

**The Economic Impact of Tourism to
Red Deer in 2008**

Submitted to

Tourism Red Deer

Submitted by

Econometric Research Limited

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Introduction

The value of tourism has traditionally been seen in cultural and entertainment terms only, however, the rise of the information economy and the services sector is changing this traditional perception so that tourism is increasingly being seen as a core activity in the economy.

Econometric Research Limited was commissioned by Tourism Red Deer to prepare this independent analysis of the importance and contributions of the tourism sector to the City, Region and the Provincial economies, focusing particularly on the contributions of the industry to:

- Income or Value Added
- Employment
- Tax base
- Diversification of the economy

Even though the focus of this Report is upon quantification of the economic impacts of tourism, it is important to remember that economic impact indicators cannot measure in terms of economics alone the importance of the industry to the City, Region and Province. The effects on the diversification of the economy, its exposure to different cultures, retaining the active populations of the City and Region and showcasing their beauty and hospitality are substantial and substantive but cannot be assigned dollar values.

The quantitative benefits that accrue on tourism in the City of Red Deer and its Region are shown to be significant but not particularly large. They are generally made through a number of channels, including:

- First, through direct increases in business activity in response to the direct expenditures of tourists on such items as accommodation, food, transportation, entertainment and retail.
- Second, indirectly by the operations of businesses which provide services and products to tourism facilities and establishments that directly sustain these facilities' operations and capacities to meet the demands of their visitors.
- Third, through the expenditures of the incomes of the employees of the facilities and the businesses affected directly and indirectly by their operations and visitors.

Profiles of Visitors' To Red Deer

Tourists come to Red Deer City and Region from many places far and near (Figure 1). The exact boundaries of the Red Deer Region approximately coincide with Census Division 8 which is the smallest geographic region for which reliable tourism data are available (Figure 2). Visitors from Alberta accounted for more than 90% of the visits to the Region in 2008, whereas Other Canadians accounted for 7.1%, US visitors accounted for only 1.2% and a slightly lower share (1%) was associated with Overseas visitors to the Region in the same year (Table 1 and Figure 3).

Figure 1 – Map of Red Deer Region

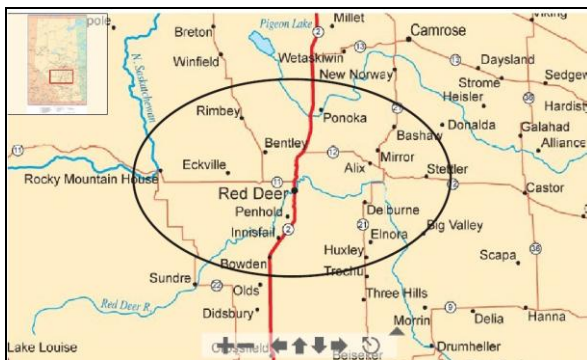
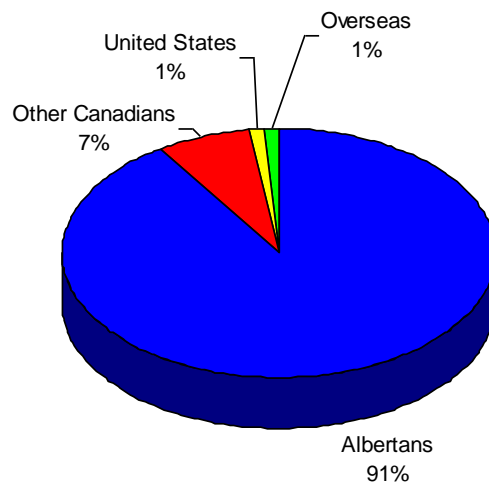


Figure 2 – Census Division 8



**Figure 3
Person-Visits to Red Deer by Origin of Visitor, 2008**



Source: Statistics, Canada International Travel Survey, Travel Survey for Residents of Canada

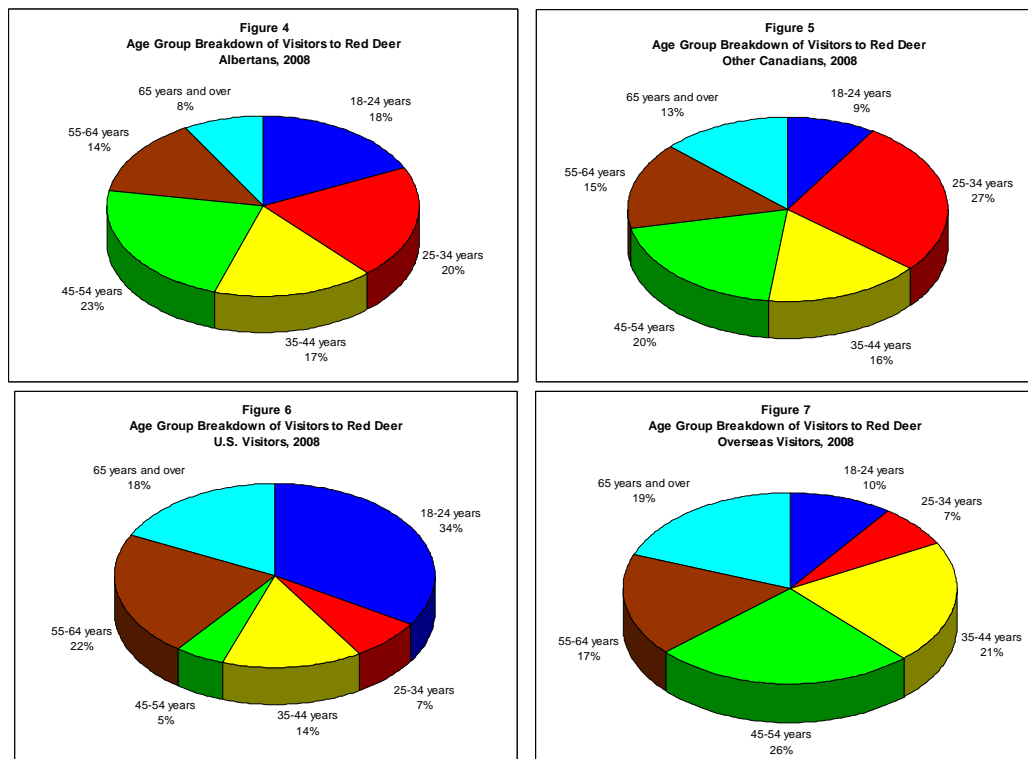
Visitors to Red Deer by Age and Education

The majority of the visitors from Alberta are relatively old, 23% of the total Albertan visits were in the age cohort 45-54 years, while the second largest group (20%) were younger in the 25-34 years age cohort (Figure 4). A different age group composition is observed in the case of Other Canadian visitors to the Region in 2008 where the younger 25-34 age cohort accounted for 27% of these visitors (Figure 5). It is interesting to note that US visitors to the City and region were much younger than visitors from other origins. In the case of the US visitors, the age group 18-24 represented 34% of the total visitors in 2008 (Figure 6). Overseas visitors tended to be older with the majority of the visitors were in the 45-54 age group in 2008 (Figure 7).

Table 1
Age Group Breakdown of Visitors by Origin of Visitor
 (Person Visits)

	Albertans	Other Canadians	U.S. Visitors	Overseas Visitors	Total
18-24 years	327,611	12,327	7,435	1,809	349,182
25-34 years	365,503	38,662	1,614	1,285	407,064
35-44 years	301,345	21,972	3,093	3,785	330,195
45-54 years	408,928	27,950	1,095	4,588	442,561
55-64 years	254,543	21,372	4,772	3,167	283,854
65 years and over	148,828	18,447	3,930	3,470	174,675
Total	1,806,758	140,730	21,939	18,104	1,987,531

Source: Statistics Canada, International Travel Survey, Travel Survey of Residents of Canada



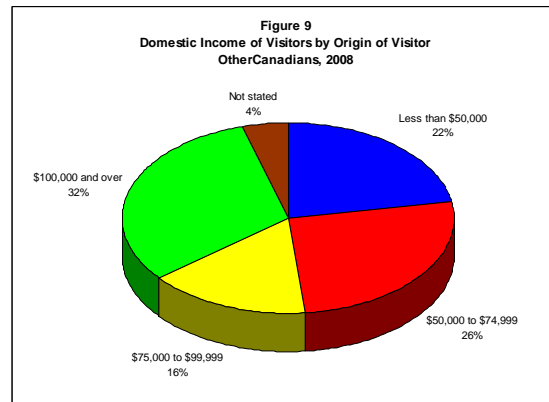
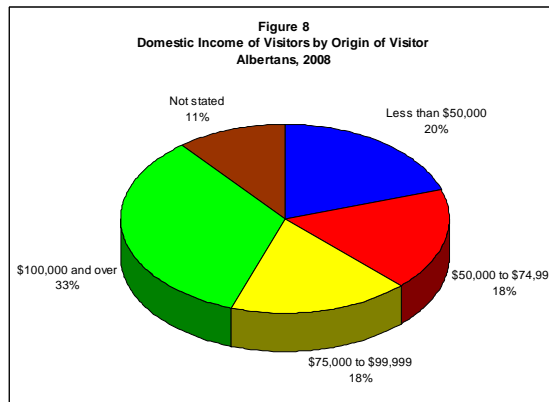
Visitors to Red Deer by Income Level

The majority of the Alberta and Other Canadian visitors to the City of Red Deer and its Region were affluent and in the upper brackets of the income distribution scale. Visitors with \$100,000 incomes and more accounted for about a third of the Albertans and Other Canadian visitors to the Region in 2008 (Table 2 and figures 8 and 9). When incomes in excess of \$75,000 are counted, more than 50% of Albertans and 48% of Other Canadians visiting Red Deer in 2008 were in this income class.

Table 2
Domestic Income of Visitors by Origin of Visitor
(Person Visits)

	Albertans	Other Canadians
Less than \$50,000	360,071	31,129
\$50,000 to \$74,999	318,542	36,930
\$75,000 to \$99,999	322,426	22,373
\$100,000 and over	607,790	44,101
Not stated	197,928	6,196
Total	1,806,757	140,729

Source: Statistics Canada, International Travel Survey,
Travel Survey of Residents of Canada



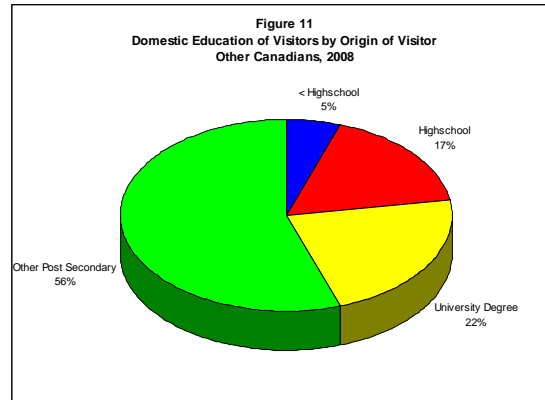
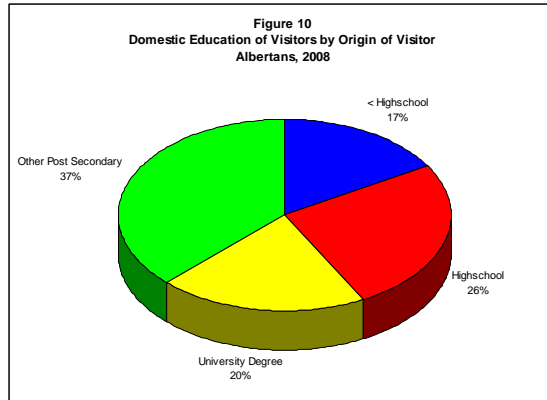
The majority of Alberta visitors to Red Deer had some post-secondary education. In 2008, this group accounted for 37% of the total visitors. When those with university degrees and some post-secondary education are counted the total would rise to 57% (Table 3 and Figure 10).

Table 3
Domestic Education of Visitors by Origin of Visitor
(Person Visits)

	Albertans	Other Canadians
Less than high school graduation certificate	298,349	7,545
High school graduation certificate only	464,039	23,926
Some post-secondary/Post-secondary certificate or diploma	677,189	77,974
University degree (Bachelor's, Master's or PhD)	367,179	31,284
Total	1,806,757	140,730

Source: Statistics Canada, International Travel Survey,
Travel Survey of Residents of Canada

Visitors from other Canadian provinces were decidedly better educated than those from Alberta with over 78% of the total Other Canadians' visitors with some post-secondary and university education in 2008 (Figure 11).



The majority of tourists visiting the Region from all origins were adults only in 2008. In the case of visitors from Alberta, the adults' only group constituted 77% of the total Alberta person-visits, whereas it was over 86% in the case of US visitors, 80% of Other Canadian person-visits and only 67% of Overseas' person visits (Table 4).

Visitors to Red Deer by Party Size

The one adult visitor category represented the largest component of all visitors to the Region in 2008 except for visitors from overseas where the two adults' category dominates.

Table 4
Travel Party Composition of Visitors to Red Deer by Origin of Visitor
 (Person Visits)

	Albertans	Other Canadins	U.S. Visitors	Overseas Visitors	Total
All	1,806,757	140,730	23,069	21,381	1,991,937
Adult Only	1,390,139	113,051	19,866	14,349	1,537,405
One adult	875,773	58,889	6,207	4,744	945,613
Two adults	491,326	51,442	5,495	6,797	555,060
Three or more adults	23,041	2,719	8,164	2,808	36,732
Adults and any teens/children	416,618	27,679	3,203	7,032	454,532
One adult and any teens/children	126,194	5,218			131,412
Two adults and any teens/children	283,998	22,460			306,458
Three or more adults and any teens/children	6,426	0			6,426
Not Stated			93		93

Source: Statistics Canada, International Travel Survey, Travel Survey of Residents of Canada

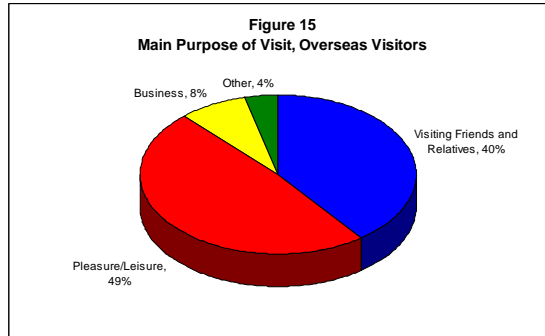
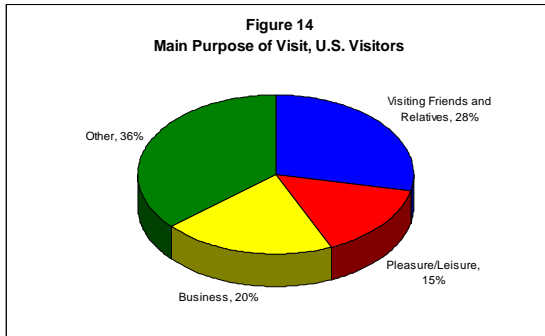
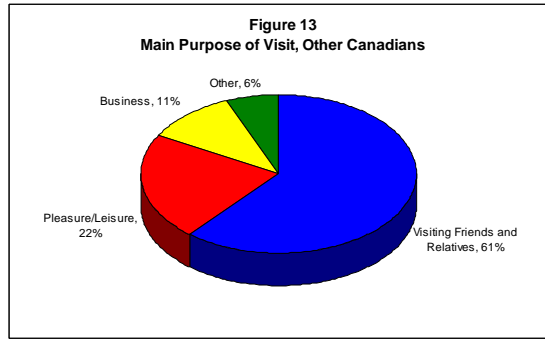
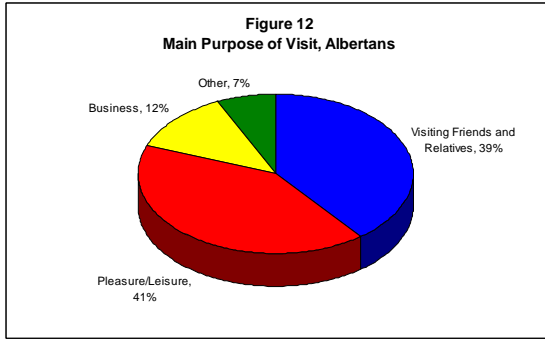
Visitors to Red Deer by Origin and Main Purpose

About 80% of the Alberta visitors to Red Deer come for pleasure (41%) or visiting family and friends (39%), (Table 5 and Figure 12). Visitors from other Canadian provinces are predominantly visiting family and friends (61%), only 22% come solely for pleasure (Table 5 and Figure 13). Visitors from the US are primarily stopping over on their way to Alaska and other destinations in Alberta (36%), (Table 5 and Figure 14). The main purpose of overseas visitors is pleasure (49%) followed by visiting family and friends (40%), Table 5 and Figure 15).

Table 5
Person Visits to Red Deer by Origin of Visitor, 2008

Person-Visits	
Alberta (same-day and overnight)	1,806,757
Rest of Canada (same-day and overnight)	140,730
United States (overnight)	23,132
Overseas (overnight)	21,381
Total	1,992,000
Main Purpose of Visit (%)	
<i>Alberta (same-day and overnight)</i>	
Visiting Friends and Relatives	39%
Pleasure/Leisure	41%
Business	12%
Other	7%
<i>Rest of Canada (same-day and overnight)</i>	
Visiting Friends and Relatives	61%
Pleasure/Leisure	22%
Business	11%
Other	6%
<i>United States (overnight)</i>	
Visiting Friends and Relatives	28%
Pleasure/Leisure	15%
Business	20%
Other	36%
<i>Overseas (overnight)</i>	
Visiting Friends and Relatives	40%
Pleasure/Leisure	49%
Business	8%
Other	4%

Source: Statistics Canada, International Travel Survey, Travel Survey of Residents of Canada



Visitors to Red Deer come from many Alberta origins but primarily from Calgary 37%, Edmonton 22%, Drumheller 5% and Hanna 3% (Table 6).

Table 6
Visitation to Census Division 8
by Alberta Census Divisions
Same Day and Overnight, 2008

Census Division 1 (Medicine Hat)	1%
Census Division 2 (Lethbridge)	1%
Census Division 3 (Fort Mcleod)	0%
Census Division 4 (Hanna)	3%
Census Division 5 (Drumheller)	5%
Census Division 6 (Calgary)	37%
Census Division 7 (Stettler)	3%
Census Division 8 (Red Deer)	18%
Census Division 9 (Rocky Mountain House)	7%
Census Division 10 (Camrose-Lloydminster)	1%
Census Division 11 (Edmonton)	22%
Census Division 12 (St. Paul)	0%
Census Division 13 (Athabasca)	1%
Census Division 14 (Edson)	0%
Census Division 15 (Banff)	0%
Census Division 16 (Fort McMurray)	0%
Census Division 17 (Slave Lake)	0%
Census Division 18 (Grande Cache)	0%
Census Division 19 (Grande Prairie)	1%

Source: Statistics Canada, Travel Survey of Residents of Canada

Visitors' Expenditures in Red Deer

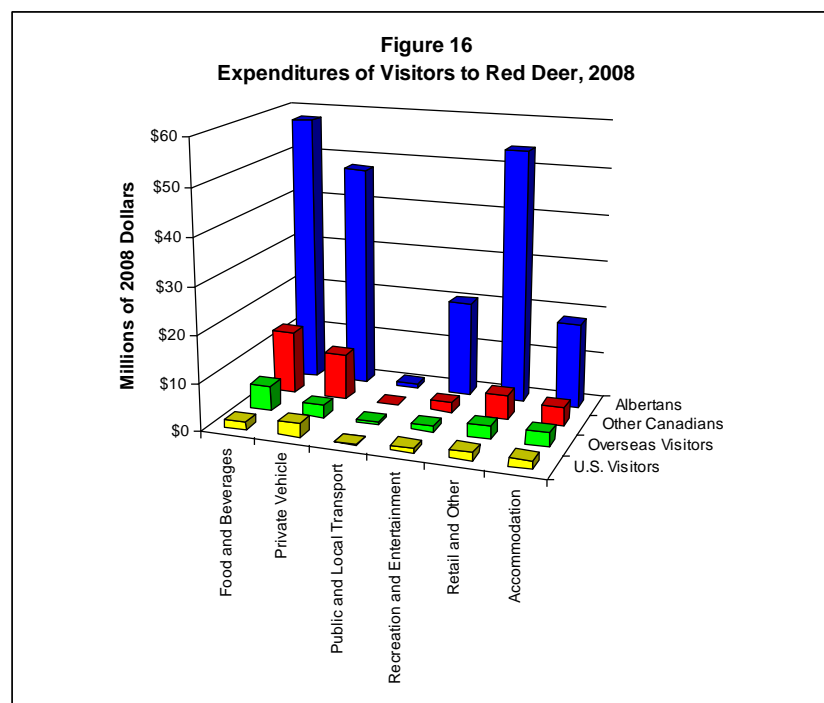
Visitors to the Region in 2008 spent substantial amounts on transportation, food and beverage, retail and entertainment. The total visitors' expenditures are estimated to have exceeded \$257.8 million in the Region in 2008 (see Table 7). The largest category of tourism related expenditure is on Food and Beverage with \$78.3 million, followed by retail expenditures with \$63.4 million and expenditures on private vehicles with \$63.3 million, then expenditures on accommodation and meals with \$27 million (Table 7 and Figure 16). The average per visitor expenditures is estimated to vary widely. It was the lowest per Albertan with \$109.8 and highest per overseas visitor with \$855. Other Canadian visitors to the Region spent per visitor over \$248 and US visitors average exceeded \$413 in 2008 (Table 7). Thus although 90% of the total visitors to the Region came from Alberta this group of visitors accounted for only 76% of the total tourism expenditures in the Region in 2008.

Table 7
Expenditures of Visitors to Red Deer by Origin of Visitor

(Thousands of 2008 Dollars)

	Albertans	Other Canadins	U.S. Visitors	Overseas Visitors	Total
Food and Beverages	\$57,648	\$13,597	\$1,620	\$5,387	\$78,253
Private Vehicle	\$47,593	\$9,925	\$2,990	\$2,643	\$63,151
Public and Local Transport	\$800	\$124	\$104	\$539	\$1,566
Recreation and Entertainment	\$20,263	\$2,114	\$923	\$1,197	\$24,497
Retail and Other	\$53,896	\$5,136	\$1,689	\$2,720	\$63,441
Accommodation	\$18,183	\$4,039	\$1,752	\$2,993	\$26,967
Total Trip Expenditures	\$198,382	\$34,935	\$9,079	\$15,479	\$257,875

Source: Statistics Canada, International Travel Survey, Travel Survey of Residents of Canada



This stream of tourism expenditures in the Region supports large and significant economic impacts that will be discussed following the section on economic impact methodology and the impact model.

Economic Impact Analysis and Methodology

A dollar spent by a tourist in Red Deer circulates and re-circulates within the economy, multiplying the effects of the original expenditures on overall economic activity. This process is referred to as the economic *multiplier effect*. It operates at several levels:

- The initial expenditures of the tourists on such items as accommodation and food are generally referred to as the direct costs of operation and their effects are referred to as the *initial (direct) effects*.
- Subsequent purchases by suppliers of materials and services to sustain the original and derivative expenditures are called the *indirect effects*.
- The *induced effects* emerge when workers in the sectors stimulated by initial and indirect expenditures spend their additional incomes on consumer goods and services.

Some of the key terms and definitions are presented below to assist the reader in interpreting the results of the economic impact analysis:

Initial expenditures – This figure indicates the amount of expenditures directly made by both Albertan and non-Albertan tourists. It is these expenditures that drive the results.

Value Added (Gross Domestic Product) – This figure represents net output generated by the initial expenditures in the province. It is typically the sum of wages, rent, interest and profits in addition to indirect business taxes and depreciation minus subsidies.

Employment – This refers to the total person years (full-time equivalent jobs) generated by the facility and its sustaining activities.

Taxes – The impact system generates a large number of taxes (income taxes, corporate profit tax, liquor and tobacco taxes, etc.) each of which is linked with the level of government receiving it. For example, the Federal government receives the proceeds from the GST, the Provincial government receives its share of personal income taxes and corporate profit taxes and the Local government receives both property and business taxes.

Imports – These represent the goods and services acquired from outside the province to sustain the expenditures of their visitors. They essentially represent leakages from the province.

Multipliers – These are summary measures that represent the division of the total impacts (direct, indirect and induced) by the initial expenditures. For example, the income multiplier associated with non-Albertan tourism expenditures is calculated by dividing the total income (value added) impact by the initial tourism expenditures. The only exception is that of the employment multiplier where total employment is divided by direct employment in order to preserve the common units.

If the economy is operating at full employment, additional expenditures will most likely reflect themselves in higher prices and wages as additional workers attracted to the site are drawn from other employment. Only if the economy is operating with excess capacity, with some unemployment and slack in critical sectors and there exists no apparent bottlenecks anywhere in the economy, is it possible to claim that the person-years associated with the activity expenditures represent additional or incremental employment. These are precisely the conditions that have prevailed in the study areas which allow us to claim that the economic impacts in this study are incremental impacts.

There is a general but unacceptable tendency on the part of economists generating impact measures to suspend concerns about alternative uses of funds or about the negative (substitution) effects associated with crowding out other expenditures. This is why the input data used here were specifically differentiated between the expenditures of residents typically assumed to represent a recirculation of money and those made by non-residents that are typically considered “new money” that is incremental to the economy. This distinction is probably too strong as some of the resident expenditures could easily be considered incremental as some of it represents import substitution. That is some of the resident expenditures could have been spent outside Alberta by the residents going elsewhere.

Economic impact analysis is a useful mathematical tool capable of quantifying the patterns and magnitudes of interdependence among sectors and activities. It is predicated on two fundamental propositions.

- First, regardless of the inherent value of primary activities such as recreation or tourism, to the extent that the activities involve the use of scarce resources they generate economic consequences that can be measured and compared.
- Second, economic impacts are only partially captured by assessing direct expenditures. In as much as the economy is a complex whole of interdependent and interacting activities, there are some significant indirect and induced impacts associated with these direct expenditures. Invariably most of the indirect and induced impacts are larger than the direct impacts.

The Economic Impact Model

The impact model used here is a special application of the most recent Demand Economic Impact Model for Alberta (DEIM: Alberta) developed by Econometric Research Limited for Alberta Tourism, Parks and Recreation. DEIM is a unique model that captures the economic impact of tourism expenditures at the provincial level. The model is based on a novel technology that integrates input-output analysis and location theory. The system is part of a family of DEIM systems that have already been applied to the study of The Economic Impact of Tourism in PEI, Banff and Canmore in Alberta and many other provinces and regions, The Economic Impact of Niagara Falls in Ontario and to many other tourism projects in Alberta, Ontario, PEI and Quebec.

The model utilizes a large set of economic and technical databases that are regularly published by Statistics Canada. A short list includes the inter-provincial input-output tables, employment by sector, taxes by type of tax and the level of government collecting it, prices of products, etc.

The Results

A large number of tourists (from outside Red Deer) visited Red Deer in 2008. The total number of person visits to Red Deer was estimated at 1,991,937 in 2008. The total person visits of non-Albertans exceeded 185,160 in the same year. They came from many locations outside the province, some stayed for a short while; others for a longer period and they spent differently but significantly on food and beverage, accommodation, souvenirs and transportation. The total gross expenditures of tourists (residents and nonresidents) exceeded \$257 million in the Region. The economic recession in the U.S., Canada and global economy that ensued in 2008 are not fully reflected in these figures.

The impact results are presented from three separate perspectives—Provincial, Regional and the City of Red Deer. Only a summary of the impact results will be discussed here. The presentation of results is organized as follows. We first present the economic impact of tourism expenditures organized by origin using the standard impact measures. We associate the incremental economic impacts with those arising from the expenditures of non-resident tourists which can be considered legitimately as new money in Red Deer. Residents of Red Deer tourism expenditures in the Region are treated as recirculation of money. This is on account of the general premise that residents who choose to spend their money on tourism in the Region may have changed the address of where they spend but not the origin of their disposable incomes. This may not necessarily be true as it is possible that these resident tourists could have elected to travel outside Red Deer or used their savings to spend on their travel.

Province Wide Impacts

A total of 3,395 person years (full time equivalents) of employment are sustained in Alberta by the total tourism expenditures in the Region in 2008 (see Table 8 and figures 17 and 18). This employment is sustained by a high volume of provincial sales that exceeded \$625 million province wide.

This volume of tourism expenditures is credited with supporting a permanent increase of Alberta Gross Provincial Income (GPI) of about \$274 million. This increase in income is split between wages and salaries and other property incomes. An increase in wages and salaries of about \$146 million is sustained in Alberta. The effective wages and salaries sustained by these expenditures are reasonable. The direct effective wage is over \$36,347 and the total effective wage is even higher at \$42,933. The fact that total effective wages are higher than direct effective wages is indicative of the typical high wages paid in tourism related sectors such as business services and manufacturing. All levels of government derive revenues on these impacts (Table 8).

All of the relevant multipliers compare favourably to average economy wide multipliers. The income multipliers of the visitors' expenditures are relatively high with an average income multiplier of 1.06 that is exceeded by the income multiplier (1.09) of overseas visitors' expenditures. The provincial economy, much as the national economy, has become increasingly more open and leakages from provincial and local economies have increased under globalization trends and free trade agreements. This explains why the typical income and employment multipliers have continuously decreased over time so that now even a slightly larger than one multiplier is considered to be relatively high (Table 8). The employment multiplier is also relatively high. The provincial employment multiplier is 2.37 suggesting that for every direct job generated by tourism expenditures more than 1.37 jobs were generated by the indirect and induced effects.

There are good reasons why tourism sustains relatively large impacts in the Province. First, the tourism industry is labour intensive. Second, typically tourism expenditures involve large expenditures in the very sectors that Alberta has comparative advantage in—food and oil. Third, it is a highly recurrent activity whose impacts can be considered to be sustainable and cumulative. These factors in combination explain the reasons why high multipliers were associated with these expenditures in the Province.

Table 8
Economic Impacts of Visitors to Red Deer
Province Wide
(Thousands of 2008 Dollars)

	Albertans	Other Canadians	U.S. Visitors	Overseas Visitors	Total
Initial Expenditure	\$198,382	\$34,935	\$9,079	\$15,479	\$257,875
Value Added					
Direct	\$67,546	\$10,957	\$3,109	\$5,841	\$87,453
Indirect & Induced	\$143,760	\$24,923	\$6,640	\$10,972	\$186,295
Total	\$211,306	\$35,880	\$9,749	\$16,813	\$273,748
Multiplier	1.07	1.03	1.07	1.09	1.06
Gross Output					
Direct	\$198,382	\$34,935	\$9,079	\$15,479	\$257,875
Indirect & Induced	\$282,709	\$50,202	\$12,614	\$22,564	\$368,089
Total	\$481,091	\$85,137	\$21,693	\$38,043	\$625,964
Multiplier	2.43	2.44	2.39	2.46	2.43
Wages & Salaries					
Direct	\$40,233	\$6,129	\$1,776	\$3,965	\$52,103
Indirect & Induced	\$72,234	\$12,071	\$3,226	\$6,132	\$93,663
Total	\$112,467	\$18,200	\$5,002	\$10,097	\$145,766
Employment					
Direct	1,116	161	54	104	1,434
Indirect & Induced	1,506	257	65	134	1,962
Total	2,622	418	119	237	3,395
Multiplier	2.35	2.60	2.21	2.29	2.37
Taxes					
Federal	\$48,506	\$8,072	\$2,226	\$3,988	\$62,792
Provincial	\$16,732	\$2,757	\$821	\$1,485	\$21,795
Local	\$5,747	\$947	\$282	\$510	\$7,486
Total	\$70,985	\$11,776	\$3,329	\$5,983	\$92,073
Imports					
From Other Provinces	\$22,349	\$3,805	\$982	\$1,949	\$29,085
From Other Countries	\$33,790	\$6,082	\$1,441	\$2,954	\$44,267
Total	\$56,139	\$9,887	\$2,423	\$4,903	\$73,352

Source: Econometric Research Limited

The comparative impacts are displayed in Figure 17 for the general indicators and Figure 18 for the comparative employment impacts. It is interesting to note that the indirect and induced impacts for provincial impacts are larger than the direct impacts for all expenditures regardless of their origin. The economic size and the degree of diversification of the provincial economy explain this differential phenomenon.

Figure 17
Province Wide Economic Impacts of Visitors to Red Deer

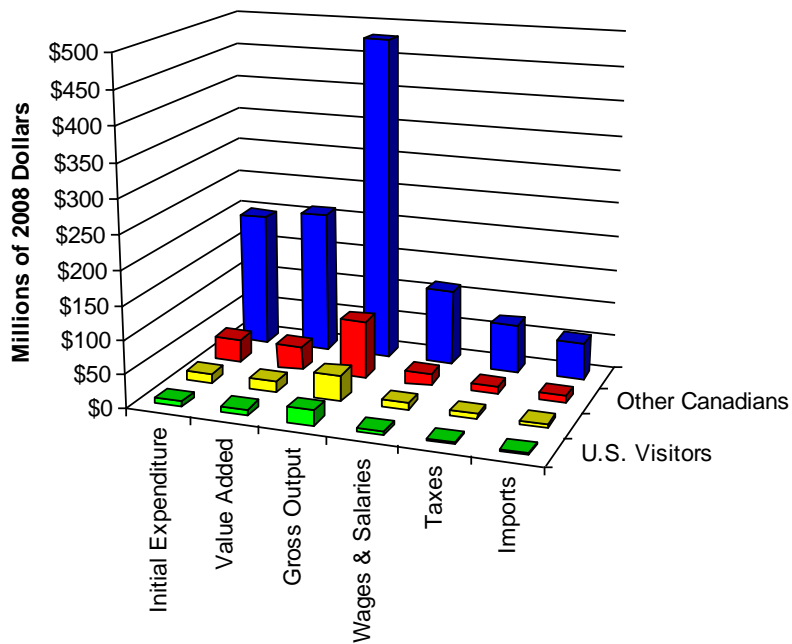
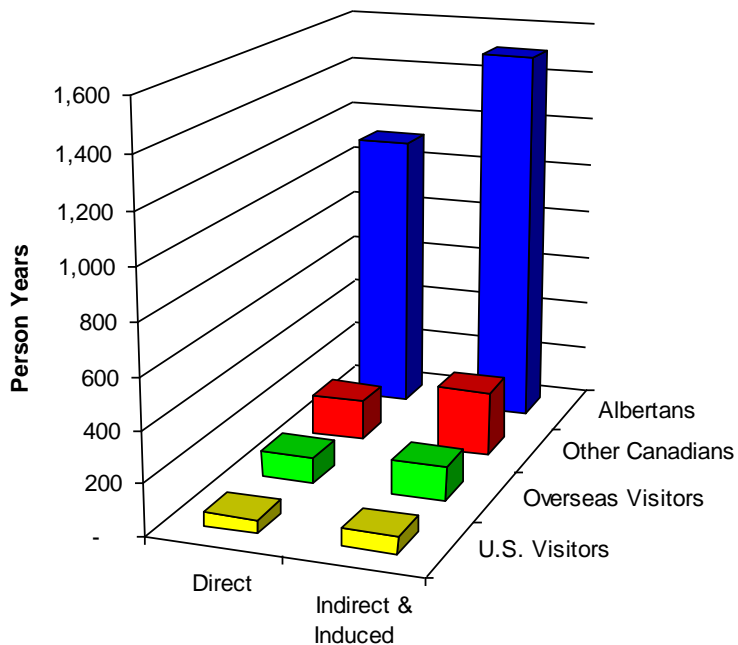


Figure 18
Province Wide Employment Impacts of Visitors to Red Deer



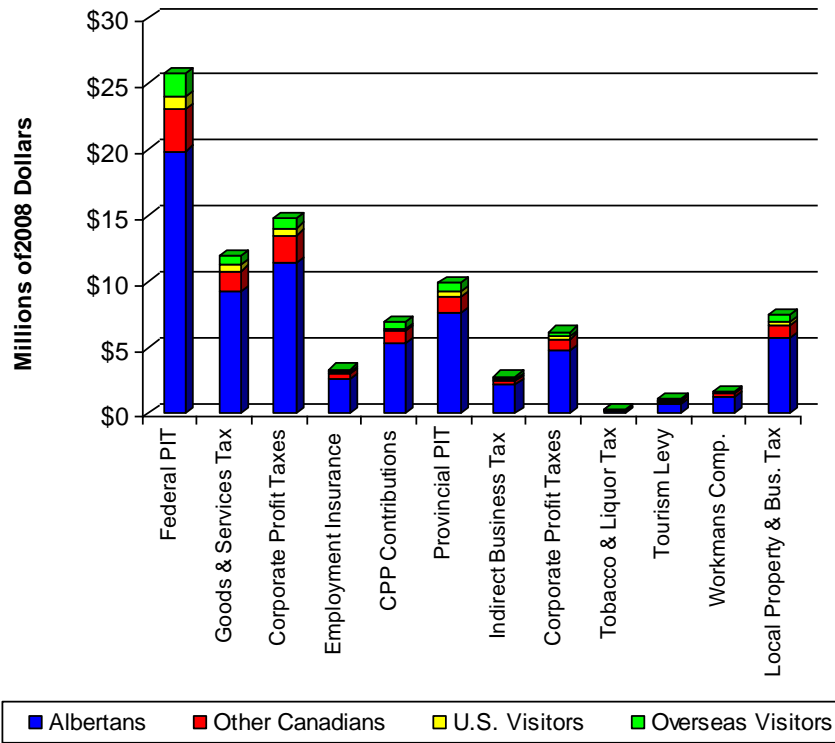
All levels of government benefited from the tourist expenditures' impacts in the Region of Red Deer in 2008. The total revenues of the three levels of government on the provincial impacts of these expenditures add up to \$92 million. The federal government share exceeded \$62.8 million, whereas the provincial government share was about \$21.8 million and about \$7.5 million was derived by local governments (Table 9). The largest share of federal government revenues on these expenditures were derived from the personal income taxes of \$25.8 million. Revenues from GST (\$12 million) and corporate profit taxes (\$14.8 million) also contributed significant shares of the remaining revenues. Revenues of the provincial and local governments vary. The largest contribution to provincial finance was made by Personal Income taxes which contributed over \$9.8 million in 2008. Corporate Profit Taxes and Indirect Business Taxes made up most of the remaining revenues. Local taxation is simply derived from property and business taxes. The tax revenue results in Table 9 are displayed graphically in Figure 19. The relative contributions of the different types of taxes for each government level are clearly revealed in this Figure.

Table 9
Tax Impacts of Visitors to Red Deer
Province Wide
(Thousands of 2008 Dollars)

	Albertans	Other Canadians	U.S. Visitors	Overseas Visitors	Total
Federal					
Personal Income Tax	\$19,878	\$3,217	\$884	\$1,786	\$25,765
Goods & Services Tax	\$9,275	\$1,528	\$441	\$714	\$11,958
Corporate Profit Taxes	\$11,452	\$2,048	\$550	\$778	\$14,828
Employment Insurance	\$2,568	\$416	\$114	\$231	\$3,329
CPP Contributions	\$5,333	\$863	\$237	\$479	\$6,912
Subtotal	\$48,506	\$8,072	\$2,226	\$3,988	\$62,792
Provincial					
Personal Income Tax	\$7,619	\$1,233	\$339	\$684	\$9,875
Indirect Business Tax	\$2,170	\$280	\$116	\$225	\$2,791
Corporate Profit Taxes	\$4,779	\$855	\$230	\$325	\$6,189
Tobacco & Liquor Tax	\$178	\$23	\$10	\$18	\$229
Tourism Levy	\$727	\$162	\$70	\$120	\$1,079
Workmans Comp.	\$1,259	\$204	\$56	\$113	\$1,632
Subtotal	\$16,732	\$2,757	\$821	\$1,485	\$21,795
Local					
Property & Bus. Tax	\$5,747	\$947	\$282	\$510	\$7,486
Subtotal	\$5,747	\$947	\$282	\$510	\$7,486
Total	\$70,985	\$11,776	\$3,329	\$5,983	\$92,073

Source: Econometric Research Limited

Figure 19
Province Wide Tax Impacts of Visitors to Red Deer



Impacts in the Red Deer Region

The economic impacts of the tourism expenditures in the region of Red Deer (inclusive of the City of Red Deer) are naturally smaller than those in the Province. The regional economy is smaller and less diversified and it is not surprising therefore for these impacts to be limited.

A total of 2,228 person years (full time equivalents) of employment are sustained in Alberta by the total tourism expenditures in the Region in 2008 (see Table 10 and figures 20 and 21). This employment is sustained by a high volume of regional sales that exceeded \$281.2 million.

This volume of tourism expenditures is credited with supporting a permanent increase in regional income of about \$124 million. This increase in income is split between wages and salaries and other property incomes (Table 10). An increase in wages and salaries of over \$80 million is sustained in the Region of Red Deer. The effective wages and salaries sustained by these expenditures in the Region are considered competitive and comparable to tourism wages in other Alberta regions. The direct effective wage was over \$36,347 but the total effective wage is slightly lower at \$36,004. Only the wages associated with overseas impacts show higher than average levels with a direct effective wage of \$38,235 and a total effective wage of \$40,570. All levels of government derive revenues on these regional impacts (Table 10).

The relevant multipliers are understandably considerably lower than the provincial multiplier. Again this is a reflection of the limited economic size of the region and its level of industrial diversification. The average income multipliers of the visitors' expenditures are around 0.48 with the exception of that associated with overseas visitors' expenditures. It is quite interesting to note that overseas visitors to the Region constituted the smallest group of visitors in 2008 but show the largest per visitor expenditures and the highest multipliers in the Region.

The employment multipliers associated with tourism expenditures by origin of visitors are relatively high. The average regional employment multiplier associated with tourism expenditures in the Region is 1.55, suggesting that for every direct job generated by tourism expenditures another half a job was generated by the indirect and induced effects.

There are good reasons why tourism sustains relatively large impacts in the Region. First, the tourism industry is labour intensive. Second, the regional economy is typically rural and agriculturally oriented which explains why procurement of large proportion of local inputs to sustain tourism related demands. Third, tourism is a highly recurrent activity. These factors in combination explain the reasons why large impacts were associated with these expenditures in the Region.

Table 10
Economic Impacts of Visitors to Red Deer
Red Deer Region
(Thousands of 2008 Dollars)

	Albertans	Other Canadians	U.S. Visitors	Overseas Visitors	Total
Initial Expenditure	\$198,382	\$34,935	\$9,079	\$15,479	\$257,875
Value Added					
Direct	\$67,546	\$10,957	\$3,109	\$5,841	\$87,453
Indirect & Induced	\$27,610	\$2,900	\$1,076	\$4,924	\$36,510
Total	\$95,156	\$13,857	\$4,185	\$10,765	\$123,963
Multiplier	0.48	0.40	0.46	0.70	0.48
Gross Output					
Direct	\$198,382	\$34,935	\$9,079	\$15,479	\$257,875
Indirect & Induced	\$13,717	\$2,416	\$257	\$6,958	\$23,348
Total	\$212,099	\$37,351	\$9,336	\$22,437	\$281,223
Multiplier	1.07	0.92	1.03	1.45	1.09
Wages & Salaries					
Direct	\$40,233	\$6,129	\$1,776	\$3,965	\$52,103
Indirect & Induced	\$21,468	\$2,612	\$935	\$3,082	\$28,097
Total	\$61,701	\$8,741	\$2,711	\$7,047	\$80,200
Employment					
Direct	1,116	161	54	104	1,434
Indirect & Induced	611	86	27	70	794
Total	1,726	247	81	174	2,228
Multiplier	1.55	1.54	1.50	1.68	1.55
Taxes					
Federal	\$23,476	\$3,369	\$1,035	\$2,662	\$30,542
Provincial	\$8,510	\$1,247	\$419	\$1,055	\$11,231
Local	\$2,923	\$428	\$144	\$362	\$3,857
Total	\$34,909	\$5,044	\$1,598	\$4,079	\$45,630
Imports					
From Other Provinces	\$11,259	\$1,665	\$497	\$1,210	\$14,631
From Other Countries	\$16,361	\$2,562	\$721	\$1,713	\$21,357
Total	\$27,620	\$4,227	\$1,218	\$2,923	\$35,988

Source: Econometric Research Limited

The comparative impacts are displayed in Figure 20 for the general indicators and Figure 21 for the comparative employment impacts. The direct effects are substantially larger than the indirect and induced effects which are exactly the converse of what was observed at the provincial level. This reversal of outcomes is the result of the large tourism expenditures made in the Region that need to be sustained by imports from outside the Region. These imports limit the indirect and induced impacts that could have been generated if the Region had the capacity to meet these demands.

Figure 20
Economic Impacts in Red Deer Region of Visitors' Expenditures

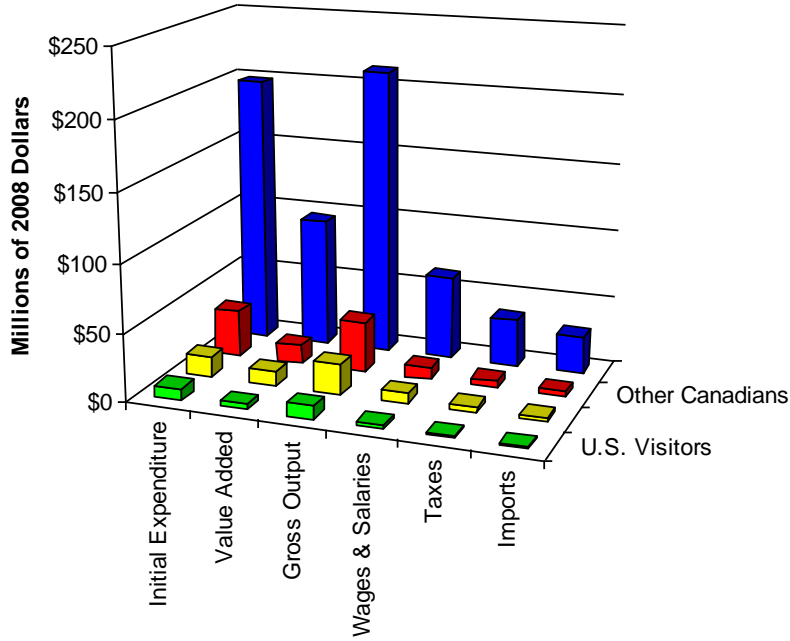
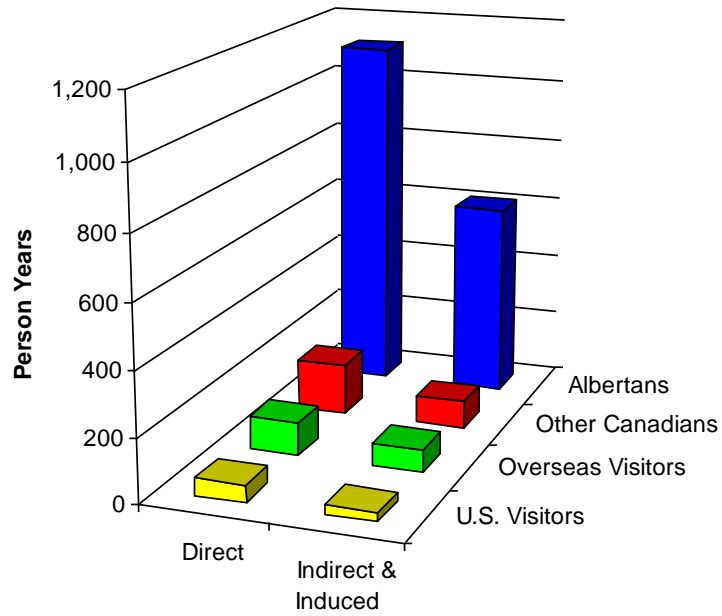


Figure 21
Employment Impacts in Red Deer Region of Visitors' Expenditures



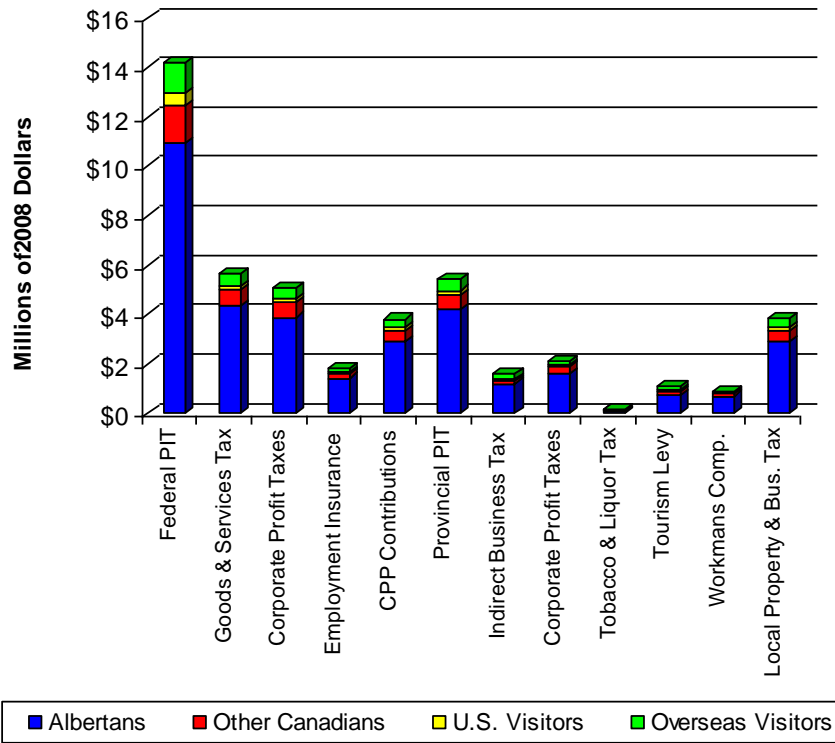
All levels of government benefit from tourist expenditures' impacts and this was the case for the Region of Red Deer in 2008. The total revenues of the three levels of government on the regional impacts of these expenditures add up to \$45.6 million. The federal government share exceeded \$30.5 million, whereas the provincial government share was about \$11.2 million and about \$3.9 million was derived by local governments in the Region (Table 11). The largest share of federal government revenues on these expenditures' impacts were derived again from the personal income taxes of \$14.2 million. Revenues from GST (\$5.7 million) and corporate profit taxes (\$5.1 million) also contributed significant shares of the remaining revenues. Revenues of the provincial and local governments vary. The largest contribution to provincial finance was made by Personal Income taxes which contributed over \$5.4 million in 2008. Corporate Profit Taxes and Indirect Business Taxes made up most of the remaining revenues. Local taxation is simply derived from property and business taxes. The tax revenue results in Table 11 are displayed graphically in Figure 22. The relative contributions of the different types of taxes for each government level are clearly revealed in Figure 22.

Table 11
Tax Impacts of Visitors to Red Deer
Red Deer Region
(Thousands of 2008 Dollars)

	Albertans	Other Canadians	U.S. Visitors	Overseas Visitors	Total
Federal					
Personal Income Tax	\$10,905	\$1,545	\$479	\$1,246	\$14,175
Goods & Services Tax	\$4,360	\$616	\$194	\$490	\$5,660
Corporate Profit Taxes	\$3,876	\$593	\$171	\$431	\$5,071
Employment Insurance	\$1,409	\$200	\$62	\$161	\$1,832
CPP Contributions	\$2,926	\$415	\$129	\$334	\$3,804
Subtotal	\$23,476	\$3,369	\$1,035	\$2,662	\$30,542
Provincial					
Personal Income Tax	\$4,180	\$592	\$184	\$477	\$5,433
Indirect Business Tax	\$1,196	\$137	\$59	\$184	\$1,576
Corporate Profit Taxes	\$1,618	\$247	\$71	\$180	\$2,116
Tobacco & Liquor Tax	\$98	\$11	\$5	\$15	\$129
Tourism Levy	\$727	\$162	\$70	\$120	\$1,079
Workmans Comp.	\$691	\$98	\$30	\$79	\$898
Subtotal	\$8,510	\$1,247	\$419	\$1,055	\$11,231
Local					
Property & Bus. Tax	\$2,923	\$428	\$144	\$362	\$3,857
Subtotal	\$2,923	\$428	\$144	\$362	\$3,857
Total	\$34,909	\$5,044	\$1,598	\$4,079	\$45,630

Source: Econometric Research Limited

Figure 22
Tax Impacts in Red Deer Region of Visitors' Expenditures



Impacts in the City of Red Deer

The economic impacts of the tourism expenditures in the City of Red Deer are the smaller than those in the Province or the Region. The City's economy is small and less diversified and it is not surprising therefore for these impacts are limited.

A total of 1,158 person years (full time equivalents) of employment are sustained in Alberta by the total tourism expenditures in the Region in 2008 (see Table 12 and figures 23 and 24). This employment is sustained by a high volume of regional sales that exceeded \$146.3 million.

This volume of tourism expenditures is credited with supporting a permanent increase in regional income of about \$64.5 million. This increase in income is split between wages and salaries and other property incomes (Table 12). An increase in wages and salaries of over \$41 million is sustained in the Region of Red Deer. The effective wages and salaries sustained by these expenditures in the Region are comparable to those in Region at large but slightly lower than those associated with tourism in Alberta. The direct effective wage was over \$36,339 but the total effective wage is slightly lower at \$36,035. Only the wages associated with the Overseas impacts show higher levels with the direct effective wage of \$38,093 and the total effective wage of \$40,622. All levels of government derive revenues on these City impacts (Table 12).

The relevant multipliers are considerably lower than the provincial and Regional multipliers. This is a logical consequence of the small economic size of the City and its specialized industrial structure. The average income multipliers of the visitors' expenditures are around 0.25 with the exception of that associated with overseas visitors' expenditures which stands at 0.36.

On the other hand, the City's employment multipliers are relatively high. The regional employment multiplier associated with tourism expenditures in the Region is 1.55, suggesting that for every direct job generated by tourism expenditures another half a job was generated by the indirect and induced effects.

The comparative impacts are displayed in Figure 23 for the general indicators and Figure 24 for the comparative employment impacts. The direct effects of the visitors' expenditures are even more substantially greater than the indirect and induced effects. Large volumes of imports are needed to sustain the demand of tourists in the City and these imports limit the indirect and induced impacts that could have been generated if the Region had the capacity to meet these demands.

Table 12
Economic Impacts of Visitors to Red Deer
City of Red Deer
(Thousands of 2008 Dollars)

	Albertans	Other Canadians	U.S. Visitors	Overseas Visitors	Total
Initial Expenditure	\$198,382	\$34,935	\$9,079	\$15,479	\$257,875
Value Added					
Direct	\$35,190	\$5,653	\$1,608	\$3,058	\$45,509
Indirect & Induced	\$14,384	\$1,496	\$557	\$2,578	\$19,015
Total	\$49,574	\$7,149	\$2,165	\$5,636	\$64,524
Multiplier	0.25	0.20	0.24	0.36	0.25
Gross Output					
Direct	\$103,352	\$18,023	\$4,697	\$8,103	\$134,175
Indirect & Induced	\$7,146	\$1,246	\$133	\$3,642	\$12,167
Total	\$110,498	\$19,269	\$4,830	\$11,745	\$146,342
Multiplier	0.56	0.55	0.53	0.76	0.57
Wages & Salaries					
Direct	\$20,969	\$3,162	\$921	\$2,057	\$27,109
Indirect & Induced	\$11,189	\$1,347	\$485	\$1,599	\$14,620
Total	\$32,158	\$4,509	\$1,406	\$3,656	\$41,729
Employment					
Direct	581	83	28	54	746
Indirect & Induced	318	44	14	36	412
Total	899	127	42	90	1,158
Multiplier	1.55	1.53	1.50	1.67	1.55
Taxes					
Federal	\$12,230	\$1,738	\$535	\$1,393	\$15,897
Provincial	\$4,433	\$643	\$217	\$552	\$5,846
Local	\$1,523	\$221	\$74	\$189	\$2,008
Total	\$18,187	\$2,602	\$827	\$2,135	\$23,751
Imports					
From Other Provinces	\$5,866	\$859	\$257	\$633	\$7,615
From Other Countries	\$8,524	\$1,322	\$373	\$897	\$11,116
Total	\$14,390	\$2,181	\$630	\$1,530	\$18,731

Source: Econometric Research Limited

Figure 23
Economic Impacts in Red Deer of Visitors' Expenditures

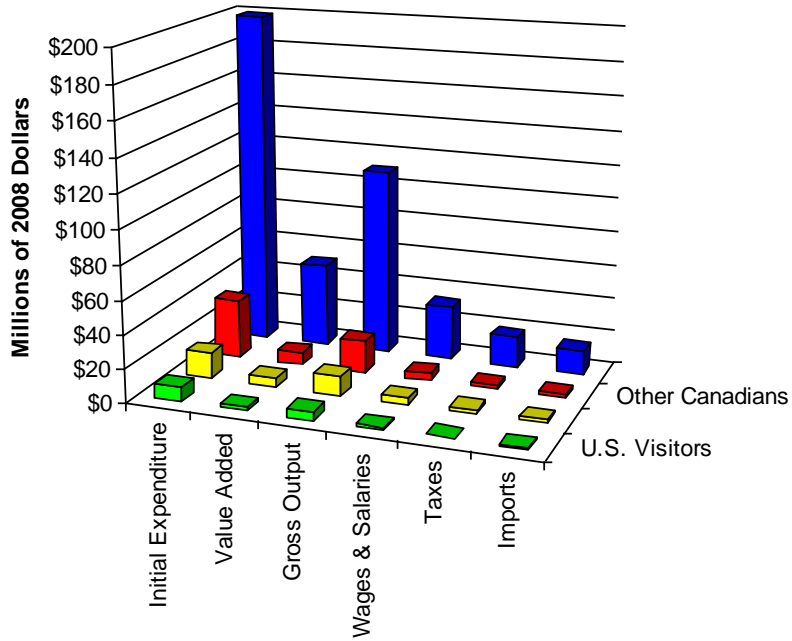
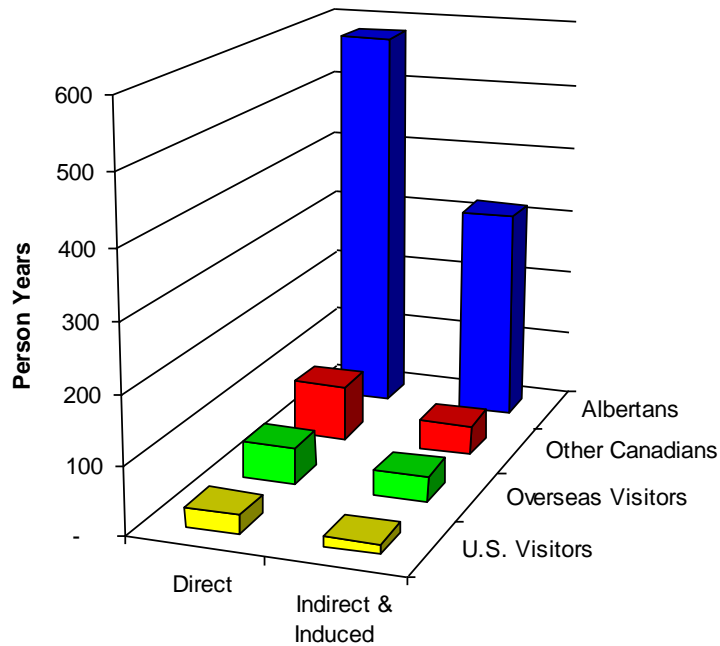


Figure 24
Province Wide Employment Impacts of Visitors' Expenditures



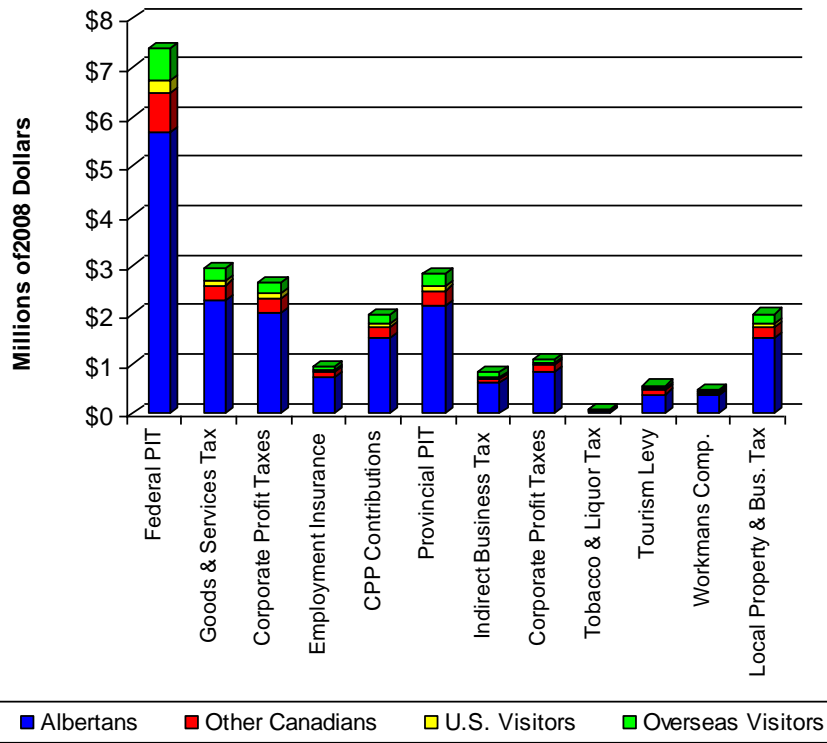
All levels of government benefit from the tourist expenditures' impacts in the City of Red Deer in 2008. The total revenues of the three levels of government on the City's impacts of these expenditures add up to \$23.8 million. The federal government share of about \$16 million, whereas the provincial government share was about \$6 million and over \$2 million was derived by local government in Red Deer (Table 13). The largest share of federal government revenues on these expenditures' impacts were derived again from the personal income taxes of \$7.4 million. Revenues from GST (\$2.9 million) and corporate profit taxes (\$2.6 million) also contributed significant shares of the remaining revenues. Revenues of the provincial and local governments vary. The largest contribution to provincial finance was made by Personal Income taxes which contributed over \$2.8 million in 2008. Corporate Profit Taxes (\$1.1 million) and Indirect Business Taxes (\$0.82 million) made up most of the remaining revenues. Local taxation is simply derived from property and business taxes. The tax revenue results in Table 13 are displayed graphically in Figure 25.

Table 13
Tax Impacts of Visitors to Red Deer
City of Red Deer
(Thousands of 2008 Dollars)

	Albertans	Other Canadians	U.S. Visitors	Overseas Visitors	Total
Federal					
Personal Income Tax	\$5,681	\$797	\$248	\$652	\$7,378
Goods & Services Tax	\$2,271	\$318	\$100	\$256	\$2,946
Corporate Profit Taxes	\$2,019	\$306	\$88	\$226	\$2,639
Employment Insurance	\$734	\$103	\$32	\$84	\$954
CPP Contributions	\$1,524	\$214	\$67	\$175	\$1,980
Subtotal	\$12,230	\$1,738	\$535	\$1,393	\$15,897
Provincial					
Personal Income Tax	\$2,178	\$305	\$95	\$250	\$2,828
Indirect Business Tax	\$623	\$71	\$31	\$96	\$821
Corporate Profit Taxes	\$843	\$127	\$37	\$94	\$1,101
Tobacco & Liquor Tax	\$51	\$6	\$3	\$8	\$67
Tourism Levy	\$379	\$84	\$36	\$63	\$561
Workmans Comp.	\$360	\$51	\$16	\$41	\$467
Subtotal	\$4,433	\$643	\$217	\$552	\$5,846
Local					
Property & Bus. Tax	\$1,523	\$221	\$74	\$189	\$2,008
Subtotal	\$1,523	\$221	\$74	\$189	\$2,008
Total	\$18,187	\$2,602	\$827	\$2,135	\$23,751

Source: Econometric Research Limited

Figure 25
Tax Impacts in Red Deer of Visitors' Expenditures



Limitations

The following outlines salient limitations imposed on the approach and findings of this analysis:

- An effort has been made to ensure that the estimates in the Report are made in a conservative manner to avoid overstating the results. A few outliers were eliminated from the survey.
- The survey results were estimated based on Statistics Canada International Travel Survey and Alberta Travel Survey. The sample results in the Region may not be large enough to give unbiased results.
- Benefits are not always easily expressed in monetary terms. For example, social and cultural benefits and costs from recreational activities or the preservation of the environment, habitat, and the protection of the environment are not easily measured. We have not estimated in monetary terms some of the social, cultural and aesthetic values associated with rural tourism. We simply did not present the many social and environmental impacts even in qualitative terms.
- The impact results are based on data compiled from a variety of sources including Statistics Canada and other Alberta government departments. They may not be strictly statistically reliable and are therefore subject to a margin of error.
- The model used is a simulation model and, as such, it creates a theoretical picture of the future of the economy on the basis of a series of assumptions, which may or may not hold true over time.

Summary and Conclusions

Tourism in the Region of Red Deer (Division 8) has not generally been recognized as a substantial economic resource that makes a major contribution to the regional, local and provincial economies economy. The summary of the salient results of this study suggest that the tourism impacts in the Region and City are significant, if not substantial.

- Visitors to the Region from Alberta accounted for 90% of the total visits but only 76% of the total tourism expenditures in 2008.
- The majority of tourists visiting the Region from all origins were adults only in 2008. In the case of visitors from Alberta, the adults' only group constituted 77% of the total visitors, whereas it was over 86% in the case of US visitors, 80% of Other Canadian visitors and only 67% of Overseas visitors.

- The majority of the visitors from Alberta were relatively old, 23% of the total Albertan visitors were in the age cohort 45-54 years
- A different age group composition is observed in the case of Other Canadian visitors to the Region in 2008 where the younger 25-34 age cohort accounted for 27% of these visitors.
- US visitors to the City and region were much younger than visitors from other origins. In the case of the US the age group 18-24 represented 34% of the total visitors in 2008.
- Overseas visitors tended to be older with the majority of the visitors were in the 45-54 age group in 2008.
- The majority of the Alberta and Other Canadian visitors to the Region and City of Red Deer and were affluent and in the upper brackets of the income distribution scale.
- The majority of Alberta visitors to Red Deer had some post-secondary education. In 2008, this group accounted for 37% of the total visitors. When those with university degrees and some post-secondary education are counted the total would rise to 57%.
- Visitors from other Canadian provinces were decidedly better educated than those from Alberta with over 78% of the total Other Canadians' visitors had some post-secondary and university education in 2008
- Visitors from Alberta spent more than \$198.4 million in direct tourism expenditures in the Region in 2008.
- Visitors from Other Canadian provinces spent \$35 million; US visitors spent only \$9 million, whereas Overseas visitors spent \$15.5 million in 2008.
- These direct tourism expenditures in Red Deer Region supported a permanent increase of Alberta Gross Provincial Income by about \$274 million, of which \$123 million were added in the Region and \$64 million in the City alone.
- Alberta wages and salaries were augmented by \$146 million and those in the Region by \$80 million by tourism expenditures in the Region in 2008. The share of the City of Red Deer in these impacts exceeded \$41.7 million.
- Over 3,395 Albertans owe their FTE jobs to these direct tourism expenditures in 2008, of which 2,228 were in the Region and about 1,158 in the City.
- The three levels of government collected over \$92 million on these Alberta wide impacts in 2008, with the federal government deriving the largest share of about

\$63 million, followed by the provincial government with over \$21.7 million and the local governments collectively collecting about \$7.5 million.