

Calgary Economic Development

OCCUPATION REPORT (F):

OCCUPATIONS IN ART, CULTURE, RECREATION AND SPORT

January 2008

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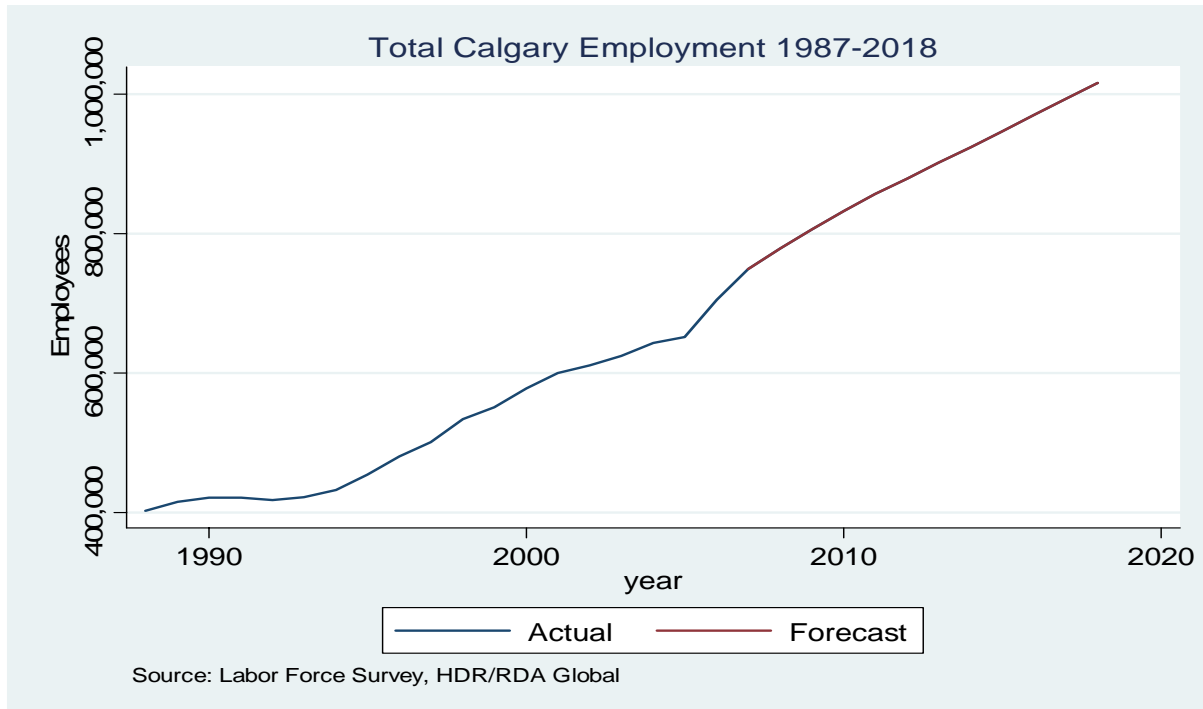
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Figure 1: Total Calgary Employment Forecast (All Industries)



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 will continue to 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

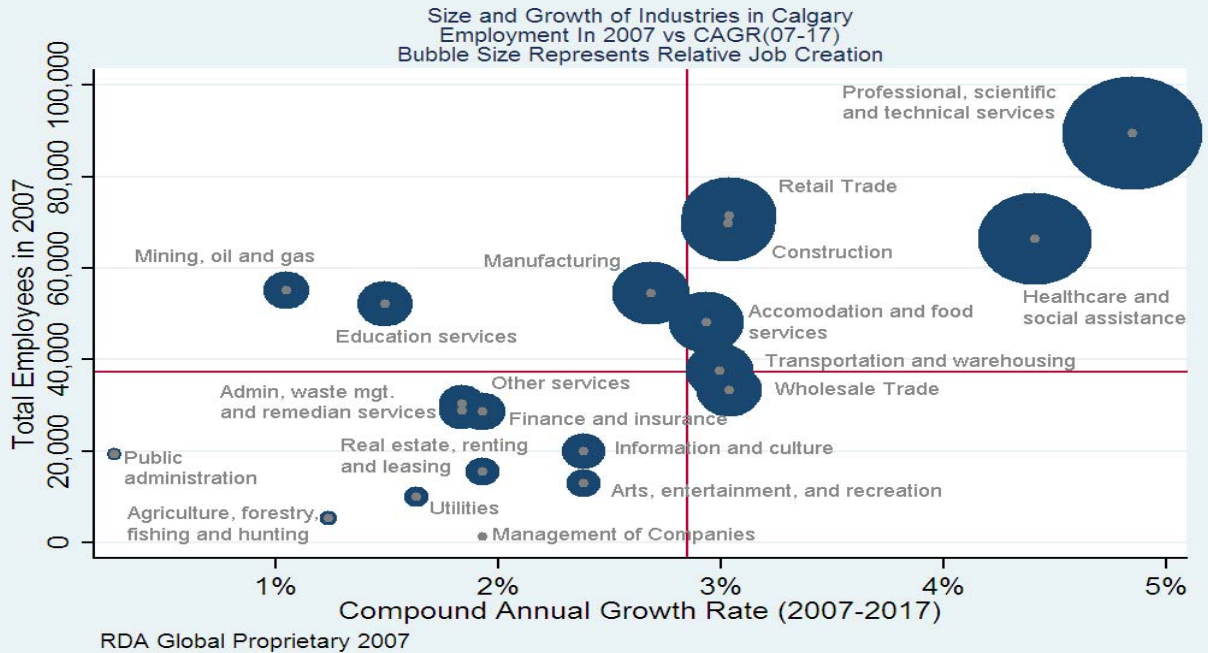


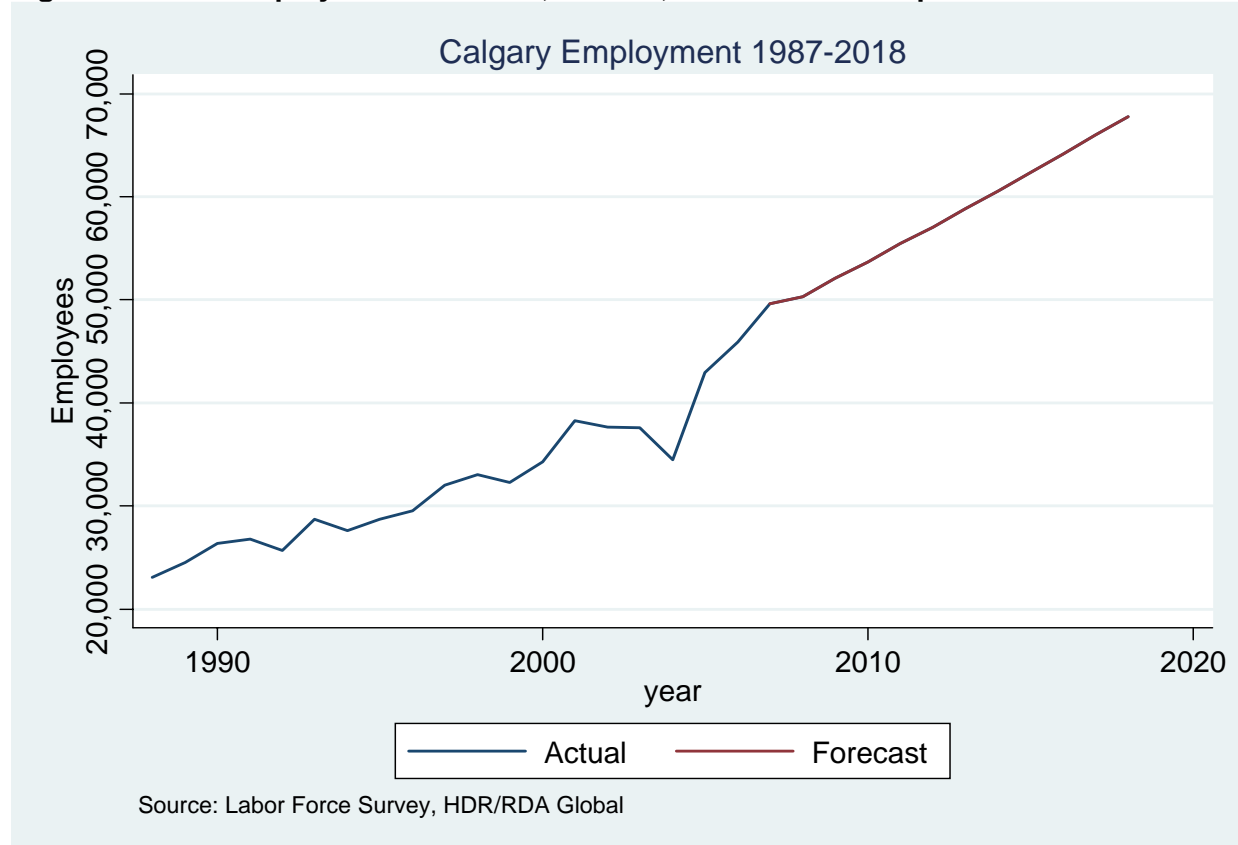
Figure 2 highlights the differences in job creation across industries in Calgary, with the larger circles representing industries with more job creations. Significant gains in employment will be somewhat distributed among economic sectors. However, there will be particularly strong expansion in the professional 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%.

OCCUPATIONS IN ART, CULTURE, RECREATION AND SPORT

Demand for workers in art, culture, recreation and sport occupations is expected to continue to expand at a compound annual growth rate of 3.2% over the next ten years. Growth in these jobs will outpace overall employment growth in Calgary of 2.9% over the same forecast period. Growth in demand for these jobs will result in about 7,000 new jobs being created over the forecast period.

Figure 3: Total Employment in the Art, Culture, Recreation and Sport Sector 1987-2018



Art, culture, recreation and sport occupations are a niche set of occupations and represent the second smallest occupational group for total employment with nearly 18,900 workers in 2007. Historically, demand for workers in this occupational category has not grown as fast as overall employment growth in the Calgary Economic Region. However, demand for these workers will be strong over the forecast period with a compound annual growth rate of 3.2%. Over 4,300 natural and applied science and related jobs were created in the 1997-2007 period and about 7,000 will be created in the 2007-2017 forecast period, making this occupation category a small, but significant contributor to new jobs.

Creative designers, and craftspersons are the largest segment of jobs in art, culture, recreation and sport representing about 5,300 workers in 2007. Of these workers, about 3,000 are graphic artists or illustrators and about 1,100 are interior designers. The remaining segments are comprised mainly of artisans and craftspersons. This segment will grow at about a 3.5% compound growth rate to about 7,500 workers by 2017, adding about 2,200 new jobs. Writing,

translating and public relations workers are the second largest group of workers with about 3,900 workers in 2007 growing to 5,300 workers by 2017. The segment will grow by 3.3% and generate about 1,500 new jobs over the forecast period. About 1,700 of these workers are professionals in public relations and about 1,200 are authors and writers. Table 2 contains forecasts of these and other occupations in this category.

Table 1: Comparison of Job Occupation Categories in Calgary

National Occupational Classification	Total Employment				Compound Annual Growth			Jobs Added		
	1987	1997	2007	2017	1987-97	1997-07	2007-17	1987-97	1997-07	2007-17
A Management occupations	36,858	55,680	74,819	98,676	4.2%	3.0%	2.8%	18,822	19,138	23,857
B Business, finance and administration occupations	90,639	104,579	156,889	189,868	1.4%	4.1%	1.9%	13,940	52,310	32,978
C Natural and applied sciences and related occupations	39,436	51,764	86,925	128,173	2.8%	5.3%	4.0%	12,329	35,160	41,249
D Health occupations	18,121	23,096	38,007	59,079	2.5%	5.1%	4.5%	4,975	14,910	21,072
E Occupations in social science, education, government service and religion	26,756	38,502	61,698	83,847	3.7%	4.8%	3.1%	11,746	23,196	22,149
F Occupations in art, culture, recreation and sport	10,467	14,573	18,889	25,844	3.4%	2.6%	3.2%	4,106	4,316	6,955
G Sales and service occupations	88,787	108,383	163,524	211,685	2.0%	4.2%	2.6%	19,596	55,141	48,161
H Trades, transport and equipment operators and related occupations	54,521	74,654	108,860	141,739	3.2%	3.8%	2.7%	20,133	34,206	32,879
I Occupations unique to primary industry	10,779	12,465	14,111	17,751	1.5%	1.2%	2.3%	1,686	1,646	3,640
J Occupations unique to processing, manufacturing and utilities	13,435	17,002	25,646	36,636	2.4%	4.2%	3.6%	3,567	8,644	10,990
Grand Total	389,800	500,700	749,368	993,298	2.5%	4.1%	2.9%	110,900	248,668	243,930

Table 2: 10-Year Forecast of Art, Culture, Recreation and Sport Occupations

National Occupational Classification (3) (Digit)	Total Employment											CAGR 2007-2017	Jobs Added 2007-2017
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
F01 Librarians, archivists, conservators and curators	1,180	1,145	1,215	1,239	1,297	1,334	1,385	1,433	1,486	1,537	1,591	3.0%	411
F02 Writing, translating and public relations professionals	3,855	3,735	3,998	4,075	4,281	4,414	4,597	4,766	4,955	5,139	5,334	3.3%	1,479
F03 Creative and performing artists	2,529	2,479	2,608	2,654	2,756	2,835	2,937	3,030	3,130	3,229	3,333	2.8%	804
F11 Technical occupations in libraries, archives, museums and art galleries	986	949	1,001	1,015	1,058	1,086	1,125	1,161	1,201	1,240	1,280	2.6%	295
F12 Photographers, graphic arts technicians and technical and co-ordinating occupations in motion pictures, broadcasting and the performing arts	2,451	2,393	2,543	2,597	2,719	2,802	2,911	3,014	3,127	3,237	3,353	3.2%	902
F13 Announcers and other performers	567	555	590	602	629	649	675	699	725	751	779	3.2%	212
F14 Creative designers and craftspersons	5,341	5,180	5,591	5,710	6,025	6,215	6,484	6,730	7,009	7,277	7,564	3.5%	2,223
F15 Athletes, coaches, referees and related occupations	1,982	1,897	2,028	2,046	2,134	2,194	2,281	2,356	2,440	2,523	2,611	2.8%	629
Grand Total	18,889	18,333	19,574	19,938	20,900	21,529	22,397	23,188	24,073	24,932	25,844	3.2%	6,955

JOBS IN ART, CULTURE, RECREATION AND SPORT IN EACH INDUSTRY

Table 1: 30-Year Growth in Art, Culture, Recreation, and Sport Occupations in Each Industry

Key Sector	Total Employment				Compound Annual Growth			Jobs Added		
	1987	1997	2007	2017	1987-97	1997-07	2007-17	1987-97	1997-07	2007-17
21 Mining and oil and gas extraction	265	247	363	405	-0.7%	3.9%	1.1%	(18)	116	42
22 Utilities	8	6	15	19	-1.9%	9.1%	2.2%	(1)	9	4
23 Construction	57	98	178	231	5.5%	6.2%	2.6%	41	81	53
31-33 Manufacturing	628	925	968	1,214	4.0%	0.5%	2.3%	298	43	246
41 Wholesale trade	57	59	75	102	0.3%	2.5%	3.1%	2	16	27
44-45 Retail trade	711	741	994	1,400	0.4%	3.0%	3.5%	29	253	406
48-49 Transportation and warehousing	42	62	67	99	4.0%	0.8%	4.0%	20	5	32
51 Information and cultural industries	2,586	3,759	4,239	5,744	3.8%	1.2%	3.1%	1,173	480	1,505
52 Finance and insurance	4	5	6	8	2.4%	1.4%	2.8%	1	1	2
53 Real estate and rental and leasing	6	8	10	13	2.8%	1.6%	2.6%	2	1	3
54 Professional, scientific and technical services	1,591	2,467	4,472	7,020	4.5%	6.1%	4.6%	876	2,005	2,548
56 Administrative and support, waste management and remediation services	39	70	89	111	6.0%	2.5%	2.2%	31	20	22
61 Educational services	944	1,222	1,875	2,163	2.6%	4.4%	1.4%	278	653	288
62 Health care and social assistance	127	161	216	379	2.4%	3.0%	5.8%	33	55	163
71 Arts, entertainment and recreation	2,653	3,860	4,467	5,924	3.8%	1.5%	2.9%	1,206	607	1,457
72 Accommodation and food services	17	28	38	59	5.2%	3.1%	4.4%	11	10	21
81 Other services (except public administration)	281	347	441	557	2.1%	2.4%	2.4%	66	93	117
91 Public administration	450	507	374	396	1.2%	-3.0%	0.6%	57	(133)	22
Grand Total	10,467	14,573	18,889	25,844	3.4%	2.6%	3.2%	4,106	4,316	6,955

There are nearly 18,900 workers in art, culture, recreation and sport today. About half of these workers are employed in the arts, entertainment, and recreation industry and the information and culture industry. About 3,892 of these workers are employed in the professional services industry and about 1600 work in the education industry. The remaining portion of these workers is spread throughout the remaining industries in Calgary. Over the forecast, professional services will grow at a compound annual growth rate of 4.6% to become the largest employer of workers in art, culture, recreation and sport with about 7,000 workers, mainly through growing demand for various creative designers and similar occupations. The arts, entertainment and recreation industry will be the second largest employer of these workers with nearly 6,000 workers by 2017. Tables 2 and 3 contain additional detail on the demand for these workers in each industry.

Table 3: Ten-Year Forecast of Art, Culture, Recreation, and Sport Occupations in Each Industry

Occupation (1 Digit NOC)	Annual Employment											
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
21 Mining and oil and gas extraction	334	363	342	362	356	360	357	364	372	383	393	405
22 Utilities	11	15	14	16	16	17	16	17	17	18	18	19
23 Construction	158	178	188	203	204	211	211	214	216	220	225	231
31-33 Manufacturing	918	968	913	958	959	998	1,024	1,062	1,096	1,134	1,172	1,214
41 Wholesale trade	72	75	72	77	77	80	82	86	90	94	98	102
44-45 Retail trade	946	994	961	1,040	1,045	1,094	1,131	1,187	1,234	1,288	1,342	1,400
48-49 Transportation and warehousing	76	67	64	67	69	74	78	83	86	91	95	99
51 Information and cultural industries	4,038	4,239	4,117	4,354	4,432	4,632	4,778	4,969	5,148	5,345	5,539	5,744
52 Finance and insurance	6	6	5	6	6	6	6	6	7	7	7	8
53 Real estate and rental and leasing	10	10	9	10	10	11	11	11	12	12	12	13
54 Professional, scientific and technical services	3,892	4,472	4,422	4,871	5,082	5,447	5,654	5,926	6,182	6,470	6,737	7,020
56 Administrative and support, waste management and remediation services	76	89	82	87	87	91	93	97	100	104	107	111
61 Educational services	1,631	1,875	1,723	1,802	1,794	1,858	1,887	1,945	1,992	2,050	2,104	2,163
62 Health care and social assistance	200	216	220	244	253	272	287	306	323	342	360	379
71 Arts, entertainment and recreation	4,327	4,467	4,390	4,621	4,696	4,870	5,019	5,204	5,373	5,553	5,734	5,924
72 Accommodation and food services	33	38	38	42	43	45	47	50	52	54	57	59
81 Other services (except public administration)	375	441	408	434	436	455	467	486	502	520	538	557
91 Public administration	374	374	364	380	374	380	380	384	386	390	392	396
Grand Total	17,475	18,889	18,333	19,574	19,938	20,900	21,529	22,397	23,188	24,073	24,932	25,844

Table 4: Jobs Created in Art, Culture, Recreation and Sport 2007-2017⁵

Rank	Occupation (4 Digit NOC)	Employees				Jobs Created	CAGR
		1987	1997	2007	2017	2007-2017	2007-2017
1	F141 Graphic designers and illustrators	1,429	2,075	3,045	4,296	1,251	3.5%
2	F024 Professional occupations in public relations and communications	1,027	1,319	1,699	2,340	642	3.3%
3	F021 Authors and writers	649	924	1,229	1,705	476	3.3%
4	F142 Interior designers	469	656	1,085	1,559	474	3.7%
5	F154 Program leaders and instructors in recreation and sport	835	1,139	1,306	1,733	426	2.9%
6	F144 Artisans and craftspersons	585	680	859	1,215	357	3.5%
7	F121 Photographers	329	504	831	1,182	351	3.6%
8	F031 Producers, directors, choreographers and related occupations	582	840	988	1,325	337	3.0%
9	F011 Librarians	455	606	720	973	253	3.1%
10	F036 Painters, sculptors and other visual artists	425	618	744	988	244	2.9%
11	F023 Journalists	309	453	505	711	206	3.5%
12	F111 Library and archive technicians and assistants	393	541	685	888	203	2.6%
13	F131 Announcers and other broadcasters	218	324	372	520	148	3.4%
14	F022 Editors	208	302	343	481	138	3.4%
15	F126 Other technical and co-ordinating occupations in motion pictures, broadcasting and the performing arts	261	365	461	597	136	2.6%
16	F152 Coaches	263	360	473	606	134	2.5%
17	F033 Musicians and singers	257	356	467	600	134	2.6%
18	F125 Audio and video recording technicians	210	302	354	476	122	3.0%
19	F143 Theatre, fashion, exhibit and other creative designers	162	207	287	409	122	3.6%
20	F012 Conservators and curators	186	268	318	415	97	2.7%
21	F122 Film and video camera operators	155	225	262	354	92	3.0%
22	F112 Technical occupations related to museums and art galleries	173	250	300	392	92	2.7%
23	F123 Graphic arts technicians	98	149	194	273	79	3.5%
24	F127 Support occupations in motion pictures, broadcasting and the performing arts	133	189	226	297	71	2.8%
25	F151 Athletes	120	174	203	272	69	3.0%
26	F132 Other performers	111	162	195	259	64	2.9%
27	F013 Archivists	52	80	142	203	61	3.6%
28	F034 Dancers	114	149	216	267	52	2.2%
29	F124 Broadcast technicians	75	111	124	175	51	3.5%
30	F035 Actors and comedians	56	81	97	129	32	2.9%
31	F145 Patternmakers, textile, leather and fur products	41	62	64	85	20	2.8%
32	F025 Translators, terminologists and interpreters	77	86	78	97	18	2.1%
33	F032 Conductors, composers and arrangers	10	14	17	23	6	3.0%
	Grand Total	10,467	14,573	18,889	25,844	6,955	3.2%

⁵ Note that these job creations in Table 4 capture only art, culture recreation and sport jobs created and do not represent total job creations for all of Calgary.