

Calgary Economic Development

INDUSTRY REPORT: PUBLIC ADMINISTRATION

January 2008

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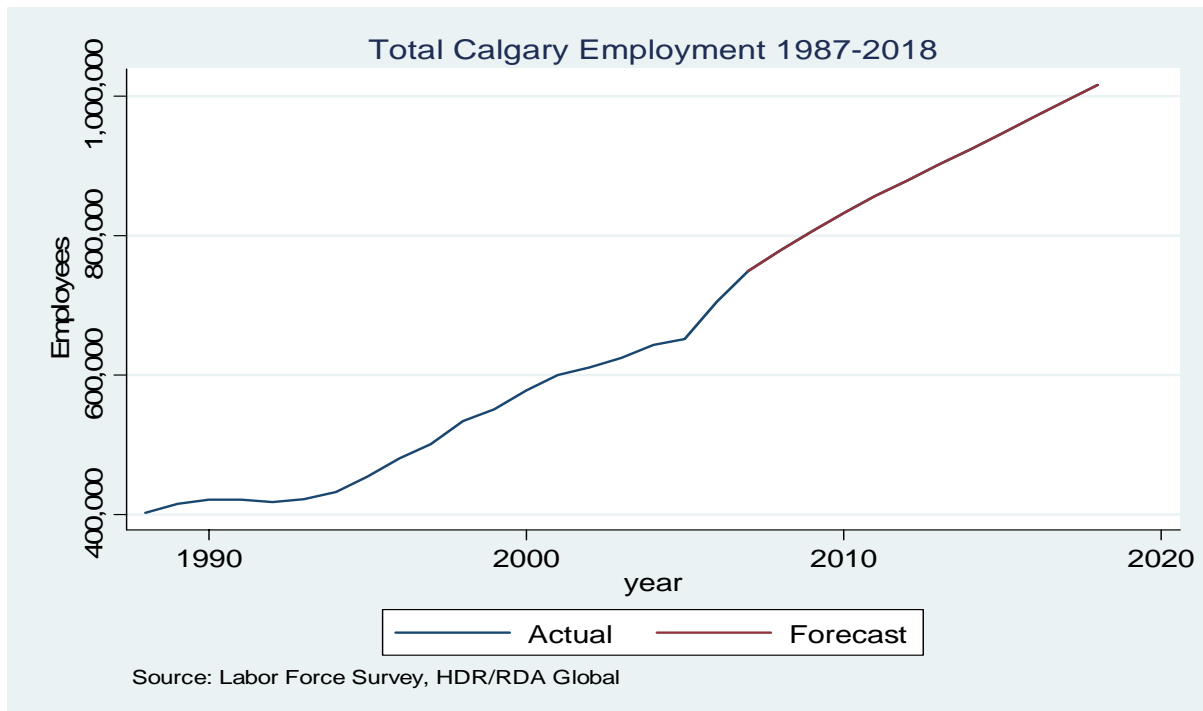
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CALGARY LABOR MARKET

Figure 1: Total Calgary Employment Forecast (All Industries)



The Calgary economy has seen tremendous growth in labour demand over the previous decade with employment growth reaching an all-time high of 8.1%¹ in 2006. The recent strong growth in the Calgary economy has been driven by a combination of economic factors spurring growth in specific sectors and generally throughout the Calgary economy. Energy prices are a significant driver with West Texas Intermediate oil price rising 17%² in 2006. Investment levels in major construction projects have risen significantly compared to historical levels. Housing starts have risen from 13,700³ starts in 2005 to 17,000 starts in 2006, an increase of 25%. Calgary GDP grew at 7.7% in 2006.

Recent increases in employment levels have been highest in sectors of the Calgary economy which are related to energy, in particular in the professional services sector. However, overall growth has been relatively balanced among industries with significant growth in most sectors of the economy.

As Figure 1 shows, labour demand in the Calgary Economic Region is expected to continue to grow at a healthy rate throughout the forecast, albeit at a lower, more sustainable level. The overall growth in employment in Calgary is expected to decline over the next several years settling at a more sustainable long-term employment growth rate of 2.4%, in line with historical average growth. However, this lower growth rate continue to still result in strong job creation. Over the previous ten years (1996-2006) Calgary employment increased adding 224,000 new

¹ Source: Labor Force Survey

² Source: US Energy Information Administration

³ Source for housing starts statistics and Metro GDP at basic prices was the Conference Board of Canada

jobs. Over the ten year forecast period (2007-2017) Calgary employment growth will result in the creation of an additional 244,000 new jobs. This growth in the Calgary economy will be driven by a number of factors including expectations that oil prices will remain at or near historically high levels. Energy prices are expected to be volatile in the near term, with possible spikes in prices, partially due to the declining value of the US dollar. However, for the long-term forecast, an average annual 1.7% growth rate in oil prices has been forecasted, which is consistent with conservative expectations of energy analysts⁴. Calgary GDP growth will moderate to a strong long term compound annual real growth rate of 3.8%.

Figure 2 Calgary Job Creation in Each Industry

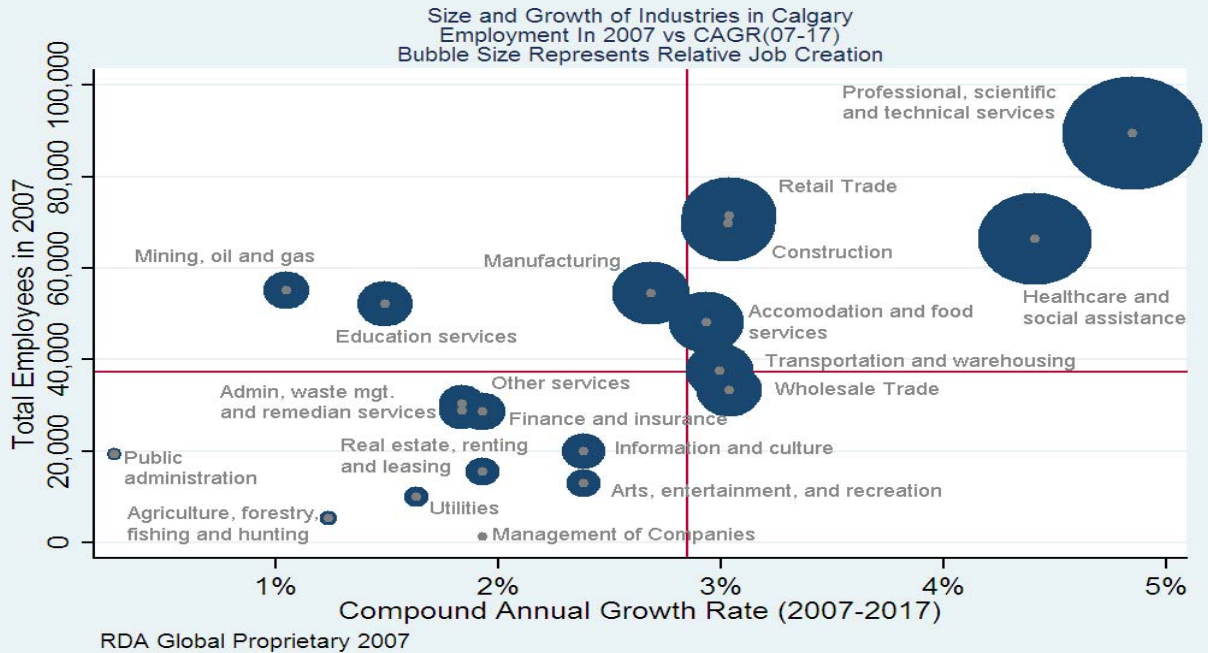


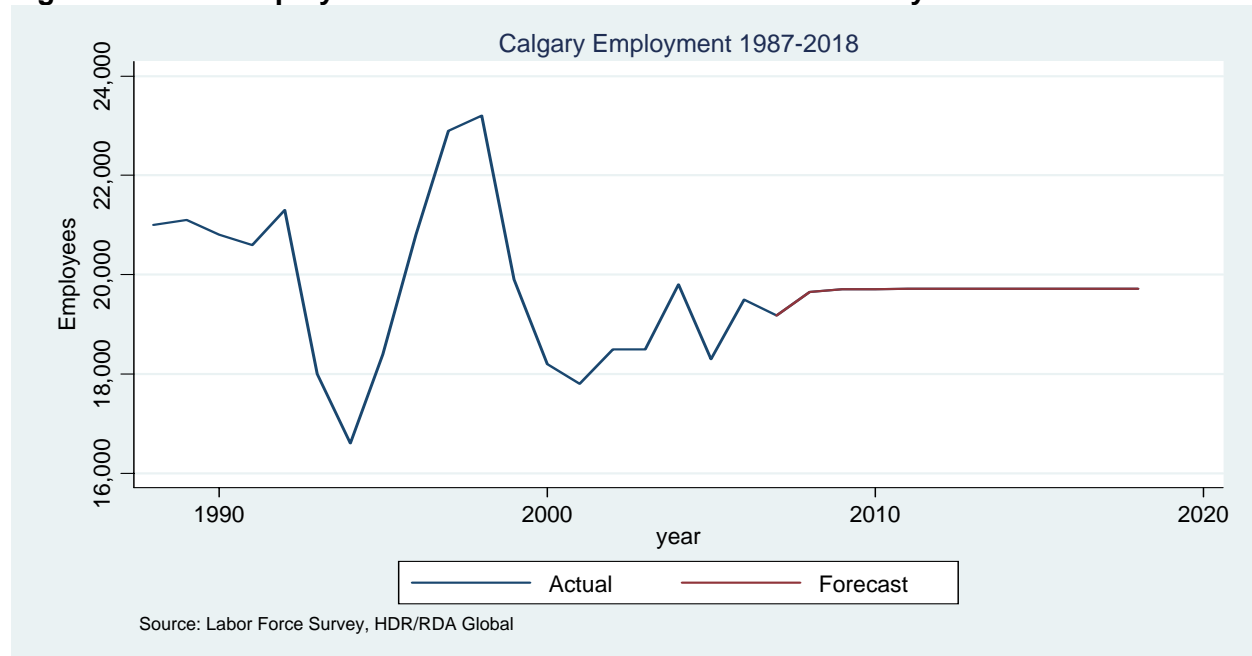
Figure 2 highlights the differences in job creation across industries in Calgary, with the larger circles representing industries with more job creations. Significant gains in employment will be somewhat distributed among economic sectors. However, there will be particularly strong expansion in the professional services sector, which is tied to continued demand for technical and engineering services in the energy sector. There will also be strong job growth in healthcare, driven by overall population growth and growth in the older segments of the population. Job expansion will also continue to be robust in retail, construction, accommodation & food services, transportation, manufacturing, and wholesale. Population growth is expected to drive up demand for education services. Most segments of the economy are expected to continue to see positive growth with employment growth rates in the 1% to 2.5% long-term growth range. However, total job creation in niche industries will be constrained by the relatively smaller size of these segments.

⁴ In development of this forecast, oil price forecasts of the Energy Information Administration and Sproule and Associates were consulted, however, final assumptions in the forecast model were based on a nominal annual growth rate of 1.7%.

PUBLIC ADMINISTRATION INDUSTRY

Employment in Public Administration has historically been volatile with employment settling in the 18,000-20,000 employee range in the last few years. Public Administration is expected to remain flat through the forecast period. Nominal growth in the industry will result in an additional 500 jobs added to the industry over the forecast period.

Figure 3: Total Employment in the Public Administration Industry 1987-2018



The Public Administration industry ranks fifteenth out of twenty in total employment. Historically, growth in this industry has fallen below that of the region and has been somewhat counter cyclical with the economic cycle. In terms of jobs created, the industry ranked twentieth over the 1997-2007 period, eliminating 3,700 jobs. The industry will be expected to remain at roughly the same levels with a nominal increase of 500 employees.

Table 1: Public Administration Industry Compared with Other Industries

NAICS Industry	Total Employment				Compound Annual Growth			Jobs Added		
	1987	1997	2007	2017	1987-97	1997-07	2007-17	1987-97	1997-07	2007-17
11 Agriculture, forestry, fishing and hunting	10,357	8,230	5,262	5,951	-2.3%	-4.4%	1.2%	(2,127)	(2,968)	689
21 Mining and oil and gas extraction	34,043	32,970	55,092	61,154	-0.3%	5.3%	1.0%	(1,073)	22,122	6,062
22 Utilities	4,700	3,800	9,881	11,621	-2.1%	10.0%	1.6%	(900)	6,081	1,740
23 Construction	21,500	36,600	69,847	94,177	5.5%	6.7%	3.0%	15,100	33,247	24,331
31-33 Manufacturing	30,500	42,900	54,380	70,890	3.5%	2.4%	2.7%	12,400	11,480	16,510
41 Wholesale trade	21,375	22,041	33,228	44,815	0.3%	4.2%	3.0%	666	11,187	11,586
44-45 Retail trade	46,025	47,459	71,546	96,493	0.3%	4.2%	3.0%	1,434	24,087	24,948
48-49 Transportation and warehousing	21,300	30,400	37,452	50,295	3.6%	2.1%	3.0%	9,100	7,052	12,844
51 Information and cultural industries	11,317	16,489	19,961	25,271	3.8%	1.9%	2.4%	5,172	3,472	5,310
52 Finance and insurance	16,662	21,266	28,538	34,543	2.5%	3.0%	1.9%	4,603	7,272	6,006
53 Real estate and rental and leasing	9,038	11,534	15,479	18,736	2.5%	3.0%	1.9%	2,497	3,944	3,258
54 Professional, scientific and technical services	27,200	43,700	89,591	143,873	4.9%	7.4%	4.9%	16,500	45,891	54,282
55 Management of companies and enterprises	501	879	1,169	1,415	5.8%	2.9%	1.9%	378	289	246
56 Admin & support, waste mgmt & remediation svcs.	11,299	19,821	28,790	34,543	5.8%	3.8%	1.8%	8,522	8,969	5,753
61 Educational services	23,800	31,900	52,154	60,488	3.0%	5.0%	1.5%	8,100	20,254	8,334
62 Health care and social assistance	33,700	43,200	66,471	102,326	2.5%	4.4%	4.4%	9,500	23,271	35,855
71 Arts, entertainment and recreation	7,283	10,611	12,845	16,262	3.8%	1.9%	2.4%	3,328	2,234	3,417
72 Accommodation and food services	20,200	32,100	48,100	64,248	4.7%	4.1%	2.9%	11,900	16,000	16,148
81 Other services (except public administration)	17,800	21,900	30,408	36,484	2.1%	3.3%	1.8%	4,100	8,508	6,076
91 Public administration	21,200	22,900	19,176	19,712	0.8%	-1.8%	0.3%	1,700	(3,724)	536
Grand Total	389,800	500,700	749,368	993,298	2.5%	4.1%	2.9%	110,900	248,668	243,930

JOBS CREATED BY OCCUPATION – PUBLIC ADMINISTRATION INDUSTRY

Figure 4: Total Jobs by Occupation 2007 and 2017 – Public Administration Industry

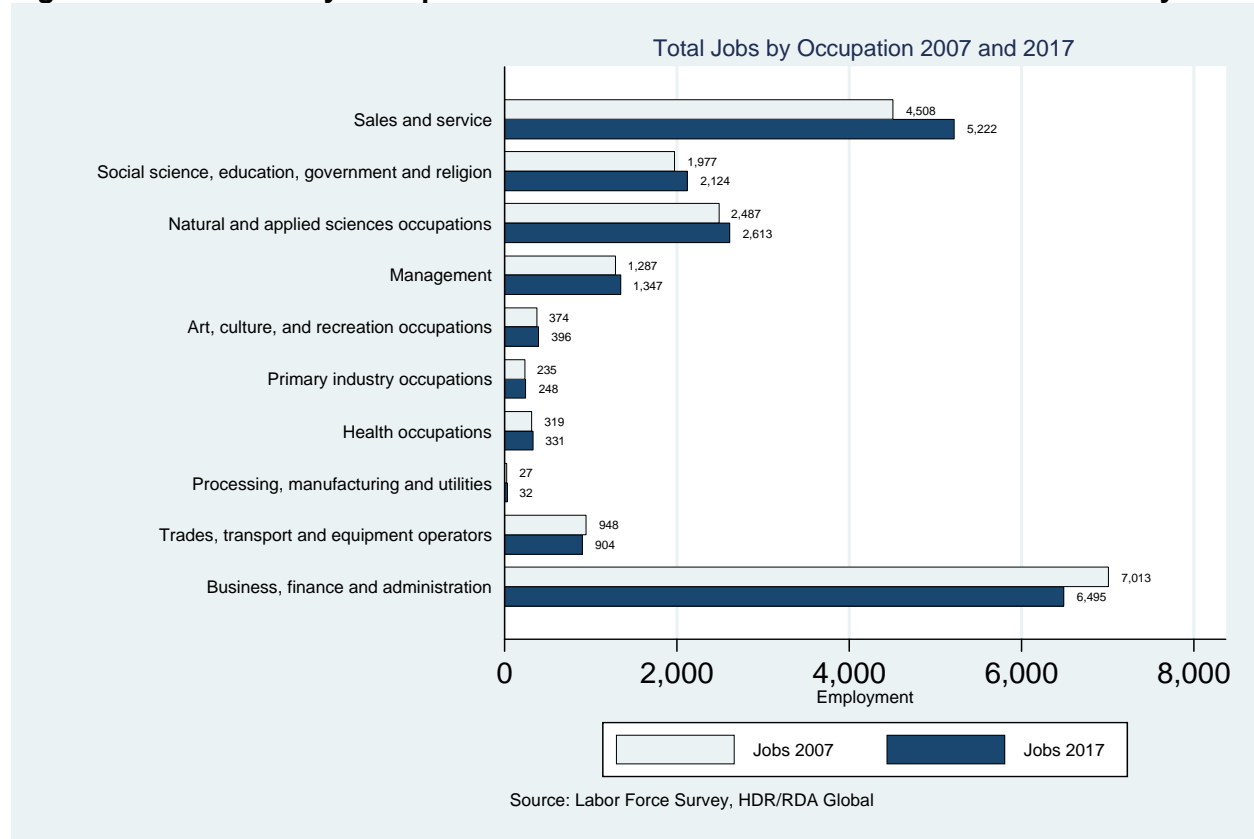


Table 2: 30-Year Occupational Growth for the Public Administration Industry

Occupation (1 Digit NOC)	Total Employees				Compound Annual Growth		
	1987	1997	2007	2017	1987-97	1997-07	2007-17
A Management occupations	1,338	1,751	1,287	1,347	0.2%	-1.9%	-0.8%
B Business, finance and administration occupations	8,296	8,482	7,013	6,495	0.2%	-1.9%	-0.8%
C Natural and applied sciences and related occupations	2,628	3,079	2,487	2,613	1.6%	-2.1%	0.5%
D Health occupations	261	314	319	331	1.9%	0.1%	0.4%
E Occupations in social science, education, government service and religion	1,861	2,384	1,977	2,124	2.5%	-1.9%	0.7%
F Occupations in art, culture, recreation and sport	450	507	374	396	1.2%	-3.0%	0.6%
G Sales and service occupations	4,983	4,748	4,508	5,222	-0.5%	-0.5%	1.5%
H Trades, transport and equipment operators and related occupations	1,226	1,350	948	904	1.0%	-3.5%	-0.5%
I Occupations unique to primary industry	128	255	235	248	7.1%	-0.8%	0.6%
J Occupations unique to processing, manufacturing and utilities	29	29	27	32	0.0%	-0.8%	1.5%
Grand Total	21,200	22,900	19,176	19,712	0.8%	-1.8%	0.3%

There are about 19,200 employees in the Public Administration Industry today. Over 7,000 of these workers have business, finance, and administration jobs, representing the largest share of occupations. Demand for these jobs will decline slightly by approximately 500 positions over the forecast period. The next largest occupational category is sales and service occupations, which currently employs about 4,500 workers and will employ about 5,200 workers in 2017. Natural and applied sciences and related occupations is the third largest category with about

2,500 employees today growing to 2,600 workers in 2017. About 700 new jobs will be created for Sales and Service workers. This will be largely offset by the loss of about 500 business and finance jobs.

Table 3: Ten-Year Forecast of Jobs by Major Occupational Group – Public Administration

Occupation (1 Digit NOC)	Annual Employment											
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
A Management occupations	1,277	1,287	1,329	1,347	1,353	1,356	1,356	1,357	1,355	1,353	1,350	1,347
B Business, finance and administration occupations	7,180	7,013	7,185	7,163	7,103	7,030	6,947	6,860	6,771	6,680	6,587	6,495
C Natural and applied sciences and related occupations	2,711	2,487	2,577	2,624	2,589	2,559	2,574	2,595	2,595	2,595	2,604	2,613
D Health occupations	343	319	312	309	306	306	308	311	315	320	325	331
E Occupations in social science, education, government service and religion	2,006	1,977	2,019	2,036	2,044	2,054	2,061	2,072	2,084	2,097	2,110	2,124
F Occupations in art, culture, recreation and sport	374	374	364	380	374	380	380	384	386	390	392	396
G Sales and service occupations	4,355	4,508	4,637	4,609	4,714	4,806	4,875	4,925	5,003	5,080	5,153	5,222
H Trades, transport and equipment operators and related occupations	967	948	957	960	948	940	933	929	924	918	911	904
I Occupations unique to primary industry	257	235	243	249	250	249	249	249	249	248	248	248
J Occupations unique to processing, manufacturing and utilities	30	27	29	29	29	30	31	31	31	32	32	32
Grand Total	19,500	19,176	19,652	19,705	19,711	19,712	19,712	19,712	19,712	19,712	19,712	19,712

Table 4: Top 50 Occupations Adding Jobs From 2007-2017⁵

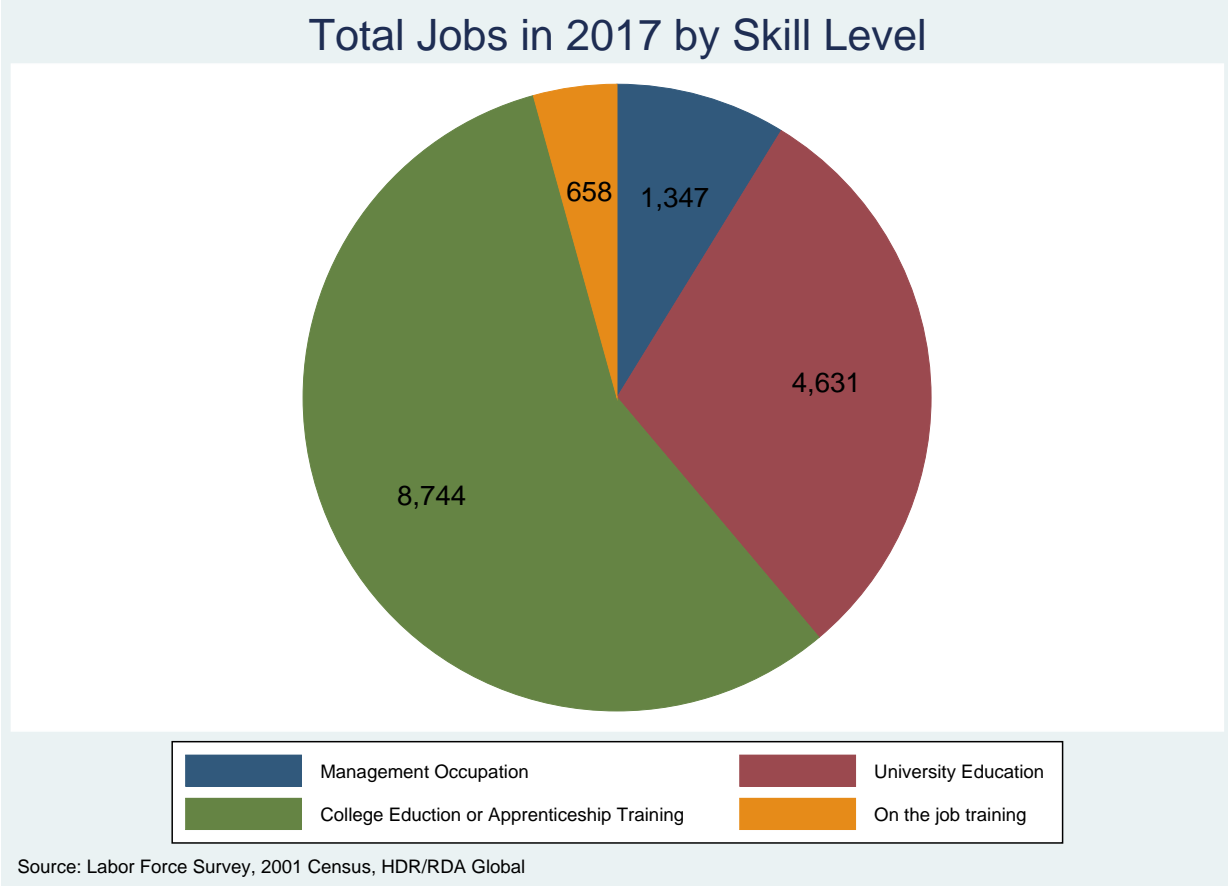
Rank	Occupation (4 Digit NOC)	Employees				Jobs Created
		1987	1997	2007	2017	2007-2017
1	G611 Police officers (except commissioned)	2,478	2,337	2,261	2,667	406
2	G612 Fire-fighters	1,177	1,115	1,077	1,261	184
3	B318 Immigration, employment insurance and revenue officers	833	756	571	651	80
4	G622 Correctional service officers	374	341	334	406	72
5	E011 Judges	111	141	125	172	46
6	E025 Probation and parole officers and related occupations	126	161	142	188	46
7	C163 Inspectors in public and environmental health and occupational health and safety	245	286	234	278	45
8	E037 Program officers unique to government	87	113	100	135	35
9	G624 Occupations unique to the Armed Forces	187	174	169	203	34
10	B543 Court clerks	211	204	197	230	33
11	G623 By-law enforcement and other regulatory officers, n.e.c.	222	209	195	221	25
12	A351 Commissioned police officers	104	142	109	132	23
13	C053 Urban and land use planners	181	215	175	195	19
14	A012 Senior government managers and officials	131	137	108	127	19
15	C013 Geologists, geochemists and geophysicists	120	140	115	133	18
16	E032 Economists and economic policy researchers and analysts	121	156	130	147	17
17	C124 Conservation and fishery officers	46	53	47	64	17
18	A334 Other managers in public administration	69	93	72	88	17
19	D234 Ambulance attendants and other paramedical occupations	194	237	246	259	13
20	A353 Commissioned officers, Armed Forces	48	64	50	61	12
21	E034 Social policy researchers, consultants and program officers	173	224	186	196	11
22	E213 Employment counsellors	103	130	107	117	9
23	E036 Recreation, sports and fitness program supervisors and consultants	117	155	128	137	9
24	F154 Program leaders and instructors in recreation and sport	126	145	106	114	9
25	I212 Landscaping and grounds maintenance labourers	84	166	152	160	8
26	A352 Fire chiefs and senior fire-fighting officers	38	52	40	48	8
27	B317 Court officers and justices of the peace	72	63	48	56	8
28	C162 Engineering inspectors and regulatory officers	100	116	96	104	8
29	E121 College and other vocational instructors	54	66	51	58	7
30	C112 Geological and mineral technologists and technicians	43	48	40	46	6
31	A011 Legislators	31	33	26	33	6
32	F011 Librarians	71	78	58	64	5
33	A332 Government managers, economic analysis, policy development and program administration	105	140	104	109	5
34	C181 Computer and network operators and web technicians	125	146	118	123	5
35	C021 Biologists and related scientists	82	92	75	80	5
36	C111 Chemical technologists and technicians	52	60	49	53	5
37	F025 Translators, terminologists and interpreters	72	79	65	69	4
38	I016 Supervisors, landscape and horticulture	35	70	65	69	4
39	C141 Electrical and electronics engineering technologists and technicians	61	71	57	61	4
40	J134 Water and waste plant operators	19	19	16	19	3
41	F024 Professional occupations in public relations and communications	136	155	109	113	3
42	C072 Database analysts and data administrators	47	54	44	47	3
43	C155 Mapping and related technologists and technicians	111	131	106	109	3
44	C144 Aircraft instrument, electrical and avionics mechanics, technicians and inspectors	26	30	27	30	3
45	C182 User support technicians	106	125	101	104	2
46	E035 Education policy researchers, consultants and program officers	13	17	13	15	2
47	A331 Government managers, health and social policy development and program administration	55	74	56	58	2
48	E033 Business development officers and marketing researchers and consultants	86	113	91	92	2
49	H831 Public works and maintenance labourers	158	238	128	130	2
50	C122 Agricultural and fish products inspectors	4	5	4	6	1
	Others	11,832	12,929	10,453	9,675	(778)
	Grand Total	21,200	22,900	19,176	19,712	536

⁵ Note that these job creations in Figure 6 capture only jobs created in the Public Administration Sector and do not represent total job creations for all of Calgary. Jobs with these occupations will also be created in other industries.

EMPLOYMENT GROWTH BY SKILL LEVEL – PUBLIC ADMINISTRATION INDUSTRY

From a skill level perspective, there will be about 1,350 new management occupations, 8,750 jobs requiring some college education or apprenticeship training, nearly 4,650 that require university training and over 650 that require only on the job training

Figure 6: Jobs Added by Skill Level in the Public Administration Industry



APPENDIX 1: INDUSTRY DEFINITION – PUBLIC ADMINISTRATION INDUSTRY

This sector comprises establishments primarily engaged in activities of a governmental nature, that is, the enactment and judicial interpretation of laws and their pursuant regulations, and the administration of programs based on them. Legislative activities, taxation, national defence, public order and safety, immigration services, foreign affairs and international assistance, and the administration of government programs are activities that are purely governmental in nature.

Ownership is not a criterion for classification. Government owned establishments engaged in activities that are not governmental in nature are classified to the same industry as privately owned establishments engaged in similar activities.

Government establishments may engage in a combination of governmental and non-governmental activities. When separate records are not available to separate the activities that are not governmental in nature from those that are, the establishment is classified to this sector.