

**Innovation Systems Research Network  
City-Region Profile, 2006**

# Québec

**Gregory M. Spencer<sup>a</sup> and Tara Vinodrai<sup>b</sup>**

<sup>a</sup>Post Doctoral Research Fellow  
Program on Globalization and Regional Innovation Systems (PROGRIS)  
Munk Centre for International Studies  
University of Toronto

<sup>b</sup>Assistant Professor  
Department of Geography and Environmental Management  
and Centre for Environment and Business  
University of Waterloo

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## Summary and Highlights

Key Indicators	Québec	Canada
Population, 2006	715,515	31,612,890
Population Change, 2001-2006	4.2%	5.4%
% Foreign Born	3.7%	19.8%
% BA Degree or higher	20.2%	18.1%
# Employed	381,610	15,958,195
Employment Growth 1996-2006	20.4%	19.8%
Employment Rate	64.3%	62.4%
Unemployment Rate	4.6%	6.6%
% 'Creative' occupations	37.4%	33.2%
% Science & Tech. Occupations	8.6%	6.6%
'Bohemians' per 1,000 Labour Force	12.2	14.2
Number of Industrial Clusters	3	255
% Employment in Clusters	7.1%	22.1%
Average FT Employment Income	\$ 45,181	\$ 51,221
% Change Average Income 2000-2005	2.0%	5.5%

# 1 - Demographics Québec

Population	2001	2006	% Change 2001-2006
Québec	686,570	715,515	4.2%
Canada	30,007,085	31,612,890	5.4%

Age Groups	Under 15	15 to 64	65 and over	% 15 to 64
Québec	165,800	413,790	103,045	60.6%
Canada	9,800,715	17,476,925	4,335,250	55.3%

Figure 1.1 - Population by age and gender, 2006

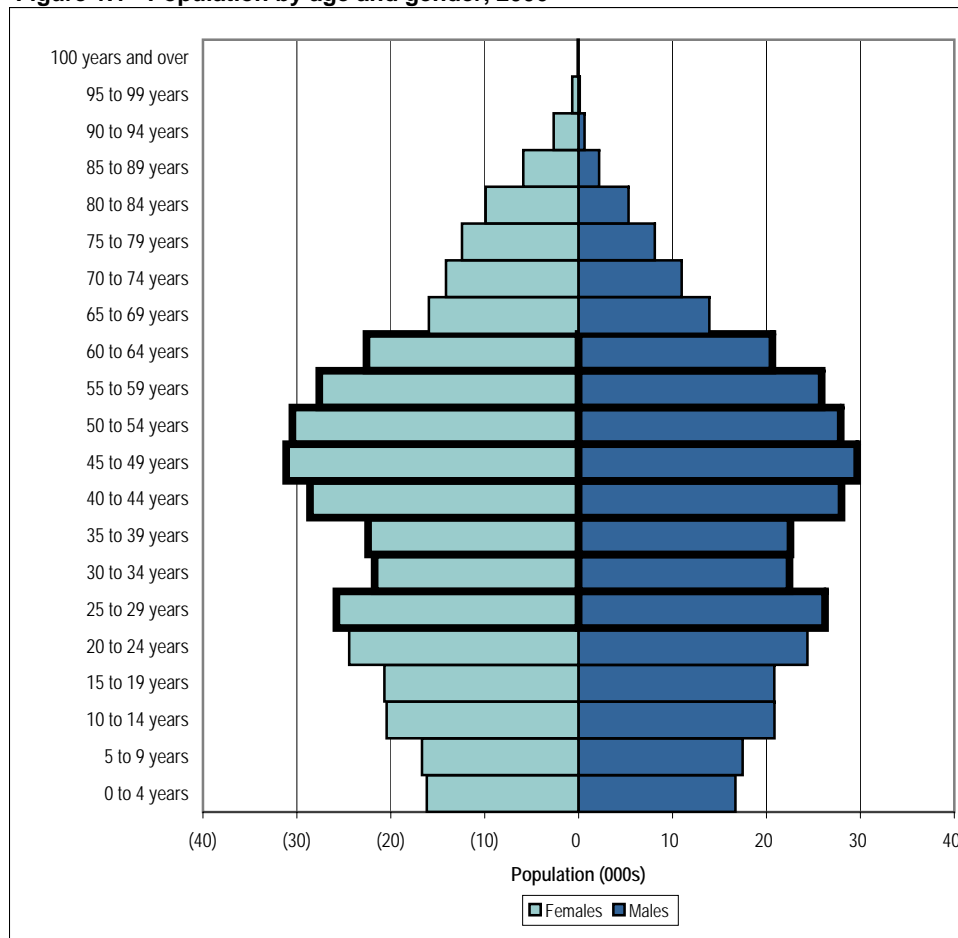


Figure 1.2 - Population by age group, 2001-2006

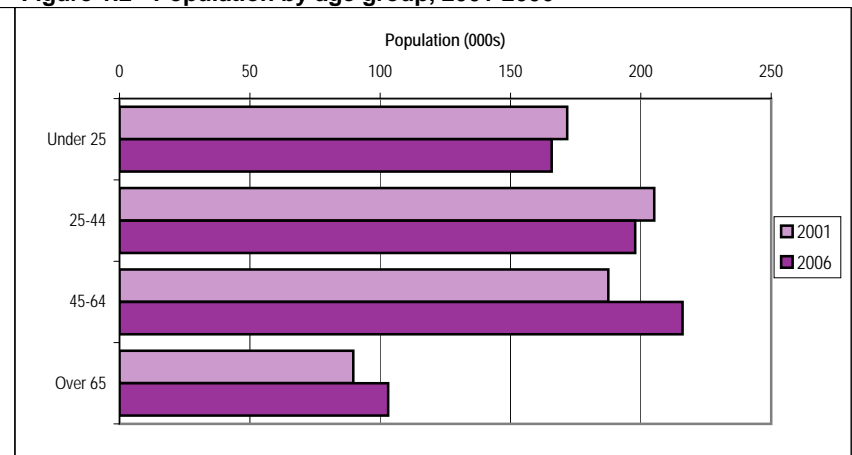
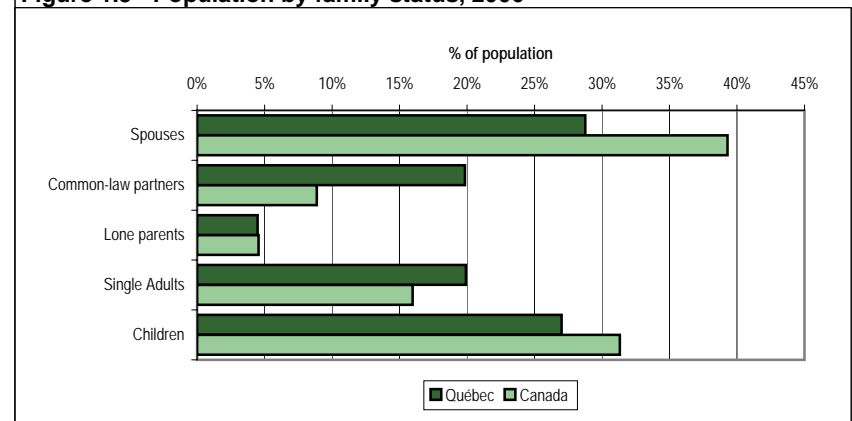


Figure 1.3 - Population by family status, 2006



## 2 - Migration & Population Change

## Québec

Domestic Migration	Intra-provincial	Inter-provincial	Total
<b>In-flows, 2001-2006</b>	52,260	5,330	57,590
<b>Out-flows, 2001-2006</b>	45,180	6,780	51,960
<b>Net, 2001-2006</b>	7,080	(1,450)	5,630

	% Foreign born	Migrated post-1991	Migrated pre-1991
<b>Québec</b>	3.7%	2.3%	1.4%
<b>Canada</b>	19.8%	8.9%	10.9%

Figure 2.1 - Domestic migration flows between 2001 and 2006 by age

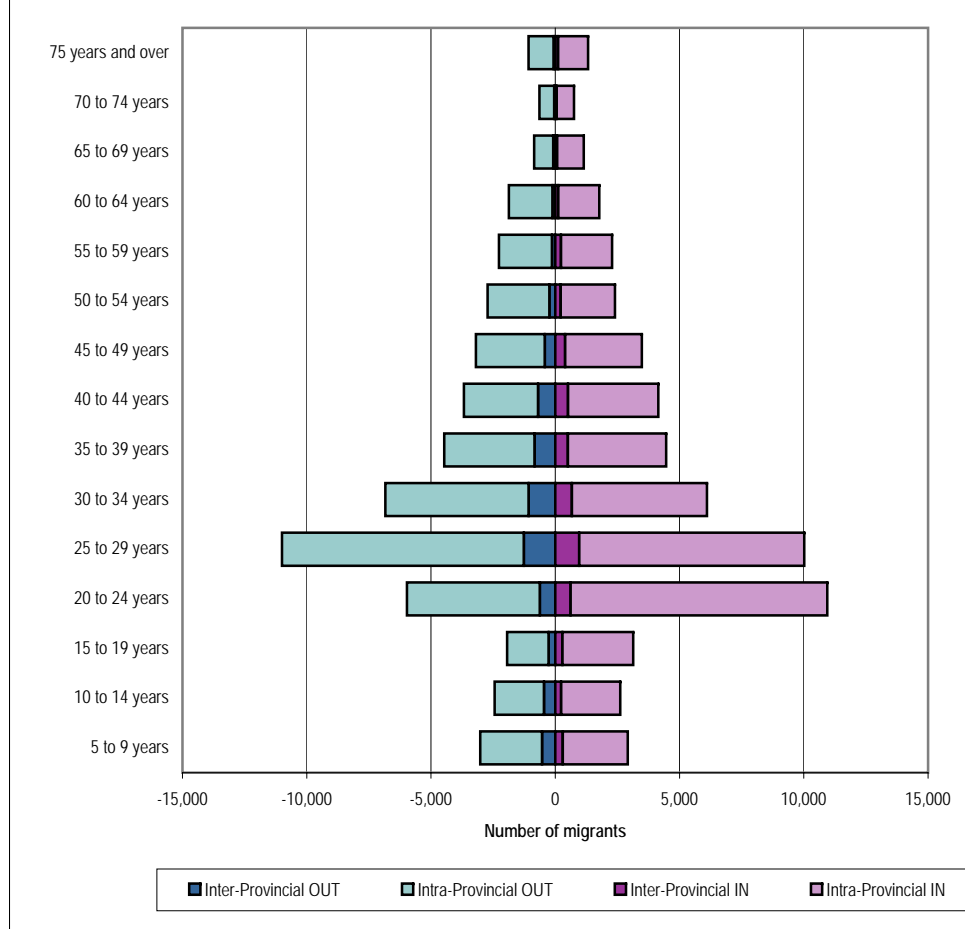


Figure 2.2 - Population by place of birth, 2006

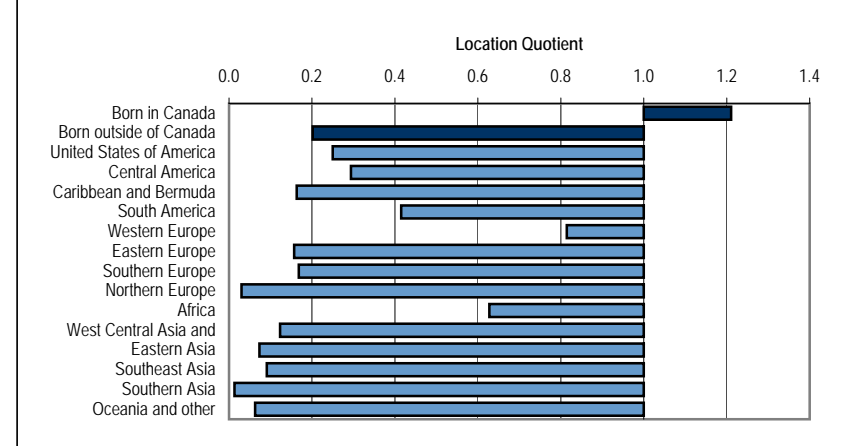
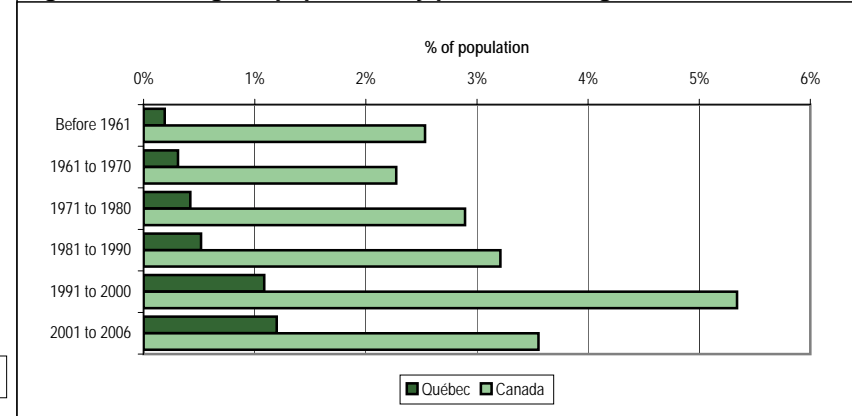


Figure 2.3 - Immigrant population by period of immigration, 2006



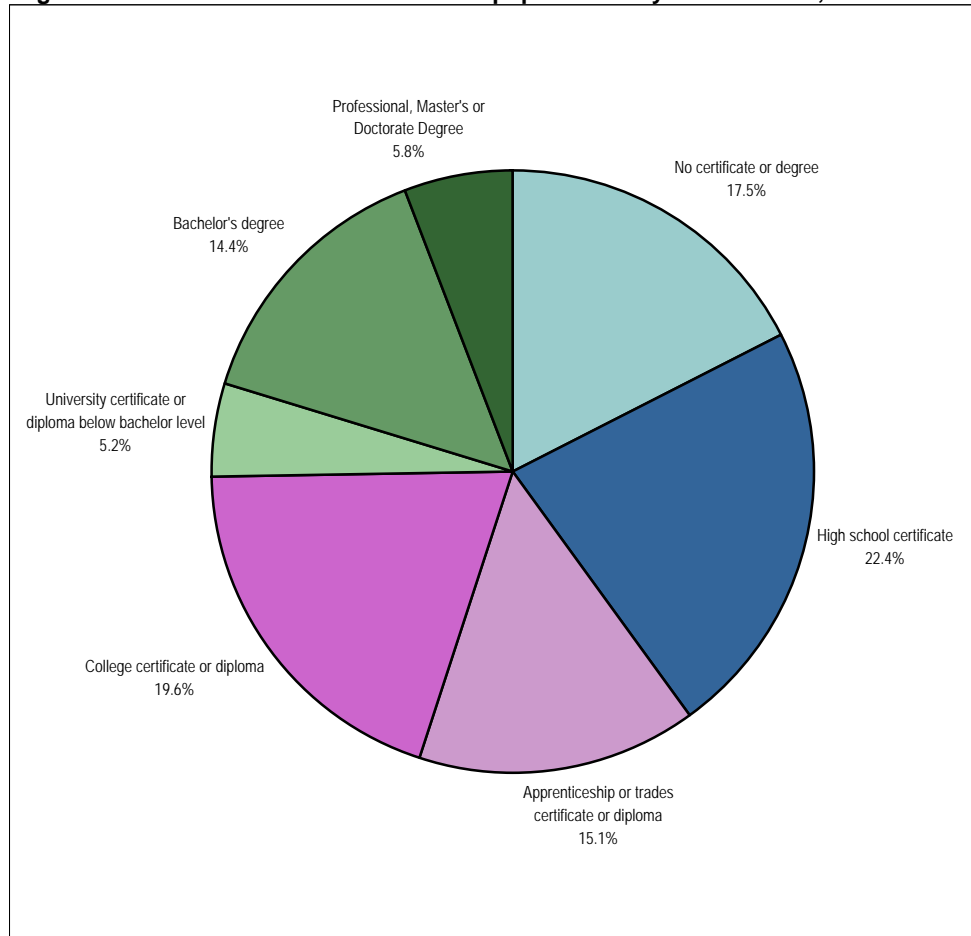
### 3 - Education

### Québec

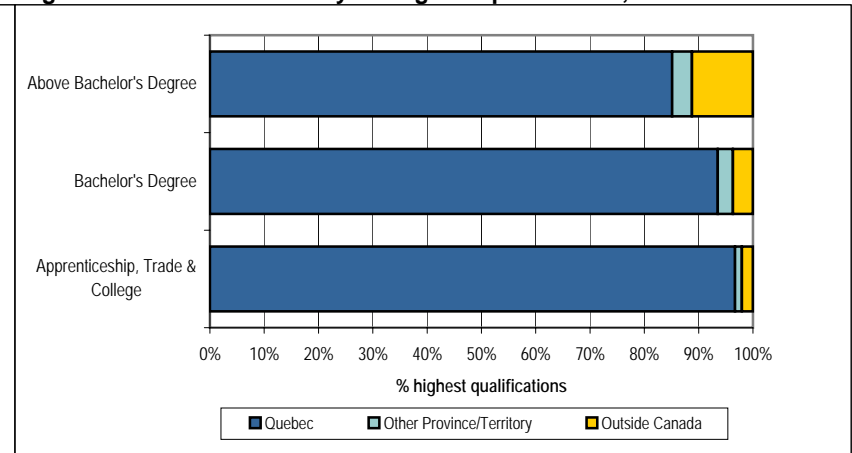
	% College degree or higher <sup>1</sup>	% BA degree or higher <sup>1</sup>	% MA degree or higher <sup>1</sup>	PhDs per 1,000 <sup>1</sup>
<b>Québec</b>	45.0%	20.2%	5.8%	9.2
<b>Canada</b>	39.8%	18.1%	4.6%	6.9

	% BA degree or higher	
	2001	2006
<b>Québec</b>	17.5%	20.2%
<b>Canada</b>	15.4%	18.1%

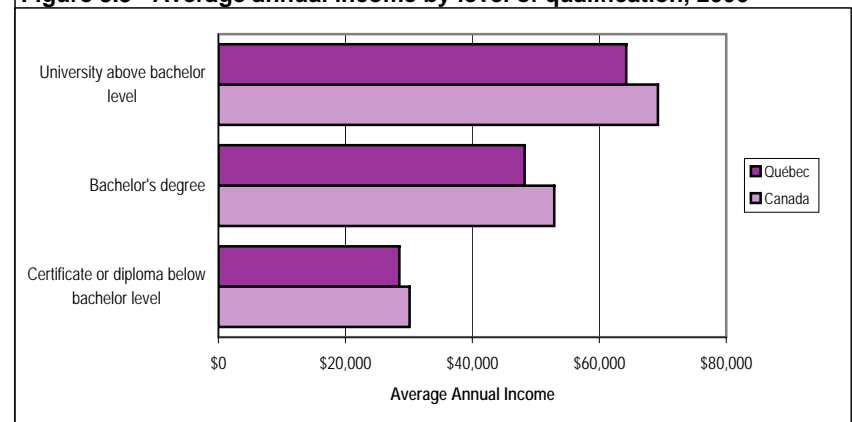
**Figure 3.1 - Educational attainment for the population 15 years and over, 2006**



**Figure 3.2 - Location of study for highest qualification, 2006**



**Figure 3.3 - Average annual income by level of qualification, 2006**



## 4 - Employment

## Québec

Employment Rate			
	1996	2001	2006
<b>Québec</b>	57.7%	61.1%	64.3%
<b>Canada</b>	58.9%	61.5%	62.4%

Unemployment Rate			
	1996	2001	2006
<b>Québec</b>	10.4%	6.9%	4.6%
<b>Canada</b>	10.1%	7.4%	6.6%

Figure 4.1 - Labour force status of the population 15 and over, 1996 & 2006

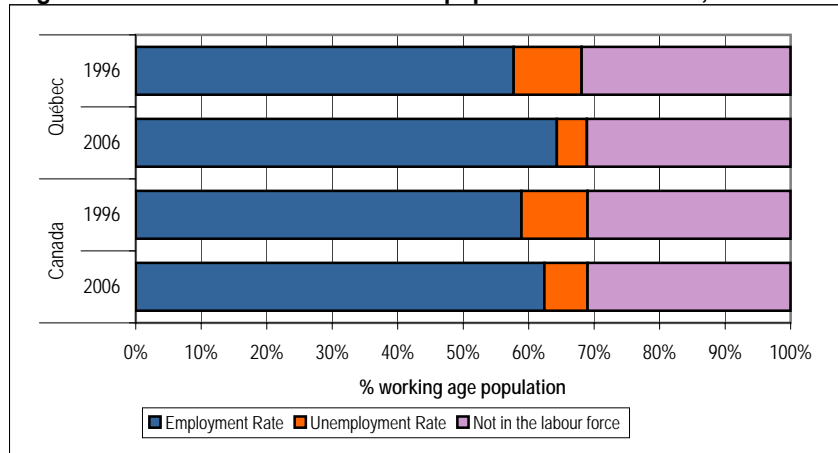


Figure 4.2 - Employment Rate by Educational Attainment, 2006

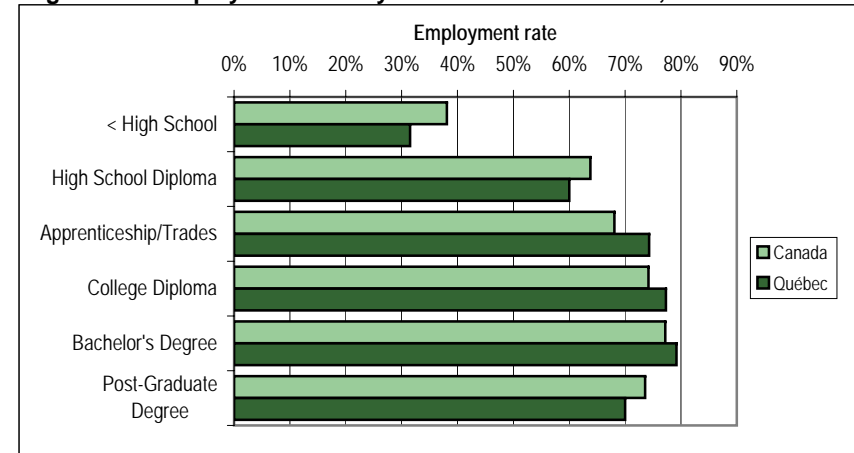


Figure 4.3 - Employment rate<sup>2</sup> by age, 2006

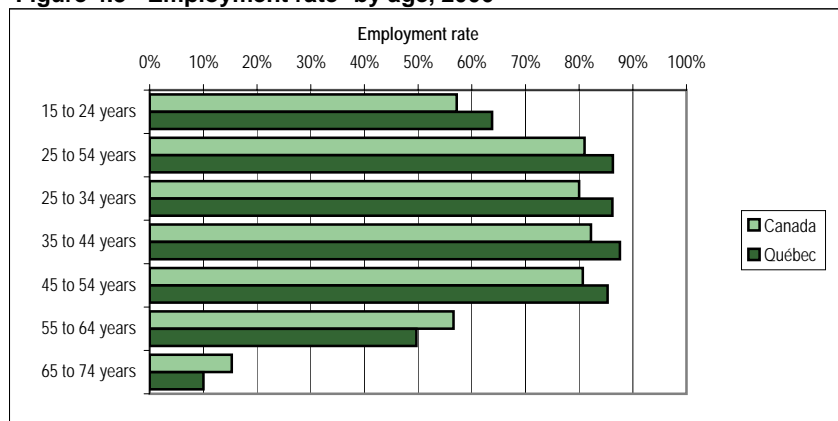
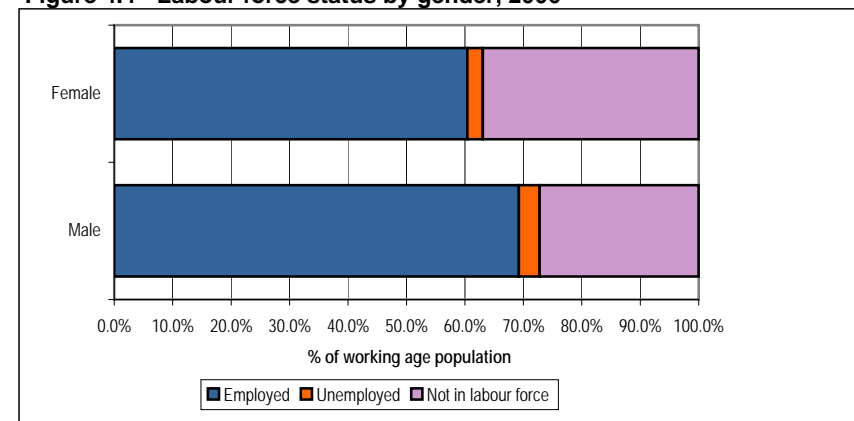


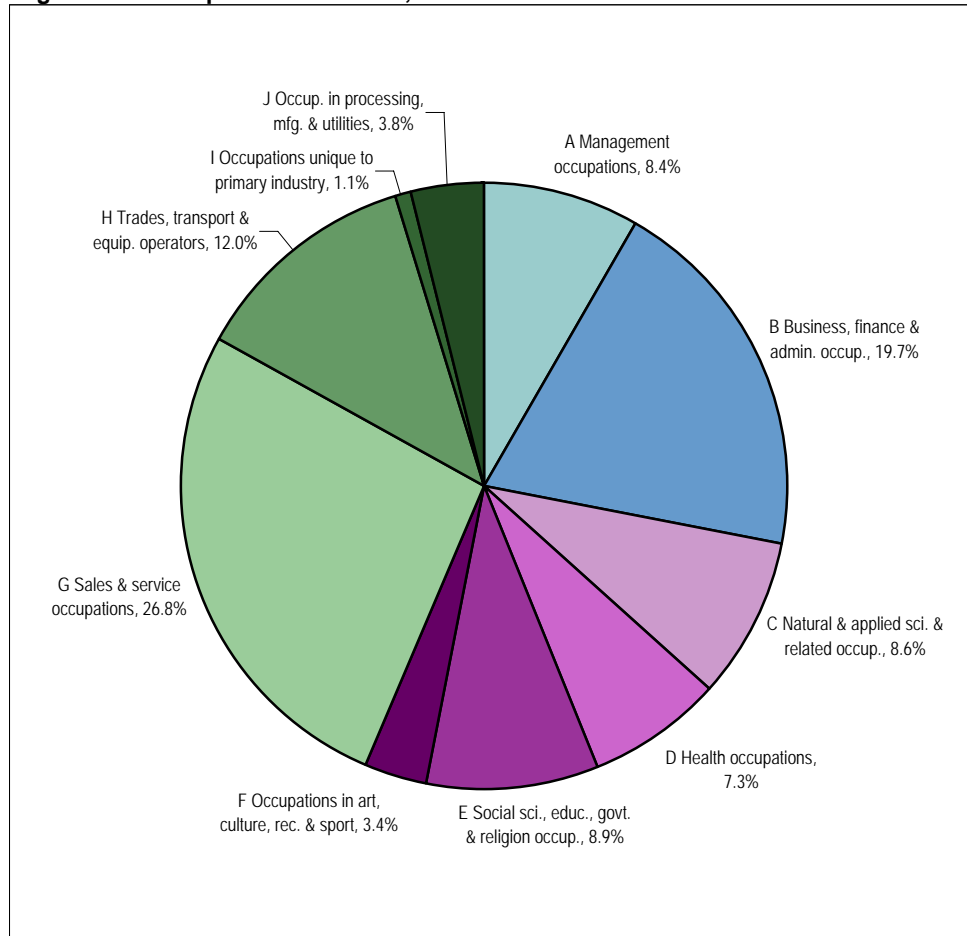
Figure 4.4 - Labour force status by gender, 2006



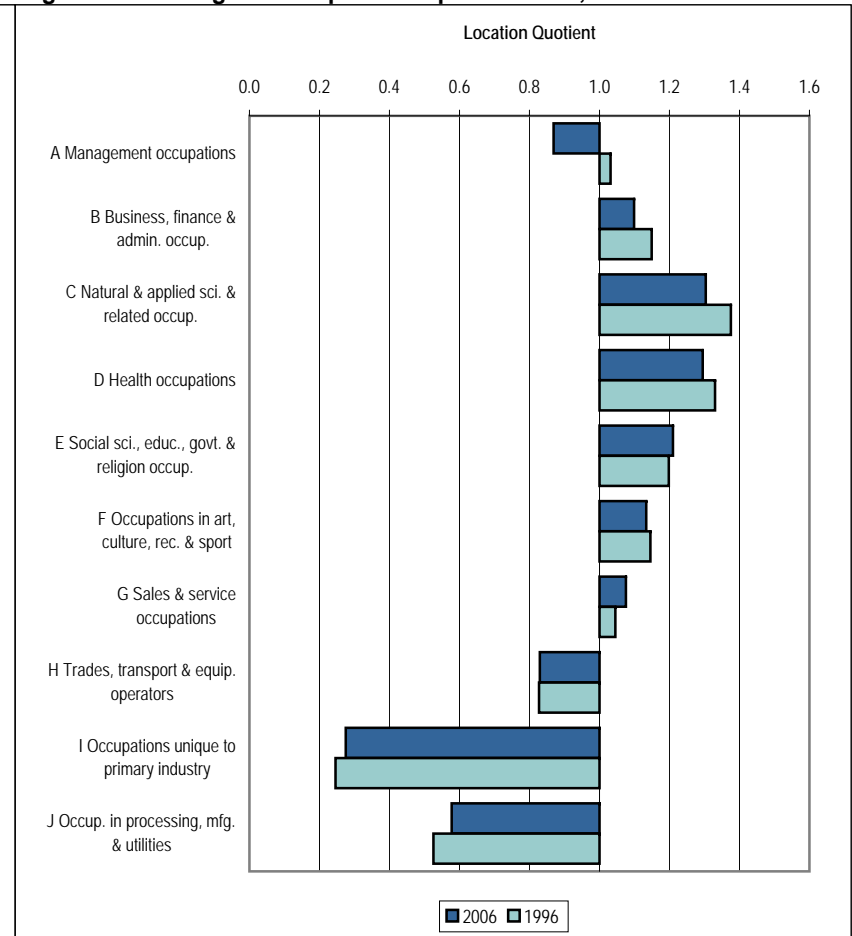
# 5 - Occupational Structure Québec

	A-B Management, business & finance occupations			C-F Natural/social science, health, education & artistic occupations			G-J Sales/service, trades & manual labour occupations		
	1996	2001	2006	1996	2001	2006	1996	2001	2006
<b>Québec</b>	30.9%	28.9%	28.1%	25.2%	27.4%	28.2%	44.0%	43.7%	43.7%
<b>Canada</b>	27.8%	28.2%	27.6%	19.8%	21.3%	22.6%	52.4%	50.5%	49.8%

**Figure 5.1 - Occupational structure, 2006**



**Figure 5.2 - Change in occupational specialization, 1996-2006**



## 6 - Creative Occupations

Québec

	Bohemians	Bohemians per 1000 <sup>5</sup>	S&T Workers	% S&T Workers <sup>6</sup>
Québec	4,815	12.2	33,940	8.6%
Canada	240,170	14.2	1,108,050	6.6%

Occupational Groups <sup>7</sup>	Creative	Service	Trades & Manual	Agricultural & Resources
Québec	37.4%	45.7%	16.2%	0.6%
Canada	33.2%	41.9%	21.9%	2.9%

Figure 6.1 - Specialization in creative occupations

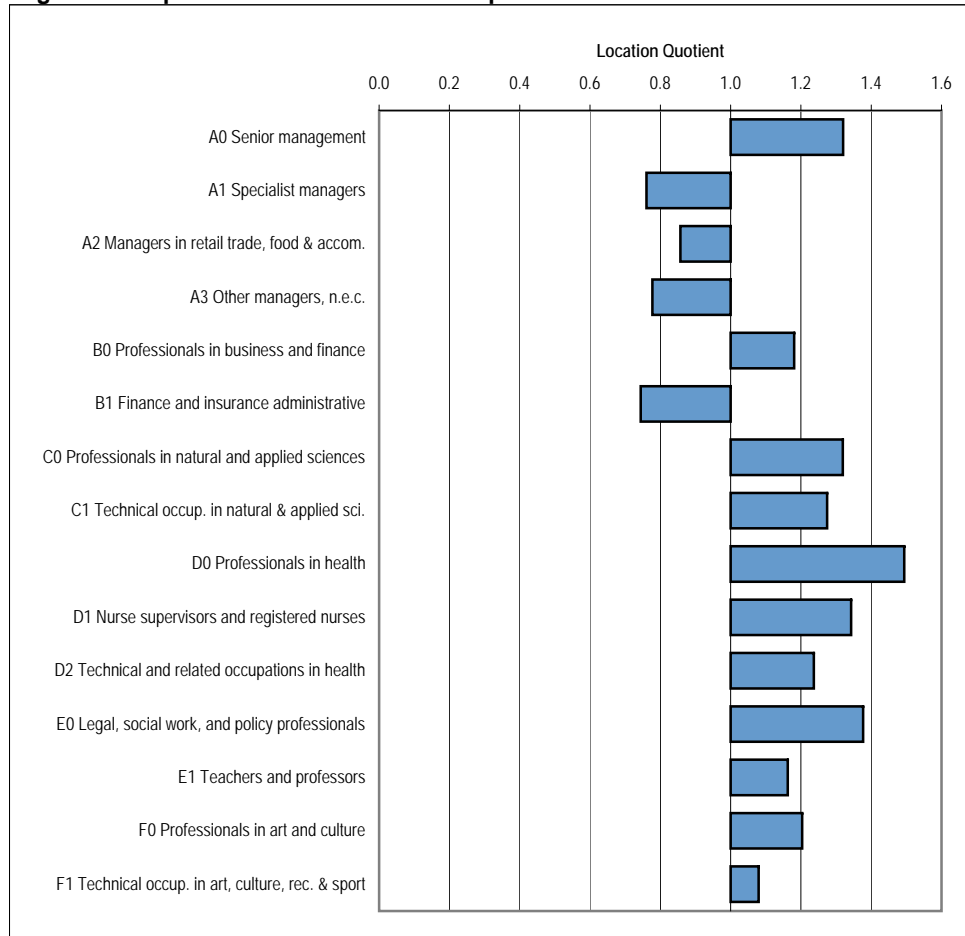


Figure 6.2 - Change in share of labour force, 1996-2006

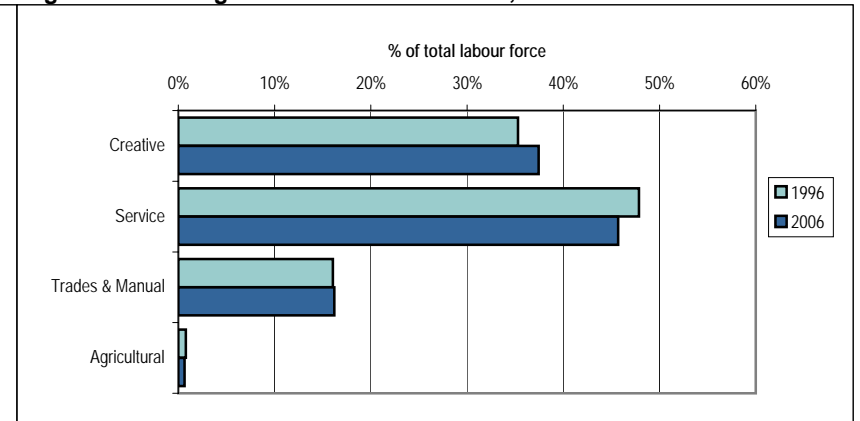
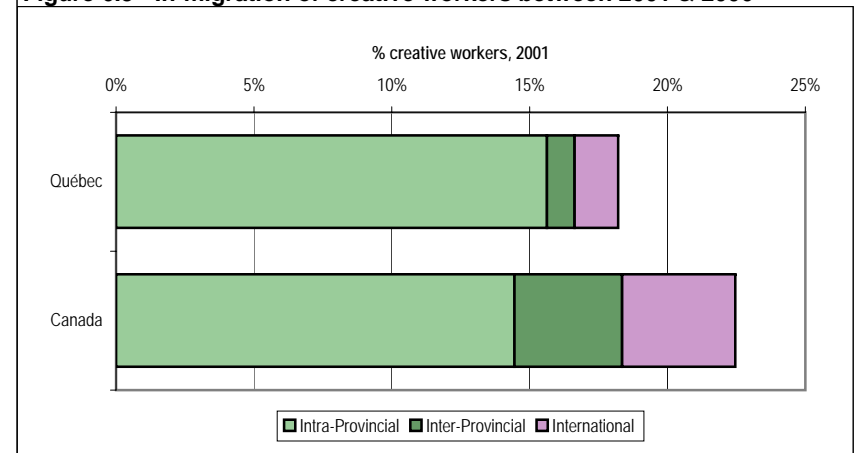


Figure 6.3 - In-migration of creative workers between 2001 & 2006

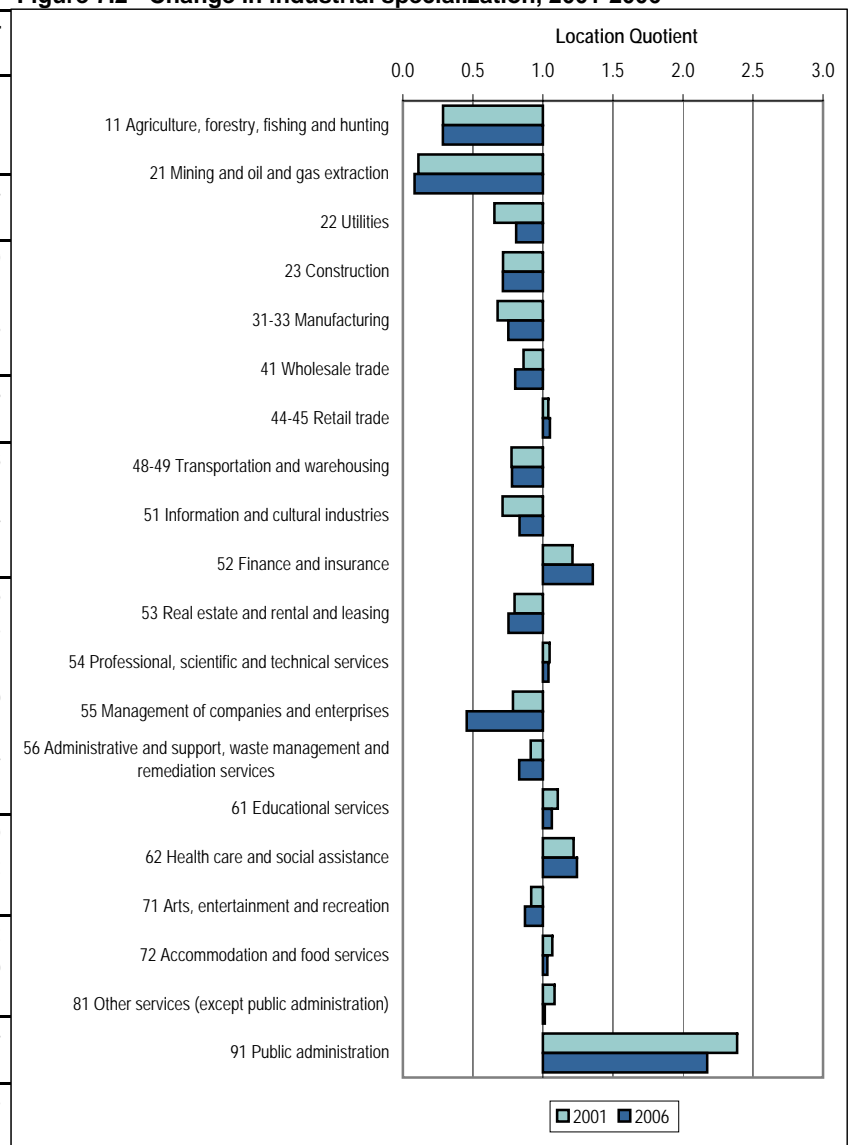


# 7 - Industrial Structure Québec

**Figure 7.1 - Industry characteristics**

	# Labour force	% Labour force	% Change 2001-2006	% BA or higher	Average FT income
<b>All industries</b>	<b>396,155</b>	<b>100.0%</b>	<b>9.3%</b>	<b>24.2%</b>	<b>\$ 45,181</b>
11 Agr., forestry, fish. & hunt.	3,510	0.9%	-7.1%	15.2%	\$ 32,154
21 Mining & oil/gas extraction	465	0.1%	5.7%	18.3%	\$ 51,069
22 Utilities	2,525	0.6%	39.9%	15.8%	\$ 69,031
23 Construction	17,935	4.5%	22.5%	4.7%	\$ 45,678
31-33 Manufacturing	35,470	9.0%	3.7%	12.6%	\$ 44,813
41 Wholesale trade	13,940	3.5%	1.4%	12.9%	\$ 46,386
44-45 Retail trade	47,290	11.9%	11.5%	9.7%	\$ 33,971
48-49 Transport & warehousing	15,010	3.8%	7.4%	7.5%	\$ 42,607
51 Information & cultural ind.	8,170	2.1%	18.3%	28.8%	\$ 49,636
52 Finance and insurance	21,960	5.5%	22.7%	29.8%	\$ 53,835
53 Real estate/rental & leasing	5,380	1.4%	11.9%	14.6%	\$ 39,821
54 Prof., sci. & tech. services	27,425	6.9%	14.5%	47.6%	\$ 54,030
55 Mgmt. of companies	220	0.1%	-21.4%	37.2%	N/A
56 Admin./support, & wst. mgt.	14,095	3.6%	9.6%	11.6%	\$ 31,507
61 Educational services	28,765	7.3%	9.5%	64.5%	\$ 50,699
62 Health care & soc. assist.	50,110	12.6%	16.9%	29.1%	\$ 43,262
71 Arts, entertainment & rec.	7,095	1.8%	9.6%	26.1%	\$ 34,672
72 Accom. & food services	27,310	6.9%	5.1%	7.2%	\$ 25,440
81 Other services	19,515	4.9%	3.5%	16.0%	\$ 32,224
91 Public administration	49,965	12.6%	-0.5%	35.1%	\$ 54,645

**Figure 7.2 - Change in industrial specialization, 2001-2006**





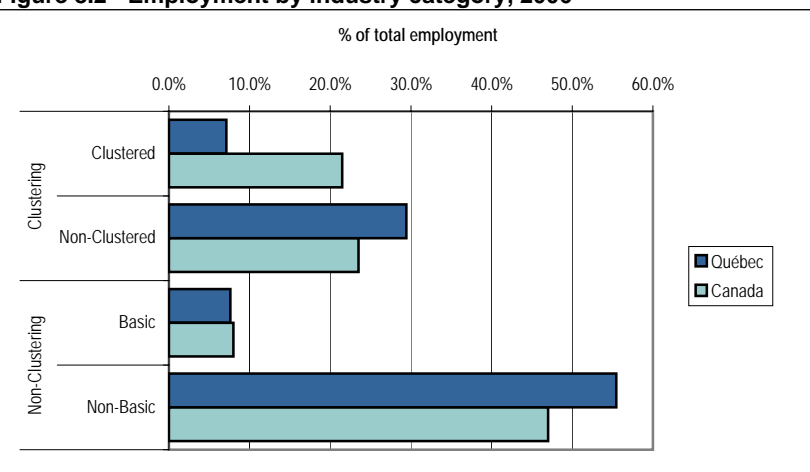
# 8 - Clusters Québec

Number of clusters<sup>8</sup>                    3  
 % employment in clusters<sup>8</sup>        7.1%

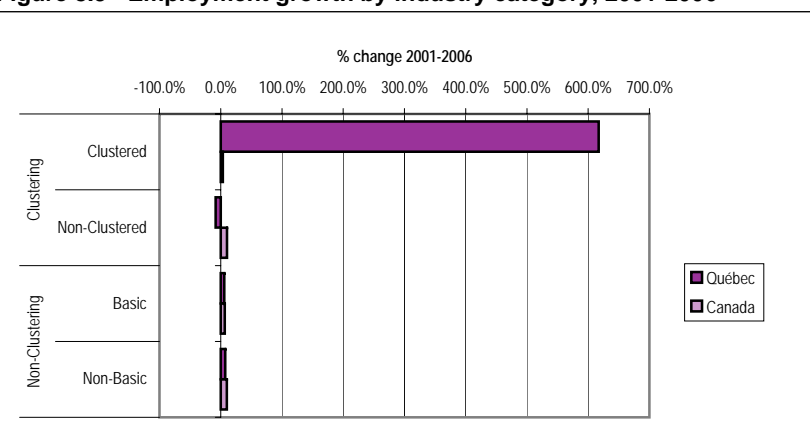
**Figure 8.1 - Cluster characteristics, 2006<sup>8</sup>**

	# Labour force	Labour force LQ	% Industry LQs > 1	% Growth 2001-2006	Cluster (yes/no)
<i>Resource-based</i>					
<b>Agriculture</b>	<b>8,200</b>	0.50	20.0%	2.2%	NO
<b>Mining</b>	<b>2,995</b>	0.42	0.0%	16.8%	NO
<b>Oil and Gas</b>	<b>1,100</b>	0.19	11.1%	7.8%	NO
<b>Wood &amp; Wood Products</b>	<b>4,550</b>	0.61	10.0%	-14.2%	NO
<b>Maritime</b>	<b>2,545</b>	0.73	44.4%	1.8%	NO
<i>Manufacturing</i>					
<b>Textiles &amp; Apparel</b>	<b>2,045</b>	0.64	8.3%	-25.6%	NO
<b>Food</b>	<b>10,205</b>	0.92	41.7%	5.5%	NO
<b>Steel</b>	<b>5,700</b>	0.74	8.3%	21.0%	NO
<b>Automotive</b>	<b>5,225</b>	0.50	15.4%	13.2%	NO
<b>Plastics &amp; Rubber</b>	<b>7,550</b>	0.80	21.4%	14.3%	NO
<b>Biomedical</b>	<b>4,640</b>	1.30	50.0%	3.6%	YES
<b>ICT Manufacturing</b>	<b>4,465</b>	0.93	33.3%	-4.5%	NO
<i>Service-based</i>					
<b>ICT Services</b>	<b>22,050</b>	1.17	50.0%	23.8%	YES
<b>Finance</b>	<b>29,385</b>	1.19	25.0%	22.9%	NO
<b>Business Services</b>	<b>40,740</b>	1.06	47.1%	17.4%	NO
<b>Creative &amp; Cultural</b>	<b>14,820</b>	0.98	35.3%	24.5%	NO
<b>Higher Education</b>	<b>17,525</b>	1.35	55.6%	22.2%	YES
<i>Other</i>					
<b>Construction</b>	<b>24,645</b>	0.75	16.7%	20.6%	NO
<b>Logistics</b>	<b>14,705</b>	0.76	23.1%	3.7%	NO

**Figure 8.2 - Employment by industry category, 2006<sup>9</sup>**



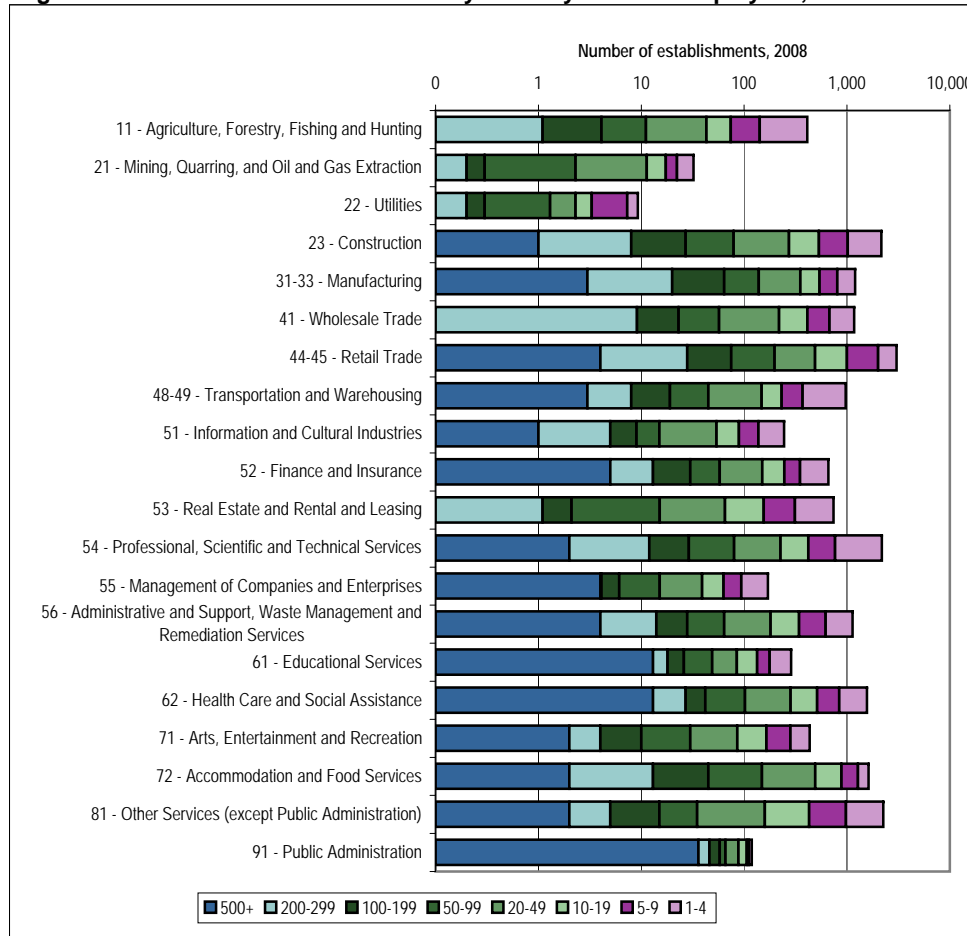
**Figure 8.3 - Employment growth by industry category, 2001-2006<sup>9,10</sup>**



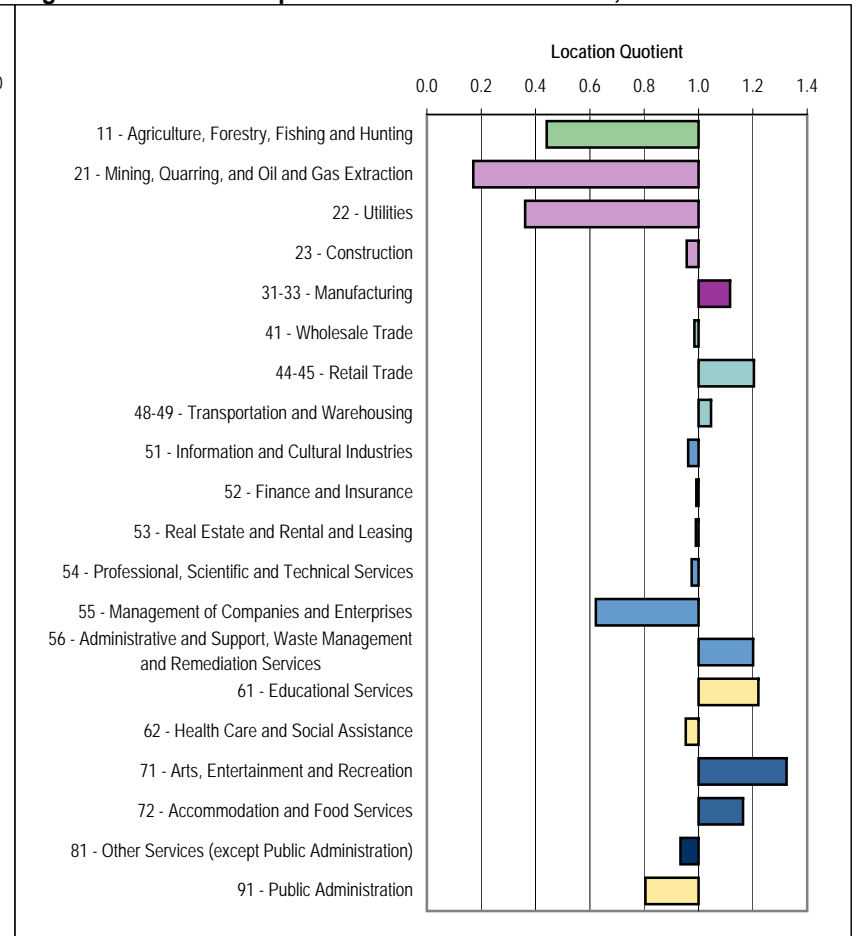
# 9 - Establishments Québec

	% of establishments by number of employees							
	1-4	5-9	10-19	20-49	50-99	100-199	200-299	500+
<b>Québec</b>	46.2%	22.7%	14.3%	10.9%	3.4%	1.3%	0.7%	0.5%
<b>Canada</b>	55.0%	20.2%	12.1%	7.8%	2.7%	1.2%	0.6%	0.3%

**Figure 9.1 - Number of establishments by industry and # of employees, 2008**



**Figure 9.2 - Industrial specialization - Establishments, 2008**



# 10 - Income Québec

Full Time Employment Income, 2005			
	Average	Median	
Québec	\$ 45,181	\$ 38,851	
Canada	\$ 51,221	\$ 41,401	

% Change in FT Emp. Income 2000-2005 <sup>11</sup>		
	Average	Median
Québec	2.0%	-1.0%
Canada	5.5%	2.4%

\*Constant dollars (2005)

Figure 10.1 - Distribution of FT Employment Income

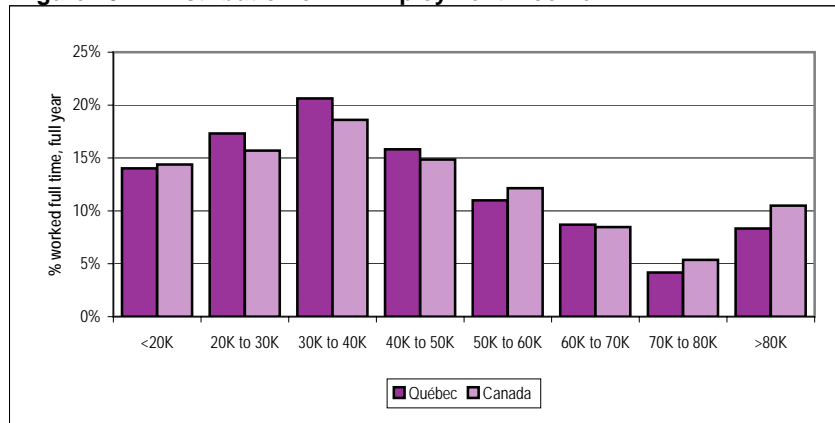
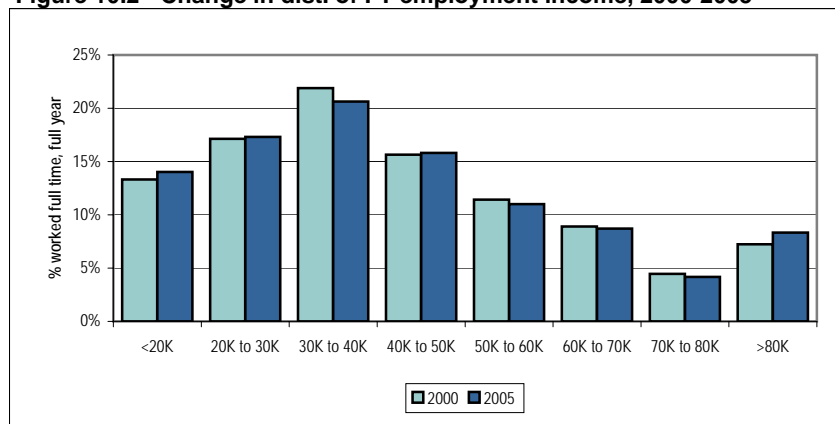
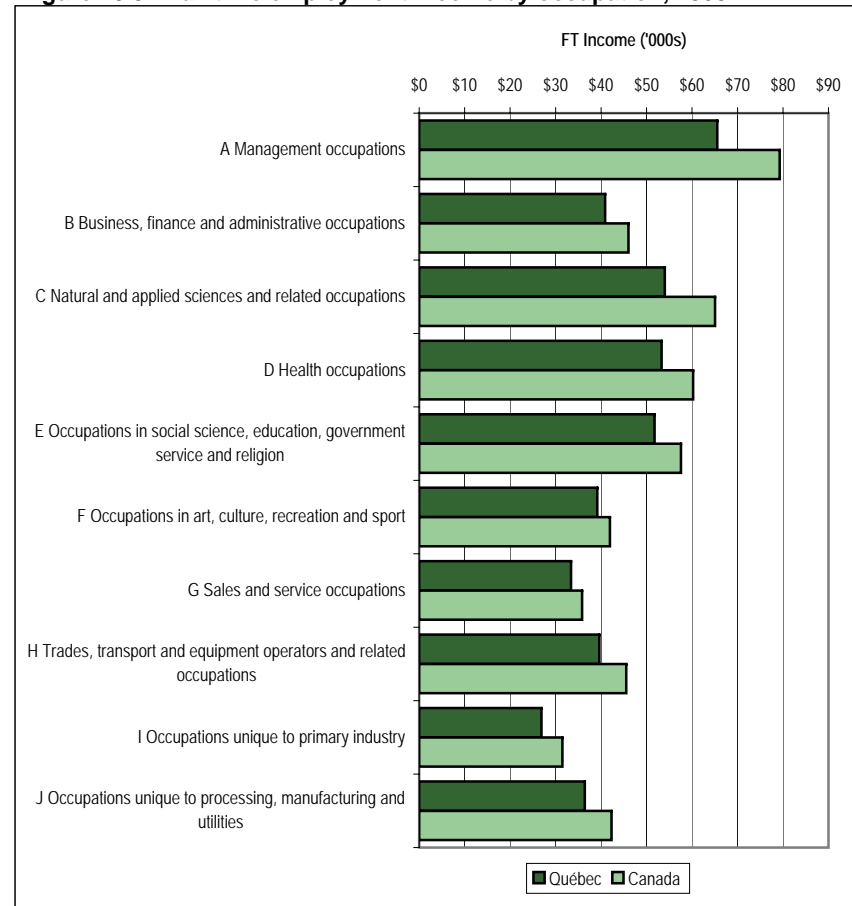


Figure 10.2 - Change in dist. of FT employment income, 2000-2005



\*Constant dollars (2005)

Figure 10.3 - Full time employment income by occupation, 2005



## Notes

<sup>1</sup> All educational attainment statistics are calculated for the population 15 years and over.

<sup>2</sup> The employment rate refers to the number of persons employed expressed as a percentage of the total population 15 years of age and over (excluding institutional residents).

<sup>3</sup> The unemployment rate refers to the number of unemployed persons expressed as a percentage of the total labour force 15 years of age and over.

<sup>4</sup> Self-employment is defined as persons 15 years of age and over for whom the job reported consisted mainly of operating a business, farm or professional practice, alone or in partnership. Examples include: operating a farm; working on a freelance or contract basis to do a job (e.g. architects, private duty nurses); or operating a direct distributorship selling and delivering products (e.g. cosmetics, newspapers). Respondents were asked to specify if their business was incorporated or unincorporated, as well as if they had paid help or no paid help.

<sup>5</sup> Bohemians are defined as artistic occupations and include the following occupational categories: F021 Authors and writers; F031 Producers, directors, choreographers and related occupations; F032 Conductors, composers and arrangers; F033 Musicians and singers; F034 Dancers; F035 Actors and comedians; F036 Painters, sculptors and other visual artists; F121 Photographers; F141 Graphic designers and illustrators; F142 Interior designers; F143 Theatre, fashion, exhibit and other creative designers; F144 Artisans and craftspersons; and F145 Patternmakers, textile, leather and fur products. See Florida (2002) and Gertler et al. (2002).

<sup>6</sup> Science and technology workers include the following occupational categories: C0 Professional occupations in natural and applied sciences; and C1 Technical occupations related to natural and applied sciences. See Feinstein and McAlinden (2002).

<sup>7</sup> Following the method outlined in Florida (2002), we have divided the Canadian occupational structure into four broad categories: creative occupations; service occupations; trade and manual labour occupations; and agricultural and related occupations. These are defined using the National Occupational Classification for Statistics (NOCS) at the 2-digit level.

- *Creative occupations* include: A0 Senior management occupations; A1 Specialist managers; A2 Managers in retail trade, food and accommodation services; A3 Other managers, n.e.c.; B0 Professional occupations in business and finance; B1 Finance and insurance administrative occupations; C0 Professional occupations in natural and applied sciences; C1 Technical occupations related to natural and applied sciences; D0 Professional occupations in health; D1 Nurse supervisors and registered nurses; D2 Technical and related occupations in health; E0 Judges, lawyers, psychologists, social workers, ministers of religion, and policy and program officers; E1 Teachers and professors; F0 Professional occupations in art and culture; and F1 Technical occupations in art, culture, recreation and sport.

- *Service occupations* include: B2 Secretaries; B3 Administrative and regulatory occupations; B4 Clerical supervisors; B5 Clerical occupations; D3 Assisting occupations in support of health services; E2 Paralegals, social services workers and occupations in education and religion, n.e.c.; and G Sales and Service Occupations.

- *Trades and manual labour occupations* include: H Trades, Transport and Equipment Operators and Related Occupations; I2 Primary production labourers; and J Occupations Unique to Processing, Manufacturing and Utilities.

- *Agriculture and related occupations* include: I0 Occupations unique to agriculture, excluding labourers; and I1 Occupations unique to forestry operations, mining, oil and gas extraction and fishing, excluding labourers.

<sup>8</sup> The method for identifying and defining cluster is based on previous ISRN work (see Spencer and Vinodrai 2005). Clusters are defined as constellations of industries defined using the North American Industrial Classification Systems (NAICS) at the 4-digit level based on patterns of location and co-location within the Canadian space economy. Constellations of industries must meet three criteria within a particular place to be defined as a cluster: 1) there must be 1,000 or more employees; 2) the overall employment LQ must be greater than or equal to 1; and 3) at least half of the industries that comprise a particular cluster in a particular place must have an individual employment LQ greater than or equal to 1.

<sup>9</sup> The method for identifying and defining cluster is based on previous ISRN work (see Spencer, Vinodrai, Gertler and Wolfe 2010). We divide industries and employment into four categories: Non-basic, basic, non-clustered, and clustered. Non-Basic industries are those industries which do not demonstrate a pattern of geographic concentration in particular places. Basic industries are those industries which are geographically concentrated in particular places but do not exhibit patterns of systematic co-location with other industries. The remaining industries have the potential to cluster but do not always do so. Therefore, non-clustered employment is in those industries which do co-locate with other industries, but do not exhibit cluster characteristics in a particular location (see above). Clustered employment is that employment in industries which co-locate with other industries and exhibit cluster characteristics (see above).

<sup>10</sup> Growth is calculated as % change in total employment between 2001 and 2006.

<sup>11</sup> Canadian censuses were conducted in 2001 and 2006. Income data relate to the calendar year prior to the census year, i.e. 1995 and 2000 respectively.

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For further information, please contact:

Greg Spencer: (416) 946-8921 or [greg.spencer@utoronto.ca](mailto:greg.spencer@utoronto.ca)

Tara Vinodrai: (519) 579-3475 ext. 33278 or [vinodra@uwaterloo.ca](mailto:vinodra@uwaterloo.ca)

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