



Special Report #3 Labour Market Review

Ivy Zhang, Senior Corporate Economist | Jorjeta Bojanova, Corporate Research Analyst

February 5, 2018

2017 Calgary Economic Region Labour Market Review

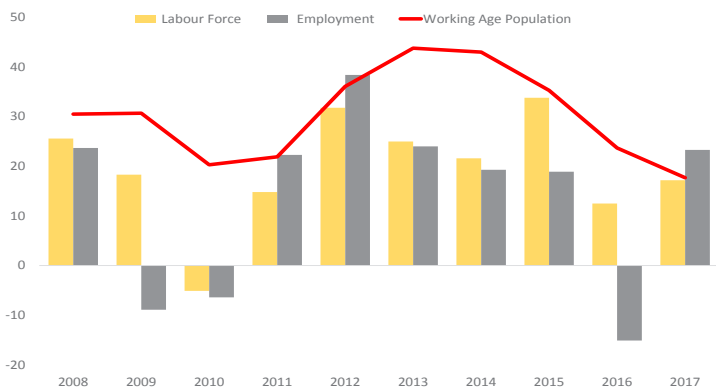
Summary

2017 was a year of resumed growth in Calgary's economy. After two years of GDP declines, the region's labour market hit a trough in 2016 and bounced back in 2017. A new business cycle has started in the Calgary Economic Region (CER) with healthy expansions in economic activities and the labour market. By the end of 2017, the total employment reached a new high of 884,000 persons.

Compared to the last business cycle that started after the 2008-2009 recession, the first year of the current expansion saw similar increases in working age population, labour force and total employment. However, the absorption of unemployment was slower and the unemployment rate higher. Considering the higher base working age population and labour force today than ten years ago, the current expansion was slower than in the previous cycle.

The differences between this current expansion and the last one were due to the different natures of recessions and the aftermath challenges to Calgary. The Great Recession in 2008-2009 was broad-based and was triggered by the sub-prime mortgage crisis in the U.S. Once world demand for oil resumed, the impact of expansion on the CER was quick. However, the recent recession in Alberta was regional and was caused by the collapse of world oil prices in late 2014. As the demand for oil grew slower and the U.S. moved from our energy market customer to competitor, Calgary has had to navigate through the new market realities and find new sustainable growth engines.

Chart 1 Annual Change: Working Age Population vs. Labour Force
(thousands; 2008 - 2017)



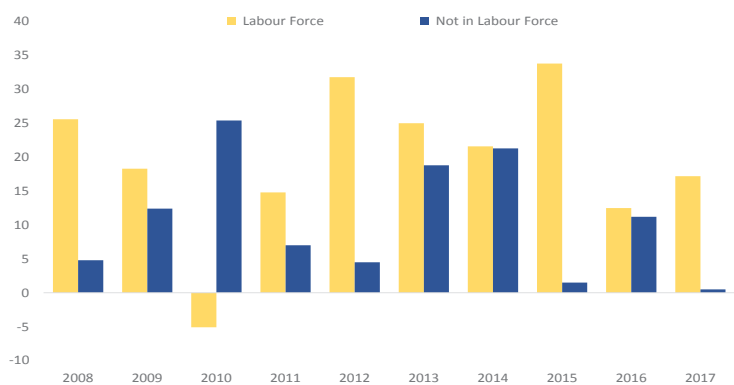
Source: Statistics Canada, Corporate Economics

Chart 2 Annual Change: Employment vs. Unemployment
(thousands; 2008 - 2017)



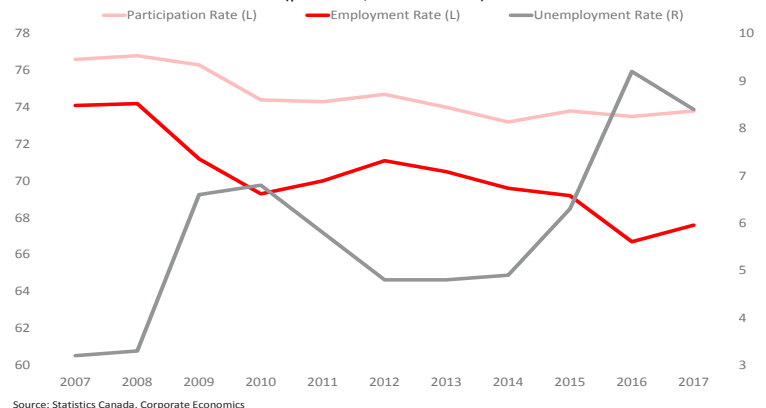
Source: Statistics Canada, Corporate Economics

Chart 3 Annual Change: Labour Force vs. Not in the Labour Force
(thousands; 2008 - 2017)



Source: Statistics Canada, Corporate Economics

Chart 4 Participation Rate vs. Employment Rate
(per cent; 2008 - 2017)



Source: Statistics Canada, Corporate Economics



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Employment and Earning

Total employment in the Calgary Economic Region (CER) increased by 23,000 positions, mainly in the service-producing sector (+35,000) including the Accommodation and food services (+9,000), Transportation and warehousing (+9,000), and Public administration (+8,000) industries. In the meantime, the goods-producing sector shed more jobs (-11,000), including the Mining and oil and gas extraction (-7,000) and Construction (-7,000) industries.

The largest industries in the region that hired the most people in 2017 were Trade (130,000), Health care and social assistance (101,000), Professional, scientific and technical services (98,000), Construction (81,000), and Accommodation and food services (64,000).

In 2017, the industries with the highest quality of jobs, measured by the ratio of full-time to total employment, were mostly concentrated in the goods-producing sector. On average, 94 per cent of jobs in the goods-producing sector were full-time, but only 78 per cent of jobs in the service-producing sector were full-time. Among the industries, Mining and oil and gas extraction and Utilities had the highest full-time to total employment ratio at 98 per cent. The lowest ratios were seen in the Information, culture and recreation (59 per cent) and Accommodation and food services (66 per cent) industries.

Table 1 CER Full-time, Part-time, and Total Employment by Industry

Industry	Full-time Employment ('000 persons)			Part-time Employment ('000 persons)			Total Employment ('000 persons)		
	2016	2017	Change (y/y)	2016	2017	Change (y/y)	2016	2017	Change (y/y)
Agriculture	4	7	3	0	1	1	4	9	5
Mining and Oil and Gas Extraction	54	48	(6)	1	0	(1)	56	49	(7)
Utilities	9	9	(0)	0	0	0	9	9	(0)
Construction	82	75	(7)	6	6	(0)	88	81	(7)
Manufacturing	41	39	(2)	2	2	(0)	44	42	(2)
Goods-Producing Sector	191	178	(13)	11	10	(1)	201	190	(11)
Trade	92	97	4	35	33	(2)	127	130	3
Transportation and Warehousing	45	52	7	5	7	2	50	59	9
Finance, Insurance, Real Estate and Leasing	42	42	0	5	5	0	47	47	1
Professional, Scientific and Technical Services	84	82	(3)	16	17	1	101	98	(3)
Business, Building and Other Support Services	23	24	1	7	8	1	30	33	3
Educational Services	40	44	4	13	12	(1)	53	57	3
Health Care and Social Assistance	72	76	5	24	25	1	96	101	5
Information, Culture and Recreation	24	21	(3)	12	14	2	35	36	0
Accommodation and Food Services	34	42	8	21	21	(0)	55	64	9
Other Services	31	30	(1)	10	10	0	42	39	(3)
Public Administration	23	30	8	1	0	(1)	24	32	8
Service-Producing Sector	508	540	31	149	154	5	660	695	35
All Industries	699	718	19	160	165	5	861	884	23

Note: full-time and part-time annual average calculated from the 3-month moving average monthly data. May not add up to annual data due to rounding.



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In 2017, the highest weekly wage rates¹ were seen in Utilities (\$2,131), and the Mining, quarrying, and oil and gas extraction (\$2,050) industries. The lowest weekly wage rates were reported in Accommodation and food services (\$527), Arts entertainment and recreation (\$631), and Retail trade (\$714) industries.

The highest weekly wage bills were seen in the region's three key industries: Mining, quarrying, and oil and gas extraction (\$88 million), Health care and social assistance (\$88 million) and Professional, scientific and technical services (\$83 million).

In 2017, large fluctuations in the weekly wage rate were most visible in the small industries where changes in market condition and competition among employees led to sharp increases or decreases of salaries. For example, year-over-year weekly wage rate changes were \$366 or 21 per cent increase in Utilities industries, but \$266 or 24 per cent decline in the Information and cultural industries and \$203 or 16 per cent decline in the real estate rental and leasing industries.

Table 2 Calgary CMA Total Employees and Weekly Wage Earnings by Industry

Industry	Total Employees ('0000 persons)			Average Weekly Earning (\$)			Total Weekly Wage Bills (\$million)		
	2016	2017	Change (y/y)	2016	2017	Change (y/y)	2016	2017	Change (y/y)
Mining, quarrying, and oil and gas extraction	49	43	(0)	1919	2050	131	93	88	(6)
Utilities	9	9	(0)	1766	2131	366	15	18	3
Construction	53	52	(1)	1322	1276	(46)	70	67	(4)
Manufacturing	38	37	(2)	1164	1224	60	45	45	0
Wholesale Trade	25	33	9	1320	1335	15	32	44	12
Retail Trade	83	82	(0)	691	714	23	57	59	2
Transportation and Warehousing	42	49	7	1098	1206	108	46	59	13
Information and Cultural Industries	11	11	(0)	1258	992	(266)	14	11	(3)
Finance and Insurance	27	24	(3)	1250	1197	(53)	33	28	(5)
Real Estate Rental and Leasing	9	11	2	1273	1070	(203)	11	12	1
Professional Scientific and Technical Services	63	57	(6)	1536	1458	(78)	96	83	(13)
Administrative and Support	22	22	(0)	892	894	3	20	20	(0)
Educational Services	49	48	(1)	1184	1228	44	58	59	1
Health Care and Social Assistance	77	81	4	1080	1086	7	83	88	4
Arts Entertainment and Recreation	18	19	1	643	631	(12)	11	12	0
Accommodation and Food Services	49	57	8	483	527	44	24	30	6
Other Services(except Public Admin)	29	28	(0)	828	814	(14)	24	23	(1)
Public Administration	23	29	6	1488	1586	98	34	46	12
Total	675	692	17	1139	1144	6	768	791	23

Note: Wage data is for the wage earning employees including full-time and part-time positions in the Calgary CMA.

Total employment in Calgary CMA in 2017 was 829,700 persons. Calgary CMA's employee -to-total employment ratio in 2017 was 83%.

¹ Wage by industry data from the labour force survey is only available at the Calgary Census Metropolitan Area (CCMA) level and for those corporate employees excluding self-employed.

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CER Labour Force Characteristics

In 2017 in the CER, 965,000 people participated in the labour market, among them 884,000 were employed and 81,000 unemployed. The unemployment rate in the region was 8.4 per cent, down from 9.2 per cent in 2016.

The numbers of unemployed were highest in Construction (6,000), Trade (6,000) and Mining and oil and gas extraction (5,000) industries. The unemployment rates were highest in Business, building and other support services (11.6 per cent), and Mining and oil and gas extraction (9.2 per cent) industries.

In 2017, 17,000 more people participated in the CER labour market. As jobs were created faster than the labour force growth, the number of total unemployed declined by 6,000.

Table 3 Labour Force Characteristics by Industry

Industry	Labour force ('000 persons)			Employment ('000 persons)			Unemployment ('000 persons)			Unemployment Rate (per cent)		
	2016	2017	Change (y/y)	2016	2017	Change (y/y)	2016	2017	Change (y/y)	2016	2017	Change (y/y)
Agriculture	4	9	5	4	9	5	0	0	0	0.0	0.0	0.0
Mining and Oil and Gas Extraction	63	54	(9)	56	49	(7)	6	5	(1)	9.9	9.2	(0.7)
Utilities	10	9	(1)	9	9	(0)	0	0	0	0.0	0.0	0.0
Construction	95	88	(7)	88	81	(7)	7	6	(0)	7.1	7.2	0.1
Manufacturing	48	44	(3)	44	42	(2)	4	3	(1)	8.8	6.3	(2.5)
Goods-Producing Sector	219	204	(15)	201	190	(11)	18	14	(3)	8.1	7.0	(1.1)
Trade	136	136	(0)	127	130	3	9	6	(3)	6.3	4.1	(2.2)
Transportation and Warehousing	53	61	8	50	59	9	3	2	(1)	5.3	3.1	(2.2)
Finance, Insurance, Real Estate and Leasing	49	49	1	47	47	1	2	2	0	4.5	4.5	0.0
Professional, Scientific and Technical Services	107	103	(4)	101	98	(3)	6	4	(1)	5.3	4.2	(1.1)
Business, Building and Other Support Services	32	37	5	30	33	3	3	4	2	8.3	11.6	3.3
Educational Services	55	59	4	53	57	3	0	2	2	0.0	3.6	3.6
Health Care and Social Assistance	98	103	5	96	101	5	2	2	0	1.9	2.0	0.1
Information, Culture and Recreation	38	39	0	35	36	0	3	3	0	7.8	8.0	0.2
Accommodation and Food Services	58	68	9	55	64	9	4	4	(0)	6.3	5.2	(1.1)
Other Services	44	41	(3)	42	39	(3)	2	2	0	4.8	5.4	0.6
Public Administration	25	33	8	24	32	8	0	0	0	0.0	0.0	0.0
Service-Producing Sector	695	727	32	660	695	35	35	32	(3)	5.0	4.4	(0.6)
Unclassified	35	35	0	0	0	0	35	35	0	100.0	100.0	0.0
All Industries	948	965	17	861	884	23	87	81	(6)	9.2	8.4	(0.8)

In 2017, Sales and services (212,000), and Business, finance and administration (161,000) occupations had the highest total employment in the CER. In terms of growth, total employment grew fastest in Management (+11,000) and Sales and services (+10,000) occupations in 2017.

In 2017, the largest group of people unemployed in the CER were the 35,000 persons in the Unclassified occupations. These were unemployed persons who had never worked before, and those unemployed who had last worked more than a year ago. Compared to 2016, the number of unclassified occupations had not changed, indicating the challenges facing new workers and those who have been long time unemployed.



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Table 4 Labour Force Characteristics by Occupation

Industry	Labour force ('000 persons)			Employment ('000 persons)			Unemployment ('000 persons)			Unemployment Rate (per cent)		
	2016	2017	Change (y/y)	2016	2017	Change (y/y)	2016	2017	Change (y/y)	2016	2017	Change (y/y)
Management occupations	76	86	11	74	84	11	2	2	0	3.0	2.7	(0.3)
Business, finance and administration occupations	167	168	1	158	161	4	9	7	(3)	5.6	4.1	(1.5)
Natural and applied sciences and related occupations	100	97	(3)	94	91	(3)	7	6	(1)	6.6	6.3	(0.3)
Health occupations	62	61	(2)	62	59	(3)	0	0	0	0.0	0.0	0.0
Occupations in education, law and social, community and government services	93	96	3	90	93	4	3	3	(0)	3.1	2.7	(0.4)
Occupations in art, culture, recreation and sport	26	26	(1)	25	25	(0)	0	0	0	0.0	0.0	0.0
Sales and service occupations	217	223	6	202	212	10	15	11	(4)	6.9	5.1	(1.8)
Trades, transport and equipment operators and related occupations	133	133	1	122	122	0	10	11	1	7.8	8.3	0.5
Natural resources, agriculture and related production occupations	16	20	4	14	17	3	2	2	1	11.2	11.7	0.5
Occupations in manufacturing and utilities	24	22	(2)	21	20	(1)	2	0	(2)	10.2	0.0	(10.2)
Unclassified"	35	35	0	0	0	0	35	35	0	100.0	100.0	0.0
All Occupations	948	965	17	861	884	23	87	81	(6)	9.2	8.4	(0.8)

Note: Occupation refers to the kind of work persons 15 years of age and over were doing during the reference week, as determined by the kind of work reported and the description of the most important duties of the job. If the individual did not have a job during the reference week, the data relate to the previous job, if that job was held in the past year.

The working age population (aged 15 and older) in the CER increased from 1.29 million in 2016 to 1.31 million in 2017, up by 18,000. The healthy growth of the working age population came mainly from the age groups of 25-29, 35-39 and 60-64 years old. At the meantime, the largest working age population declines were found in the age groups of 20-24, 40-44, and 50-54 years old.

Labour force in the CER increased to 965,000 in 2017. The growth was mainly from the 25-29 and 35-39 age groups, and the largest declines were in the 20-24 and 50-54 age groups.

In 2017, the 25-29 and 35-39 years old gained most of the new employment. At the meantime, the 20-24 and 50-54 years old experienced thousands of job losses.

In 2017, the unemployment rates in the CER were lowest at 6 per cent for those core age groups aged 30-44. However, people in other age groups had much higher unemployment rates, either due to the lack of work knowledge and experience or because of obsolete skills.

The labour market participation rates in 2017 were higher in the core-working age groups such as 25-29 and 40-44 years old. However, they were lower in the 50-54 and 60-64 years old.



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Table 5 Calgary Economic Region (CER) Labour Force Characteristics by Age Cohort

Age Cohort	Working Age Population ('000 persons)			labour Force ('000 persons)			Employment ('000 persons)			Unemployment ('000 persons)		
	2016	2017	Change (y/y)	2016	2017	Change (y/y)	2016	2017	Change (y/y)	2016	2017	Change (y/y)
15-19	89	83	(6)	44	40	(4)	34	32	(2)	10	8	(2)
20-24	108	97	(11)	86	76	(9)	75	69	(6)	10	7	(3)
25-29	124	131	7	110	118	8	100	108	8	9	9	0
30-34	142	143	1	126	127	2	119	120	1	7	7	0
35-39	123	136	14	109	121	12	100	115	15	9	7	(2)
40-44	124	118	(6)	111	108	(3)	103	102	(1)	8	6	(2)
45-49	104	110	6	92	98	5	85	90	5	8	8	0
50-54	113	107	(6)	100	92	(8)	91	83	(8)	9	8	(0)
55-59	107	110	3	84	90	5	76	80	3	8	10	2
60-64	88	95	7	58	60	2	50	53	3	8	7	(1)
65-69	62	62	(0)	20	23	3	18	20	2	2	3	1
70-74	44	45	1	7	10	2	7	10	2	-	-	0
75-79	24	29	4	2	3	1	-	3	3	-	-	0
80-84	20	21	1	-	-	0	-	-	0	-	-	0
85-89	13	15	2	-	-	0	-	-	0	-	-	0
90-94	6	5	(0)	-	-	0	-	-	0	-	-	0
95-99	-	-	0	-	-	0	-	-	0	-	-	0
All Cohorts (15+)	1,290	1,308	18	948	965	17	861	884	23	87	81	(6)

Table 5 (continued) Calgary Economic Region (CER) Labour Force Characteristics by Age Cohort

Age Cohort	Working Age Population ('000 persons)			labour Force ('000 persons)			Employment ('000 persons)			Unemployment ('000 persons)		
	2016	2017	Change (y/y)	2016	2017	Change (y/y)	2016	2017	Change (y/y)	2016	2017	Change (y/y)
15-19	45	43	(2)	22.9	19.7	(3.2)	49.3	48.4	(0.9)	38.0	38.9	0.9
20-24	22	21	(1)	11.8	9.2	(2.6)	79.4	78.7	(0.7)	70.0	71.4	1.4
25-29	15	14	(1)	8.3	7.9	(0.4)	88.0	89.6	1.6	80.7	82.5	1.8
30-34	17	16	(1)	5.5	5.7	0.2	88.3	88.8	0.5	83.5	83.8	0.3
35-39	13	15	2	8.1	5.5	(2.6)	89.1	89.1	0.0	81.9	84.2	2.3
40-44	13	10	(3)	7.3	5.6	(1.7)	89.3	91.8	2.5	82.9	86.6	3.7
45-49	12	13	1	8.1	8.1	0.0	88.8	88.6	(0.2)	81.6	81.4	(0.2)
50-54	13	16	2	8.5	9.2	0.7	88.2	85.4	(2.8)	80.7	77.6	(3.1)
55-59	23	21	(2)	9.2	11.2	2.0	78.7	81.2	2.5	71.5	72.1	0.6
60-64	30	35	5	14.3	12.1	(2.2)	66.0	63.0	(3.0)	56.6	55.4	(1.2)
65-69	42	39	(3)	8.5	12.4	3.9	32.3	36.5	4.2	29.4	32.0	2.6
70-74	36	35	(1)	-	-	0.0	17.0	21.2	4.2	16.8	21.2	4.4
75-79	23	26	3	6.7	-	(6.7)	6.2	9.8	3.6	5.4	9.8	4.4
80-84	20	20	1	-	10.0	10.0	3.5	4.8	1.3	3.5	4.8	1.3
85-89	13	15	2	-	100.0	100.0	-	-	0.0	-	-	0.0
90-94	6	5	0	-	-	0.0	-	-	0.0	-	-	0.0
95-99	-	-	0	-	-	0.0	-	-	0.0	-	-	0.0
All Cohorts (15+)	343	343	1	9.2	8.4	(0.8)	73.5	73.8	0.3	66.7	67.6	0.9

Calgary



Calgary Economic Region (CER)

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Who We Are

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Sources: Statistics Canada, Corporate Economics

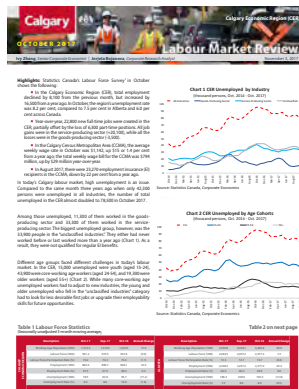
Many of our publications are available on the internet at www.calgary.ca/economy.

Forecasting

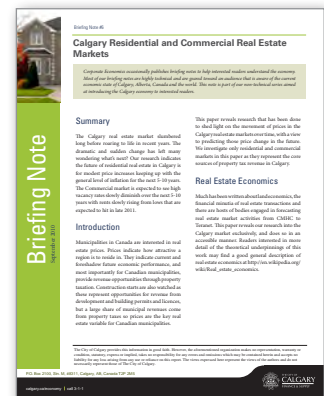


Calgary and Region Economic Outlook
2017 - 2026
Fall 2017

Information Provision



Policy Analysis



Briefing Note

Calgary Residential and Commercial Real Estate Markets

Corporate Economics consistently publishes briefing notes to help interested readers understand the economy. Most of our briefing notes are highly technical and are geared toward an audience that is versed in the current economic state of Calgary, Alberta, Canada and the world. The main purpose of our briefing notes is to assist in understanding the Calgary economy in non-technical terms.

Summary

The Calgary real estate market has been under a lot of scrutiny in the past few years. The decline in home prices and the increase in mortgage rates have led to a decline in the real estate market. This briefing note provides an overview of the real estate market in Calgary and discusses the factors that are influencing the market.

Real Estate Economics

Real estate economics is the study of the economic aspects of real estate. It includes the study of the market for real estate, the factors that influence the market, and the impact of real estate on the economy.

Introduction

The real estate market in Calgary is currently experiencing a period of uncertainty. This is due to a number of factors, including the decline in home prices and the increase in mortgage rates. This briefing note provides an overview of the real estate market in Calgary and discusses the factors that are influencing the market.

- ▶ Calgary & Region Economic Outlook

- ▶ Labour Market Review
- ▶ Current Economic Analysis
- ▶ Inflation Review
- ▶ Housing Review
- ▶ Other Research Reports

- ▶ A Case of Fiscal Imbalance: The Calgary Experience
- ▶ Diesel Fuel Price Pass-Through in Calgary
- ▶ Calgary Residential and Commercial Real Estate Markets