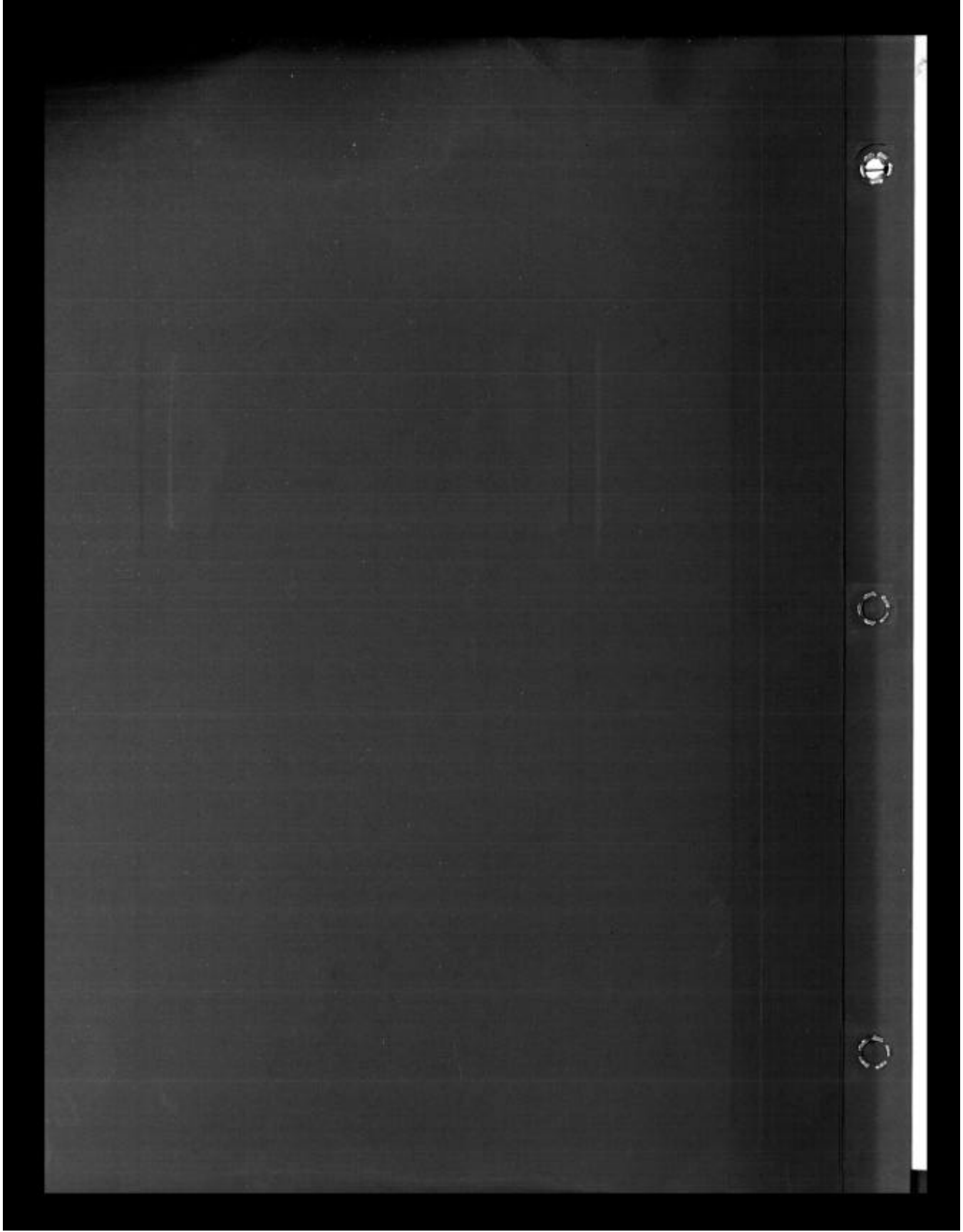


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**The Economic Assessment of Casino Regina
On the Local and Provincial Economies**

Tourism Sask.
January 1997



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**The Economic Assessment of
Casino Regina on the Local and
Provincial Economies**

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January 1997

The Economic Assessment of Casino Regina on the Local and Provincial Economies

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1.0 Executive Summary

1.1 Summary of Results

The annualized¹ total provincial economic impacts associated with Casino Regina are listed below.

- \$54.3 million in gross output,
- \$29.1 million in GDP (at factor cost);
- 1,112 full and part-time positions; and,
- \$21.5 million in labour income.

The totals can be broken out as follows:

Impacts	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Operational	33.6125	16.9868	20.2619	562*	13.7886*
Tourism	20.6768	12.1312	12.6673	550	7.7547
Total	54.2893	29.118	32.9292	1,112	21.5433

* Includes and additional 145 positions in the restaurant, bar, gift shop, janitorial, and parking, and an additional \$1.6 million in wages.

These impact estimates are based on the operation expenses of Casino Regina and the expenditures of visitors who came to Regina because of the casino. Visitors' expenditures include dollars spent on recreation and entertainment, food and beverage, accommodation, retail, and transportation. Visitors to the casino who came to Regina for purposes other than the casino are excluded in the analysis.

For comparison purposes, the total provincial impact on gross output of Casino Regina in a given year is equivalent to hosting 2 Grey Cup events or 7 Big Valley Jamborees. Compared to the Eastend Palaeontology Museum, the total provincial impact associated with Casino Regina is nearly 11 times larger.

1.2 Background

Casino Regina commissioned Tourism Saskatchewan to undertake a study to measure the operational and tourism impacts of the casino on the local and provincial economies. The Regina Input-Output Model and the Saskatchewan Input-Output Model were used to measure the economic impacts associated with Casino Regina.

¹ Casino Regina's income statement was annualized using the first 6 months of operation and Casino Regina's visitor survey was annualized using the first 10 months of operation.

Local visitors' expenditures in the casino were excluded in the analysis. If, however, spending by local visitors was formerly saved, spent on out-of-province holidays, or to purchase imports, it may represent "new" spending. Since sound data on the relationship of reallocated expenditures to "new" expenditures does not exist, local visitors' expenditures were excluded in the analysis.

Estimates of non-local visitors, which were derived from Casino Regina's visitor surveys, net gaming revenues (total wager less payout), and the casino's operational expenses were used to drive the operational impact models. Off-site expenditures made by non-local casino generated visitors, which were derived from the Canadian Travel Survey and International Travel Survey were used to drive the tourism impact models.

These models measure the additional economic activity accruing to the local and the provincial economies as a result of Casino Regina. Gross output, gross domestic product (GDP) at factor cost and market prices, employment, and labour income were estimated by these models.

1.3 Operational Impacts

The operational impacts measure the incremental economic activity generated by Casino Regina and its suppliers. The casino's expenses paid to suppliers located outside the province were assigned as imports.

The casino falls into the amusement and recreation industry which is contained in the community, business, and personal services industry in a 16 industry by 16 industry model. This model uses the net gaming revenue from non-local visitors and expenses of the casino to measure the impacts on the 16 sectors of the economy.

The community, business, and personal services industry was exogenized and its output was increased by net gaming revenue from non-local visitors². The labour income output coefficient in the model was adjusted to reflect Casino Regina's actual employment and income paid to labour.

The following table provides the total operational economic impacts (direct and indirect) accruing to the local and provincial economies in 1996. Impacts at the local level are a sub-set of the impacts at the provincial level.

² Annualized net gaming revenue (total wager less payout) from non-local casino visitors was used as a proxy for output. The operational impacts may be conservative since the revenue and the expenses from the restaurant, bar, gift shop, and parking lot were not included in the model.

Total Operational Impacts					
	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Regina	33.5012	16.8266	20.0277	416	12.1304
Saskatchewan	33.6125	16.9868	20.2619	417	12.1886

In addition to the employment and the labour income impacts estimated by the model, another 145 positions with an annual payroll of \$1.6 million were created in these areas of the casino: restaurant, gift shop, janitorial, and parking. These additional positions and payroll may be added to the positions and labour income generated by the model.

- Gross Output** measures total expenditures on local goods and services as well as payments to labour and business profits. Output includes double counting because it includes the value of inputs used in production rather than the net value added alone.
- GDP (factor cost)** measures net economic activity within the prescribed geographic area. It represents the payments made to final factors of production: labour, unincorporated business profits, and other operating surplus (corporate profits, interest income, inventory valuation adjustments, and capital consumption allowances). GDP at factor cost excludes the value of intermediate goods and services used in production.
- GDP (market prices)** is GDP at factor cost plus indirect taxes less subsidies.
- Employment** measures the number of positions and does not differentiate between full and part-time employment.
- Labour Income** measures the payments made to labour.

1.4 Tourism Impacts

The tourism impacts measure the incremental economic activity generated by expenditures of casino specific visitors on the local and provincial economies. Dollars spent in the casino are captured in the operation impacts and are not included in this section.

Amusement and recreation, food and beverage, and accommodation are contained in the community, business, and personal services industry in a 16 industry by 16 industry model of the local economy. Retail expenditures, which includes gas purchases, are contained in the retail industry while expenditures on transportation are included in the transportation and storage industry.

The measurement of tourism impacts at the provincial level was performed using a 50 industry by 50 industry model. The advantage of this model is that it provides us with more industry details.

Total non-local casino specific guest-visits were converted to visitors using Casino-Regina's visitor surveys. Based on the first 10 months of operation, Casino Regina estimates that it will attract about 900,000 non-local guest-visits in its first year. This translates into 454,500 visitors. However, not all of these visitors were attracted to Regina because of the casino, consequently, by including all visitors to the casino, regardless of their decision to visit, would over estimate the "true" tourism impact of Casino Regina. Therefore, estimates of the number of visitors who were attracted to Regina specifically because of the casino were derived.

Based on Casino Regina's survey of visitors, an examination of purpose of trip by origin was performed. Projecting the responses of non-locals to the estimated number of non-local visitors yields 101,010 casino specific visitors³.

Dollars were assigned to non-local casino specific visitors based on trip duration using the Canadian Travel Survey and the International Travel Survey. In total, non-local casino specific visitors spent an estimated \$16.9 million dollars while in the province, an average of \$167 per visitor. These estimates do not include expenditures made in the casino since they are captured in the operational side.

Visitor spending was broken down into its components of amusement and recreation, food and beverage, accommodation, transportation, and retail. Margins (the proportion of the price which accrues to a business other than the producing industry) were then removed to convert expenditures from consumer to producer prices based on the proportion of margins of pipeline transportation, wholesale, retail, transportation, operating a office, lab, or cafeteria, and travel, advertising and promotion to personal expenditures on clothing and footwear, semi-durable goods, food and beverage, motor fuels, and other services.

The measurement of tourism economic impacts at the local and provincial level was accessed through final demand in both models. Non-Saskatchewan casino specific visitors' expenditures were added to the export component of final demand, while non-local Saskatchewan casino specific visitors' expenditures were added to the consumption component of final demand.

The following table provides the total tourism economic impacts (direct and indirect) accruing to the local and provincial economies in 1996. Impacts at the local level are a sub-set of the impacts at the provincial level.

³ Casino specific visitors include those who stated that the casino was their primary purpose of their trip and 50 per cent of visitors who listed pleasure as their primary purpose of their trip. The percentage of pleasure trips allocated to casino specific is consistent with KPMG's estimate used in their Casino Windsor study (1995).

Total Tourism Impacts					
	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Regina	16.9152	9.7221	9.9717	391	5.5007
Saskatchewan	20.6768	12.1312	12.6673	550	7.7547

Gross Output measures total expenditures on local goods and services as well as payments to labour and business profits. Output includes double counting because it includes the value of inputs used in production rather than the net value added alone.

GDP (factor cost) measures net economic activity within the prescribed geographic area. It represents the payments made to final factors of production: labour, unincorporated business profits, and other operating surplus (corporate profits, interest income, inventory valuation adjustments, and capital consumption allowances). GDP at factor cost excludes the value of intermediate goods and services used in production.

GDP (market prices) is GDP at factor cost plus indirect taxes less subsidies.

Employment measures the number of positions and does not differentiate between full and part-time employment.

Labour Income measures payments made to labour.

2.0 Introduction

2.1 Background

The Saskatchewan Gaming Corporation (SGC) was created to manage and operate the casino industry in Saskatchewan. The 4 key objectives of SGC are to: enhance tourist opportunities for communities with casinos; maximize employment and training opportunities; enhance urban redevelopment and support of the small business sector; and, minimize the migration of gaming dollars to other jurisdictions.

On January 26, 1996, the province's first world class casino facility was opened in the historic Union Station Building in the heart of downtown Regina. The facility is over 25,000 square feet and contains 500 slot machines, 41 table games, a poker room, a restaurant and lounge, and a bar.

2.2 Study Focus

Casino Regina commissioned Tourism Saskatchewan to undertake an economic impact study of the casino on the local and provincial economies. The study involved measuring economic impacts from 2 sides: the operational side and the tourism side.

2.3 Methodology for Estimating Operational Impacts

The operational impacts trace the revenue and expenses of operating the casino through the economy.

Casino Regina's income statement was annualized using the first 6 months of operation. Annualized net gaming revenue (total wager less pay-out) after removing Regina resident's share of net gaming revenue was calculated from the income statement and Casino Regina's visitor survey. Based on the survey results, Regina residents account for 37 per cent of total net gaming revenue. Net gaming revenue, excluding Regina residents' share, was used as a proxy for output⁴.

Casino Regina's expenses were broken down into the following components: business services, finance, indirect taxes, insurance, manufacturing, operating surplus, subsidy, transportation, utilities, imports, and wages.

The casino falls into the amusement and recreation industry which is contained in the community, business, and personal services industry in a 16 industry by 16 industry model (see Appendix A for a description of the model).

This sector was exogenized and its output was increased to reflect the increase in output. A mixed exogenous-endogenous input output model of the local and provincial economies was used to measure the additional economic activity accruing to the local and provincial economies as a result of the operation of Casino Regina. Gross output, gross domestic product (GDP), employment, and labour income were estimated by these models.

The following assumptions are inherent in the model: all resources, including labour, are assumed to be available in unlimited supply, and technology and inter-industry relationships are fixed. These models use 1996 data from Statistics Canada and are based on the 1989 structure of the local and provincial economies.

⁴ The operational impacts may be conservative since the revenue and the expenses from the restaurant, bar, gift shop, and parking lot were not included in the model.

2.4 Methodology for Measuring Tourism Impacts

The tourism impacts measure the economic activity as a result of expenditures made by casino specific visitors on the local and provincial economies.

Casino Regina estimates that they will attract 1.4 million guest-visits during their first year of operation. Using the results of Casino Regina's visitor surveys, total guest-visits⁵ were broken down by origin. The following table summarizes total guest-visits by origin.

Origin	Per Cent of Guest-Visits	Guest-Visits
Regina	37.0%	527,621
Alberta & Manitoba (Bus)	29.8%	433,747
Other Saskatchewan	16.7%	233,711
Alberta (Non-Bus)	8.1%	112,906
Manitoba (Non-Bus)	3.7%	52,039
Other Canada	3.6%	50,645
U.S.	0.7%	10,222
Overseas	0.4%	5,111
Total	100.0%	1,426,002

Before dollars can be assigned to visitors, guest-visits need to be converted to visitors. After removing Regina's share of guest-visits, non local guest-visits (excluding bus guest-visits which are examined separately) were converted to visitors using the following assumptions:

- visitors to the casino visit, on average, once per day;
- the average number of days visitors frequent the casino is dependent on trip purpose;

The following tables provide a breakdown of guest-visits by origin by purpose, the average number of days visitors frequent the casino while in Regina, and the derived number of visitors.

⁵ A Guest-visit is defined as all persons entering the casino during a specified time. It includes multiple visits. For example, if a visitor enters the casino 2 times per day for 2 days, this counts as 4 guest-visits.

Saskatchewan Residents (excludes Regina)

Purpose	Per Cent Breakdown by Purpose	Total Visits	Average Number of Days Visited	Estimated Number of Visitors
Passthrough	8.2%	19,164	1.0	19,164
Visiting Friends or Relatives	31.1%	72,684	1.0	72,684
Business	21.3%	49,780	1.0	49,780
Pleasure	14.8%	34,589	1.5	23,059
Casino	13.9%	32,486	2.0	16,243
Other	10.7%	25,007	1.0	25,007
Total	100.0%	233,711		205,938

Alberta Residents (Non-Bus)

Purpose	Per Cent Breakdown by Purpose	Total Visits	Average Number of Days Visited	Estimated Number of Visitors
Passthrough	14.8%	16,710	1.0	16,710
Visiting Friends or Relatives	36.0%	40,646	1.0	40,646
Business	6.6%	7,452	1.0	7,452
Pleasure	19.6%	22,130	1.5	14,753
Casino	19.7%	22,242	2.0	11,121
Other	3.3%	3,726	1.0	3,726
Total	100.0%	112,906		94,408

Manitoba Residents (Non-Bus)

Purpose	Per Cent Breakdown by Purpose	Total Visits	Average Number of Days Visited	Estimated Number of Visitors
Passthrough	16.7%	8,691	1.0	8,691
Visiting Friends or Relatives	20.9%	10,876	1.0	10,876
Business	16.7%	8,691	1.0	8,691
Pleasure	20.8%	10,824	1.5	7,216
Casino	20.8%	10,824	2.0	5,412
Other	4.1%	2,134	1.0	2,134
Total	100.0%	52,039		43,019

Residents of Other Canada

Purpose	Per Cent Breakdown by Purpose	Total Visits	Average Number of Days Visited	Estimated Number of Visitors
Passthrough	17.9%	9,065	1.0	9,065
Visiting Friends or Relatives	35.7%	18,080	1.0	18,080
Business	21.4%	10,838	1.0	10,838
Pleasure	14.3%	7,242	1.5	4,828
Casino	3.6%	1,823	2.0	912
Other	7.1%	3,596	1.0	3,596
Total	100.0%	50,645		47,319

U.S. Residents

Purpose	Per Cent Breakdown by Purpose	Total Visits	Average Number of Days Visited	Estimated Number of Visitors
Passthrough	50.0%	5,111	1.0	5,111
Visiting Friends or Relatives	33.0%	3,404	1.0	3,404
Business	17.0%	1,707	1.0	1,707
Pleasure	0.0%	0	1.5	0
Casino	0.0%	0	2.0	0
Other	0.0%	0	1.0	0
Total	100.0%	10,222		10,222

Overseas Residents

Purpose	Per Cent Breakdown by Purpose	Total Visits	Average Number of Days Visited	Estimated Number of Visitors
Passthrough	33.3%	1,704	1.0	1,704
Visiting Friends or Relatives	33.3%	1,704	1.0	1,704
Business	33.3%	1,704	1.0	1,704
Pleasure	0.0%	0	1.5	0
Casino	0.0%	0	2.0	0
Other	0.0%	0	1.0	0
Total	100.0%	5,111		5,111

Casino Regina was able to track actual visitors to the casino who arrived by bus. The following table provides the breakdown of bus visitors by purpose.

Bus Visitors

Purpose	Per Cent Breakdown by Purpose	Average Trip Duration	Number of Visitors
Passthrough	0.3%	3.7	145
Visiting Friends or Relatives	2.1%	3.7	1,018
Business	1.6%	3.7	775
Pleasure	12.8%	3.7	6,202
Casino	81.1%	3.7	39,293
Other	2.1%	3.7	1,017
Total	100.0%	3.7	48,450

The following table summarizes the total visitors to the casino by origin.

Origin	Visitors	Per Cent Breakdown
Saskatchewan (non-local)	205,938	45.3%
Alberta (Non-Bus)	94,408	20.8%
Manitoba (Non-Bus)	43,019	9.5%
Bus (Alberta, Manitoba)	48,450	10.7%
Other Canada	47,319	10.4%
U.S.	10,222	2.2%
Overseas	5,111	1.1%
Total	454,468	100.0%

Although the casino attracted approximately 454,468 non-local visitors, not all of these visitors were influenced to come to Regina because of the casino. By including all visitors and their related expenditures in the tourism models, the "true" tourism impact of Casino Regina on the local and provincial economies would be over estimated since some visitors would have come to Regina regardless of the casino.

To estimate casino specific visitors, those visitors who indicated that the casino was their primary purpose of their trip and 50 per cent of pleasure visitors were pulled out of total visitors to the casino⁶.

In total, Casino Regina attracted 101,010 casino specific visitors which represents 22 per cent of total non-local visitors. The following table summarizes casino specific visitors by origin.

⁶ Casino specific visitors include those who stated that the casino was their primary purpose of their trip and 50 per cent of visitors who listed pleasure as their primary purpose of their trip. The percentage of pleasure trips allocated to casino specific is consistent with KPMG's estimate used in their Casino Windsor study (1995).

Origin	Casino Specific Visitors	Per Cent Breakdown
Saskatchewan (non-local)	27,773	27.5%
Alberta (Non-Bus)	18,498	18.3%
Manitoba (Non-Bus)	9,020	8.9%
Bus (Alberta, Manitoba)	42,394	42.0%
Other Canada	3,326	3.3%
U.S.	0	0.0%
Overseas	0	0.0%
Total	101,010	100.0%

Based on the Canadian Travel Survey conducted by Statistics Canada, average expenditures per pleasure trip were assigned to casino specific visitors. The following table provides the breakdown of casino specific visitors, total dollars spent in Regina (excluding dollars spent in the casino which are captured in the operational component of the study), and the average expenditures per trip.

Origin	Casino Specific Visitors	Total Dollars Spent	Average \$/Trip
Saskatchewan (non-local)	27,773	\$4,860,188	\$175
Canada	30,844	\$4,999,616	\$162
Bus (Alberta, Manitoba)	42,394	\$7,079,798	\$167
U.S.	0	\$0	0
Overseas	0	\$0	0
Total	101,010	\$16,939,601	\$167

Saskatchewan residents (non-local) who travel to Regina for pleasure purposes stay, on average, 2.5 nights in the city and spend \$70 per night. Residents of other Canada who travel to Regina for pleasure purposes stay, on average, 5.2 nights in the city while those who came strictly for the casino stay, on average, 3 nights. The average expenditure per night by residents of other Canada is \$41. Tour bus visitors stay, on average, 3.7 nights and spend about \$45 per night⁷.

Visitor spending was broken down into its components of amusement and recreation, food and beverage, accommodation, transportation, and retail using the Canadian Travel Survey averages.

The following table provides a breakdown of visitor spending.

⁷ \$20 per person per night was assigned to accommodation expenditures.

Origin	Amusement & Recreation *	Accommodation & Food	Retail †	Transportation ‡	Total Dollars Spent
Saskatchewan (non-local)	\$449,345	\$1,786,341	\$2,495,193	\$129,308	\$4,860,188
Canada	\$535,582	\$2,292,529	\$2,171,505	\$0	\$4,999,616
Bus (Alberta, Manitoba)	\$637,182	\$4,885,061	\$1,557,556	\$0	\$7,079,798
U.S.	\$0	\$0	\$0	\$0	\$0
Overseas	\$0	\$0	\$0	\$0	\$0
Total	\$1,622,109	\$8,963,931	\$6,224,254	\$129,308	\$16,939,601

* Does not include expenditures on gaming.

† Includes gas purchases.

‡ Expenditures on transportation, which includes air fare and bus fare are allocated to the origin.

Before assigning these expenditures to the corresponding industries in the model, margins (the proportion of the price which accrues to a business other than the producing industry) were removed to convert expenditures from consumer to producer prices based on the proportion of margins of pipeline transportation, wholesale, retail, transportation, operating a office, lab, or cafeteria, and travel, advertising and promotion to personal expenditures on clothing and footwear, semi-durable goods, food and beverage, motor fuels, and other services.

Visitor spending was then added to existing final demand. Non-Saskatchewan casino specific visitors' expenditures were added to the export component of final demand, while non-local Saskatchewan casino specific visitors' expenditures were added to the consumption component of final demand.

The following assumptions are inherent in the model: all resources, including labour, are assumed to be available in unlimited supply, and technology and inter-industry relationships are fixed. These models use 1996 data from Statistics Canada and are based on the 1989 structure of the local and provincial economies.

Estimating tourism economic impacts at the local level was performed using a 16 industry by 16 industry model (see Appendix B for a description of the model).

Amusement and recreation, food and beverage, and accommodation are contained in the community, business, and personal services industry in the model. Retail expenditures are contained in the retail industry, while expenditures on transportation are included in the transportation and storage industry.

A 50 industry by 50 industry model was used to measure tourism impacts at the provincial level. The advantage of this model is that it provides us with greater industry detail because most of the tourism industries are not amalgamated into one industry.

Individual industries in the community, business, and personal services industry at the local level were derived by applying the provincial ratios to the local model.

3.0 Operational Impacts

Essentially, the operations impact traces the revenue and expenses of the casino into the economy. Non-local net gaming revenue (total wager less payout) was used as a proxy output. Tourist expenditures made outside the casino are captured in the tourism impacts, which are discussed in the next section.

Gross output, GDP, employment, and labour income associated with the operation of the casino are estimated by the model. Results at the local level are a sub-set of the provincial impacts.

3.1 Summary of Results

The expenditures made by Casino Regina have generated significant benefits to the provincial and local economies. The following table provides the total operational economic impacts (direct and indirect) accruing to the local and provincial economies in 1996. Impacts at the local level are a sub-set of the impacts at the provincial level.

Total Operational Impacts	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Regina	33.5012	16.8266	20.0277	416	12.1304
Saskatchewan	33.6125	16.9868	20.2619	417	12.1886

In addition to the employment and the labour income impacts estimated by the model, another 145 positions with an annual payroll of \$1.6 million were created in these areas of the casino: restaurant, gift shop, janitorial, and parking. These additional positions and payroll may be added to the positions and labour income generated by the model.

Gross Output measures total expenditures on local goods and services as well as payments to labour and business profits. Output includes double counting because it includes the value of inputs used in production rather than the net value added alone.

GDP (factor cost) measures net economic activity within the prescribed geographic area. It represents the payments made to final factors of production: labour, unincorporated business profits, and other operating surplus (corporate profits, interest income, inventory valuation adjustments, and capital consumption allowances). GDP at factor cost excludes the value of intermediate goods and services used in production.

GDP (market prices) is GDP at factor cost plus indirect taxes less subsidies.

Employment measures the number of positions and does not differentiate between full and part-time employment.

Labour Income measures the payments made to labour.

3.2 Impacts by Industry at the Provincial Level

The following table provides an industry breakdown of Casino Regina's total operational impacts (direct and indirect) on the provincial economy in 1996. Direct impacts reflects the initial expenditures made by Casino Regina after adjusting for leakages, while indirect impacts measures the secondary business transactions which results from Casino Regina's initial expenditures.

Total Operational Impacts - Provincial					
	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Agriculture & Related Services	0.0428	0.0202	0.0182	0.8729	0.0021
Fishing & Trapping	0.0001	0.0001	0.0001	0.0064	0.0000
Logging & Forestry	0.0099	0.0041	0.0041	0.0916	0.0020
Mining, Quarrying, & Oil Well Industry	0.0328	0.0204	0.0208	0.0949	0.0032
Manufacturing Industry	0.3747	0.1049	0.0963	2.0604	0.0735
Construction Industry	0.2187	0.0855	0.0964	1.8135	0.0563
Transportation and Storage Industry	0.0616	0.0455	0.0337	0.6030	0.0167
Communication Industry	0.0787	0.0615	0.0590	0.7289	0.0351
Other Utility Industry	0.4716	0.3054	0.3147	1.6734	0.0804
Wholesale Trade Industry	0.0173	0.0116	0.0120	0.3872	0.0084
Retail Trade Industry	0.0201	0.0133	0.0138	0.6670	0.0092
Finance, Insurance, Real Estate Industry	3.6536	2.2529	2.7315	18.9364	0.4310
Community, Business, Personal Services	28.5100	14.0613	16.8614	389	11.4707
Operating Office, Cafeteria, Lab Supplies	0.0536	0.0000	0.0000	0.0000	0.0000
Travel, Advertising, Promotion	0.0608	0.0000	0.0000	0.0000	0.0000
Transport Margins	0.0061	0.0000	0.0000	0.0000	0.0000
TOTAL	33.6125	16.9868	20.2619	416.9356	12.1886

Casino Regina's expenses to the business services industries was used as a proxy for indirect impacts occurring in the community, business, and personal services industry and added to gross output after the model was run. This was necessary because the community, business, and personal services industry was exogenized and its output was increased by net non-local gaming revenue.

A slight upward adjustment to GDP, employment, and labour income in the provincial and local models was made to account for the \$3.2 million dollars paid to the business services sector by Casino Regina.

3.3 Impacts by Industry at the Local Level

The following table provides an industry breakdown of Casino Regina's total operational impacts (direct and indirect) on the local economy in 1996. Direct impacts reflects the initial expenditures made by Casino Regina after adjusting for leakages, while indirect impacts measures the secondary business transactions which results from Casino Regina's initial expenditures.

Total Operational Impacts - Local					
	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Agriculture & Related Services	0.0000	0.0000	0.0000	0.0001	0.0000
Fishing & Trapping	0.0000	0.0000	0.0000	0.0000	0.0000
Logging & Forestry	0.0004	0.0002	0.0002	0.0041	0.0001
Mining, Quarrying, & Oil Well Industry	0.0002	0.0001	0.0001	0.0007	0.0000
Manufacturing Industry	0.4120	0.1023	0.0926	2.2803	0.0705
Construction Industry	0.1334	0.0388	0.0436	1.1130	0.0250
Transportation and Storage Industry	0.0575	0.0350	0.0254	0.5663	0.0124
Communication Industry	0.1743	0.1200	0.1146	1.6253	0.0670
Other Utility Industry	0.5448	0.3670	0.3762	1.9455	0.0928
Wholesale Trade Industry	0.0171	0.0100	0.0103	0.3838	0.0071
Retail Trade Industry	0.0109	0.0063	0.0065	0.3658	0.0043
Finance, Insurance, Real Estate Industry	3.6020	2.0867	2.4981	18.7899	0.3812
Community, Business, Personal Services	28.5100	14.0613	16.8614	389	11.4707
Operating, Office, Cafeteria, Lab Supplies	0.0168	0.0000	0.0000	0.0000	0.0000
Travel, Advertising, and Promotion	0.0210	0.0000	0.0000	0.0000	0.0000
Transport Margins	0.0009	0.0000	0.0000	0.0000	0.0000
TOTAL	33.5012	16.8266	20.0277	416.0748	12.1304

4.0 Tourism Impacts

Casino specific visitors spent and estimated \$16.9 million dollars (excluding dollars spent in the casino) while in the province. These expenditures reflect the initial expenditures of non-local casino specific visitors. The tourism impacts measure the incremental economic activity on the local and provincial economies associated with expenditures made by non-local casino specific visitors.

4.1 Summary of Results

The expenditures made by casino specific visitors have generated significant tourism benefits to the provincial and local economies in 1996. The benefits at the provincial and local level are summarized below.

Total Tourism Impacts					
	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Regina	16.9152	9.7221	9.9717	391	5.5007
Saskatchewan	20.6768	12.1312	12.6673	550	7.7547

Gross Output measures total expenditures on local goods and services as well as payments to labour and business profits. Output includes double counting because it includes the value of inputs used in production rather than the net value added alone.

GDP (factor cost) measures net economic activity within the prescribed geographic area. It represents the payments made to final factors of production: labour, unincorporated business profits, and other operating surplus (corporate profits, interest income, inventory valuation adjustments, and capital consumption allowances). GDP at factor cost excludes the value of intermediate goods and services used in production.

GDP (market prices) is GDP at factor cost plus indirect taxes less subsidies.

Employment measures the number of positions and does not differentiate between full and part-time employment.

Labour Income measures the payments made to labour.

4.2 Impacts by Industry at the Provincial Level

The following table provides total impacts (direct and indirect) by industry of expenditures made by casino specific visitors on the provincial economy in 1996.

Total Tourism Impacts - Provincial					
	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Agriculture, & Related	0.3118	0.1477	0.1327	6.3576	0.0151
Fishing & Trapping	0.0041	0.0031	0.0030	0.3026	0.0003
Logging & Forestry	0.0150	0.0063	0.0062	0.1386	0.0031
Mining Industry	0.0208	0.0135	0.0139	0.0684	0.0028
Crude Oil & Nat Gas	0.0027	0.0016	0.0017	0.0018	0.0000
Quarry & Sand Pit Industry	0.0008	0.0005	0.0005	0.0147	0.0002
Service Related Mining Extraction	0.0091	0.0050	0.0052	0.1073	0.0029
Food Industry	0.5238	0.0982	0.0984	1.9536	0.0750
Beverage Industry	0.0225	0.0096	0.0101	0.1462	0.0062
Tobacco Industry	0.0000	0.0000	0.0000	0.0000	0.0000
Rubber Products Industry	0.0000	0.0000	0.0000	0.0000	0.0000
Plastic Products Industry	0.0180	0.0033	0.0034	0.1002	0.0032
Leather & Allied Products	0.0005	0.0002	0.0002	0.0064	0.0001
Primary Textile & Prod.	0.0044	0.0012	0.0011	0.0476	0.0013
Clothing Industry	0.0003	0.0002	0.0002	0.0060	0.0002
Wood Industry	0.0076	0.0024	0.0025	0.0662	0.0025
Furniture & Fixture Industry	0.0002	0.0001	0.0001	0.0032	0.0001
Paper & Allied Products	0.0588	0.0224	0.0235	0.1897	0.0100
Printing Publish & Allied	0.1042	0.0579	0.0586	1.4199	0.0393
Primary Metal Industry	0.0074	0.0004	0.0005	0.0161	0.0011
Fabricating Metal Products	0.0178	0.0105	0.0105	0.1726	0.0049
Machinery Industry	0.0085	0.0038	0.0039	0.0831	0.0023
Transport Equip. Industry	0.0031	0.0012	0.0012	0.0259	0.0008
Elec. & Electron Products	0.0207	0.0103	0.0106	0.1280	0.0071
Nonmetal Mineral Products	0.0078	0.0031	0.0033	0.0714	0.0019
Refined Oil & Coal Products	0.0430	0.0003	-0.0139	0.0466	0.0012
Chemical & Prod. Industry	0.0174	0.0049	0.0052	0.0490	0.0019
Other Mfg. Industry	0.0029	0.0014	0.0014	0.0513	0.0011
Construction Industry	0.1800	0.0704	0.0798	1.4928	0.0463
Transport Industry	0.0849	0.0730	0.0398	1.1137	0.0215
Pipeline Transportation Industry	0.0128	0.0095	0.0101	0.0651	0.0012
Storage Warehouse Industry	0.0421	0.0236	0.0260	0.2228	0.0154

Total Tourism Impacts - Provincial					
	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Communication Industry	0.3627	0.2814	0.2693	3.3603	0.1607
Other Utility Industry	0.3824	0.2493	0.2572	1.3566	0.0655
Wholesale Trade Industry	0.6444	0.4323	0.4480	14.4012	0.3113
Retail Trade Industry	5.7593	3.8490	3.9842	191.3638	2.6497
Finance, Real Estate Industry	0.5068	0.2644	0.3230	4.8096	0.0897
Insurance Industry	0.0799	0.0199	0.0286	0.7907	0.0383
Government Royalty on Natural Resources	0.0829	0.0829	0.0829	0.0000	0.0000
Owner Occupied Dwelling	0.0000	0.0000	0.0000	0.0000	0.0000
Business Service Industry	0.2616	0.1913	0.1917	3.7040	0.1115
Educate Service Industry	0.0000	0.0000	0.0000	0.0000	0.0000
Health Service Industry	0.0012	0.0009	0.0009	0.0096	0.0003
Accommodation & Food Service Industry	8.3974	5.0708	5.4591	277.7349	3.4854
Amusement & Recreation Services	1.5087	1.0479	1.0253	35.0981	0.5428
Personal Household Services	0.0368	0.0295	0.0304	1.3064	0.0175
Other Service Industry	0.0353	0.0262	0.0270	1.8591	0.0129
Operating, Office, Cafeteria, Lab Supplies	0.3884	0.0000	0.0000	0.0000	0.0000
Travel, Advertising, and Promotion	0.5063	0.0000	0.0000	0.0000	0.0000
Transport Margins	0.1699	0.0000	0.0000	0.0000	0.0000
TOTAL	20.6768	12.1312	12.6673	550.2627	7.7547

The following table provides the direct impacts by industry of expenditures made by casino specific visitors (outside the casino) on the provincial economy in 1996. Direct impacts reflects the initial expenditures made by non-local casino specific visitors after adjusting for leakages. The difference between the direct expenditures and the direct impact generated from the model is the amount not sourced from current Saskatchewan production.

Direct Tourism Impacts - Provincial					
	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Transportation	0.0247	0.0212	0.0116	0.3238	0.0063
Pipeline Transportation	0.0052	0.0039	0.0041	0.0267	0.0005
Wholesale Trade	0.5246	0.3519	0.3647	11.7241	0.2535
Retail Trade	5.5672	3.7206	3.8513	184.9811	2.5613
Accommodation and Food Service	8.2777	4.9986	5.8313	273.7761	3.4357
Amusement and Recreation	1.3769	0.9563	0.9357	32.0312	0.4954
Operating, Office, Cafeteria, Lab Supplies	0.1304	0.0000	0.0000	0.0000	0.0000
Travel, Advertising, and Promotion	0.0758	0.0000	0.0000	0.0000	0.0000
Transport Margins	0.1408	0.0000	0.0000	0.0000	0.0000
Total	16.1232	10.0525	10.5487	502.8629	6.7526

In addition to the direct impacts, the indirect impacts are summarized below:

- \$4.55 million in gross output;
- \$2.08 million in GDP at factor cost;
- \$2.12 million in GDP at market prices;
- 47 positions (full or part-time); and,
- \$1.00 million in labour income.

Indirect impacts measure the secondary business transactions as a result of the initial expenditures made by casino specific visitors.

4.3 Impacts by Industry at the Local Level

The following table provides the total impacts (direct and indirect) by industry of expenditures made by casino specific visitors on the local economy in 1996.

Total Tourism Impacts - Local					
	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Agriculture, & Related	0.0000	0.0000	0.0000	0.0004	0.0000
Fishing & Trapping	0.0000	0.0000	0.0000	0.0000	0.0000
Logging & Forestry	0.0008	0.0003	0.0003	0.0071	0.0002
Mining, Quarrying, & Oil Well Industry	0.0003	0.0002	0.0002	0.0009	0.0000
Manufacturing Industry	0.6875	0.1708	0.1545	3.8053	0.1177
Construction Industry	0.0824	0.0240	0.0269	0.6877	0.0155
Transportation and Storage Industry	0.0889	0.0542	0.0393	0.8765	0.0192
Communication Industry	0.7346	0.5059	0.4828	6.8498	0.2822
Other Utility Industry	0.4589	0.3092	0.3169	1.6388	0.0781
Wholesale Trade Industry	0.6117	0.3592	0.3710	13.7596	0.2548
Retail Trade Industry	4.7956	2.7779	2.8655	160.3783	1.8798
Finance, Insurance, Real Estate Industry	0.5615	0.3253	0.3894	2.9292	0.0594
Community, Business, Personal Services	8.3376	5.1953	5.3248	200.0185	2.7938
Operating, Office, Cafeteria, Lab Supplies	0.2281	0.0000	0.0000	0.0000	0.0000
Travel, Advertising, & Promotion	0.1976	0.0000	0.0000	0.0000	0.0000
Transport Margins	0.1297	0.0000	0.0000	0.0000	0.0000
TOTAL	16.9150	9.7221	9.9717	390.9521	5.5007

The following table provides the direct impacts by industry of expenditures made by casino specific visitors (outside the casino) on the local economy in 1996. Direct impacts reflect the initial expenditures made by non-local casino specific visitors after adjusting for leakages. The difference between the direct expenditures and the direct impact generated from the model is the amount not sourced from current Regina production.

Direct Tourism Impacts - Local					
	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Transportation and Storage Industry	0.0254	0.0155	0.0112	0.2504	0.0055
Wholesale Trade Industry	0.5240	0.3077	0.3178	11.7875	0.2183
Retail Trade Industry	4.7205	2.7344	2.8206	157.8663	1.8503
Community, Business, Personal Services	8.1884	5.1023	5.2295	196.4385	2.7438
Operating, Office, Cafeteria, Lab Supplies	0.1198	0.0000	0.0000	0.0000	0.0000
Travel, Advertising, and Promotion	0.0713	0.0000	0.0000	0.0000	0.0000
Transport Margins	0.1274	0.0000	0.0000	0.0000	0.0000
TOTAL	13.7767	8.1598	8.3791	366.3427	4.8179

In addition to the direct impacts, the indirect impacts are summarized below:

- \$3.14 million in gross output;
- \$1.56 million in GDP at factor cost;
- \$1.59 million in GDP at market prices;
- 25 positions (full or part-time); and,
- \$0.68 million in labour income.

Indirect impacts measure the secondary business transactions as a result of the initial expenditures made by casino specific visitors.

4.4 Estimating Impacts of Tourism Specific Industries in the Community, Business, and Personal Services Industry at the Local Level

The accommodation and food services industry and the amusement and recreation industry are contained in the business, community, and personal services industry in the local model. In order to estimate the impacts of accommodation and food services and amusement and recreation at the local level, the ratio of these industries to the business, community, and personal services industry at the provincial level was applied at the local level.

The following table summarizes the total impacts of expenditures by casino specific visitors on the local economy broken out from the business, community, and personal services industry.

Total Tourism Impacts of Industries in the Community, Business, and Personal Services Industry at the Local Level	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Business Service	0.2130	0.1561	0.15157	2.3171	0.0747
Education Service	0	0	0	0	0
Health Service	0.0010	0.0007	0.0007	0.0060	0.0002
Accommodation & Food Service	6.8367	4.1379	4.3164	173.7406	2.3349
Amusement & Recreation	1.2283	0.8551	0.8107	21.9561	0.3636
Personal Household Service	0.0300	0.0241	0.0240	0.8172	0.0117
Other Service	0.0287	0.0214	0.0214	1.1630	0.0086
Community, Business & Personal Service	8.3376	5.1953	5.3248	200.0185	2.7938

5.0 Conclusion

This study measured the economic contribution of Casino Regina to the local and provincial economies. The operational impacts measured the incremental activity generated by Casino Regina and its suppliers, while the tourism impacts measured the incremental activity generated by Casino Regina specific visitors on the local and provincial economies. These impacts were stated in terms of gross output, gross domestic product (GDP), employment, and labour income.

Casino Regina generates a significant economic contribution to the local and provincial economies. The following table summarizes the findings of the report with respect to the total provincial impact.

Impacts	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Operational	33.6125	16.9868	20.2619	562*	13.7886*
Tourism	20.6768	12.1312	12.6673	550	7.7547
Total	54.2893	29.118	32.9292	1,112	21.5433

* Includes and additional 145 positions in the restaurant, bar, gift shop, janitorial, and parking, and an additional \$1.6 million in wages.

Gross Output measures total expenditures on local goods and services as well as payments to labour and business profits. Output includes double counting because it includes the value of inputs used in production rather than the net value added alone.

GDP (factor cost) measures net economic activity within the prescribed geographic area. It represents the payments made to final factors of production: labour, unincorporated business profits, and other operating surplus (corporate profits, interest income, inventory valuation adjustments, and capital consumption allowances). GDP at factor cost excludes the value of intermediate goods and services used in production.

GDP (market prices) is GDP at factor cost plus indirect taxes less subsidies.

Employment measures the number of positions and does not differentiate between full and part-time employment.

Labour Income measures the payments made to labour.

For comparison purposes, the total provincial impact on gross output of Casino Regina in a given year is equivalent to hosting 2 Grey Cup events or 7 Big Valley Jamborees. Compared to the Eastend Palaeontology Museum, the total provincial impact associated with Casino Regina is nearly 11 times larger.

Simulations at the provincial level were run by applying an amount equivalent to the operational expansion in the community, business, and personal services industry to existing final demand of 3 industries: mining and related industry, manufacturing, and communications. The results are presented below.

Industries	Gross Output (\$M)	GDP at Factor Cost (\$M)	GDP at Market Prices (\$M)	Employment (positions)	Labour Income (\$M)
Manufacturing	37.8204	12.4609	11.7965	274	6.9260
Mining & Related	33.3821	19.7217	20.5385	134	3.8084
Communication	31.3468	22.8756	22.1124	302	12.9462

These simulations show that the total provincial impact on gross output associated with the operation of Casino Regina are greater than an equivalent expansion in the mining and related industry, and in the communication industry, but less than in the manufacturing industry. However, these simulations measure only the comparative impacts of the casino's operation to these industries and does not include the tourism impacts generated by the casino. Consequently, the overall impact (both operational and tourism) generated by Casino Regina is far larger than a similar expansion in any one of these 3 industries.

Appendix A

Measuring Operational Impacts Using a Mixed Exogenous Endogenous Input-Output Model of the Local and Provincial Economies

In a square input-output model employing leakages industry output, X , is defined as follows:

$$[(I - (\mu - \alpha - \beta)A)]^{-1}[(I - \mu - \alpha - \beta)e^* + (I - \alpha - \beta)x_d + (I - \mu)x_r] = X$$

where:

- I = an identity matrix of industry by industry dimension
- A = a matrix of industry by industry dimension representing input proportions (technical coefficients) by industry.
- μ = a diagonal matrix whose elements represent the ratio of imports to use
- α = a diagonal matrix whose elements represent the ratio of government production to use
- β = a diagonal matrix whose elements represent the ratio of inventory withdrawals to use
- X = industry output
- e^* = industry final demand categories of consumption, investment, government purchases, and inventory additions.
- x_d = industry final demand category of domestic exports
- x_r = industry final demand category of re-exports

In a square input-output model without specification of leakages technological change can be simulated by creating a mixed endogenous-exogenous model. In a 2 industry model where X_1 is exogenized technological change can be expressed by modifying a_{11} and a_{21} :

$$\begin{Bmatrix} -1 & -a_{12} \\ 0 & (1-a_{22}) \end{Bmatrix}^{-1} \begin{Bmatrix} -(1-a_{11})X_1 \\ Y_2 + a_{21}X_1 \end{Bmatrix} = \begin{Bmatrix} Y_1 \\ X_2 \end{Bmatrix}$$

where:

- a_{ij} = ratio of input purchases by industry j from industry i .
- X = industry output
- Y = industry final demand

The first matrix in the above expression is referred to as M^{-1} . Modifications of technological coefficients a_{ij} are subject to the constraint:

$$\sum_{i=0}^n a_{ij} + W_j/X_j = 1$$

where W_j = value added for industry j

Appendix B

Measuring Tourism Impacts Using an Input-Output Model of the Local and Provincial Economies

Industry impacts are calculated as:

$$[I - (I - \mu - \alpha - \beta)A]^{-1}[(I - \mu - \alpha - \beta)e^* + (I - \alpha - \beta)x_d + (I - \mu)x_r] = X$$

where:

- I = an identity matrix of industry by industry dimension
- A = a matrix of industry by industry dimension representing input proportions (technical coefficients) by industry.
- μ = a diagonal matrix whose elements represent the ratio of imports to use
- α = a diagonal matrix whose elements represent the ratio of government production to use
- β = a diagonal matrix whose elements represent the ratio of inventory withdrawals to use
- X = industry output
- e^* = industry final demand categories of consumption, investment, government purchases, and inventory additions.
- x_d = industry final demand category of domestic exports
- x_r = industry final demand category of re-exports

Industry employment is calculated based on a fixed number of positions per million dollars of industry output, X.



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