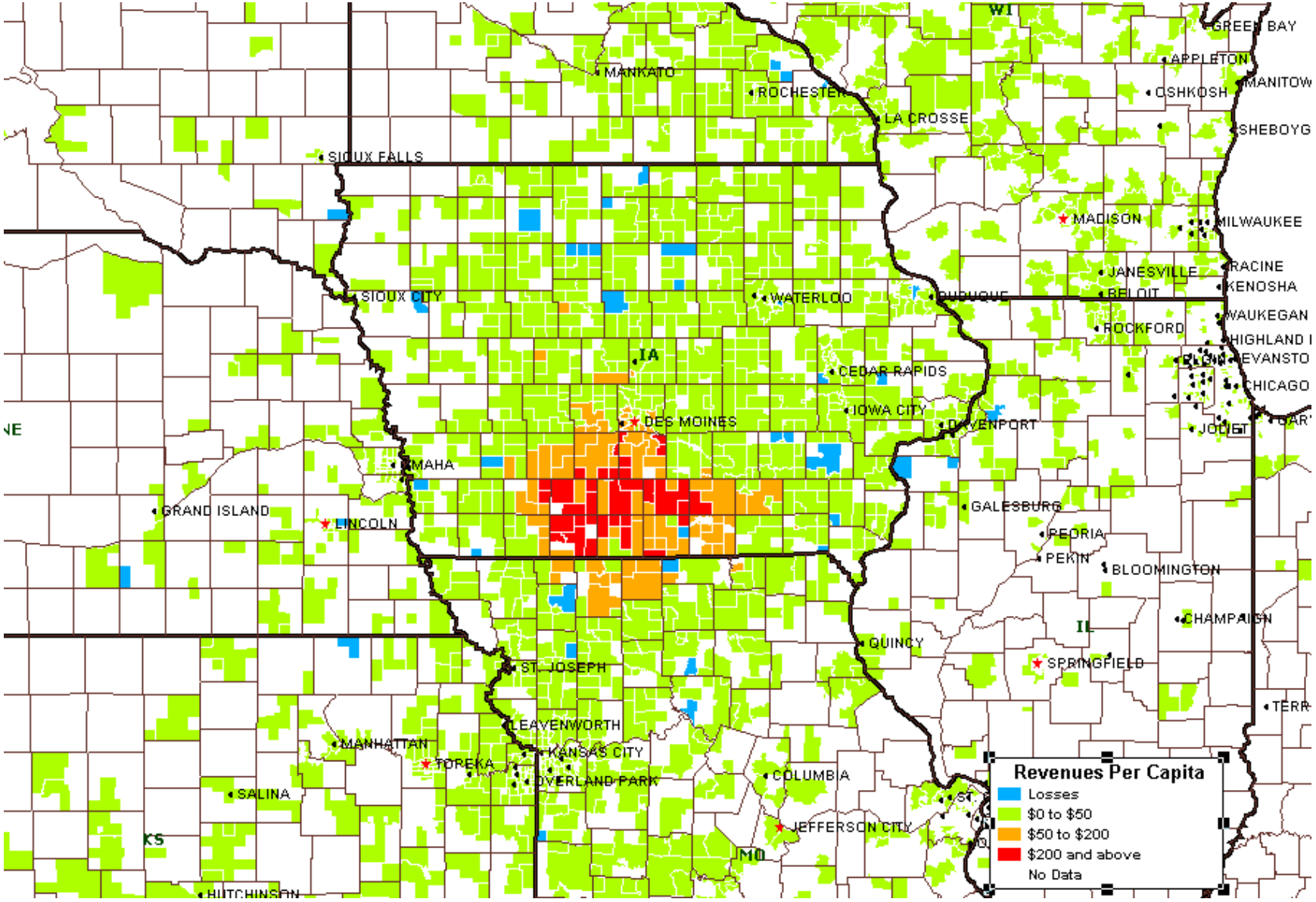


Figure 11. Mississippi Belle II Estimated Revenues Per Capita by Zip Code

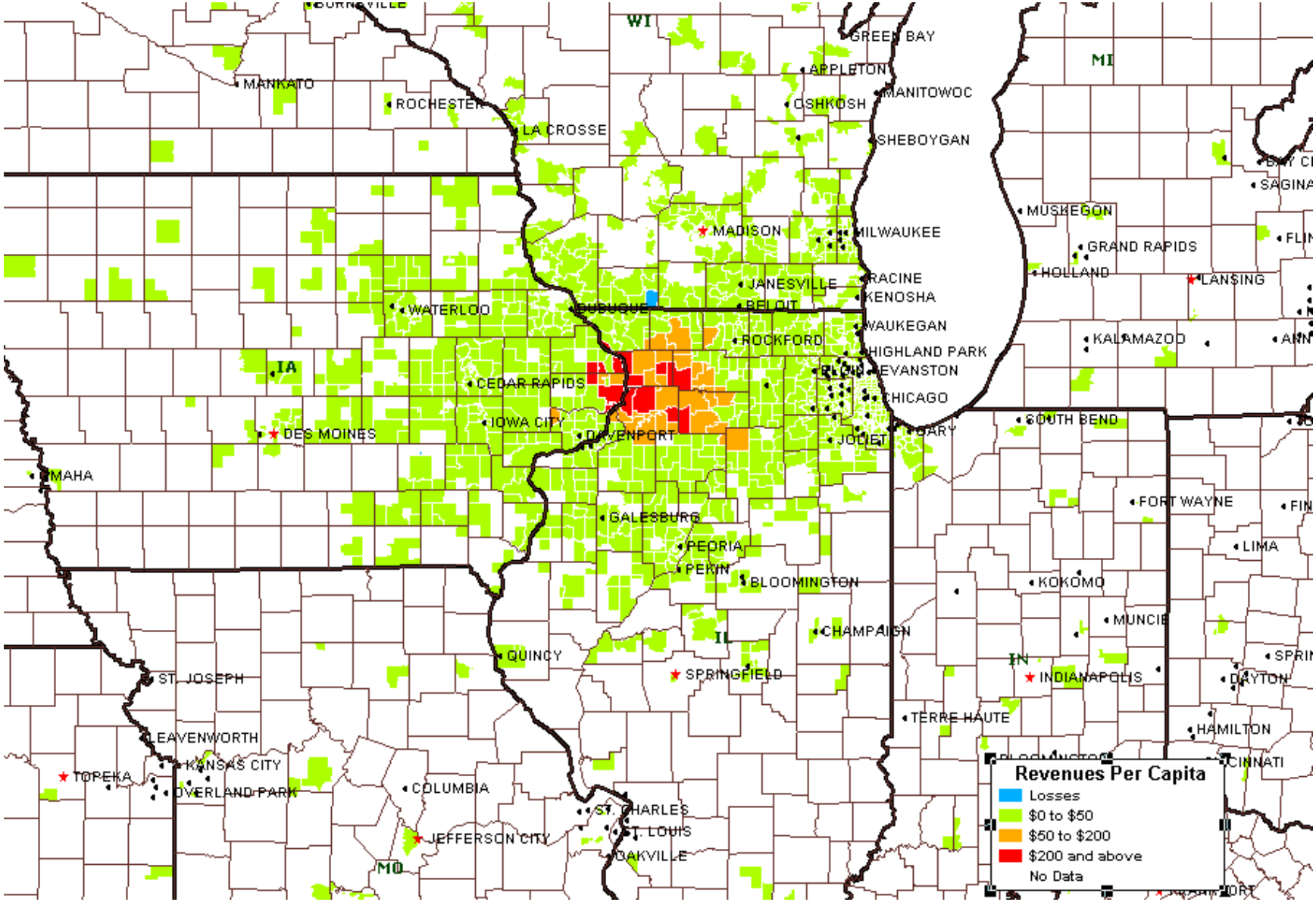


Figure 12. Prairie Meadows Estimated Revenues Per Capita by Zip Code

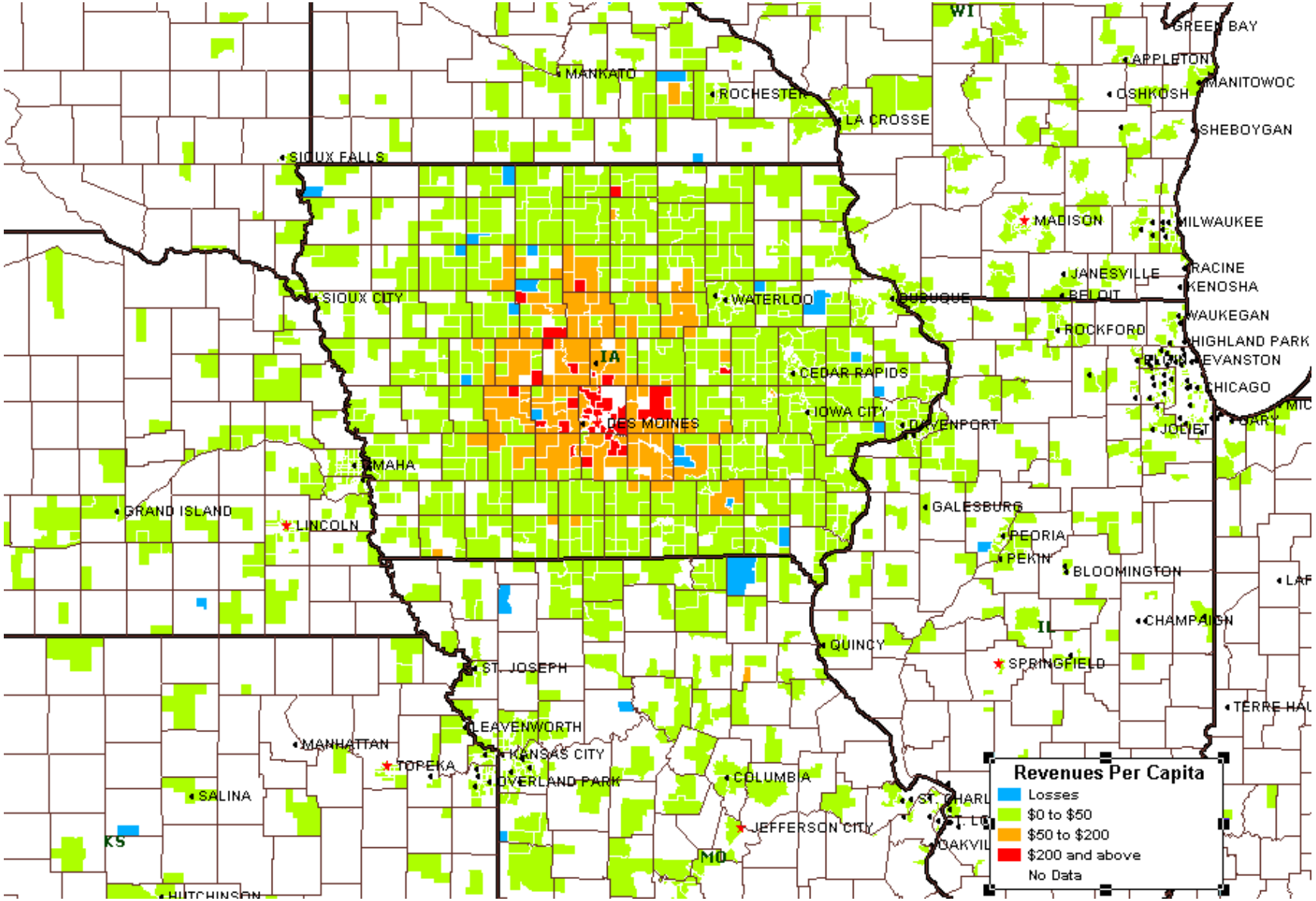


Figure 13. Rhythm City Estimated Revenues Per Capita by Zip Code

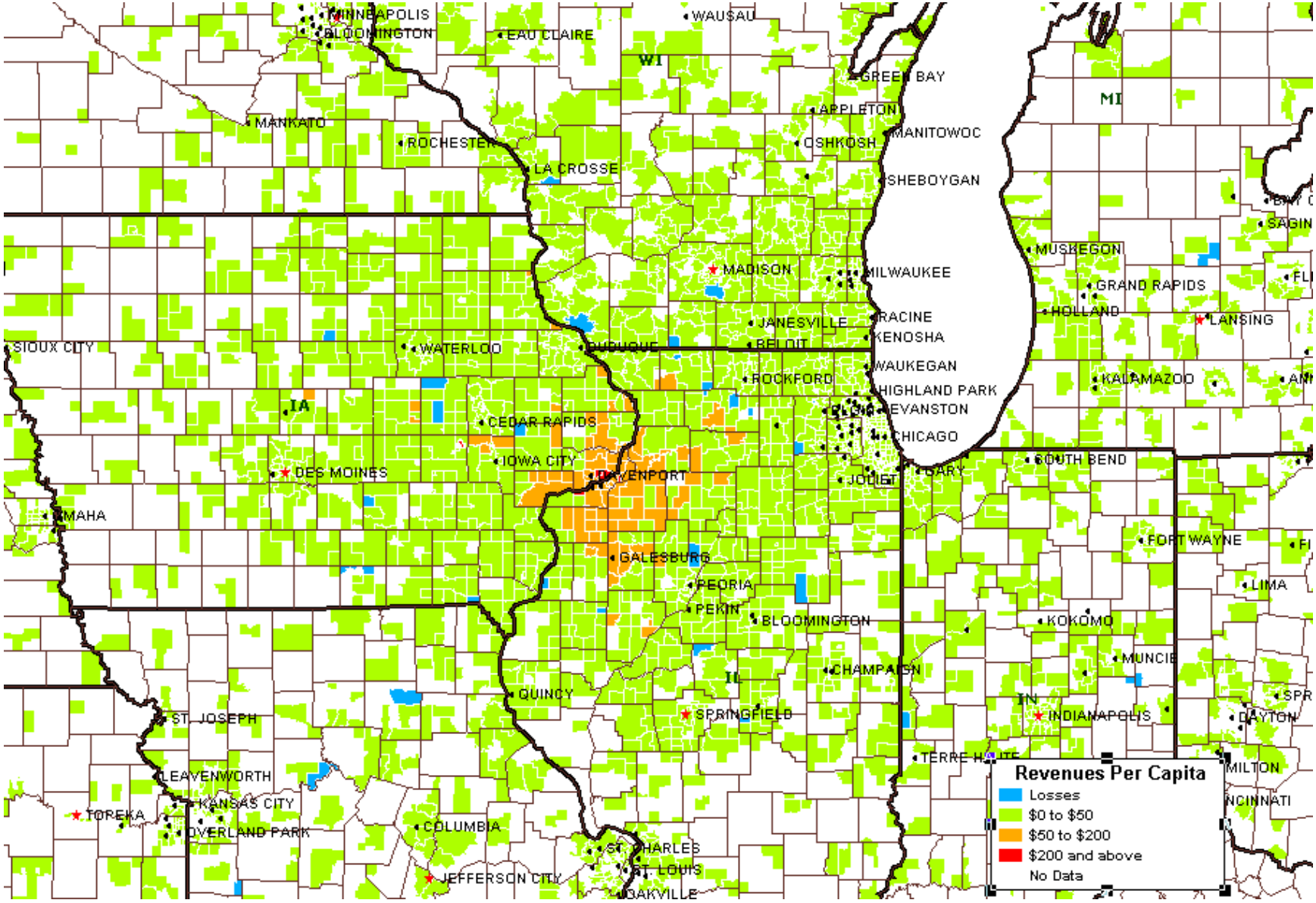


Figure 14. Estimated Revenues Per Capita by Zip Code, All Licensees

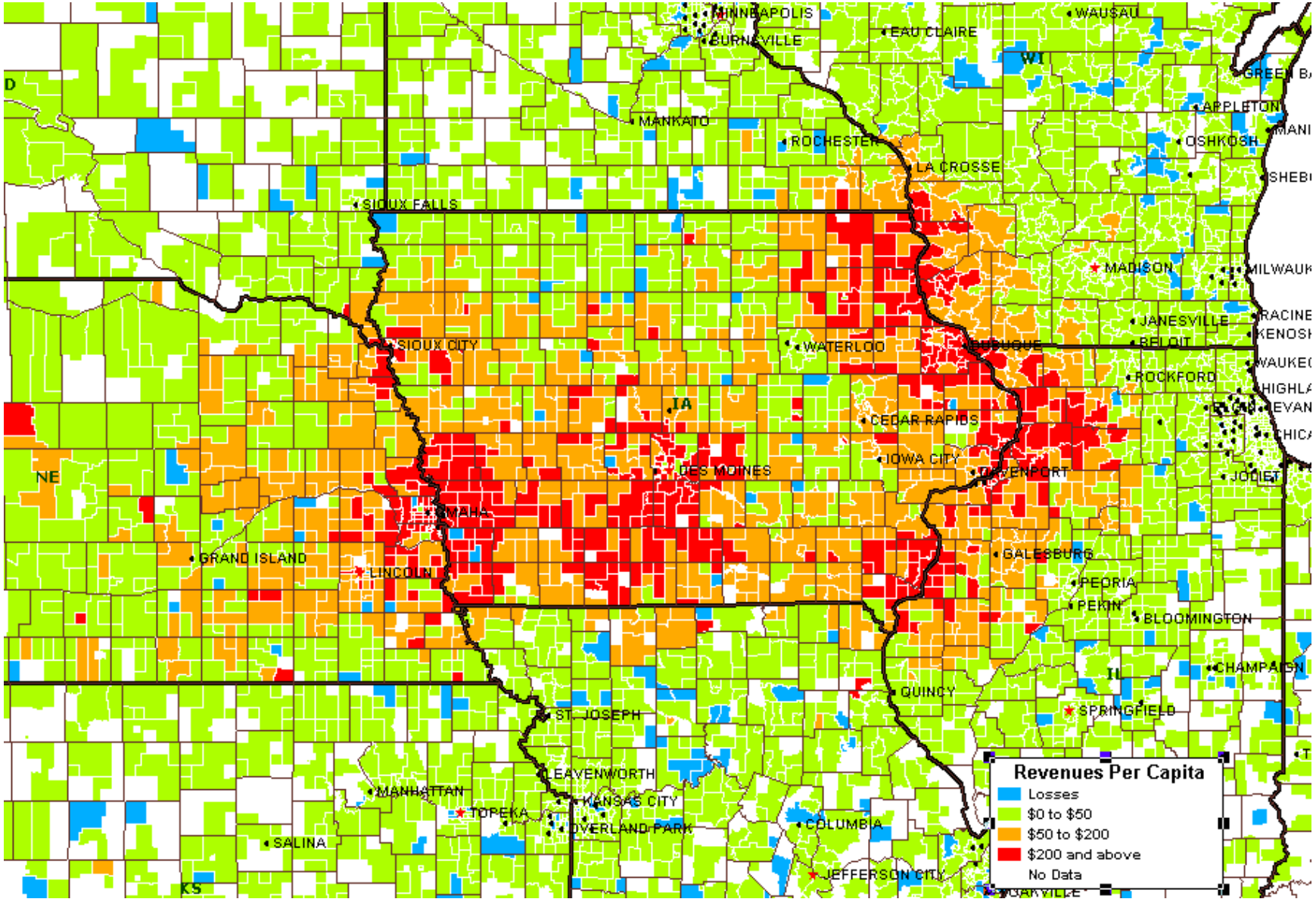


Figure 15. Estimated Trade Area of Proposed Casino at Emmetsburg

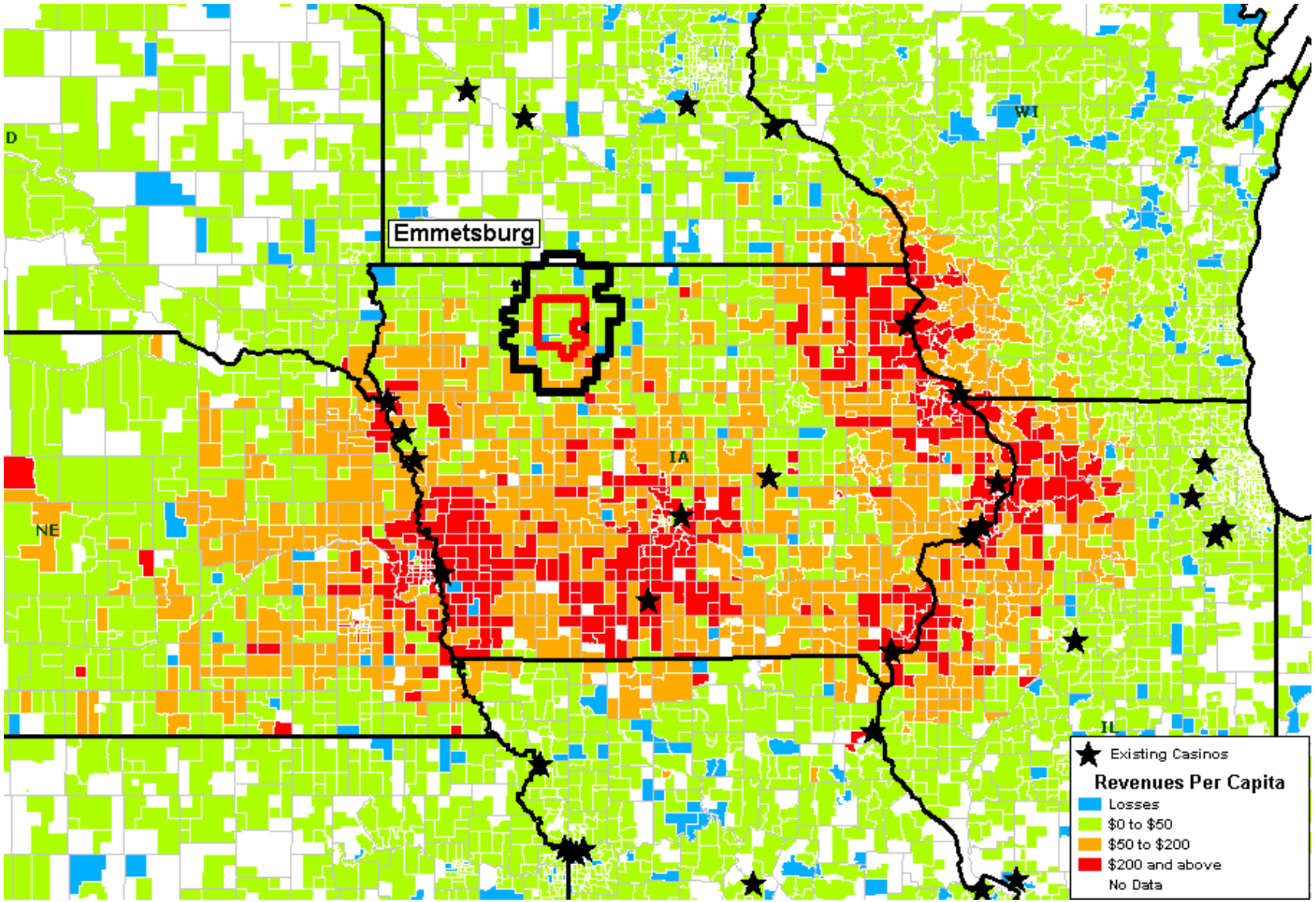


Figure 16. Estimated Trade Area of Proposed Casino at Northwood

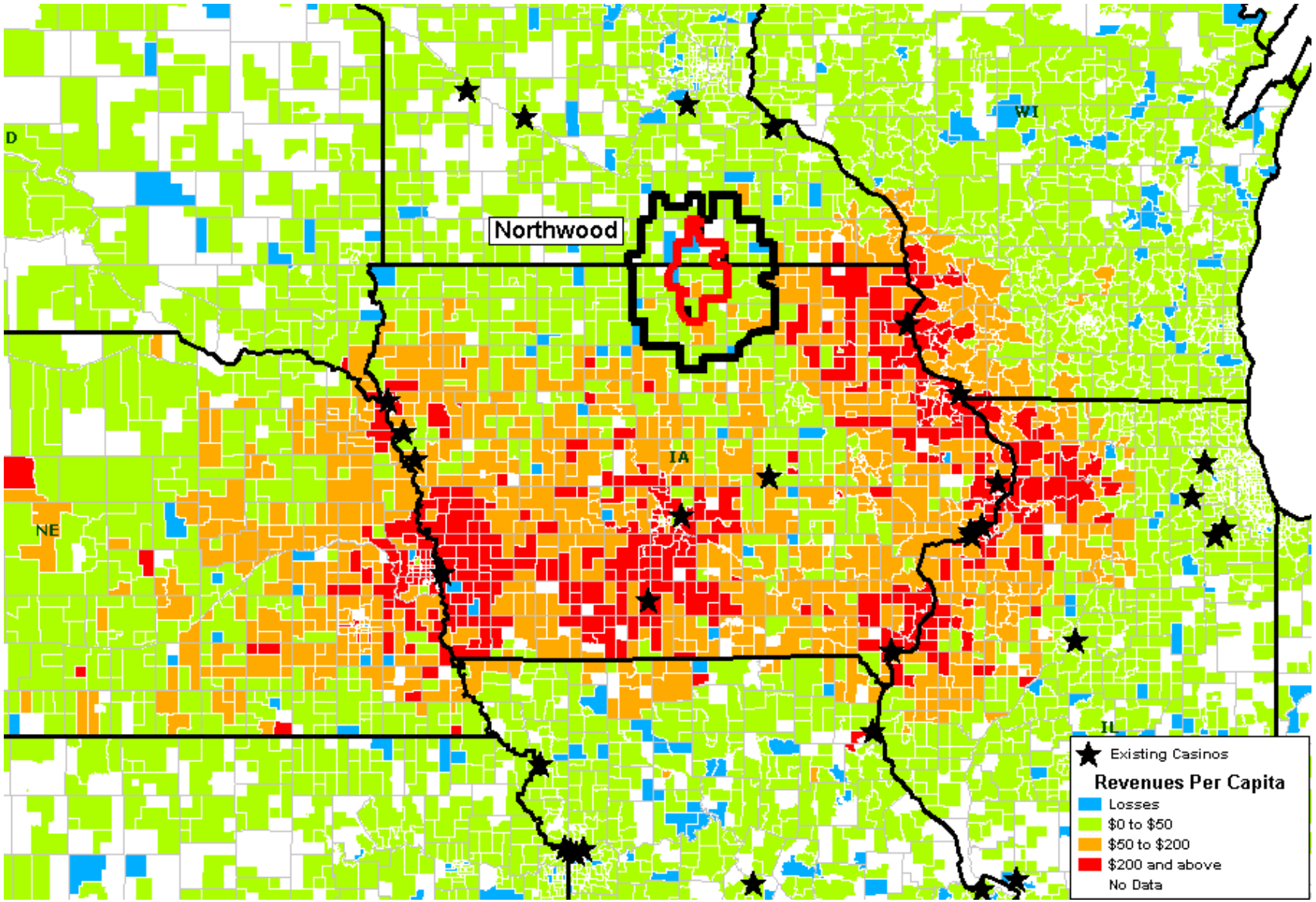


Figure 17. Estimated Trade Area of Proposed Casino at Ottumwa

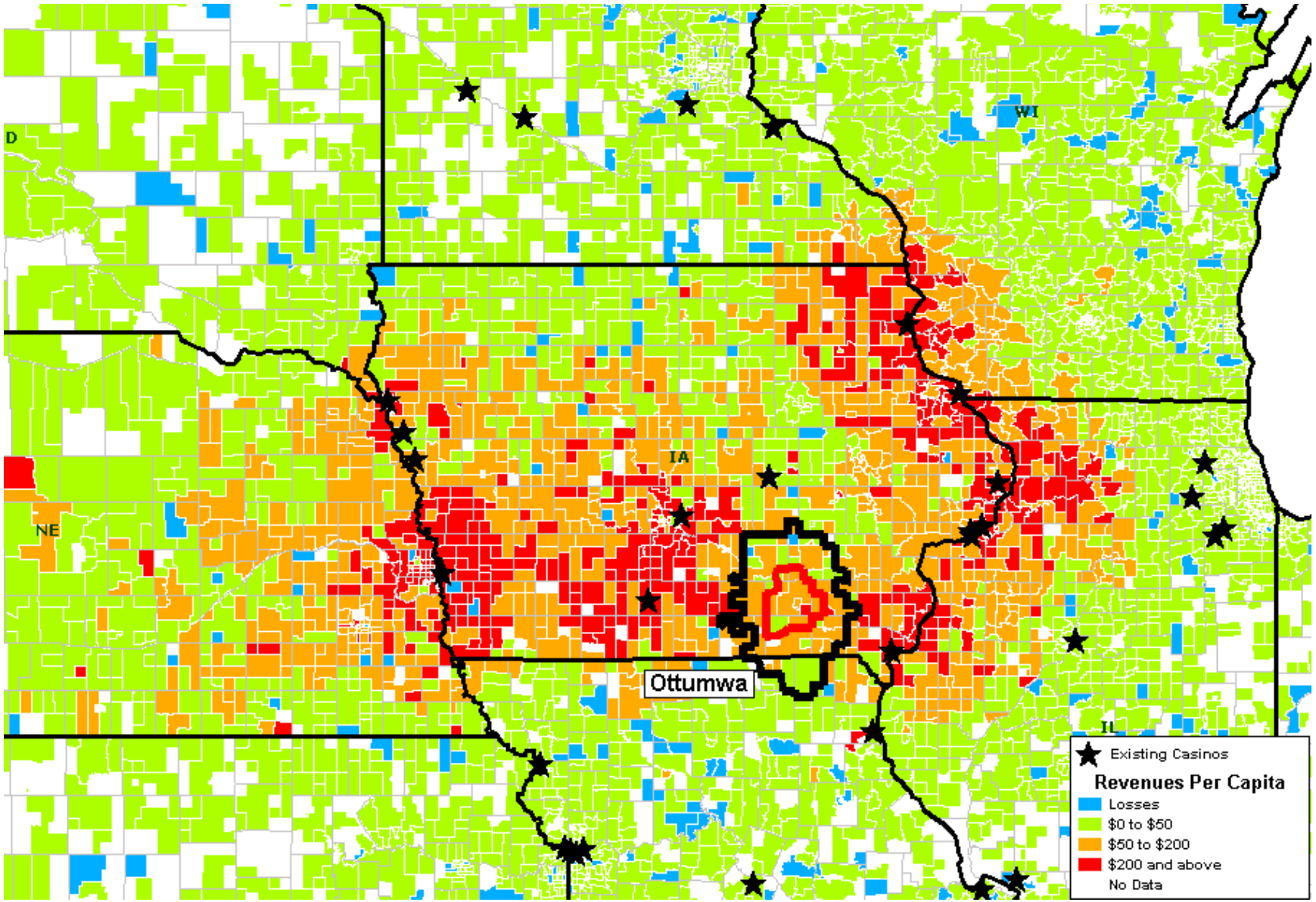


Figure 18. Estimated Trade Area of Proposed Casino at Waterloo

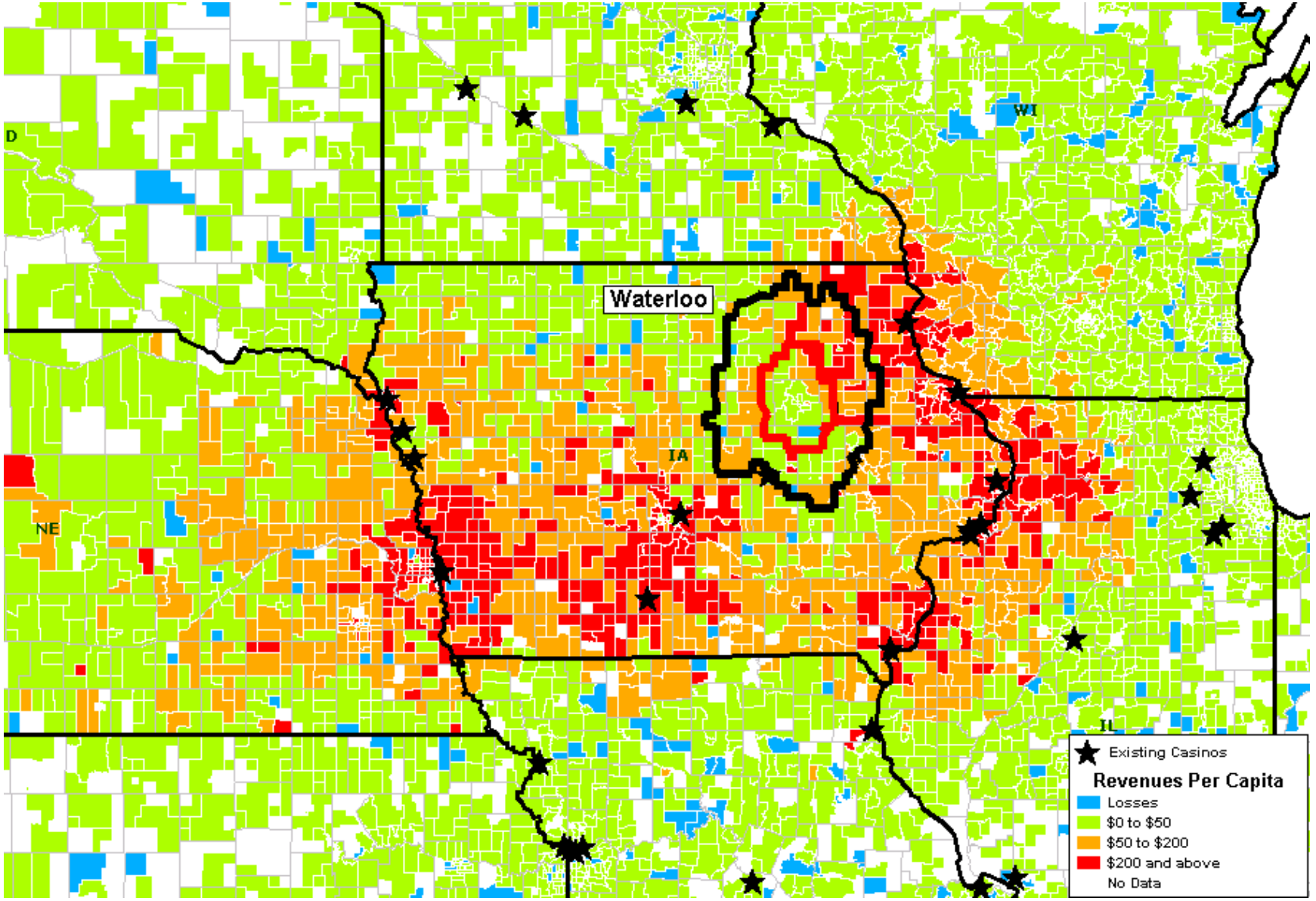


Figure 19. Estimated Trade Area of Proposed Casino at Hampton

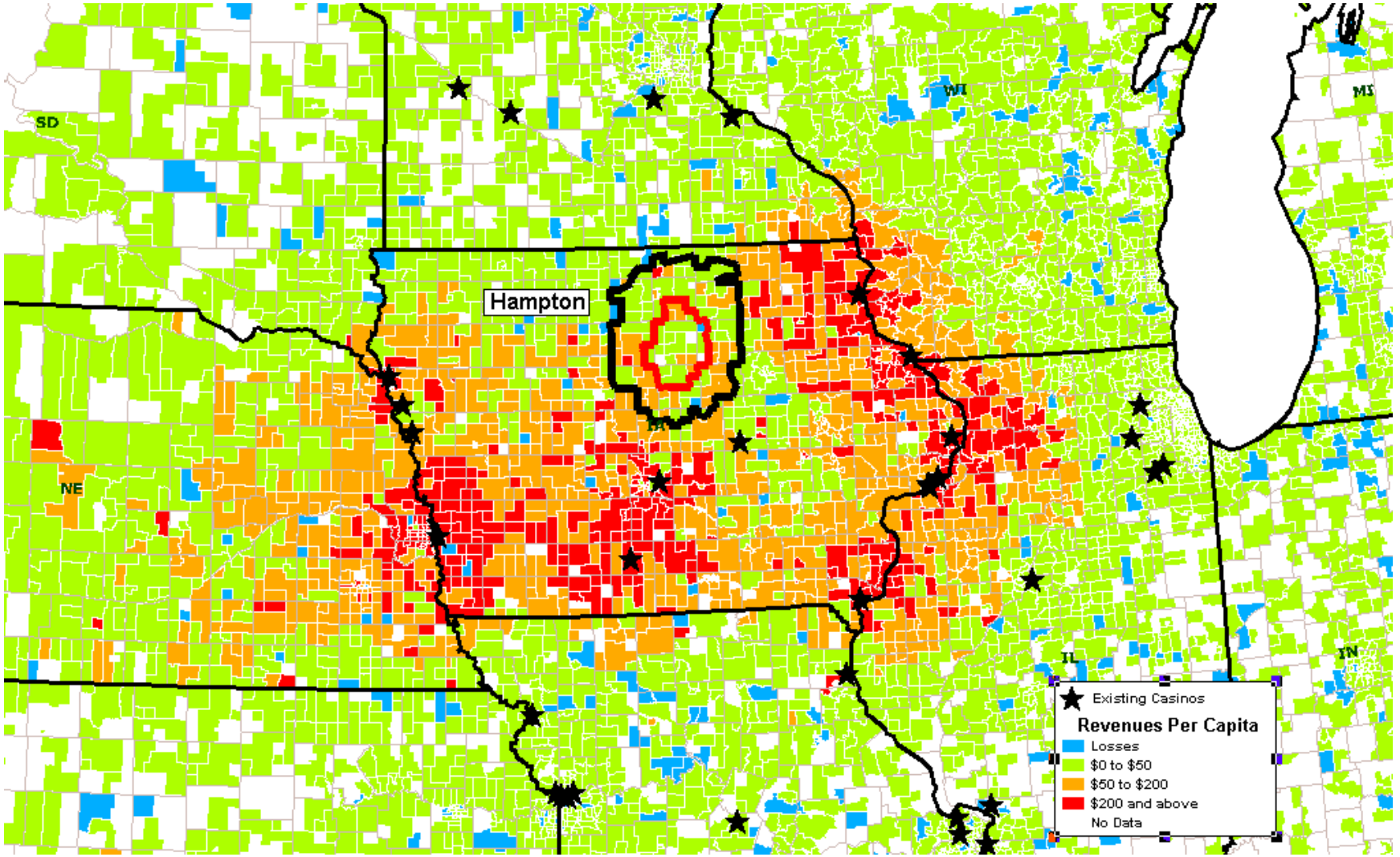


Figure 20. Estimated Trade Area of Proposed Casino at Ft. Dodge

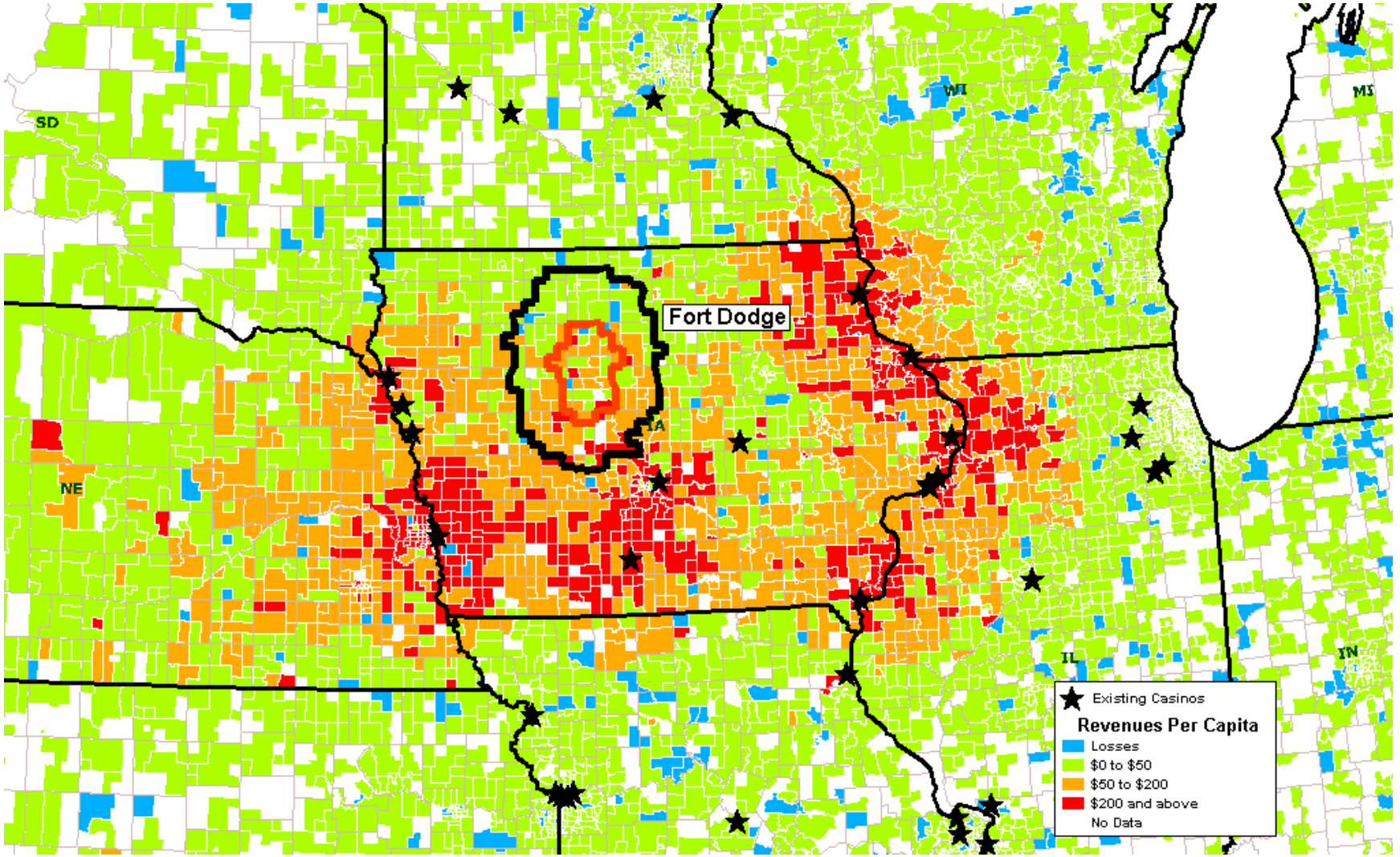
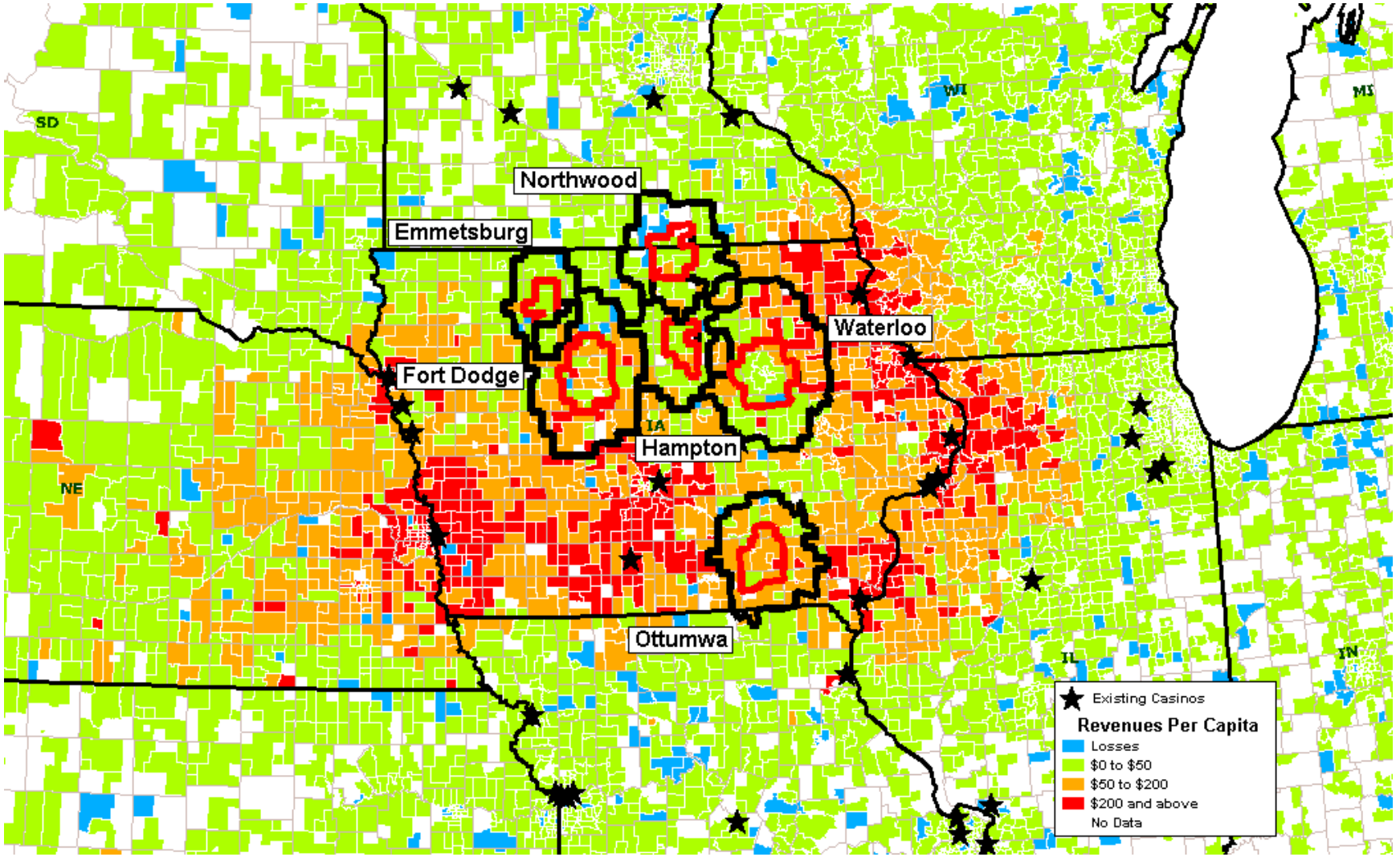


Figure 21. Estimated Trade Areas of All Proposed Casinos



Appendix B:
History of Commission Rule on Limiting Location and Number of Licensed Facilities[4]

Moratorium

In July of 1995, the Racing and Gaming Commission denied an application for a license to operate gambling games on a riverboat on West Lake in Clarke County near Osceola in rural southern Iowa. This application was the first the Commission had received for an excursion boat on inland waters. All previous applications were for sites on the Mississippi and Missouri Rivers.

Although the license was denied for other reasons, the application raised concerns among members of the Commission. The concerns revolved around whether similar applications would be submitted by many small rural counties with small bodies of water seeking economic development and growth for their communities. The Commission wondered if Iowa had reached a saturation point in the number of gambling facilities in the state.

The Commission engaged Cummings Associates to conduct a study. The study showed there was still unmet demand for casino games in the Des Moines and Cedar Rapids/Iowa City metropolitan areas and marginally in the northwest quadrant of the state.

In 1997 the Commission expressed concern to the governor and the legislature about the number of additional licenses Iowa could accommodate.

In the 1998 General Assembly, the legislature passed Senate File 2320 – A bill for an act relating to gambling by imposing a moratorium on new licenses to conduct gambling on excursion gambling boats and at pari-mutuel racetracks with gambling games, limiting the location of future excursion gambling boats, prohibiting gambling licensees from allowing the loaning of money by credit card or other electronic means for gambling purposes, and imposing a scheduled fine for gambling by persons under twenty-one years of age. (Formerly SSB 2168).

On May 20, 1998, then Governor Terry Branstad vetoed Senate File 2320. The Governor disagreed with language in the bill unrelated to the moratorium.

On May 21, 1998, due to the failed legislation, the Iowa Racing and Gaming Commission noticed for intended action the following administrative rules, essentially the same language addressing the moratorium issue contained in the bill.

[4] This message was posted on the website of the Iowa Racing and Gaming Commission.

491--1.6(99D, 99F) Limitation on location and number of racetracks and excursion gambling boats.

1.6(1) The number of licenses to conduct horseracing shall be one for a racetrack located in Polk County. The number of licenses to conduct dog racing shall be two, one for a racetrack located in Dubuque County and one for a racetrack located in Pottawattamie County. The total number of licenses issued to conduct gambling games on excursion boats shall not exceed ten and shall be restricted to the counties where such boats were operating (or licensed to operate in the future) as of May 1, 1998.

1.6(2) Notwithstanding sub rule 1.6(1), with the approval of the commission:

a. A licensed facility may be sold and a new license may be issued for operation in the same county.

b. A licensee may move to a new location within the same county.

c. If a license is surrendered, not renewed, or revoked, a new license may be issued for operation in the same county.

On July 7, 1998, a public hearing was held on the proposed rules.

On September 16, 1998, the rules became effective.

On June 12, 2002, the Iowa Supreme Court reversed a district court decision and held that different gaming tax rates for excursion boats and racetracks was in violation of the equal protection clause of the Constitution and was therefore unconstitutional. The tax rate for the racetracks reverted from 32% to 20%.

In December of 2002, Governor Tom Vilsack appointed a task force to study ways to recoup the $40 million in lost revenue to the state due to the Supreme Court decision.

During task force hearings, the Iowa Gaming Association suggested lifting the moratorium on new licenses as an alternative to raising gaming taxes for excursion boats and racetracks to 24-25% as a means of recapturing lost revenue to the state.

Legislation was introduced in the 2003 General Assembly calling for three additional gaming licenses. Several Iowa communities began mobilizing efforts to secure one of the licenses. Even though the bill was never brought to a vote or even debated, several Iowa counties scheduled referenda to approve excursion boat gambling.

At a July 18, 2003 meeting, the Commission considered the issue of whether or not to lift the moratorium on new licenses. This followed referenda in two counties approving excursion boat gambling. The Commission voted to engage Cummings Associates to perform a study. The study would not be for the purpose of making a decision for the Commission. The study would look at areas of unmet demand for casino gambling, areas currently interested in

licenses, and the impact on existing licensees if licenses were issued in those areas. These are not the only areas that will be considered when the Commission makes their decision, but will provide some information on the relative benefits versus risks of removing the moratorium.

Will Cummings appeared at the October 9 Commission meeting in Dubuque to review the study and answer questions. Copies of the study are available in the Commission office and can be downloaded from the Commission website.

The Commission will meet on November 20, 2003 at 8:30am in Johnston at the Foxboro Square Business and Conference Center, 6165 NW 86th Street. The issue of whether or not to take action on the rule establishing a moratorium on new licenses will be on the agenda.

***

Iowa Racing and Gaming Commission Minutes[5]

Commissioner Bair requested background information on how the Commission got to this point, noting that the rule does not set forth any time limit for the moratorium.

Chair Mahaffey advised that the Commission did not request the current round of referenda or any applications for new licenses. In January of this year, the Governor created a Task Force to discuss the Iowa Supreme Court Decision that would equalize the tax rate between the riverboats and racetracks, which would result in a $35-$40 million revenue loss to the State of Iowa. The Iowa Gaming Association submitted a proposal for additional gaming licenses for consideration by the task force. A state legislator picked up on the proposal and submitted a bill along those lines. Chair Mahaffey noted that the bill did not go anywhere in the Legislature. Chair Mahaffey noted that the Commission is a regulatory Commission, and will be voicing their opinions today. He reiterated that the Commission did not initiate this process. He advised that the moratorium issue started with the passage of a bill by both houses of the Legislature. Governor Branstad ultimately vetoed the bill, not because of the moratorium but due to other language contained in the bill. At that time, the Commission members decided to adopt the moratorium, with the knowledge that the Governor and Legislature were in favor of such a move. Chair Mahaffey noted that the moratorium was instituted for several reasons, one of which was the question of what constituted an excursion, and how many excursion boats on inland water did the Legislature and people of Iowa want. The moratorium has been in place since September 1998, and remains in effect at this time.

Chair Mahaffey noted that several comments had been made indicating that the law states that the Commission shall issue licenses. He read the following from Iowa Code Section 99F.7: “If the commission is satisfied that this chapter and its rules adopted under this chapter applicable to licensees have been or will be complied with, the commission shall

[5] Excerpt from the minutes of the Iowa Racing and Gaming Commission meeting of November 20, 2003.

issue a license …" He indicated there are various opinions with regard to this statement among the current Commissioners; however, at the time the moratorium was established, there was a consensus among the Commission members serving at that time, the Legislature and the Governor that a moratorium should be put in place.

Chair Mahaffey called for any further comments. Hearing none, he requested a motion. Commissioner Hamilton moved to leave the moratorium in effect, with the stipulation that the Commission *may* be willing to reconsider this position if the legislature provides the Commission with additional guidance and direction in the areas of the cruising requirement, defining lakes and reservoirs for the purpose of accommodating excursion boats, a maximum number of excursion boats and how the Gamblers Treatment Program will be funded. Commissioner Jarding seconded the motion.

Commissioner Cutler stated that she had a question about the word "may", and requested that it be clarified so that everyone is clear on where the Commission is going with this motion. She asked if the Commission is going to act on this matter if they receive direction from the Legislature, or would they then decide whether or not the matter would come back before the Commission.

Chair Mahaffey stated that given the motion, which is to take no action lifting the moratorium at this time but would be willing to reconsider the position should the Legislature provide direction addressing some of the issues set out in the motion, that the matter would come back before the Commission. As to whether or not the Commission would take action, Chair Mahaffey stated that the present Commission does not have the ability to bind future Commissions.

Commissioner Bair stated that he was impressed by the various presentations. As the former director of the Revenue and Finance Department, he stated that he always looks at the revenue figures first, noting that there is between $20-25 million to be generated in tax revenues for the state. He further noted that between 65-75% of the people in the state have indicated that they do not want more gambling venues in the state. Commissioner Bair noted that there are many downsides to the issue as well, stressing the importance of the various issues on which the Commission has requested clarification from the Legislature. He stated that until those issues are resolved, he is in favor of leaving the moratorium in place.

Commissioner Cutler stated her belief that this matter is such a far-reaching public policy that the Legislature needs to address it, but is troubled by the fact that those in attendance are not aware of the Commissioners' individual viewpoints. She indicated that the Commissioners do not have enough guidance to make a decision at this point. Commissioner Cutler noted the differing public opinions, pointing out that her husband is an ordained United Methodist minister, a son that works at Meredith Publishing, and lives in southwestern Iowa where gaming has had a positive economic impact. She encouraged individuals to contact their state legislator to make their opinion known on this matter.

Commissioner Jarding stated that this is the perfect time for the Legislature to address the various concerns of the Commission. She pointed out that gaming has been around for some

time, and some of the laws and regulations are not as effective as they might be. In her opinion, if there is going to be gaming in Iowa, it should be the best that it can be. Commissioner Jarding stressed the importance of reviewing laws from time to time. She congratulated the various communities on the support generated on this particular issue.

Commissioner Hamilton, noting that she is from a small town in northwest Iowa, listed several projects needing funds, thus making her more cognizant of why some of the smaller venues are coming to the Commission seeking licenses. She expressed concern for those individuals with a gambling addiction, stating that the State needs to work harder on that particular issue. She stated that in the future she would consider being in favor of lifting the moratorium.

Chair Mahaffey noted that all of the Commissioners bring different life experiences to the table. As a part-time County Attorney for Poweshiek County, he has prosecuted individuals for embezzlement and theft; and as a private attorney has worked with clients on family, business, personal and financial matters due to gambling. He stated that it is important for everyone to understand that there are problems associated with gambling, noting that every embezzlement case in Poweshiek County in the last five or six years has been directly or indirectly tied to gambling. Chair Mahaffey stated that whenever there is talk about the public good derived from gaming, there also needs to be a discussion about what happens when people have an opportunity to gamble. He noted that he had heard from many of his colleagues who indicated there are sufficient gaming venues in Iowa at the present time. Chair Mahaffey stated that he has not received that many calls supporting the lifting of the moratorium. He stated that he feels the moratorium is the correct public policy at this time. He further stated that he has received calls from legislators representing the counties that have passed referendums in support of lifting the moratorium, but has also received calls from other legislators indicating that the moratorium should remain in place. Chair Mahaffey stated that Governor Vilsack had also called and indicated that he felt the moratorium should remain in place. He indicated that he was going to support the motion before the Commission.

Commissioner Bair called for the vote. The motion carried unanimously. (See Order No. 03-105)

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Table 28. County Gaming Referenda Held in 2003-2004

Date	County	Outcome	Votes		Total Votes	Percentage		Number of Registered Voters	Voter Turnout
			YES	NO		YES	NO		
06/17/03	Palo Alto	Approved	2,466	1,004	3,470	71.1	28.9	7,208	48.1%
06/24/03	Worth	Approved	2,062	687	2,749	75.0	25.0	5,522	49.8%
07/08/03	Dickinson	Failed	1.939	5,092	7,031	27.6	72.4	12,708	55.3%
09/16/03	Cerro Gordo	Failed	2,427	4,667	7,094	34.2	65.8	30,965	22.9%
10/07/03	Black Hawk	Approved	21,759	11,058	32,817	66.3	33.7	69,074	46.9%
10/28/03	Wapello	Approved	2,371	2,055	4,429	53.5	46.4	23,320	19.0%
11/04/03	Linn	Failed	27,368	30,659	58,027	47.2	52.8	135,560	43.1%
12/16/03	Clay	Failed	1,966	3,071	5,009	38.8	60.6	12,255	41.4%
01/06/03	Sac	Failed	1,475	2,007	3,482	42.4	57.6	8,453	41.2%
01/27/04	Franklin	Passed	1,586	1,415	3,001	52.8	47.1	7,470	40.2%
02/??/04	Webster							24,378	

Appendix C: Input-Output Modeling Basics

Minnesota Implan Group (MIG) developed the current version of IMPLAN (version 2.0). It is a Windows-based software package that performs the calculations necessary to create the impact model. The software reads the database, creates the complete set of social accounting matrices (SAM), the I/O accounts, and derives the predictive multipliers. The software also enables the user to make final demand changes which results in the impact assessment.

An I-O model is a general accounting system for an economy in question. The I-O accounting describes commodity flows from producers to intermediate and final consumers. The total industry purchases of commodities, services, employment compensation, value added, and imports are equal to the value of the commodities produced. Purchases for final use (final demand) drive the model. Industries produce goods and services for final demand and purchase goods and services from other producers. These other producers in turn purchase goods and services. This buying of goods and services (indirect purchases) continue until leakages from the region (imports and value added) stop the cycle.

The basics of I-O modeling are straightforward. After determining the region to be studied, a model is constructed from the IMPLAN data banks for the appropriate unit. In the state of Iowa, the current set of I-O accounts allows us to differentiate among 420 industrial sectors along with seven household income levels. When a set of industrial values is introduced into the model that in one way or another indicates a change in industrial production, a change in demand for a specific kind of commodity, or a change in household income, then all of the other industries in the model adjust to the change. The I-O model accounts for these adjustments and summarizes them into tables. The kinds of information that we derive are measures of:

- **Industrial Output**. This is usually the gross sales of a firm for a year or, in the case of a public sector activity, the total expenditure of the entity. It is a measure that society places on the productivity or services of the entities that we are studying. This study used Iowa casino industry adjusted gross receipts for 2003.
- **Labor income**. Labor income can be further divided into earnings and salaries of workers and normal returns to proprietors.
- **Value Added**. Value added includes labor income (above), but it also includes earnings by investors along with indirect tax payments to governments, primarily as use, sales, and excise taxes.
- **Jobs**. For our industries we measure the number of jobs, not the number of fully-employed persons. In manufacturing we know that nearly all of the jobs are full-time, full-year. In other sectors, like retail trade and recreation and tourism, many jobs are part-time or seasonal. In our model there is no differentiation among jobs.

The tables differentiate the economic activity further into the:

- **Direct values**. These are the amounts that are directly associated with the industry we are studying or measuring, in this case the Iowa casino industry.

- **Indirect values**. These are the amounts associated with all of the inputs that the direct firm requires. These could be raw commodities, manufactured goods, utilities, transportation, and other businesses or professional services.
- **Induced values**. These are the economic outcomes that result when workers in the direct industry and the demand-driven supplying industries (the indirect values) spend their paychecks in the region. These values are also called household values or household effects.
- **Total values**. These are the sum of the direct, indirect, and induced values. They give us a duplicate accounting of transactions in the region that are attributable to the direct activity that we first measured.

When we have compiled these economic outcomes, we can then calculate the economic multipliers that are appropriate for the economic activity that we are measuring. For our purposes, we are compiling a total multiplier. This value is simply the total value divided by the direct value in any of the categories that we are reporting. It gives us the ratio of total economic activity to the direct activity that we are measuring. It tells us how much the entire regional economy reacted per one unit change in the direct measure (a dollar of output, a dollar of labor income paid, a job, etc.).

The study team further refined the output-labor component of the IMPLAN model to reflect the actual adjusted gross receipts and other input data provided by the gaming operations in Iowa.

Appendix D: The Study Team

Kenneth E. Stone

Ken Stone has been Professor of Economics and Extension Economist at Iowa State University for 27 years. He has a BS in agricultural engineering from the University of Illinois, an MS in management science from Texas Christian University and a Ph.D. in agricultural economics from the University of Illinois.

Dr. Stone's work is primarily in the areas of retail trade and business management. He was the first academic in the U.S. to conduct studies of the economic impacts of 1) shopping malls, 2)discount department stores and 3)"big box" building materials stores. He has made over 1,000 presentations before community groups and trade associations in all the U.S. states and in most of the Canadian provinces. He has also spoken to retail and academic audiences in Puerto Rico, Mexico, Australia, New Zealand, China and Brazil.

Professor Stone's work has been cited in most national newspapers. He has been profiled in the *New York Times* and has also been quoted in *Time, Newsweek, U.S. News and World Report* and the *Wall Street Journal*. He has been featured on Public TV, NBC *Nightly News*, CBS *Evening News*, ABC *Good Morning America* and the Canadian Broadcast Corporation show *Venture*. Professor Stone is the author of the 1995 book, *Competing With the Retail Giants*, published by John Wiley & Sons of New York, which has been translated into Japanese and Chinese.

Daniel M. Otto

Daniel Otto was born and raised on a farm near the community of Lester Prairie, Minnesota. He received his Bachelor's and Master's degrees in Agricultural Economics from the University of Minnesota and his Ph.D. in Agricultural Economics from Virginia Tech in Blacksburg, Virginia.

Dr. Otto has been on the Iowa State University faculty since 1981 where he is currently a Professor of Economics and Extension Specialist. During that time he has worked extensively with community and state officials on regional policy analysis, economic and fiscal impact analysis, and conducting research on a range of economic development and regional policy issues. He has numerous publications in the area of evaluating economic development strategies, local labor market analysis, and local government performance.

He was a visiting Professor at the University of Minnesota in the

Agricultural Economics Department and interim director of the Regional Issues forum at the Humphrey Institute during 1990/91. He has served on the Economic Forecasting Council and is currently involved in evaluating state and local economic development strategies.

Harvey Siegelman

Harvey Siegelman is senior economist and president of Strategic Economics Group, an economic consulting and research firm which he established in 2001 after retiring as Iowa's State Economist.

He held the position of State Economist for 20 years – longer than any other occupant of that position – serving three governors. Since leaving that position, he has continued to serve as an advisor to the State as well as to several federal government agencies. He has served on the state's Economic Forecasting Council and is currently a member of the Grow Iowa Value Review Commission. For more than 20 years, He is also an adjunct professor of economics at Drake University in Des Moines.

Before being appointed State Economist in 1982, He held several other positions in State government. In an earlier life, he spent eight years as an economics professor and five years as a consulting economist. During that period he was an economic advisor to the Finance Ministry of Israel. He has been quoted in every major Midwest and many national newspapers and news magazines.