

# Economic Growth and Diversification

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The current economic downturn in Calgary and Alberta has triggered concerns about the region's economic prospects. The debate about diversifying Alberta's economy has heated up, as if the province is the only place in Canada suffering from low oil prices. However, an examination of the available data from Statistics Canada shows that, over the past fifteen years, concentrated investments in energy producing provinces have not only benefited those regional economies, but also Canada as a whole.

As a small open resource-exporting economy, Canada has always been affected by the world's demand for natural resources from oil and gas to lumber and fish. In fact, the number of total employment in Canada has had a strong positive correlation<sup>1</sup> with the number of jobs in the Forestry, Fishing, Mining, Oil and Gas (FFMOG) (the correlation coefficient  $r = 0.93$ ). The same holds true for the correlation between employment in the Construction sector and employment in FFMOG ( $r=0.92$ ). In large part, Canada's economic growth is driven by the investments in the Mining, Oil and Gas Extraction sector, linked through supply chains across the country. This is why oil producing provinces such as Alberta experienced rapid economic and population growth and grew in relative importance as places to live and work in Canada. The oil and gas sectors provide more benefits to small regions when compared to other sectors.

As a result, diversification<sup>2</sup> either through new industries, new markets, new product lines or more local upgrading of commodities should be considered as a national growth strategy. If low energy prices are a long-term reality, Canada along with Alberta needs to find its next growth engine.

<sup>1</sup> **Correlation** is defined as the linear relationship between two variables. It is measured by **coefficient of correlation (r)**, ranging from -1 to 1. In general,  $r > 0$  indicates positive relationship (two variables move in the same direction),  $r < 0$  indicates negative relationship, while  $r=0$  indicates no relationship. The closer  $r$  to -1 or 1, the greater is the strength of linear relationship between the variables. In our analysis, correlation coefficient is calculated using the employments of two industries. Using the latest time series data from Statistics Canada, an analysis of industrial correlations at the national, provincial and regional levels revealed some interesting information.

<sup>2</sup> Ted Morton and Meredith McDonald, "The Siren Song of Economic Diversification: Alberta's Legacy of Loss", The School of Public Policy (SPP) Research Papers, Volume 8, Issue 13, March 2015, page 19

## 1. Major growth engines in Canada over the past 15 years

Statistics Canada provides total employment by industry data from March 2001 to current for economic regions based on 2011 Census boundaries and North American Industry Classification System<sup>3</sup>. The latest data shows that over the past fifteen years, total employment in Canada increased by 3.1 million, or by 21 per cent. The four largest provinces (Ontario, Quebec, BC, and Alberta) are still the leaders of economic activities, measured by the size of total employment and the growth of jobs. By March 2016, Ontario, Quebec, BC, and Alberta employed 6.87 million, 4.01 million, 2.31 million and 2.25 million of people, respectively. Among them, Alberta had the fastest job growth (42 per cent) in fifteen years (Charts 1.1-1.2).

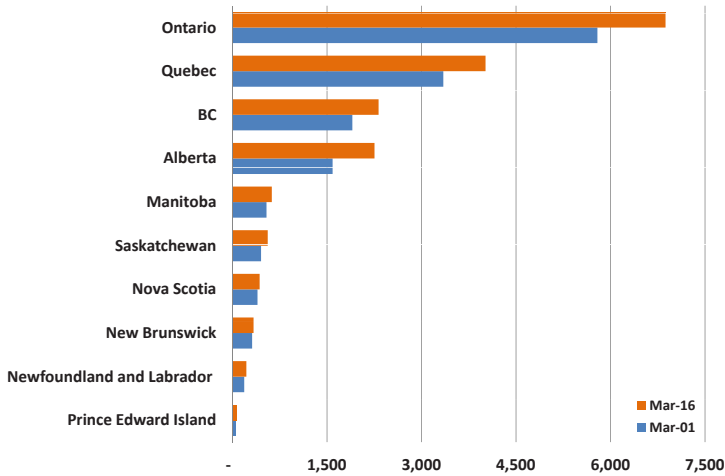
Among economic regions, nine of them had more than half million people employed in various industries, including Toronto, Hamilton-Niagara Peninsula, Kitchener-Waterloo-Barrie, and Ottawa in Ontario, Montreal and Montereji in QC, Lower Mainland-Southwest in BC, and Calgary and Edmonton in Alberta. Over the past fifteen years, Toronto, Lower Mainland-Southwest and Montreal kept their first to third place ranking by the size of total employment. While Calgary and Edmonton jumped from number seven and nine to number four and five respectively, thanks to the faster growth over the same period (Charts 1.3-1.4).

Over the past fifteen years, Alberta was the only province that consistently enjoyed lower than the national average unemployment rate whereas, the other three big provinces suffered higher unemployment from time to time. On a regional level, Calgary, Edmonton and Lower Mainland-Southwest had lower unemployment rates than the national average, while Toronto and Montreal had higher unemployment rates (Charts 1.5-1.6).

<sup>3</sup> The data is based on a 3-month moving average, unadjusted for seasonality

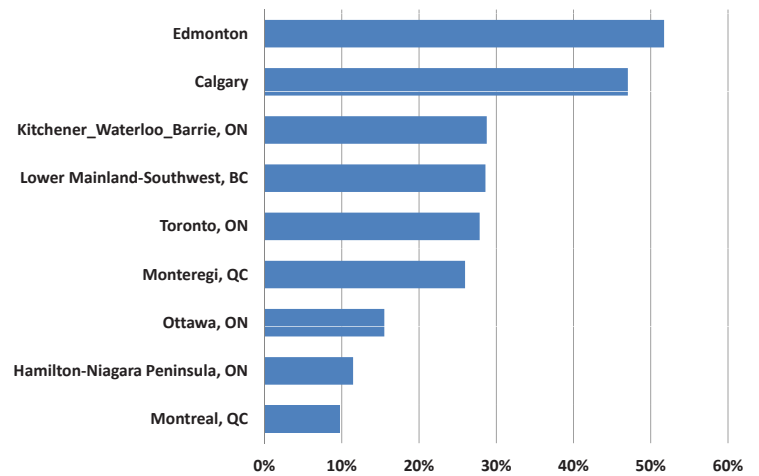
# Economic Growth and Diversification

**Chart 1.1: Province Ranking by Total Employment**  
(March 2016 vs. March 2001, thousands of persons)



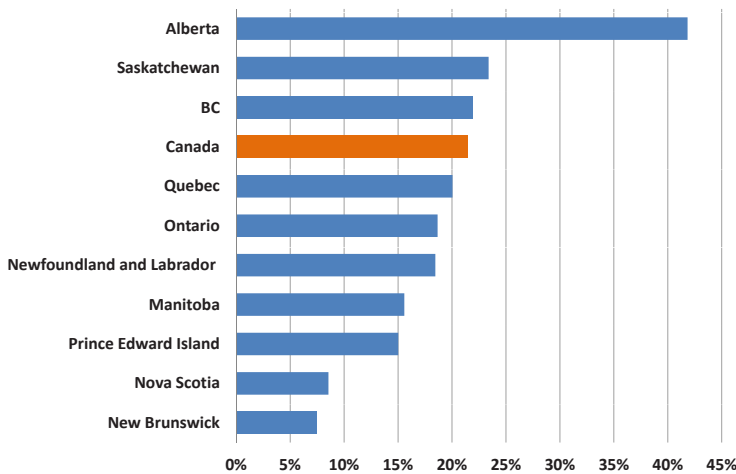
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 1.4: Economic Region Ranking by Employment Growth**  
(from March 2001 to March 2016, per cent)



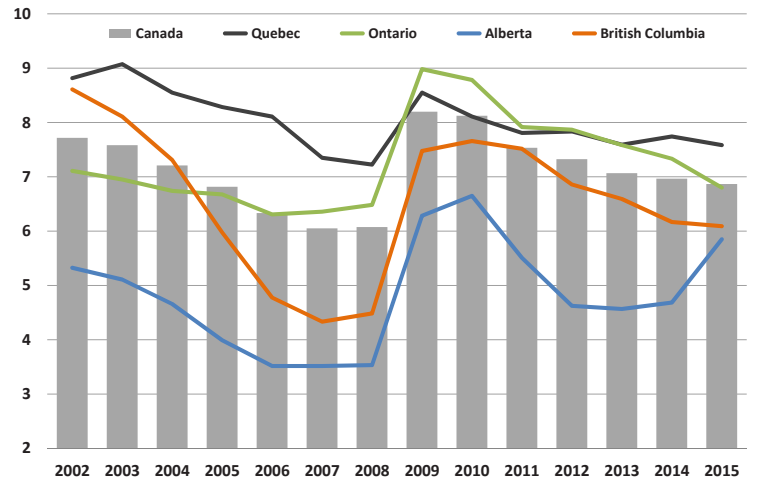
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 1.2: Province Ranking by Employment Growth**  
(from March 2001 to March 2016, per cent)



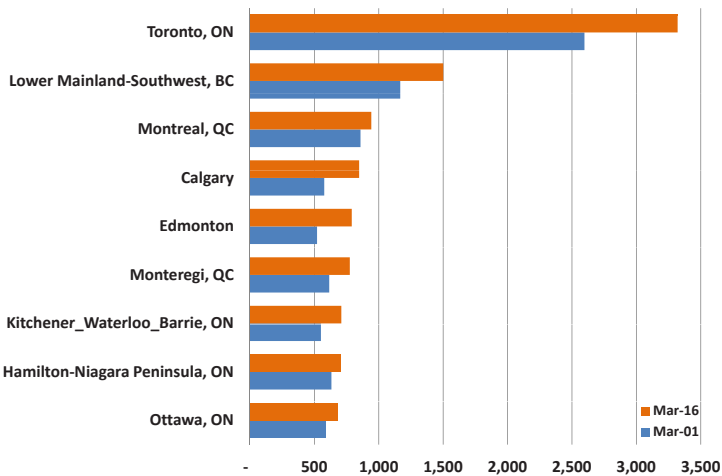
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 1.5: Unemployment Rate by Province**  
(2002-2015, per cent)



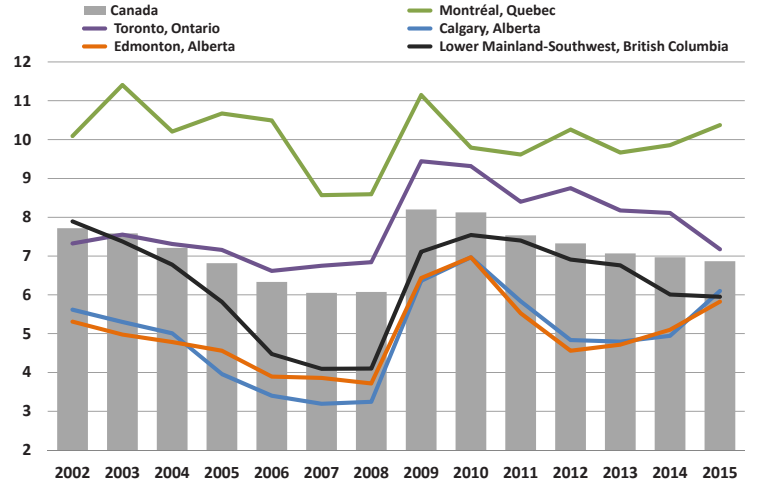
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 1.3: Economic Region Ranking by Total Employment**  
(March 2016 vs. March 2001, thousands of persons)



Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 1.6: Unemployment Rate by Economic Region**  
(2002-2015, per cent)



Sources: Statistics Canada, Corporate Economics, April 2016

# Economic Growth and Diversification

## 2. Structural changes in Canada's regional economies

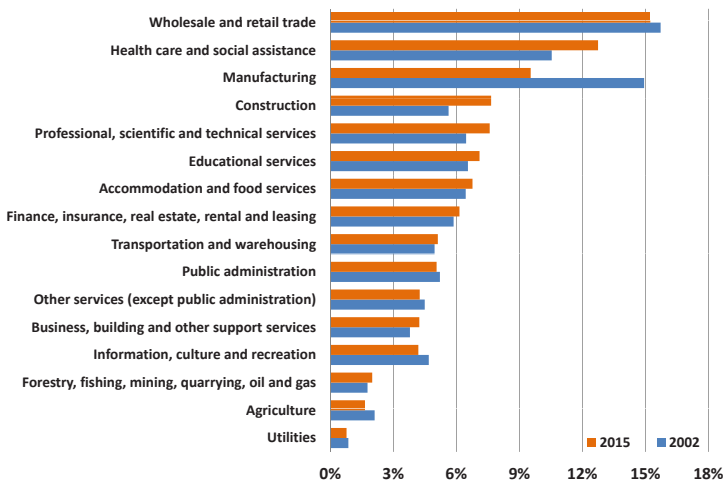
Regional economic structure is defined as the composition and patterns of various components of the regional economy, such as: production, employment, consumption, trade, and gross regional product. Measured by industry's share of total employment, the economic structure of a region can be indicated by the relative sizes of industries in the local economy. As a result, when the relative sizes of industries in an economy change over time, the local economic structure has changed.

Over the past fifteen years, total employment in Canada was concentrated in the Wholesale and retail trade, Health care and social assistance (HCSA), Manufacturing, Construction, and Professional, scientific and technical services (PSTS) sectors. However, the relative importance of each industry has changed. The biggest change is the shrinking share of manufacturing jobs relative to all industries jobs, from 15 per cent in 2002 to 10 per cent in 2015. This was driven either by technology improvement or by the relocation of auto industries back to the U.S. At the same time, employment in the HCSA,

Construction, PSTS and FFMOG grew faster than the rest of industries, thanks to the increasing demand from an aging population, investments in energy sector, and the transition to a knowledge based economy (Chart 2.1). Among provinces, Ontario and Quebec lost more manufacturing jobs than other provinces, considering they were the manufacturing centres of Canada. In Alberta and BC, jobs in Construction industry accounted for more of total employments, driven by the heavy investments in energy and natural resource sectors in recent years (Charts 2.2-2.5) and the rapid increase in population growth.

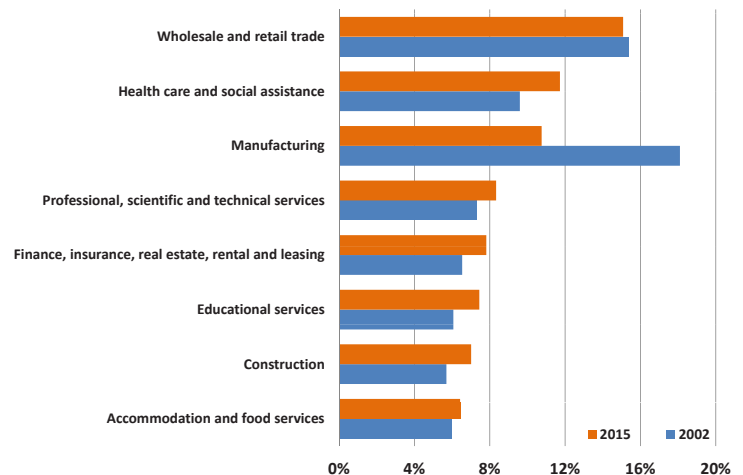
Among economic regions, Montreal, Toronto, Calgary, Lower Mainland-Southwest, and Ottawa are the major employment centres for the PSTS industry, with the share of the PSTS to total employment ranging from 12 per cent in Montreal, 11 per cent in Toronto, and 10 per cent in Calgary to 9 per cent in Lower Mainland-Southwest, and Ottawa (Charts 2.6-2.14).

**Chart 2.1: Canada Industry Structure**  
(Industry's share of total employment, per cent)



Sources: Statistics Canada, Corporate Economics, April 2016

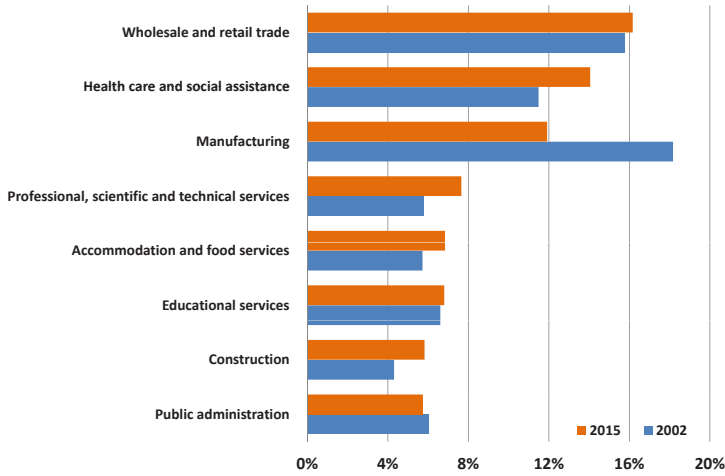
**Chart 2.2: Ontario Industry Structure**  
(Industry's share of total employment, per cent)



Sources: Statistics Canada, Corporate Economics, April 2016

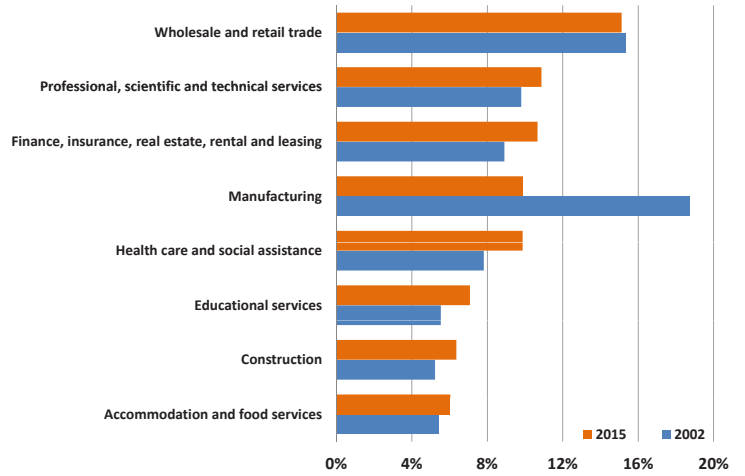
# Economic Growth and Diversification

**Chart 2.3: Quebec Industry Structure**  
(Industry's share of total employment, per cent)



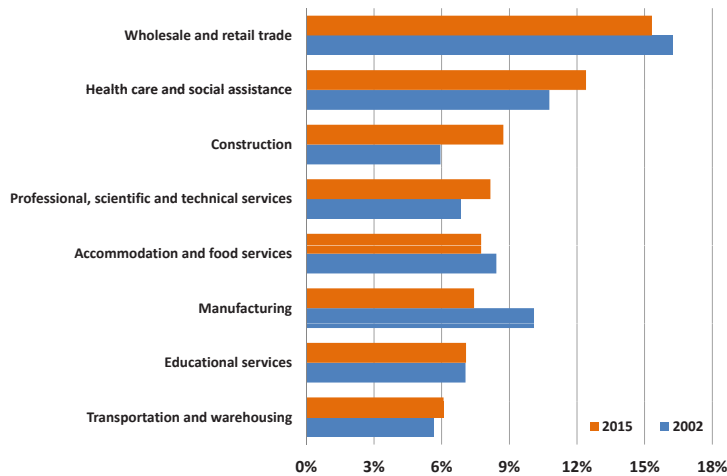
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 2.6: Toronto Industry Structure**  
(Industry's share of total employment, per cent)



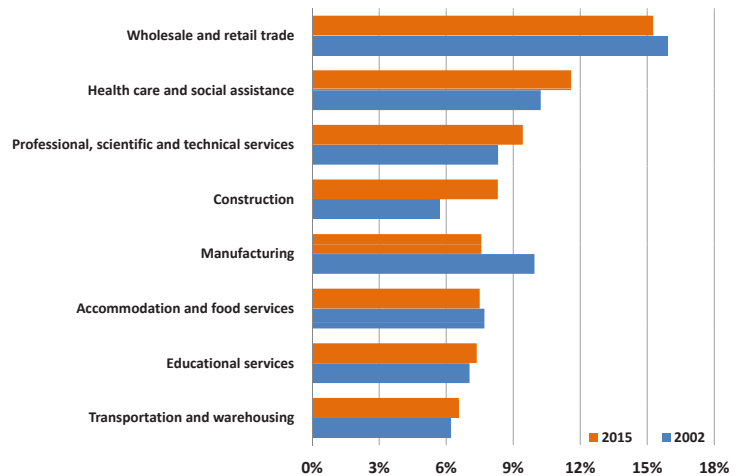
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 2.4: British Columbia Industry Structure**  
(Industry's share of total employment, per cent)



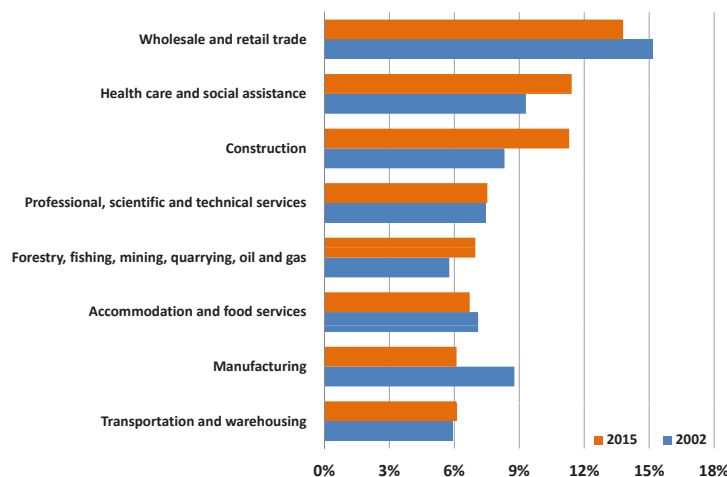
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 2.7: Lower Mainland/Southwest British Columbia Industry Structure**  
(Industry's share of total employment, per cent)



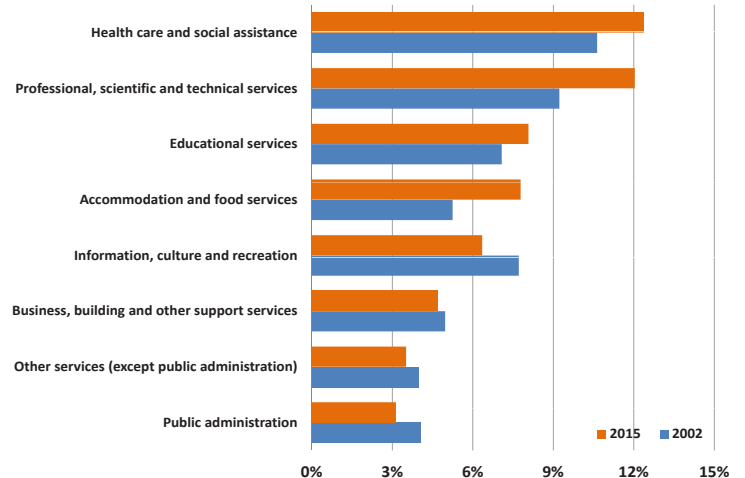
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 2.5: Alberta Industry Structure**  
(Industry's share of total employment, per cent)



Sources: Statistics Canada, Corporate Economics, April 2016

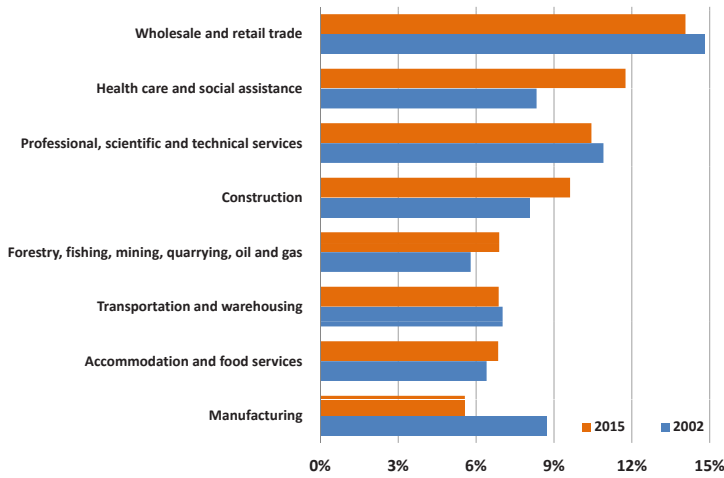
**Chart 2.8: Montreal Industry Structure**  
(Industry's share of total employment, per cent)



Sources: Statistics Canada, Corporate Economics, April 2016

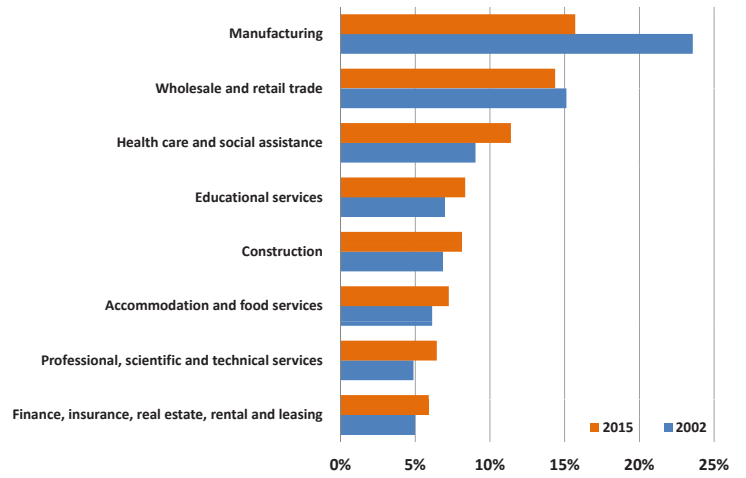
# Economic Growth and Diversification

**Chart 2.9: Calgary Industry Structure**  
(Industry's share of total employment, per cent)



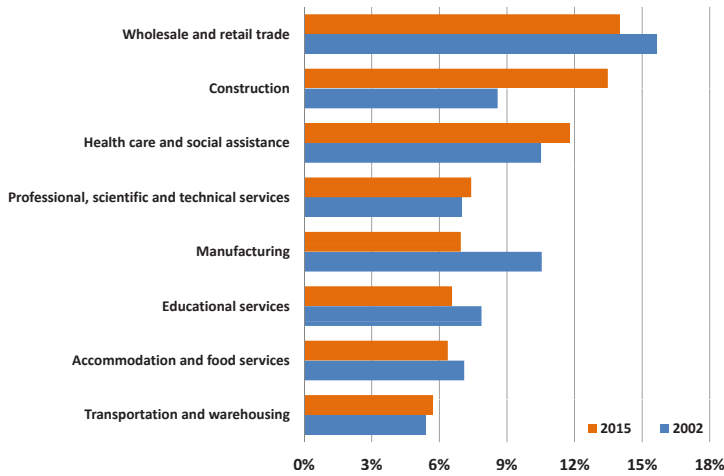
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 2.12: Kitchener-Waterloo-Barrie Industry Structure**  
(Industry's share of total employment, per cent)



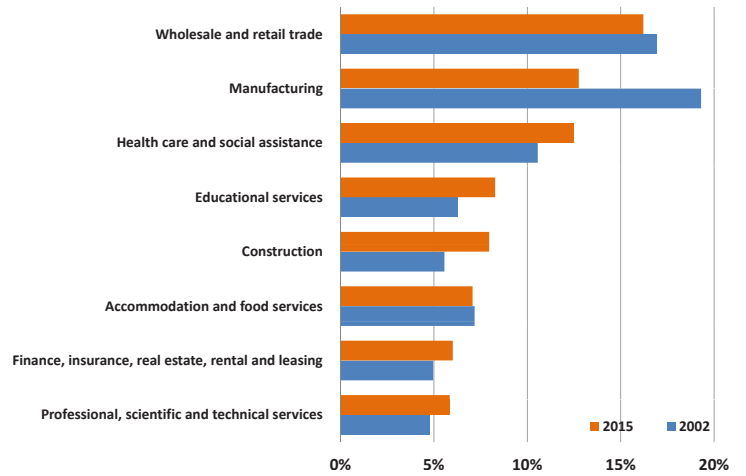
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 2.10: Edmonton Industry Structure**  
(Industry's share of total employment, per cent)



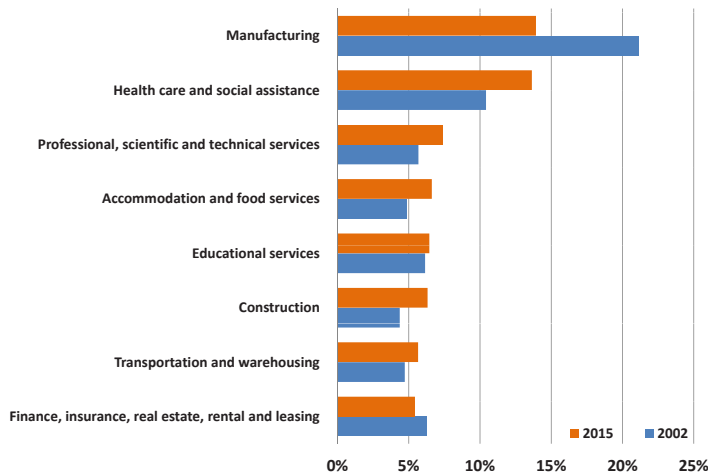
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 2.13: Hamilton-Niagara Peninsula Industry Structure**  
(Industry's share of total employment, per cent)



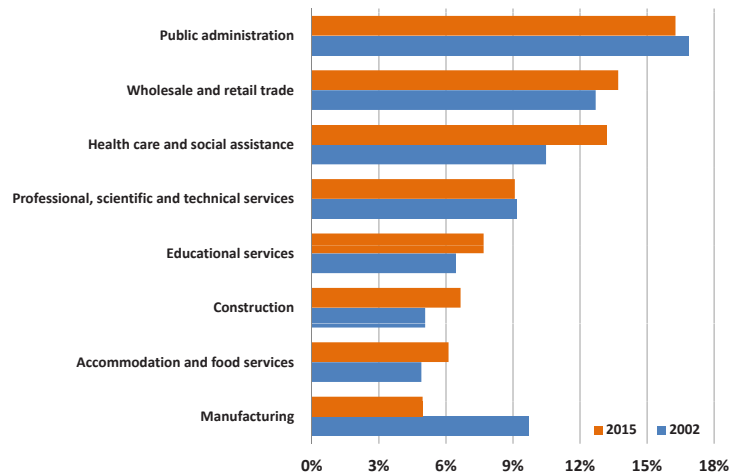
Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 2.11: Monterege Industry Structure**  
(Industry's share of total employment, per cent)



Sources: Statistics Canada, Corporate Economics, April 2016

**Chart 2.14: Ottawa Industry Structure**  
(Industry's share of total employment, per cent)



Sources: Statistics Canada, Corporate Economics, April 2016

### 3. Industrial correlations in Canada

At the national level, total employment in Canada was highly correlated with that of the FFMOG ( $r=0.93$ ). Construction and the PSTS jobs also have strong positive correlation with the FFMOG, with correlation coefficients equal to 0.89 and 0.92 respectively (Table 1).

Among four largest provinces, total employment in Alberta had the highest correlation with its jobs in the FFMOG ( $r=0.92$ ), while the relationship was less strong in BC ( $r=0.5$ ) and Ontario ( $r=0.37$ ) and even negative in Quebec ( $r=-0.16$ ). The same thing holds true between Construction and FFMOG, and PSTS and FFMOG in those provinces (Tables 2-5).

In economic regions, total employments in Calgary and Edmonton had the strongest correlations with those of the FFMOG. While Calgary had the strongest correlation between PSTS and FFMOG jobs ( $r=0.85$ ), Edmonton had the highest correlation coefficient between jobs in FFMOG and Construction ( $r=0.83$ ) (Tables 6-14).

Considering the weak linear relationships between FFMOG and the above selected industries outside Calgary, Edmonton and Alberta, the high correlations in the same area at national level only indicated that small regions benefited more from the FFMOG in Canada.

### 4. Conclusion

Investment in energy sector has brought the provinces like Alberta and Canada to where they are today. Over the past fifteen years, people in those related regions enjoyed better job opportunities and increasing personal incomes. A large number of highly educated workers, especially those in the oil and gas fields, have come to the regions like Calgary and Edmonton for a better life.

If low energy price is a long-term reality, Canada along with Alberta needs to find its next growth engine. Diversification policies though either new industries, new markets, new product line or more local upgrading of commodities can be successful, only when they are considered at a national strategic level.

# Economic Growth and Diversification

List of industries:

- Industry 1. All industries
- Industry 2. Goods-producing sector
- Industry 3. Agriculture
- Industry 4. Forestry, fishing, mining, quarrying, oil and gas
- Industry 5. Utilities
- Industry 6. Construction
- Industry 7. Manufacturing
- Industry 8. Services-producing sector
- Industry 9. Wholesale and retail trade
- Industry 10. Transportation and warehousing
- Industry 11. Finance, insurance, real estate, rental and leasing
- Industry 12. Professional, scientific and technical services
- Industry 13. Business, building and other support services
- Industry 14. Educational services
- Industry 15. Health care and social assistance
- Industry 16. Information, culture and recreation
- Industry 17. Accommodation and food services
- Industry 18. Other services (except public administration)
- Industry 19. Public administration

**Table 1. Industry Correlation in Canada**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	0.16	1.00																		
3	(0.17)	0.78	1.00																	
4	0.93	0.29	(0.01)	1.00																
5	0.56	0.10	0.04	0.42	1.00															
6	0.98	0.18	(0.12)	0.92	0.59	1.00														
7	(0.83)	0.38	0.50	(0.72)	(0.51)	(0.84)	1.00													
8	0.98	(0.01)	(0.31)	0.89	0.55	0.96	(0.90)	1.00												
9	0.95	0.10	(0.15)	0.89	0.54	0.93	(0.82)	0.94	1.00											
10	0.92	0.09	(0.29)	0.83	0.47	0.88	(0.76)	0.91	0.82	1.00										
11	0.94	(0.01)	(0.21)	0.86	0.56	0.92	(0.87)	0.95	0.97	0.80	1.00									
12	0.94	(0.11)	(0.41)	0.84	0.48	0.92	(0.92)	0.97	0.86	0.92	0.88	1.00								
13	0.95	0.35	0.06	0.90	0.57	0.93	(0.69)	0.91	0.93	0.83	0.90	0.82	1.00							
14	0.65	(0.42)	(0.61)	0.54	0.18	0.57	(0.76)	0.73	0.70	0.66	0.72	0.72	0.51	1.00						
15	0.95	(0.10)	(0.42)	0.82	0.48	0.93	(0.91)	0.98	0.87	0.92	0.89	0.98	0.84	0.73	1.00					
16	0.60	0.54	0.44	0.65	0.54	0.63	(0.32)	0.51	0.54	0.40	0.54	0.43	0.70	(0.12)	0.42	1.00				
17	0.95	0.15	(0.19)	0.89	0.56	0.94	(0.79)	0.94	0.83	0.90	0.83	0.93	0.89	0.52	0.93	0.63	1.00			
18	0.87	(0.04)	(0.23)	0.78	0.67	0.89	(0.86)	0.89	0.80	0.77	0.82	0.86	0.78	0.53	0.88	0.53	0.87	1.00		
19	0.88	0.08	(0.07)	0.80	0.71	0.91	(0.82)	0.88	0.84	0.73	0.87	0.82	0.84	0.44	0.83	0.70	0.86	0.92	1.00	

**Table 2. Industry Correlation in Ontario**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	(0.57)	1.00																		
3	0.22	0.22	1.00																	
4	0.37	(0.10)	0.27	1.00																
5	0.03	0.06	0.05	(0.12)	1.00															
6	0.95	(0.55)	0.28	0.44	0.01	1.00														
7	(0.79)	0.94	0.00	(0.27)	0.01	(0.79)	1.00													
8	0.97	(0.76)	0.11	0.33	0.01	0.92	(0.91)	1.00												
9	0.90	(0.58)	0.29	0.36	0.02	0.83	(0.76)	0.89	1.00											
10	0.84	(0.71)	0.01	0.19	0.16	0.78	(0.82)	0.88	0.76	1.00										
11	0.95	(0.70)	0.16	0.44	(0.11)	0.90	(0.86)	0.97	0.90	0.83	1.00									
12	0.86	(0.79)	(0.11)	0.33	(0.13)	0.84	(0.89)	0.92	0.71	0.79	0.88	1.00								
13	0.94	(0.43)	0.22	0.39	0.07	0.90	(0.67)	0.88	0.83	0.74	0.85	0.77	1.00							
14	0.76	(0.75)	(0.06)	0.15	(0.06)	0.63	(0.79)	0.83	0.81	0.74	0.82	0.74	0.65	1.00						
15	0.92	(0.80)	(0.03)	0.28	(0.06)	0.89	(0.92)	0.98	0.80	0.86	0.93	0.96	0.82	0.79	1.00					
16	0.45	(0.08)	0.63	0.43	0.26	0.53	(0.30)	0.38	0.35	0.23	0.38	0.27	0.48	(0.01)	0.30	1.00				
17	0.93	(0.58)	0.12	0.29	0.02	0.87	(0.76)	0.91	0.78	0.77	0.86	0.87	0.87	0.64	0.90	0.42	1.00			
18	0.70	(0.75)	0.15	0.12	0.25	0.73	(0.84)	0.78	0.65	0.78	0.70	0.67	0.58	0.56	0.76	0.38	0.64	1.00		
19	0.84	(0.71)	0.19	0.16	0.21	0.84	(0.85)	0.89	0.75	0.83	0.80	0.76	0.75	0.64	0.86	0.47	0.80	0.91	1.00	

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List of industries:

- Industry 1. All industries
- Industry 2. Goods-producing sector
- Industry 3. Agriculture
- Industry 4. Forestry, fishing, mining, quarrying, oil and gas
- Industry 5. Utilities
- Industry 6. Construction
- Industry 7. Manufacturing
- Industry 8. Services-producing sector
- Industry 9. Wholesale and retail trade
- Industry 10. Transportation and warehousing
- Industry 11. Finance, insurance, real estate, rental and leasing
- Industry 12. Professional, scientific and technical services
- Industry 13. Business, building and other support services
- Industry 14. Educational services
- Industry 15. Health care and social assistance
- Industry 16. Information, culture and recreation
- Industry 17. Accommodation and food services
- Industry 18. Other services (except public administration)
- Industry 19. Public administration

**Table 3. Industry Correlation in Quebec**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	(0.19)	1.00																		
3	0.03	0.55	1.00																	
4	(0.16)	0.90	0.53	1.00																
5	0.04	0.14	0.24	0.05	1.00															
6	0.95	(0.06)	0.06	(0.04)	0.11	1.00														
7	(0.82)	0.66	0.22	0.57	(0.05)	(0.78)	1.00													
8	0.98	(0.39)	(0.09)	(0.35)	0.01	0.90	(0.91)	1.00												
9	0.87	(0.20)	0.03	(0.18)	0.12	0.78	(0.71)	0.86	1.00											
10	0.65	(0.25)	(0.05)	(0.20)	(0.14)	0.53	(0.54)	0.66	0.58	1.00										
11	0.69	(0.38)	0.11	(0.35)	0.35	0.65	(0.76)	0.73	0.70	0.23	1.00									
12	0.92	(0.49)	(0.20)	(0.43)	0.01	0.87	(0.94)	0.97	0.76	0.60	0.69	1.00								
13	0.91	(0.19)	0.14	(0.13)	(0.03)	0.84	(0.76)	0.89	0.76	0.52	0.64	0.85	1.00							
14	0.49	(0.70)	(0.45)	(0.62)	(0.26)	0.43	(0.73)	0.61	0.48	0.30	0.42	0.64	0.40	1.00						
15	0.93	(0.41)	(0.22)	(0.37)	(0.13)	0.85	(0.87)	0.96	0.77	0.63	0.58	0.94	0.85	0.65	1.00					
16	0.72	0.07	0.07	0.04	(0.03)	0.71	(0.47)	0.66	0.51	0.37	0.45	0.60	0.64	0.06	0.63	1.00				
17	0.92	(0.27)	0.04	(0.22)	0.09	0.87	(0.83)	0.92	0.73	0.69	0.63	0.89	0.86	0.38	0.86	0.66	1.00			
18	0.59	(0.03)	0.17	(0.08)	0.40	0.64	(0.52)	0.56	0.47	0.35	0.61	0.52	0.41	0.17	0.44	0.54	0.54	1.00		
19	0.55	0.03	0.27	0.03	0.11	0.44	(0.33)	0.51	0.44	0.43	0.35	0.45	0.53	(0.11)	0.43	0.51	0.62	0.24	1.00	

**Table 4. Industry Correlation in British Columbia**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	0.75	1.00																		
3	(0.27)	0.33	1.00																	
4	0.60	0.52	(0.24)	1.00																
5	0.48	0.19	(0.45)	0.51	1.00															
6	0.95	0.78	(0.14)	0.47	0.41	1.00														
7	(0.68)	(0.13)	0.54	(0.26)	(0.50)	(0.71)	1.00													
8	0.98	0.61	(0.41)	0.57	0.52	0.92	(0.78)	1.00												
9	0.86	0.59	(0.19)	0.49	0.40	0.85	(0.71)	0.86	1.00											
10	0.78	0.51	(0.42)	0.64	0.56	0.62	(0.41)	0.78	0.54	1.00										
11	0.69	0.64	0.09	0.36	0.14	0.73	(0.47)	0.65	0.67	0.35	1.00									
12	0.92	0.61	(0.40)	0.60	0.45	0.85	(0.65)	0.92	0.71	0.79	0.57	1.00								
13	0.82	0.80	0.14	0.42	0.25	0.88	(0.52)	0.75	0.73	0.45	0.67	0.66	1.00							
14	0.61	0.18	(0.63)	0.39	0.32	0.55	(0.62)	0.68	0.50	0.50	0.39	0.68	0.34	1.00						
15	0.90	0.44	(0.54)	0.51	0.59	0.80	(0.77)	0.95	0.77	0.75	0.50	0.84	0.62	0.65	1.00					
16	0.47	0.55	0.10	0.24	0.13	0.46	(0.08)	0.40	0.43	0.33	0.14	0.34	0.41	0.02	0.32	1.00				
17	0.68	0.41	(0.22)	0.33	0.33	0.64	(0.56)	0.70	0.43	0.61	0.44	0.69	0.54	0.28	0.62	0.26	1.00			
18	0.37	(0.09)	(0.64)	0.24	0.48	0.23	(0.45)	0.47	0.17	0.57	(0.06)	0.39	0.07	0.27	0.59	0.04	0.50	1.00		
19	0.54	0.31	(0.06)	0.02	0.34	0.59	(0.60)	0.56	0.55	0.23	0.44	0.34	0.56	0.12	0.55	0.27	0.47	0.26	1.00	



# Economic Growth and Diversification

List of industries:

- Industry 1. All industries
- Industry 2. Goods-producing sector
- Industry 3. Agriculture
- Industry 4. Forestry, fishing, mining, quarrying, oil and gas
- Industry 5. Utilities
- Industry 6. Construction
- Industry 7. Manufacturing
- Industry 8. Services-producing sector
- Industry 9. Wholesale and retail trade
- Industry 10. Transportation and warehousing
- Industry 11. Finance, insurance, real estate, rental and leasing
- Industry 12. Professional, scientific and technical services
- Industry 13. Business, building and other support services
- Industry 14. Educational services
- Industry 15. Health care and social assistance
- Industry 16. Information, culture and recreation
- Industry 17. Accommodation and food services
- Industry 18. Other services (except public administration)
- Industry 19. Public administration

**Table 5. Industry Correlation in Alberta**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	0.97	1.00																		
3	(0.04)	0.06	1.00																	
4	0.92	0.94	(0.20)	1.00																
5	0.70	0.67	(0.24)	0.63	1.00															
6	0.99	0.98	0.02	0.91	0.69	1.00														
7	(0.20)	0.00	0.40	(0.14)	(0.17)	(0.14)	1.00													
8	0.99	0.93	(0.09)	0.90	0.71	0.97	(0.28)	1.00												
9	0.91	0.85	(0.16)	0.88	0.60	0.89	(0.44)	0.92	1.00											
10	0.85	0.83	0.10	0.73	0.54	0.84	(0.00)	0.84	0.63	1.00										
11	0.71	0.63	(0.21)	0.67	0.58	0.69	(0.45)	0.73	0.81	0.43	1.00									
12	0.96	0.94	(0.10)	0.92	0.66	0.95	(0.19)	0.95	0.88	0.81	0.66	1.00								
13	0.90	0.87	0.05	0.79	0.69	0.89	(0.12)	0.89	0.81	0.71	0.70	0.79	1.00							
14	0.55	0.43	(0.57)	0.54	0.48	0.47	(0.34)	0.59	0.53	0.48	0.50	0.50	0.40	1.00						
15	0.96	0.89	(0.06)	0.84	0.67	0.94	(0.27)	0.98	0.86	0.88	0.62	0.91	0.84	0.58	1.00					
16	0.36	0.35	0.19	0.23	0.32	0.39	(0.07)	0.36	0.34	0.19	0.40	0.28	0.58	(0.11)	0.31	1.00				
17	0.82	0.79	0.21	0.65	0.55	0.81	(0.05)	0.82	0.64	0.76	0.37	0.74	0.73	0.33	0.86	0.24	1.00			
18	0.96	0.92	(0.01)	0.87	0.70	0.95	(0.20)	0.96	0.85	0.84	0.64	0.94	0.85	0.50	0.94	0.30	0.86	1.00		
19	0.91	0.85	(0.07)	0.82	0.72	0.89	(0.31)	0.92	0.89	0.67	0.75	0.85	0.86	0.47	0.87	0.50	0.71	0.85	1.00	

**Table 6. Industry Correlation in Toronto**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	(0.65)	1.00																		
3	0.03	0.11	1.00																	
4	0.50	(0.39)	(0.06)	1.00																
5	(0.05)	0.30	0.04	(0.05)	1.00															
6	0.92	(0.50)	0.09	0.45	(0.00)	1.00														
7	(0.83)	0.95	0.02	(0.48)	0.20	(0.74)	1.00													
8	0.98	(0.78)	0.00	0.51	(0.12)	0.88	(0.92)	1.00												
9	0.83	(0.57)	0.15	0.37	(0.19)	0.78	(0.72)	0.82	1.00											
10	0.78	(0.62)	0.13	0.39	0.14	0.68	(0.74)	0.79	0.60	1.00										
11	0.95	(0.70)	(0.00)	0.51	(0.12)	0.86	(0.85)	0.95	0.84	0.73	1.00									
12	0.88	(0.72)	0.07	0.53	(0.09)	0.76	(0.84)	0.90	0.62	0.70	0.83	1.00								
13	0.91	(0.47)	(0.04)	0.46	0.10	0.86	(0.68)	0.86	0.67	0.68	0.82	0.75	1.00							
14	0.83	(0.74)	(0.15)	0.45	(0.23)	0.68	(0.81)	0.86	0.73	0.57	0.83	0.73	0.69	1.00						
15	0.96	(0.76)	(0.05)	0.52	(0.15)	0.83	(0.89)	0.97	0.74	0.75	0.90	0.91	0.84	0.83	1.00					
16	0.57	(0.60)	0.04	0.27	(0.06)	0.56	(0.67)	0.62	0.44	0.54	0.60	0.55	0.52	0.38	0.57	1.00				
17	0.90	(0.63)	(0.03)	0.46	(0.06)	0.80	(0.77)	0.90	0.65	0.64	0.82	0.83	0.83	0.73	0.90	0.45	1.00			
18	0.70	(0.74)	0.03	0.21	(0.13)	0.60	(0.78)	0.75	0.60	0.66	0.66	0.59	0.59	0.66	0.73	0.39	0.67	1.00		
19	0.72	(0.68)	(0.07)	0.34	(0.08)	0.68	(0.77)	0.76	0.54	0.65	0.63	0.63	0.64	0.63	0.75	0.56	0.69	0.64	1.00	

# Economic Growth and Diversification

List of industries:

- Industry 1. All industries
- Industry 2. Goods-producing sector
- Industry 3. Agriculture
- Industry 4. Forestry, fishing, mining, quarrying, oil and gas
- Industry 5. Utilities
- Industry 6. Construction
- Industry 7. Manufacturing
- Industry 8. Services-producing sector
- Industry 9. Wholesale and retail trade
- Industry 10. Transportation and warehousing
- Industry 11. Finance, insurance, real estate, rental and leasing
- Industry 12. Professional, scientific and technical services
- Industry 13. Business, building and other support services
- Industry 14. Educational services
- Industry 15. Health care and social assistance
- Industry 16. Information, culture and recreation
- Industry 17. Accommodation and food services
- Industry 18. Other services (except public administration)
- Industry 19. Public administration

**Table 7. Industry Correlation in Lower Mainland-Southwest BC**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	0.80	1.00																		
3	(0.44)	(0.03)	1.00																	
4	0.53	0.49	(0.33)	1.00																
5	0.57	0.38	(0.38)	0.20	1.00															
6	0.93	0.82	(0.38)	0.43	0.49	1.00														
7	(0.52)	(0.06)	0.48	(0.15)	(0.38)	(0.61)	1.00													
8	0.99	0.69	(0.51)	0.50	0.58	0.90	(0.60)	1.00												
9	0.85	0.53	(0.41)	0.44	0.47	0.78	(0.64)	0.88	1.00											
10	0.78	0.60	(0.33)	0.45	0.49	0.61	(0.23)	0.78	0.62	1.00										
11	0.62	0.51	(0.27)	0.24	0.29	0.66	(0.42)	0.61	0.51	0.36	1.00									
12	0.88	0.71	(0.43)	0.65	0.40	0.79	(0.41)	0.87	0.72	0.73	0.47	1.00								
13	0.76	0.74	(0.13)	0.39	0.43	0.83	(0.47)	0.72	0.67	0.45	0.42	0.62	1.00							
14	0.75	0.49	(0.64)	0.37	0.38	0.74	(0.53)	0.77	0.63	0.46	0.54	0.70	0.56	1.00						
15	0.89	0.55	(0.51)	0.40	0.57	0.75	(0.52)	0.92	0.80	0.71	0.47	0.76	0.54	0.65	1.00					
16	0.35	0.39	(0.06)	0.02	0.15	0.34	(0.02)	0.32	0.28	0.25	0.05	0.20	0.28	0.14	0.30	1.00				
17	0.65	0.39	(0.43)	0.40	0.53	0.63	(0.60)	0.68	0.47	0.49	0.45	0.55	0.49	0.42	0.60	(0.02)	1.00			
18	0.42	0.17	(0.25)	0.10	0.40	0.28	(0.27)	0.46	0.26	0.50	0.15	0.31	0.14	0.24	0.50	0.16	0.39	1.00		
19	0.55	0.30	(0.33)	0.26	0.50	0.46	(0.39)	0.58	0.57	0.38	0.43	0.35	0.33	0.33	0.55	0.16	0.44	0.14	1.00	

**Table 8. Industry Correlation in Montreal**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	(0.53)	1.00																		
3	(0.03)	0.23	1.00																	
4	0.21	(0.18)	0.49	1.00																
5	(0.32)	0.27	(0.30)	(0.05)	1.00															
6	0.66	(0.35)	0.09	0.00	(0.14)	1.00														
7	(0.62)	0.97	0.19	(0.19)	0.21	(0.54)	1.00													
8	0.91	(0.83)	(0.13)	0.24	(0.34)	0.60	(0.88)	1.00												
9	0.50	(0.08)	(0.22)	0.06	(0.16)	0.30	(0.14)	0.37	1.00											
10	0.28	(0.20)	(0.07)	(0.13)	(0.05)	0.08	(0.21)	0.28	0.17	1.00										
11	0.61	(0.66)	0.04	0.11	(0.13)	0.39	(0.69)	0.72	0.25	0.24	1.00									
12	0.74	(0.82)	(0.47)	0.28	(0.29)	0.46	(0.84)	0.88	0.21	0.21	0.52	1.00								
13	0.33	(0.14)	0.14	0.21	(0.23)	0.34	(0.20)	0.29	(0.04)	(0.22)	0.03	0.31	1.00							
14	0.39	(0.67)	(0.29)	0.09	(0.17)	0.33	(0.67)	0.58	0.07	(0.04)	0.49	0.50	(0.05)	1.00						
15	0.74	(0.68)	(0.10)	0.15	(0.25)	0.49	(0.72)	0.82	0.23	0.07	0.59	0.67	0.12	0.48	1.00					
16	0.15	(0.08)	0.40	(0.12)	(0.08)	0.04	(0.09)	0.14	(0.19)	0.11	0.05	0.06	0.15	(0.22)	0.15	1.00				
17	0.72	(0.56)	0.13	0.27	(0.27)	0.52	(0.62)	0.75	0.11	0.17	0.38	0.65	0.25	0.41	0.59	0.00	1.00			
18	0.23	(0.25)	0.30	(0.05)	(0.26)	0.23	(0.27)	0.27	(0.07)	0.18	0.25	0.09	0.07	0.22	0.15	0.06	0.17	1.00		
19	(0.27)	0.13	0.24	0.02	0.13	(0.33)	0.18	(0.24)	(0.26)	(0.03)	(0.13)	(0.11)	0.02	(0.39)	(0.35)	0.20	(0.29)	(0.24)	1.00	

# Economic Growth and Diversification

List of industries:

- Industry 1. All industries
- Industry 2. Goods-producing sector
- Industry 3. Agriculture
- Industry 4. Forestry, fishing, mining, quarrying, oil and gas
- Industry 5. Utilities
- Industry 6. Construction
- Industry 7. Manufacturing
- Industry 8. Services-producing sector
- Industry 9. Wholesale and retail trade
- Industry 10. Transportation and warehousing
- Industry 11. Finance, insurance, real estate, rental and leasing
- Industry 12. Professional, scientific and technical services
- Industry 13. Business, building and other support services
- Industry 14. Educational services
- Industry 15. Health care and social assistance
- Industry 16. Information, culture and recreation
- Industry 17. Accommodation and food services
- Industry 18. Other services (except public administration)
- Industry 19. Public administration

**Table 9. Industry Correlation in Calgary**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	0.93	1.00																		
3	0.13	0.20	1.00																	
4	0.87	0.92	0.00	1.00																
5	0.35	0.36	(0.03)	0.33	1.00															
6	0.95	0.94	0.19	0.80	0.25	1.00														
7	(0.26)	(0.06)	(0.22)	(0.10)	(0.04)	(0.25)	1.00													
8	0.99	0.87	0.09	0.81	0.33	0.91	(0.34)	1.00												
9	0.87	0.77	0.19	0.68	0.25	0.82	(0.29)	0.87	1.00											
10	0.59	0.41	(0.21)	0.42	0.23	0.45	(0.20)	0.64	0.46	1.00										
11	0.63	0.61	0.50	0.54	0.25	0.61	(0.40)	0.62	0.64	0.13	1.00									
12	0.88	0.84	0.02	0.85	0.23	0.85	(0.31)	0.87	0.72	0.44	0.50	1.00								
13	0.70	0.64	0.22	0.51	0.17	0.74	(0.31)	0.70	0.56	0.37	0.54	0.57	1.00							
14	0.68	0.59	(0.07)	0.67	0.37	0.54	(0.23)	0.69	0.51	0.45	0.48	0.59	0.30	1.00						
15	0.93	0.77	0.01	0.72	0.36	0.84	(0.38)	0.96	0.83	0.70	0.52	0.80	0.60	0.65	1.00					
16	0.12	0.02	0.03	(0.09)	0.11	0.08	0.02	0.16	0.11	0.15	0.02	0.01	0.15	(0.10)	0.19	1.00				
17	0.72	0.62	(0.12)	0.55	0.17	0.66	0.01	0.73	0.56	0.48	0.16	0.56	0.52	0.44	0.71	0.11	1.00			
18	0.80	0.73	0.14	0.65	0.22	0.77	(0.24)	0.80	0.59	0.45	0.46	0.68	0.59	0.48	0.75	0.08	0.64	1.00		
19	0.78	0.77	0.40	0.70	0.22	0.76	(0.31)	0.75	0.68	0.31	0.54	0.67	0.54	0.45	0.67	0.05	0.51	0.66	1.00	

**Table 10. Industry Correlation in Edmonton**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	0.96	1.00																		
3	0.62	0.58	1.00																	
4	0.90	0.91	0.54	1.00																
5	0.50	0.48	0.25	0.51	1.00															
6	0.96	0.96	0.56	0.83	0.42	1.00														
7	0.17	0.38	(0.04)	0.27	0.00	0.18	1.00													
8	0.99	0.91	0.62	0.86	0.50	0.93	0.06	1.00												
9	0.82	0.73	0.59	0.79	0.50	0.72	(0.04)	0.85	1.00											
10	0.81	0.79	0.28	0.77	0.47	0.78	0.23	0.80	0.56	1.00										
11	0.42	0.37	0.27	0.36	0.26	0.36	0.04	0.43	0.42	0.28	1.00									
12	0.85	0.80	0.32	0.68	0.47	0.85	0.11	0.85	0.64	0.75	0.35	1.00								
13	0.78	0.78	0.59	0.69	0.37	0.80	0.10	0.76	0.57	0.53	0.15	0.63	1.00							
14	0.33	0.18	0.10	0.14	(0.01)	0.28	(0.24)	0.40	0.22	0.23	0.24	0.35	0.19	1.00						
15	0.94	0.88	0.65	0.82	0.53	0.89	0.07	0.93	0.73	0.75	0.33	0.73	0.71	0.34	1.00					
16	0.15	0.05	0.14	0.02	(0.10)	0.09	(0.09)	0.20	0.17	(0.04)	0.16	0.23	0.20	0.28	0.04	1.00				
17	0.71	0.71	0.54	0.64	0.29	0.66	0.32	0.69	0.45	0.64	0.11	0.53	0.56	0.12	0.71	(0.03)	1.00			
18	0.90	0.86	0.49	0.83	0.37	0.87	0.14	0.89	0.70	0.77	0.33	0.74	0.69	0.29	0.83	(0.01)	0.63	1.00		
19	0.74	0.63	0.60	0.60	0.30	0.71	(0.20)	0.77	0.68	0.52	0.31	0.58	0.62	0.19	0.70	0.24	0.36	0.67	1.00	

# Economic Growth and Diversification

List of industries:

- Industry 1. All industries
- Industry 2. Goods-producing sector
- Industry 3. Agriculture
- Industry 4. Forestry, fishing, mining, quarrying, oil and gas
- Industry 5. Utilities
- Industry 6. Construction
- Industry 7. Manufacturing
- Industry 8. Services-producing sector
- Industry 9. Wholesale and retail trade
- Industry 10. Transportation and warehousing
- Industry 11. Finance, insurance, real estate, rental and leasing
- Industry 12. Professional, scientific and technical services
- Industry 13. Business, building and other support services
- Industry 14. Educational services
- Industry 15. Health care and social assistance
- Industry 16. Information, culture and recreation
- Industry 17. Accommodation and food services
- Industry 18. Other services (except public administration)
- Industry 19. Public administration

**Table 11. Industry Correlation in Monteregio**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	0.02	1.00																		
3	0.07	0.38	1.00																	
4	0.18	(0.08)	(0.16)	1.00																
5	0.36	0.24	0.19	(0.05)	1.00															
6	0.84	0.24	0.06	0.17	0.34	1.00														
7	(0.69)	0.59	0.07	(0.23)	(0.22)	(0.61)	1.00													
8	0.96	(0.24)	(0.04)	0.19	0.29	0.75	(0.83)	1.00												
9	0.56	(0.16)	0.19	0.25	0.16	0.49	(0.58)	0.58	1.00											
10	0.29	(0.33)	(0.13)	0.06	0.06	0.15	(0.38)	0.37	0.09	1.00										
11	0.05	(0.10)	0.07	(0.22)	(0.12)	0.00	(0.07)	0.08	(0.02)	0.02	1.00									
12	0.77	(0.26)	(0.20)	0.14	0.27	0.60	(0.69)	0.82	0.31	0.29	(0.02)	1.00								
13	0.74	(0.03)	0.08	(0.02)	0.34	0.59	(0.53)	0.72	0.32	0.12	0.07	0.55	1.00							
14	0.24	(0.50)	(0.16)	0.16	(0.18)	0.05	(0.41)	0.36	0.10	(0.02)	0.10	0.28	0.34	1.00						
15	0.89	(0.16)	(0.11)	0.10	0.31	0.75	(0.73)	0.90	0.36	0.35	0.01	0.77	0.70	0.24	1.00					
16	0.55	0.02	0.22	0.28	0.32	0.42	(0.41)	0.53	0.21	0.17	(0.16)	0.42	0.27	0.01	0.49	1.00				
17	0.81	0.03	(0.09)	0.20	0.26	0.72	(0.54)	0.78	0.35	0.24	(0.02)	0.60	0.57	0.14	0.70	0.41	1.00			
18	0.30	0.23	(0.04)	0.04	0.16	0.33	(0.08)	0.23	0.33	(0.28)	(0.05)	0.16	0.08	(0.19)	0.08	0.10	0.23	1.00		
19	0.22	(0.10)	0.04	0.04	0.04	(0.03)	(0.09)	0.24	0.08	0.26	(0.22)	0.11	(0.04)	(0.02)	0.17	0.18	0.15	0.12	1.00	

**Table 12. Industry Correlation in Kitchener-Waterloo-Barrie**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	(0.14)	1.00																		
3	0.38	0.09	1.00																	
4	0.40	(0.20)	(0.09)	1.00																
5	0.20	(0.24)	0.25	0.27	1.00															
6	0.82	(0.06)	0.28	0.38	0.15	1.00														
7	(0.62)	0.78	(0.29)	(0.35)	(0.39)	(0.62)	1.00													
8	0.98	(0.34)	0.34	0.41	0.24	0.79	(0.75)	1.00												
9	0.79	(0.18)	0.44	0.23	0.12	0.57	(0.52)	0.78	1.00											
10	0.79	(0.27)	0.07	0.18	0.17	0.65	(0.56)	0.80	0.58	1.00										
11	0.78	(0.24)	0.39	0.40	0.11	0.72	(0.63)	0.79	0.59	0.58	1.00									
12	0.85	(0.39)	0.31	0.47	0.25	0.65	(0.71)	0.89	0.66	0.70	0.67	1.00								
13	0.58	(0.03)	0.21	0.15	0.16	0.45	(0.31)	0.55	0.38	0.49	0.41	0.40	1.00							
14	0.71	(0.48)	0.22	0.24	0.22	0.47	(0.66)	0.78	0.61	0.62	0.49	0.64	0.23	1.00						
15	0.89	(0.33)	0.31	0.44	0.12	0.72	(0.69)	0.91	0.62	0.65	0.73	0.84	0.43	0.72	1.00					
16	0.42	(0.02)	0.23	(0.09)	0.24	0.33	(0.24)	0.41	0.31	0.22	0.31	0.30	0.43	0.06	0.27	1.00				
17	0.84	(0.20)	0.27	0.30	0.20	0.76	(0.61)	0.84	0.56	0.72	0.65	0.73	0.48	0.55	0.71	0.37	1.00			
18	0.64	(0.26)	0.15	0.34	0.13	0.68	(0.58)	0.66	0.49	0.61	0.58	0.49	0.41	0.42	0.48	0.33	0.66	1.00		
19	0.72	(0.19)	0.09	0.23	0.36	0.66	(0.53)	0.72	0.45	0.54	0.52	0.60	0.36	0.57	0.67	0.26	0.63	0.39	1.00	

# Economic Growth and Diversification

List of industries:

- Industry 1. All industries
- Industry 2. Goods-producing sector
- Industry 3. Agriculture
- Industry 4. Forestry, fishing, mining, quarrying, oil and gas
- Industry 5. Utilities
- Industry 6. Construction
- Industry 7. Manufacturing
- Industry 8. Services-producing sector
- Industry 9. Wholesale and retail trade
- Industry 10. Transportation and warehousing
- Industry 11. Finance, insurance, real estate, rental and leasing
- Industry 12. Professional, scientific and technical services
- Industry 13. Business, building and other support services
- Industry 14. Educational services
- Industry 15. Health care and social assistance
- Industry 16. Information, culture and recreation
- Industry 17. Accommodation and food services
- Industry 18. Other services (except public administration)
- Industry 19. Public administration

**Table 13. Industry Correlation in Hamilton-Niagara**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	(0.26)	1.00																		
3	0.07	0.46	1.00																	
4	0.26	(0.15)	(0.24)	1.00																
5	0.05	0.13	(0.02)	(0.14)	1.00															
6	0.81	(0.44)	(0.06)	0.15	(0.01)	1.00														
7	(0.59)	0.89	0.20	(0.17)	0.05	(0.78)	1.00													
8	0.91	(0.64)	(0.15)	0.27	(0.02)	0.84	(0.85)	1.00												
9	0.31	(0.52)	(0.17)	(0.25)	0.22	0.46	(0.59)	0.47	1.00											
10	0.31	(0.41)	0.14	(0.06)	0.04	0.25	(0.46)	0.43	0.30	1.00										
11	0.69	(0.24)	(0.02)	0.33	(0.08)	0.52	(0.43)	0.66	0.19	0.08	1.00									
12	0.62	(0.54)	(0.31)	0.33	(0.16)	0.71	(0.67)	0.73	0.25	0.21	0.31	1.00								
13	0.76	(0.28)	(0.03)	0.35	0.05	0.69	(0.53)	0.72	0.14	(0.00)	0.50	0.57	1.00							
14	0.50	(0.53)	(0.25)	0.38	(0.04)	0.51	(0.60)	0.62	0.25	0.15	0.45	0.61	0.40	1.00						
15	0.75	(0.70)	(0.24)	0.18	(0.10)	0.74	(0.83)	0.90	0.39	0.36	0.58	0.59	0.59	0.52	1.00					
16	0.02	0.55	0.33	(0.19)	0.11	(0.26)	0.48	(0.23)	(0.39)	(0.17)	(0.01)	(0.38)	0.02	(0.47)	(0.30)	1.00				
17	0.60	(0.26)	(0.00)	0.20	(0.03)	0.39	(0.38)	0.59	0.08	0.28	0.32	0.39	0.37	0.17	0.48	(0.01)	1.00			
18	0.34	(0.31)	(0.15)	0.45	0.08	0.30	(0.36)	0.41	0.13	0.44	0.15	0.19	0.24	0.05	0.41	(0.19)	0.22	1.00		
19	0.45	(0.23)	0.25	(0.29)	(0.25)	0.46	(0.41)	0.45	0.02	0.20	0.24	0.36	0.34	0.14	0.44	(0.07)	0.26	0.04	1.00	

**Table 14. Industry Correlation in Ottawa**

Industry	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1	1.00																			
2	(0.46)	1.00																		
3	(0.11)	0.33	1.00																	
4	0.26	(0.05)	(0.33)	1.00																
5	(0.11)	(0.01)	(0.22)	0.16	1.00															
6	0.66	0.06	(0.16)	0.41	(0.16)	1.00														
7	(0.78)	0.82	0.28	(0.33)	0.07	(0.50)	1.00													
8	0.98	(0.64)	(0.17)	0.25	(0.09)	0.55	(0.88)	1.00												
9	0.70	(0.44)	(0.31)	(0.13)	0.08	0.39	(0.59)	0.72	1.00											
10	0.18	(0.02)	0.13	(0.11)	0.07	(0.02)	(0.02)	0.16	0.18	1.00										
11	0.66	(0.30)	(0.09)	0.01	(0.01)	0.52	(0.56)	0.64	0.39	(0.21)	1.00									
12	0.65	(0.46)	(0.14)	0.35	(0.02)	0.28	(0.56)	0.68	0.41	(0.04)	0.45	1.00								
13	0.55	(0.38)	(0.31)	(0.09)	(0.26)	0.36	(0.48)	0.57	0.56	0.24	0.15	0.30	1.00							
14	0.60	(0.64)	(0.30)	0.71	(0.05)	0.19	(0.64)	0.67	0.43	0.06	0.28	0.42	0.44	1.00						
15	0.88	(0.62)	(0.22)	0.14	(0.19)	0.57	(0.86)	0.91	0.55	0.09	0.57	0.54	0.53	0.63	1.00					
16	0.05	0.12	0.11	0.00	0.18	0.10	0.03	0.01	(0.09)	0.01	(0.00)	(0.10)	(0.14)	(0.18)	0.00	1.00				
17	0.64	(0.45)	(0.23)	(0.15)	(0.10)	0.33	(0.57)	0.66	0.60	0.22	0.28	0.36	0.58	0.39	0.57	0.14	1.00			
18	0.31	(0.15)	0.13	0.24	0.05	0.09	(0.23)	0.31	0.17	(0.08)	0.33	0.49	(0.16)	0.11	0.17	(0.22)	(0.08)	1.00		
19	0.78	(0.42)	0.14	0.29	(0.12)	0.49	(0.69)	0.78	0.39	0.08	0.61	0.41	0.23	0.40	0.70	(0.03)	0.28	0.29	1.00	

# Economic Growth and Diversification

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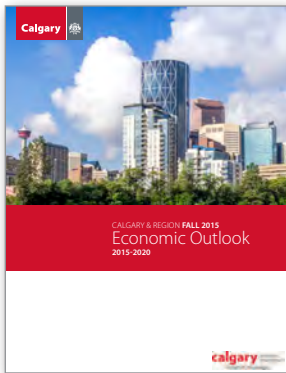
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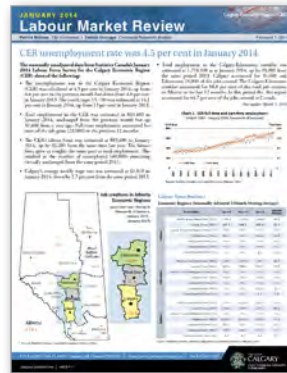
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