

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

*Canada's Wine Economy –
Ripe, Robust, Remarkable*

A Frank, Rimerman + Co. LLP Report
with special assistance from Rob Eyler,
Professor of Economics from Sonoma State University

March 2013

This study was commissioned by the

**Canadian Vintners Association
Winery and Grower Alliance of Ontario
British Columbia Wine Institute
Winery Association of Nova Scotia**

Frank, Rimerman + Co. LLP

The Wine Business Center, 899 Adams St., Suite E,
St. Helena, California 94574. (707) 963-9222

www.frankrimerman.com/businesses/business_management/wine_research.asp

TABLE OF CONTENTS

NATIONAL ECONOMIC IMPACT OVERVIEW	2
PROVINCIAL OVERVIEW.....	3
EXECUTIVE SUMMARY	4
CANADA.....	7
ONTARIO.....	12
BRITISH COLUMBIA.....	17
NOVA SCOTIA	22
QUÉBEC.....	26
METHODOLOGY	31
IMPLAN	33
ABOUT FRANK, RIMERMAN + CO. LLP	35

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

NATIONAL ECONOMIC IMPACT OVERVIEW - 2011

FULL ECONOMIC IMPACT OF CANADIAN WINE AND GRAPES

\$6.8 Billion

CANADIAN WINE GRAPES AND WINE	2011 NATIONAL ECONOMIC IMPACT
Total Winery Revenue*	\$1.15 billion
9L Equivalent Case Sales	18,344,000
Number of Wineries	476
Number of Grape Growers	1,329
Grape-Bearing Acres	27,524
Full-time Equivalent Jobs	31,370
Wages Paid	\$1.2 billion
Total Impact of Wine-Related Tourism**	\$1.2 billion
Number of Wine-Related Tourists	3.0 million
Taxes Paid: Federal, Provincial and Local	\$879 million
Provincial Liquor Board Markup Revenue	\$342 million

* represents total revenue earned by wineries for all activities and products

** represents total direct tourism-related revenue and wages plus indirect and induced revenue and wages generated by direct winery tourism

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

PROVINCIAL OVERVIEW

The following table highlights selected items from this report for each of the four provinces covered by this report. The national impacts and statistics include additional impacts and statistics for the remaining provinces.

	Ontario	British Columbia	Nova Scotia	Quebec
Full Economic Impact (\$'000)	3,338,197	2,011,060	196,286	804,685
Winery Revenue (\$'000)*	530,774	332,891	29,121	159,655
9L Equivalent Case Sales**	7,001,000	3,983,000	656,000	4,588,000
Number of Wineries	130	212	13	111
Number of Grape Growers	478	538	22	270
Grape Bearing Acres	15,074	9,867	518	2,013
Full Time Equivalent Jobs	14,374	10,323	854	4,535
Wages Paid (\$'000)	593,451	358,640	30,719	158,703
Total Tourism Impact (\$'000)***	643,798	476,428	34,132	63,707
Number of Wine-related Tourists	1,900,000	800,000	100,000	200,000
Taxes Generated (\$'000)	444,375	222,329	25,367	120,856
Liquor Board Markup (\$'000)	157,846	75,358	23,143	40,112

* represents total revenue earned by wineries for all activities and products

** represents estimated sales made by wineries based in each province (which includes sales made to other provinces and exported wines)

*** represents total direct tourism-related revenue and wages plus indirect and induced revenue and wages generated by direct winery tourism

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

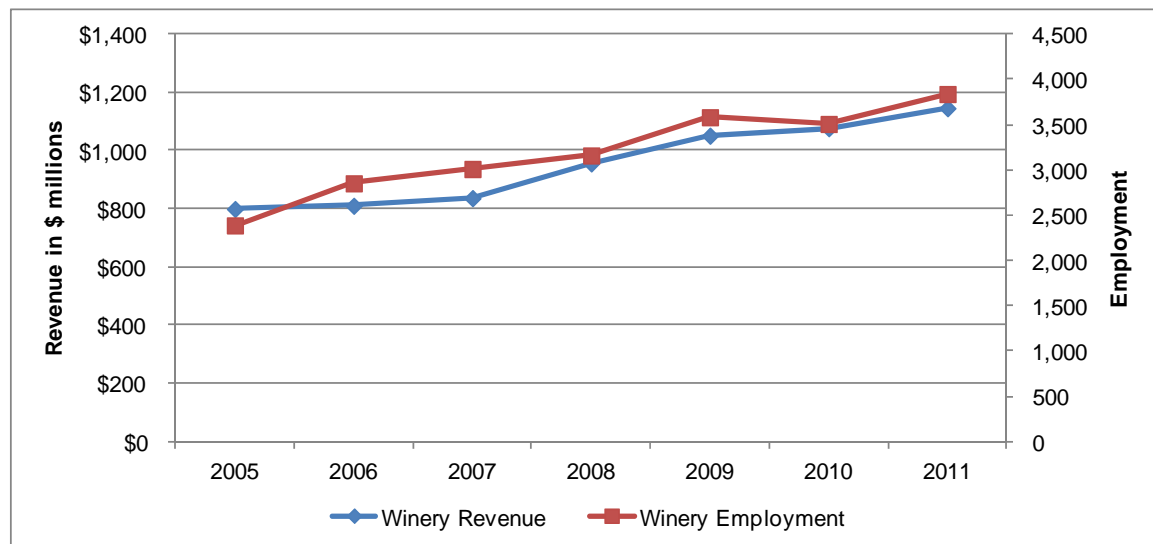
EXECUTIVE SUMMARY

CANADA

The Canadian wine and grape industry contributed to the Canadian economy business revenue of \$4.7 billion, tax revenues of \$879 million and wages of nearly \$1.2 billion, totaling \$6.8 billion of total economic impact. This includes \$1.04 billion of indirect revenue and \$1.09 billion of induced revenue in 2011. The Canadian wine and grape industry generates a total of 31,370 full-time equivalent direct, indirect and induced jobs. An average bottle of Canadian wine sold generates approximately \$21.36 of business revenue, \$3.99 of tax revenue and \$5.41 of wages.

The Canadian wine industry has a long history dating back to the nineteenth century. The province of Ontario has the largest production of wine grapes and wine with a majority of vineyards located on the Niagara Peninsula, Prince Edward County and the Essex Pelee Island Coast. British Columbia is the second largest province with many wine regions including the Okanagan and Fraser Valleys. Nova Scotia and Québec are both much smaller, but have growing wine regions as well. In addition to estimating the economic impact of the overall Canadian wine industry, this report also looks at the impact of these four major provinces.

The number of wineries in Canada grew from 374 in 2005 to 476 in 2011. The Canadian wine industry includes two large companies, Constellation Brands and Andrew Peller, Ltd., with a large portfolio of brands produced and sold across all provinces. Revenue from these two companies comprises a significant portion of total winery revenue in this report. Winery revenue and employment in Canada has maintained steady growth in recent years as noted in the table below.



Source: CANSIM and Frank, Rimerman + Co. LLP

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

In Canada, there are both national and provincial regulatory standards for the production of wine. Our report breaks out the economic impacts into 100% Canadian and International Canadian Blended (“ICB”) wine components. The 100% Canadian component includes all VQA wines (VQA is the appellation of origin system in Ontario and British Columbia), but may also include wines made from 100% Canadian agricultural product which are not classified as VQA wines. The ICB wines are those made with grapes from both Canada and other International countries.

Canadians enjoy over 1.1 billion glasses, or 220 million bottles, of Canadian wine each year. Of that amount, 201 million glasses were 100% Canadian wine and 900 million glasses were ICB wines.

We estimated that 100% Canadian wines contributed to the Canadian economy business revenue of \$2.56 billion, tax revenues of \$395 million and wages of \$727 million, totaling \$3.69 billion of overall economic impact. ICB wines contributed to the Canadian economy business revenue of \$2.14 billion, tax revenues of \$484 million and wages of \$464 million, totaling \$3.08 billion of overall economic impact.

ONTARIO

The Ontario wine and grape industry contributed to the Ontario economy business revenue of \$2.3 billion, tax revenues of \$444 million and wages of \$593 million, totaling \$3.34 billion of overall economic impact. The industry supports directly and indirectly 14,374 full-time equivalent jobs. Ontario wineries generated approximately seven million nine-litre equivalent case sales in 2011. Ontario is the largest wine producer of the Canadian provinces. Ontario produces a large volume of VQA wines and ICB wines, with ICB representing 73% of the volume of sales and VQA representing the remaining 27%. With 1.9 million annual visitors, the Ontario wine regions have developed a large and loyal tourist following, enhanced by the proximity of its major wine region to the popular worldwide tourist destination of Niagara Falls. The Niagara Peninsula accounts for more than 90% of Ontario's grape growing volume. Other significant wine regions include Prince Edward County and the Essex Pelee Island Coast.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

BRITISH COLUMBIA

The British Columbia wine and grape industry contributed to the British Columbia economy business revenue of \$1.43 billion, tax revenues of \$222.3 million and wages of \$359 million, totaling over \$2.01 billion of overall economic impact. The industry supports directly and indirectly 10,323 full-time equivalent jobs. British Columbia wineries generated nearly four million nine-litre equivalent case sales in 2011. Much like in Ontario, there is a strong focus on wines made from locally grown grapes in British Columbia. Wines produced in British Columbia carry the highest average bottle prices of any of the Canadian provinces. Estimated at 800 thousand annual visitors, wine tourism is significant and growing throughout British Columbia, particularly in the Okanagan Valley. Other major wine regions include Similkameen Valley, Fraser Valley, Vancouver Island and the Gulf Islands.

NOVA SCOTIA

The Nova Scotia wine and grape industry contributed to the Nova Scotia economy business revenue of \$140 million, tax revenues of \$25.4 million and wages of over \$30 million, totaling \$196.3 million of overall economic impact. The industry supports directly and indirectly 854 full-time equivalent jobs. Nova Scotia wineries generated approximately 650 thousand nine-litre equivalent case sales in 2011. Nova Scotia's soil and mesoclimates create an environment to produce high quality wine grapes, despite being situated in one of the cooler climate areas for grape vines. The Nova Scotia wine industry is made up of several small producers most of which produce fewer than 10,000 cases annually. Additionally, Andrew Peller produces a large amount of ICB wine in Nova Scotia.

QUÉBEC

The Québec wine and grape industry contributed to the Québec economy business revenue of \$525 million, tax revenues of \$120.9 million and wages of \$158.7 million, totaling \$804.7 million of overall economic impact. The industry supports directly and indirectly 4,535 full-time equivalent jobs. Québec wineries generated approximately 4.6 million nine-litre equivalent case sales in 2011. Wineries in Québec produce a large amount of wine in relation to its producing vineyard acreage as the vast majority of wine produced in Québec is ICB wine produced by large corporations. The remaining wineries in Québec represent small operations which produce 100% Canadian wine. Québec's wine tourism is currently relatively small but growing given its wine regions' proximity to heavily populated areas such as Montreal.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

CANADA

SUMMARY TABLE

	Canada Total		
	100% Canadian Wine	ICB Wine	Total
Revenue:			
Winery Revenue	\$ 471,936,000	673,735,000	1,145,671,000
Liquor Board Revenue (Markup)	98,009,000	243,637,000	341,646,000
Restaurant and Retail Revenue (Markup)	138,720,000	92,230,000	230,950,000
Wine Grape Sales	87,021,000	44,201,000	131,222,000
Tourism	475,934,000	-	475,934,000
Winery Suppliers	64,050,000	71,017,000	135,067,000
Vineyard Suppliers	37,179,000	21,416,000	58,595,000
Vineyard Development	5,543,000	2,439,000	7,982,000
Trucking/Warehousing	19,508,000	21,535,000	41,043,000
Wine Research/Education/Consulting	8,337,000	-	8,337,000
Tax Revenues - Federal	170,127,000	245,082,000	415,209,000
Tax Revenues - Provincial	224,956,000	238,574,000	463,530,000
Indirect (IMPLAN)	560,988,000	475,062,000	1,036,050,000
Induced (IMPLAN)	597,558,000	491,168,000	1,088,726,000
Total Revenue	\$ 2,959,866,000	2,620,096,000	5,579,962,000
Wages:			
Wineries	\$ 84,916,000	99,695,000	184,611,000
Liquor Boards	34,243,000	58,905,000	93,148,000
Restaurants and Retail stores	44,312,000	19,926,000	64,238,000
Vineyard	45,150,000	20,740,000	65,890,000
Tourism	189,204,000	-	189,204,000
Winery Suppliers	6,707,000	12,569,000	19,276,000
Vineyard Suppliers	2,588,000	1,331,000	3,919,000
Trucking/Warehousing	3,391,000	3,667,000	7,058,000
Wine Research/Education/Consulting	5,854,000	-	5,854,000
Indirect (IMPLAN)	162,698,000	140,006,000	302,704,000
Induced (IMPLAN)	147,581,000	107,466,000	255,047,000
Total Wages	\$ 726,644,000	464,305,000	1,190,949,000
Total Impact	\$ 3,686,510,000	3,084,401,000	6,770,911,000
Employment:			
Wineries	2,009	1,830	3,839
Liquor Boards	761	1,338	2,099
Restaurants and Retail stores	2,620	1,105	3,725
Vineyard	2,073	717	2,790
Tourism	5,520	-	5,520
Winery Suppliers	120	238	358
Vineyard Suppliers	55	26	81
Trucking/Warehousing	70	76	146
Research/Education/Consulting	139	-	139
Indirect (IMPLAN)	3,678	2,907	6,585
Induced (IMPLAN)	3,698	2,390	6,088
Total Employment	20,743	10,627	31,370

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

GRAPE PRODUCTION

In 2011, there were approximately 1,329 grape growers operating in Canada with a combined acreage of 27,524 grape-bearing acres (including wineries). Approximately 88,089 tonnes of grapes were produced in 2011 while wine grape sales totaled \$132.5 million, or an average of \$1,463 per tonne. We also estimated that approximately \$8.0 million in revenue was generated from vineyard development in Canada in 2011.

Most Canadian wineries and vineyards reported utilizing both full-time and seasonal vineyard employees for harvests and vineyard development as well as full-time positions for maintenance of grape-bearing acres and development of new vineyards yet to bear fruit. Based on surveys with wineries and vineyard owners and extrapolated based on the total provincial acreage and an estimated labor cost of \$2,400 per acre, there were 2,790 full-time equivalent workers employed in the vineyards in both a development and ongoing vineyard maintenance and development capacity for a total payroll of approximately \$65.9 million in 2011.

WINE SALES

In 2011, there were approximately 476 wineries in Canada that sold over 18.3 million nine-litre equivalent cases of wine. Total winery revenue representing wine sales, wine kit sales and non-wine revenue such as merchandise, events, etc. was nearly \$1.15 billion. Wine sales were made through several channels including direct-to-consumers, direct-to-trade and through liquor boards and exports. Supporting that winery revenue was a total of 3,839 winery employees with total wages of \$184.6 million.

A portion of the overall Canadian wine sales were from 100% Canadian wines, which represented over 3.3 million cases of Canadian wine sold in 2011. Winery revenue associated with sales of 100% Canadian wines was \$471.9 million. Supporting that winery revenue was a total of 2,009 winery employees with total wages of \$84.9 million.

The remaining portion of overall Canadian wine revenue related to ICB wines. These wines represented nearly 15 million cases of wine sold in Canada in 2011. Winery revenue associated with sales of ICB wines was \$673.7 million. Supporting that winery revenue was a total of 1,830 winery employees with total wages of \$99.7 million.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

In addition to the revenue generated directly by Canadian wineries there were also sales generated by each wine distribution channel. These represent the mark-up or margin each wine reseller generated on top of the wine sales from wineries through each respective distribution channel. Overall, \$572.6 million in additional revenue was generated by Liquor Control Boards, restaurants and retail stores in Canada from marking up the wine sold by Canadian wineries in 2011. \$303.1 million in excise and sales tax revenue was collected from the sale of Canadian wines. These additional profits and taxes were determined by using average channel mark-ups and tax rates provided by the Canadian Vintners Association (CVA), Liquor Boards and other provincial trade organizations.

TAXES

The wine and grape industry generates significant tax dollars, benefiting federal, provincial and local governments. Tax dollars are raised through sales taxes, excise taxes, income taxes, estate and gift taxes, payroll taxes, property taxes and other business taxes and fees. Canada's wine, grape and allied industries paid \$415.2 million in federal taxes and \$463.5 million in provincial and local taxes and in 2011, including nearly \$83.7 million in excise taxes.

Type of Tax	Total ('000s)
Federal Tax Revenues	
Excise	\$ 83,667
Income	201,737
Consumption and Other	129,804
Total Federal Tax Revenues	<u>\$ 415,208</u>
Provincial Tax Revenues	
Income	\$ 129,362
Consumption	236,380
Property	71,409
Payroll and Other	26,380
Total Provincial Tax Revenues	<u>\$ 463,531</u>
Total Tax Revenues	<u><u>\$ 878,739</u></u>

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

TOURISM

Tourism is a major factor in the overall Canadian wine and grape industry's impact on the economy. Canada wine industry tourism generated \$475.9 million in direct revenue for the broader Canadian economy in 2011. We estimate approximately three million tourists visited Canadian wineries in 2011. Supporting these winery visitors is a diverse tourism labor force of approximately 5,520 employees with total wages of roughly \$189.2 million. An additional \$438.7 million of indirect and induced revenue and \$114.3 million of indirect and induced wages were generated as a result of wine industry tourism. The entire impact of winery tourism was applied to 100% Canadian wines as the primary focus of winery tourism is VQA and 100% Canadian wines. As a result, we did not attribute any tourism impact to ICB wines.

WINERY AND VINEYARD SUPPLIERS

There are a number of suppliers or distributors of winemaking equipment, supplies and services throughout the Canadian wine regions. Many different types of small businesses exist all over Canada that supply the wine and grape industry as a portion of their overall business. Furthermore, many large multi-national winery supply companies have sales offices in Canada. Some of the winery supply companies include bottles/glass, capsules/closures, chemicals, labels, cooperage and cartons producers. As the Canadian wine industry continues to grow, so will the number of ancillary businesses that supply the industry.

Our research and discussions with several winemaking suppliers in Canada indicated that there were 358 full-time employees focused on the wine industry in Canada in 2011. Total winery supplier revenue in 2011 was \$135.1 million while wages accounted for \$19.3 million. Supplier revenue and wage data were allocated to 100% Canadian wine and ICB wine based on percentage of wine sales dollars.

We also spoke with several trucking, shipping and warehousing suppliers in Canada. Our research indicated that there were an additional 146 employees working for these suppliers focused on the wine and grape industry in Canada. Total wine-related trucking, shipping and warehousing revenue was \$41.0 million in Canada in 2011 while wages accounted for \$7.1 million. Similar to the other winery suppliers, the allocation to 100% Canadian wine and ICB wine was made based on percentage of wine sales dollars.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

As part of our surveys with wineries and vineyards in Canada, we determined there were several vineyard supply companies supplying the country's wine and grape industry. These include companies selling vines, trellises, vineyard equipment, vineyard consulting services and the like. We estimate there were 81 full-time equivalent employees working at these vineyard suppliers in Canada in 2011. Revenue generated from these suppliers was \$58.6 million while wages were \$3.9 million. These amounts were allocated to 100% Canadian wine and ICB wine based on the portion of vineyard tonnage used in 100% Canadian wine versus ICB wine.

EDUCATION AND RESEARCH

We also spoke with a number of research and educational institutions in Canada that focus on or provide some wine- or vineyard-related education, consulting or research. Based on our discussions, we learned that there was roughly \$8.3 million in funding or grant revenue for wine and vineyard focused research and educational activities in 2011. With a total of 139 full-time equivalent employees and wages totaling \$5.9 million, the Canadian wine and grape industries have a significant resource to help improve crop and product quality.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

ONTARIO

SUMMARY TABLE

	Ontario		
	100% Canadian Wine	ICB Wine	Total
Revenue:			
Winery Revenue	\$ 239,197,000	291,577,000	530,774,000
Liquor Board Revenue (Markup)	69,855,000	87,991,000	157,846,000
Restaurant and Retail Revenue (Markup)	58,318,000	18,886,000	77,204,000
Wine Grape Sales	38,700,000	38,700,000	77,400,000
Tourism	248,195,000	-	248,195,000
Winery Suppliers	37,223,000	38,760,000	75,983,000
Vineyard Suppliers	19,721,000	19,721,000	39,442,000
Vineyard Development	2,103,000	2,103,000	4,206,000
Trucking/Warehousing	7,108,000	7,401,000	14,509,000
Wine Research/Education/Consulting	5,452,000	-	5,452,000
Tax Revenues - Federal	91,754,000	100,598,000	192,352,000
Tax Revenues - Provincial	129,601,000	122,422,000	252,023,000
Indirect (IMPLAN)	305,937,000	219,012,000	524,949,000
Induced (IMPLAN)	319,368,000	225,043,000	544,411,000
Total Revenue	\$ 1,572,532,000	1,172,214,000	2,744,746,000
Wages:			
Wineries	\$ 49,906,000	56,974,000	106,880,000
Liquor Boards	8,242,000	5,986,000	14,228,000
Restaurants and Retail stores	17,605,000	5,620,000	23,225,000
Vineyard	18,044,000	18,043,000	36,087,000
Tourism	100,228,000	-	100,228,000
Winery Suppliers	4,768,000	4,964,000	9,732,000
Vineyard Suppliers	1,179,000	1,178,000	2,357,000
Trucking/Warehousing	608,000	634,000	1,242,000
Wine Research/Education/Consulting	3,442,000	-	3,442,000
Indirect (IMPLAN)	90,866,000	70,001,000	160,867,000
Induced (IMPLAN)	79,506,000	55,657,000	135,163,000
Total Wages	\$ 374,394,000	219,057,000	593,451,000
Total Impact	\$ 1,946,926,000	1,391,271,000	3,338,197,000
Employment:			
Wineries	1,123	1,146	2,269
Liquor Boards	181	131	312
Restaurants and Retail stores	1,078	343	1,421
Vineyard	596	597	1,193
Tourism	2,864	-	2,864
Winery Suppliers	84	88	172
Vineyard Suppliers	22	22	44
Trucking/Warehousing	13	13	26
Research/Education/Consulting	78	-	78
Indirect (IMPLAN)	1,909	1,234	3,143
Induced (IMPLAN)	2,033	819	2,852
Total Employment	9,981	4,393	14,374

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

OVERALL ECONOMIC IMPACT

The Ontario wine and grape industry contributed to the Ontario economy business revenue of \$2.3 billion, tax revenues of \$444 million, and wages of \$593 million, totaling \$3.34 billion of overall economic impact. This includes \$525 million of indirect revenue and \$544 million of induced revenue. An average bottle of Ontario wine sold generates \$27.38 of business revenue, \$5.29 of tax revenue and \$7.06 of wages.

GRAPE PRODUCTION

In 2011, there were approximately 478 grape growers operating in Ontario with a combined acreage of 15,074 grape-bearing acres (including wineries). Approximately 62,028 tonnes of grapes were produced in 2011 while wine grape sales totaled \$77.4 million, or an average of \$1,248 per tonne. We also estimated that approximately \$4.2 million in revenue was generated from vineyard development in Ontario in 2011. Ontario is the largest wine grape producing province in Canada, in terms of acreage, tonnage and wine grape sales. Based on our surveys of wineries and vineyards, average vineyard maintenance costs were roughly \$4,000 per acre annually.

Most Ontario wineries and vineyards reported utilizing both full-time and seasonal vineyard employees for harvests and vineyard development as well as full-time positions for maintenance of grape-bearing acres and development of new vineyards yet to bear fruit. Based on surveys with wineries and vineyard owners and extrapolated based on the total provincial acreage and an estimated labor cost of \$2,400 per acre, there were 1,193 full-time equivalent workers employed in the vineyards in both a development and ongoing vineyard maintenance and development capacity for a total payroll of approximately \$36.1 million in 2011. Since approximately half of annual vineyard tonnage supplies grapes for 100% Canadian wine and half goes into ICB wine, we attributed half of these amounts (596 full-time equivalent workers representing \$18.0 million in wages) to both 100% Canadian wine and ICB wine.

WINE SALES

In 2011, there were over 130 wineries in Ontario that sold over 7.0 million nine-litre equivalent cases of wine. Total winery revenue representing wine sales, wine kit sales and non-wine revenue such as merchandise, events, etc. was \$530.8 million. Wine sales were made through several channels including direct-to-consumers, direct-to-trade and through liquor boards and exports. Supporting that winery revenue was a total of 2,269 winery employees with total wages of \$106.9 million.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

A portion of the overall Ontario wine sales were from 100% Canadian wines, which represented nearly 1.9 million cases of Ontario wine sold in 2011. Winery revenue associated with sales of 100% Canadian wines was \$239.2 million. Supporting that winery revenue was a total of 1,123 winery employees with total wages of \$49.9 million. The remaining portion of overall Ontario wine revenue related to ICB wines, which represented over 5.1 million cases of wine sold in Ontario in 2011. Winery revenue associated with sales of ICB wines was \$291.6 million. Supporting that winery revenue was a total of 1,146 winery employees with total wages of \$57.0 million.

In addition to the revenue generated directly by Ontario wineries there were sales generated by each wine distribution channel. These represent the mark-up or margin each wine reseller generated on top of the wine sales from wineries through each respective distribution channel. Overall, \$235 million in additional revenue was generated by the Liquor Control Board of Ontario (LCBO), restaurants and retail stores in Ontario from marking up the wine sold by Ontario wineries in 2011. \$155.5 million in excise and sales tax revenue was collected from the sale of Ontario wines. These additional profits and taxes were determined by using average channel mark-ups and tax rates provided by the LCBO.

TAXES

The wine and grape industry generates significant tax dollars, benefiting federal, provincial and local governments. Tax dollars are raised through sales taxes, excise taxes, income taxes, estate and gift taxes, payroll taxes, property taxes and other business taxes and fees. Ontario's wine, grape and allied industries paid \$192.3 million in federal taxes and \$252.0 million in provincial and local taxes and in 2011, including over \$28.5 million in excise taxes.

Type of Tax	Total ('000s)
Federal Tax Revenues	
Excise	\$ 28,519
Income	101,247
Consumption and Other	62,586
Total Federal Tax Revenues	<u>\$ 192,352</u>
Provincial Tax Revenues	
Income	\$ 64,923
Consumption	138,022
Property	35,838
Payroll and Other	13,240
Total Provincial Tax Revenues	<u>\$ 252,023</u>
Total Tax Revenues	<u><u>\$ 444,375</u></u>

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

TOURISM

Tourism is a major factor in the overall Canadian and Ontario wine and grape industry's overall impact on the economy. Ontario wine industry tourism generated \$248.2 million in revenue for the broader Ontario economy in 2011. Our survey of Ontario wineries estimates that approximately 1.9 million tourists visited Ontario wineries in 2011, consistent with an estimate made by Wine Country Ontario. Supporting these winery visitors is a diverse tourism labor force of approximately 2,864 employees with total wages of roughly \$100.2 million. An additional \$234.7 million of indirect and induced revenue and \$60.7 million of indirect and induced wages were generated as a result of wine industry tourism. The entire impact of winery tourism was applied to 100% Canadian wines as the primary focus of winery tourism is 100% Canadian and VQA wines. As a result, we did not attribute any tourism impact to ICB wines.

WINERY AND VINEYARD SUPPLIERS

There are a number of suppliers or distributors of winemaking equipment, supplies and services in Ontario. Many different types of small businesses exist in Ontario (and all over Canada) that supply the wine and grape industry as a portion of their overall business. Furthermore, many large multi-national winery supply companies have sales offices in Canada. Some of the winery supply companies include bottles/glass, capsules/closures, chemicals, labels, cooperage and cartons producers. As the Ontario and Canadian wine industry continues to grow, so will the number of ancillary businesses that supply the industry.

Our research and discussions with several winemaking suppliers in the province indicated that there were 172 full-time equivalent employees focused on the wine industry in Ontario in 2011. Total winery supplier revenue in 2011 was \$76.0 million while wages accounted for \$9.7 million. Supplier revenue and wage data were allocated to 100% Canadian wine and ICB wine based on percentage of wine sales dollars.

We also spoke with several trucking, shipping and warehousing suppliers in Ontario. Our research indicated that there were an additional 26 employees working for these suppliers focused on the wine and grape industry in Ontario. Total wine-related trucking, shipping and warehousing revenue was \$14.5 million in Ontario in 2011 while wages accounted for \$1.2 million. Similar to the other winery suppliers, the allocation to 100% Canadian wine and ICB wine was made based on percentage of wine sales dollars.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

As part of our surveys with wineries and vineyards in Ontario, we determined there were several vineyard supply companies supplying the province's grape industry. These include companies selling vines, trellises, vineyard equipment, vineyard consulting services and the like. We estimate there were 44 full-time equivalent employees working at these vineyard suppliers in Ontario in 2011. Revenue generated from the suppliers was \$39.4 million while wages were \$2.4 million. These amounts were allocated to 100% Canadian wine and ICB wine based on the portion of vineyard tonnage used in 100% Canadian wine versus ICB wine.

EDUCATION AND RESEARCH

We also spoke with a number of research and educational institutions in Ontario that focus on or provide some wine- or vineyard-related education, consulting or research. Based on our discussions, we learned that there was roughly \$5.5 million in funding or grant revenue for wine and vineyard focused research and educational activities. With a total of 78 full-time equivalent employees and wages totaling \$3.4 million, the Ontario wine and grape industries have a significant resource to help improve crop and product quality.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

BRITISH COLUMBIA

SUMMARY TABLE

	British Columbia		
	100% Canadian Wine	ICB Wine	Total
Revenue:			
Winery Revenue	\$ 175,452,000	157,439,000	332,891,000
Liquor Board Revenue (Markup)	18,885,000	56,473,000	75,358,000
Restaurant and Retail Revenue (Markup)	70,150,000	25,302,000	95,452,000
Wine Grape Sales	43,554,000	5,383,000	48,937,000
Tourism	187,564,000	-	187,564,000
Winery Suppliers	23,332,000	16,137,000	39,469,000
Vineyard Suppliers	13,328,000	1,648,000	14,976,000
Vineyard Development	2,370,000	293,000	2,663,000
Trucking/Warehousing	10,106,000	6,991,000	17,097,000
Wine Research/Education/Consulting	1,385,000	-	1,385,000
Tax Revenues - Federal	61,861,000	47,487,000	109,348,000
Tax Revenues - Provincial	74,696,000	38,285,000	112,981,000
Indirect (IMPLAN)	201,758,000	83,444,000	285,202,000
Induced (IMPLAN)	224,514,000	104,583,000	329,097,000
Total Revenue	\$ 1,108,955,000	543,465,000	1,652,420,000
Wages:			
Wineries	\$ 19,290,000	26,860,000	46,150,000
Liquor Boards	6,687,000	6,406,000	13,093,000
Restaurants and Retail stores	23,422,000	6,688,000	30,110,000
Vineyard	21,022,000	2,598,000	23,620,000
Tourism	75,714,000	-	75,714,000
Winery Suppliers	656,000	454,000	1,110,000
Vineyard Suppliers	1,201,000	149,000	1,350,000
Trucking/Warehousing	2,458,000	1,700,000	4,158,000
Wine Research/Education/Consulting	1,215,000	-	1,215,000
Indirect (IMPLAN)	57,515,000	24,010,000	81,525,000
Induced (IMPLAN)	54,924,000	25,671,000	80,595,000
Total Wages	\$ 264,104,000	94,536,000	358,640,000
Total Impact	\$ 1,373,059,000	638,001,000	2,011,060,000
Employment:			
Wineries	481	461	942
Liquor Boards	147	140	287
Restaurants and Retail stores	1,356	377	1,733
Vineyard	905	112	1,017
Tourism	2,180	-	2,180
Winery Suppliers	13	9	22
Vineyard Suppliers	28	4	32
Trucking/Warehousing	51	35	86
Research/Education/Consulting	27	-	27
Indirect (IMPLAN)	1,430	560	1,990
Induced (IMPLAN)	1,369	638	2,007
Total Employment	7,987	2,336	10,323

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

OVERALL ECONOMIC IMPACT

The British Columbia wine and grape industry contributed to the British Columbia economy business revenue of \$1.43 billion, tax revenues of \$222.3 million, and wages of \$359 million, totaling over \$2.01 billion of overall economic impact. This includes \$285 million of indirect revenue and \$329 million of induced revenue. An average bottle of wine produced in British Columbia generates \$29.92 of business revenue, \$4.65 of tax revenue and \$7.50 of wages.

GRAPE PRODUCTION

In 2011, there were approximately 538 grape growers operating in British Columbia with a combined acreage of 9,867 grape-bearing acres (including wineries). Approximately 22,723 tonnes of grapes were produced in 2011 while wine grape sales totaled \$48.9 million, or an average of \$2,154 per tonne. We also estimated that approximately \$2.7 million in revenue was generated from vineyard development in British Columbia in 2011. British Columbia is the second largest wine grape producing province in Canada next to Ontario in terms of acreage, tonnage and wine grape sales. Based on our surveys of wineries and vineyards, average vineyard maintenance costs were roughly \$4,500 per acre annually.

Most British Columbia wineries and vineyards reported utilizing both full-time and seasonal vineyard employees for harvests and vineyard development as well as full-time positions for maintenance of grape-bearing acres and development of new vineyards yet to bear fruit. Based on surveys with wineries and vineyard owners and extrapolated based on the total provincial acreage and an estimated labor cost of \$2,400 per acre, there were 1,017 full-time equivalent workers employed in the vineyards in both a development and ongoing vineyard maintenance and development capacity for a total payroll of approximately \$23.6 million in 2011. Since approximately 89% of annual vineyard tonnage supplies grapes for 100% Canadian wine and the remainder goes into ICB wine, we attributed jobs and wages to 100% Canadian wine and ICB wine based on this ratio.

WINE SALES

In 2011, there were 212 wineries in British Columbia that sold nearly 4.0 million nine-litre equivalent cases of wine. Total winery revenue representing wine sales, wine kit sales and non-wine revenue such as merchandise, events, etc. was \$332.9 million. Wine sales were made through several channels including direct-to-consumers, direct-to-trade and through liquor boards and exports. Supporting that winery revenue was a total of 942 winery employees with total wages of nearly \$46.2 million.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

A portion of the overall British Columbia wine sales were from 100% Canadian wines, which represented 1.047 million cases of British Columbia wine sold in 2011. Winery revenue associated with sales of 100% Canadian wines was \$175.5 million. Supporting that winery revenue was a total of 481 winery employees with total wages of \$19.3 million. The remaining portion of overall British Columbia wine revenue related to ICB wines, which represented over 4.1 million cases of wine sold in British Columbia in 2011. Winery revenue associated with sales of ICB wines was \$157.4 million. Supporting that winery revenue was a total of 461 winery employees with total wages of \$26.9 million.

In addition to the revenue generated directly by British Columbia wineries there were sales generated by each wine distribution channel. These represent the mark-up or margin each wine reseller generated on top of the wine sales from wineries through each respective distribution channel. Overall, \$171 million in additional revenue was generated by the British Columbia Liquor Distribution Branch (BCLDB), restaurants and retail stores in British Columbia from marking up the wine sold by British Columbia wineries in 2011. \$56.4 million in excise and sales tax revenue was collected from the sale of British Columbia wines. These additional profits and taxes were determined by using average channel mark-ups and tax rates provided by the CVA and BCLDB.

TAXES

The wine and grape industry generates significant tax dollars, benefiting federal, provincial and local governments. Tax dollars are raised through sales taxes, excise taxes, income taxes, estate and gift taxes, payroll taxes, property taxes and other business taxes and fees. British Columbia's wine, grape and allied industries paid \$109.3 million in federal taxes and \$113.0 million in provincial and local taxes and in 2011, including nearly \$16.4 million in excise taxes.

Type of Tax	Total ('000s)
Federal Tax Revenues	
Excise	\$ 16,388
Income	58,161
Consumption and Other	34,799
Total Federal Tax Revenues	<u>\$ 109,348</u>
Provincial Tax Revenues	
Income	\$ 37,295
Consumption	47,492
Property	20,587
Payroll and Other	7,607
Total Provincial Tax Revenues	<u>\$ 112,981</u>
Total Tax Revenues	<u><u>\$ 222,329</u></u>

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

TOURISM

Tourism is a major factor in the overall Canadian and British Columbia wine and grape industry's overall impact on the economy. British Columbia wine industry tourism generated \$187.6 million in revenue for the broader British Columbia economy in 2011. Our survey of British Columbia wineries estimates that approximately 800 thousand tourists visited British Columbia wineries in 2011. Supporting these winery visitors is a diverse tourism labor force of approximately 2,180 employees with total wages of roughly \$75.7 million. An additional \$168.4 million of indirect and induced revenue and \$44.7 million of indirect and induced wages were generated as a result of wine industry tourism. The entire impact of winery tourism was applied to 100% Canadian wines as the primary focus of winery tourism is 100% Canadian and VQA wines. As a result, we did not attribute any tourism impact to ICB wines.

WINERY AND VINEYARD SUPPLIERS

Similar to Ontario, there are a number of suppliers or distributors of winemaking equipment, supplies and services in British Columbia. Many different types of small businesses exist in British Columbia (and all over Canada) that supply the wine and wine industry as a portion of their overall business. Furthermore, many large multi-national winery supply companies have sales offices in Canada. Our research and discussions with several winemaking suppliers in the province indicated that there were 22 full-time equivalent employees focused on the wine industry in British Columbia in 2011. Total winery supplier revenue in 2011 was \$39.5 million while wages accounted for \$1.1 million. Supplier revenue and employee wages were allocated to 100% Canadian wine and ICB wine based on percentage of wine sales dollars.

We also spoke with several trucking, shipping and warehousing suppliers in British Columbia. Our research indicated that there were an additional 86 employees working for these suppliers focused on the wine and grape industry in British Columbia. Total wine-related trucking, shipping and warehousing revenue was \$17.1 million in British Columbia in 2011 while wages accounted for \$4.2 million. Similar to the other winery suppliers, the allocation to 100% Canadian wine and ICB wine was made based on percentage of wine sales dollars.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

As part of our surveys with wineries and vineyards in British Columbia, we determined there were several vineyard supply companies supplying the province's grape industry. These include companies selling vines, trellises, vineyard equipment, vineyard consulting services and the like. We estimate there were 32 full-time equivalent employees working at these vineyard suppliers in British Columbia in 2011. Revenue generated from the suppliers was \$15.0 million while wages were \$1.4 million. These amounts were allocated to 100% Canadian wine and ICB wine based on the portion of vineyard tonnage used in 100% Canadian wine versus ICB wine.

EDUCATION AND RESEARCH

We also spoke with a number of research and educational institutions in British Columbia that focus on or provide some wine- or vineyard-related education, consulting or research. Based on our discussions, we learned that there was roughly \$1.4 million in funding or grant revenue for wine and vineyard focused research and educational activities. With a total of 27 full-time equivalent employees and wages totaling \$1.2 million, the British Columbia wine and grape industries have a continued resource to help improve crop and product quality.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

NOVA SCOTIA

SUMMARY TABLE

	Nova Scotia		
	100% Canadian Wine	ICB Wine	Total
Revenue:			
Winery Revenue	\$ 12,858,000	16,263,000	29,121,000
Liquor Board Revenue (Markup)	2,940,000	20,203,000	23,143,000
Restaurant and Retail Revenue (Markup)	4,399,000	3,216,000	7,615,000
Wine Grape Sales	1,363,000	118,000	1,481,000
Tourism	14,228,000	-	14,228,000
Winery Suppliers	1,383,000	1,728,000	3,111,000
Vineyard Suppliers	532,000	47,000	579,000
Vineyard Development	493,000	43,000	536,000
Trucking/Warehousing	478,000	598,000	1,076,000
Wine Research/Education/Consulting	150,000	-	150,000
Tax Revenues - Federal	4,214,000	8,471,000	12,685,000
Tax Revenues - Provincial	5,257,000	7,425,000	12,682,000
Indirect (IMPLAN)	11,375,000	11,318,000	22,693,000
Induced (IMPLAN)	16,766,000	19,701,000	36,467,000
Total Revenue	\$ 76,436,000	89,131,000	165,567,000
Wages:			
Wineries	\$ 2,083,000	1,287,000	3,370,000
Liquor Boards	321,000	2,261,000	2,582,000
Restaurants and Retail stores	1,414,000	934,000	2,348,000
Vineyard	1,141,000	99,000	1,240,000
Tourism	5,076,000	-	5,076,000
Winery Suppliers	282,000	353,000	635,000
Vineyard Suppliers	48,000	4,000	52,000
Trucking/Warehousing	160,000	200,000	360,000
Wine Research/Education/Consulting	135,000	-	135,000
Indirect (IMPLAN)	2,864,000	3,138,000	6,002,000
Induced (IMPLAN)	4,080,000	4,839,000	8,919,000
Total Wages	\$ 17,604,000	13,115,000	30,719,000
Total Impact	\$ 94,040,000	102,246,000	196,286,000
Employment:			
Wineries	67	24	91
Liquor Boards	7	51	58
Restaurants and Retail stores	82	54	136
Vineyard	84	8	92
Tourism	159	-	159
Winery Suppliers	3	4	7
Vineyard Suppliers	1	-	1
Trucking/Warehousing	3	4	7
Research/Education/Consulting	4	-	4
Indirect (IMPLAN)	80	80	160
Induced (IMPLAN)	71	68	139
Total Employment	561	293	854

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

OVERALL ECONOMIC IMPACT

The Nova Scotia wine and grape industry contributed to the Nova Scotia economy business revenue of \$140 million, tax revenues of \$25.4 million, and wages of over \$30 million, totaling \$196.3 million of overall economic impact. This includes \$22.7 million of indirect revenue and \$36.5 million of induced revenue. An average bottle of Nova Scotia wine sold generates \$17.81 of business revenue, \$3.22 of tax revenue and \$3.90 of wages.

GRAPE PRODUCTION

In 2011, there were 22 grape growers operating in Nova Scotia with a combined acreage of 518 grape-bearing acres (including wineries). Approximately 1,264 tonnes of grapes were produced in 2011 while wine grape sales totaled \$1.5 million, or an average of \$1,172 per tonne. We also estimated that approximately \$425 thousand in revenue was generated from vineyard development in Nova Scotia in 2011. Nova Scotia is the fourth largest wine grape producer in Canada behind Ontario, British Columbia and Québec in terms of acreage, tonnage and wine grape sales. Based on our surveys of wineries and vineyards, average vineyard maintenance costs were roughly \$3,600 per acre annually.

Most Nova Scotia wineries and vineyards reported utilizing both full-time and seasonal vineyard employees for harvests and vineyard development as well as full-time positions for maintenance of grape-bearing acres and development of new vineyards yet to bear fruit. Based on surveys with wineries and vineyard owners and extrapolated based on the total provincial acreage and an estimated labor cost of \$2,400 per acre, there were 92 full-time equivalent workers employed in the vineyards in both a development and ongoing vineyard maintenance and development capacity for a total payroll of over \$1.2 million in 2011. Since approximately 92% of annual vineyard tonnage supplies grapes for 100% Canadian wine and the remainder goes into ICB wine, we attributed jobs and wages to 100% Canadian wine and ICB wine based on this ratio.

WINE SALES

In 2011, there were 13 wineries in Nova Scotia that sold over 650 thousand nine-litre equivalent cases of wine. Total winery revenue representing wine sales, wine kit sales and non-wine revenue such as merchandise, events, etc. was \$29.1 million. Wine sales were made through several channels including direct-to-consumers, direct-to-trade and through liquor boards and exports. Supporting that winery revenue was a total of 91 winery employees with total wages of nearly \$3.4 million.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

A portion of the overall Nova Scotia wine sales were from 100% Canadian wines, which represented over 150 thousand cases of Nova Scotia wine sold in 2011. Winery revenue associated with sales of 100% Canadian wines was \$12.9 million. Supporting that winery revenue was a total of 67 winery employees with total wages of \$2.1 million. The remaining portion of overall Nova Scotia wine revenue related to ICB wines, which represented over 500 thousand cases of wine sold in Nova Scotia in 2011. Winery revenue associated with sales of ICB wines was \$16.3 million. Supporting that winery revenue was approximately 24 winery employees with total wages of \$1.3 million.

In addition to the revenue generated directly by sales of wine by Nova Scotia wineries there were sales generated by each wine distribution channel. These represent the mark-up or margin each wine reseller generated on top of the wine sales from wineries through each respective distribution channel. Overall, \$31 million in additional revenue was generated by the Nova Scotia Liquor Corporation, restaurants and retail stores in Nova Scotia from marking up the wine sold by Nova Scotia wineries in 2011. \$9.4 million in excise and sales tax revenue was collected from the sale of Nova Scotia wines. These additional profits and taxes were determined by using average channel mark-ups and tax rates provided by the CVA.

TAXES

The wine and grape industry generates significant tax dollars, benefiting federal, provincial and local governments. Tax dollars are raised through sales taxes, excise taxes, income taxes, estate and gift taxes, payroll taxes, property taxes and other business taxes and fees. Nova Scotia's wine, grape and allied industries paid \$12.7 million in federal taxes and \$12.7 million in provincial and local taxes and in 2011, including over \$2.8 million in excise taxes.

Type of Tax	Total ('000s)
Federal Tax Revenues	
Excise	\$ 2,807
Income	5,601
Consumption and Other	4,277
Total Federal Tax Revenues	<u>\$ 12,685</u>
Provincial Tax Revenues	
Income	\$ 3,592
Consumption	6,376
Property	1,982
Payroll and Other	732
Total Provincial Tax Revenues	<u>\$ 12,682</u>
Total Tax Revenues	<u><u>\$ 25,367</u></u>

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

TOURISM

Tourism is a major factor in the overall Canadian and Nova Scotia wine and grape industry's overall impact on the economy. Nova Scotia wine industry tourism generated \$14.2 million in revenue for the broader Nova Scotia economy in 2011. Our survey of Nova Scotia wineries estimates that approximately 100 thousand tourists visited Nova Scotia wineries in 2011. Supporting these winery visitors is a diverse tourism labor force of approximately 159 employees with total wages of roughly \$5.1 million. An additional \$11.9 million of indirect and induced revenue and \$2.9 million of indirect and induced wages were generated as a result of wine industry tourism. The entire impact of winery tourism was applied to 100% Canadian wines as the primary focus of winery tourism is 100% Canadian and VQA wines. As a result, we did not attribute any tourism impact to ICB wines.

WINERY AND VINEYARD SUPPLIERS

Similar to Ontario and British Columbia, there are a number of suppliers or distributors of winemaking equipment, supplies and services in Nova Scotia. A handful of small businesses exist in Nova Scotia that supply the wine and grape industry as a portion of their overall business. Our research and discussions with several winemaking suppliers in the province indicated that there were seven full-time equivalent employees focused on the wine industry in Nova Scotia in 2011. Total winery supplier revenue in 2011 was \$3.1 million while wages accounted for \$0.6 million. Supplier revenue and employee wages were allocated to 100% Canadian wine and ICB wine based on percentage of wine sales dollars.

We also spoke with a few trucking, shipping and warehousing suppliers in Nova Scotia. Our research indicated that there were an additional seven employees working for these suppliers focused on the wine and grape industry in Nova Scotia. Total wine-related trucking, shipping and warehousing revenue was \$1.1 million in Nova Scotia in 2011 while wages accounted for \$0.4 million. Similar to the other winery suppliers, the allocation to 100% Canadian wine and ICB wine was made based on percentage of wine sales dollars.

EDUCATION AND RESEARCH

We also spoke with a research and educational institution in Nova Scotia that focus on or provide some wine- or vineyard-related education, consulting or research. Based on our discussions, we learned that there was roughly \$0.15 million in funding or grant revenue for wine and vineyard focused research and educational activities. With a total of four full-time equivalent employees and wages totaling \$0.14 million, the Nova Scotia wine and grape industries have limited resources to help improve crop and product quality.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

QUÉBEC

SUMMARY TABLE

	Quebec		
	100% Canadian Wine	ICB Wine	Total
Revenue:			
Winery Revenue	\$ 20,271,000	139,384,000	159,655,000
Liquor Board Revenue (Markup)	1,624,000	38,488,000	40,112,000
Restaurant and Retail Revenue (Markup)	3,289,000	32,688,000	35,977,000
Wine Grape Sales	3,250,000	-	3,250,000
Tourism	25,947,000	-	25,947,000
Winery Suppliers	2,082,000	14,320,000	16,402,000
Vineyard Suppliers	3,500,000	-	3,500,000
Vineyard Development	577,000	-	577,000
Trucking/Warehousing	474,000	3,259,000	3,733,000
Wine Research/Education/Consulting	450,000	-	450,000
Tax Revenues - Federal	7,756,000	58,143,000	65,899,000
Tax Revenues - Provincial	9,680,000	45,277,000	54,957,000
Indirect (IMPLAN)	24,492,000	97,569,000	122,061,000
Induced (IMPLAN)	24,426,000	89,036,000	113,462,000
Total Revenue	\$ 127,818,000	518,164,000	645,982,000
Wages:			
Wineries	\$ 12,131,000	13,067,000	25,198,000
Liquor Boards	18,153,000	40,154,000	58,307,000
Restaurants and Retail stores	1,152,000	4,012,000	5,164,000
Vineyard	4,819,000	-	4,819,000
Tourism	8,186,000	-	8,186,000
Winery Suppliers	981,000	6,748,000	7,729,000
Vineyard Suppliers	156,000	-	156,000
Trucking/Warehousing	165,000	1,133,000	1,298,000
Wine Research/Education/Consulting	350,000	-	350,000
Indirect (IMPLAN)	6,395,000	26,779,000	33,174,000
Induced (IMPLAN)	6,002,000	8,320,000	14,322,000
Total Wages	\$ 58,490,000	100,213,000	158,703,000
Total Impact	\$ 186,308,000	618,377,000	804,685,000
Employment:			
Wineries	315	176	491
Liquor Boards	398	879	1,277
Restaurants and Retail stores	63	183	246
Vineyard	486	-	486
Tourism	317	-	317
Winery Suppliers	20	136	156
Vineyard Suppliers	4	-	4
Trucking/Warehousing	3	24	27
Research/Education/Consulting	12	-	12
Indirect (IMPLAN)	162	665	827
Induced (IMPLAN)	149	543	692
Total Employment	1,929	2,606	4,535

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

OVERALL ECONOMIC IMPACT

The Québec wine and grape industry contributed to the Québec economy business revenue of \$525 million, tax revenues of \$120.9 million, and wages of \$158.7 million, totaling \$804.7 million of overall economic impact. This includes \$122.1 million of indirect revenue and \$113.5 million of induced revenue. An average bottle of Québec wine sold generates \$9.54 of business revenue, \$2.20 of tax revenue and \$2.88 of wages.

GRAPE PRODUCTION

In 2011, there were approximately 270 grape growers operating in Québec with a combined acreage of 2,013 grape-bearing acres (including wineries). Approximately 1,985 tonnes of grapes were produced in 2011 while wine grape sales totaled \$3.3 million, or an average of \$1,637 per tonne. We also estimated that approximately \$0.6 million in revenue was generated from vineyard development in Québec in 2011. Québec is the third largest wine grape producer in Canada next to Ontario and British Columbia in terms of acreage, tonnage and wine grape sales. Based on our surveys of wineries and vineyards, average vineyard maintenance costs were roughly \$4,300 per acre annually.

Most Québec wineries and vineyards reported utilizing both full-time and seasonal vineyard employees for harvests and vineyard development as well as full-time positions for maintenance of grape-bearing acres and development of new vineyards yet to bear fruit. Based on surveys with wineries and vineyard owners and extrapolated based on the total provincial acreage and an estimated labor cost of \$2,400 per acre, there were 486 full-time equivalent workers employed in the vineyards in both a development and ongoing vineyard maintenance and development capacity for a total payroll of approximately \$4.8 million in 2011. All workers were assumed to work in vineyards designated for grapes used in 100% Canadian wine.

WINE SALES

In 2011, there were 67 wineries in Québec that sold nearly 4.6 million nine-litre equivalent cases of wine. Total winery revenue representing wine sales, wine kit sales and non-wine revenue such as merchandise, events, etc. was \$159.7 million. Wine sales were made through several channels including direct-to-consumers, direct-to-trade and through liquor boards and exports. Supporting that winery revenue was a total of 491 winery employees with total wages of nearly \$25.2 million.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

A portion of the overall Québec wine sales were from 100% Canadian wines, which represented over 100 thousand cases of Québec wine sold in 2011. Winery revenue associated with sales of 100% Canadian wines was \$20.3 million. Supporting that winery revenue was a total of 315 winery employees with total wages of \$12.1 million. The remaining and vast majority portion of overall Québec wine revenue related to ICB wines, which represented nearly 4.5 million cases of wine sold in Québec in 2011. Winery revenue associated with sales of ICB wines was \$139.4 million. Supporting that winery revenue was approximately 176 winery employees with total wages of \$13.1 million.

In addition to the revenue generated directly by sales of wine by Québec wineries there were sales generated by each wine distribution channel. These represent the mark-up or margin each wine reseller generated on top of the wine sales from wineries through each respective distribution channel. Overall, \$76 million in additional revenue was generated by the Société des alcools du Québec (SAQ), restaurants and retail stores in Québec from marking up the wine sold by Québec wineries in 2011. \$55.6 million in excise and sales tax revenue was collected from the sale of Québec wines. These additional profits and taxes were determined by using average channel mark-ups and tax rates provided by the CVA.

TAXES

The wine and grape industry generates significant tax dollars, benefiting federal, provincial and local governments. Tax dollars are raised through sales taxes, excise taxes, income taxes, estate and gift taxes, payroll taxes, property taxes and other business taxes and fees. Québec's wine, grape and allied industries paid \$65.9 million in federal taxes and \$55.0 million in provincial and local taxes and in 2011, including over \$25.0 million in excise taxes.

Type of Tax	Total ('000s)
Federal Tax Revenues	
Excise	\$ 25,004
Income	22,865
Consumption and Other	18,030
Total Federal Tax Revenues	<u>\$ 65,899</u>
Provincial Tax Revenues	
Income	\$ 14,662
Consumption	29,213
Property	8,093
Payroll and Other	2,989
Total Provincial Tax Revenues	<u>\$ 54,957</u>
Total Tax Revenues	<u><u>\$ 120,856</u></u>

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

TOURISM

Tourism is a major factor in the overall Canadian and Québec wine and grape industry's overall impact on the economy. Québec wine industry tourism generated \$25.9 million in revenue for the broader Québec economy in 2011. Our survey of Québec wineries estimates that approximately 200 thousand tourists visited Québec wineries in 2011. Supporting these winery visitors is a diverse tourism labor force of approximately 317 employees with total wages of roughly \$8.2 million. An additional \$23.6 million of indirect and induced revenue and \$5.9 million of indirect and induced wages were generated as a result of wine industry tourism. The entire impact of winery tourism was applied to 100% Canadian wines as the primary focus of winery tourism is 100% Canadian and VQA wines. As a result, we did not attribute any tourism impact to ICB wines.

WINERY AND VINEYARD SUPPLIERS

Similar to other provinces discussed in this report, there are a number of suppliers or distributors of winemaking equipment, supplies and services in Québec. Many different types of small businesses exist in Québec (and all over Canada) that supply the wine and grape industry as a portion of their overall business. Furthermore, many large multi-national winery supply companies have sales offices in Canada. Our research and discussions with several winemaking suppliers in the province indicated that there were 156 full-time equivalent employees focused on the wine industry in Québec in 2011. Total winery supplier revenue in 2011 was \$16.4 million while wages accounted for \$7.7 million. Supplier revenue and employee wages were allocated to 100% Canadian wine and ICB wine based on percentage of wine sales dollars.

We also spoke with several trucking, shipping and warehousing suppliers in Québec. Our research indicated that there were an additional 27 employees working for these suppliers focused on the wine and grape industry in Québec. Total wine-related trucking, shipping and warehousing revenue was \$3.7 million in Québec in 2011 while wages accounted for \$1.3 million. Similar to the other winery suppliers, the allocation to 100% Canadian wine and ICB wine was made based on percentage of wine sales dollars.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

EDUCATION AND RESEARCH

We also spoke with a number of research and educational institutions in Québec that focus on or provide some wine- or vineyard-related education, consulting or research. Based on our discussions, we learned that there was roughly \$0.5 million in funding or grant revenue for wine and vineyard focused research and educational activities. With a total of 12 full-time equivalent employees and wages totaling \$0.4 million, the Québec wine and grape industries have only a limited resource to help improve crop and product quality, compared to provinces like Ontario and British Columbia where the education and research resources are much more significant.

METHODOLOGY

Data for this study was collected from a variety of public sources supplemented by primary research with wineries, suppliers, growers and other economic entities and supported by a variety of studies undertaken by industry and professional organizations. An overview of our data collection process and methodology is below. For several data items the numbers provided are only partial, given the limited availability of information, and therefore are considered conservative.

- We specifically designed surveys for the Canadian grape and wine industry based on our experience with other economic impact studies we completed in the past and through feedback with the trade organizations we worked with on this study. We then sent out the surveys to every Canadian winery and vineyard for which we received contact information through membership lists of the four sponsoring trade organizations as well as the Wine Council of Ontario. Survey responses represented 91% of total national sales volume and in excess of 85% for each of the four major provinces.
- Winery sales data, employment and wages were collected directly from winery survey responses and extrapolated when necessary for the broader industry by province and Canada overall. The additional profit on wine sold through the wholesale channel through liquor control boards, retailers and restaurants as well as direct sales and excise taxes were extrapolated from winery wholesale wine sales and based on detailed mark-up analyses provided by various industry trade organizations and liquor control boards. Liquor control boards, retail and restaurant employment and wages were based on direct feedback from liquor control boards, national restaurant organizations and Statistics Canada wage data.
- Grape sales were obtained from the regional trade organizations and winery and vineyard survey responses. Vineyard wage and employment information was estimated based on vineyard and winery surveys, government studies on grape production costs and Statistics Canada.
- Tourism revenue was estimated based on the estimated number of winery visitors (based on winery surveys and trade organizations) multiplied by average spend per tourist per Statistics Canada. Tourism employment and wages were estimated based on the relationship between tourism revenue and wages from provincial tourism economic impact reports.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

- Revenue, employment and wages from allied industries including wine/vineyard equipment resellers, packaging materials producers, label printers, grapevine nurseries, shipping and warehousing providers, and other related products and services were obtained directly through contact with identified Canadian vendors in addition to reported spending amounts from winery surveys.
- Liquor control board jobs and wages were obtained through direct contact with the respective liquor control organizations using an allocation of total jobs and wages applied to domestic wine sales based on sales volume.
- Wages and employment from industry research and educational institutions were obtained directly from the universities and institutions in each Canadian province.
- Tax, indirect and induced revenue, employment and wages are all outputs of the IMPLAN economic impact model from inputs consisting of direct employment data (see further discussion below), although tax amounts also include an estimate of direct sales and excise taxes incurred.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

IMPLAN

All economic activities have “ripple” effects: employment of one person creates economic activity for others, whether the salesman who sells the employee a car or the restaurant where she eats lunch. Economic impact studies endeavor to measure those “ripples” as well as the direct activity, to help assess the impact of the potential gain or loss of an industry.

Economic impact studies estimate an industry’s impact in a defined geographic region. The analysis identifies and measures specific concrete and economic events, such as the number of jobs, the wages, taxes and output generated by each job.

IMPLAN¹ is the acronym for “**IM** pact analysis for **PLAN**ing.” IMPLAN is a well established and widely used economic model that uses input-output analyses and tables for over 400 industries to estimate these regional and industry-specific economic impacts of a specific industry.

The IMPLAN model and methodology classifies these effects into three categories, Direct Effects, Indirect Effects and Induced Effects.

Direct Effects are economic changes in industries *directly* associated with the product’s final demand. Thus, direct effects consider the direct employment and spending of wineries, vineyards, distributors and immediately allied industries.

Indirect effects are economic changes – income created through job creation in industries that supply goods and services to the directly affected industries noted above. Examples are the purchases of electricity and gasoline by wineries and of cash registers purchased for a tasting room.

Induced effects are the effects of these new workers spending their new incomes, creating a still further flow of income in their communities and a flow of new jobs and services. Examples are spending in grocery and retail stores, medical offices, insurance companies, and other non-wine and grape related industries.

¹ IMPLAN is the standard economic model for economic impact studies, developed by the University of Minnesota and the US Forestry Service in the 1980s and currently used by over 1,500 organizations, including most US federal, state and local organizations. For more information on IMPLAN, go to www.implan.com.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

The indirect and induced impacts were found by applying the direct expenditures and revenues of the industries in this study to their related “multiplier” effects. Statistics Canada provided economic multipliers for the directly affected industries in this study to deduce indirect and induced effects.² As discussed above, the sum of the direct, indirect and induced impacts are the total economic impacts. The total impacts are larger than the direct effects by some multiple, hence the multiplier approach. Statistics Canada, using North American Industry Classification Systems (NAICS) codes to identify specific industries, provides a multiplier for wages, income and full-time equivalent jobs, and separates the indirect and induced effects.

The indirect and induced taxes were deduced as a percentage of total income in each province across all major tax categories. Once direct effects were known from the primary research, the indirect and induced effects were found by applying the portion of the multiplier effect assigned to that industry code accordingly and adding up the total impacts. This process was completed at the provincial level for specific provinces and at the national level of the remainder of Canada. Federal and provincial tax percentages were used to derive the tax receipts from these industries and their indirect and induced impacts

² See www.statcan.gc.ca for more information

ABOUT FRANK, RIMERMAN + CO. LLP

Frank, Rimerman + Co. LLP, founded in 1949, is the largest, locally-owned provider of accounting and consulting services in California. With offices in San Jose, Palo Alto, San Francisco and St. Helena, California, New York, New York and over 200 professionals, Frank, Rimerman + Co. LLP offers strategic business and information consulting services, tax consulting and planning, audit and financial reporting, accounting services, litigation and valuation services.

Frank, Rimerman + Co. LLP is the leading research source on the U.S. wine industry. We continue to strive to raise the bar on the quality of information and analysis available to the wine industry.

Frank, Rimerman + Co. LLP produces original research on the business of wine and wine market trends, publishes a number of industry studies and provides business advisory services and conducts custom business research for individual companies and investors.

Frank, Rimerman + Co. LLP has a dedicated Wine Business Services practice which lists many wineries, vineyards, industry suppliers and industry trade organizations as clients. Services provided include:

- Economic impact studies
- Custom industry research
- Financial benchmarking
- Financial audits, reviews and compilations
- Income tax consulting and compliance
- Business valuation
- Financial modeling and business plan development
- Accounting services
- Enterprise sustainability
- Transaction readiness
- Business planning and general winery consulting

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2011

FRANK, RIMERMAN + CO. LLP PUBLICATIONS

Grape Trends

By combining the annual crush and acreage reports into one easy-to-use quick reference guide, Grape Trends provides, in one source, all the information needed to make informed decisions about California's grape supply for production planning. Provided in electronic form, Grape Trends includes a complete summary of current, past (since 1997) and projected tons, prices, and bearing acres for all of California's major grape growing regions and counties for all varieties recorded, including: Chardonnay, Sauvignon Blanc, Cabernet Sauvignon, Merlot, Syrah, Zinfandel, and Pinot Noir.

Grape Price Analysis Tool

The Grape Price Analysis Tool enables users to take a deep dive into the California Grape Crush Report and analyze estimated bottle prices in relation to tonnage prices. The tool makes the data from the Crush Report easy to access and provides actionable results to help determine tonnage prices based on an estimated finished bottle price.

Economic Impact Reports

Frank, Rimerman + Co. LLP completed the first study of the Impact of Wine, Grapes and Grape Products on the American Economy for Wine America, the Wine Institute, Winegrape Growers of America and the National Grape and Wine Initiative, as well as economic impact studies for Arkansas, California, Illinois, Iowa, Michigan, Missouri, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Virginia and Washington.