

THE ECONOMIC IMPACT
OF THE WINE AND GRAPE
INDUSTRY IN CANADA
2015

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

A Frank, Rimerman + Co. LLP Report
with special assistance from Rob Eyler,
President, Economic Forensics and Analytics

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This study was commissioned by the

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

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NATIONAL ECONOMIC IMPACT OVERVIEW – 2015

FULL ECONOMIC IMPACT OF
CANADIAN WINE AND GRAPES

\$9.04 Billion

CANADIAN WINE GRAPES AND WINE	2015 NATIONAL ECONOMIC IMPACT
Total Winery Revenue*	\$1.24 billion
9L Equivalent Case Sales	20,601,000
Number of Wineries	604
Number of Grape Growers	1,770
Grape-Bearing Acres	31,100
Full-time Equivalent Jobs	37,300
Wages Paid	\$1.7 billion
Total Impact of Wine-Related Tourism**	\$1.5 billion
Number of Wine-Related Tourists	3.7 million
Taxes Paid: Federal, Provincial and Local	\$1.1 billion
Provincial Liquor Board Markup Revenue	\$602 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 2015

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)	4,357,882	2,770,720	218,411	1,107,706
Winery Revenue (\$'000)*	562,942	360,861	34,969	160,876
9L Equivalent Case Sales**	8,323,000	4,794,000	497,000	4,253,000
Number of Wineries	180	275	17	115
Number of Grape Growers	456	929	94	270
Grape Bearing Acres	18,383	10,260	658	1,684
Full Time Equivalent Jobs	18,008	11,975	934	5,120
Wages Paid (\$'000)	870,204	512,362	36,595	227,952
Total Tourism Impact (\$'000)***	847,589	599,379	42,514	64,530
Number of Wine-related Tourists	2,400,000	1,000,000	112,500	200,000
Taxes Generated (\$'000)	522,021	311,516	27,627	167,588
Liquor Board Markup (\$'000)	233,410	168,429	25,629	72,297

* 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

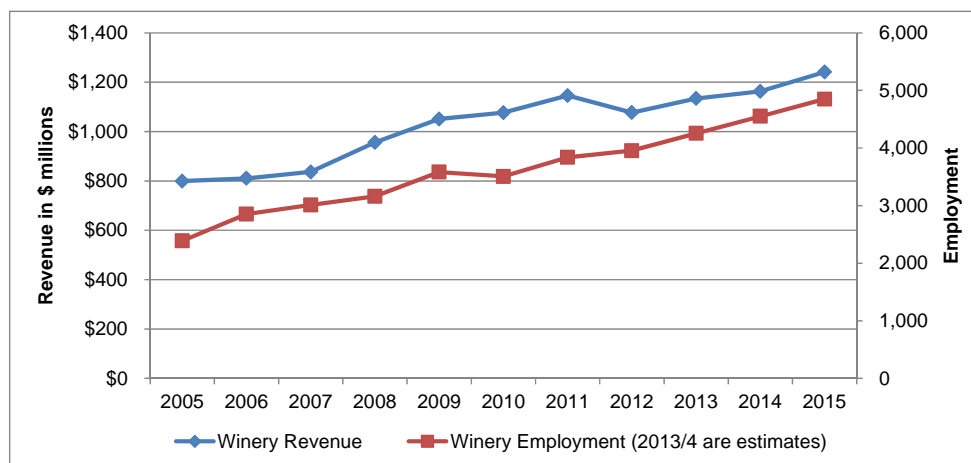
EXECUTIVE SUMMARY

CANADA

The Canadian wine and grape industry contributed to the Canadian economy business revenue of \$6.2 billion, tax revenues of \$1.1 billion and wages of over \$1.7 billion, totaling over \$9.0 billion of total economic impact, an increase of \$2.2 billion since 2011. This includes \$1.67 billion of indirect revenue and \$1.28 billion of induced revenue in 2015. The Canadian wine and grape industry supports a total of 37,382 full-time equivalent jobs through the economic impacts. An average bottle of Canadian wine sold generates approximately \$25.05 of business revenue, \$4.58 of tax revenue and \$6.91 of wages. For every \$1.00 spent on Canadian wine in Canada, \$3.42 in Gross Domestic Product (GDP) is generated across the country.

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. This report focuses on the impacts of these four major provinces, but also estimates the economic impact of the overall Canadian wine industry.

The number of wineries in Canada grew from 476 in 2011 to 604 in 2015. 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 2015

In Canada, there are both national and provincial regulatory standards for the production of wine. This 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), plus 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 countries.

Canadians enjoy over 1.2 billion glasses, or 247 million bottles, of Canadian produced wine each year. Of that amount, 251 million glasses were 100% Canadian wine and 985 million glasses were ICB wines.

100% Canadian wines contributed to the Canadian economy business revenue of \$3.16 billion, tax revenues of \$428 million and wages of \$941 million, totaling \$4.53 billion of overall economic impact, an increase of nearly \$1 billion since 2011. ICB wines contributed to the Canadian economy business revenue of \$3.03 billion, tax revenues of \$705 million and wages of \$767 million, totaling \$4.51 billion of overall economic impact, an increase of over \$1 billion since 2011.

ONTARIO

The Ontario wine and grape industry contributed to the Ontario economy business revenue of \$2.97 billion, tax revenues of \$522 million and wages of \$870 million, totaling \$4.36 billion of overall economic impact, an increase of \$1.02 billion since 2011. The industry supports directly and indirectly over 18,000 full-time equivalent jobs. Ontario wineries generated approximately 8.3 million nine-litre equivalent case sales in 2015. Ontario is the largest wine producer of the Canadian provinces. Ontario produces a large volume of VQA wines and ICB wines, with ICB representing 75% of the volume of sales and VQA representing the remaining 25%. With 2.4 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 is Ontario’s largest wine growing region responsible for over 90% of Ontario’s grape production, with other regions such as Prince Edward County and the Essex Pelee Island Coast responsible for the remaining 10%.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

BRITISH COLUMBIA

The British Columbia wine and grape industry contributed to the British Columbia economy business revenue of \$1.95 billion, tax revenues of \$312 million and wages of \$512 million, totaling over \$2.77 billion of overall economic impact, an increase of nearly \$760 million since 2011. The industry supports directly and indirectly nearly 12,000 full-time equivalent jobs. British Columbia wineries generated nearly five million nine-litre equivalent case sales in 2015. 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 one million 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 \$154 million, tax revenues of \$27.6 million and wages of nearly \$37 million, totaling \$218 million of overall economic impact, an increase of over \$22 million since 2011. The industry supports directly and indirectly over 930 full-time equivalent jobs. Nova Scotia wineries generated approximately 500,000 nine-litre equivalent case sales in 2015. Nova Scotia's soil and mesoclimates create an environment to produce high quality wine grapes. The Nova Scotia wine industry is made up of several small producers most of which produce fewer than 10,000 cases annually.

QUÉBEC

The Québec wine and grape industry contributed to the Québec economy business revenue of \$712 million, tax revenues of \$168 million and wages of \$228 million, totaling \$1.1 billion of overall economic impact, an increase of over \$300 million since 2011. The industry supports directly and indirectly over 5,100 full-time equivalent jobs. Québec wineries generated approximately 4.25 million nine-litre equivalent case sales in 2015. 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. The majority of 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 2015

CANADA

SUMMARY TABLE

	Canada Total		
	100% Canadian Wine	ICB Wine	Total
Revenue:			
Winery Revenue	\$ 519,893,000	721,645,000	1,241,538,000
Liquor Board Revenue (Markup)	125,030,000	477,333,000	602,363,000
Restaurant and Retail Revenue (Markup)	164,443,000	136,169,000	300,612,000
Wine Grape Sales	90,351,000	41,917,000	132,268,000
Tourism	601,557,000	-	601,557,000
Winery Suppliers	56,864,000	196,326,000	253,190,000
Vineyard Suppliers	32,093,000	13,269,000	45,362,000
Vineyard Development	9,776,000	5,425,000	15,201,000
Trucking/Warehousing	10,957,000	34,095,000	45,052,000
Wine Research/Education/Consulting	9,185,000	-	9,185,000
Tax Revenues - Federal	187,501,000	375,066,000	562,567,000
Tax Revenues - Provincial	240,216,000	329,873,000	570,089,000
Indirect (IMPLAN)	837,547,000	831,710,000	1,669,257,000
Induced (IMPLAN)	705,616,000	575,496,000	1,281,112,000
Total Revenue	\$ 3,591,029,000	3,738,324,000	7,329,353,000
Wages:			
Wineries	\$ 114,216,000	152,567,000	266,783,000
Liquor Boards	27,381,000	100,277,000	127,658,000
Restaurants and Retail stores	48,311,000	30,401,000	78,712,000
Vineyard	66,440,000	29,563,000	96,003,000
Tourism	227,318,000	-	227,318,000
Winery Suppliers	10,942,000	39,342,000	50,284,000
Vineyard Suppliers	1,084,000	363,000	1,447,000
Trucking/Warehousing	1,409,000	4,111,000	5,520,000
Wine Research/Education/Consulting	5,463,000	-	5,463,000
Indirect (IMPLAN)	222,314,000	232,433,000	454,747,000
Induced (IMPLAN)	216,302,000	178,442,000	394,744,000
Total Wages	\$ 941,180,000	767,499,000	1,708,679,000
Total Impact	\$ 4,532,209,000	4,505,823,000	9,038,032,000
Employment:			
Wineries	2,336	2,514	4,850
Liquor Boards	453	1,841	2,294
Restaurants and Retail stores	2,397	1,466	3,863
Vineyard	2,523	995	3,518
Tourism	6,343	-	6,343
Winery Suppliers	176	644	820
Vineyard Suppliers	25	8	33
Trucking/Warehousing	28	81	109
Research/Education/Consulting	85	-	85
Indirect (IMPLAN)	4,011	4,057	8,068
Induced (IMPLAN)	4,053	3,346	7,399
Total Employment	22,430	14,952	37,382

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

GRAPE PRODUCTION

In 2015, there were approximately 1,770 grape growers operating in Canada with a combined acreage of 31,100 grape-bearing acres (including wineries). Using a four-year average of grape production, approximately 95,674 tonnes of grapes were produced annually, while wine grape sales totaled \$132.3 million, or an average of \$1,382 per tonne. Approximately \$15.2 million in revenue was generated from vineyard development in Canada in 2015.

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, there were 3,518 full-time equivalent workers employed in the vineyards in both development and ongoing vineyard maintenance and development capacities for a total payroll of approximately \$96 million in 2015.

WINE SALES

In 2015, there were approximately 604 wineries in Canada that sold over 20.6 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 over \$1.24 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 4,850 winery employees with total wages of \$266.8 million.

A portion of the overall Canadian wine sales were from 100% Canadian wines, which represented nearly 4.2 million cases of Canadian wine sold in 2015. Winery revenue associated with sales of 100% Canadian wines was \$519.9 million. Supporting that winery revenue was a total of 2,336 winery employees with total wages of \$114.2 million.

The remaining portion of overall Canadian wine revenue related to ICB wines. These wines represented over 16.4 million cases of wine sold in Canada in 2015. Winery revenue associated with sales of ICB wines was \$721.7 million. Supporting that winery revenue was a total of 2,514 winery employees with total wages of \$152.6 million.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

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, \$903.0 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 2015. \$423.6 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, payroll taxes, property taxes and other business taxes and fees. Canada's wine, grape and allied industries paid \$562.6 million in federal taxes and \$570.1 million in provincial and local taxes in 2015.

Type of Tax	Total ('000s)
Federal Tax Revenues	
Excise	\$ 91,624
Income	248,489
Consumption and Other	222,454
Total Federal Tax Revenues	<u>\$ 562,567</u>
Provincial Tax Revenues	
Income	\$ 159,341
Consumption	290,303
Property	87,955
Payroll and Other	32,490
Total Provincial Tax Revenues	<u>\$ 570,089</u>
Total Tax Revenues	<u><u>\$ 1,132,656</u></u>

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

TOURISM

Tourism is a major factor in the overall Canadian wine and grape industry's impact on the economy. Canada wine industry tourism generated \$601.6 million in direct revenue for the broader Canadian economy in 2015. Approximately 3.7 million tourists visited Canadian wineries in 2015. Supporting these winery visitors are approximately 6,343 employees with total wages of roughly \$227.3 million. An additional \$563.9 million of indirect and induced revenue and \$161.2 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 other 100% Canadian wines. As a result, no tourism impact was attributed 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, capsule/closure, chemical, label, cooperage and carton producers. As the Canadian wine industry continues to grow, so will the number of ancillary businesses that supply the industry.

As noted in the methodology section, this report utilized more complete supplier information than the 2011 report. The research indicated that there were 820 full-time equivalent employees focused on supplying the wine industry in Canada in 2015. Total winery supplier revenue in 2015 was \$253.2 million while wages accounted for \$50.3 million. Supplier revenue and wage data were allocated to 100% Canadian wine and ICB wine based on percentage of wine sales volume. In the 2011 report, supplier revenue and wages were allocated based on percentage of wine sales dollars. This resulted in a larger relative allocation to ICB wine and a smaller allocation to 100% Canadian wine.

There were an additional 108 employees working for trucking, shipping and warehousing services suppliers focused on the wine and grape industry in Canada. Total wine-related trucking, shipping and warehousing revenue was \$45.1 million in Canada in 2015 while wages accounted for \$5.5 million. Similar to the other winery suppliers, the allocation to 100% Canadian wine and ICB wine was made based on percentage of wine sales volume.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

Surveys of wineries and vineyards in Canada indicated 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. There were approximately 33 full-time equivalent employees working at these vineyard suppliers in Canada in 2015. Revenue generated from these suppliers was \$45.4 million while wages were \$1.45 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

There are also a number of research and educational institutions in Canada that focus on or provide some wine or vineyard-related education, consulting or research. There was roughly \$9.2 million in funding or grant revenue for wine and vineyard-focused research and educational activities in 2015. With a total of 85 full-time equivalent employees and wages totaling \$5.5 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 2015

ONTARIO

SUMMARY TABLE

	Ontario		
	100% Canadian Wine	ICB Wine	Total
Revenue:			
Winery Revenue	\$ 262,549,000	300,393,000	562,942,000
Liquor Board Revenue (Markup)	76,115,000	157,295,000	233,410,000
Restaurant and Retail Revenue (Markup)	64,953,000	21,471,000	86,424,000
Wine Grape Sales	42,492,000	36,194,000	78,686,000
Tourism	311,343,000	-	311,343,000
Winery Suppliers	34,110,000	102,314,000	136,424,000
Vineyard Suppliers	13,737,000	11,701,000	25,438,000
Vineyard Development	5,820,000	4,957,000	10,777,000
Trucking/Warehousing	3,854,000	11,561,000	15,415,000
Wine Research/Education/Consulting	4,557,000	-	4,557,000
Tax Revenues - Federal	105,622,000	158,253,000	263,875,000
Tax Revenues - Provincial	130,459,000	127,687,000	258,146,000
Indirect (IMPLAN)	467,568,000	394,302,000	861,870,000
Induced (IMPLAN)	422,722,000	215,649,000	638,371,000
Total Revenue	\$ 1,945,901,000	1,541,777,000	3,487,678,000
Wages:			
Wineries	\$ 75,623,000	94,193,000	169,816,000
Liquor Boards	16,845,000	25,444,000	42,289,000
Restaurants and Retail stores	19,603,000	6,314,000	25,917,000
Vineyard	29,879,000	25,449,000	55,328,000
Tourism	124,716,000	-	124,716,000
Winery Suppliers	5,962,000	17,883,000	23,845,000
Vineyard Suppliers	338,000	288,000	626,000
Trucking/Warehousing	538,000	1,613,000	2,151,000
Wine Research/Education/Consulting	2,295,000	-	2,295,000
Indirect (IMPLAN)	124,669,000	104,905,000	229,574,000
Induced (IMPLAN)	128,153,000	65,494,000	193,647,000
Total Wages	\$ 528,621,000	341,583,000	870,204,000
Total Impact	\$ 2,474,522,000	1,883,360,000	4,357,882,000
Employment:			
Wineries	1,399	1,564	2,963
Liquor Boards	243	366	609
Restaurants and Retail stores	970	312	1,282
Vineyard	1,028	875	1,903
Tourism	3,214	-	3,214
Winery Suppliers	93	278	371
Vineyard Suppliers	7	6	13
Trucking/Warehousing	11	33	44
Research/Education/Consulting	30	-	30
Indirect (IMPLAN)	2,211	1,811	4,022
Induced (IMPLAN)	2,355	1,202	3,557
Total Employment	11,561	6,447	18,008

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

OVERALL ECONOMIC IMPACT

The Ontario wine and grape industry contributed to the Ontario economy business revenue of \$2.97 billion, tax revenues of \$522 million, and wages of \$870 million, totaling \$4.36 billion of overall economic impact, an increase of \$1.02 billion since 2011. This includes \$862 million of indirect revenue and \$638 million of induced revenue. An average bottle of Ontario wine sold generates \$29.69 of business revenue, \$5.23 of tax revenue and \$8.71 of wages. For every \$1.00 spent on Canadian wine in Ontario, \$3.95 in GDP is generated across the province.

GRAPE PRODUCTION

In 2015, there were approximately 456 grape growers operating in Ontario with a combined acreage of 18,383 grape-bearing acres (including wineries). Using a four-year average of grape production, approximately 64,226 tonnes of grapes were produced annually while wine grape sales totaled \$78.7 million, or an average of \$1,225 per tonne. Approximately \$10.8 million in revenue was generated from vineyard development in Ontario in 2015. Ontario is the largest wine grape producing province in Canada, in terms of acreage, tonnage and wine grape sales. Based on surveys of wineries and vineyards, average vineyard maintenance costs were roughly \$4,400 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, there were 1,903 full-time equivalent workers employed in the vineyards in both development and ongoing vineyard maintenance and development capacities for a total payroll of approximately \$55.3 million in 2015. Since approximately 54% of annual vineyard tonnage supplies grapes for 100% Canadian wine and the remainder goes into ICB wine, jobs and wages were attributed to 100% Canadian wine and ICB wine based on this ratio.

WINE SALES

In 2015, there were approximately 180 wineries in Ontario that sold over 8.3 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 \$562.9 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 2,963 winery employees with total wages of \$169.8 million.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

A portion of the overall Ontario wine sales were from 100% Canadian wines, which represented nearly 2.1 million cases of Ontario wine sold in 2015. Winery revenue associated with sales of 100% Canadian wines was \$262.5 million. Supporting that winery revenue was a total of 1,399 winery employees with total wages of \$75.6 million. The remaining portion of overall Ontario wine revenue related to ICB wines, which represented over 6.2 million cases of wine sold in Ontario in 2015. Winery revenue associated with sales of ICB wines was \$300.4 million. Supporting that winery revenue was a total of 1,564 winery employees with total wages of \$94.2 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, \$320 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 2015. \$150.3 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, payroll taxes, property taxes and other business taxes and fees. Ontario's wine, grape and allied industries paid \$263.9 million in federal taxes and \$258.1 million in provincial and local taxes and in 2015.

Type of Tax	Total ('000s)
Federal Tax Revenues	
Excise	\$ 34,830
Income	130,293
Consumption and Other	98,752
Total Federal Tax Revenues	<u>\$ 263,875</u>
Provincial Tax Revenues	
Income	\$ 83,549
Consumption	111,444
Property	46,119
Payroll and Other	17,034
Total Provincial Tax Revenues	<u>\$ 258,146</u>
Total Tax Revenues	<u><u>\$ 522,021</u></u>

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

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 \$311.3 million in revenue for the broader Ontario economy in 2015. Approximately 2.4 million tourists visited Ontario wineries in 2015. Supporting these winery visitors are approximately 3,214 employees with total wages of roughly \$124.7 million. An additional \$320.2 million of indirect and induced revenue and \$91.3 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 other 100% Canadian wines. As a result, no tourism impact was attributed 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 bottle/glass, capsule/closure, chemical, label, cooperage and carton producers. As the Ontario and Canadian wine industry continues to grow, so will the number of ancillary businesses that supply the industry.

There were 371 full-time equivalent employees focused on supplying the wine industry in Ontario in 2015. Total winery supplier revenue in 2015 was \$136.4 million while wages accounted for \$23.8 million. Supplier revenue and wage data were allocated to 100% Canadian wine and ICB wine based on percentage of wine sales volume.

There were an additional 44 employees working for several trucking, shipping and warehousing services suppliers focused on the wine and grape industry in Ontario. Total wine-related trucking, shipping and warehousing revenue was \$15.4 million in Ontario in 2015 while wages accounted for \$2.2 million. Similar to the other winery suppliers, the allocation to 100% Canadian wine and ICB wine was made based on percentage of wine sales volume.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

Surveys of wineries and vineyards in Ontario indicated 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. There were 13 full-time equivalent employees working at these vineyard suppliers in Ontario in 2011. Revenue generated from the suppliers was \$25.4 million while wages were \$0.6 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

There are also research and educational institutions in Ontario that focus on or provide some wine or vineyard-related education, consulting or research. There was roughly \$4.6 million in funding or grant revenue for wine and vineyard-focused research and educational activities. With a total of 30 full-time equivalent employees and wages totaling \$2.3 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 2015

BRITISH COLUMBIA

SUMMARY TABLE

	British Columbia		
	100% Canadian Wine	ICB Wine	Total
Revenue:			
Winery Revenue	\$ 199,758,000	161,103,000	360,861,000
Liquor Board Revenue (Markup)	31,379,000	137,050,000	168,429,000
Restaurant and Retail Revenue (Markup)	87,053,000	48,220,000	135,273,000
Wine Grape Sales	41,518,000	5,723,000	47,241,000
Tourism	245,983,000	-	245,983,000
Winery Suppliers	20,127,000	45,826,000	65,953,000
Vineyard Suppliers	11,376,000	1,568,000	12,944,000
Vineyard Development	3,392,000	468,000	3,860,000
Trucking/Warehousing	5,915,000	13,468,000	19,383,000
Wine Research/Education/Consulting	2,886,000	-	2,886,000
Tax Revenues - Federal	65,727,000	86,657,000	152,384,000
Tax Revenues - Provincial	86,069,000	73,063,000	159,132,000
Indirect (IMPLAN)	304,657,000	178,365,000	483,022,000
Induced (IMPLAN)	236,475,000	164,532,000	401,007,000
Total Revenue	\$ 1,342,315,000	916,043,000	2,258,358,000
Wages:			
Wineries	\$ 20,646,000	41,327,000	61,973,000
Liquor Boards	6,294,000	10,061,000	16,355,000
Restaurants and Retail stores	25,226,000	11,851,000	37,077,000
Vineyard	29,846,000	4,114,000	33,960,000
Tourism	87,908,000	-	87,908,000
Winery Suppliers	4,389,000	9,992,000	14,381,000
Vineyard Suppliers	542,000	75,000	617,000
Trucking/Warehousing	825,000	1,879,000	2,704,000
Wine Research/Education/Consulting	1,590,000	-	1,590,000
Indirect (IMPLAN)	80,375,000	49,373,000	129,748,000
Induced (IMPLAN)	73,812,000	52,237,000	126,049,000
Total Wages	\$ 331,453,000	180,909,000	512,362,000
Total Impact	\$ 1,673,768,000	1,096,952,000	2,770,720,000
Employment:			
Wineries	427	699	1,126
Liquor Boards	117	188	305
Restaurants and Retail stores	1,253	570	1,823
Vineyard	868	120	988
Tourism	2,615	-	2,615
Winery Suppliers	73	167	240
Vineyard Suppliers	13	2	15
Trucking/Warehousing	16	35	51
Research/Education/Consulting	22	-	22
Indirect (IMPLAN)	1,490	876	2,366
Induced (IMPLAN)	1,426	998	2,424
Total Employment	8,320	3,655	11,975

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

OVERALL ECONOMIC IMPACT

The British Columbia wine and grape industry contributed to the British Columbia economy business revenue of \$1.95 billion, tax revenues of \$312 million, and wages of \$512 million, totaling over \$2.77 billion of overall economic impact, an increase of nearly \$760 million since 2011. This includes \$483 million of indirect revenue and \$401 million of induced revenue. An average bottle of wine produced in British Columbia generates \$33.84 of business revenue, \$5.42 of tax revenue and \$8.91 of wages. For every \$1.00 spent on Canadian wine in British Columbia, \$3.40 in GDP is generated across the province.

GRAPE PRODUCTION

In 2015, there were approximately 929 grape growers operating in British Columbia with a combined acreage of 10,260 grape-bearing acres (including wineries). Using a four-year average of grape production, approximately 27,745 tonnes of grapes were produced annually while wine grape sales totaled \$47.2 million, or an average of \$1,703 per tonne. Approximately \$3.86 million in revenue was generated from vineyard development in British Columbia in 2015. 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 surveys of wineries and vineyards, average vineyard maintenance costs were roughly \$4,600 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, there were 988 full-time equivalent workers employed in the vineyards in both development and ongoing vineyard maintenance and development capacities for a total payroll of approximately \$34.0 million in 2015. Since approximately 87% of annual vineyard tonnage supplies grapes for 100% Canadian wine and the remainder goes into ICB wine, jobs and wages were attributed to 100% Canadian wine and ICB wine based on this ratio.

WINE SALES

In 2015, there were 275 wineries in British Columbia that sold nearly 4.8 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 \$360.9 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 1,126 winery employees with total wages of \$62 million.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

A portion of the overall British Columbia wine sales were from 100% Canadian wines, which represented 1.44 million cases of British Columbia wine sold in 2015. Winery revenue associated with sales of 100% Canadian wines was \$199.8 million. Supporting that winery revenue was a total of 427 winery employees with total wages of \$20.6 million. The remaining portion of overall British Columbia wine revenue related to ICB wines, which represented over 3.3 million cases of wine sold in British Columbia in 2015. Winery revenue associated with sales of ICB wines was \$161.1 million. Supporting that winery revenue was a total of 699 winery employees with total wages of \$41.3 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, \$304 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 2015. \$112.1 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, payroll taxes, property taxes and other business taxes and fees. British Columbia's wine, grape and allied industries paid \$152.4 million in federal taxes and \$159.1 million in provincial and local taxes and in 2015.

Type of Tax	Total ('000s)
Federal Tax Revenues	
Excise	\$ 18,587
Income	69,884
Consumption and Other	63,913
Total Federal Tax Revenues	<u>\$ 152,384</u>
Provincial Tax Revenues	
Income	\$ 44,812
Consumption	80,445
Property	24,737
Payroll and Other	9,138
Total Provincial Tax Revenues	<u>\$ 159,132</u>
Total Tax Revenues	<u><u>\$ 311,516</u></u>

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

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 \$246 million in revenue for the broader British Columbia economy in 2015. Approximately one million tourists visited British Columbia wineries in 2015. Supporting these winery visitors are approximately 2,615 employees with total wages of roughly \$87.9 million. An additional \$206.1 million of indirect and induced revenue and \$59.3 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 other 100% Canadian wines. As a result, no tourism impact was attributed 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 grape industry as a portion of their overall business. Furthermore, many large multi-national winery supply companies have sales offices in Canada. There were 240 full-time equivalent employees focused on the wine industry in British Columbia in 2015. Total winery supplier revenue in 2015 was \$66.0 million while wages accounted for \$14.4 million. Supplier revenue and employee wages were allocated to 100% Canadian wine and ICB wine based on percentage of wine sales volume.

There were an additional 51 employees working for several trucking, shipping and warehousing services suppliers focused on the wine and grape industry in British Columbia. Total wine-related trucking, shipping and warehousing revenue was \$19.4 million in British Columbia in 2015 while wages accounted for \$2.7 million. Similar to the other winery suppliers, the allocation to 100% Canadian wine and ICB wine was made based on percentage of wine sales volume.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

Surveys of wineries and vineyards in British Columbia indicated 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. There were 15 full-time equivalent employees working at these vineyard suppliers in British Columbia in 2015. Revenue generated from the suppliers was \$12.9 million while wages were \$0.6 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

There are also research and educational institutions in British Columbia that focus on or provide some wine or vineyard-related education, consulting or research. There was roughly \$2.9 million in funding or grant revenue for wine and vineyard-focused research and educational activities. With a total of 22 full-time equivalent employees and wages totaling \$1.6 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 2015

NOVA SCOTIA

SUMMARY TABLE

	Nova Scotia		
	100% Canadian Wine	ICB Wine	Total
Revenue:			
Winery Revenue	\$ 16,352,000	18,617,000	34,969,000
Liquor Board Revenue (Markup)	9,352,000	16,277,000	25,629,000
Restaurant and Retail Revenue (Markup)	5,502,000	2,763,000	8,265,000
Wine Grape Sales	2,704,000	-	2,704,000
Tourism	19,197,000	-	19,197,000
Winery Suppliers	1,413,000	3,497,000	4,910,000
Vineyard Suppliers	1,204,000	-	1,204,000
Vineyard Development	564,000	-	564,000
Trucking/Warehousing	226,000	560,000	786,000
Wine Research/Education/Consulting	392,000	-	392,000
Tax Revenues - Federal	5,682,000	7,929,000	13,611,000
Tax Revenues - Provincial	7,678,000	6,338,000	14,016,000
Indirect (IMPLAN)	20,433,000	11,333,000	31,766,000
Induced (IMPLAN)	15,142,000	8,661,000	23,803,000
Total Revenue	\$ 105,841,000	75,975,000	181,816,000
Wages:			
Wineries	\$ 3,762,000	1,710,000	5,472,000
Liquor Boards	1,275,000	1,277,000	2,552,000
Restaurants and Retail stores	1,592,000	767,000	2,359,000
Vineyard	1,707,000	-	1,707,000
Tourism	6,796,000	-	6,796,000
Winery Suppliers	304,000	753,000	1,057,000
Vineyard Suppliers	57,000	-	57,000
Trucking/Warehousing	32,000	78,000	110,000
Wine Research/Education/Consulting	191,000	-	191,000
Indirect (IMPLAN)	5,484,000	3,378,000	8,862,000
Induced (IMPLAN)	4,722,000	2,710,000	7,432,000
Total Wages	\$ 25,922,000	10,673,000	36,595,000
Total Impact	\$ 131,763,000	86,648,000	218,411,000
Employment:			
Wineries	131	24	155
Liquor Boards	33	33	66
Restaurants and Retail stores	79	38	117
Vineyard	59	-	59
Tourism	208	-	208
Winery Suppliers	5	14	19
Vineyard Suppliers	1	-	1
Trucking/Warehousing	1	1	2
Research/Education/Consulting	3	-	3
Indirect (IMPLAN)	101	61	162
Induced (IMPLAN)	90	52	142
Total Employment	711	223	934

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

OVERALL ECONOMIC IMPACT

The Nova Scotia wine and grape industry contributed to the Nova Scotia economy business revenue of \$154.2 million, tax revenues of \$27.6 million, and wages of nearly \$36.6 million, totaling \$218.4 million of overall economic impact, an increase of over \$22 million since 2011. This includes \$31.8 million of indirect revenue and \$23.8 million of induced revenue. An average bottle of Nova Scotia wine sold generates \$25.85 of business revenue, \$4.63 of tax revenue and \$6.14 of wages. For every \$1.00 spent on Canadian wine in Nova Scotia, \$2.64 in GDP is generated across the province.

GRAPE PRODUCTION

In 2015, there were 94 grape growers operating in Nova Scotia with a combined acreage of 658 grape-bearing acres (including wineries). Using a four-year average of grape production, approximately 1,690 tonnes of grapes were produced annually while wine grape sales totaled \$2.7 million, or an average of \$1,600 per tonne. Approximately \$564 thousand in revenue was generated from vineyard development in Nova Scotia in 2015. 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.

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, there were 59 full-time equivalent workers employed in the vineyards in both development and ongoing vineyard maintenance and development capacities for a total payroll of over \$1.7 million in 2015. Since the vast majority of annual vineyard tonnage supplies grapes for 100% Canadian wine with little going into ICB wine, jobs and wages were attributed entirely to 100% Canadian wine.

WINE SALES

In 2015, there were 17 wineries in Nova Scotia that sold nearly 500 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 \$35.0 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 155 winery employees with total wages of nearly \$5.5 million.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

A portion of the overall Nova Scotia wine sales were from 100% Canadian wines, which represented nearly 150 thousand cases of Nova Scotia wine sold in 2015. Winery revenue associated with sales of 100% Canadian wines was \$16.4 million. Supporting that winery revenue was a total of 131 winery employees with total wages of \$3.8 million. The remaining portion of overall Nova Scotia wine revenue related to ICB wines, which represented over 350 thousand cases of wine sold in Nova Scotia in 2015. Winery revenue associated with sales of ICB wines was \$18.6 million. Supporting that winery revenue was approximately 24 winery employees with total wages of \$1.7 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, \$33.9 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 2015. \$11.6 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, payroll taxes, property taxes and other business taxes and fees. Nova Scotia's wine, grape and allied industries paid \$13.6 million in federal taxes and \$14.0 million in provincial and local taxes and in 2015.

Type of Tax	Total ('000s)
Federal Tax Revenues	
Excise	\$ 1,981
Income	5,607
Consumption and Other	6,023
Total Federal Tax Revenues	\$ 13,611
Provincial Tax Revenues	
Income	\$ 3,596
Consumption	7,703
Property	1,984
Payroll and Other	733
Total Provincial Tax Revenues	\$ 14,016
Total Tax Revenues	\$ 27,627

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

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 \$19.2 million in revenue for the broader Nova Scotia economy in 2015. Approximately 112,000 tourists visited Nova Scotia wineries in 2015. Supporting these winery visitors are approximately 208 employees with total wages of roughly \$6.8 million. An additional \$12.9 million of indirect and induced revenue and \$3.7 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 VQA and other 100% Canadian wines. As a result, no tourism impact was attributed 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. There were 19 full-time equivalent employees focused on the wine industry in Nova Scotia in 2015. Total winery supplier revenue in 2015 was \$4.9 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 volume.

There were an additional 2 employees working for a few trucking, shipping and warehousing services suppliers focused on the wine and grape industry in Nova Scotia. Total wine-related trucking, shipping and warehousing revenue was \$0.8 million in Nova Scotia in 2015 while wages accounted for \$0.1 million. Similar to the other winery suppliers, the allocation to 100% Canadian wine and ICB wine was made based on percentage of wine sales volume.

EDUCATION AND RESEARCH

There are research and educational institutions in Nova Scotia that focus on or provide some wine or vineyard-related education, consulting or research. There was roughly \$0.4 million in funding or grant revenue for wine and vineyard-focused research and educational activities. With a total of three full-time equivalent employees and wages totaling \$0.2 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 2015

QUÉBEC

SUMMARY TABLE

	Quebec		
	100% Canadian Wine	ICB Wine	Total
Revenue:			
Winery Revenue	\$ 19,677,000	141,199,000	160,876,000
Liquor Board Revenue (Markup)	2,254,000	70,043,000	72,297,000
Restaurant and Retail Revenue (Markup)	3,849,000	42,147,000	45,996,000
Wine Grape Sales	3,517,000	-	3,517,000
Tourism	25,034,000	-	25,034,000
Winery Suppliers	1,195,000	44,576,000	45,771,000
Vineyard Suppliers	5,543,000	-	5,543,000
Vineyard Development	-	-	-
Trucking/Warehousing	90,000	3,370,000	3,460,000
Wine Research/Education/Consulting	450,000	-	450,000
Tax Revenues - Federal	6,705,000	73,663,000	80,368,000
Tax Revenues - Provincial	10,504,000	76,716,000	87,220,000
Indirect (IMPLAN)	30,897,000	171,340,000	202,237,000
Induced (IMPLAN)	21,678,000	125,307,000	146,985,000
Total Revenue	\$ 131,393,000	748,361,000	879,754,000
Wages:			
Wineries	\$ 13,183,000	14,335,000	27,518,000
Liquor Boards	2,544,000	60,059,000	62,603,000
Restaurants and Retail stores	1,200,000	6,356,000	7,556,000
Vineyard	4,840,000	-	4,840,000
Tourism	7,898,000	-	7,898,000
Winery Suppliers	287,000	10,714,000	11,001,000
Vineyard Suppliers	142,000	-	142,000
Trucking/Warehousing	14,000	541,000	555,000
Wine Research/Education/Consulting	350,000	-	350,000
Indirect (IMPLAN)	7,831,000	52,151,000	59,982,000
Induced (IMPLAN)	6,631,000	38,876,000	45,507,000
Total Wages	\$ 44,920,000	183,032,000	227,952,000
Total Impact	\$ 176,313,000	931,393,000	1,107,706,000
Employment:			
Wineries	362	211	573
Liquor Boards	49	1,166	1,215
Restaurants and Retail stores	62	301	363
Vineyard	563	-	563
Tourism	306	-	306
Winery Suppliers	5	185	190
Vineyard Suppliers	4	-	4
Trucking/Warehousing	-	12	12
Research/Education/Consulting	12	-	12
Indirect (IMPLAN)	136	892	1,028
Induced (IMPLAN)	125	729	854
Total Employment	1,624	3,496	5,120

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

OVERALL ECONOMIC IMPACT

The Québec wine and grape industry contributed to the Québec economy business revenue of \$712 million, tax revenues of \$168 million, and wages of \$228 million, totaling \$1.1 billion of overall economic impact, an increase of over \$300 million since 2011. This includes \$202 million of indirect revenue and \$147 million of induced revenue. An average bottle of Québec wine sold generates \$13.95 of business revenue, \$3.28 of tax revenue and \$4.47 of wages. For every \$1.00 spent on Canadian wine in Québec, \$3.15 in GDP is generated across the province.

GRAPE PRODUCTION

In 2015, there were approximately 270 grape growers operating in Québec with a combined acreage of 1,684 grape-bearing acres (including wineries). Using a four-year average of grape production, approximately 1,950 tonnes of grapes were produced annually while wine grape sales totaled \$3.5 million, or an average of \$1,800 per tonne. 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.

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, there were 563 full-time equivalent workers employed in the vineyards in both development and ongoing vineyard maintenance and development capacities for a total payroll of approximately \$4.8 million in 2015. All workers were assumed to work in vineyards designated for grapes used in 100% Canadian wine.

WINE SALES

In 2015, there were 115 wineries in Québec that sold over 4.25 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 \$160.9 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 573 winery employees with total wages of over \$27.5 million.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

A small portion of the overall Québec wine sales were from 100% Canadian wines, which represented over 110 thousand cases of Québec wine sold in 2015. Winery revenue associated with sales of 100% Canadian wines was \$19.7 million. Supporting that winery revenue was a total of 362 winery employees with total wages of \$13.2 million. The remaining and vast majority portion of overall Québec wine revenue related to ICB wines, which represented over 4.1 million cases of wine sold in Québec in 2015. Winery revenue associated with sales of ICB wines was \$141.2 million. Supporting that winery revenue was approximately 211 winery employees with total wages of \$14.3 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, \$118.3 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 2015. \$87.5 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, payroll taxes, property taxes and other business taxes and fees. Québec's wine, grape and allied industries paid \$80.4 million in federal taxes and \$87.2 million in provincial and local taxes and in 2015.

Type of Tax	Total ('000s)
Federal Tax Revenues	
Excise	\$ 23,118
Income	28,084
Consumption and Other	29,166
Total Federal Tax Revenues	<u>\$ 80,368</u>
Provincial Tax Revenues	
Income	\$ 18,009
Consumption	55,598
Property	9,940
Payroll and Other	3,673
Total Provincial Tax Revenues	<u>\$ 87,220</u>
Total Tax Revenues	<u><u>\$ 167,588</u></u>

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

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 \$25.0 million in revenue for the broader Québec economy in 2015. Approximately 200 thousand tourists visited Québec wineries in 2015. Supporting these winery visitors are approximately 306 employees with total wages of roughly \$7.9 million. An additional \$24.7 million of indirect and induced revenue and \$6.9 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 VQA and other 100% Canadian wines. As a result, no tourism impact was attributed 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. There were 190 full-time equivalent employees focused on the wine industry in Québec in 2015. Total winery supplier revenue in 2015 was \$45.8 million while wages accounted for \$11.0 million. Supplier revenue and employee wages were allocated to 100% Canadian wine and ICB wine based on percentage of wine sales volume.

There were an additional 12 employees working for several trucking, shipping and warehousing services suppliers focused on the wine and grape industry in Québec. Total wine-related trucking, shipping and warehousing revenue was \$3.5 million in Québec in 2015 while wages accounted for \$0.6 million. Similar to the other winery suppliers, the allocation to 100% Canadian wine and ICB wine was made based on percentage of wine sales volume.

THE ECONOMIC IMPACT OF THE WINE AND GRAPE INDUSTRY IN CANADA 2015

EDUCATION AND RESEARCH

There are research and educational institutions in Québec that focus on or provide some wine or vineyard-related education, consulting or research. 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

This study estimates the economic impact of the Canadian wine and grape industry on the Canadian economy in 2015. The Canadian wine industry is defined as grape growing, wine production, wine-related tourism and wine sales through wholesale, retail and direct-to-consumer channels throughout Canada. The study estimates the direct economic effects of the industry by measuring revenue and wages of activities having a direct impact on the industry. Additional indirect and induced effects of the industry are estimated using the IMPLAN model discussed in the following section. The report does not calculate the GDP of the industry, but uses Total Revenue from the summary tables as an estimate of industry GDP. The dynamics of GDP and business revenue are similar.

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.

The accuracy of certain information has been improved from the 2011 report as a result of using more complete information, particularly with regard to the channel markups and winery supplier revenue.

- Surveys for the Canadian grape and wine industry were designed based on experience from the prior study and with other economic impact studies completed in the past and through feedback with the trade organizations assisting with this study. Surveys were sent to every Canadian winery and vineyard for which contact information was received through the Canadian Vintners Association. Survey responses represented 90% of total national sales volume and in excess of 84% for each of the four major provinces.
- Winery sales data, employment and wage data were collected directly from winery survey responses and extrapolated when necessary for the broader industry by province and Canada overall. Sales were identified as either 100% Canadian or ICB wines and disclosed by province. Sales were also identified by channels such as liquor control boards (which function essentially as wholesalers in Canada), private retail stores (in some provinces), direct-to-consumer, direct-to-licensee (restaurants, hotels, etc.), and exports.

- The additional profit on wine sold through the wholesale channels (channel markups) through liquor control boards, retailers and restaurants were calculated based on detailed mark-up analyses provided by various industry trade organizations and wineries. These analyses were used to apply industry average percentages to winery channel revenue to estimate channel profits and national and provincial sales and excise taxes. As one example, for an average British Columbia ICB wine priced at \$10 retail sold through the British Columbia Liquor Distribution Branch (BCLDB), the winery would receive approximately \$3.08, the BCLDB would receive \$5.04 and there would be provincial and federal taxes totaling \$1.76. The BCLDB markup would be estimated as $\$5.04/\3.08 multiplied by total British Columbia ICB wine sales sold through the BCLDB.
- Liquor control boards, retail and restaurant employment and wages were based on information from liquor control boards, national restaurant organizations and Statistics Canada wage data. In the case of liquor control boards, employment and wages were obtained from each province's liquor control board and then allocated to the wine industry based on domestic wine sales volume as a percentage of overall alcohol sales volume.
- The size of annual grape harvests have been variable since 2011, especially in Ontario. The harvest tonnage and grape crop values from the past four years were averaged to provide a more accurate estimate of annual grape revenue. The volume and value of these grape harvests were obtained from provincial trade organizations. Vineyard wage and employment information was estimated based on vineyard and winery surveys and Statistics Canada and extrapolated based on acreage, if necessary.
- The volume of winery visitors was estimated using winery survey responses in conjunction with tourism information provided by regional trade organizations. Tourism revenue was estimated based on the estimated number of winery visitors multiplied by the 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.

- Revenue 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 through reported spending amounts from winery surveys and were not extrapolated, making these conservative estimates. Jobs and wages were estimated using the relationship between each industry's revenue and wages from Statistics Canada.
- Wages and employment from industry research and educational institutions were obtained directly from educational institutions and trade organizations in each Canadian province.
- Taxes, 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.

IMPLAN

All economic activities have “ripple” effects: employment of one person creates economic activity for others, whether the salesperson 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 and the wages, taxes and output generated by each job.

IMPLAN¹ is the acronym for “**IM** impact 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.

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.

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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.

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 and over 350 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

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 varietals 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, Kentucky, Michigan, Missouri, New Jersey, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Virginia and Washington.