

**ECONOMIC
IMPACT
ANALYSIS**

**An Extension
Community
Economics Program**

The Economic Impact of Leech Lake Band of Ojibwe Gaming Operations

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Introduction

Tribal gaming operations have grown and expanded in Minnesota since the advent of Indian gaming. Minnesota is now home to approximately 20 casino and hotel properties.

Although owned by tribal governments, casino operations have an economic impact on the broader communities in which they are located. Gaming operations employ local residents. Gaming operations also purchase supplies from the local business community. As local businesses make sales to both the gaming operation and its employees, they must also increase their own purchases, thus causing a ripple effect of increased economic activity in the local economy.

Leech Lake Gaming is a tribal business entity established by the Leech Lake Band of Ojibwe. Leech Lake Gaming operates three casino and hotel properties in northern Minnesota. They are: Northern Casino Hotel & Event Center, Palace Casino & Hotel, and White Oak Casino.

This study addresses the question “What is the economic impact of the Leech Lake Gaming entity in Beltrami, Cass, Hubbard, and Itasca counties?” The focus of the study is on the *operation* of the gaming facilities. The study includes *expenditures* for locally purchased inputs and *expenditures* for labor. It is not a study of the gaming industry; there are no considerations of gaming revenues in this analysis.

This study is being conducted as part of the University of Minnesota Extension’s Economic Impact Analysis program. The study has two deliverables: a written report and a presentation with a facilitated discussion of the results with the study sponsors.

Highlights of a Study of the Economic Impact of Leech Lake Band of Ojibwe Gaming Operations

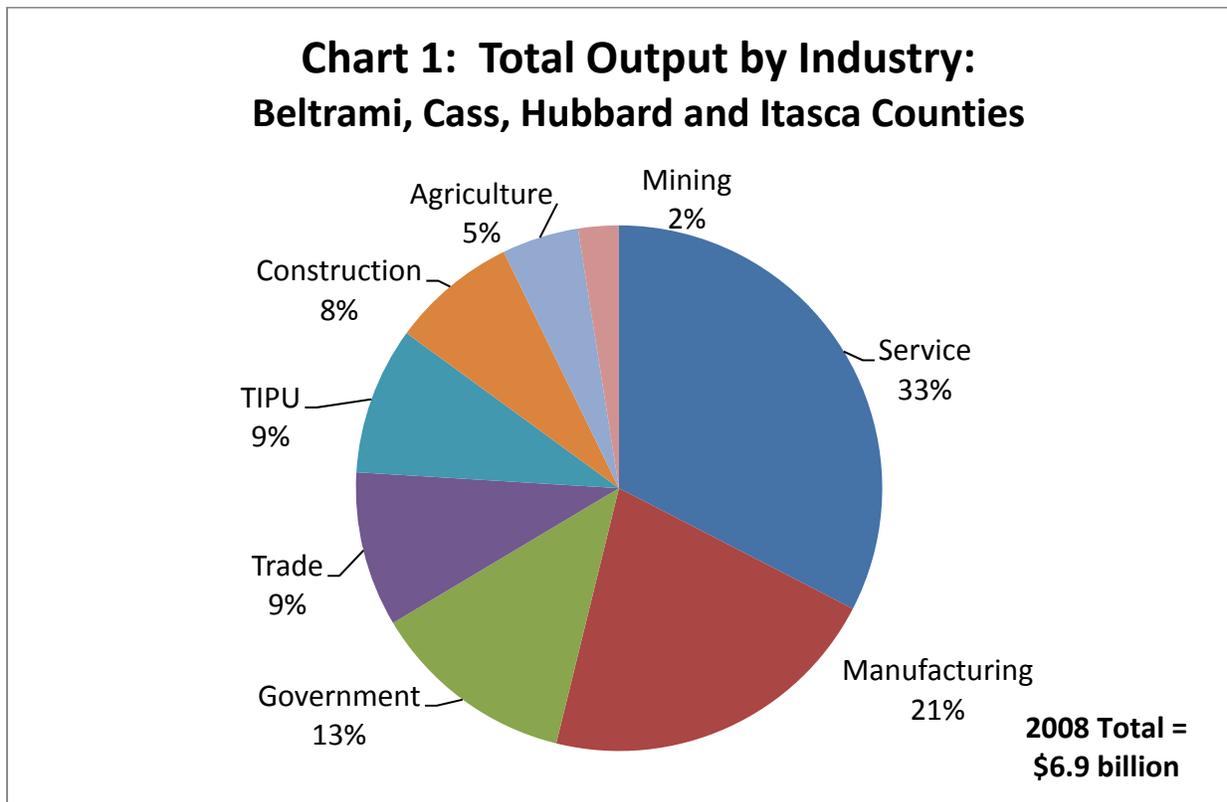
The following statements summarize the results of an analysis of the economic impact of Leech Lake Gaming operations in 2009.

- In 2009, Leech Lake Gaming spent locally \$5.2 million of “new money” on goods and services, \$24.4 million on labor, and \$6.6 million in tribal government investments in Beltrami, Cass, Hubbard, and Itasca counties. Leech Lake Gaming directly employed 1,229 workers.
- In 2009, spending by Leech Lake Gaming contributed a *total* of \$54.3 million in economic activity to Cass, Beltrami, Hubbard, and Itasca counties. This included labor income in the counties of \$36.1 million. Leech Lake Gaming also generated 1,423 jobs in the counties in 2009 as a result of their spending.
- The industry sectors most impacted by the labor-spending and business expenditures of Leech Lake Gaming operations are food services and drinking establishments, private medical clinics and hospitals, miscellaneous retail stores, and housing.
- Cautions: These results are unique to the gaming entity and to the region and should not be generalized beyond them.

Profile of the Study Area (Local) Economy

Beltrami, Cass, Hubbard, and Itasca counties are located in north central Minnesota. In 2008, total output in the four-county region was \$6.9 billion including \$2.3 billion in labor income. This output was generated by 65,216 workers, thus resulting in an average output per worker of \$105,800. Average output per worker in non-metro Minnesota was \$136,700 in 2008. There were 135,889 individuals living in 60,010 households in the region.¹

Chart 1 shows total output in the region for 2008 by sector. The counties are primarily dependent on services and manufacturing, a combined 54 percent of output. This is comparable to the average non-metro county where manufacturing (32%) and services (28%) contributed 60 percent to total output in 2008.

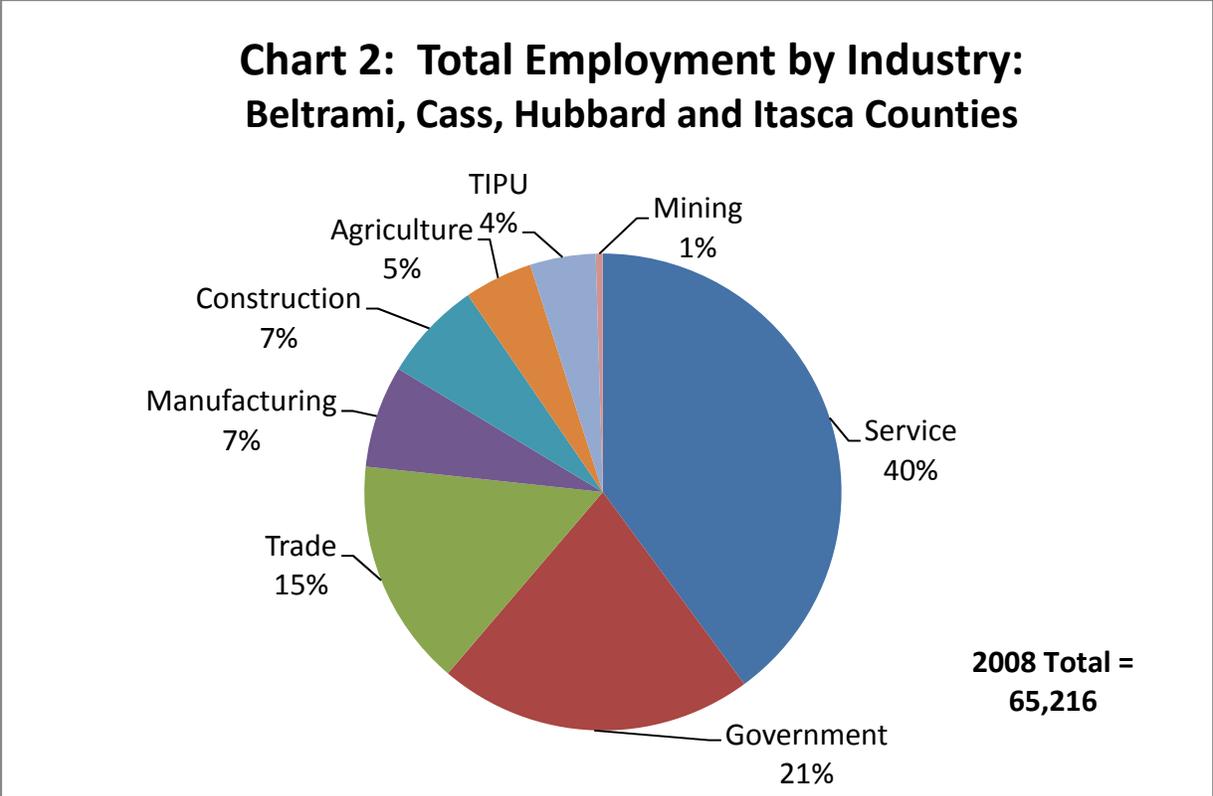


Prepared by: University of Minnesota Extension Center for Community Vitality
Source: IMPLAN (Minnesota IMPLAN Group)

Total employment in the four-county region in 2008 was 65,216. Of these workers, the majority (40%) were employed in the service sector, followed by government (21%) and trade (15%) as illustrated in Chart 2. The four counties are more reliant on government as an employee base (21%) than the average non-metro county (7%).

¹ Based on IMPLAN 2008 data.

Examining Chart 1 and Chart 2 together shows that manufacturing created 21 percent of output, but employed 7 percent of workers in the region. This implies that manufacturing has a high output per worker ratio and is not labor intensive. Trade, meanwhile contributed 9 percent of output with 15 percent of the workforce, thus implying a relatively low output per worker and a labor intense situation. In this data, one worker is counted as one worker, regardless if they are full- or part-time. Thus, output per worker ratios may also be reflective of more part-time employment in trade and more full-time employment in manufacturing.



Prepared by: University of Minnesota Extension Center for Community Vitality
Source: IMPLAN (Minnesota IMPLAN Group)

Table 1 shows the top 15 (out of 207) industries in terms of employment for 2008. State and local government, education was the largest employer with over 8,600 employees in 2008 and accounted for 13 percent of total employment in the region. Food services and drinking places along with state and local government, non-education rounded out the top three employment industries. While state and local government, education is typically a major employer in rural Minnesota, the number here may be higher due to the presence of Bemidji State University.

A couple of thoughts on employment as measured in the model. First, the model does not use full-time equivalents. In other words, one job in the model could be a part-time,

full-time, or seasonal job. Second, employment at the tribal casinos and hotels falls into two categories. Employment associated with casino operations falls into state and local government, non-education while employment associated with the casinos' hotel operations falls into hotels and motels, including casino hotels.

Table 1: Top 15 Industries by Employment, 2008 Beltrami, Cass, Hubbard, and Itasca Counties		
Industry	Employment	Percent of Total Employment
State & local government, education	8,619	13%
Food services and drinking places	3,832	6%
State & local government, non-education (includes casino employment)	3,292	5%
Private hospitals	2,130	3%
Nursing and residential care facilities	1,776	3%
Retail Stores - General merchandise	1,751	3%
Construction of new nonresidential commercial and health care structures	1,407	2%
Retail Stores - Food and beverage	1,404	2%
Offices of physicians, dentists, and other health practitioners	1,399	2%
Individual and family services	1,265	2%
Civic, social, professional, and similar organizations	1,222	2%
Real estate establishments	1,218	2%
Hotels and motels, including casino hotels	1,048	2%
Wholesale trade businesses	1,019	2%
Private household operations	990	2%
Top 15 Total	32,371	50%
Total Employment	65,216	100%

Prepared by: University of Minnesota Extension Center for Community Vitality
Source: IMPLAN (Minnesota IMPLAN Group)

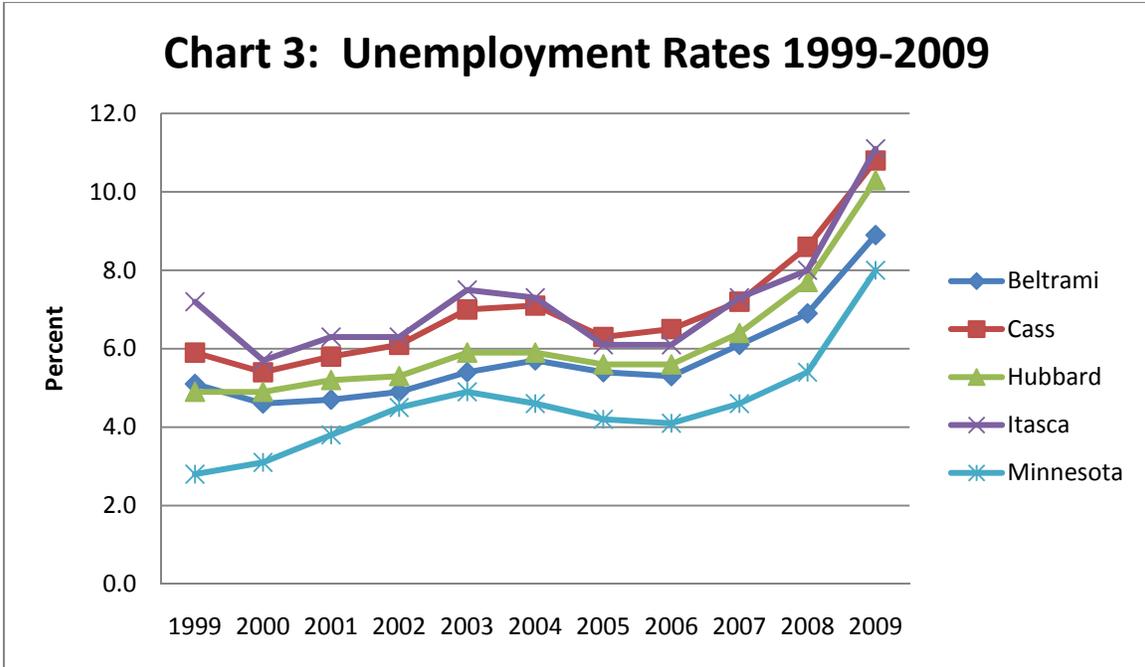
According to the United States Census Bureau, the total estimated population in the four-county region in 2009 was 136,255 persons. The American Indian and Alaska Native population is present in all four counties (20% in Beltrami, 11% in Cass, 2% in Hubbard, and 4% in Itasca). These percentages are all higher than the state average of 1.3%.

As mentioned, there are 60,000 households in the four counties. Table 2 shows median household income by county. While median household income grew at a rate higher than the state average in all the counties, the gap between the Minnesota median household income and the counties still persists. Beltrami County, with the highest median income of the four counties, is at 78 percent of the state median income.

Area	1998	2000	2008	Change 98-08
Beltrami	\$30,575	\$33,951	\$44,742	46.3%
Cass	\$29,260	\$35,295	\$41,740	42.7%
Hubbard	\$30,440	\$35,073	\$42,312	39.0%
Itasca	\$34,616	\$37,560	\$44,311	28.0%
Minnesota	\$45,311	\$49,170	\$57,318	26.5%

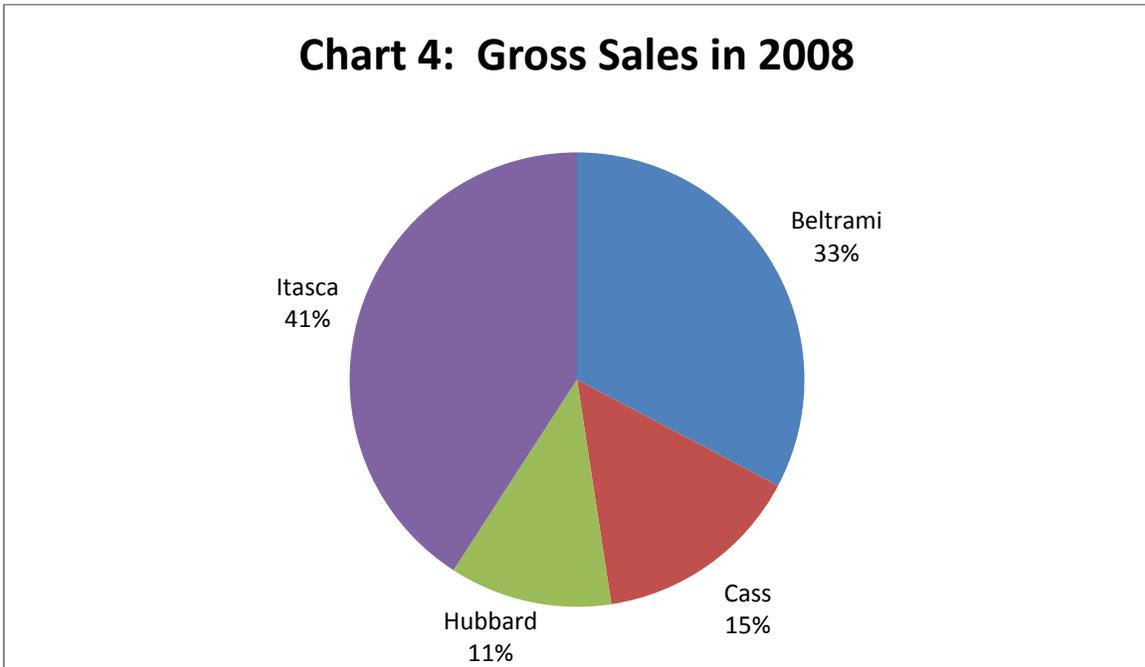
Source: U.S. Census Bureau Small Income and Poverty Estimates

Chart 3 shows unemployment rates in the region. Unemployment rates in the four counties dropped from 1999 to 2000, and then slowly began to rise again. Since about 2003, unemployment rates in the four counties have largely followed the same trend as the state. Unemployment rates have climbed in recent years, consistent with the economic recession in the United States.



Source: Minnesota Department of Employment and Economic Development, Local Area Unemployment Statistics

In 2008, total gross sales in the four counties was \$3.3 billion. As shown in Chart 4, gross sales were larger in Itasca and Beltrami counties. Itasca and Beltrami counties are home to the regional hub cities of Grand Rapids and Bemidji, respectively.



Source: Minnesota Department of Revenue Sales and Use Tax Statistics

Economic Impact

What is the economic impact of the Leech Lake Gaming entity in Beltrami, Cass, Hubbard, and Itasca counties? The first step of economic impact analysis is to determine the initial or direct effect of the entity. As explained in the introduction, the direct effect in this case is equal to expenditures and employment by the gaming entity. Once the direct effects are calculated, they are entered into an input-output model to determine the secondary or “ripple” effects. These are the economic changes that occur at businesses in the community due to the initial or direct effect. Direct and secondary effects sum to give total effects.

Direct Impact

The first step to quantify the economic impact is to gather data on total expenditures by the entity. These expenditures are then modified to reflect the percentage of expenditures made locally. Finally, total local expenditures are adjusted for offsetting impacts. The following sections explain each of these steps.

Total Leech Lake Gaming Expenditures

According to tribal records, in 2009 Leech Lake Gaming spent \$17.4 million in operating expenditures. This included expenses for the goods and services required to operate the casino. The entity spent an additional \$36.7 million on gross salaries and wages to its 1,229 employees. In addition, Leech Lake Gaming invested \$10 million in tribal government activities. The majority of this investment went to payroll within the tribal government. These expenditures are detailed in Table 3.

Operations Expenditures	\$17.4 million
Payroll Expenditures	\$36.7 million
Investment Expenditures	\$10.0 million
Employment	1,229

Data provided by the Leech Lake Band

Local Leech Lake Gaming Expenditures

Not all expenditures made by the entity are local. Clearly, some of the goods and services utilized by the entity are not available for purchase locally. Of the \$17.4 million in total operating expenditures, over a third, or \$6.2 million, were made within the four-county region, as shown in Table 4.

Not all payroll expenditures manifest themselves as local expenditures either. Some payroll expenditures go towards payments for social insurance (social security, Medicare, and unemployment). Some payroll dollars go to in-commuters who take the

money directly out of the region. With the remaining dollars, local residents also pay income taxes, save some of the money, and buy imported goods and services. The input-output model accounts for these leakages.

However, the input-output model fails to adjust for dollars spent directly in another region. For example, if an Itasca County resident goes on a shopping spree in Duluth, those dollars would not have an impact in the study area. Therefore, the amount of local spending of payroll dollars must be adjusted downward. In this case, the authors assume that 20 percent of total payroll is directly spent outside the region. Therefore, the local spending of payroll was 80 percent of total or an estimated \$29.4 million.

Since investment expenditures are primarily for payroll, the same logic applies as explained above. Therefore, investment expenditures were also adjusted downward by 20 percent. Local investment expenditures were thus estimated at \$8 million in 2009.

The authors assume that all employees of the entity come from within the four-county region. Given the broad definition of the local area (including four counties), this appears to be justifiable. However, it should be noted that some of these employees may come from outside the region.

Table 4: Local Expenditures and Employment by Leech Lake Gaming: 2009	
Operations Expenditures	\$6.2 million
Payroll Expenditures	\$29.4 million
Investment Expenditures	\$8 million
Employment	1,229
Estimates by the University of Minnesota Extension Center for Community Vitality	

Offsetting Impacts

Local expenditures made by the Leech Lake Gaming entity are dependent on consumers spending money at the entity’s facilities. A local resident spending his/her dollars at a Leech Lake Gaming facility is equally likely to spend his/her money at another local venue in the study area. As such, the spending by residents does not represent “new money” in the economy. Only “new money” or money that would not have existed in the economy without the entity can generate economic impacts. Therefore, local expenditures must be adjusted to reflect local resident spending in determining the direct impact for the model. According to Leech Lake Gaming records, 17 percent of members in the player’s clubs are local residents. While not a perfect measure of the percent of non-locals or the total amount of their spending, this can be

used as a proxy to determine how much of local expenditures are derived from nonresidents.²

Following these calculations, total direct and local expenditures in the four-county region by Leech Lake Gaming was an estimated \$5.1 million for goods and services, \$24.4 million for payroll, and \$6.6 million in investments in 2009 (see Table 5).

Operations Expenditures	\$5.2 million
Payroll Expenditures	\$24.4 million
Investment Expenditures	\$6.6 million
Employment	1,229
Estimates by the University of Minnesota Extension Center for Community Vitality	

Indirect and Induced Impacts

Now that the direct impacts are quantified, the data is entered into an input-output model. Input-output models trace the flow of dollars throughout a local economy and can capture the indirect and induced, or ripple effects, of an economic activity. The input-output modeling software and data from IMPLAN (Minnesota IMPLAN Group) was used in this report.

Indirect effects are those associated with a change in economic activity due to spending for goods and services. In this case, these are the changes in the local economy triggered by operations expenditures. They are business-to-business transactions.

Induced effects are those associated with a change in economic activity due to spending on labor. In this case, these are the changes in the local economy triggered by payroll expenditures. They are business-to-consumer transactions.

Total Impacts

Table 6 shows the total economic impact of Leech Lake Gaming in 2009. As explained above, the entity spent an estimated \$36.2 million of new dollars in the local economy in 2009. The majority of this (\$30.4 million) was in the form of payroll to labor. Leech Lake Gaming employed 1,229 individuals.

Because of this spending, businesses in Beltrami, Cass, Hubbard and Itasca counties received an additional \$3.4 million in business-to-business sales (indirect effects) and

² Determining offsetting effects is a very complex task. The authors used a proxy to determine the offsetting effects, but this is a simplification. A more in-depth determination would include quantifying the percentage of people and revenue coming from outside the region, how much revenue stems from locals sending in the region that would spend elsewhere in the absence of the facilities, and the demographics of those who visit the facilities.

\$14.7 million in consumer sales (induced effects). Those businesses also created 41 new jobs due to business-to-business sales and 153 new jobs in consumer sales.

Therefore, in total, the Leech Lake Gaming entity added \$54.3 million to the four county region in 2009. This included \$36.1 million in labor income payments. Leech Lake Gaming also created 1,423 jobs in the regional economy (shown in Table 6).

	Direct	Indirect	Induced	Total
Output	\$36.2	\$3.4	\$14.7	\$54.3
Employment	1,229	41	153	1,423
Labor Income	\$30.4	\$1.3	\$4.4	\$36.1

Estimates by the University of Minnesota Extension Center for Community Vitality

The 1,423 jobs created were in 96 different industries in the region. Table 7 shows the top five industries in which Leech Lake Gaming created employment. Food services and drinking places leads the list with 24 jobs, followed by private hospitals (10 jobs), and retail stores-miscellaneous (10 jobs). Since Leech Lake Gaming’s direct impact includes a significant amount of labor income (in the form of payroll), it is not surprising that their impacts are primarily in local service sectors.

Sector	Employment
Food Service and Drinking Places	24
Private Hospitals	10
Retail Stores- Miscellaneous	10
Offices of physicians, dentists and other health care practitioners	9
Nursing and residential care facilities	9

Estimates by the University of Minnesota Extension Center for Community Vitality

The \$54.3 million in output created by Leech Lake Gaming is in 197 different industries. Table 8 shows the top five industries in which Leech Lake Gaming created output. Imputed rental activity for owner-occupied housing leads the list with \$2.9 million in output generated. Imputed rental activity is a measure of the value of the housing market in the region. This is really a measure of what people pay for their housing. Since payroll factors heavily into Leech Lake Gaming’s impact, it is not surprising that housing (one of individual people’s largest expenditures) is significantly impacted. Food services and drinking places (\$1.1 million) and private hospitals (\$1.1 million) round out the top of the list.

Sector	Output (millions)
Imputed rental activity for owner-occupied housing	\$2.9
Food service and drinking places	\$1.1
Private hospitals	\$1.1
Wholesale trade	\$1.0
Offices of physicians, dentists and other health care practitioners	\$1.0

Estimates by the University of Minnesota Extension Center for Community Vitality

Sensitivity Analysis

The results presented in Table 6 are based on two critical assumptions made in the analysis. First, that 80 percent of payroll is spent directly in the region. Second, that 83% of expenditures are derived from “new money” or nonresidents spending at the facilities. Both assumptions are established from the best available data. However, it is possible the assumptions may not always hold. Therefore, in this section, two alternative scenarios will be modeled.

In the first scenario, we assume that only 70 percent of payroll is spent locally and that only 70 percent of expenditures are derived from nonresidents. Thus, direct, local expenditures for operations in 2009 would be an estimated \$4.3 million, for payroll \$18 million, and for tribal investments \$4.9 million.

Under Scenario 1, Leech Lake Gaming’s total economic impact in the four county region included \$40.8 million in sales, 1,376 jobs, and \$26.8 million in labor income.

	Direct	Indirect	Induced	Total
Output	\$27.2	\$2.8	\$10.8	\$40.8
Employment	1,229	34	113	1,376
Labor Income	\$22.4	\$1.1	\$3.3	\$26.8

Estimates by the University of Minnesota Extension Center for Community Vitality

In the second scenario, we assume that 90 percent of payroll is spent locally and that 90 percent of expenditures are derived from nonresidents. In Scenario 2, Leech Lake Gaming’s direct effect includes an estimated \$5.6 million in output, \$29.7 million in labor income, and \$8.1 million in investments.

Under Scenario 1, Leech Lake Gaming’s total economic impact in the four county region included \$65 million in sales, 1,461 jobs, and \$43.9 million in labor income.

Table 10: 2009 Economic Impact of Leech Lake Gaming Entity in Beltrami, Cass, Hubbard and Itasca Counties, Scenario 2				
	Direct	Indirect	Induced	Total
Output	\$43.4	\$3.8	\$17.9	\$65.0
Employment	1,229	46	186	1,461
Labor Income	\$36.9	\$1.5	\$5.4	\$43.9
Estimates by the University of Minnesota Extension Center for Community Vitality				

A Note on the Analysis

The focus of this study is the *operations* of the gaming facilities managed by the Leech Lake Band of Ojibwe. The selection of the focus is deliberate. Two other sources of economic impact were excluded from this study. First, this study has no consideration of the tourism impact of the casinos and/or their related hotels. Certainly, a strong argument could be made that the presence of these operations draws many new visitors into the region who then spend directly at local restaurants, lodging facilities, and so forth. Second, this study makes no consideration of the potential negative, positive, or collateral impacts of gaming. The study focuses on gaming *operations* and not gaming itself. Much of the current literature on economic impacts and casinos focuses on gaming and therefore attempts to quantify any negative social externalities that may be associated with gaming. The authors have treated this study as we would any other study pertaining to *operations* of a business.

This study also focused on the economic impact of casino operations within the four counties of Beltrami, Cass, Hubbard, and Itasca. It should be noted that the economic impact in the state would differ given different direct effects, different offsetting effects, and different spending patterns for businesses and consumers.

Methodology

Special models, called input-output models, exist to conduct economic impact analysis. There are several input-output models available. IMPLAN (Impact Analysis for PLANning, Minnesota IMPLAN Group)³ is one such model. Many economists use IMPLAN for economic contribution analysis because it can measure output and employment impacts, is available on a county-by-county basis, and is flexible for the user. IMPLAN has some limitations and qualifications, but it is one of the best tools available to economists for input-output modeling. Understanding the IMPLAN tool, its capabilities, and its limitations will help ensure the best results from the model.

One of the most critical aspects of understanding economic impact analysis is the distinction between the “local” and “non-local” economy. The local economy is identified as part of the model-building process. Either the group requesting the study or the analyst defines the local area. Typically, the study area is a county or a group of counties that share economic linkages.

A few definitions are essential in order to properly read the results of an IMPLAN analysis. The terms and their definitions are provided below.

Output

Output is measured in dollars and is equivalent to total sales. The output measure can include significant “double counting.” Think of corn, for example. The value of the corn is counted when it is sold to the mill, again when it is sold to the dairy farmer, again as part of the price of fluid milk, and yet again when it is sold as cheese. The value of the corn is built into the price of each of these items and then the sales of each of these items are added up to get total sales (or output).

Employment

Employment includes full- and part-time workers and is measured in annual average jobs. IMPLAN includes total wage and salaried employees, as well as the self-employed, in employment estimates. Because employment is measured in jobs and not in dollar values, it tends to be a very stable metric.

Labor Income

Labor income measures the value added to the product by the labor component. So, in the corn example when the corn is sold to the mill, a certain percentage of the sale goes to the farmer for his/her labor. Then when the mill sells the corn as feed to the dairy

³ IMPLAN Version 3.0 is used in this analysis. For the full report, the data set for Minnesota 2008 is employed. The individual factsheets apply the 2008 data for those counties. The trade flows model with SAM multipliers is implemented.

farmer, it includes some markup for its labor costs in the price. When the dairy farmer sells the milk to the cheese manufacturer, he/she includes a value for his/her labor. These individual value increments for labor can be measured, which amounts to labor income. Labor income does *not* include double counting.

Direct Impact

Direct impact is equivalent to the initial activity in the economy. In this study, it is spending by Leech Lake Gaming.

Indirect Impact

The indirect impact is the summation of changes in the local economy that occur due to **spending for inputs** (goods and services) by the industry or industries directly impacted. For instance, if employment in a manufacturing plant increases by 100 jobs, this implies a corresponding increase in output by the plant. As the plant increases output, it must also purchase more inputs, such as electricity, steel, and equipment. As the plant increases purchases of these items, its suppliers must also increase production, and so forth. As these ripples move through the economy, they can be captured and measured. Ripples related to the purchase of goods and services are indirect impacts.

Induced Impact

The induced impact is the summation of changes in the local economy that occur due to **spending by labor**, that is spending by employees in the industry or industries directly impacted. For instance, if employment in a manufacturing plant increases by 100 jobs, the new employees will have more money to spend to purchase housing, buy groceries, and go out to dinner. As they spend their new income, more activity occurs in the local economy. This can be quantified and is called the induced impact.

Total Impact

The total impact is the summation of the direct, indirect, and induced impacts.

Conclusions

The Leech Lake Band of Ojibwe, through Leech Lake Gaming, owns and operates three casino and hotel properties in northern Minnesota. These properties are on tribal land within the counties of Cass, Beltrami, Hubbard, and Itasca. In 2009, Leech Lake Gaming spent \$5.2 million of new money in those counties to purchase goods and services to supply operations at their properties. They hired 1,229 individuals and paid \$24.4 million in labor income to their local workers. In addition, the entity invested locally \$6.6 million of new money in tribal government activities.

Therefore, in 2009, spending by Leech Lake Gaming contributed a total of \$54.3 million in economic activity to Cass, Beltrami, Hubbard, and Itasca counties. This included labor income in the counties of \$36.1 million. Spending by Leech Lake Gaming also generated 1,423 jobs in the counties in 2009.

These results represent the best estimates based on information available. They fit within a range of \$40.8 million to \$65 million in output, 1,376 to 1,461 in employment, and \$26.8 to \$43.9 million in labor income.

Cautions

The results of this analysis are specific to both the region and the gaming entity. Generalizations *cannot* be drawn regarding other gaming entities, regions, or a statewide economic impact. Each situation is unique in the amount of local spending, the size of the local economy, and the business mix.