

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

St. John's

Greg Spencer and Tara Vinodrai
Program on Globalization and Regional Innovation Systems (PROGRIS)
Munk Centre for International Studies
University of Toronto

4/19/2006

Summary and Highlights

Key Indicators	St. John's	Canada
Population, 2001	172,920	30,007,085
Population Change 1996-2001	-0.6%	4.0%
% Foreign Born	2.8%	18.2%
% BA Degree or higher	16.7%	15.4%
Labour Force	140,445	23,901,360
Employment Rate	57.0%	61.5%
Unemployed Rate	11.3%	7.4%
% 'Creative' occupations	38.2%	29.2%
% Science & Tech. Occupations	7.4%	6.4%
Bohemians' per 1,000 Labour Force	13.5	13.1
Number of Clusters	4	263
% Employment in Clusters	17.2%	22.1%
% Establishments in Clusters	14.2%	19.9%
Establishments	6,375	1,048,286
Compound Annual Growth 1998-2005	1.3%	1.1%
Average Household Income	\$ 54,940	\$ 58,360
Average Employment Income	\$ 28,872	\$ 31,757

1 - Demographics St. John's

Population	1996	2001	% Change 1996-2001
St. John's	174,050	172,920	-0.6%
Canada	28,846,770	30,007,085	4.0%

Age Groups	Under 15	15 to 64	65 and over	% 15 to 64
St. John's	30,545	123,900	18,460	71.7%
Canada	5,725,540	20,393,000	3,888,545	68.0%

Figure 1.1 - Population by age and gender, 2001

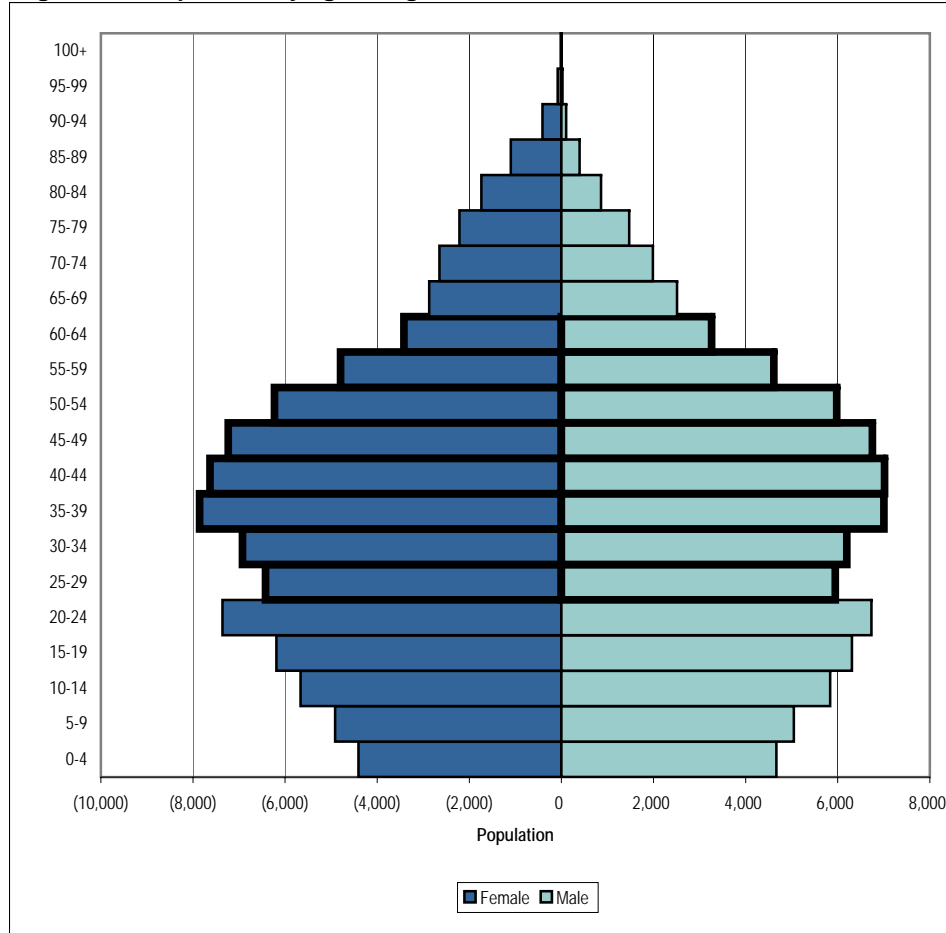


Figure 1.2 - Population by age group, 1996-2001

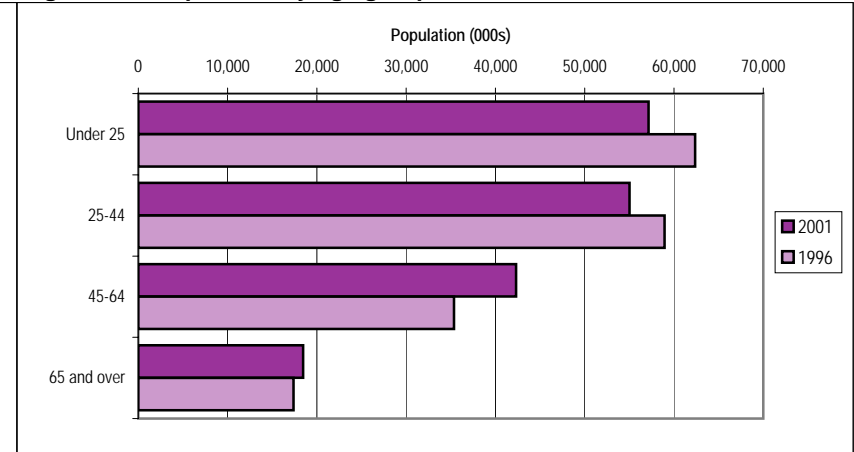
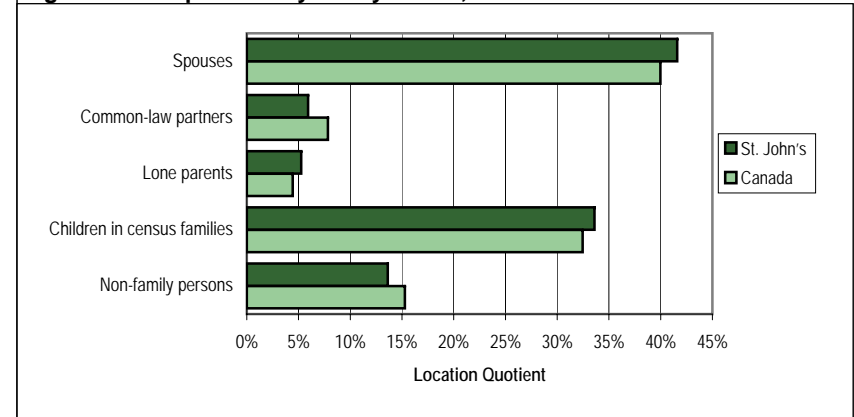


Figure 1.3 - Population by family status, 2001



2 - Migration & Population Change

St. John's

Domestic Migration	Intra-provincial	Inter-provincial	Total
In-flows, 1996-2001	9,780	5,945	15,725
Out-flows, 1996-2001	4,590	16,685	21,275
Net, 1996-2001	5,190	(10,740)	(5,550)

	% Foreign born	Migrated post-1991	Migrated pre-1991
St. John's	2.8%	0.8%	2.0%
Canada	18.2%	6.1%	12.1%

Figure 2.1 - Domestic migration flows between 1996 and 2001 by age

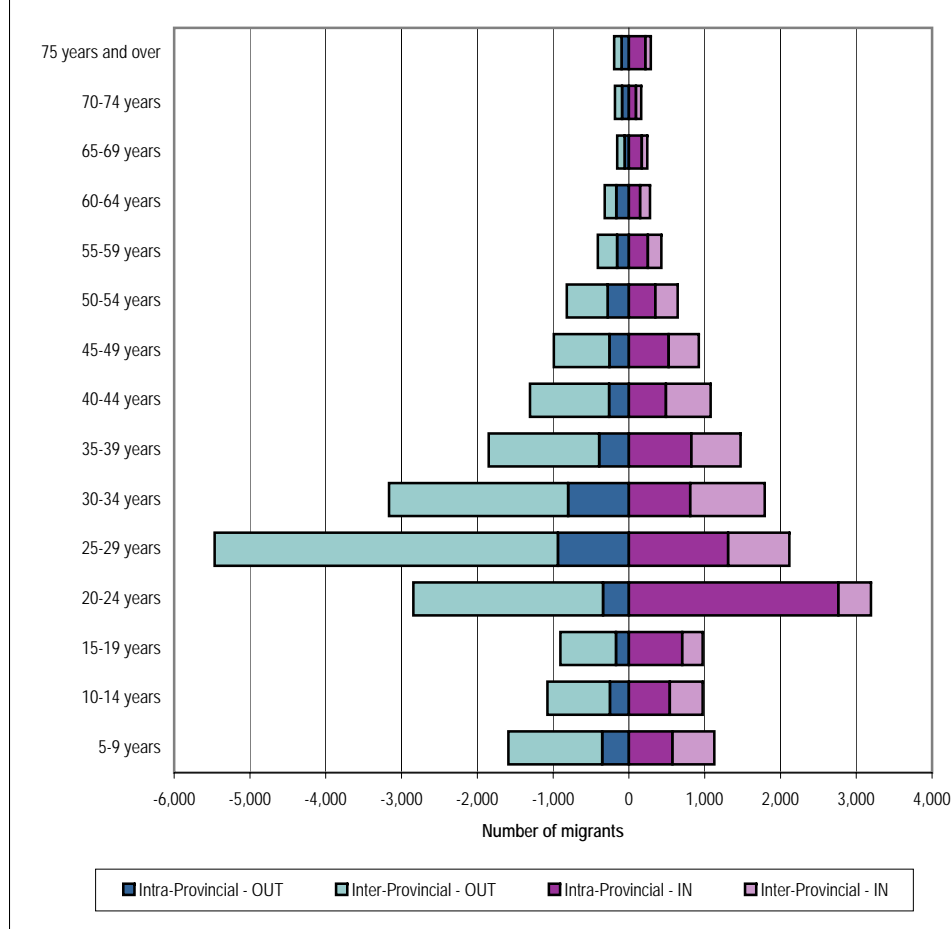


Figure 2.2 - Population by place of birth, 2001

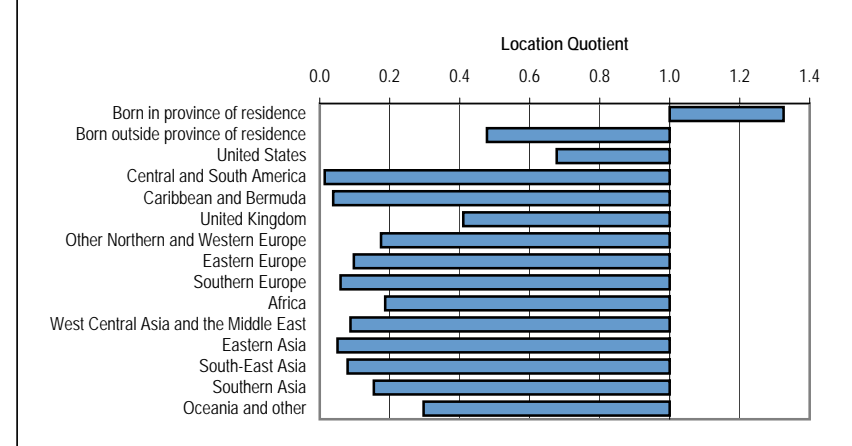
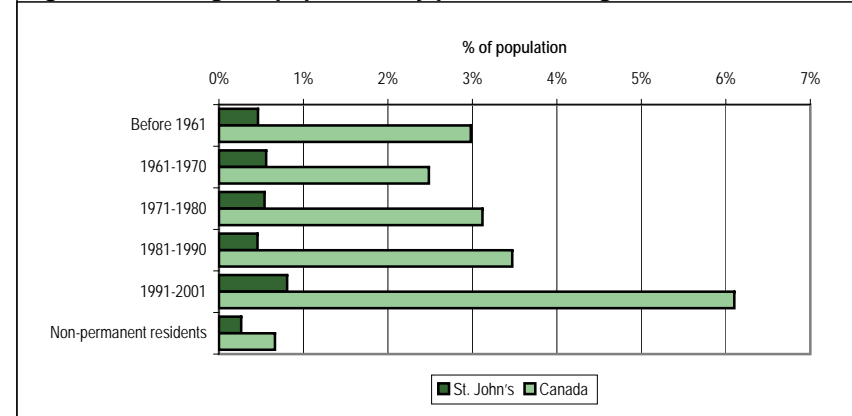


Figure 2.3 - Immigrant population by period of immigration, 2001



3 - Education

St. John's

	% College degree or higher ¹	% BA degree or higher ¹	% MA degree or higher ¹	PhDs per 1,000 ¹
St. John's	33.1%	16.7%	4.1%	7.9
Canada	32.9%	15.4%	3.2%	5.4

	Average years of schooling ¹		
	1991	1996	2001
St. John's	12.0	12.4	12.9
Canada	12.0	12.3	12.8

Figure 3.1 - Educational attainment for the population 15 years and over, 2001

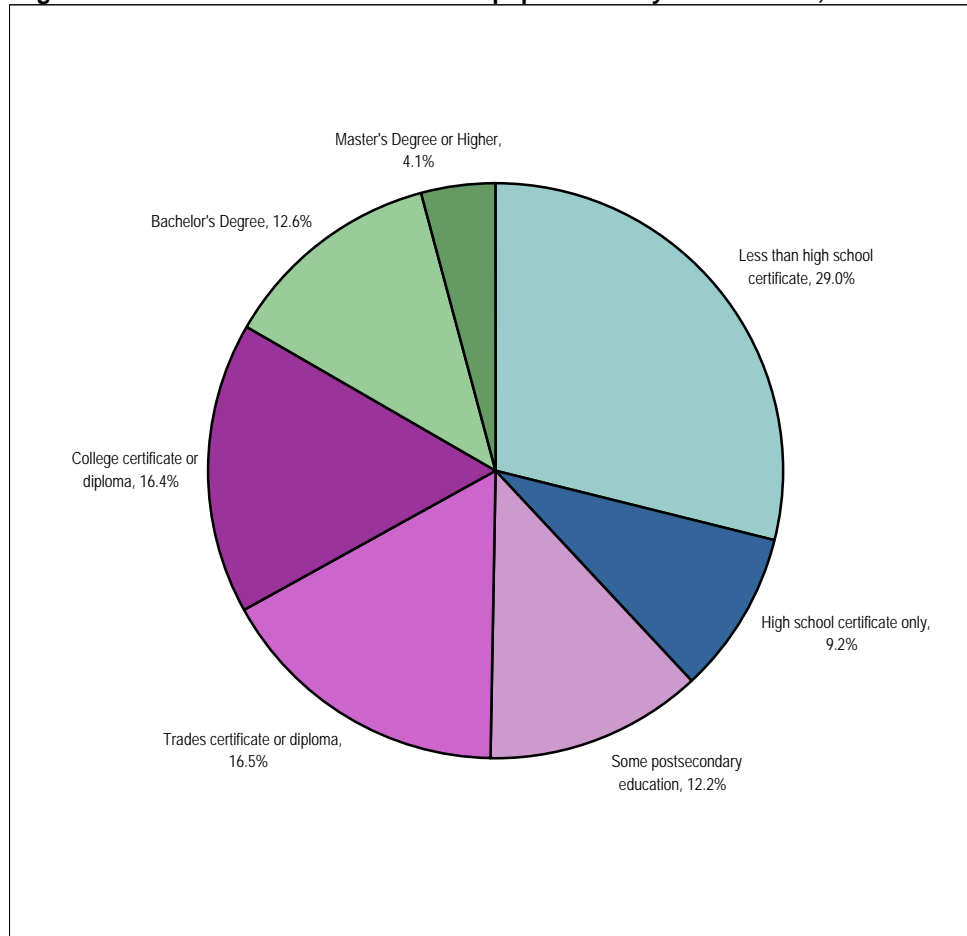


Figure 3.2 - Change in educational attainment, 1991-2001

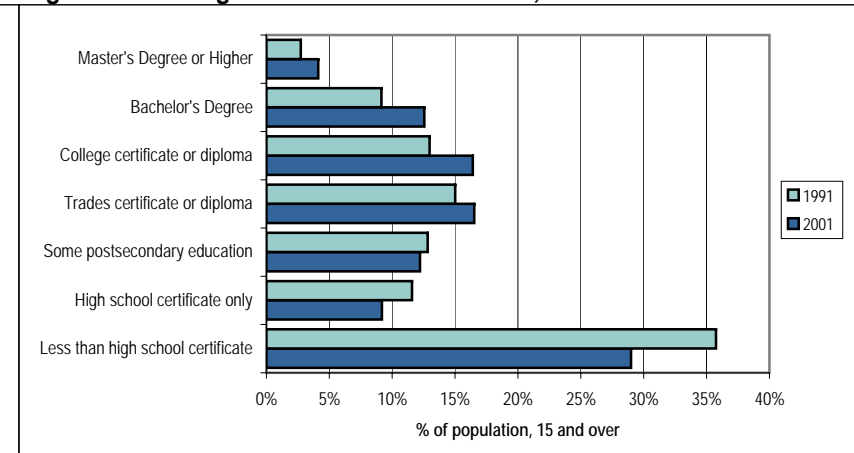
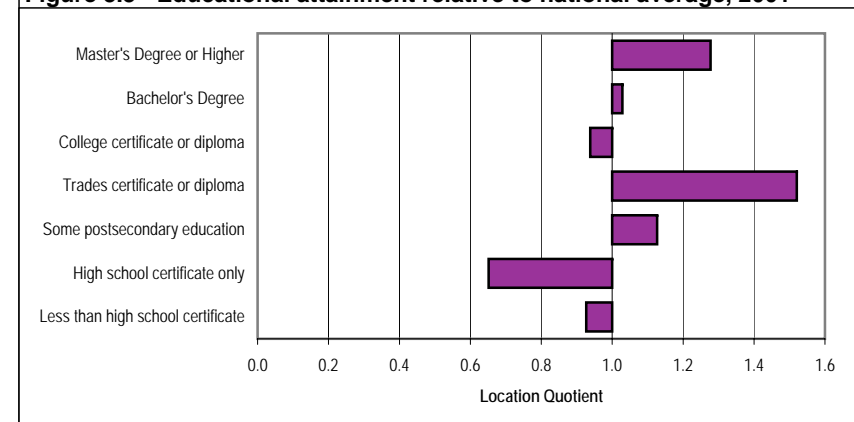


Figure 3.3 - Educational attainment relative to national average, 2001



4 - Employment

St. John's

	Employment Rate ²		Unemployment Rate ³	
	1991	2001	1991	2001
St. John's	56.6%	57.0%	16.1%	11.3%
Canada	61.0%	61.5%	10.2%	7.4%

Average hours worked per week	Female		Male	
	1991	2001	1991	2001
St. John's	34.6	35.8	40.3	41.9
Canada	34.0	34.7	41.6	42.1

Figure 4.1 - Labour force status of the population 15 and over, 2001

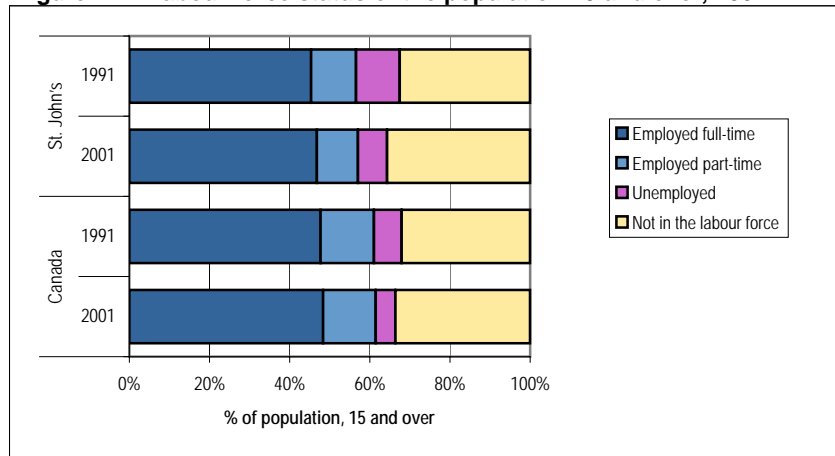


Figure 4.2 - Labour force status by gender, 2001

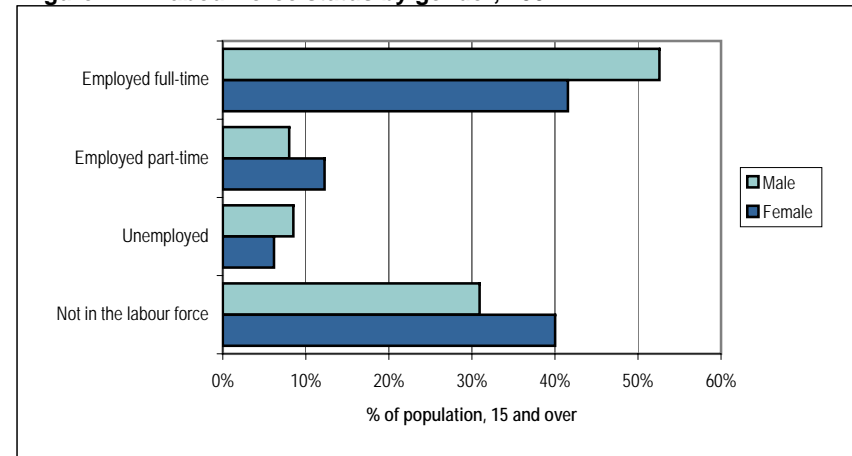


Figure 4.3 - Employment rate² by age, 2001

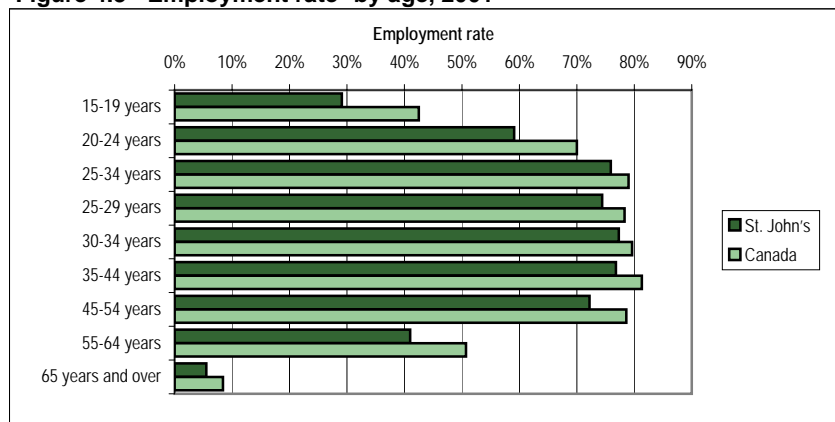
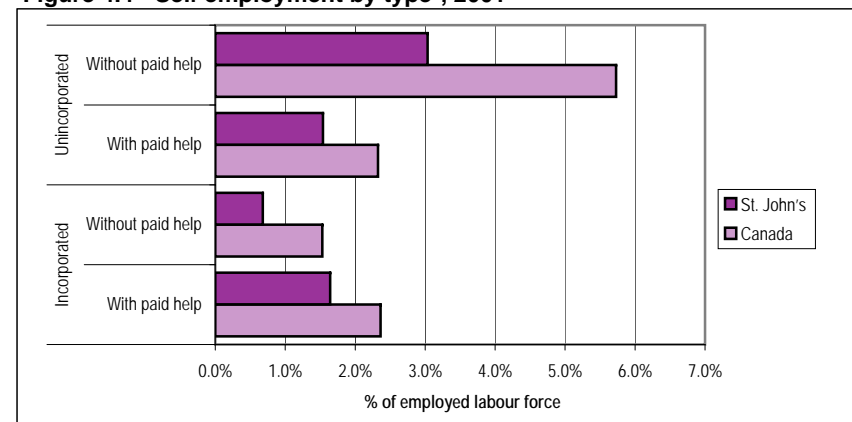


Figure 4.4 - Self employment by type⁴, 2001



5 - Occupational Structure St. John's

	A-B Management, business & finance occupations			C-F Natural/social science, health, education & artistic occupations			G-J Sales/service, trades & manual labour occupations		
	1991	1996	2001	1991	1996	2001	1991	1996	2001
St. John's	30.8%	30.6%	30.3%	24.4%	25.3%	26.8%	44.9%	44.1%	42.9%
Canada	28.6%	27.8%	28.2%	18.8%	19.8%	21.3%	52.5%	52.4%	50.5%

Figure 5.1 - Occupational structure, 2001

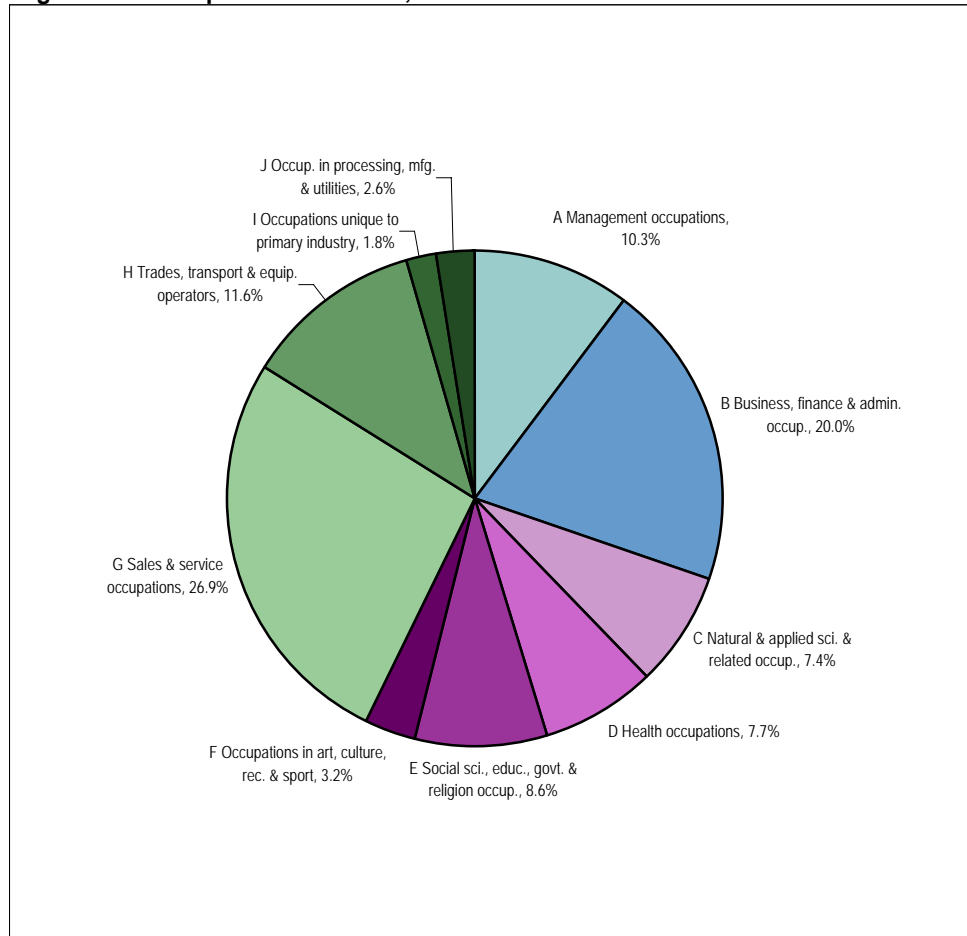
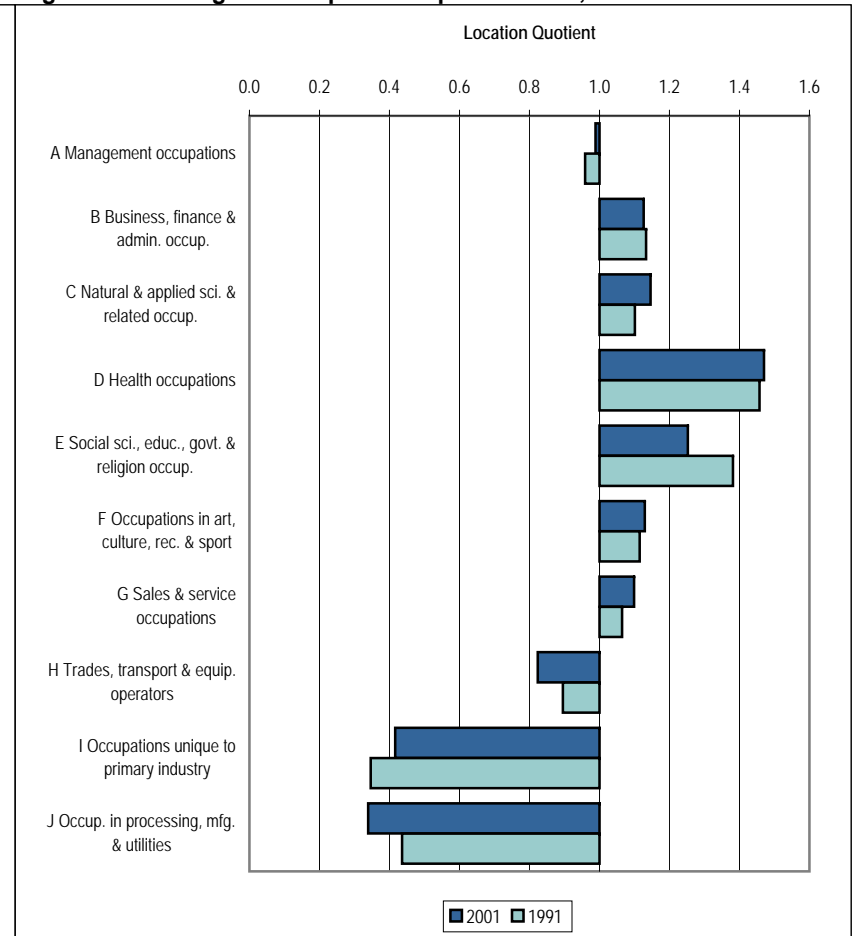


Figure 5.2 - Change in occupational specialization, 1991-2001



6 - Creative Occupations

St. John's

	Bohemians	Bohemians per 1000 ⁵	S&T Workers	% S&T Workers ⁶
St. John's	1,185	13.5	6,475	7.4%
Canada	204,305	13.1	1,003,810	6.4%

Occupational Groups ⁷	Creative	Service	Trades & Manual	Agricultural
St. John's	38.2%	45.8%	14.6%	1.4%
Canada	29.2%	42.7%	23.9%	4.3%

Figure 6.1 - Specialization in creative occupations

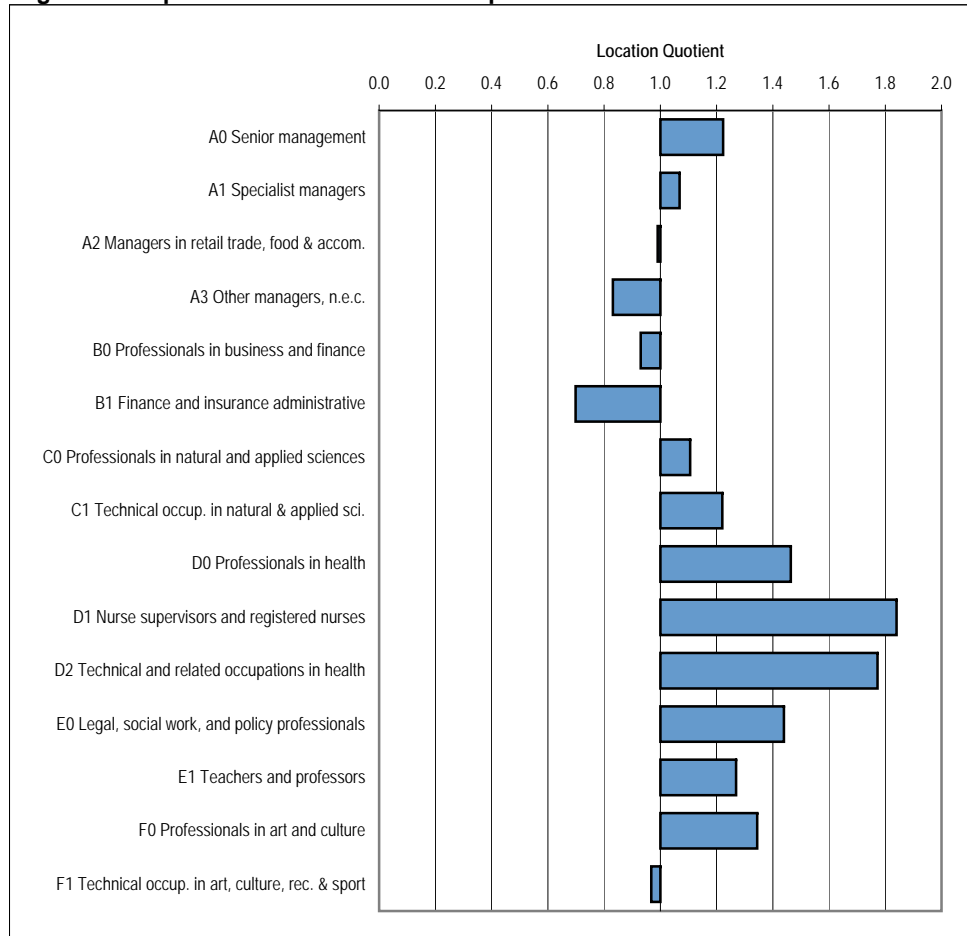


Figure 6.2 - Change in share of labour force, 1991-2001

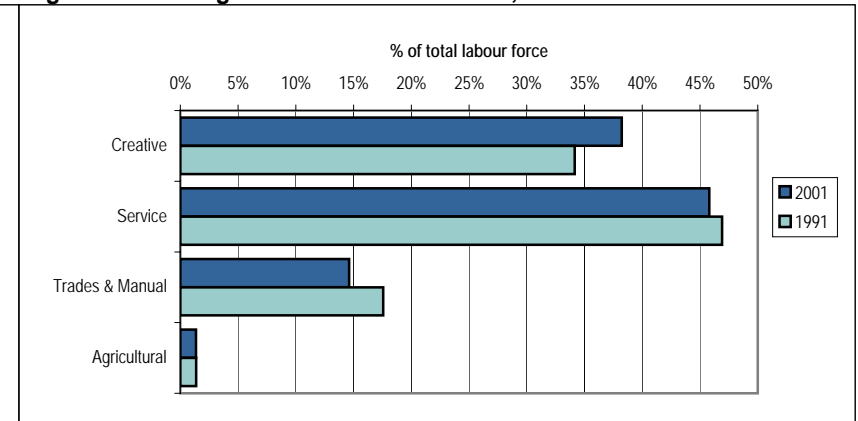
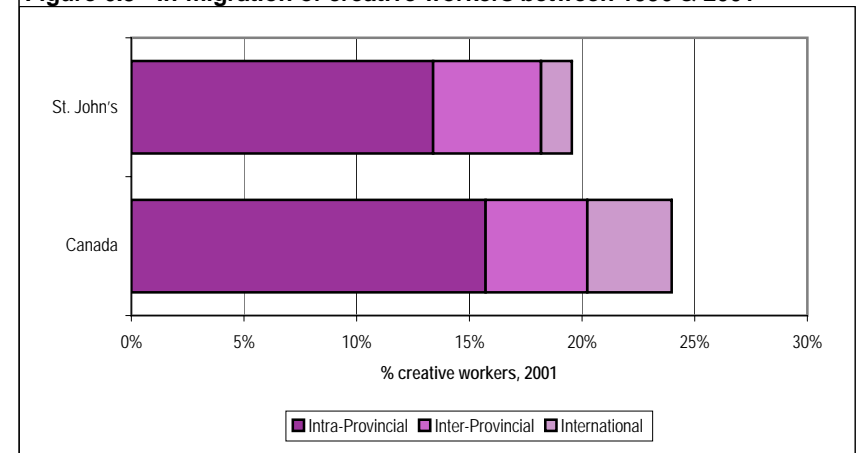


Figure 6.3 - In-migration of creative workers between 1996 & 2001

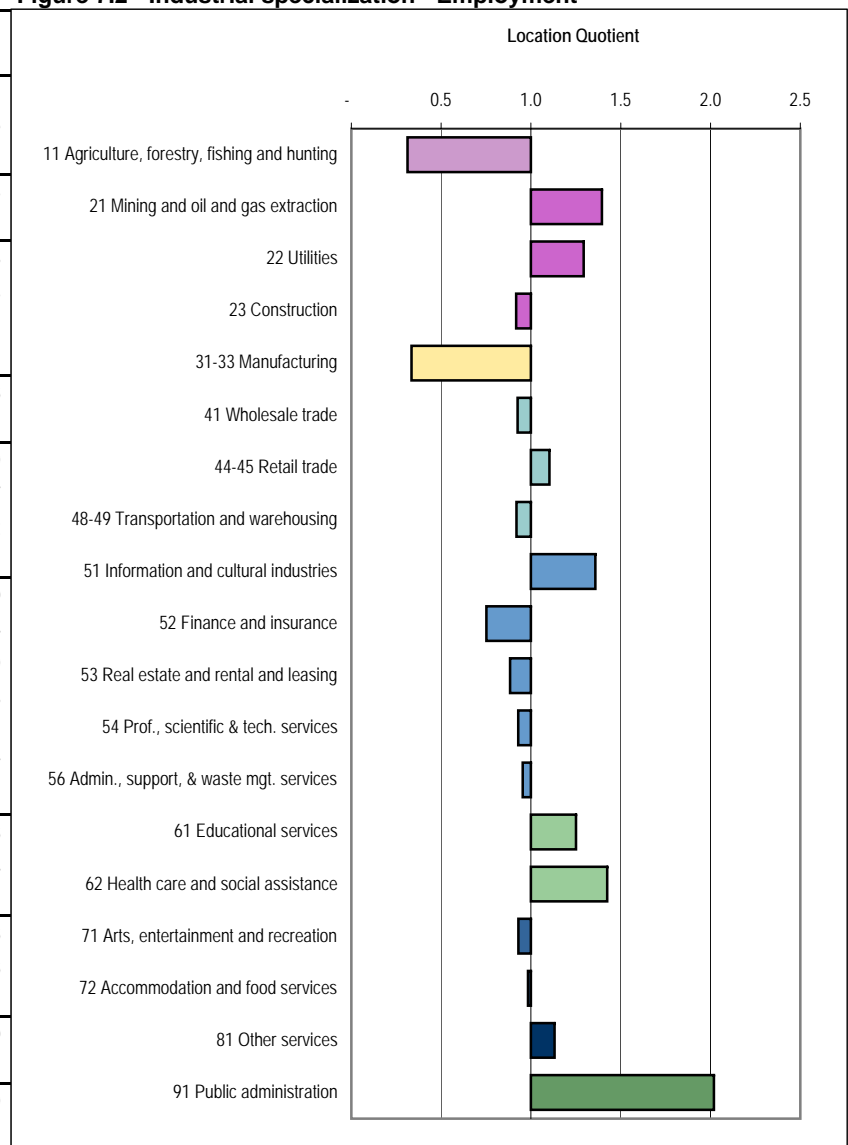


7 - Industrial Structure St. John's

Figure 7.1 - Industry characteristics

	# Labour force	% Labour force	% BA or higher	% Creative occups.	Average income
All industries	96,485	100.0%	21.6%	38.2%	\$ 29,205
11 Agr., forestry, fish. & hunt.	1,145	1.2%	6.5%	3.5%	\$ 24,945
21 Mining & oil/gas extraction	1,450	1.5%	25.8%	43.1%	\$ 59,618
22 Utilities	965	1.0%	26.7%	48.0%	\$ 48,425
23 Construction	4,895	5.1%	7.1%	17.8%	\$ 28,461
31-33 Manufacturing	4,495	4.7%	10.0%	23.0%	\$ 32,246
41 Wholesale trade	3,855	4.0%	11.5%	26.8%	\$ 32,349
44-45 Retail trade	12,220	12.7%	7.9%	19.6%	\$ 17,797
48-49 Transport & warehousing	4,305	4.5%	5.6%	22.0%	\$ 32,342
51 Information & cultural ind.	3,500	3.6%	22.4%	47.6%	\$ 31,200
52 Finance and insurance	2,885	3.0%	22.2%	42.3%	\$ 38,294
53 Real estate/rental & leasing	1,380	1.4%	10.0%	24.0%	\$ 26,339
54 Prof., sci. & tech. services	5,590	5.8%	47.2%	76.8%	\$ 41,068
55 Mgmt. of companies	115	0.1%	11.8%	58.8%	\$ -
56 Admin./support, & wst. mgt.	3,685	3.8%	9.4%	13.7%	\$ 16,577
61 Educational services	7,895	8.2%	63.4%	73.9%	\$ 33,926
62 Health care & soc. assist.	13,160	13.6%	25.3%	53.2%	\$ 31,544
71 Arts, entertainment & rec.	2,035	2.1%	20.1%	56.9%	\$ 14,266
72 Accom. & food services	6,605	6.8%	6.4%	18.2%	\$ 12,806
81 Other services	5,360	5.6%	14.4%	27.4%	\$ 19,480
91 Public administration	10,935	11.3%	27.7%	41.8%	\$ 38,709

Figure 7.2 - Industrial specialization - Employment



8 - Clusters

St. John's

Number of clusters⁸ 4
 % employment in clusters⁸ 17.2%
 % establishments in clusters⁸ 14.2%

Figure 8.1 - Cluster characteristics, 2001⁸

	# Labour force	Labour force LQ	% Industry LQs > 1	Cluster (yes/no)
<i>Resource-based</i>				
Agriculture	1,120	0.28	6.7%	NO
Mining	1,735	1.21	25.0%	NO
Oil and Gas	1,420	1.40	33.3%	NO
Wood & Wood Products	495	0.25	20.0%	NO
Maritime	2,405	2.88	88.9%	YES
<i>Manufacturing</i>				
Textiles & Apparel	100	0.09	0.0%	NO
Food	3,155	1.29	58.3%	YES
Steel	1,010	0.55	8.3%	NO
Automotive	275	0.11	0.0%	NO
Plastics & Rubber	720	0.31	7.1%	NO
Biomedical	455	0.62	33.3%	NO
ICT Manufacturing	605	0.44	11.1%	NO
<i>Service-based</i>				
ICT Services	5,820	1.64	44.4%	NO
Finance	3,625	0.76	13.3%	NO
Business Services	9,720	1.33	50.0%	YES
Creative & Cultural	2,205	0.89	31.3%	NO
Higher Education	4,005	1.95	62.5%	YES
<i>Other</i>				
Construction	3,025	1.05	33.3%	NO
Logistics	4,435	1.02	46.2%	NO

Figure 8.2 - Employment by industry category, 2001⁹

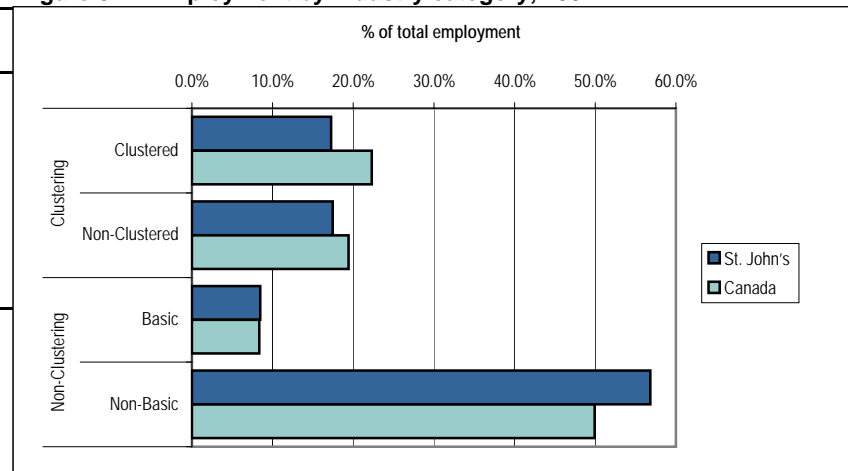
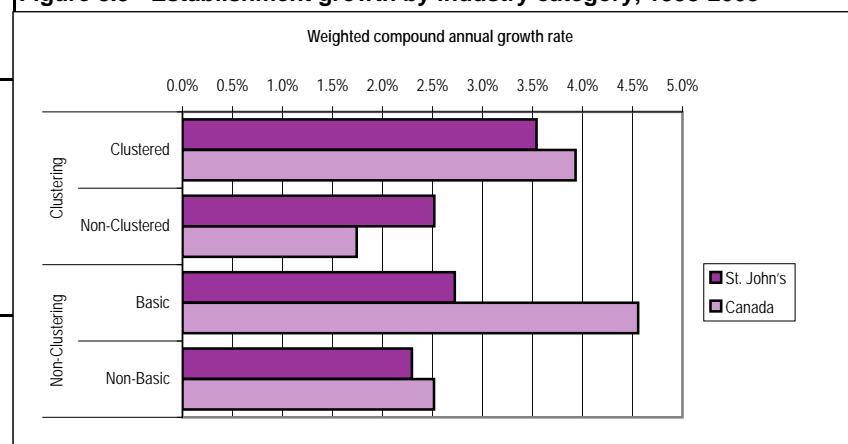


Figure 8.3 - Establishment growth by industry category, 1998-2005^{9,10}



9 - Establishments

St. John's

	Establishments		
	1998	2005	Growth ¹¹
St. John's	5,997	6,317	0.75%
Canada	1,001,517	1,048,286	0.65%

	Less than 5 emp.	5 to 199 emp.	More than 500 emp.
	St. John's	52.3%	46.4%
Canada	56.5%	42.5%	2,916

Figure 9.1 - Establishment growth by industry, 1998-2005¹¹

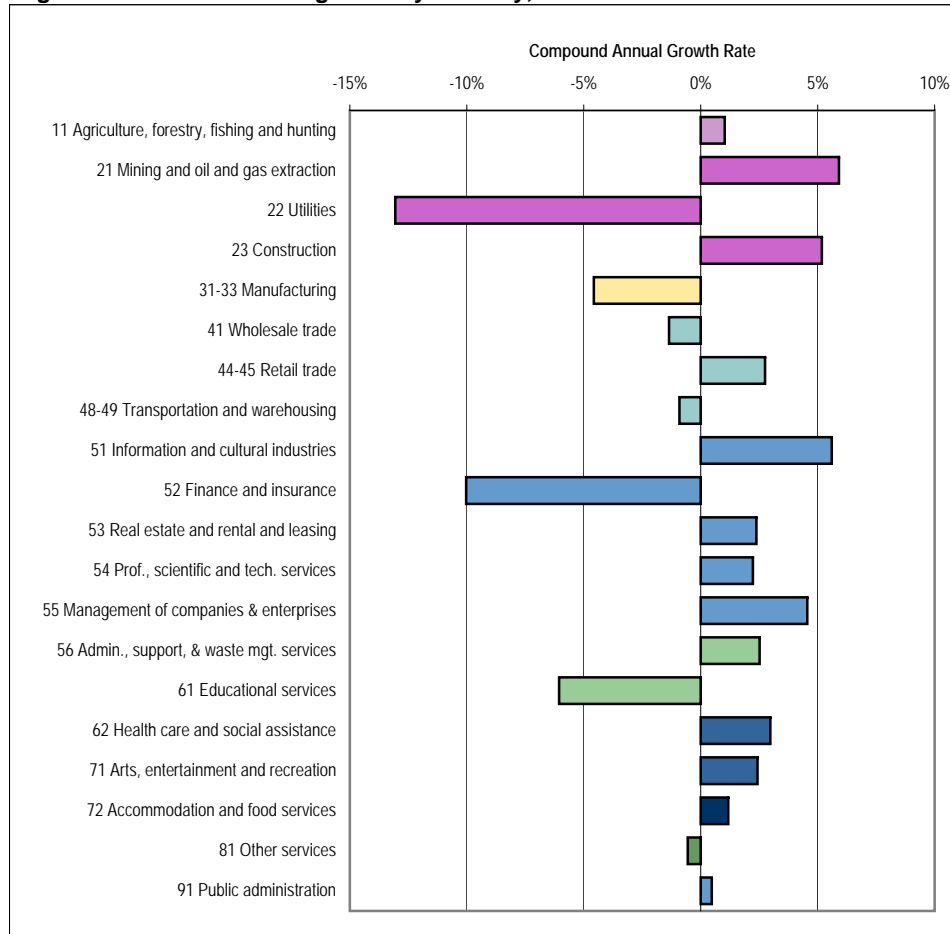


Figure 9.2 - Industrial specialization - Establishments, 2005

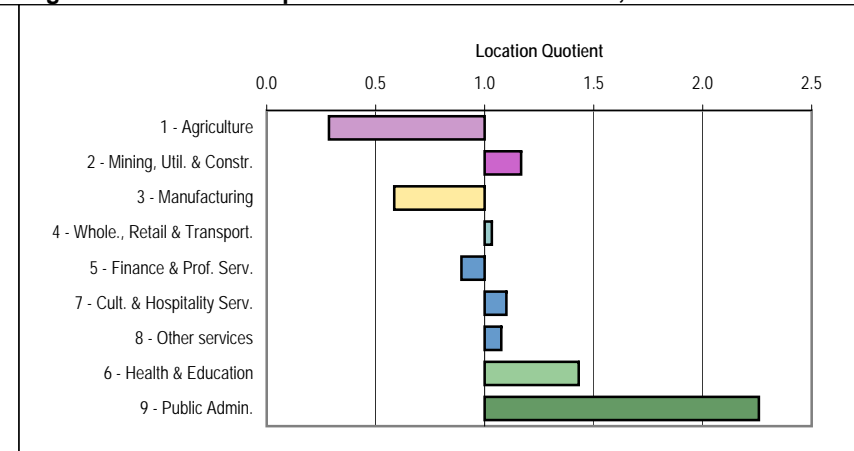
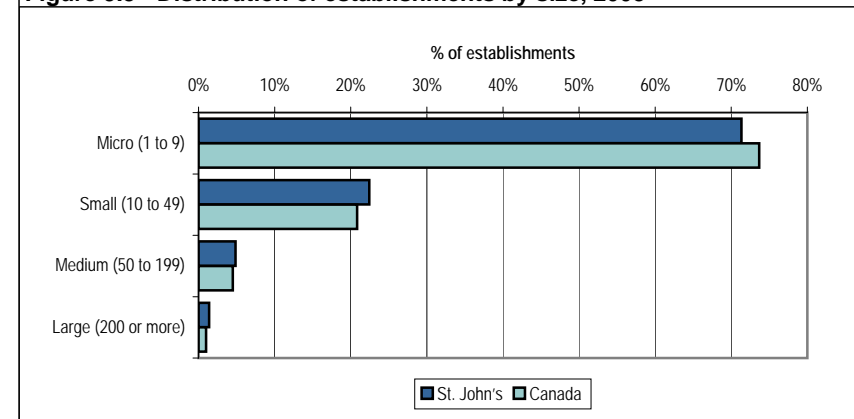


Figure 9.3 - Distribution of establishments by size, 2005



10 - Income St. John's

Household income ¹²	Average	Median	% below LICO ¹³
St. John's	\$ 54,940	\$ 45,675	17.4
Canada	\$ 58,360	\$ 46,752	16.2

Individual income ¹²	Average total	Average emp.
St. John's	\$ 27,061	\$ 28,872
Canada	\$ 29,769	\$ 31,757

Figure 10.1 - Sources of income for population 15 and over, 2000

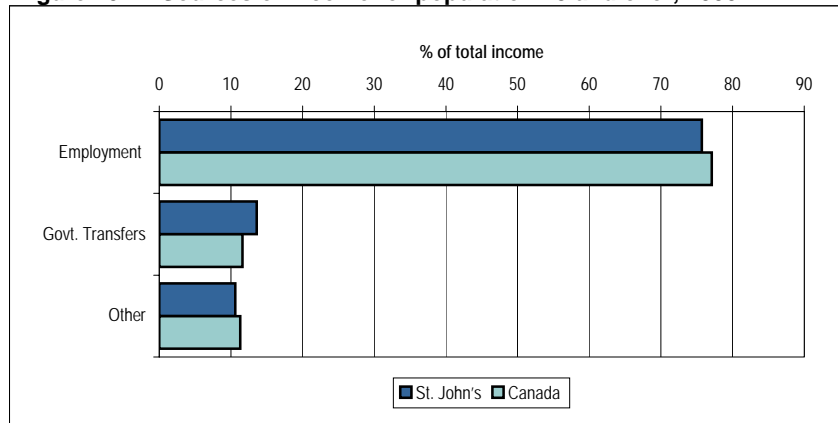


Figure 10.2 - Distribution of total income for pop. 15 and over, 2000

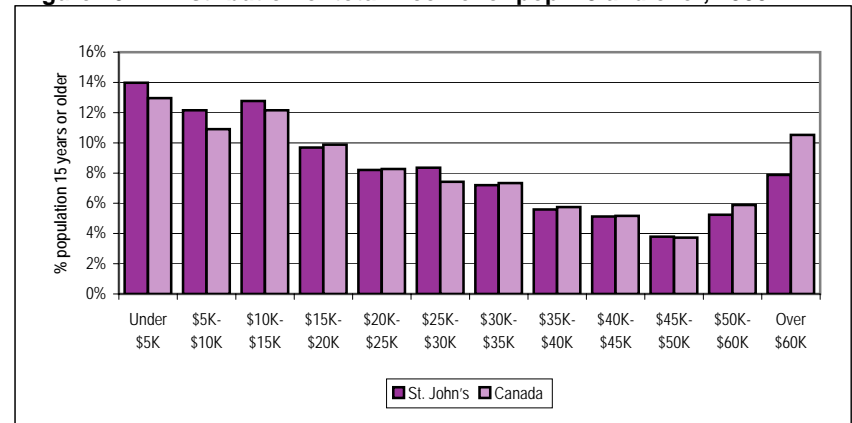


Figure 10.3 - Distribution of household income, 2000

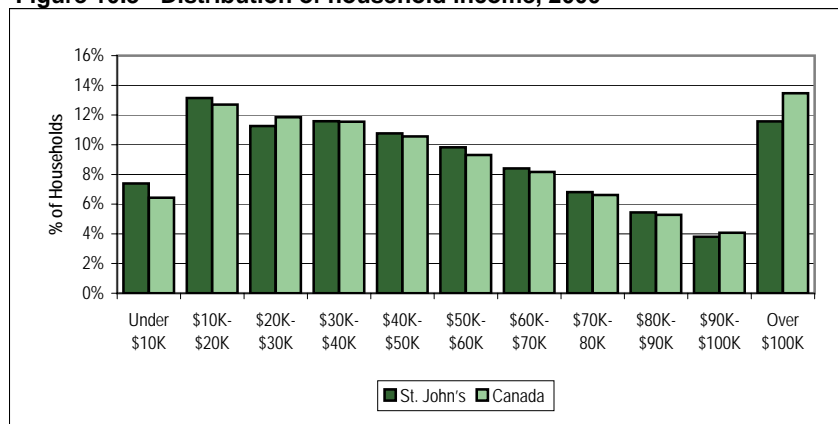
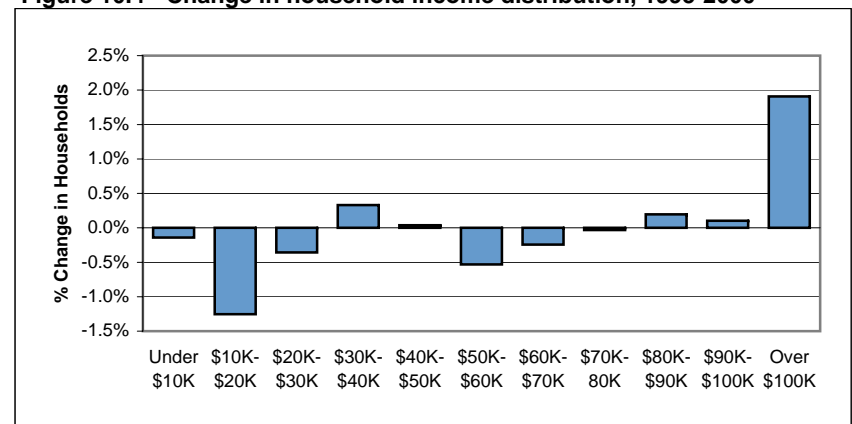


Figure 10.4 - Change in household income distribution, 1995-2000*



*Constant dollars (2000)

Notes

¹ All educational attainment statistics are calculated for the population 15 years and over.

² 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).

³ 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.

⁴ 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.

⁵ 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).

⁶ 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).

⁷ 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.

⁸ 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.

⁹ The method for identifying and defining cluster is based on previous ISRN work (see Spencer and Vinodrai 2005). 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).

¹⁰ Growth is calculated as a weighted compound annual growth rate (CAGR). The growth rate is weighted according to the size distribution of establishments within a particular group of industries in a place.

¹¹ Growth is measured as a compound annual growth rate (CAGR).

¹² Canadian censuses were conducted in 1996 and 2001. Income data relate to the calendar year prior to the census year, i.e. 1995 and 2000 respectively.

¹³ Low income cut-offs (LICO) are established by Statistics Canada based on national family expenditure patterns on food, shelter, and clothing. LICOs reflect a consistent and well-defined methodology that identifies those who are substantially worse-off than average.

Data Sources and References

Data Sources

Statistics Canada. 2001. Census family status, age groups and sex for population in private households. Catalogue No. 95F0314XCB2001004. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Immigrant status and period of immigration and place of birth of respondent for immigrants and non-permanent residents. Catalogue No. 97F0009XCB2001002. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Components of migration (in- and out-), mother tongue, age groups and sex for migrants 5 years and over. Catalogue No. 97F0008XCB2001009. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Total, average and median years of schooling, age groups and sex for population 15 years and over, 1991 to 2001 Censuses. Catalogue No. 97F0017XCB2001008. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Highest degree, certificate or diploma, age groups and sex for population 15 years and over, 1991 to 2001 Censuses. Catalogue No. 97F0017XCB2001006. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Labour force activity, immigrant status and period of immigration, visible minority groups, age groups and sex for population 15 years and over, 1991 to 2001 Censuses. Catalogue No. 97F0012XCB2001002. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Hours worked in the reference week, immigrant status and period of immigration, age groups and sex for employed labour force, 1991 to 2001 Censuses. Catalogue No. 97F0012XCB2001005. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Class of worker, age groups and sex for labour force 15 years and over. Catalogue No. 95F0385XCB2001004. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Occupation - 1991 SOC, age groups and sex for labour force 15 years and over, 1991 to 2001 Censuses. Catalogue No. 97F0012XCB2001024. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Occupation - 2001 NOCS, class of worker and sex for labour force 15 years and over. Catalogue No. 97F0012XCB2001017. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Occupation - 2001 NOCS, selected labour force, demographic, cultural, educational and income characteristics and sex for population 15 years and over. Catalogue No. 97F0012XCB2001050. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Industry - 1997 NAICS, selected labour force, demographic, cultural, educational and income characteristics and sex for population 15 years and over. Catalogue No. 97F0012XCB2001046. Ottawa, ON: Statistics Canada.

Statistics Canada. 2005. Canadian Business Patterns, 1998-2005. Catalogue No. 61F0040XCB. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Household income groups in constant dollars and household type for private households, 1995 and 2000. Catalogue No. 97F0020XCB2001005. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Profile of income of individuals, families and households, social and economic characteristics of individuals, families and households, housing costs, and religion for CMAs and CAs. Catalogue No. 95F0492XCB2001004. Ottawa, ON: Statistics Canada.

Statistics Canada. 2001. Profile of income of individuals, families and households, social and economic characteristics of individuals, families and households, housing costs, and religion. Catalogue No. 95F0492XCB2001007. Ottawa, ON: Statistics Canada.

References

Feinstein, A. and McAlinden, S.P. 2002. *Michigan: The High-Technology Automotive State*. Report prepared for the Michigan Economic Development Corporation. (August). [Available at www.cargroup.org]

Florida, R. 2002. *Rise of the Creative Class*. New York: Basic Books.

Gertler, M.S., Florida, R., Gates, G., and Vinodrai, T. 2002. *Competing on creativity: Ontario's cities in North American context*. Report prepared for the Institute of Competitiveness and Prosperity and the Ontario Ministry of Enterprise, Opportunity and Innovation. (November) [Available at <http://www.utoronto.ca/progris/recentpub.htm>]

Spencer, G. and Vinodrai, T. 2005. *Clustering matters: Evidence from the ISRN's cluster indicators project*. Presented at the Ontario Network on the Regional Innovation System (ONRIS) – Ministry of Research and Innovation (MRI) / Ministry of Economic Development and Trade (MEDT) Joint Fall Workshop, Toronto, Ontario, November 4, 2005.

For further information, please contact:

Greg Spencer: (416) 946-3054 or greg.spencer@utoronto.ca

Tara Vinodrai: (416) 964-8921 or tara.vinodrai@utoronto.ca

Last Updated: April 19, 2006