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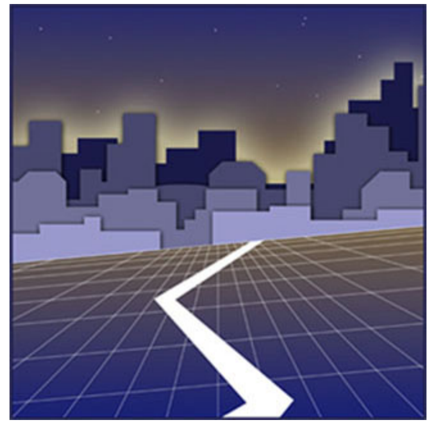
Trends and Conditions in Census Metropolitan Areas



Census Metropolitan Areas as Culture Clusters

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Trends and Conditions in Census Metropolitan Areas

This series of reports provides key background information on the trends and conditions in Canadian Census Metropolitan Areas (CMAs) across a number of dimensions. Subjects covered include demographics, housing, immigration, aboriginal persons, low income, economic conditions, health, location of work and commuting mode, and culture.

The objective of these reports is to provide statistical measures of trends and conditions in our larger metropolitan areas, and neighbourhoods within them. These measures will be available for use in city planning and in policy assessments of what works to create a healthy city.

Statistics Canada has worked on this project in collaboration with the Cities Secretariat of the Privy Council Office, with financial assistance from 14 other departments.

This project is being conducted under the direction of Doug Norris and Garnett Picot at Statistics Canada.

Statistics Canada
Culture, Tourism and the Centre for Education Statistics

Trends and Conditions in Census Metropolitan Areas

Census Metropolitan Areas as Culture Clusters

David Coish

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Executive summary

At the same time that there is growing attention to cultural life in Canada's metropolitan areas, there is also a realization that there is a scarcity of information on this subject. This gap is crucial given the growing concentration of the nation's population in metropolitan areas and increased attention to culture as an economic driver.

In an attempt to address this data gap, this report presents a compilation of indicators and analysis of culture[1] in Canada's twenty-seven Census Metropolitan Areas (CMAs)[2] primarily using data from the 2001 Census of Population. The central theme of this analysis is that certain CMAs, through concentration of culture industries, firms, organizations, employees, students and graduates, act as urban culture clusters. A cluster is typically characterized by a high degree of interaction between the components.[3] Culture clusters, like other industry clusters (e.g., high technology), are of interest due to the potential links with social and economic development. A cluster may grow, remain stable or decline, with possible implications for social issues (crime, community cohesiveness) and economic development (growth in culture industries, as well as related and non-related industries).

The report also provides information on the socio-economic characteristics of CMA culture workers[4] and their mobility patterns, with differences and similarities across CMAs highlighted.

This report was prepared by the Culture Statistics Program at Statistics Canada. It was part of a broad initiative spearheaded by the Cities Secretariat of the Privy Council Office to have more comprehensive data on Canada's Census Metropolitan Areas.

Culture clustering

Canada's three largest CMAs, Toronto, Montréal and Vancouver, are often perceived as the culture capitals of our nation, and indeed they led all CMAs in terms of numbers of workers in culture industries in 2001. Together they had 64% of CMA culture industry workers, compared with 52% of the total CMA labour force. They also had the highest percentages of their labour forces employed in culture industries.

Toronto was the dominant cluster for many culture industries surveyed by Statistics Canada. This was particularly the case when looking at earned revenues, whether absolute or per capita, and for film production, post-production and distribution, sound recording, and book and periodical publishing industries.

1. The definition of culture, per the Canadian Framework for Culture Statistics, is "creative artistic activity and the goods and services produced by it, and the preservation of human heritage." *Canadian Framework for Culture Statistics*, Culture, Tourism and the Centre for Education Statistics, Statistics Canada, August 2004. Catalogue No. 81-595-MIE2004021.
2. The twenty-seven CMAs are St. John's, Halifax, Saint John, Chicoutimi–Jonquière, Québec, Sherbrooke, Trois-Rivières, Montréal, Ottawa–Hull, Kingston, Oshawa, Toronto, Hamilton, St. Catharines–Niagara, Kitchener, London, Windsor, Sudbury, Thunder Bay, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Abbotsford, Vancouver and Victoria.
3. *Culture Cluster Mapping and Analysis*, draft report, Centre for Urban and Regional Development Studies, University of Newcastle upon Tyne, 2001.
4. Includes employed or unemployed but worked since January 1, 2000.

Montréal formed the second largest cluster in terms of wages paid and revenue earned for most culture industries, but led on all measures for the performing arts. It also had more firms than Toronto for the film production, performing arts, book publishing, and sound recording industries.

Some other CMAs formed smaller but notable clusters. These included Vancouver and to a lesser degree Halifax, for domestic film production. Vancouver, Ottawa–Hull and Winnipeg earned sizable shares of total CMA performing arts revenues, and St. Catharines–Niagara had the highest per capita revenues.

For heritage institutions, there was no dominant cluster, partly reflecting the influence of public sector financing in supporting many of these institutions across CMAs. Ottawa–Hull had the largest share of operating revenue followed by Toronto, Vancouver and Montréal. Ottawa–Hull had the highest per capita revenues of all CMAs followed by Victoria, Regina and Québec.

The movie theatre industry also did not have a dominant cluster, as this industry is to some degree based on the population of the consuming public. The three largest CMA's share of earned revenue reflected their share of CMA population. On a per capita basis Victoria, Calgary and Edmonton had the highest movie theatre operating revenues.

A tally of employment in culture occupations as a percentage of each CMA's total labour force reveals that Victoria and Vancouver came out on top, followed by Toronto, Montréal and Ottawa–Hull. Victoria's strength was largely due to employment in the performing, visual and literary arts. Halifax and St. John's also had higher percentages of their labour forces in culture occupations than expected, given their populations. Ocean port cities ranked first, second, sixth and eighth overall. Perhaps tourism industries in these port cities also spilled over into the culture labour force.

Generally, Canada's largest CMAs, capitals (federal and provincial) and ports had the highest percentage of their labour force in culture industries and in culture occupations. CMAs with economic raisons d'être primarily based on manufacturing, or resource extraction/processing, had the lowest. A link between academic institutions and culture employment was suggested given Kingston's relatively high percentage of employment in information services (which includes librarians, editors and archivists) and the presence of Queen's University in this CMA.

An examination of the training ground—universities, community colleges and trade schools—for many of these culture workers provides a sense of which CMAs are supplying the culture labour market. Montréal and Toronto had the highest number of culture enrolments and graduates, solidifying their position as culture clusters. When expressed as a percentage of the CMA population, however, smaller CMAs stood out. Kingston, Kitchener, Sherbrooke, Halifax and London had high per capita university culture enrolments and graduates, while Chicoutimi–Jonquière and London ranked high for colleges. When looking at net culture migration of their culture labour force, however, all of these centres except Halifax had sizable net losses from 1996 and 2001. The presence of many culture students in Halifax, in addition to higher than average proportions of their labour force working in culture industries and culture occupations, supports the position of Halifax as a regional culture cluster.

Characteristics of culture workers

An examination of characteristics of culture workers compared with non-culture workers in CMAs revealed that culture workers were, on average, older, equally likely to be male or female (while non-culture workers were more likely to be male), had much higher levels of educational attainment, were equally likely to be disabled, and less likely to be visible minority and Aboriginal people. There was much variation, however, between CMAs. For example, the three largest CMAs had more male than female culture workers. This is partly due to greater employment in CMAs for male-dominated culture occupations such as architects. This illustrates that the largest CMAs, which also acted as culture clusters, had some differences in their culture labour force compared with other CMAs.

The typical CMA culture worker had a lower average employment income than a non-culture worker—partly explained by higher rates of part-time employment among culture workers. When median income is looked at, however, the image of the underpaid culture worker was challenged. Culture workers in Ottawa–Hull had higher median employment income than their non-culture counterparts, and in Toronto the two groups earned the same level of employment income. Again, the prevalence of certain kinds of well-paying culture occupations such as architects, and producers and directors in the larger CMAs helps explain this. As well, the proportion of culture workers who worked part-time was generally lower for the larger CMAs.

Workers in performing and visual arts occupations involving creation, such as dancers, artisans and craftpersons, musicians and singers, and painters, sculptors and other visual artists, however, had incomes that were well below average for the culture labour force, in both CMAs and non-CMAs. Therefore, a narrow definition of culture workers encompassing these groups would reveal a much lower employment income than for culture workers as defined in this analysis.

Toronto and Montréal stood out when looking at absolute net internal migration. Their net culture in-migration was much higher than net non-culture in-migration. The largest CMAs are indeed culture clusters acting as magnets for Canada's culture workers.

Chapter 1

Introduction

One of the rationales for examining culture clusters is to better understand the link between culture and economic development. Many analyses of culture industries and economic development look at particular regions and use case studies to examine the linkages between creative industries and other economic activities. For example, a report on culture clustering prepared by the Centre for Urban and Regional Development at the University of Newcastle upon Tyne delineated four ways in which the 'creative'[5] industries contribute to economic development in the North East of England. These were:

- Contribute directly in terms of job growth and wealth creation, through the creation, distribution and retail of goods and services and through demand thus generated, as well as providing inputs to other sectors.
- Some parts of creative industries form attractions, or part of a package of attractions, for tourism.
- Some parts of the creative industries form part of the necessary infrastructure of a modern region, helping to attract and retain investors, skilled workers, and students.
- Some parts of the creative industries can help draw attention to the region, increasing the region's mindshare in the national and international consciousness.[6]

The idea that culture and economics are intertwined is not new and has been expressed and examined within an urban context for some time, particularly within a tourism development framework. Scott (1996) notes that "cities have always played a privileged role as centres of culture and economic activity ... and as we enter the twenty-first century a very marked convergence between the spheres of culture and economic development seems to be occurring". He attributed the growing consumption of culture products to growth in disposable income and time.[7] O'Connor et al., stated that "since the late 1980's the cultural resources of cities have been subject to many claims…culture industries sat uneasily between 'arts and culture' and economic development, adding to both the sense of vibrancy of a city and, as a source of new employment opportunities."[8] Rita Davies (2000), the Managing Director of the City of Toronto's Culture Division, stated that "a vital urban cultural sector is about the mixing of culture and economics, making money and making meaning, dealing in the currency of ideas, signs, sounds and images."[9] Lastly, Wood (1999) stated that "creative industries are remarkable for their ability to…straddle the apparent divide between the economic and the social."[10]

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5. Creative industries, in this case, are defined as those economic activities which are focused around the creation and exploitation of creative ideas.
6. *Culture Cluster Mapping and Analysis*, draft report, Centre for Urban and Regional Development Studies, University of Newcastle upon Tyne, 2001.
7. Scott, Allen. T*he Cultural Economy of Cities,* Joint Editors and Blackwell Publishers, 1996.
8. O'Connor, Justin, Andrew Lovatt and Mark Banks. Culture Industries and the City: Innovation, Creativity and Competitiveness, A research proposal.
9. Davies, Rita. Presentation on *The Work of Toronto's Culture Division*, delivered at the GTA Forum on The City for Fun and Profit, December 7, 2000.
10. Wood, Phil. 1999. "Think Global, Act Local: Looking forward to the Creative Region." In Dr. Tom Fleming (ed.),*The Role of the Creative Industries in Local and Regional Development.* England: Government Office for Yorkshire and the Humber and the Forum on Creative Industries.

Although there is no doubt that expressions of cultural life exist in all communities, big and small, this report puts Canada's Census Metropolitan Areas (CMAs) under the microscope. The report examines the culture labour force, culture programs in universities and colleges and the output of culture firms and organizations. This enables us to identify which CMAs are culture clusters, with large concentrations of workers, students and firms. To adjust for differences in population size, per capita measures are used.

Next, the characteristics of culture workers are examined and compared with non-culture workers. Further, differences between culture workers across CMAs are examined. Key characteristics examined include age, gender, visible minority status, Aboriginal status, disability status, education level, employment income and mobility status.

This study primarily used data from the 2001 Census of Population.[11] Other Statistics Canada data sources used include the University Student Information System (USIS), Community College Student Information System (CCSIS),[12] as well as survey data from the Culture Statistics Program (CSP).

A Census Metropolitan Area (CMA) is the area formed by one or more adjacent municipalities centered on a large urban area (known as the urban core). The census population count required for an urban core to form a CMA is at least 100,000. To be included in the CMA, other adjacent municipalities must have a high degree of integration with the central urban area, as measured by commuting flows derived from census data on place of work.

CMA culture clusters can either be industry-specific, such as the film industry, or can be diverse encompassing a variety of industries. CMAs which are diverse may be more successful in attracting a broad spectrum of culture workers, not only because of the variety of industries but also because of the overlap between industries (e.g., writers in the film industry) and the synergies which result. These CMAs may also weather economic storms better as a slump in one culture industry may not mean a slump in another. Given this, the expectation is that CMAs which are a cluster of a number of growing culture industries are in a better economic position and are poised for greater economic growth in the future.

Externalities will no doubt have an influence. For example, Vancouver's position as a vibrant centre for film production, especially for foreign-based firms, appears to be challenged by the growing number of jurisdictions that have offered tax credits and other financial incentives. This is a classic case of many regions all trying to attract business from the same cluster.[13] Nonetheless, the existence of a significant film production industry may lead to growth in the film distribution and post-production industries in Vancouver. Furthermore, it may promote growth in domestic filming in this CMA. This increase in diversity within an industry may contribute to the overall economy of this CMA. Diversification to other culture industries would also serve to insulate this CMA from economic shocks to a particular industry.

11. The 2001 Census collected data from all respondents for age, sex and other basic population characteristics. A sample was taken of 20% of the population for labour force characteristics such as industry, occupation, class of worker, labour force status, as well as mobility, education and income. This sample was then weighted by key characteristics to ensure that it was representative of the population.
12. These are snapshots in the fall of the year of enrolment and graduates at public universities, and community colleges and other related institutions. University enrolment data are available for 1998/99 while graduate numbers are available for 2000. These are obtained from the University Student Information System (USIS) from the Centre for Education Statistics. Community college enrolments are available for 1999/00, while data for graduates are for 1998/99. Both are from the Community College Information System (CCSIS), also from the Centre for Education Statistics. These databases are derived from administrative data sent either by the institution, or the provincial education ministry.
13. Gold, Russell. *Cities Pursue Benefits of 'Cluster': A Concentration of Firms in One Industry Seen Spurring Jobs, Growth, Wall Street Journal*, June 6, 2001.

Chapter 2

Culture industries

Culture industries are defined by the Canadian Framework for Culture Statistics[14] and are based on the North American Industrial Classification System (NAICS). The culture sector is defined as those industries that are involved in the creation, production, manufacturing, distribution and preservation of culture goods and services (see Box 2.1: Coding of culture industries).

Canada's CMAs had 80% of all the nation's culture industry workers in 2001, compared with 66% of the national labour force (see Table 2.1). Furthermore, the labour force employed in culture industries was predominantly located in Canada's three largest CMAs. While Toronto, Montréal and Vancouver comprised 52% of the total CMA labour force in 2001, they accounted for almost two-thirds (64%) of all CMA culture industry workers. Toronto alone accounted for nearly one-third of those in culture industries.

Toronto, Montréal and Vancouver maintained the same top rank order when the labour force classified to a culture industry was expressed as a percentage of their total labour force (see Figure 2.1 and Appendix Table A2.1). With sizable employment in advertising, printing, motion picture and video industries, publishing and specialized design services, Toronto had 6.1% of its labour force in a culture industry at the time of the 2001 Census. Toronto also had the highest percentage, among all CMAs, employed in the sound recording industry.

Montréal had 5.5% of its labour force in culture industries. It was led by high proportions working in printing, film and video and advertising industries.

Vancouver had 5.2% of its labour force in culture industries. Film and video industries represented 18.4% of the CMA's culture labour force and 1% of the labour force at large. Vancouver was also relatively prominent for architectural services, although this comprised just 3.3% of its culture labour force. In addition, Vancouver ranked high for specialized design services and independent artists, writers and performers.

Halifax placed fourth overall. This was due to substantial newspaper, periodical, book and database publishing, motion picture and video and information services industries. It also had a relatively high percentage of its labour force in the performing arts industry.

Victoria, with its literary and visual arts strengths, had the highest percentage of independent artists, writers and performers in its labour force. It also had the highest percentage employed in book, periodical and music stores. Overall, Victoria had the fifth highest percentage of its labour force in culture industries.

The influence of the federal government was strongly felt in Ottawa–Hull, with the highest percentage of its labour force employed in information services (tied with Kingston) and the second highest for heritage

14. *Canadian Framework for Culture Statistics*, Culture, Tourism and the Centre for Education Statistics, Statistics Canada, August 2004. Catalogue No. 81-595-MIE2004021.

institutions. Calgary was seventh with above-average percentages employed in advertising and specialized design services.

Of all CMAs, St. John's had the highest proportion of its labour force employed in newspaper, book and periodical publishing and the second highest for book, periodical and music stores and radio and television broadcasting (tied with Montréal). It was also above the CMA-average for performing arts companies. The strength of the written and spoken word is evident in this coastal capital CMA. Overall, it had the eighth highest proportion of its labour force employed in culture industries but the nineteenth largest CMA population.

Also noteworthy was St. Catharines–Niagara's strength in the performing arts. Of all CMAs, it had the largest proportion of its labour force (.26%) employed in the performing arts industry. This was due to employment created by theatrical organizations such as the Shaw Festival. Despite the strength of the performing arts in this CMA, there was more culture employment in publishing (.58% of total labour force in St. Catharines–Niagara), printing (.57%), heritage institutions (.31%) and information services (.30%).

Overall, the CMAs that had the highest percentages of their labour force employed in culture industries were the largest Canadian population centres and capital cities, including Toronto, Montréal, Vancouver, Victoria, Ottawa–Hull, Halifax, Calgary and St. John's.

The CMAs ranking the lowest had the following factors in common: they were not provincial capitals; they tended to have smaller populations; and many had economies largely based on manufacturing or resource extraction. These CMAs included Windsor, Thunder Bay, Sudbury and Chicoutimi–Jonquière.

Box 2.1: Coding of culture industries

The system used to classify industries in the 2001 Census was the 1997 North American Industrial Classification System (NAICS). The 2001 Census provides NAICS data only at the four-digit level. The Canadian Framework for Culture Statistics, however, includes industries coded to five and six-digit levels. In order to respect the culture framework, yet obtain meaningful data, four-digit NAICS codes were included in this analysis when they only or mostly contained culture industries as defined by the culture framework. For cases where a five- or six-digit culture industry was combined with several non-culture industries under the four digit code, it was excluded from this analysis. For example, fine arts schools (NAICS 61661) are included in the culture framework, but the four-digit code under which they were reported for the Census is 'Other Schools and Instruction' which includes language schools and athletic instruction. Therefore fine arts schools are not included here.

Please consult the Canadian Framework for Culture Statistics for a list of the industry codes in the 2002 NAICS that are considered as cultural.

The study used the following NAICS industry codes to categorize the culture industry:

3231: Printing and related support activities (printing, support activities for printing)
3346: Manufacturing and reproducing magnetic and optical media
4512: Book, periodical and music stores (bookstores and news dealers, pre-recorded tape, compact disc and record stores)
5111: Newspaper, periodical, book and database publishers (includes other publishers but excludes music publishers)—hereafter referred to as publishing industries
5121: Motion pictures and video industries (production, distribution, exhibition, post-production)
5122: Sound recording industries (record production, integrated record production/distribution, music publishers, sound recording studios, other sound recording industry)
5131: Radio and public broadcasting
5132: Pay TV and specialty television
5141: Information services (libraries, archives, news syndicates, on-line information services, all other information services)
5413: Architectural and landscape architectural services*
5414: Specialized design services (interior, industrial, graphic and other specialized design services)
5418: Advertising and related services (advertising agencies, public relations services, media buying agencies, media representatives, display advertising, direct mail advertising, advertising material distribution services, other services related to advertising)
7111: Performing arts companies (theatre companies and dinner theatres, dance companies, musical groups and artists, other performing arts companies)
7113: Promoters (presenters) of performing arts, sports and similar events
7114: Agents and managers for artists, athletes, entertainers and other public figures
7115: Independent artists, writers and performers
7121: Heritage institutions (museums, historic and heritage sites, zoos and botanical gardens, other heritage institutions)

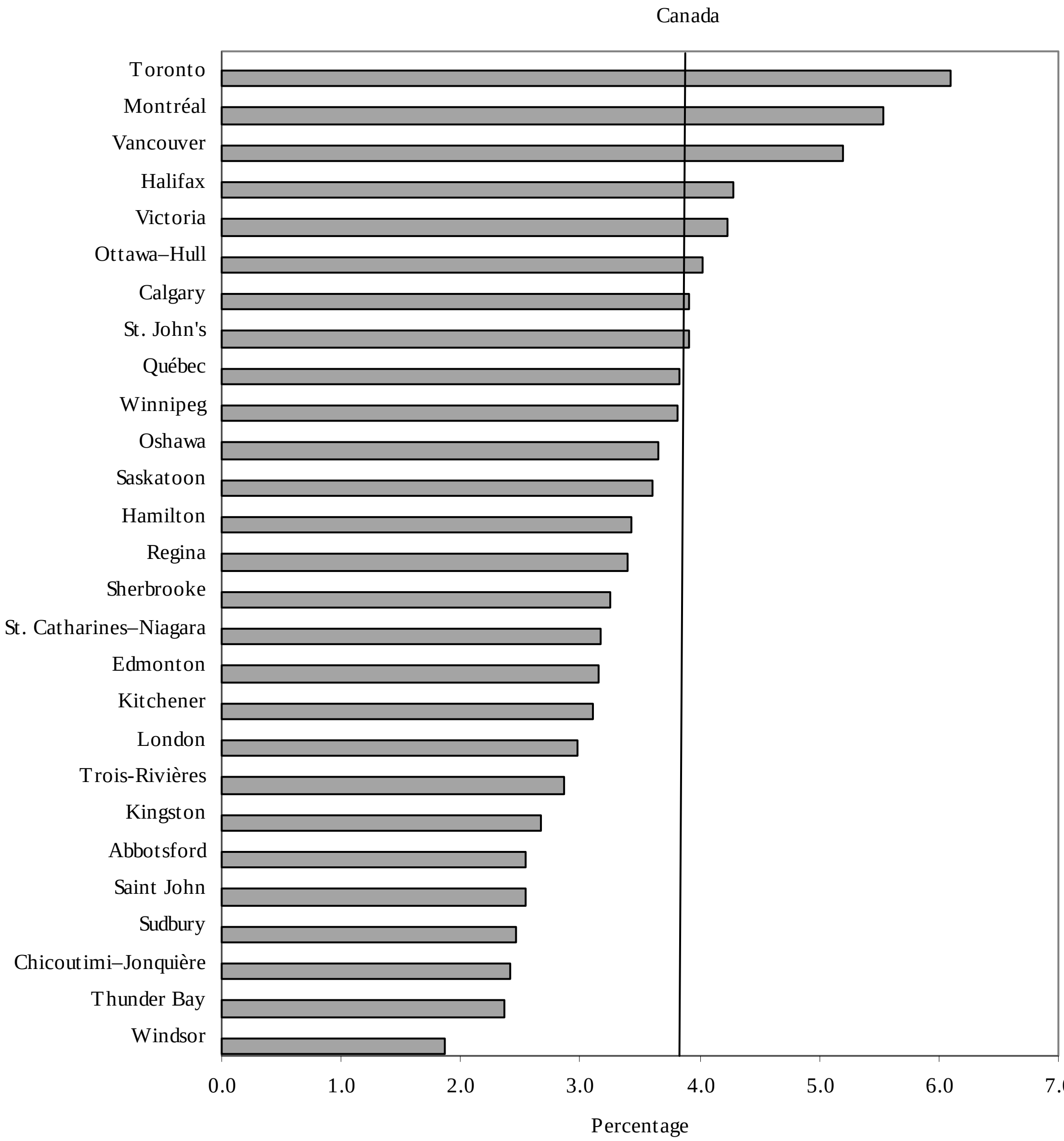
* The four digit code 5413 cannot be used because it includes much activity that is not part of the cultural framework. The occupation codes for architects (C051) and landscape architects (C052) were used instead.

Table 2.1: Labour force in culture industries and total labour force, by CMA, 2001

CMA	2001 CMA culture labour force	% of total CMA culture labour force	2001 CMA labour force	% of total CMA labour force
St. John's	3,400	0.7	87,700	0.9
Halifax	8,300	1.7	193,700	1.9
Saint John	1,500	0.3	60,300	0.6
Chicoutimi–Jonquière	1,700	0.4	71,500	0.7
Québec	13,800	2.9	360,300	3.5
Sherbrooke	2,500	0.5	78,500	0.8
Trois–Rivières	1,900	0.4	64,800	0.6
Montréal	97,800	20.5	1,765,800	17.2
Ottawa–Hull	23,600	4.9	585,900	5.7
Kingston	2,000	0.4	74,900	0.7
Oshawa	5,800	1.2	158,300	1.5
Toronto	154,000	32.2	2,522,000	24.6
Hamilton	11,600	2.4	340,300	3.3
St. Catharines–Niagara	6,000	1.3	189,300	1.8
Kitchener	7,200	1.5	229,900	2.2
London	6,800	1.4	227,000	2.2
Windsor	2,900	0.6	157,100	1.5
Sudbury	1,900	0.4	76,000	0.7
Thunder Bay	1,500	0.3	61,400	0.6
Winnipeg	13,800	2.9	361,700	3.5
Regina	3,600	0.7	105,100	1.0
Saskatoon	4,300	0.9	120,900	1.2
Calgary	22,100	4.6	564,000	5.5
Edmonton	16,600	3.5	526,800	5.1
Abbotsford	1,900	0.4	73,600	0.7
Vancouver	54,500	11.4	1,049,900	10.2
Victoria	7,000	1.5	163,900	1.6
		% of total culture labour force		% of total labour force
Non-CMA Total	119,400	20.0	5,306,000	34.1
CMA Total	477,900	80.0	10,270,600	65.9
Total	597,300	100.0	15,576,600	100.0

Source: Statistics Canada, Census of Canada, 2001.

Figure 2.1: Percentage of labour force in culture industries, by CMA, 2001



Chapter 3

Culture establishments and their outputs

Culture workers and students often gravitate to CMAs that have the culture 'infrastructure' to support their activities. One key component of this infrastructure is the culture establishment. Looking at the location of establishments and their outputs, in combination with culture students and workers, provides an indication of whether culture clusters exist.

The Culture Statistics Program conducts several surveys[15] of culture establishments which provide data on the establishments and their outputs such as (see Box 3.1: Definition of culture establishments):

Film, video and audio-visual production 2001-2002
Film, video and audio-visual post-production 2001-2002
Film, video and audio-visual distribution and videocassette wholesaling 2002-2003
Movie theatres 2000-2001
Sound recording 2000-2001
Book publishing and exclusive agency 2000-2001
Periodical publishing 1998-1999
Performing arts – not for profit 2001-2002
Heritage institutions 1999-2000

We will examine the number of firms or organizations, the revenues earned and the wages paid out for each surveyed industry to see which CMAs serve as centres of activity. Survey data range from 1998–1999 to 2002–2003. Population data from the 2001 Census are used to calculate per capita measures.

Data for Culture Statistics Program surveys were collected based on where the firm or organization was headquartered. Activity which occurred outside of this location was reported for the CMA where the headquarters was located. For example, filming done by a Toronto-based production company in Saint John was reported as part of the data for Toronto.

3.1 Film production

As expected, Toronto, Montréal and Vancouver led for production revenue generated by film producers in 2001-2002. These three centres are widely accepted as the main locations of domestic film production activity in Canada.[16] Together, film producers in these CMAs earned 92.7% of all CMA film production revenue. Toronto producers earned 59.0%, Montréal's share was 21.1% and Vancouver's was 12.6%. Halifax, where a lot of television programming took place, ranked fourth with 2.5% of total film production revenue.

15. Each of these is a census of firms/organizations operating in Canada, whether foreign- or Canadian-owned. There may be some undercoverage, however, especially for smaller firms or organizations. For further information on each survey, please go to www.statcan.ca/english/freepub/87-008-GIE/about.htm, select Culture Sectors and then the survey of interest.
16. Foreign film activity in Canada was not captured by the Culture Statistics Program.

Montréal had the largest number of film production firms (229) in 2001-2002, followed by Toronto (185), Vancouver (75), Ottawa–Hull (25) and Edmonton (20). Wages paid out also provide a measure of the economic impact of a culture industry on a CMA. In this case, $269 million of the $591 million paid out in CMAs by film production firms was in Toronto. This was 45.5% of total wages paid by these firms, compared with 34.9% in Montréal. Montréal's share of wages paid by film producers was much higher than its share of production revenue. Perhaps the film production industry in Montréal is more labour-intensive, while in Toronto it is more capital-intensive.

To gauge the economic impact of the film production industry in each CMA, we consider per capita film production operating revenue—that is, the amount of revenue generated by the industry in each CMA divided by the total population in each CMA. Per capita film production operating revenue was highest in Toronto ($293) followed by Halifax ($164), Vancouver ($147) and Montréal ($143). Other CMAs which had a film production presence when looking at per capita operating revenues were Regina[17] ($46) and Edmonton ($27).

3.2 Film post-production

Film post-production facilities engage in the following activities: film printing, film processing, film transfers, duplication, transcoding, dubbing and subtitling, animation, audio post-production and other post-production services. As the name indicates, they typically do post-production work after the film (or video) has been produced.

Toronto had the largest number of post-production firms (102) in 2001-2002, but was followed closely by Montréal (99).

Firms in Toronto earned two-thirds of the total operating revenue of post-production facilities located in CMAs. This was followed by Montréal (26.2%) and Vancouver (5.2%). Halifax earned 2.5% of film production operating revenue, but just 0.3% of post-production operating revenue, suggesting that much post-production activity is done in-house by the producer or by post-production firms outside the CMA.

Toronto also led for wages paid out by film post-production firms (58.1%), with Montréal following (30.4%). As with film production, Montréal post-production firms had a higher share of wages paid out than share of operating revenue. The difference was not as great, however, in film post-production as in film production.

On a per capita basis, Toronto, Montréal and Vancouver claimed the top three positions for post-production operating revenue ($128, $69 and $24, respectively), with Regina ($12) and Halifax ($7) in fourth and fifth position.

3.3 Film distribution

In 2002-2003, Toronto was home to 91 of the 197 film distributors surveyed in all 27 CMAs, while Montréal had 68 and Vancouver 16.

Toronto dominated film distribution activity in Canada earning 88.0% of operating revenue, followed by Montréal at 10.4% and Vancouver at 0.8%. Toronto (66.6%) and Montréal (20.9%) paid out the lion's share of wages by film distribution firms operating in CMAs.

17. Regina was one of four cities selected in October 2003 by the Department of Canadian Heritage as a cultural capital, in addition to Kelowna, B.C., Owen Sound, Ontario and Powell River, B.C. The selections were based on a track record of previous achievements and proposed programs that show a commitment to arts and culture. CBC News Online. October 29, 2003.

Toronto also had by far the highest film distribution operating revenue per capita ($475), followed by Montréal ($98), Saskatoon ($27), Halifax ($14) Vancouver ($13) and Québec ($8).

Overall, for the domestic film industry, Toronto was the dominant cluster for production, post-production and distribution, followed by Montréal. Vancouver had a strong presence for film production but was less visible for post-production and distribution. Halifax was on the radar screen for production, especially television,[18] but not for post-production or distribution. Regina also appeared as a regional centre for film production and to a lesser degree for post-production.

3.4 Movie theatres

Given that movie theatres operate in all CMAs and to some degree reflect the consumer base or population of a given centre, their revenues serve as a culture consumption measure. One might also expect that the industry would be less concentrated than the others examined thus far. Indeed, this is the case. Toronto had 26% of movie theatre operating revenue earned by Canadian CMAs, followed by Montréal and Vancouver. Cumulatively, they earned 52.5% of CMA theatre revenues. This is almost identical to their 52.3% share of CMA population.

Theatres in western CMAs, particularly Victoria, Calgary and Edmonton, earned the highest per capita operating revenues ($59, $58 and $56, respectively), while Sudbury, Trois-Rivières and Chicoutimi–Jonquière earned the lowest ($5, $17 and $17, respectively). High per capita operating revenues for Alberta CMAs reflect provincial movie theatre attendance, as Alberta had the highest average annual attendance in 1999-2000 at 5.19 visits.[19]

3.5 Book publishing[20]

Although Montréal had more book publishers than Toronto (122 compared with 120), Toronto was the dominant player for book publishing operating revenues. Toronto publishers brought in almost seven of every ten dollars of book publishing revenues earned in Canadian CMAs in 2000-2001. Montréal was a distant second with 17.9% and Vancouver was next at 4.4%.

The only other CMA with 1% or more of total CMA book publishing operating revenues was Edmonton (1.0%).

For per capita book publishing operating revenue, Toronto was dominant ($312), with Montréal ($110) and Vancouver ($47) a distant second and third. St. Catharines–Niagara ($33), Edmonton ($23) and Kitchener ($23) also had some degree of book publishing activity, based on per capita measures.

Generally, Montréal's film and book publishing culture cluster has as many firms as Toronto, but the latter has larger firms earning much more revenue on average than their Montréal compatriots. These smaller Montréal firms, however, had a larger share of wages paid out than revenue earned.

3.6 Periodical publishing

Toronto's dominance of the publishing sector extended into periodical publishing, in 1998-1999. It had 611 of the 1,785 or 34.2% of periodicals in CMAs. Montréal followed with 358 (20.0%) and Ottawa–Hull with 156 (8.7%).

18. Coish, David. *Filming on the edge: The film industries in British Columbia and Nova Scotia*, Focus on Culture, Vol. 14, No. 4, July 2004, Cat. No. 87-004-XPB.
19. *Movie theatres and Drive-ins*, Statistics Canada, The Daily, February 7, 2002.
20. The survey collects data from book publishers and exclusive agents.

Toronto firms paid over one-half of all CMA wages to periodical staff and outside contractors. Montréal followed with 21.6% and Vancouver with 7.6%.

Toronto and Montréal's share of periodical revenue was even higher at 52.7% and 27.0%, respectively. Revenues earned by large national publications headquartered in these two CMAs accounted for much of their revenues. Vancouver was a distant third at 5.2%.

Toronto also had the largest per capita periodical publishing revenues ($139) but the gap between this CMA and others was not as large as for book publishing. Montréal had $97 per capita in periodical revenues, Ottawa–Hull $43 and Winnipeg $42.

Overall, Toronto is the dominant culture cluster for publishing, with Montréal second.

3.7 Sound recording

Consistent with the census findings on industry, Toronto firms dominated the sound recording industry in 2000-2001. Despite having fewer sound recording firms than Montréal (96 versus 108), these Toronto-based firms paid out over three-quarters of all the wages paid by CMA-based sound recording firms, compared with 19.5% for Montréal. Toronto's share of sound recording revenue was even higher at 85.8%, compared with 11.6% for Montréal and 1.2% for Vancouver. All other CMAs had relatively low sound recording revenue, if any at all.

With recent advances in sound recording technology, it is likely easier to record in smaller centres. To earn significant revenue, however, usually requires a strong marketing team associated with larger firms headquartered in the largest CMAs.

3.8 Performing arts

Survey results from the Culture Statistics Program confirm Montréal's reputation as a centre for the performing arts. The CMA had 139 not-for-profit performing arts groups in 2001-2002, compared with 123 for Toronto and 51 for Vancouver. Montréal also had the largest share of wages paid out (22.6%) and operating revenue (22.2%) earned by CMA-based performing arts groups. Toronto and Vancouver followed on both measures.

The dominance of the three largest CMAs, however, was less visible for this culture sector. Montréal, Toronto and Vancouver earned 52.6% of performing arts revenues[21] compared with over 90.0% for the film industries and book publishing.

Ottawa–Hull, Winnipeg, Calgary and Edmonton also appear as clusters of performing arts activities having earned sizable shares of performing arts revenue (9.8%, 6.3%, 6.1% and 5.0%, respectively). On a per capita basis, St. Catharines–Niagara led all CMAs ($51), followed by Winnipeg ($45) and Ottawa–Hull ($44). The existence of established groups, such as the Royal Winnipeg Ballet and the Winnipeg Symphony Orchestra, put Winnipeg on the performing arts map long ago.

Note that the performing arts survey carried out by the Culture Statistics Program has historically covered not-for-profit establishments. There are many more for-profit establishments, and work is currently underway at Statistics Canada to collect consistent data on the sector as a whole.

21. This includes earned revenues, grants, fund-raising and donations.

3.9 Heritage institutions[22]

Heritage institutions, like not-for-profit performing arts groups, depend to a large degree on public sector financing. Therefore, strict market forces do not dictate their location. Also, more often than not, the consumer comes to the performing arts venue or heritage institution, rather than the culture service or product going to the consumer (e.g., CDs, movies on television, books and periodicals). Hence the population of the CMA should influence the size of the heritage institution industry. Knowing this, a more diffuse presence was expected and was found for heritage institutions. Toronto had the largest number of heritage institutions (137) surveyed in 1999-2000, but this was just 13% of the CMA total. Following Toronto were Montréal (127), Vancouver (100), Winnipeg (77), Québec (59), Halifax (57) and Edmonton (52).

Ottawa–Hull, on the strength of several large national heritage institutions accounted for 18.2% of total wages paid by heritage institutions based in CMAs, followed by Toronto (17.5%) and Vancouver (16.8%).

Ottawa–Hull heritage institutions also had the highest operating revenues (earned, grants and donations) accounting for almost one-fifth (19.6%) of the total received by heritage institutions in CMAs. Toronto was second (18.3%), followed by Vancouver (14.1%) and Montréal (12.3%).

On a per capita basis, Ottawa–Hull led the pack with $194 of operating revenue per resident. Victoria ($124), Regina ($113) and Québec ($111) were next.

The existence of culture clusters in specific CMAs was less visible for heritage institutions, overall. Most CMAs have their own institutions honoring the unique history, culture or economic base upon which the CMA is founded.

3.10 Overall clustering of firms and outputs

Toronto was the dominant cluster for many culture industries surveyed by Statistics Canada. This was particularly the case when looking at operating revenues, whether absolute or per capita, and for the film production, post-production and distribution industries, sound recording and book and periodical publishing.

Montréal formed the second largest cluster in terms of wages paid and revenue earned for most industries, but was the leader on all measures for the performing arts. It also had more firms than Toronto for the film production, performing arts, book publishing and sound recording industries.

Some other CMAs formed smaller but notable clusters. These included Vancouver and to a lesser degree Halifax, for domestic film production. Vancouver, Winnipeg, Ottawa–Hull earned sizable shares of performing arts revenues, and St. Catharines–Niagara had the highest per capita revenues.

For heritage institutions, there was no dominant cluster, partly reflecting the influence of public sector financing in supporting many of these institutions across CMAs. Ottawa–Hull had the largest share of operating revenue followed by Toronto, Vancouver and Montréal. Ottawa–Hull had the highest per capita revenues of all CMAs followed by Victoria, Regina and Québec.

Movie theatres also did not have a dominant cluster, as this industry is to some degree based on the population of the consuming public. The three largest CMAs share of earned revenue reflected their share of CMA population. On a per capita basis Victoria, Calgary and Edmonton had the highest movie theatre operating revenues.

22. This includes museums, arts galleries, nature parks, historic sites (including building, park or community), archives, exhibition centres, planetariums, observatories, zoos, botanical gardens, arboretums and conservatories.

Box 3.1: Definition of culture establishments
The Canadian Framework for Culture Statistics was finalized in 2004. The culture surveys and analyses conducted by Statistics Canada will in time all conform to the definition and classification of culture laid out in the Framework. This entails counting as 'cultural' any establishment whose primary activity is classified to a NAICS group specified in the Framework. However, the establishment surveys currently available are not aligned with the NAICS in this way. In short, the establishment analysis presented here is based on a vision of culture establishments that predates the Framework.

Table 3.1: Film production, 2001-2002

	Number of firms	Wages, benefits, fees	Share of CMA wages paid	Wages, benefits, fees per capita	Operating revenue	Share of CMA operating revenue	Operating revenue per capita
		$'000	%	$	$'000	%	$
St. John's	12	1,136	0.2	6.6	3,009	0.1	17.4
Halifax	16	5,349	0.9	14.9	58,804	2.5	163.7
Québec	18	3,305	0.6	4.8	7,572	0.3	11.1
Sherbrooke	3	105	0.0	0.7	170	0.0	1.1
Montréal	229	206,472	34.9	60.3	489,236	21.1	142.8
Ottawa–Hull	25	4,294	0.7	4.0	15,860	0.7	14.9
Toronto	185	268,900	45.5	57.4	1,370,547	59.0	292.7
Hamilton	3	4,400	0.7	6.6	1,765	0.1	2.7
Winnipeg	18	4,072	0.7	6.1	9,226	0.4	13.7
Regina	16	4,259	0.7	22.1	8,785	0.4	45.6
Saskatoon	6	585	0.1	2.6	2,549	0.1	11.3
Calgary	18	6,429	1.1	6.8	13,213	0.6	13.9
Edmonton	20	6,391	1.1	6.8	25,605	1.1	27.3
Vancouver	75	72,590	12.3	36.5	292,657	12.6	147.3
Victoria	9	452	0.1	1.5	1,196	0.1	3.8
CMA total	662	591,106	100.0	30.6	2,321,795	100.0	120.3
Canada total	728	595,999		19.9	2,333,219		77.8

Note: Data for Saint John, Chicoutimi–Jonquière, Oshawa, St. Catharines–Niagara, Kitchener, London and Sudbury were suppressed due to confidentiality. No units were surveyed for Trois-Rivières, Kingston, Windsor, Thunder Bay and Abbotsford.
Source: Statistics Canada, Culture Statistics Program.

Table 3.2: Film post production, 2001-2002

	Number of firms	Wages, benefits, fees	Share of CMA wages paid	Wages, benefits, fees per capita	Operating revenue	Share of CMA operating revenue	Operating revenue per capita
		$'000	%	$	$'000	%	$
Halifax	5	2,202	0.8	6.1	2,366	0.3	6.6
Québec	4	409	0.1	0.6	966	0.1	1.4
Montréal	99	82,993	30.4	24.2	236,760	26.2	69.1
Ottawa–Hull	7	3,043	1.1	2.9	6,850	0.8	6.4
Toronto	102	158,395	58.1	33.8	599,028	66.2	127.9
Regina	4	1,217	0.4	6.3	2,321	0.3	12.0
Calgary	3	562	0.2	0.6	1,281	0.1	1.3
Edmonton	5	2,380	0.9	2.5	5,930	0.7	6.3
Vancouver	27	20,596	7.6	10.4	46,859	5.2	23.6
CMA total	264	272,772	100.0	14.1	904,615	100.0	46.9
Canada total	274	278,539		9.3	915,338		30.5

Note: Data were suppressed for St. John's, Kingston, Hamilton, London, Winnipeg and Saskatoon due to confidentiality. No units were surveyed for Saint John, Chicoutimi–Jonquière, Sherbrooke, Trois-Rivières, Oshawa, St. Catharines–Niagara, Kitchener, Windsor, Thunder Bay, Sudbury, Abbotsford and Victoria.
Source: Statistics Canada, Culture Statistics Program.

Table 3.3: Film distribution, 2002-2003

	Number of firms	Wages, benefits, fees	Share of CMA wages paid	Wages, benefits, fees per capita	Operating revenue	Share of CMA operating revenue	Operating revenue per capita
		$'000	%	$	$'000	%	$
Halifax	5	574	0.4	1.6	5,136	0.2	14.3
Québec	3	576	0.4	0.8	5,342	0.2	7.8
Montréal	68	32,085	20.9	9.4	335,957	10.4	98.1
Toronto	91	102,311	66.6	21.8	2,852,353	88.0	475.1
Winnipeg	3	290	0.2	0.4	94	0.0	0.1
Saskatoon	4	1,354	0.9	6.0	6,132	0.2	27.1
Vancouver	16	15,445	10.1	7.8	25,150	0.8	12.7
CMA total	197	153,549	100.0	8.0	3,239,758	100.0	167.9
Canada total	211	155,294		5.2	3,259,080		108.6

Note: Data for Ottawa–Hull, Hamilton, London, Regina, Calgary and Edmonton were suppressed due to confidentiality. No units were surveyed for St. John's, Saint John, Chicoutimi–Jonquière, Sherbrooke, Trois-Rivières, Kingston, Oshawa, St. Catharines–Niagara, Kitchener, Windsor, Sudbury, Thunder Bay, Abbotsford and Victoria.
Source: Statistics Canada, Culture Statistics Program.

Table 3.4: Movie theatres, 2000-2001

	Number of theatres	Wages, benefits, fees	Share of CMA wages paid	Wages, benefits, fees per capita	Operating revenue	Share of CMA operating revenue	Operating revenue per capita
		$'000	%	$	$'000	%	$
Halifax	5	2,141,208	1.7	6.0	16,219,273	1.9	45.2
Chicoutimi–Jonquière	5	337,718	0.3	2.2	2,611,055	0.3	16.9
Québec	10	5,563,042	4.3	8.1	30,737,306	3.7	45.0
Sherbrooke	4	706,975	0.5	4.6	4,775,753	0.6	31.0
Trois-Rivières	4	286,593	0.2	2.1	2,279,970	0.3	16.6
Montréal	59	22,958,650	17.7	6.7	141,234,306	16.9	41.2
Ottawa–Hull	19	7,123,699	5.5	6.7	45,642,024	5.5	42.9
Kingston	5	947,486	0.7	6.5	6,480,891	0.8	44.1
Oshawa	6	1,953,627	1.5	6.6	13,785,898	1.7	46.5
Toronto	77	34,050,023	26.3	7.3	216,809,043	26.0	46.3
Hamilton	9	2,851,273	2.2	4.3	22,199,321	2.7	33.5
St. Catharines–Niagara	11	2,286,176	1.8	6.1	15,593,812	1.9	41.4
Kitchener	7	2,101,188	1.6	5.1	16,598,088	2.0	40.1
London	9	2,521,311	1.9	5.8	17,132,187	2.1	39.6
Windsor	4	1,619,766	1.2	5.3	12,123,004	1.5	39.4
Sudbury	4	312,610	0.2	2.0	843,431	0.1	5.4
Thunder Bay	3	887,743	0.7	7.3	5,148,695	0.6	42.2
Winnipeg	13	4,037,391	3.1	6.0	27,146,338	3.3	40.4
Regina	7	1,203,773	0.9	6.2	7,908,633	0.9	41.0
Saskatoon	8	1,065,423	0.8	4.7	7,671,906	0.9	34.0
Calgary	21	8,128,357	6.3	8.5	55,107,059	6.6	57.9
Edmonton	26	8,301,285	6.4	8.9	52,759,905	6.3	56.3
Abbotsford	4	1,189,461	0.9	8.1	6,886,463	0.8	46.7
Vancouver	43	12,782,202	9.9	6.4	79,801,513	9.6	40.2
Victoria	9	2,930,122	2.3	9.4	18,423,080	2.2	59.1
CMA total	377	129,583,677	100.0	6.7	834,209,869	100.0	43.2
Canada total	746	160,389,797		5,3	1,023,748,822		34.1

Note: Data for St. John's and Saint John were suppressed due to confidentiality.
Source: Statistics Canada, Culture Statistics Program.

Table 3.5: Book publishing, 2000-2001

	Number of firms	Wages, benefits, fees	Share of CMA wages paid	Wages, benefits, fees per capita	Operating revenue	Share of CMA operating revenue	Operating revenue per capita
		$'000	%	$	$'000	%	$
St. John's	6	447	0.1	2.6	1,684	0.1	9.7
Halifax	4	560	0.1	1.6	2,730	0.1	7.6
Québec	22	2,618	0.7	3.8	11,309	0.5	16.6
Sherbrooke	6	132	0.0	0.9	303	0.0	2.0
Trois-Rivières	4	77	0.0	0.6	871	0.0	6.3
Montréal	122	80,176	20.9	23.4	377,364	17.9	110.1
Ottawa–Hull	25	3,676	1.0	3.5	17,537	0.8	16.5
Kingston	4	4	0.0	0.0	121	0.0	0.8
Toronto	120	250,184	65.1	53.4	1,462,787	69.4	312.4
Hamilton	8	354	0.1	0.5	1,804	0.1	2.7
St. Catharines–Niagara	5	2,870	0.7	7.6	12,269	0.6	32.5
Kitchener	11	2,247	0.6	5.4	9,390	0.4	22.7
London	5	72	0.0	0.2	165	0.0	0.4
Winnipeg	12	1,744	0.5	2.6	7,739	0.4	11.5
Regina	3	166	0.0	0.9	895	0.0	4.6
Saskatoon	6	301	0.1	1.3	804	0.0	3.6
Calgary	21	2,937	0.8	3.1	6,955	0.3	7.3
Edmonton	15	5,919	1.5	6.3	21,834	1.0	23.3
Vancouver	24	12,808	3.3	6.4	92,382	4.4	46.5
Victoria	8	398	0.1	1.3	1,518	0.1	4.9
CMA total	438	384,150	100.0	19.9	2,108,245	100.0	109.3
Canada total	672	423,106		14.1	2,334,723		77.8

Note: Data were suppressed for Chicoutimi–Jonquière, Oshawa, Windsor, Sudbury, Thunder Bay and Abbotsford due to confidentiality. No units were surveyed for Saint John.
Source: Statistics Canada, Culture Statistics Program.

Table 3.6: Periodical publishing, 1998-1999

	Number of periodicals	Wages, benefits, fees	Share of CMA wages paid	Wages, benefits, fees per capita	Operating revenue	Share of CMA operating revenue	Operating revenue per capita
		$'000	%	$	$'000	%	$
St. John's	16	578	0.2	3.3	1,478	0.1	8.5
Halifax	22	2,390	0.8	6.7	6,311	0.5	17.6
Saint John	3	92	0.0	0.8	216	0.0	1.8
Chicoutimi–Jonquière	3	42	0.0	0.3	108	0.0	0.7
Québec	69	4,982	1.7	7.3	15,696	1.3	23.0
Sherbrooke	12	213	0.1	1.4	620	0.1	4.0
Trois-Rivières	9	351	0.1	2.6	1,225	0.1	8.9
Montréal	358	62,036	21.6	18.1	332,381	27.0	97.0
Ottawa–Hull	156	15,914	5.5	15.0	45,758	3.7	43.0
Kingston	11	584	0.2	4.0	1,673	0.1	11.4
Oshawa	2	237	0.1	0.8	602	0.0	2.0
Toronto	611	144,928	50.5	30.9	650,443	52.7	138.9
Hamilton	28	3,111	1.1	4.7	11,071	0.9	16.7
St. Catharines–Niagara	21	1,509	0.5	4.0	4,909	0.4	13.0
Kitchener	17	695	0.2	1.7	1,415	0.1	3.4
London	24	1,784	0.6	4.1	9,582	0.8	22.2
Windsor	4	376	0.1	1.2	2,142	0.2	7.0
Sudbury	3	243	0.1	1.6	518	0.0	3.3
Thunder Bay	4	203	0.1	1.7	392	0.0	3.2
Winnipeg	94	9,182	3.2	13.7	28,485	2.3	42.4
Regina	14	529	0.2	2.7	957	0.1	5.0
Saskatoon	17	430	0.1	1.9	1,778	0.1	7.9
Calgary	50	5,130	1.8	5.4	15,708	1.3	16.5
Edmonton	66	6,794	2.4	7.2	25,391	2.1	27.1
Abbotsford	4	160	0.1	1.1	497	0.0	3.4
Vancouver	141	21,912	7.6	11.0	64,314	5.2	32.4
Victoria	26	2,791	1.0	8.9	9,399	0.8	30.1
CMA total	1,785	287,196	100.0	14.9	1,233,072	100.0	63.9
Canada total	2,027	298,913		10.0	1,268,437		42.3

Source: Statistics Canada, Culture Statistics Program.

Table 3.7: Sound Recording, 2000-2001

	Number of firms	Wages, benefits, fees	Share of CMA wages paid	Wages, benefits, fees per capita	Operating revenue	Share of CMA operating revenue	Operating revenue per capita
		$'000	%	$	$'000	%	$
St. John's	4	83	0.0	0.5	305	0.0	1.8
Halifax	6	159	0.1	0.4	354	0.0	1.0
Québec	4	4	0.0	0.0	53	0.0	0.1
Montréal	108	32,591	19.5	9.5	138,661	11.6	40.5
Toronto	96	126,099	75.4	26.9	1,022,862	85.8	218.4
Hamilton	3	142	0.1	0.2	574	0.0	0.9
Kitchener	4	13	0.0	0.0	7	0.0	0.0
Winnipeg	6	165	0.1	0.2	615	0.1	0.9
Saskatoon	4	123	0.1	0.5	373	0.0	1.7
Calgary	4	290	0.2	0.3	371	0.0	0.4
Edmonton	4	317	0.2	0.3	795	0.1	0.8
Vancouver	33	5,414	3.2	2.7	14,732	1.2	7.4
CMA total	288	167,178	100.0	8.7	1,192,515	100.0	61.8
Canada total	311	167,648		5.6	1,193,423		39.8

Note: Data were suppressed for Trois-Rivières, Ottawa–Hull, Oshawa, St. Catharines–Niagara, London, Windsor, Regina, Abbotsford and Victoria due to confidentiality. No units were surveyed for Saint John, Chicoutimi–Jonquière, Sherbrooke, Kingston, Sudbury and Thunder Bay.
Source: Statistics Canada, Culture Statistics Program.

Table 3.8: Performing arts, 2001-2002

	Number of organizations	Wages, benefits, fees	Share of CMA wages paid	Wages, benefits, fees per capita	Operating revenue	Share of CMA operating revenue	Operating revenue per capita
		$'000	%	$	$'000	%	$
St. John's	7	1,218	0.5	7.0	2,090	0.4	12.1
Halifax	10	3,757	1.4	10.5	6,748	1.4	18.8
Chicoutimi–Jonquière	5	748	0.3	4.8	1,221	0.3	7.9
Québec	24	11,409	4.3	16.7	20,014	4.2	29.3
Sherbrooke	8	1,074	0.4	7.0	2,131	0.5	13.9
Trois-Rivières	4	752	0.3	5.5	1,146	0.2	8.3
Montréal	139	60,080	22.6	17.5	105,105	22.2	30.7
Ottawa–Hull	26	24,690	9.3	23.2	46,346	9.8	43.6
Toronto	123	55,823	21.0	11.9	95,475	20.2	20.4
Hamilton	6	3,927	1.5	5.9	7,504	1.6	11.3
St. Catharines–Niagara	5	11,971	4.5	31.8	19,042	4.0	50.5
Kitchener	6	4,063	1.5	9.8	11,059	2.3	26.7
Windsor	3	1,180	0.4	3.8	1,990	0.4	6.5
Winnipeg	18	16,786	6.3	25.0	30,037	6.3	44.7
Regina	4	1,650	0.6	8.6	2,743	0.6	14.2
Saskatoon	6	1,562	0.6	6.9	2,569	0.5	11.4
Calgary	15	15,503	5.8	16.3	28,899	6.1	30.4
Edmonton	24	13,639	5.1	14.5	23,606	5.0	25.2
Vancouver	51	26,203	9.8	13.2	48,438	10.2	24.4
Victoria	6	3,671	1.4	11.8	6,416	1.4	20.6
CMA total	501	266,110	100.0	13.8	473,244	100.0	24.5
Canada total	583	304,093		10.1	543,668		18.1

Note: Data for Saint John, Kingston, Oshawa, London, Sudbury and Thunder Bay were suppressed due to confidentiality. No units were surveyed for Abbotsford.
Source: Statistics Canada, Culture Statistics Program.

Table 3.9: Heritage institutions, 1999-2000

	Number of institutions	Wages, benefits, fees	Share of CMA wages paid	Wages, benefits, fees per capita	Operating revenue	Share of CMA operating revenue	Operating revenue per capita
		$'000	%	$	$'000	%	$
St. John's	29	5,100	0.9	29.5	8,643	0.8	50.0
Halifax	57	10,575	1.9	29.4	19,994	1.9	55.7
Saint John	14	1,739	0.3	14.2	3,207	0.3	26.1
Chicoutimi–Jonquière	11	1,020	0.2	6.6	2,532	0.2	16.3
Québec	59	30,256	5.5	44.3	75,953	7.2	111.2
Sherbrooke	15	2,430	0.4	15.8	4,092	0.4	26.6
Trois-Rivières	15	1,459	0.3	10.6	2,962	0.3	21.5
Montréal	127	68,379	12.5	20.0	129,916	12.3	37.9
Ottawa–Hull	47	99,349	18.2	93.4	206,401	19.6	194.0
Kingston	22	3,310	0.6	22.5	6,397	0.6	43.6
Oshawa	11	1,314	0.2	4.4	2,537	0.2	8.6
Toronto	137	95,289	17.5	20.3	193,542	18.3	41.3
Hamilton	25	10,153	1.9	15.3	20,340	1.9	30.7
St. Catharines–Niagara	25	3,675	0.7	9.7	5,992	0.6	15.9
Kitchener	24	9,859	1.8	23.8	17,510	1.7	42.3
London	19	3,011	0.6	7.0	5,513	0.5	12.7
Windsor	14	2,173	0.4	7.1	4,241	0.4	13.8
Sudbury	11	5,378	1.0	34.6	10,742	1.0	69.0
Thunder Bay	15	3,737	0.7	30.6	7,370	0.7	60.4
Winnipeg	77	17,325	3.2	25.8	31,322	3.0	46.7
Regina	35	9,594	1.8	49.8	21,796	2.1	113.1
Saskatoon	31	6,183	1.1	27.4	11,611	1.1	51.4
Calgary	35	23,950	4.4	25.2	46,062	4.4	48.4
Edmonton	52	17,379	3.2	18.5	28,807	2.7	30.7
Abbotsford	4	406	0.1	2.8	621	0.1	4.2
Vancouver	100	91,744	16.8	46.2	148,557	14.1	74.8
Victoria	37	20,486	3.8	65.7	38,730	3.7	124.2
CMA total	1,048	545,271	100.0	28.3	1,055,390	100.0	54.7
Canada total	2,436	739,797		24.7	1,453,777		48.4

Source: Statistics Canada, Culture Statistics Program.

Chapter 4

Culture occupations

Culture industries have workers in culture and non-culture occupations, such as administrative staff and accountants. Occupation[23] provides another perspective based on the nature of the work that a person does rather than the main activity of the establishment. For brevity, workers in culture occupations will be referred to as 'culture workers'. Selected culture occupations were based on the Canadian Framework for Culture Statistics (see Box 4.1: Culture occupations).[24,25] The labour force analysed in this report includes both those who were employed and unemployed during the reference week at the time of the 2001 Census.

Based upon this framework, Victoria and Vancouver had the highest proportions of their total labour forces employed as culture workers, at 2.7% (see Figure 4.1 and Appendix Table A4.1). Victoria had a significant presence of culture workers across most industries, despite the absence (or smaller scale presence) of some culture industries (e.g., manufacturing and reproducing magnetic and optical media). Its top position was due to high percentages of musicians and singers, authors and writers, artisans and craftspersons, painters, sculptors and other visual artists—or the literary, visual and performing arts—all of which are core culture occupations. They also had a sizeable percentage employed as graphic designers and illustrators.

Vancouver had a much higher than average share of its labour force employed as graphic designers, architects, producers, directors and choreographers, actors and comedians, musicians and singers and painters, sculptors and other visual artists.

Toronto had relatively large proportions of its total labour force in design occupations such as interior designers, graphic designers, architects and theatre, fashion, exhibit and other creative designers. It also was at, or near the top, for non-design occupations including producers, directors and choreographers, actors and comedians and photographers. The strength of the theatre and advertising sectors in Toronto helps explain its high ranking in most of these occupational categories. Overall, 2.6% of Toronto's labour force was employed in a culture occupation in 2001.

Montréal flexed its fashion and design muscles, having the highest percentage of its labour force employed as theatre, fashion, exhibit and other creative designers and industrial designers.

Ottawa–Hull placed relatively high, once again due to the influence of the government sector. The CMA had the highest percentage of its labour force employed as librarians, authors and writers, editors and archivists. This was due, in part, to the location of the Library and Archives Canada in this region.

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23. Occupation refers to the kind of work persons were doing during the reference week and the description of the main activities in their job. If the person did not have a job one week prior to enumeration, the data relate to the job of longest duration since January 1, 2000. Persons with two or more jobs were to report the information for the job at which they worked the most hours. This will result in undercounting of culture occupations as some culture workers are employed in several capacities in order to supplement the lower and/or sporadic wages paid for their culture job (i.e., actor and waiter).
24. *Canadian Framework for Culture Statistics*, Culture, Tourism and the Centre for Education Statistics, Statistics Canada, August 2004. Catalogue No. 81-595-MIE2004021.
25. Those categorized as 'Culture occupations' were included in this report while 'Culture Support occupations' were not.

Kingston was in eleventh place for culture occupations and Edmonton in thirteenth, higher than their respective rankings for culture industries. This suggests that an absence of some culture industries does not mean that culture activity or clustering, as measured through occupation, does not exist. For smaller CMAs such as Kingston, culture employment may be more likely to be found in the artist's own home or in academic settings, such as Queen's University. The latter type of culture worker would not be classified to a culture industry using the framework developed by the Culture Statistics Program at Statistics Canada.

Oshawa, on the other hand, was twelfth for employment in culture industries, but slipped to twenty-second place for employment in culture occupations. This drop was largely explained by its strength in printing, which is classified as a culture industry, but has many workers employed in non-culture occupations.

Regina had the highest percentages of workers classified as conservators and curators (tied with Victoria) and dancers compared to other CMAs, but each constituted a small percentage of its total labour force (0.05% and 0.1%, respectively). Overall, Regina ranked twelfth.

Surprisingly, St. Catharines–Niagara had only 0.06% of its labour force employed as actors and comedians, the same as the national CMA average. Yet it had the highest percentage of its labour force in the performing arts industry (0.26% versus 0.13% nationally). It is likely that many administrative and managerial positions in the performing arts industry were filled by locals, while the pool of actors travel from all parts, especially Toronto, given it's proximity to St. Catharines–Niagara. This illustrates a well-known fact of the theatre community, 'if the work doesn't come to you, you go to the work'. St. Catharines–Niagara, however, did have the highest percentage of its labour force in the 'other performers' occupational category.

Abbotsford had the second highest proportion of its total labour force working as artisans and craftpersons. This places British Columbia's CMAs in the top three positions for this occupational category. This may reflect long-running craft and visual arts traditions for both Aboriginal and non-Aboriginal residents in these geographic areas.

Overall, the largest CMAs and capitals rank at the top for culture occupations. Many of these capitals are also regional/provincial hubs of economic and culture activity. For some CMAs, the link between culture and a strong tourism sector may partly explain their higher ranking (e.g., Halifax and St. John's). Resource and manufacturing-based CMAs (e.g., Sudbury, Chicoutimi–Jonquière) had the least culture activity as measured by the percentage of their labour forces employed in culture occupations. This mirrors the low relative size of culture industries in these same CMAs.

When culture occupations are divided into categories such as design, information services and performing, visual and literary arts (see Box 4.2: Design, information services and performing, visual and literary arts), some of the smaller CMAs show up as pockets of expertise (see Figures 4.2 to 4.4). Examples included both Kingston and Regina for information services and performing and visual arts.

For the three largest CMAs, previous conclusions were reinforced as Toronto, Montréal and Vancouver had the highest percentages of their labour forces in design occupations. They also had the second, third and fourth highest percentages in the performing, visual and literary arts, behind Victoria.

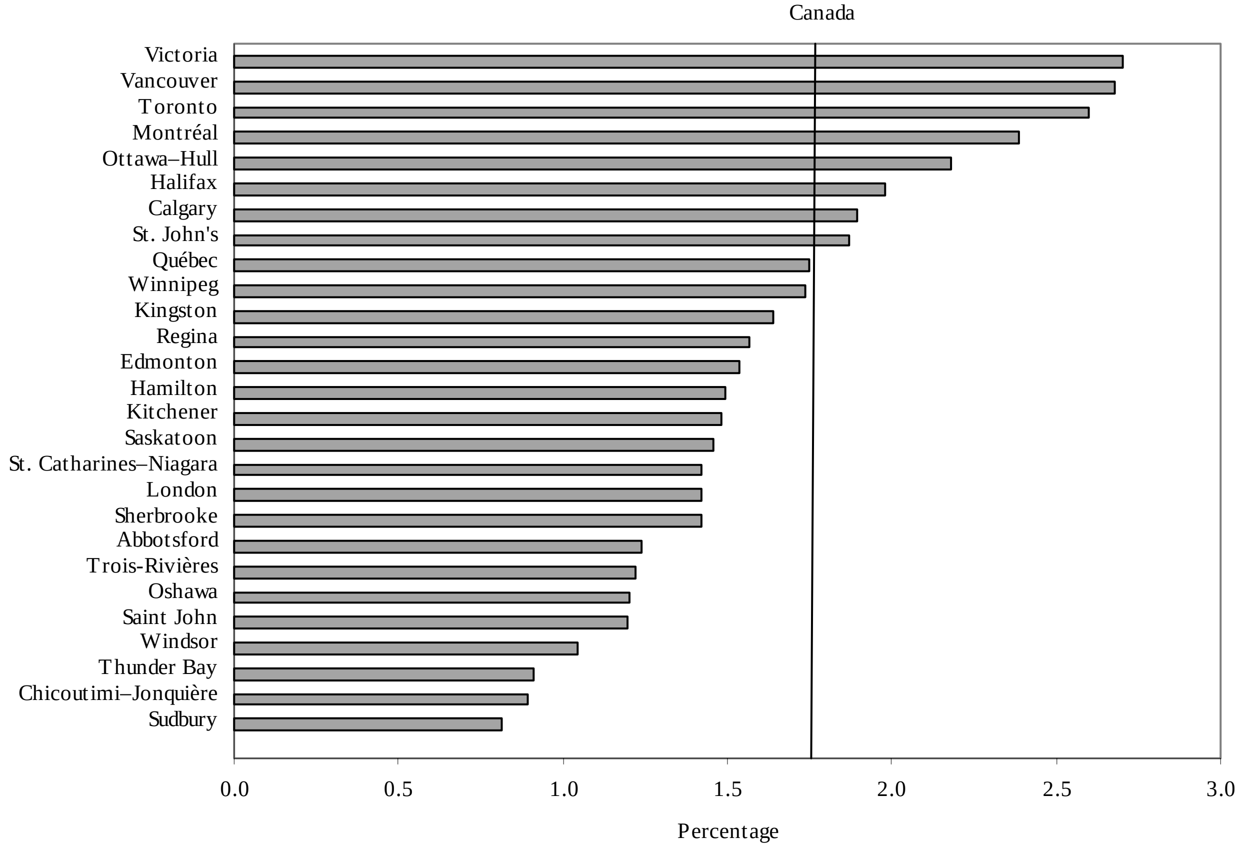
For information services, Ottawa–Hull led, followed by St. John's, Victoria and Halifax. Ottawa–Hull's strength in this category is likely because the federal government hires many workers for information services occupations. For the latter three CMAs, all provincial capitals, each also serves as a provincial or regional epicenter for media (print, radio and television) dissemination.

Québec also showed strength for design occupations, ranking fourth. An above-average share of architects was employed in that CMA.

Box 4.1: Culture occupations
C051 Architects C052 Landscape architects C152 Industrial designers F021 Writers F022 Editors F023 Journalists F031 Producers, directors, choreographers and related occupations F032 Conductors, composers and arrangers F033 Musicians and singers F034 Dancers F035 Actors F036 Painters, sculptors and other visual artists F121 Photographers F132 Other performers* F141 Graphic designers and illustrators F142 Interior designers F143 Theatre, fashion, exhibit and other creative designers F144 Artisans and craftpersons F011 Librarians F012 Conservators and curators F013 Archivists * This includes circus performers, magicians, models, puppeteers and other performers not elsewhere classified. They are employed by circuses, nightclubs, theatre, advertising and other production companies, or may be self-employed.

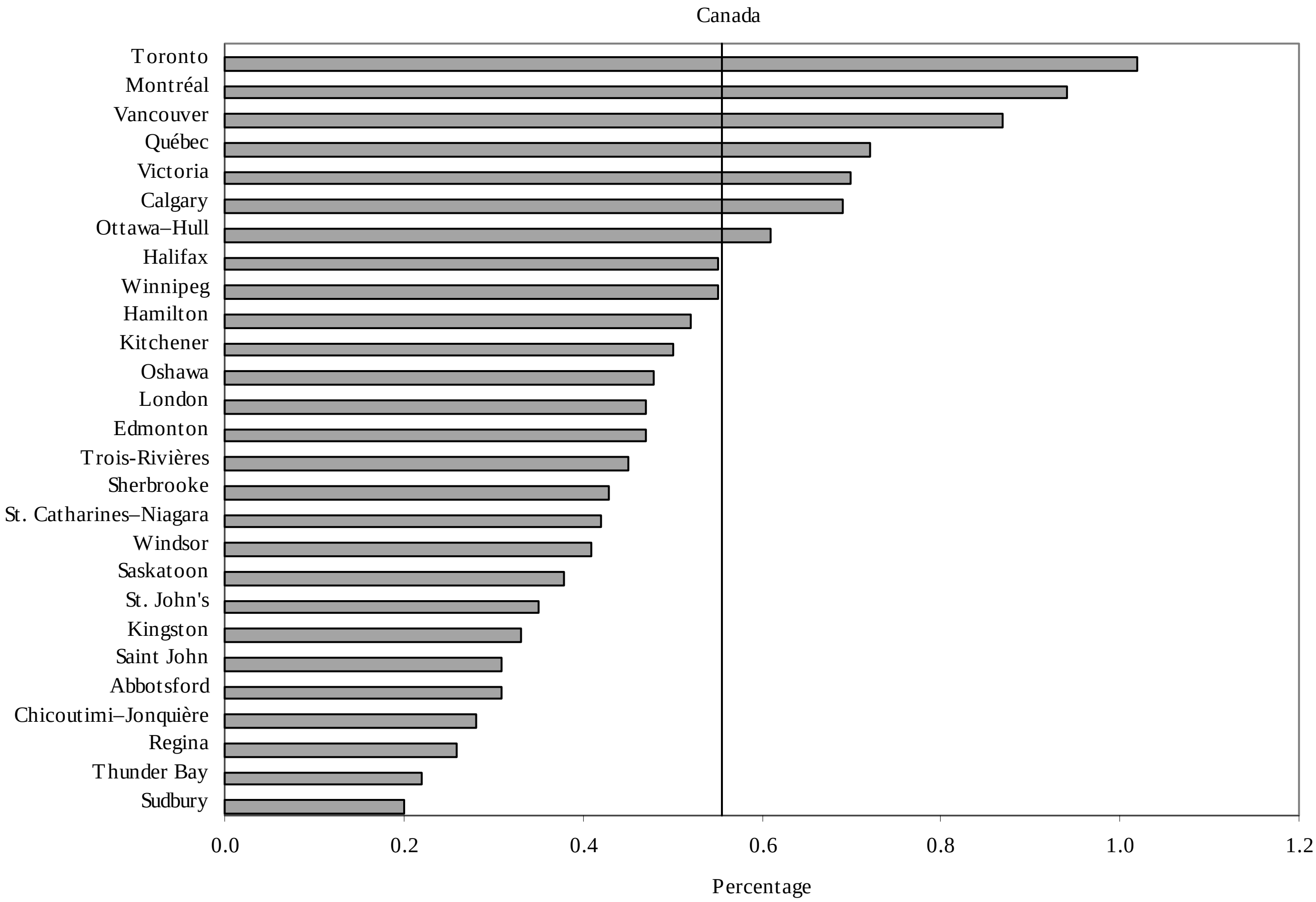
Box 4.2: Design, information services and performing, visual and literary arts
Design: Architects; Landscape architects; Industrial designers; Graphic designers and illustrators; Interior designers; Theatre, fashion, exhibit and other creative designers. **Information services:** Librarians; Conservator and curators; Archivists; Editors; Journalists. **Performing, visual and literary arts:** Producers; directors and choreographers; Conductors and composers; Musicians and singers; Dancers; Actors and comedians; Painters, sculptors and other visual artists; Photographers; Other performers; Artisans and craftpersons; Authors and writers.

Figure 4.1: Percentage of labour force in culture occupations, by CMA, 2001



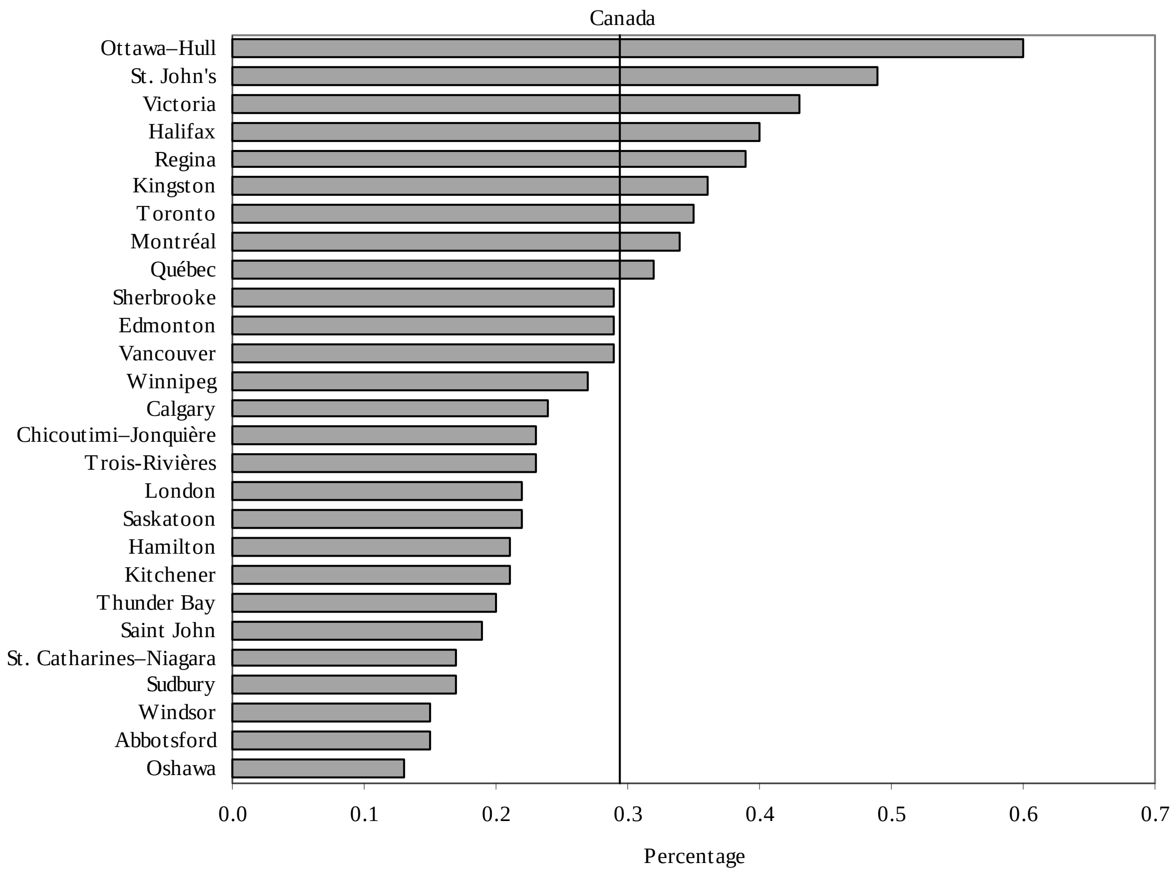
Source: Statistics Canada, Census of Canada, 2001.

Figure 4.2: Percentage of labour force in design occupations, by CMA, 2001



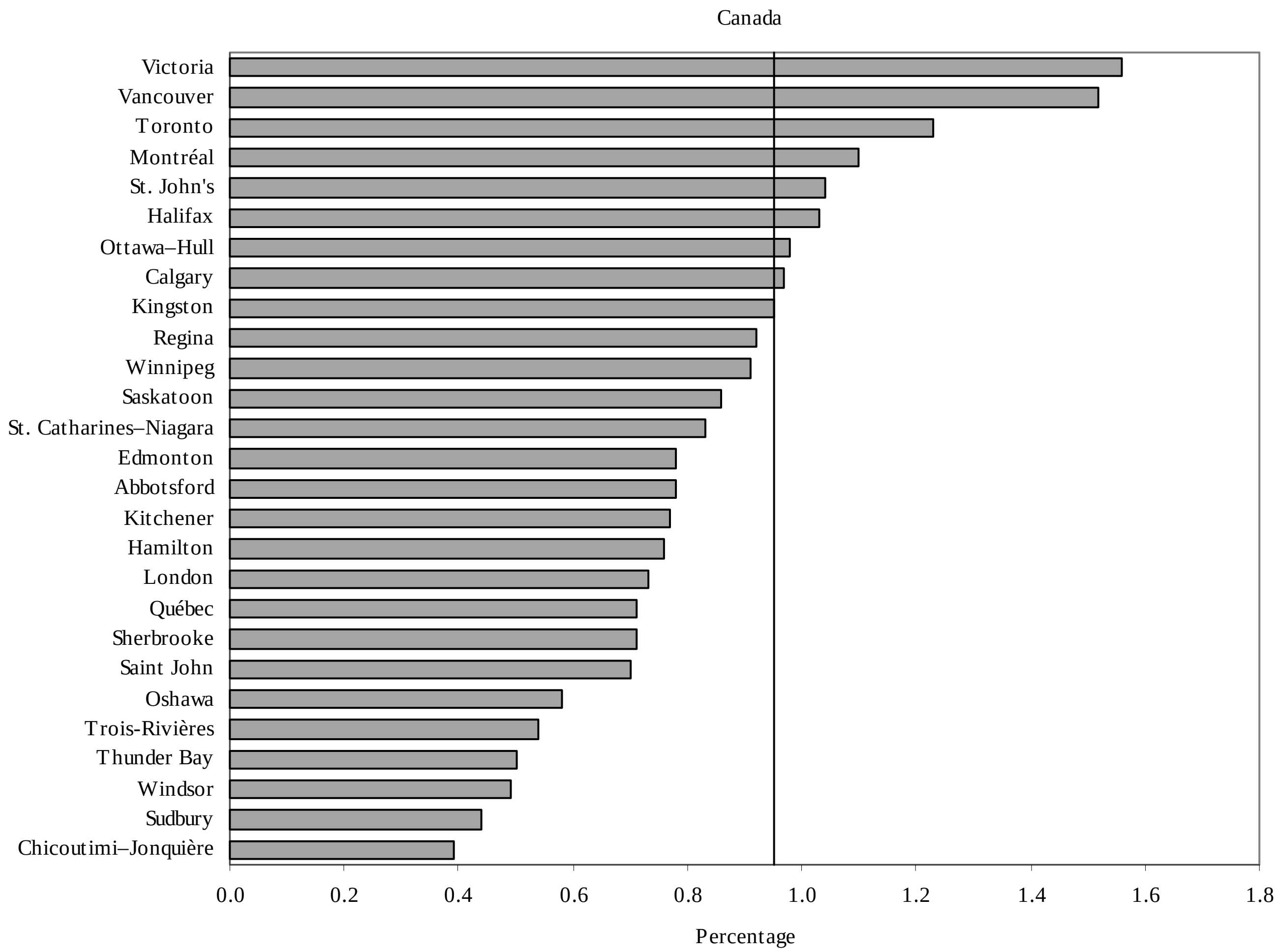
Source: Statistics Canada, Census of Canada, 2001.

Figure 4.3: Percentage of labour force in information services occupations, by CMA, 2001



Source: Statistics Canada, Census of Canada, 2001.

Figure 4.4: Percentage of labour force in performing, visual and literary arts occupations, by CMA, 2001



Source: Statistics Canada, Census of Canada, 2001.

Chapter 5

Change in culture labour force from 1996 to 2001

Most CMAs experienced greater relative growth in their culture than non-culture labour force from 1996 to 2001 (see Figure 5.1 and Appendix Table A5.1). This finding holds for the Canadian economy as a whole.[26] Another report, however, found that although growth in culture employment from 1991 and 2002 was 31%, significantly higher than for all workers in Canada over this period, most of this growth was before 1999. From 2000 to 2002, culture employment grew by just 0.2% compared with 3.3% for all workers (from Labour Force Survey).[27]

Although Trois-Rivières had a relatively low percentage of its labour force in culture occupations (1.2%), it experienced the greatest percentage change (35.3%) from 1996 to 2001 (see Figure 5.1 and Appendix Table A5.1). In absolute terms this represented an increase of 210 culture workers. It is probable that the 1997 opening of the interactive museum/complex Cité de l'Énergie had a role in this increase.

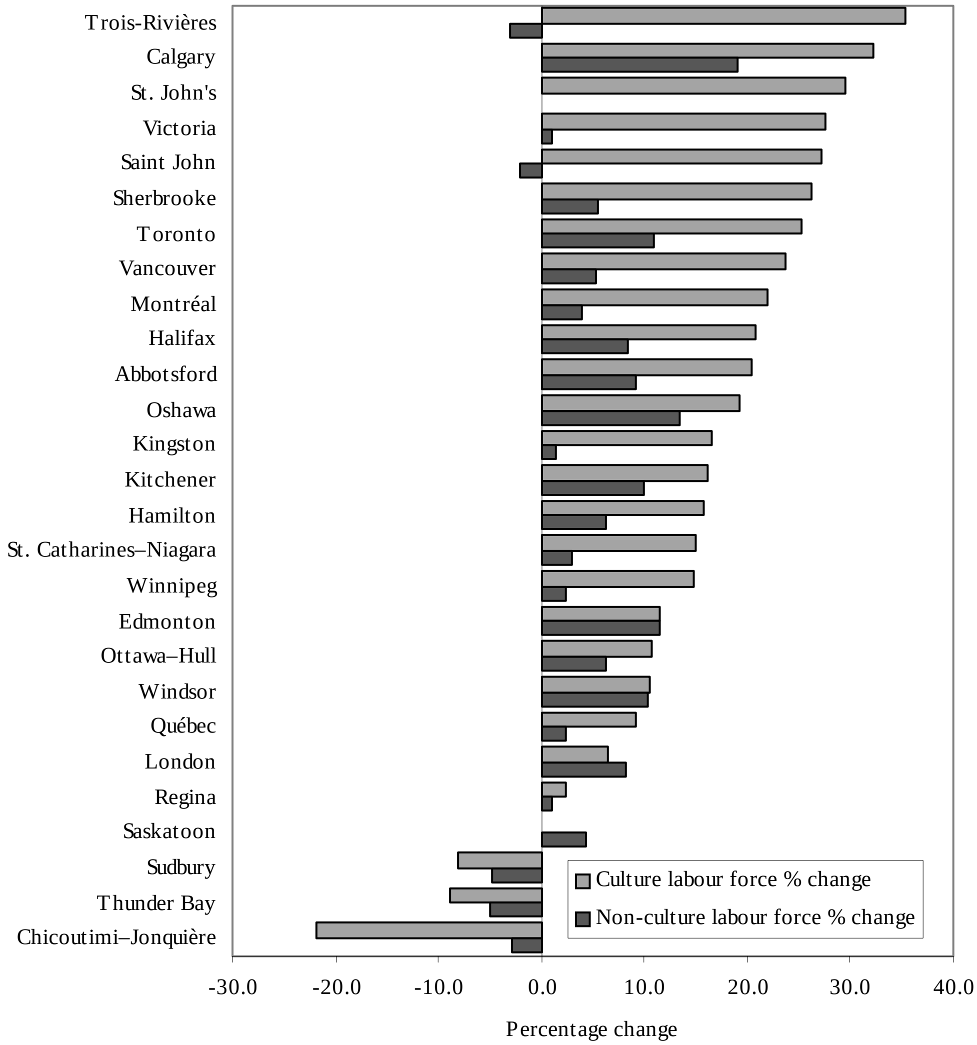
Calgary, St. John's, Victoria, Saint John, Sherbrooke and Toronto had the next highest percentage increases in culture labour forces from 1996 to 2001—all much higher than the increases for their non-culture labour forces.

Finally, Chicoutimi–Jonquière, Sudbury and Thunder Bay saw both culture and non-culture labour forces decline, but the culture drop was highest for Chicoutimi–Jonquière. In this CMA, the culture labour force fell from 810 to 630 workers, or a 21.8% decline, compared with a 2.9% decline for non-culture workers. Each of these CMAs also experienced a sizeable population decline from 1996 to 2001.

We now look at CMA as epicenters for culture education, having established which CMAs are clusters for culture industries, firms and outputs and culture occupations.

26. Singh, Vik. Statistics Canada, *Economic Contributions of Culture in Canada, 1996-2002*, Culture, Tourism and the Centre for Education Statistics. Catalogue No. 81-595-MIE2004023.
27. Durand, Michel. 2004. *The Culture Sector Labour Force: Has the 1990s boom turned to bust?* Focus on Culture, 14(3):1-8. Cat. No. 87-004-XPB.

Figure 5.1: Percentage change in culture and non-culture labour forces using occupation, by CMA, 1996 to 2001



Source: Statistics Canada, Censuses of Canada, 1996 and 2001.

Chapter 6

Culture enrolment and graduates

Categorizing a major course of study as cultural or not provides an indication of which CMAs are training students for possible employment in the culture labour force. The presence of students in culture studies (see Box 6.1: Culture programs) can be expected to have an impact on the culture life of a community during the period in which they are studying and later, if they chose to stay in the CMA.

Kingston ranked highest for culture university graduates and enrolment per capita. It had 1.2 students enrolled in a culture program per 100 residents in 1998/99 and 0.27 culture graduates in 2000. This ratio represents the influence of a large university (Queen's) in a smaller CMA and the large number of enrolments in and graduates from the university's English program (51% and 49% of culture enrolments and graduates, respectively) (see Tables 6.1 and 6.2 and Appendix Tables A6.1 and A6.2). It also links with previous findings on culture occupations which show that despite having one of the smallest populations, Kingston ranked eleventh of 27 CMAs for percentage of its labour force in culture occupations. Kingston appears to have some degree of culture clustering, fostered by a large educational institution offering some culture programs.

Sherbrooke, like Kingston, also had high per capita culture enrolments and graduates thanks to its French program. Halifax, which has a large number of universities relative to its population size, ranked third among CMAs for per capita culture enrolment and tied for second for graduates. Halifax also formed a regional culture cluster with substantial shares of its labour force in culture industries and occupations, and a number of universities training students in a variety of culture disciplines.

Kitchener and London also ranked highly for per capita university culture graduates and enrolments.

Montréal, along with Ottawa–Hull and Toronto trained many students in design fields (architecture and industrial design). This supports previous results showing that these CMAs ranked highly for percentage of their labour forces in design occupations. Vancouver and Victoria also had high percentages of their labour forces in design occupations but trained few students.

Although Montréal and Toronto had more fine arts students, Victoria and Halifax had high per capita enrolments in this program, reflecting long standing fine arts traditions in these two CMAs. The high percentage of Victoria's culture workers in visual arts occupations (noted earlier) suggests that many of the fine arts students who trained in this CMA remained. Generally, Vancouver did not have substantial per capita culture enrolments and graduates, despite having sizeable clusters of workers in culture industries and occupations.

Overall, Montréal had the highest absolute number of university culture enrolments (15,680) and graduates (4,110) representing 25% and 26% of national totals. Toronto was second, for both enrolments and graduates while Vancouver was third for graduates, and Ottawa–Hull was third for enrolments.

For community colleges, Chicoutimi–Jonquière had the highest per capita culture enrolments and graduates. This was largely due to its mass communications program of study. There were 640 mass communications students, or 75% of the 850 enrolled in culture programs at community colleges in Chicoutimi–Jonquière (see Tables 6.3 and 6.4 and Appendix Tables A6.3 and A6.4).

London ranked second with sizeable per capita enrolment and graduates from a broad range of culture programs. These programs included fashion arts, architectural design/drafting technology, photography, radio and television broadcasting, other graphic and audio-visual arts, recorded music production, other fine arts, industrial design/operations technology and interior design. Despite substantial culture enrolments and graduates, London had relatively low percentages of their labour force working in culture industries and occupations, and few culture firms surveyed by the Culture Statistics Program were headquartered in this CMA.

Overall, Toronto had the highest number of enrolments (10,510) and graduates (2,650) from culture programs in community colleges. This represented 31% and 34% of CMA totals. Montréal, Vancouver and Ottawa–Hull followed.

Box 6.1: Culture programs:

The culture programs for universities are:

School librarianship;
Fine arts;
Music;
Other performing arts;
Industrial design;
Other applied arts (graphic arts, drawing, graphic design, engraving, photography, lithography, printing, ceramics, jewelry design, fashion design, interior design);
English language and/or literature (including creative writing);
French language and/or literature (including creative writing);
Journalism;
Library science;
Other records science (medical records science, archive maintenance, museology, art gallery administration, museum curatorship, other records science);
Other mass communications studies (cinematography, film, radio broadcasting/television, public relations, other media);
Architecture.

The culture programs for community colleges are:

Fine and applied arts not reported elsewhere (Art colleges only);
Fine arts (performing/theatre arts, dance, music, drama, other performing arts, sculpture and painting, handicrafts, other fine arts);
Commercial and promotional arts (advertising, commercial arts, other commercial and promotional arts);
Graphic and audio-visual arts (photography, recorded music production, printing and publishing, other graphic and audio-visual arts);
Creative and design arts (jewelry design, fashion arts, interior decorating, other creative and design arts);
Mass communications (cinematography/film production/animation, radio and television broadcasting, other mass communications studies);
Journalism;
Library science (library/documentation science, archival science);
English literature, grammar, composition;
French literature, grammar, composition;
Engineering – architectural and construction;
Architectural design/drafting technology;
Industrial design/Operations technologies;
Landscaping.

Table 6.1: University enrolment (full and part-time) in culture fields of study, by CMA, 1998/99

CMA	Total enrolments	2001 population	Total enrolment per 100 population
St. John's	710	172,900	0.41
Halifax	2,140	359,200	0.63
Saint John	200	122,700	0.16
Chicoutimi–Jonquière	320	154,900	0.21
Québec	3,290	682,800	0.49
Sherbrooke	1,130	153,800	0.73
Trois-Rivières	580	137,500	0.35
Montréal	15,680	3,426,400	0.49
Ottawa–Hull	4,360	1,063,700	0.43
Kingston	1,760	146,800	1.20
Oshawa	0	296,300	0.00
Toronto	12,450	4,682,900	0.27
Hamilton	1,010	662,400	0.15
St. Catharines–Niagara	830	377,000	0.22
Kitchener	2,100	414,300	0.63
London	2,330	432,500	0.54
Windsor	1,450	307,900	0.49
Sudbury	360	155,600	0.23
Thunder Bay	290	122,000	0.24
Winnipeg	1,230	671,300	0.19
Regina	900	192,800	0.59
Saskatoon	650	225,900	0.29
Calgary	1,290	951,400	0.14
Edmonton	1,820	937,800	0.19
Abbotsford	0	147,400	0.00
Vancouver	3,800	1,987,000	0.19
Victoria	1,540	311,900	0.49
CMA total	62,180	19,296,900	0.34

Source: Statistics Canada, Centre for Education Statistics.

Table 6.2: University graduates in culture fields of study, by CMA, 2000

CMA	Total Graduates	2001 population	Total graduates per 100 population
St. John’s	210	172,900	0.12
Halifax	590	359,200	0.16
Saint John	100	122,700	0.08
Chicoutimi–Jonquière	50	154,900	0.03
Québec	890	682,800	0.13
Sherbrooke	250	153,800	0.16
Trois-Rivières	80	137,500	0.06
Montréal	4,110	3,426,400	0.12
Ottawa–Hull	980	1,063,700	0.09
Kingston	390	146,800	0.27
Oshawa	0	296,300	0.00
Toronto	2,640	4,682,900	0.06
Hamilton	310	662,400	0.05
St. Catharines–Niagara	200	377,000	0.05
Kitchener	600	414,300	0.15
London	760	432,500	0.18
Windsor	280	307,900	0.09
Sudbury	90	155,600	0.06
Thunder Bay	130	122,000	0.10
Winnipeg	340	671,300	0.05
Regina	150	192,800	0.08
Saskatoon	150	225,900	0.06
Calgary	340	951,400	0.04
Edmonton	290	937,800	0.03
Abbotsford	0	147,400	0.00
Vancouver	1240	1,987,000	0.06
Victoria	390	311,900	0.12
CMA total	15,550	19,296,900	0.08

Source: Statistics Canada, Centre for Education Statistics.

Table 6.3: Community college enrolment (full and part-time) in culture fields of study, by CMA, 1999/2000

CMA	Total enrolments	2001 population	Total enrolments by 2001 population
St. John’s	120	172,900	0.07
Halifax	200	359,200	0.05
Saint John	0	122,700	0.00
Chicoutimi–Jonquière	850	154,900	0.55
Québec	1,320	682,800	0.19
Sherbrooke	140	153,800	0.09
Trois-Rivières	330	137,500	0.24
Montréal	6,340	3,426,400	0.18
Ottawa–Hull	2,620	1,063,700	0.25
Kingston	0	146,800	0.00
Oshawa	610	296,300	0.21
Toronto	10,510	4,682,900	0.22
Hamilton	1,270	662,400	0.19
St. Catharines–Niagara	480	377,000	0.13
Kitchener	240	414,300	0.06
London	1,620	432,500	0.38
Windsor	640	307,900	0.21
Sudbury	330	155,600	0.21
Thunder Bay	320	122,000	0.26
Winnipeg	280	671,300	0.04
Regina	20	192,800	0.01
Saskatoon	50	225,900	0.02
Calgary	1,320	951,400	0.14
Edmonton	1,220	937,800	0.13
Abbotsford	70	147,400	0.05
Vancouver	3,210	1,987,000	0.16
Victoria	130	311,900	0.04
CMA total	34,230	19,296,900	0.18

Source: Statistics Canada, Centre for Education Statistics.

Table 6.4: Community college graduates in culture fields of study, by CMA, 1998/99

CMA	Total graduates	2001 population	Total graduates by 2001 population
St. John’s	20	172,900	0.01
Halifax	120	359,200	0.03
Saint John	10	122,700	0.00
Chicoutimi–Jonquière	190	154,900	0.12
Québec	240	682,800	0.03
Sherbrooke	40	153,800	0.02
Trois-Rivières	60	137,500	0.05
Montréal	850	3,426,400	0.02
Ottawa–Hull	770	1,063,700	0.07
Kingston	0	146,800	0.00
Oshawa	140	296,300	0.05
Toronto	2,650	4,682,900	0.06
Hamilton	290	662,400	0.04
St. Catharines–Niagara	130	377,000	0.03
Kitchener	70	414,300	0.02
London	470	432,500	0.11
Windsor	120	307,900	0.04
Sudbury	100	155,600	0.06
Thunder Bay	90	122,000	0.07
Winnipeg	130	671,300	0.02
Regina	10	192,800	0.01
Saskatoon	0	225,900	0.00
Calgary	140	951,400	0.01
Edmonton	440	937,800	0.05
Abbotsford	0	147,400	0.00
Vancouver	770	1,987,000	0.04
Victoria	30	311,900	0.01
CMA total	7,870	19,296,900	0.04

Source: Statistics Canada, Centre for Education Statistics.

Chapter 7

Socio-economic and demographic characteristics of culture workers

This analysis now looks at how culture workers vary across CMAs, after having seen which CMAs form clusters of culture activity as measured by industries, firms and their outputs, occupations and culture enrolments and graduates.

We can produce a relative profile of the culture worker by comparing the socio-demographic, income and mobility characteristics of those employed in culture occupations in CMAs with non-culture workers. Data for non-CMAs are also given for context.

7.1 Age

For all CMAs, the average age of a culture worker was 39.6 years, compared with 38.7 for the non-culture worker (see Figure 7.1). Culture workers in most CMAs were older than non-culture workers. The age gap was particularly notable in Kingston (4.3 years), Victoria (3.7), Abbotsford (3.6) and Saskatoon (3.6). Only four CMAs, Chicoutimi–Jonquière, Windsor, Oshawa and Montréal, had younger culture labour forces than their non-culture ones.

The higher average age of culture workers in most CMAs could call into question the vitality of culture fields and whether they are being considered as viable career options by youth. The age gap between culture and non-culture workers, however, is much greater in non-CMAs (2.7 years) than CMAs (0.9 years). Furthermore, the growth in the number of people in culture occupations in CMAs from 1996 to 2001 was 20.5% compared with just 7.1% for non-culture occupations. How much of this growth was from new workers rather than workers who made career switches later in life is unknown. A time-series analyses comparing culture and non-culture workers and students, as well as immigrants, would provide a sense of the labour force aging trend.

One plausible explanation for the higher average age of the culture worker is that many are self-employed, do not have pensions and on average earn lower incomes than non-culture workers (see Section 7.9 for more details). These factors would necessitate a longer working life.

7.2 Gender

Almost half (49.6%) of culture workers in CMAs in 2001 were female compared with 47.2% of the CMA non-culture labour force. Outside of CMAs, culture work was much more likely to be done by women (56.2%) than non-culture work (45.3%) (see Appendix Table A7.1).

There were more men than women in the non-culture labour force in every CMA, but most CMAs (20) had higher proportions of women in the culture labour force. The seven CMAs that had more male culture workers were Trois-Rivières, Sherbrooke, Québec, Montréal, Toronto, Winnipeg and Vancouver. These were among the largest CMAs, with two exceptions. Male dominance in certain culture occupations (e.g., architects, industrial designers, producers, directors and choreographers and graphic designers) typically found in larger urban centres helps to explain the greater male presence in the larger CMAs. The CMAs with the greatest female representation in their culture labour force were Abbotsford, Thunder Bay and Regina.

Across CMAs, females tended to be strongly concentrated in culture occupations such as dancers (82.6%), librarians (79.1%), interior designers (72.7%) and theatre, fashion, exhibit and other creative designers (65.5%) (see Figure 7.2 and Appendix Table A7.2). Nevertheless, women in CMAs were less likely to be working in female-dominant occupations such as librarians and dancers and more likely to be working in male-dominant ones, than women in non-CMAs. For example, 21.4% of architects in CMAs were women compared with just 14.8% of the architects in non-CMAs. The same holds for producers, directors and choreographers in CMAs (39.5%) versus non-CMAs (34.1%). As we will see later, these male-dominated culture occupations were among the best paid.

7.3 Visible minorities and Aboriginal people

A much lower percentage of CMA culture workers were visible minority (12.4%) than CMA non-culture workers (18%) (see Table 7.1). Only four CMAs were exceptions: Québec, Kingston, Oshawa and St. Catharines–Niagara. For Vancouver and Toronto, the visible minority population represented approximately one-third of each CMA's non-culture labour force but just one-fifth of their respective culture labour force.

As with visible minorities, there were fewer Aboriginal people among the CMA culture labour force (1.0%) than the CMA non-culture labour force (1.3%) (see Table 7.2). The same held for the non-CMA population (4.1% versus 4.5%).[28] Of the eleven CMAs for which data were released,[29] Saskatoon had the highest percentage of Aboriginal people within its culture labour force (5.7%). This was higher than for its non-culture labour force (5.4%). Winnipeg, on the other hand, had much lower representation of Aboriginal people in the culture than the non-culture labour force, as did Regina and Edmonton.

7.4 Persons with disabilities[30]

Workers with disabilities were equally represented (9.4%) in both CMA culture and non-culture labour forces (see Table 7.3). Non-CMAs, however, had a higher percentage of workers with disabilities in their culture (14.5%) than non-culture (11.1%) labour force and both were above CMA levels.

There was more variation in the representation of disabled workers in the CMA culture labour force than the non-culture one. For culture, the percent point spread from lowest to highest CMA was 15.3, while for non-culture it was just 9.6. The upper extremes were Abbotsford (19.8% disabled workers), Thunder Bay (18.0%) and Kingston (15.6%), while only 4.5% of Québec's and 5.3% of Montréal culture labour forces were disabled. Assuming a link between aging and disability rates, part of the explanation for this could be that the average ages of the culture labour forces in Québec and Montréal were below national levels, while Abbotsford, Thunder Bay and Kingston were above. Quebec CMAs, however, also had by far the lowest disability rates for their non-culture labour forces despite having average ages that were comparable to the total CMA average.

The greatest percent point gap between culture and non-culture labour forces which were disabled were Abbotsford (+6.2), Thunder Bay (+5.1), Trois-Rivières (+4.5) and Kingston (+3.2). Again, the average ages of the culture labour forces in these CMAs were above the national CMA average. For Saint John, a lower percentage of its culture labour force was disabled than its non-culture one despite a higher average age for the former.

28. This included the reserve population. Several reserves, however, did not participate in the 2001 Census.
29. Data were not released for CMAs with counts below a certain level in order to protect the confidentiality of respondents.
30. Disability refers to difficulties with daily activities and the reduction in the amount or kind of activities due to physical or mental conditions or health problems. Included are those who sometimes or often have difficulties (2001 Census Dictionary, p. 13, Catalogue No. 92-378).

7.5 Education

The CMA culture labour force was more educated than its non-culture counterparts. For example, 41.6% of all CMA culture workers had a university degree, compared with 22.9% of CMA non-culture workers. Higher percentages of culture workers also had a university or college certificate or diploma (see Appendix Table A7.3). This finding holds for the non-CMA labour force but the percentage of both culture and non-culture labour forces with a university degree was much lower outside of CMAs.

Educational attainment by culture workers, as measured by university degree holding, ranged from 51.6% in Ottawa–Hull to 20.6% in Oshawa (see Figure 7.3). The greatest gap between the culture and non-culture labour forces was in Regina (30 percent point gap) with Halifax a distant second (23 percent point gap). The smallest gap was in Oshawa (7 percent points) where low percentages of both the culture and non-culture labour forces obtained a university degree (20.6% and 13.4%, respectively).

7.6 Part-time employment

Culture workers in CMAs were more likely to have worked part-time (25.8%) in 2000 than non-culture workers (19.5%) (see Table 7.4). This was the same for non-CMAs, although the part-time rates were higher for both culture workers (34.5%) and non-culture workers (21.2%).

The CMAs that had the highest proportion of part-time culture workers were Thunder Bay (44.5%), Abbotsford (43.4%), Saskatoon (38.2%), London (36.4%) and Victoria (34.8%). Those with the lowest proportions were Québec (20.0%), Toronto (22.5%), Montréal (22.9%) and Ottawa–Hull (23.4%). Generally, there was a negative link between population size of the CMA and the percentage of both culture and non-culture labour forces that worked mostly part-time in 2000. Vancouver was an exception.

7.7 Self-employment

Self-employment among culture workers ranged from 14.7% in Chicoutimi–Jonquière to 49.1% in Kingston (see Table 7.5). For culture workers in all CMAs, it was 30.4% compared with 6.5% for non-culture workers. There appears to be no link between the rate of self-employment amongst culture workers and the size of a CMA. Self-employment, however, was more prevalent in non-CMAs than CMAs for both culture and non-culture workers.

7.8 Unemployment

Collectively, culture workers in CMAs had lower unemployment rates than non-culture workers in 2001 (4.4% and 4.8% respectively). The same was true for non-CMAs (5.3% and 7.4%). The unemployment rate is calculated for both paid workers and the self-employed. Low unemployment rates appear to mask extensive periods of under-employment, given the high rates of part-time work for culture workers.

The culture unemployment rate ranged from a high of 9.8% in Sudbury to a low of 2.7% in Kingston (see Figure 7.4). In Sudbury, non-culture workers had a much lower unemployment rate than culture workers while in Kingston the gap favoured culture workers.

7.9 Income[31]

Culture workers in CMAs collectively earned a lower average employment income in 2000 ($31,000) than non-culture workers ($33,800) (see Table 7.6). This was partly explained by the higher incidence of part-time work among culture workers. For example, culture workers in CMAs earned on average 91.7%

31. Includes wages, salaries, tips and commissions.

of that earned by non-culture workers. When only full-time and full-year workers were examined, the gap was slightly less at 92.5% ($42,000 and $45,400, respectively).

Culture workers in non-CMAs fared even worse as the gap between them and non-culture workers ($7,600) was much higher than in CMAs ($2,800).

Proportionally, culture workers earned almost the same average employment income as non-culture workers in Ottawa–Hull (0.97), Québec (0.97), Montréal (0.95) and Toronto (0.94). The gap between culture and non-culture workers was the greatest in Abbotsford (0.65), Sudbury (0.74) and Victoria (0.76).

Median employment income (the midpoint at which half the values are above and half below) was also examined in order to remove the effect of extreme income values that skew average income. Culture workers in Ottawa–Hull earned higher median employment income than non-culture workers, while those in Toronto earned the same as non-culture workers. The common opinion that culture workers earn much less than non-culture workers holds for most but not all CMAs.

The small gap in average employment income between culture and non-culture workers in the largest CMAs exists because some culture occupations are much more likely to be found in larger centres and pay higher wages. For example, Toronto had a high percentage of architects among its labour force relative to other CMAs and this group had an average employment income of $60,100 in Toronto in 2000. The same holds for producers, directors and choreographers who had average employment income of $48,100. The average income for a culture worker in Toronto was $36,000 while it reached $38,200 for a non-culture worker.

In absolute terms, the highest average employment income for a culture worker was in Ottawa–Hull ($36,300) while the average for a non-culture worker in this region was only slightly higher at $37,600. In Abbotsford, culture workers earned the lowest average total income ($18,400), while non-culture workers earned the third lowest ($28,100).

Looking at gender and employment income for full-time, full-year[32] workers reveals that women working in culture occupations in CMAs earned more than women in non-culture occupations ($37,600 versus $36,400) (see Table 7.7). For men, the opposite is true, as male culture workers in CMAs lagged their non-culture counterparts ($45,200 versus $51,800). As a result, the gap between women and men was greater for non-culture workers in CMAs than culture workers. For example, the proportion of female-to-male average employment income was 0.83 for culture workers but just 0.70 for non-culture workers. For non-CMAs, the gender gap was almost the same for culture and non-culture workers.

The wage gap between males and females in CMAs exists despite the fact that more female culture workers had a university degree (44.3%) than male culture workers (38.9%). The percentages of females and males with degrees were similar (22.9% and 22.8%) for non-culture workers in CMAs. Years of work experience cannot be examined to help explain this gender income gap since it was not available from the Census.

When looking at specific occupations, architects (0.69), photographers (0.75), artisans and craftpersons (0.76) and industrial designers (0.76) had the greatest gender gap in employment income for full-time full-year workers (see Table 7.8). The smallest gaps were for those in performing arts occupations such as other performers (1.05), actors and comedians (0.94), producers, directors and choreographers (0.94), as well as librarians (0.97).

32. A full-time worker was employed for more full-time weeks (30 hours or more per week) in 2000 than part-time weeks. A full-year worker was employed for 49 or more weeks in 2000.

All culture workers in CMAs[33] earned much higher average self-employment income ($6,000) than all non-culture workers in CMAs ($2,200) (see Table 7.9). This comes as no surprise given the high rates of self-employment among culture workers in CMAs (30.4%) compared with non-culture workers (6.5%). Among culture workers self-employment income ranged from a high of $8,300 in Kingston to a low of $2,000 in Trois-Rivières.

Narrowing the scope to only those workers who earned some self-employment income in 2000[34] reveals that average self-employment income for culture workers in CMAs was two-thirds that of non-culture workers ($22,200 and $33,100, respectively) (see Table 7.10). This was consistent across all CMAs. This gap also existed for culture and non-culture workers in non-CMAs.

Toronto culture workers with self-employment income led all CMAs with an average of $27,700, just ahead of those in Thunder Bay ($26,400). Those in Saskatoon ($10,600) had the lowest average self-employment income.

More culture workers were in low-income economic families[35] (13.6%) than their non-culture counterparts (11.8%). This was expected given lower average employment income among culture workers in Canada's CMAs. The previous conclusions regarding average employment income among culture workers by CMA held, in general, for low-income economic family status. For example, Abbotsford[36], which had the lowest average income for a culture worker, had the highest percentage of culture workers in low-income economic family in 2000 (one-fifth), compared with just 9% of its non-culture labour force (see Figure 7.5).

There were exceptions, however, to the link between average employment income and low-income economic family status. For example, there were fewer culture workers in low-income economic families than non-culture workers in Chicoutimi–Jonquière, Trois-Rivières, Ottawa–Hull, Kingston, Oshawa, Sudbury and Regina. This occurred despite much lower average employment income for culture workers compared to non-culture workers in these CMAs (except for Ottawa–Hull). It is likely that lower incomes of some culture workers are combined with income from other family members to rise above the low-income cutoff.

The low-income cutoffs were calculated for seven family types and five population groupings.[37] They do not, however, factor in differential cost of living expenses by CMA, so comparisons should not be made across CMAs.

33. This includes those who had no self-employment income, but excludes those with negative self-employment income.
34. Workers who earned at least $1 of self-employment income in 2000 were included here. Those with negative self-employment income are excluded. Self-employment income may not have been the only source of income for these workers.
35. Income levels at which families or unattached individuals spend 20% more than average on shelter, clothing and food. 2001 Census Dictionary, Catalogue No. 92-378.
36. Given Abbotsford's location in the Fraser Valley and proximity to the U.S. border, some of the main industries are agricultural services and transportation.
37. The low income family size groups are 1, 2, 3, 4, 5, 6 and 7+. The population size groupings are: rural, urban less than 30,000, 30,000 to 99,999, 100,000 to 499,999 and 500,000+.

Table 7.1: Percentage of culture and non-culture labour forces which were visible minority, by CMA, 2001

CMA	Culture labour force	Non-culture labour force
		%
Halifax	4.7	5.4
Québec	1.3	1.3
Montréal	7.4	11.5
Ottawa–Hull	7.2	12.3
Kingston	5.3	4.4
Oshawa	7.0	6.5
Toronto	19.6	34.7
Hamilton	5.6	8.7
St. Catharines–Niagara	4.9	4.0
Kitchener	6.2	9.3
London	5.4	7.4
Windsor	10.1	10.8
Winnipeg	8.7	12.5
Regina	3.8	4.8
Saskatoon	2.7	5.1
Calgary	10.3	15.7
Edmonton	8.5	13.5
Abbotsford	9.5	17.3
Vancouver	21.1	32.6
Victoria	4.7	8.1
CMA total	12.4	18.0
Non-CMA total	1.9	1.8

Data for CMAs not listed in this table were suppressed due to confidentiality.
Source: Statistics Canada, Census of Canada, 2001.

Table 7.2: Percentage of culture and non-culture labour forces which were Aboriginal people, by CMA, 2001

CMA	Culture labour force	Non-culture labour force
		%
Québec	1.5	0.5
Montréal	0.4	0.3
Ottawa–Hull	1.0	1.2
Toronto	0.4	0.4
Winnipeg	3.4	6.3
Regina	2.9	4.7
Saskatoon	5.7	5.4
Calgary	1.7	1.9
Edmonton	2.2	3.3
Vancouver	1.6	1.5
Victoria	3.1	2.3
CMA total	1.0	1.3
Non-CMA total	4.1	4.5

Data for CMAs not listed in this table were suppressed due to confidentiality.
Source: Statistics Canada, Census of Canada 2001.

Table 7.3: Percentage of culture and non-culture labour forces which were disabled, by CMA, 2001

CMA	Culture labour force	Non-culture labour force
	%	
St. John's	10.9	7.3
Halifax	12.1	11.4
Saint John	8.0	11.6
Québec	4.5	4.3
Sherbrooke	8.0	5.1
Trois-Rivières	8.8	4.3
Montréal	5.3	5.4
Ottawa–Hull	11.2	9.5
Kingston	15.6	12.4
Oshawa	12.2	11.3
Toronto	8.6	9.4
Hamilton	9.6	10.8
St. Catharines–Niagara	14.0	12.1
Kitchener	11.7	10.6
London	14.3	12.1
Windsor	6.9	9.1
Thunder Bay	18.0	12.9
Winnipeg	11.2	11.4
Regina	9.3	11.5
Saskatoon	11.9	11.6
Calgary	10.3	10.8
Edmonton	13.9	12.2
Abbotsford	19.8	13.6
Vancouver	12.1	11.3
Victoria	16.4	13.9
CMA total	9.4	9.4
Non-CMA total	14.5	11.1

Data for CMAs not listed in this table were suppressed due to confidentiality.
Source: Statistics Canada, Census of Canada, 2001.

Table 7.4: Percentage of labour force which worked mostly part-time in 2000, by CMA

CMA	Culture labour force	Non-culture labour force
	%	
St. John's	28.9	17.9
Halifax	28.0	19.7
Saint John	33.0	19.6
Chicoutimi–Jonquière	28.5	20.9
Québec	20.0	19.3
Sherbrooke	25.0	20.7
Trois-Rivières	27.1	22.0
Montréal	22.9	18.0
Ottawa–Hull	23.4	18.3
Kingston	27.5	24.5
Oshawa	31.3	19.3
Toronto	22.5	17.6
Hamilton	30.1	21.0
St. Catharines–Niagara	27.6	22.8
Kitchener	27.6	19.7
London	36.4	23.0
Windsor	30.5	20.6
Sudbury	33.2	23.6
Thunder Bay	44.5	25.3
Winnipeg	29.3	20.5
Regina	32.7	22.0
Saskatoon	38.2	22.0
Calgary	26.8	18.8
Edmonton	28.9	20.5
Abbotsford	43.4	24.4
Vancouver	30.7	21.5
Victoria	34.8	24.5
CMA total	25.8	19.5
Non-CMA total	34.5	21.2

Source: Statistics Canada, Census of Canada, 2001

Table 7.5: Percentage of culture and non-culture labour forces which were self-employed, by CMA, 2001

CMA	Culture labour force	Non-culture labour force
	%	
St. John’s	30.0	4.1
Halifax	32.4	5.8
Saint John	32.2	5.1
Chicoutimi–Jonquière	14.7	4.2
Québec	25.7	5.2
Sherbrooke	28.0	6.4
Trois-Rivières	27.5	5.6
Montréal	27.1	5.8
Ottawa–Hull	26.0	6.3
Kingston	49.1	8.1
Oshawa	26.9	6.1
Toronto	30.3	7.0
Hamilton	31.0	6.1
St. Catharines–Niagara	27.2	6.5
Kitchener	26.9	5.9
London	34.8	7.3
Windsor	24.7	4.5
Sudbury	31.7	5.5
Thunder Bay	34.7	5.3
Winnipeg	29.9	5.8
Regina	32.9	6.5
Saskatoon	37.9	7.7
Calgary	31.7	6.4
Edmonton	30.3	5.7
Abbotsford	43.1	8.2
Vancouver	35.3	7.9
Victoria	42.6	9.0
CMA total	30.4	6.5
Non-CMA total	41.5	9.9

Source: Statistics Canada, Census of Canada, 2001.

Table 7.6: Average and median employment income for culture and non-culture labour forces, by CMA, 2000

CMA	Average		Median	
	Culture labour force	Non-culture labour force	Culture labour force	Non-culture labour force
	$			
St. John's	23,300	28,600	15,700	24,400
Halifax	26,100	30,500	19,500	25,000
Saint John	23,400	28,500	15,300	23,300
Chicoutimi–Jonquière	23,800	28,800	18,000	26,000
Québec	28,600	29,500	23,000	26,000
Sherbrooke	22,100	26,600	18,000	23,200
Trois-Rivières	22,000	27,400	18,000	23,000
Montréal	29,500	31,100	24,300	26,000
Ottawa–Hull	36,300	37,600	32,000	31,100
Kingston	24,500	30,400	20,000	25,000
Oshawa	29,400	36,100	27,000	32,000
Toronto	36,000	38,200	30,000	30,000
Hamilton	28,900	35,000	21,000	30,000
St. Catharines–Niagara	25,500	30,200	19,900	25,000
Kitchener	28,200	34,000	25,000	29,800
London	24,800	32,000	20,000	27,000
Windsor	30,400	37,500	24,000	30,400
Sudbury	22,600	30,500	18,400	25,000
Thunder Bay	24,200	31,200	13,500	28,000
Winnipeg	26,100	29,300	21,000	24,400
Regina	25,200	30,200	20,200	26,000
Saskatoon	23,000	28,400	17,000	23,400
Calgary	30,700	37,100	24,000	29,000
Edmonton	26,100	32,000	20,500	26,000
Abbotsford	18,400	28,100	11,900	24,000
Vancouver	29,800	33,500	23,000	28,000
Victoria	23,000	30,400	17,000	27,000
CMA total	31,000	33,800	25,000	28,000
Non-CMA total	19,700	27,300	13,400	22,000

Source: Statistics Canada, Census of Canada, 2001.

Table 7.7: Average employment income and female-to-male proportion, full-time full-year culture and non-culture labour forces, by gender, by CMA and non-CMA, 2000

	Females $	Males $	Proportion of female-to-male total income
CMAs			
Culture occupations	37,600	45,200	0.83
Non-culture occupations	36,400	51,800	0.70
Non-CMAs			
Culture occupations	24,100	34,100	0.71
Non-culture occupations	29,000	41,700	0.69

Source: Statistics Canada, Census of Canada, 2001.

Table 7.8: Average employment income and female-to-male proportion, full-time full-year culture labour force, by gender and culture occupation, all CMAs, 2000

CMA	Females	Males	Proportion of female-to-male average employment income
		$	
Design			
Architects	44,500	64,100	0.69
Graphic designers and illustrators	35,900	40,300	0.89
Industrial designers	38,500	50,400	0.76
Interior designers	36,400	39,400	0.92
Landscape architects	44,300	57,600	0.77
Theatre, fashion, exhibit and other creative designers	31,000	36,100	0.86
Information services			
Archivists	35,400	42,300	0.84
Conservators and curators	42,000	50,900	0.83
Editors	41,300	53,600	0.77
Journalists	46,900	55,100	0.85
Librarian	49,000	50,500	0.97
Performing, visual and literary arts			
Actors and comedians	34,900	37,300	0.94
Artisans and craftspersons	21,200	27,900	0.76
Authors and writers	40,200	44,700	0.90
Conductors, composers and arrangers	29,300	37,500	0.78
Dancers	24,400	31,200	0.78
Musicians and singers	25,300	31,900	0.79
Other performers	37,000	35,300	1.05
Painters, sculptors and other visual artists	20,600	24,600	0.84
Photographers	27,000	36,100	0.75
Producers, directors, choreographers and related	49,400	52,400	0.94

Source: Statistics Canada, Census of Canada, 2001.

Table 7.9: Average self-employment income for all workers, by culture and non-culture labour forces, by CMA, 2000

CMA	Culture labour force	Non-culture labour force
	$	
St. John's	4,400	1,800
Halifax	4,200	1,900
Saint John	4,000	1,300
Chicoutimi–Jonquière	2,200	1,300
Québec	4,600	1,500
Sherbrooke	2,800	1,500
Trois-Rivières	2,000	1,400
Montréal	5,300	1,800
Ottawa–Hull	5,700	2,500
Kingston	8,300	2,200
Oshawa	4,800	1,700
Toronto	7,700	3,000
Hamilton	6,600	2,200
St. Catharines–Niagara	4,600	1,700
Kitchener	4,300	2,100
London	5,100	2,400
Windsor	4,100	1,800
Sudbury	2,400	1,900
Thunder Bay	6,400	1,800
Winnipeg	4,500	1,900
Regina	4,100	1,800
Saskatoon	3,600	2,000
Calgary	6,100	2,200
Edmonton	4,400	1,600
Abbotsford	4,100	1,800
Vancouver	6,400	2,400
Victoria	5,200	2,200
CMA total	6,000	2,200
Non-CMA total	4,600	1,700

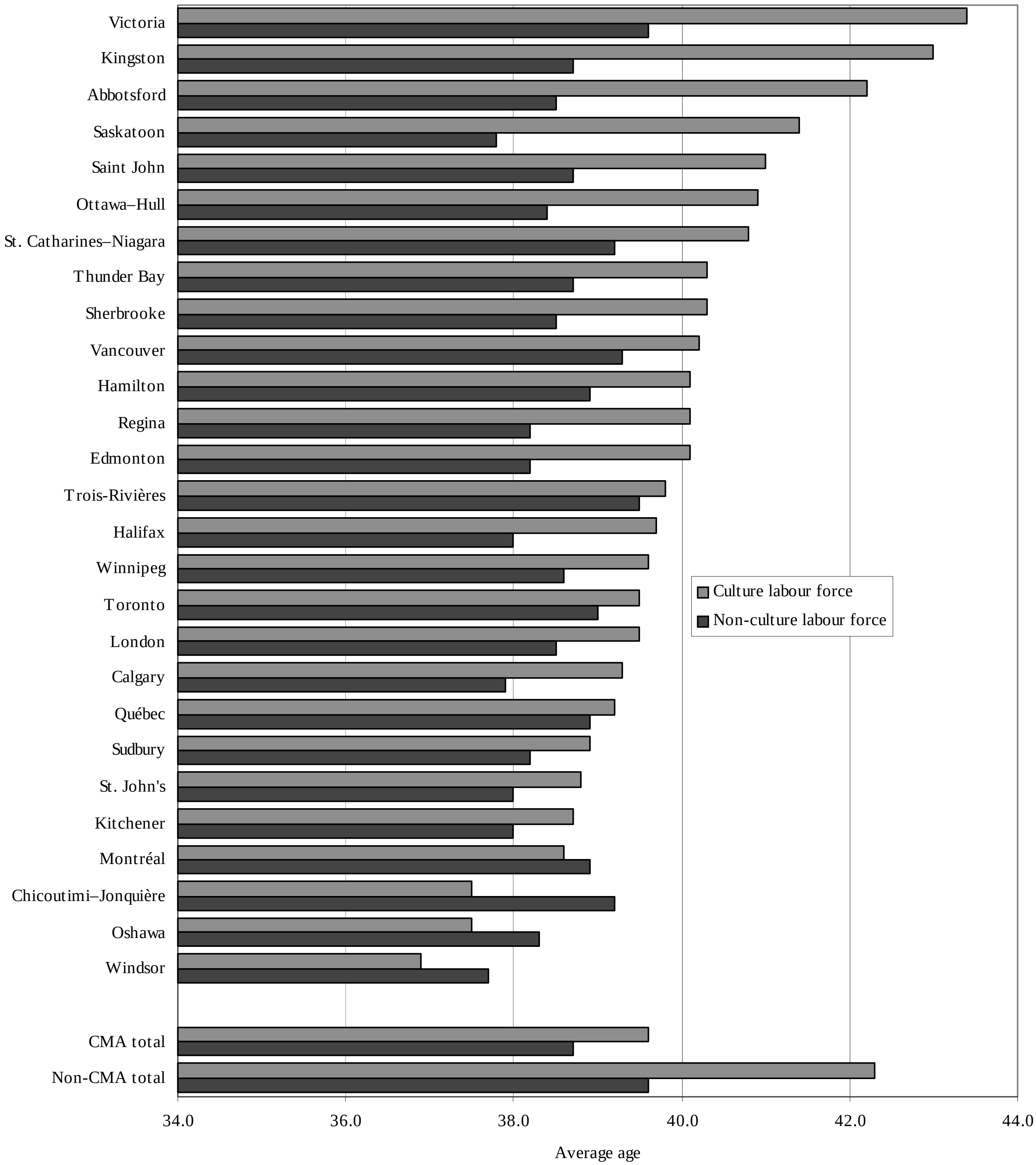
Source: Statistics Canada, Census of Canada, 2001.

Table 7.10: Average self-employment income for only those who earned self-employment income, by culture and non-culture labour forces, by CMA, 2000

CMA	Culture labour force	Non-culture labour force
	$	
St. John's	15,600	38,400
Halifax	13,500	31,500
Saint John	14,400	24,500
Chicoutimi–Jonquière	20,300	32,900
Québec	18,900	27,400
Sherbrooke	13,400	25,000
Trois-Rivières	10,800	25,000
Montréal	21,100	30,800
Ottawa–Hull	22,600	35,300
Kingston	22,500	28,300
Oshawa	18,900	27,600
Toronto	27,700	40,800
Hamilton	24,000	35,500
St. Catharines–Niagara	18,200	28,600
Kitchener	17,700	33,400
London	19,000	32,800
Windsor	20,500	40,200
Sudbury	10,900	34,600
Thunder Bay	26,400	35,300
Winnipeg	15,900	29,300
Regina	14,900	27,500
Saskatoon	10,600	26,500
Calgary	23,600	30,600
Edmonton	16,200	26,300
Abbotsford	13,800	20,700
Vancouver	20,800	29,500
Victoria	16,300	23,200
CMA total	22,200	33,100
Non-CMA total	14,800	23,300

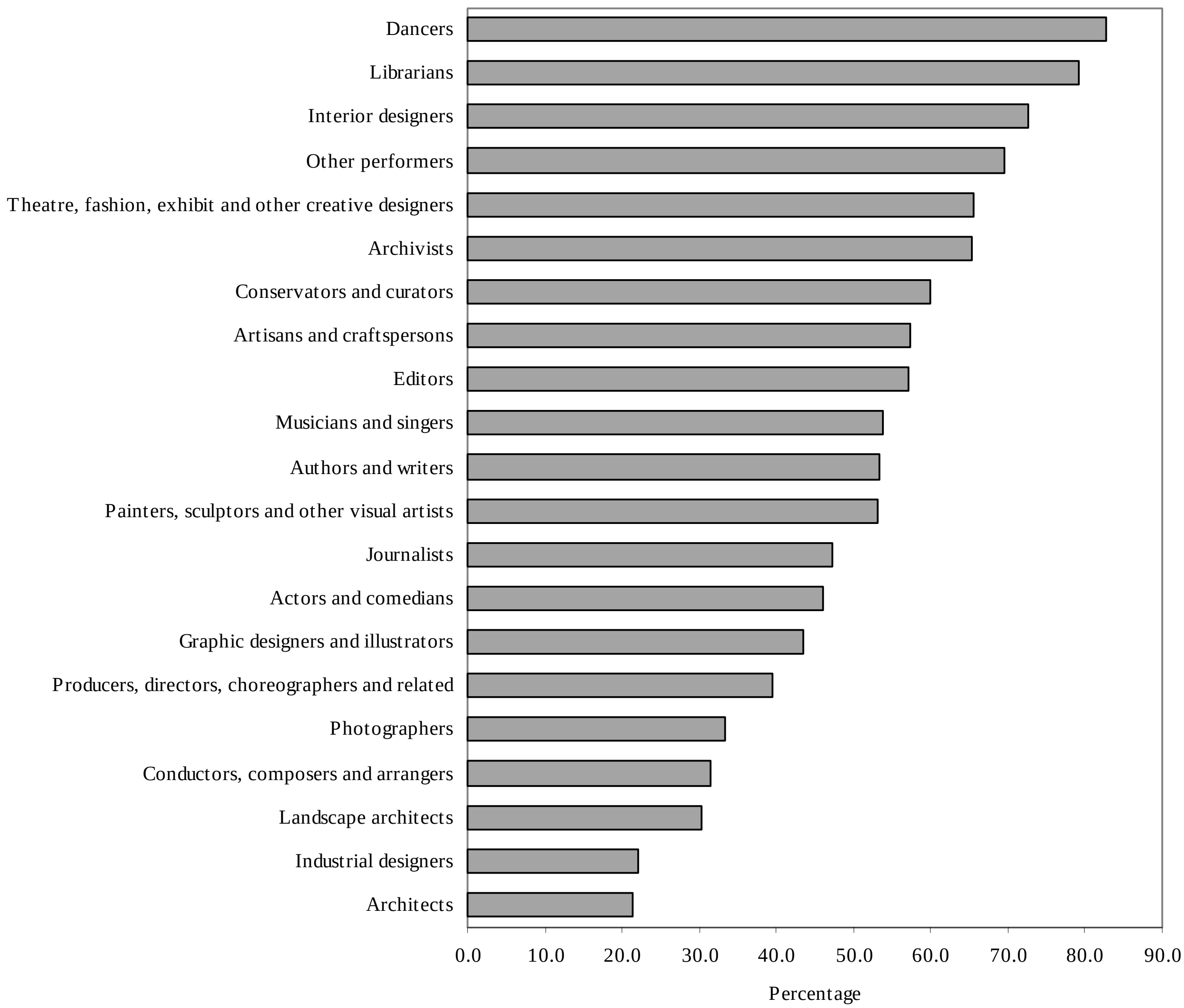
Source: Statistics Canada, Census of Canada, 2001.

Figure 7.1: Average age of culture and non-culture labour forces, by CMA, 2001



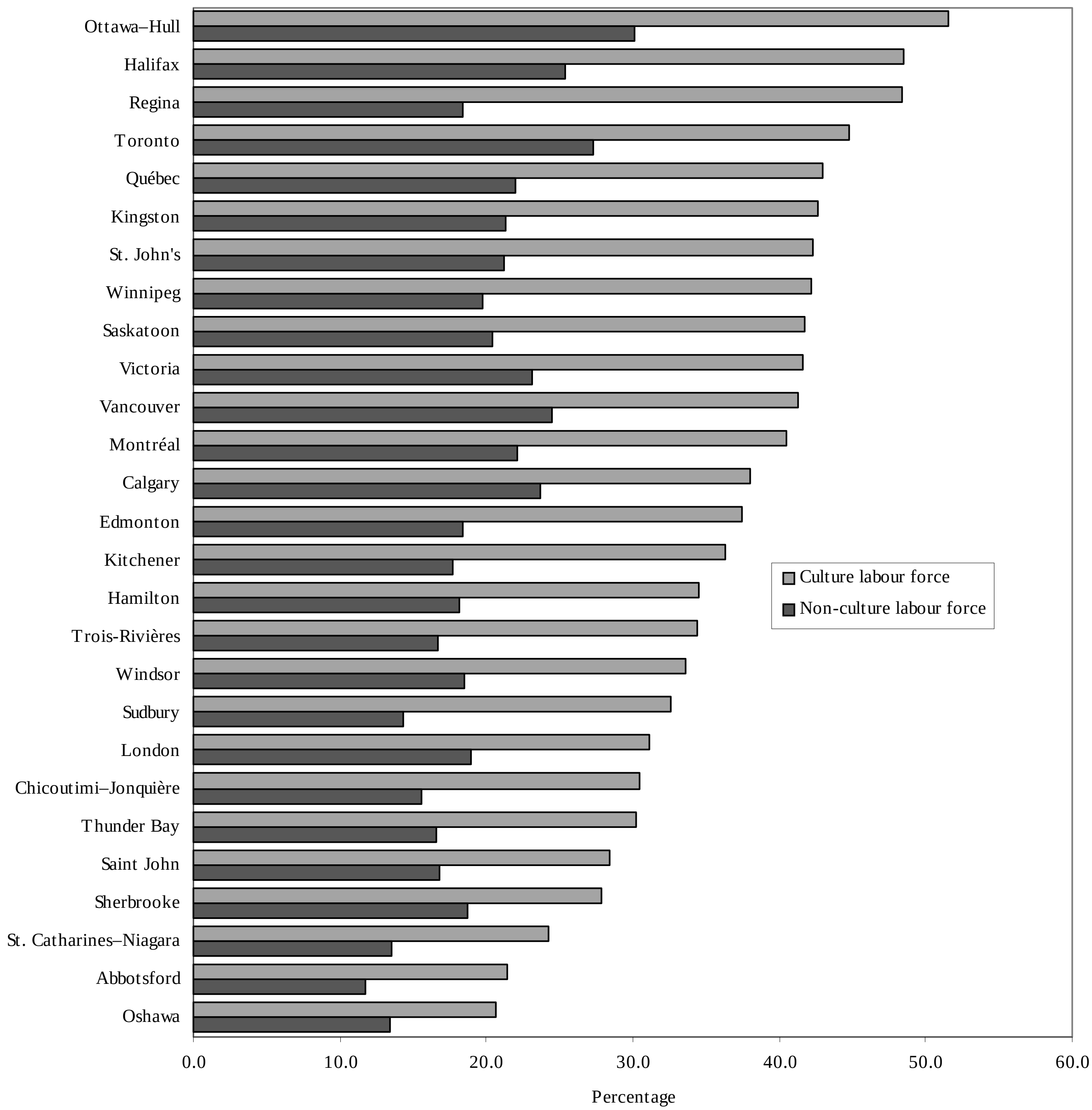
Source: Statistics Canada, Census of Canada, 2001.

Figure 7.2: Percentage of CMA labour force which was female, by culture occupations, 2001



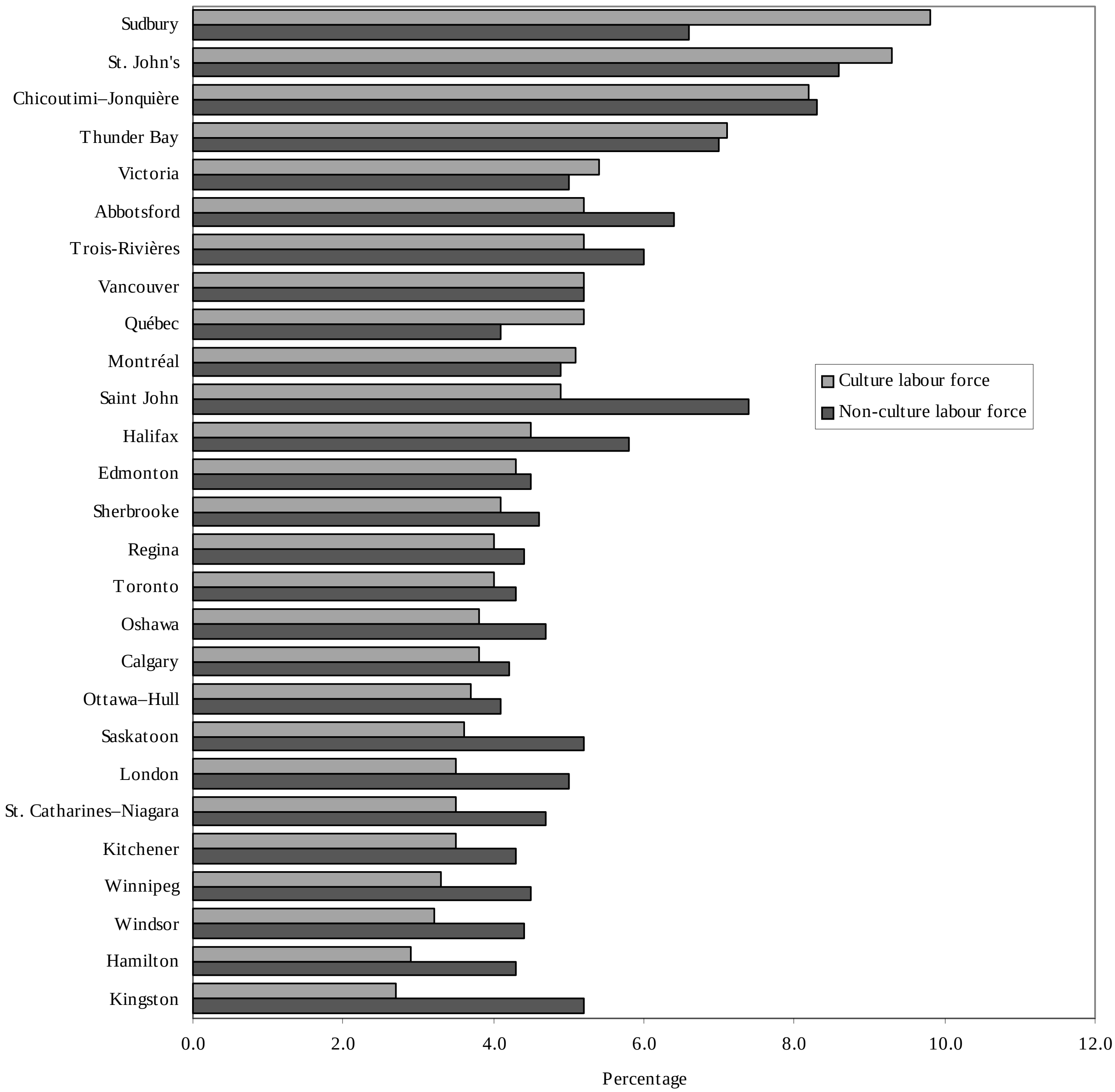
Source: Statistics Canada, Census of Canada, 2001.

Figure 7.3: Percentage of culture and non-culture labour forces with a university degree, by CMA, 2001



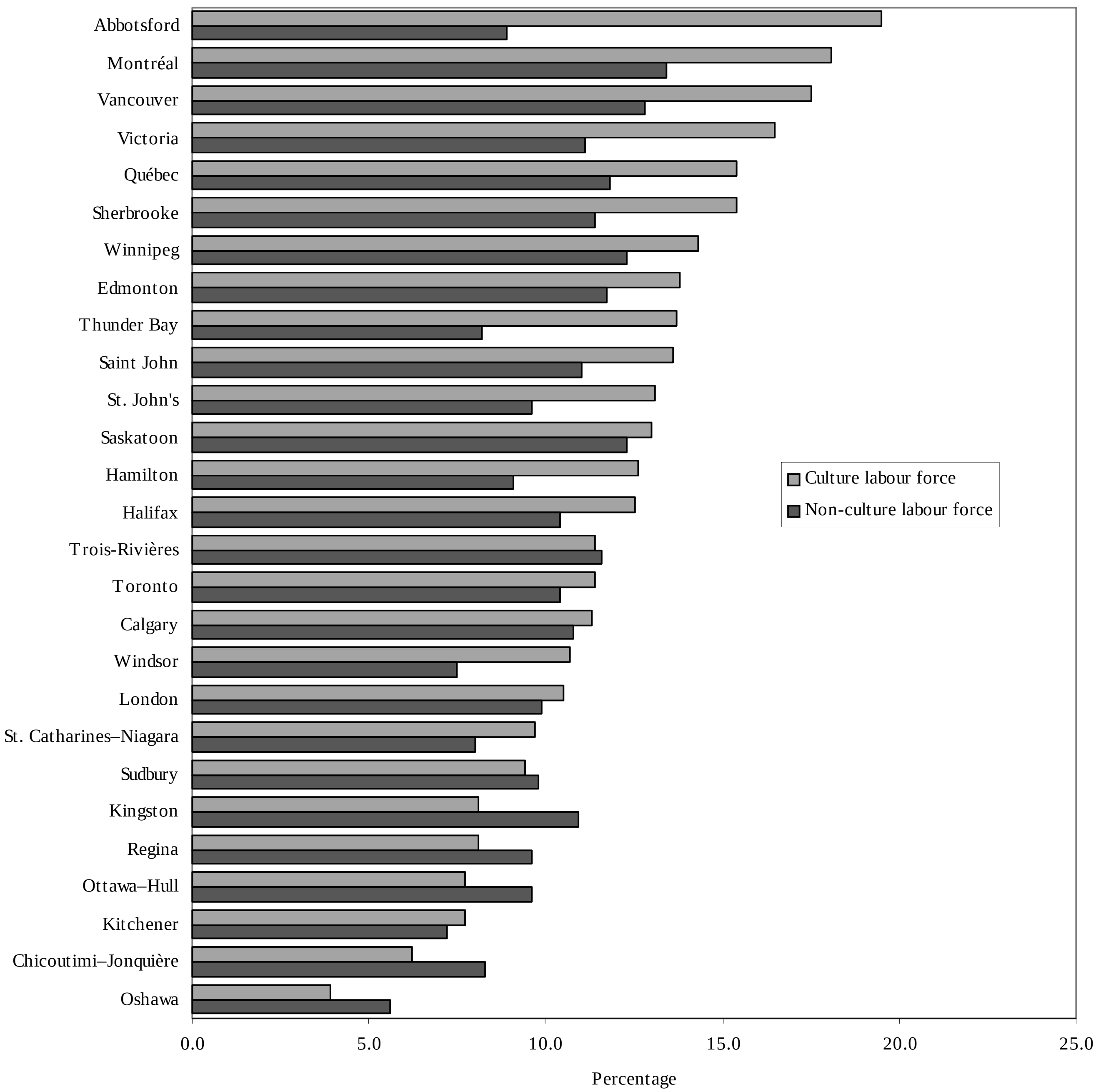
Source: Statistics Canada, Census of Canada, 2001.

Figure 7.4: Unemployment rates[1] for culture and non-culture labour forces, by CMA, 2001



[1] Refers to the population 15 years of age and over unemployed in the week prior to Census Day (May 15, 2001).
Source: Statistics Canada, Census of Canada, 2001.

Figure 7.5: Percentage in low-income economic families for culture and non-culture labour forces, by CMA, 2000



Source: Statistics Canada, Census of Canada, 2001.

Chapter 8

Migration

We now turn our attention to the mobility of culture workers. To get at this, we will examine net absolute flows of culture and non-culture workers and flows expressed as a percentage of the CMAs population. First, however, we will look at general mobility into and out of CMAs followed by the two migration flows that comprise net migration: in- and out-migration.

8.1 General migration into and out of CMAs[38]

Over one in nine (12.1%) culture workers living in CMAs in 2001 came from outside the CMA but within Canada, in the five years preceding the 2001 Census (see Table 8.1). This was higher than for non-culture workers (9.6%). Similarly, culture workers living in a CMA at the time of the 1996 Census were also more likely to have left (13.7%) during the five subsequent years than non-culture workers (9.4%). Overall, culture workers in CMAs were more mobile than non-culture workers.

8.2 Out-migration from CMAs

Given the higher average educational attainment of culture workers and the strong proven link between education and mobility,[39] it is not surprising that culture workers were more mobile. On the other hand, it is reasonable to suggest that some culture workers, especially in the visual, performing and literary arts, would be strongly influenced by the sights, sounds and smells of their surroundings. This may render them less likely to move due to economic reasons, as sensory or emotional ties that influence their work also hold them in place.

A study of two rural Canadian towns, Elora and Parry Sound, Ontario, found that visual artists that had relocated to these towns were much more likely to mention environmental than economic motivations among their reasons for moving. These environmental reasons included a desire to live in a smaller community, the beauty of the surrounding area and the presence of a well known artistic community.[40] Although this study examined 'pull' forces that influenced in-migrants, it is also possible that environmental factors keep many artists in place.

For all but one CMA, however, a culture worker was more likely to have left the CMA (but stayed within Canada) from 1996 to 2001 than a non-culture worker. The sole exception was St. John's, where 16.5% of the 1996 culture labour force left within the next five years compared with 17.1% of the non-culture labour force (see Table 8.1). This occurred despite a higher unemployment rate and educational level for culture workers compared with non-culture workers in St. John's. Perhaps a loyalty to the culture of North America's oldest city kept its culture workers in place. The only other CMAs that had relatively

38. In-migrants refer to those who moved into the CMA from another address in Canada, between 1996 and 2001. Out-migrants refer to those who left the CMA between 1996 and 2001 for another place in Canada. Immigrant refers to those who moved to a Canadian CMA from another country between 1996 and 2001. Emigrants refer to those who left a Canadian CMA for a destination outside of Canada between 1996 and 2001.
39. See *1996 Census: Education, mobility and migration,* Statistics Canada, The Daily, April 14,1998 and Lee, Everett S. 1966. *A theory of migration*. Demography 3: 47-57.
40. Mitchell, Clair, Trudi Bunting and Maria Piccioni, *Visual Artists: Counter-urbanists in the Canadian countryside?* The Canadian Geographer, Vol. 48, No. 2 (2004), p. 152-167.

small differences between percentage of culture and non-culture workers who left were Toronto and Montréal. In fact, the rates of out-migration for these two CMAs were the lowest for both culture and non-culture work forces. Perhaps workers in the largest centres, whether culture or non-culture, are less likely to leave due to greater employment opportunity.

The smaller Quebec CMAs of Sherbrooke, Chicoutimi–Jonquière and Trois-Rivières had the highest percentage of culture workers who left from 1996 to 2001. In each case, the percentage was much higher than for non-culture workers. Montréal was the magnet that attracted many of these culture workers.

8.3 In-migration to CMAs

Although culture workers were generally more mobile, in St. John's, Trois-Rivières, Calgary and Edmonton, culture workers were less likely to have come from outside the CMA from 1996 and 2001 than non-culture workers (see Table 8.1). For St. John's, in-migration has a strong intra-provincial component and these in-migrants are not culture workers, for the most part. This is also not surprising for Edmonton and Calgary, given that oil patch, technology and service industries drive their respective economies.

Overall, Oshawa had the most mobile culture labour force in terms of in-migrants from Canada with 26.3% having come from outside this CMA within the previous five years. This compares with 18.2% of their non-culture labour force. However, Oshawa's culture labour force was relatively small.

Recent in-migrants from other parts of Canada constituted a low percentage of the culture labour force in Toronto, Montréal and Vancouver in 2001. These percentages were higher, however, than for their respective non-culture labour forces.

The low in-migration rates likely exist because once in-migrants (culture and non-culture) arrived in these large centres they were less likely to leave due to economic opportunity. This created a fairly stable body of workers in Canada's largest CMAs. Also, each of these large CMAs, especially Toronto and Vancouver, had high percentages of recent immigrants from outside Canada in their culture labour force (see Section 8.5).

8.4 Net internal migration

In absolute terms, some CMAs attract culture workers, offering a broad variety of employment opportunities and higher pay than non-CMAs and smaller CMAs. It comes as no surprise therefore that Toronto (1,430) and Montréal (1,330) had the highest net in-migration of culture workers from1996 and 2001 (see Table 8.2). They were followed by Calgary (610), Vancouver (190), Victoria (170), Oshawa (160) and Halifax (160). Québec experienced the largest net loss (-840) of culture workers.

CMAs such as Kingston, Chicoutimi–Jonquière, London and Sherbrooke, had high per capita rates of culture students enrolled and graduating from their post-secondary institutions but experienced net outflows of culture workers from 1996 and 2001. It is difficult, however, to establish a link between culture enrolments and migration of culture workers. It is more likely that broad economic factors dictate migration of culture workers to and from CMAs, rather than an attachment to a CMA established while studying there. This is likely the case for many of the smaller CMAs that have limited culture infrastructure, such as sound recording studios or sound stages for film production and therefore, limited employment possibilities.

Expressing net internal migration as a percentage of total culture and non-culture populations reveals which CMAs attracted disproportionately more culture workers. For example, net internal inflows of non-culture workers into Toronto and Montréal from1996 and 2001 constituted just 0% and 0.5% of their respective 2001 non-culture labour force. Net culture inflows on the other hand, were 2.2% and 3.2%, respectively, of their 2001 culture labour force. Other CMAs that attracted disproportionately more net culture than non-culture workers were Halifax, St. Catharines–Niagara, Victoria, Oshawa and Abbotsford. For the latter two, however, it should be noted that their culture work forces were relatively small.

The relatively high net in-migration of culture workers into Toronto, Montréal, Victoria and Halifax supports the contention that these CMAs are culture clusters. For St. Catharines–Niagara, however, previous analysis suggests that this CMA is a performing arts centre rather than a diverse culture cluster.

For St. John's, another regional culture cluster, the percentage net-outflow of culture workers was less than for non-culture workers (-2.3% versus -6.2%). For Vancouver, a strong culture cluster, there was a small net gain for the culture labour force (0.7%), compared with a small net loss (-0.5%) for the non-culture one. Vancouver had the highest rate of recent immigrants from outside Canada among its culture and non-culture labour forces (see Section 8.5).

Despite having a high number of culture in-migrants, Calgary was more likely to attract non-culture migrants (8.9% of 2001 non-culture population) than culture migrants (5.7% of 2001 culture population).

All the Quebec CMAs, except for Montréal, had much higher net-outflows of culture than non-culture workers (as a percentage of each respective labour force). The same holds for Sudbury and Thunder Bay and, to a lesser degree, London, Kingston, Saskatoon, Regina and Saint John.

8.5 Immigration

A full 6% of culture workers living in Toronto in 2001 came from outside of the country within the preceding five year intercensal period (see Table 8.3). This was still lower than for the non-culture labour force (7.5%). Vancouver and Montréal, on the other hand, had higher percentages of recent immigrants amongst their culture than non-culture labour forces (7.9% and 7.0% for Vancouver; 3.3% and 2.9% for Montréal). Vancouver's rates were the highest for both culture and non-culture labour forces. For all CMAs, 4.5% of culture workers were recent immigrants compared with 4.2% for non-culture workers.[41]

41. Data on emigration from Canada are not available from domestic sources such as the Census.

Table 8.1: In-migration to and out-migration from CMAs, culture and non-culture labour forces, 1996 to 2001

CMA	Culture out-migrants as a % of total 1996 CMA culture labour force	Non-culture out-migrants as % of total 1996 CMA non-culture labour force	Culture in-migrants as % of total 2001 CMA culture labour force	Non-culture in-migrants as a % of total 2001 non-culture labour force
St. John’s	16.5	17.1	10.3	10.8
Halifax	19.5	14.7	20.3	16.5
Saint John	24.5	12.0	13.3	9.5
Chicoutimi–Jonquière	43.1	14.2	11.9	8.5
Québec	27.5	12.8	11.9	9.9
Sherbrooke	47.7	19.7	15.9	14.8
Trois-Rivières	38.9	15.6	11.0	11.4
Montréal	8.8	6.2	10.4	6.4
Ottawa–Hull	16.2	9.5	14.7	12.6
Kingston	33.2	20.8	23.3	19.2
Oshawa	21.4	12.2	26.3	18.2
Toronto	8.8	6.5	9.2	5.9
Hamilton	17.9	9.9	17.0	12.1
St. Catharines–Niagara	12.3	8.0	15.2	8.2
Kitchener	24.2	12.3	20.2	13.3
London	22.6	14.0	14.0	12.4
Windsor	23.3	8.1	14.5	9.4
Sudbury	34.1	16.3	19.2	9.1
Thunder Bay	24.8	13.6	12.0	7.9
Winnipeg	17.5	9.7	11.9	8.5
Regina	22.4	15.8	14.3	12.5
Saskatoon	21.7	17.6	16.0	15.3
Calgary	14.9	10.8	16.9	18.0
Edmonton	17.1	10.5	13.3	13.5
Abbotsford	24.0	18.5	24.3	18.3
Vancouver	12.4	8.6	10.7	7.6
Victoria	19.3	15.9	18.9	16.1
CMA total	13.7	9.4	12.1	9.6
Non-CMA total	30.3	19.1	25.3	18.9

Source: Statistics Canada, Census of Canada, 2001.

Table 8.2: Net internal migration by culture and non-culture labour forces, by CMA, 1996 to 2001

CMA	Net culture migrants	As % of 2001 culture labour force	Net non-culture migrants	As % of 2001 non-culture labour force
St. John's	-40	-2.3	-5,370	-6.2
Halifax	160	4.1	5,650	3.0
Saint John	-40	-5.7	-1,640	-2.8
Chicoutimi–Jonquière	-270	-43.3	-4,380	-6.2
Québec	-840	-13.3	-9,110	-2.6
Sherbrooke	-240	-21.7	-2,970	-3.8
Trois-Rivières	-140	-17.7	-3,000	-4.7
Montréal	1,330	3.2	8,830	0.5
Ottawa–Hull	10	0.1	20,900	3.6
Kingston	-60	-5.2	-1,030	-1.4
Oshawa	160	8.6	11,750	7.5
Toronto	1,430	2.2	730	0.0
Hamilton	80	1.5	9,030	2.7
St. Catharines–Niagara	120	4.5	700	0.4
Kitchener	-20	-0.5	4,870	2.2
London	-240	-7.3	-1,290	-0.6
Windsor	-110	-6.5	3,240	2.1
Sudbury	-110	-17.9	-6,040	-8.0
Thunder Bay	-80	-15.0	-3,900	-6.4
Winnipeg	-220	-3.4	-3,780	-1.1
Regina	-130	-7.7	-3,280	-3.2
Saskatoon	-100	-5.7	-1,860	-1.6
Calgary	610	5.7	49,030	8.9
Edmonton	-160	-2.0	21,390	4.1
Abbotsford	40	4.6	920	1.3
Vancouver	190	0.7	-5,220	-0.5
Victoria	170	3.7	540	0.3
CMA total	1,500	0.7	84,700	0.8

Source: Statistics Canada, Census of Canada, 2001.

Table 8.3: Percentage of recent immigrants in culture and non-culture labour forces, by CMA, 2001

CMA	Culture labour force	Non-culture labour force
	%	
Halifax	3.5	1.6
Québec	1.0	0.8
Montréal	3.3	2.9
Ottawa–Hull	3.5	3.6
Toronto	6.0	7.5
Hamilton	2.0	2.7
St. Catharines–Niagara	2.3	1.5
Kitchener	1.8	3.1
London	3.0	2.0
Windsor	4.3	3.7
Winnipeg	2.8	2.1
Calgary	4.3	4.2
Edmonton	2.8	2.5
Vancouver	7.9	7.0
Victoria	4.2	2.3
CMA total	4.5	4.2
Non-CMA total	1.4	0.8

Data for CMAs not listed in the table were suppressed due to confidentiality.
Source: Statistics Canada, Census of Canada, 2001.

Chapter 9

Conclusion

Although Canada's three largest CMAs, Toronto, Montréal and Vancouver, were shown to have large culture industries and labour forces, smaller CMAs such as Victoria, St. John's and Halifax also stood out.[42] Victoria had strong representation in the literary, performing and visual arts and information services, while Halifax and St. John's had sizeable information services and performing arts sectors. Ottawa–Hull was an epicenter for the information services industry with many employed as librarians, authors, editors and archivists. Calgary had above-average proportions of its labour force employed in architectural services and specialized design.

Toronto was seen to be dominant for most culture sectors when looking at firms and their outputs. This, combined with Toronto's strength in the national and perhaps global economy, may be seen by some as a threat to culture industries in other CMAs, or as a national opportunity. Either way, clustering of culture firms in Canada's largest CMA is evident despite advances in computing and internet access. The benefits of a large trained labour force and ease of personal networking and interaction is likely as important for the culture sector as it is for most industrial sectors.

The industries which did not have a high degree of clustering were performing arts, heritage institutions and movie theatres. The first two are subject to a very high degree of public funding and all three are influenced by the population base and consumption patterns of locals.

Culture enrolment and graduates also showed clustering, as Montréal led for universities and Toronto for colleges. Expressing enrolment and graduates on a per capita basis revealed that smaller CMAs, such as Kingston, Sherbrooke, Halifax, Kitchener, Chicoutimi–Jonquière and London, ranked at the top. For all of these CMAs, with the exception of Halifax, there was a net outflow of culture workers from 1996 to 2001. This indicates that the presence of culture students may not necessarily be linked to retention of these students by the CMA in which they trained once they graduate. For some of these CMAs, one culture program such as English, French or mass communications, dominates. The smaller CMAs were likely not able to provide employment for as many students from one discipline. Also, many of these students are likely bound for jobs in non-culture occupations, whether locally or outside the CMA of training.

There are some important differences in culture worker characteristics between CMAs. There are also differences between culture and non-culture workers within CMAs. Lastly, a typical culture worker in a CMA is often different from one in a non-CMA. The repercussions of this are multi-dimensional as the results were not always expected.

For example, culture workers in London had a low unemployment rate while in Sudbury it was high. As expected, the net out-flow of culture workers in Sudbury (as a percent of all culture workers in this CMA) was much higher than for London. Yet London did have a net outflow of culture workers despite their low unemployment rate. Culture workers in Abbotsford had the lowest average income of any CMA in Canada and the income gap between culture and non-culture workers was also the highest in this CMA. Despite

42. When expressed as a percentage of the total labour force.

this, Abbotsford had a net in-flow of culture workers from 1996-2001. Low wages, however, may act as a deterrent to future in-migration of culture workers.

The gender wage gap was smaller for culture (0.83) than non-culture workers (0.70) in CMAs. Nonetheless, the gap existed despite higher educational attainment (university degree) in general, for female culture workers. The wage gap also existed across all but one culture occupation, although it was more pronounced for some (e.g., architects) than others (e.g., producers, directors and comedians). How much of the wage gap is due to gender differences in years of work experience must be determined however, before this conclusion can be substantiated.[43]

Toronto and Montréal attracted the most net culture in-migrants. When expressed as a percentage of their labour force it can be seen that more culture than non-culture internal migrants made their way to these CMAs for employment. This influx of culture workers solidifies their position as Canada's largest culture clusters. Vancouver, on the other hand, had the highest rate of recent immigrants among its culture labour force. This was higher than for its non-culture labour force.

Trois-Rivières and St. John's had net outflows of culture migrants from1996 and 2001 but their culture labour forces still grew more in percentage terms than any other CMA over this period. This either indicates some labour force shift into culture occupations, or students trained in culture programs and then remained in these CMAs to enter the culture labour force.

It is hoped that this analysis, which only touches the surface of the study of culture and CMAs, will serve as a stepping stone for future research on urban culture activity in Canada. There are numerous topics which could prove fruitful for further research, subject to data availability.

An overview of culture facilities by CMA could be achieved by looking at libraries, recreation centres, public gardens, festivals, as well as a more detailed look at the inventory of heritage institutions, such as museums and performance halls. A study of each culture occupation by CMA could foster a better understanding of the diversity or similarity which exists within the culture sector by job type.

On the demand, or consumer side of the culture cluster, an overview of culture consumption by CMA would be valuable in determining which ones have a disproportionate share of consumption (attendance, expenditures, etc.). This would provide an interesting companion piece to this supply-side cluster analysis. Existing data sources such as the General Social Survey, however, may not be able to provide data for all CMAs due to sample size restrictions.

An extension of the current research could also include a more detailed trend analysis. This would benefit those trying to extrapolate past trends with future directions. For example, which CMAs are showing the most rapid aging of their culture labour force? Is it more pronounced for culture or non-culture workers? Trend analysis might then help government departments which create or adjust culture policy, to determine whether they should treat CMAs similarly or differently. Lastly, further research into the culture labour force can also be undertaken for non-CMA areas by province.

43. The data required for this analysis were not available from the Census.

Table A2.1: Percentage of labour force in culture industries, by CMA, 2001

Cultural Industry	Canada	St. John's	Halifax	Saint John	Chicoutimi–Jonquière	Québec	Sherbrooke
Advertising and related services	0.39	0.32	0.34	0.22	0.20	0.40	0.30
Agents/managers – artists, athletes, entertainers and other	0.02	0.00	x	0.00	0.00	0.01	0.00
Architectural services	0.08	x	0.13	x	0.08	0.17	0.08
Book, periodical, music store	0.15	0.26	0.18	0.15	0.18	0.17	0.24
Heritage institutions	0.16	0.21	0.17	0.16	0.14	0.30	0.17
Independent artists, writers and performers	0.30	0.30	0.34	0.17	0.11	0.22	0.21
Information services	0.31	0.39	0.52	0.18	0.06	0.19	0.19
Manufacturing and reproducing magnetic and optical media	0.01	x	x	0.00	0.00	x	x
Motion picture and video industries	0.38	0.33	0.52	0.10	0.10	0.27	0.13
Newspaper, periodical, book and database publishing	0.52	0.91	0.72	0.43	0.65	0.48	0.42
Pay and specialty television and program distribution	0.12	0.19	0.10	0.09	0.13	0.07	0.07
Performing arts companies	0.13	0.18	0.25	x	0.08	0.16	0.13
Printing	0.61	0.15	0.38	0.41	0.27	0.72	0.83
Promoters/Presenters performing arts, sports and other	0.07	0.09	0.10	0.09	0.05	0.13	0.07
Radio and television broadcasting industries	0.22	0.32	0.27	0.31	0.30	0.25	0.22
Sound recording industries	0.03	x	0.03	0.00	x	x	x
Specialized design services	0.28	0.17	0.21	0.09	x	0.25	0.12
Total	3.83	3.91	4.28	2.54	2.41	3.83	3.25
Rank		8	4	23	25	9	15

Cultural Industry	Trois-Rivières	Montréal	Ottawa–Hull	Kingston	Oshawa	Toronto	Hamilton
Advertising and related services	0.33	0.67	0.36	0.16	0.28	0.81	0.36
Agents/managers – artists, athletes, entertainers and other	0.00	0.03	0.01	0.00	x	0.04	0.01
Architectural services	x	0.14	0.13	0.07	0.04	0.17	0.08
Book, periodical, music store	0.15	0.19	0.17	0.16	0.10	0.21	0.16
Heritage institutions	0.10	0.12	0.35	0.13	0.16	0.09	0.13
Independent artists, writers and performers	0.14	0.35	0.31	0.34	0.13	0.43	0.21
Information services	0.15	0.29	0.53	0.53	0.31	0.43	0.33
Manufacturing and reproducing magnetic and optical media	x	0.07	0.02	0.00	0.04	0.09	x
Motion picture and video industries	0.13	0.79	0.21	0.12	0.22	0.69	0.25
Newspaper, periodical, book and database publishing	0.37	0.62	0.45	0.51	0.65	0.74	0.57
Pay and specialty television and program distribution	0.36	0.14	0.09	x	0.19	0.20	0.24
Performing arts companies	x	0.23	0.07	0.13	0.04	0.18	0.11
Printing	0.48	1.01	0.65	0.17	1.02	0.94	0.44
Promoters/Presenters performing arts, sports and other	0.11	0.12	0.10	x	x	0.09	x
Radio and television broadcasting industries	0.25	0.32	0.25	0.11	0.13	0.35	0.22
Sound recording industries	0.00	0.05	0.01	x	0.05	0.08	0.03
Specialized design services	0.19	0.39	0.31	0.17	0.25	0.57	0.25
Total	2.87	5.54	4.03	2.67	3.66	6.10	3.42
Rank	20	2	6	21	11	1	13

Table A2.1: Percentage of labour force in culture industries, by CMA, 2001 – *(concluded)*

Cultural Industry	St. Catharines–Niagara	Kitchener	London	Windsor	Sudbury	Thunder Bay	Winnipeg
Advertising and related services	0.24	0.31	0.34	0.19	0.13	0.11	0.27
Agents/managers – artists, athletes, entertainers and other	x	0.02	x	x	x	x	x
Architectural services	0.07	0.05	0.05	0.03	x	x	0.11
Book, periodical, music store	0.13	0.13	0.16	0.10	0.11	0.21	0.17
Heritage institutions	0.31	0.10	0.07	0.06	0.25	0.07	0.12
Independent artists, writers and performers	0.19	0.21	0.24	0.10	0.11	0.19	0.28
Information services	0.30	0.32	0.34	0.22	0.26	0.34	0.22
Manufacturing and reproducing magnetic and optical media	0.00	x	x	x	x	0.00	x
Motion picture and video industries	0.16	0.12	0.12	0.09	0.11	0.16	0.23
Newspaper, periodical, book and database publishing	0.58	0.46	0.55	0.34	0.51	0.53	0.52
Pay and specialty television and program distribution	0.06	0.10	0.09	0.04	0.26	0.11	0.12
Performing arts companies	0.26	0.14	0.11	0.07	x	0.11	0.17
Printing	0.57	0.70	0.48	0.24	0.18	0.16	0.95
Promoters/Presenters performing arts, sports and other	0.03	0.04	0.05	x	0.06	0.06	0.10
Radio and television broadcasting industries	0.08	0.19	0.15	0.12	0.31	0.25	0.24
Sound recording industries	x	x	x	x	0.00	x	0.05
Specialized design services	0.16	0.21	0.23	0.19	0.13	x	0.25
Total	3.17	3.11	2.98	1.86	2.47	2.37	3.82
Rank	16	18	19	27	24	26	10

Cultural Industry	Regina	Saskatoon	Calgary	Edmonton	Abbotsford	Vancouver	Victoria
Advertising and related services	0.23	0.25	0.44	0.33	0.45	0.43	0.21
Agents/managers – artists, athletes, entertainers and other	x	x	0.03	0.02	0.00	0.04	x
Architectural services	0.04	0.06	0.14	0.10	x	0.19	0.13
Book, periodical, music store	0.14	0.16	0.16	0.16	0.22	0.18	0.27
Heritage institutions	0.14	0.19	0.16	0.11	0.07	0.10	0.41
Independent artists, writers and performers	0.25	0.31	0.30	0.23	0.22	0.55	0.65
Information services	0.47	0.43	0.32	0.28	0.22	0.44	0.47
Manufacturing and reproducing magnetic and optical media	0.00	x	0.01	0.00	0.00	0.03	x
Motion picture and video industries	0.33	0.10	0.33	0.19	0.38	0.96	0.24
Newspaper, periodical, book and database publishing	0.57	0.65	0.49	0.47	0.35	0.54	0.67
Pay and specialty television and program distribution	0.09	0.09	0.20	0.10	0.09	0.15	0.10
Performing arts companies	0.11	0.13	0.16	0.11	x	0.17	0.17
Printing	0.31	0.67	0.50	0.52	0.28	0.63	0.25
Promoters/Presenters performing arts, sports and other	0.21	0.07	0.14	0.09	x	0.07	0.06
Radio and television broadcasting industries	0.40	0.30	0.19	0.23	x	0.23	0.19
Sound recording industries	x	x	0.03	0.02	x	0.05	x
Specialized design services	0.08	0.14	0.33	0.20	0.15	0.44	0.37
Total	3.40	3.60	3.91	3.15	2.55	5.19	4.24
Rank	14	12	7	17	22	3	5

x – Data have been suppressed due to confidentiality.
Source: Statistics Canada, Census of Canada, 2001.

Table A4.1: Percentage of labour force in culture occupations, by CMA, 2001

Culture occupation	Canada	St. John's	Halifax	Saint John	Chicoutimi–Jonquière	Québec	Sherbrooke	Trois-Rivières	Montréal	Ottawa–Hull	Kingston	Oshawa	Toronto	Hamilton
Design														
Architects	0.08	x	0.12	x	0.06	0.14	x	x	0.12	0.11	0.07	x	0.15	0.05
Graphic designers and illustrators	0.29	0.26	0.31	0.22	0.06	0.32	0.19	0.21	0.40	0.29	0.15	0.31	0.50	0.27
Industrial designers	0.06	0.00	x	0.00	0.08	0.09	0.08	x	0.13	0.05	x	0.04	0.10	0.07
Interior designers	0.07	x	0.05	0.00	x	0.07	x	0.12	0.10	0.10	0.07	0.08	0.14	0.08
Landscape architects	0.02	x	x	x	x	0.02	x	x	0.02	0.02	0.00	x	0.02	0.03
Theatre, fashion, exhibit and other creative designers	0.06	x	0.04	x	x	0.07	x	x	0.18	0.04	x	x	0.11	0.03
Information services														
Archivists	0.01	0.05	0.03	0.00	x	0.04	x	x	0.04	0.05	x	x	0.01	x
Conservators and curators	0.01	x	0.02	x	0.00	0.02	x	0.00	0.01	0.04	x	x	0.01	x
Editors	0.08	0.07	0.08	x	x	0.07	x	x	0.09	0.17	0.09	0.06	0.15	0.07
Journalists	0.08	0.15	0.11	0.07	0.11	0.13	0.16	0.07	0.15	0.14	0.09	0.03	0.11	0.06
Librarian	0.07	0.18	0.15	x	x	0.06	0.07	0.09	0.06	0.19	0.14	0.03	0.07	0.06
Performing, visual and literary arts														
Actors and comedians	0.06	0.11	0.09	0.00	0.00	0.03	0.00	x	0.10	0.02	x	0.03	0.12	0.03
Artisans and craftspersons	0.13	0.13	0.11	0.12	x	0.06	0.14	0.11	0.08	0.07	0.15	0.09	0.09	0.10
Authors and writers	0.14	0.09	0.16	0.13	x	0.10	0.14	x	0.18	0.36	0.18	0.06	0.22	0.11
Conductors, composers and arrangers	0.02	x	x	0.00	0.00	0.01	x	0.00	0.02	0.02	x	x	0.02	0.02
Dancers	0.04	x	0.04	x	x	0.02	x	x	0.05	0.05	x	0.05	0.06	0.06
Musicians and singers	0.19	0.30	0.27	0.26	0.08	0.19	0.12	0.09	0.20	0.17	0.26	0.15	0.24	0.19
Other performers	0.03	0.00	0.02	0.00	x	0.02	x	0.00	0.04	0.01	0.00	x	0.03	0.04
Painters, sculptors and other visual artists	0.10	0.14	0.09	0.07	0.09	0.13	0.11	0.15	0.11	0.10	0.13	0.03	0.11	0.07
Photographers	0.08	0.05	0.07	0.07	x	0.07	0.06	x	0.08	0.08	0.05	0.07	0.10	0.07
Producers, directors, choreographers and related	0.12	0.16	0.16	x	x	0.08	0.08	0.08	0.23	0.11	x	0.07	0.24	0.08
Total culture	1.75	1.87	1.98	1.19	0.90	1.75	1.42	1.22	2.39	2.18	1.64	1.20	2.60	1.49
Rank		8	6	23	26	9	19	21	4	5	11	22	3	14

Table A4.1: Percentage of labour force in culture occupations, by CMA, 2001 – *(concluded)*

Culture occupation	St. Catharines–Niagara	Kitchener	London	Windsor	Sudbury	Thunder Bay	Winnipeg	Regina	Saskatoon	Calgary	Edmonton	Abbotsford	Vancouver	Victoria
Design														
Architects	x	0.03	0.03	0.05	x	x	0.09	x	x	0.11	0.08	x	0.17	0.12
Graphic designers and illustrators	0.24	0.28	0.27	0.17	0.12	0.11	0.26	0.15	0.26	0.33	0.25	0.16	0.42	0.37
Industrial designers	0.05	0.07	0.06	0.11	x	x	0.06	x	x	0.07	0.04	x	0.05	0.03
Interior designers	0.05	0.06	0.09	0.04	x	x	0.07	x	0.03	0.12	0.06	x	0.11	0.12
Landscape architects	x	0.02	0.00	x	0.00	0.00	0.02	x	x	0.02	0.01	x	0.02	x
Theatre, fashion, exhibit and other creative designers	0.02	0.03	0.03	x	x	x	0.05	x	x	0.03	0.03	x	0.10	0.05
Information services														
Archivists	x	x	0.00	x	0.00	0.00	0.01	x	x	0.01	x	0.00	0.01	0.03
Conservators and curators	x	x	0.03	x	0.00	x	0.02	0.05	x	0.02	0.02	x	0.01	0.05
Editors	0.06	0.06	0.04	0.06	x	x	0.08	0.04	x	0.06	0.09	x	0.10	0.15
Journalists	0.03	0.05	0.07	x	0.09	0.10	0.07	0.11	0.06	0.07	0.09	x	0.08	0.09
Librarian	0.06	0.09	0.09	0.06	x	x	0.08	0.15	0.10	0.08	0.08	0.07	0.09	0.11
Performing, visual and literary arts														
Actors and comedians	0.06	0.03	x	x	0.00	x	0.03	x	0.03	0.05	0.03	x	0.18	0.03
Artisans and craftspersons	0.16	0.11	0.10	0.08	0.09	0.11	0.11	0.08	0.07	0.12	0.11	0.20	0.18	0.27
Authors and writers	0.06	0.11	0.12	0.04	0.07	x	0.12	0.16	0.23	0.16	0.09	x	0.21	0.35
Conductors, composers and arrangers	x	x	x	0.00	0.00	0.00	0.02	x	x	0.02	x	x	0.03	0.03
Dancers	0.07	0.03	0.03	0.03	x	x	0.06	0.11	0.05	0.06	0.05	x	0.07	0.08
Musicians and singers	0.19	0.26	0.22	0.14	0.14	0.15	0.29	0.24	0.25	0.22	0.22	0.18	0.30	0.36
Other performers	0.10	0.04	0.06	0.05	x	x	0.03	x	x	0.03	0.03	x	0.03	x
Painters, sculptors and other visual artists	0.05	0.05	0.08	0.03	x	x	0.09	0.08	0.07	0.11	0.09	0.11	0.16	0.23
Photographers	0.09	0.08	0.06	0.05	x	x	0.07	0.04	0.08	0.10	0.06	0.10	0.10	0.09
Producers, directors, choreographers and related	0.06	0.06	0.04	0.05	0.05	x	0.09	0.14	0.05	0.10	0.08	x	0.25	0.10
Total culture	1.42	1.48	1.42	1.05	0.82	0.91	1.74	1.57	1.46	1.89	1.54	1.24	2.68	2.70
Rank	17	15	18	24	27	25	10	12	16	7	13	20	2	1

x – Data have been suppressed due to confidentiality.
Source: Statistics Canada, Census of Canada, 2001.

Table A5.1: Population by culture and non-culture labour forces using occupation, by CMA, 1996 and 2001

CMA	1996 culture labour force	2001 culture labour force	% change 1996-2001	1996 non-culture labour force	2001 non-culture labour force	% change 1996-2001
St. John's	1,260	1,630	29.6	86,060	86,030	0.0
Halifax	3,180	3,840	20.9	175,140	189,860	8.4
Saint John	550	700	27.3	60,860	59,590	-2.1
Chicoutimi–Jonquière	810	630	-21.8	72,980	70,850	-2.9
Québec	5,800	6,320	9.1	345,790	354,000	2.4
Sherbrooke	880	1,110	26.3	73,450	77,430	5.4
Trois-Rivières	580	790	35.3	66,100	64,050	-3.1
Montréal	34,530	42,140	22.0	1,658,030	1,723,630	4.0
Ottawa–Hull	11,530	12,760	10.7	539,230	573,170	6.3
Kingston	1,060	1,230	16.5	72,710	73,680	1.3
Oshawa	1,580	1,880	19.3	137,830	156,370	13.5
Toronto	52,290	65,520	25.3	2,216,320	2,456,510	10.8
Hamilton	4,400	5,090	15.8	315,690	335,200	6.2
St. Catharines–Niagara	2,340	2,690	14.9	181,080	186,590	3.0
Kitchener	2,930	3,400	16.2	206,080	226,480	9.9
London	3,050	3,240	6.5	206,830	223,760	8.2
Windsor	1,490	1,640	10.4	140,830	155,460	10.4
Sudbury	670	620	-8.0	79,070	75,330	-4.7
Thunder Bay	600	550	-8.9	64,070	60,840	-5.0
Winnipeg	5,490	6,300	14.7	347,270	355,450	2.4
Regina	1,620	1,660	2.4	102,370	103,460	1.1
Saskatoon	1,770	1,770	0.1	114,130	119,130	4.4
Calgary	8,080	10,680	32.2	464,760	553,370	19.1
Edmonton	7,260	8,100	11.5	465,540	518,680	11.4
Abbotsford	750	900	20.3	66,600	72,690	9.1
Vancouver	22,740	28,120	23.7	970,610	1,021,790	5.3
Victoria	3,470	4,430	27.6	157,910	159,490	1.0
CMA total	180,680	217,740	20.5	9,387,350	10,052,870	7.1
Non-CMA total	50,440	54,470	8.0	5,194,230	5,251,490	1.1

Source: Statistics Canada, Censuses of Canada, 1996 and 2001.

Table A6.1: University enrolments by culture specialization, by CMA, 1998/99

CMA	Architecture	Industrial design	Journalism	Library science	Other mass communica-tions	Records science	School librarianship	English
St. John’s	0	0	0	0	0	0	0	320
Halifax	160	0	130	60	290	0	0	510
Saint John	0	0	0	0	10	0	0	160
Chicoutimi–Jonquière	0	0		10	10	0	0	40
Québec	310	0	10	50	1,080	0	0	100
Sherbrooke	0	0	0	0	40	0	0	170
Trois-Rivières	0	0	0	0	110	0	0	30
Montréal	880	30	0	460	3,510	0	0	3,070
Ottawa–Hull	330	130	560	0	1,010	0	0	1,030
Kingston	0	0	0	0	140	0	0	900
Oshawa	0	0	0	0	0	0	0	0
Toronto	820	0	600	40	720	260	0	3,170
Hamilton	0	0	0	0	0	0	0	570
St.Catharines–Niagara	0	0	0	0	370	0	0	200
Kitchener	310	0	0	0	0	0	0	1,090
London	0	0	40	170	350	0	0	830
Windsor	0	0	0	0	480	0	0	290
Sudbury	0	0	0	0	0	0	0	170
Thunder Bay	0	0	0	30	0	0	0	120
Winnipeg	80	0	0	0	40	0	0	310
Regina	0	0	140	0	0	0	0	230
Saskatoon	0	0	0	0	0	0	0	340
Calgary	70	30	0	0	40	0	0	470
Edmonton	0	0	0	90	50	0	0	700
Abbotsford	0	0	0	0	0	0	0	0
Vancouver	200	0	20	90	910	50	30	1,380
Victoria	0	0	0	0	0	30	0	370
CMA total	3,160	180	1,500	1,000	9,170	340	30	16,580

CMA	French	Fine arts	Music	Other applied arts	Other performing arts	Total enrolment	2001 population	Total enrolment by 2001 population
St. John’s	90	80	150	0	70	710	172,900	0.41
Halifax	110	510	80	110	180	2,140	359,200	0.60
Saint John	30	0	0	0	0	200	122,700	0.16
Chicoutimi–Jonquière	150	130	0	0	0	320	154,900	0.21
Québec	760	400	190	310	90	3,290	682,800	0.48
Sherbrooke	560	190	100	0	60	1,130	153,800	0.73
Trois-Rivières	230	90	120	0	0	580	137,500	0.42
Montréal	3,070	2,480	1,660	310	200	15,680	3,426,400	0.46
Ottawa–Hull	370	550	250	0	120	4,360	1,063,700	0.41
Kingston	130	250	160	0	180	1,760	146,800	1.20
Oshawa	0	0	0	0	0	0	296,300	0.00
Toronto	900	1,450	920	2,470	1,110	12,450	4,682,900	0.27
Hamilton	130	110	130	0	70	1,010	662,400	0.15
St.Catharines–Niagara	70	60	40	0	80	830	377,000	0.22
Kitchener	200	170	290	0	40	2,100	414,300	0.51
London	250	340	340	0	0	2,330	432,500	0.54
Windsor	80	170	180	0	240	1,450	307,900	0.47
Sudbury	90	30	50	0	20	360	155,600	0.23
Thunder Bay	20	70	50	0	0	290	122,000	0.24
Winnipeg	80	340	200	120	80	1,230	671,300	0.18
Regina	60	190	60	160	60	900	192,800	0.47
Saskatoon	30	160	60	0	60	650	225,900	0.29
Calgary	50	260	170	0	210	1,290	951,400	0.14
Edmonton	60	310	310	140	160	1,820	937,800	0.19
Abbotsford	0	0	0	0	0	0	147,400	0.00
Vancouver	180	270	430	0	240	3,800	1,987,000	0.19
Victoria	40	780	260	0	50	1,540	311,900	0.49
CMA total	7,720	9,370	6,210	3,630	3,300	62,180	19,296,900	0.32

Note: Numbers have been rounded to nearest 10.
Source: Statistics Canada, Centre for Education Statistics.

Table A6.2: University graduates by culture specialization, by CMA, 2000

CMA	Architecture	Industrial design	Journalism	Library science	Other mass communica-tions	Records science	School librarianship	English
St. John's	0	0	0	10	0	0	0	120
Halifax	40	0	50	20	50	0	0	180
Saint John	0	0	0	0	20	0	0	60
Chicoutimi–Jonquière	0	0	0	0	0	0	0	0
Québec	80	0	0	10	310	0	0	20
Sherbrooke	0	0	0	0	10	0	0	40
Trois-Rivières	0	0	0	0	0	0	0	0
Montréal	170	0	0	180	1,140	30	0	640
Ottawa–Hull	50	20	110	0	250	0	0	270
Kingston	0	0	0	0	30	0	0	190
Oshawa	0	0	0	0	0	0	0	0
Toronto	160	0	130	10	150	80	0	790
Hamilton	0	0	0	0	0	0	0	160
St. Catharines–Niagara	0	0	0	0	100	0	0	40
Kitchener	70	0	0	0	0	0	0	340
London	0	0	40	100	80	0	0	290
Windsor	0	0	0	0	100	0	0	60
Sudbury	0	0	0	0	0	0	0	40
Thunder Bay	0	0	0	10	0	0	0	90
Winnipeg	10	0	0	0	20	0	0	90
Regina	0	0	30	0	0	0	0	60
Saskatoon	0	0	0	0	0	0	0	80
Calgary	10	0	0	0	10	0	0	160
Edmonton	0	0	0	30	10	0	0	110
Abbotsford	0	0	0	0	0	0	0	0
Vancouver	40	0	20	30	250	20	20	500
Victoria	0	0	0	0	0	10	0	170
CMA total	620	20	380	390	2,540	130	20	4490

CMA	French	Music	Fine arts	Other applied arts	Other performing arts	Total graduates	2001 population	Total graduates by population
St. John's	30	10	30	0	10	210	172,900	0.12
Halifax	30	70	10	90	40	590	359,200	0.16
Saint John	20	0	0	0	0	100	122,700	0.08
Chicoutimi–Jonquière	10	20	0	0	0	50	154,900	0.03
Québec	160	130	60	100	20	890	682,800	0.13
Sherbrooke	130	30	20	0	20	250	153,800	0.16
Trois-Rivières	50	10	20	0	0	80	137,500	0.06
Montréal	760	510	410	150	140	4,110	3,426,400	0.12
Ottawa–Hull	90	110	50	0	20	980	1,063,700	0.09
Kingston	40	60	10	0	30	390	146,800	0.27
Oshawa	0	0	0	0	0	0	296,300	0.00
Toronto	210	270	190	440	230	2,640	4,682,900	0.06
Hamilton	60	30	40	0	20	310	662,400	0.05
St. Catharines–Niagara	20	10	10	0	20	200	377,000	0.05
Kitchener	60	50	70	0	10	600	414,300	0.14
London	80	70	90	0	0	760	432,500	0.18
Windsor	20	30	30	0	40	280	307,900	0.09
Sudbury	30	10	10	0	10	90	155,600	0.06
Thunder Bay	20	10	10	0	0	130	122,000	0.11
Winnipeg	40	70	60	20	30	340	671,300	0.05
Regina	20	10	10	40	10	150	192,800	0.08
Saskatoon	10	40	10	0	10	150	225,900	0.07
Calgary	20	50	40	0	40	340	951,400	0.04
Edmonton	10	40	50	10	40	290	937,800	0.03
Abbotsford	0	0	0	0	0	0	147,400	0.00
Vancouver	90	80	110	0	80	1,240	1,987,000	0.06
Victoria	20	100	50	0	40	390	311,900	0.13
CMA total	2,020	1,830	1,400	850	860	15,550	19,296,900	0.08

Note: Numbers have been rounded to nearest 10.
Source: Statistics Canada, Centre for Education Statistics.

Table A6.3: Community college enrolment by culture specialization, by CMA, 1999/00

CMA	Advertising	Architectural design/ drafting technology	Engineering-architectural and construction	Industrial design/ operations technology	Fashion arts	Interior decorating	Jewellery design	Landscaping	Other graphic and audiovisual arts
St. John’s	0	50	0	0	0	0	0	0	30
Halifax	0	40	0	0	0	0	0	0	0
Saint John	0	0	0	0	0	0	0	0	0
Chicoutimi–Jonquière	0	110	0	0	0	0	0	0	0
Québec	0	170	0	70	0	220	0	0	150
Sherbrooke	0	0	0	0	0	0	0	0	140
Trois-Rivières	0	80	0	0	0	200	0	0	0
Montréal	0	600	0	170	1,010	550	0	120	960
Ottawa–Hull	260	360	0	0	0	360	0	0	280
Kingston	0	0	0	0	0	0	0	0	0
Oshawa	140	0	0	30	0	0	0	0	240
Toronto	900	560	0	340	170	360	0	0	1,640
Hamilton	230	270	0	0	0	0	0	0	40
St. Catharines–Niagara	0	0	120	0	0	0	0	0	0
Kitchener	0	0	0	0	0	0	0	0	0
London	0	270	0	130	110	160	0	0	260
Windsor	130	130	0	0	0	80	0	0	140
Sudbury	70	0	0	0	0	0	0	0	110
Thunder Bay	0	0	50	0	0	0	0	0	70
Winnipeg	100	40	0	0	0	0	0	0	0
Regina	0	0	0	0	0	0	0	0	0
Saskatoon	0	0	0	20	0	0	0	0	0
Calgary	0	220	0	30	0	0	10	0	0
Edmonton	50	280	0	0	0	60	0	0	170
Abbotsford	0	0	0	0	0	0	0	0	0
Vancouver	80	150	0	30	110	220	70	0	270
Victoria	0	0	0	0	0	0	0	0	60
CMA total	1,950	3,320	170	810	1,400	2,210	80	120	4,560

CMA	Archival science	Journalism	Library science	Other mass communica-tions	Printing and publishing	Radio and television broadcasting	Cinemato-graphy/film production/ animation	Commercial arts	Dance
St. John’s	0	0	0	40	0	0	0	0	0
Halifax	0	0	30	60	20	0	0	0	0
Saint John	0	0	0	0	0	0	0	0	0
Chicoutimi–Jonquière	0	0	10	640	0	0	0	0	0
Québec	0	0	0	50	0	0	0	0	10
Sherbrooke	0	0	0	0	0	0	0	0	0
Trois-Rivières	0	0	10	0	0	0	0	0	0
Montréal	140	0	50	50	710	0	40	0	60
Ottawa–Hull	150	200	70	0	170	310	100	0	0
Kingston	0	0	0	0	0	0	0	0	0
Oshawa	0	120	0	0	0	0	0	0	0
Toronto	0	470	110	460	70	460	440	310	0
Hamilton	0	100	0	0	10	320	0	160	0
St. Catharines–Niagara	0	100	0	0	0	180	40	0	0
Kitchener	0	70	0	0	0	80	0	90	0
London	0	0	20	0	0	220	0	0	0
Windsor	0	80	0	0	0	0	0	80	0
Sudbury	0	40	0	0	0	0	0	0	10
Thunder Bay	0	0	0	70	0	60	50	0	0
Winnipeg	0	0	30	120	0	0	0	0	0
Regina	0	0	0	0	0	0	0	0	0
Saskatoon	0	0	30	0	0	0	0	0	0
Calgary	0	190	0	50	180	250	50	10	0
Edmonton	0	70	50	10	0	110	0	20	40
Abbotsford	0	0	70	0	0	0	0	0	0
Vancouver	0	160	100	40	50	200	100	70	0
Victoria	0	0	0	50	0	0	0	0	0
CMA total	290	1,580	570	1,630	1,210	2,200	820	730	130

Note: Numbers have been rounded to nearest 10.

Table A6.3: Community college enrolment by culture specialization, by CMA, 1999/00 – *(concluded)*

CMA	Drama	English-literature/grammar/composition	Fine and applied arts not reported	Handicrafts	Music	Other commercial and promotional arts	Other creative and design arts	Other fine arts	Performing arts/theatre arts
St. John’s	0	0	0	0	0	0	0	0	0
Halifax	0	0	0	0	0	0	20	0	0
Saint John	0	0	0	0	0	0	0	0	0
Chicoutimi–Jonquière	0	50	0	0	0	0	40	0	0
Québec	0	130	400	0	40	80	0	0	0
Sherbrooke	0	0	0	0	0	0	0	0	0
Trois-Rivières	0	40	0	0	10	0	0	0	0
Montréal	350	260	260	0	300	310	0	30	0
Ottawa–Hull	0	60	0	0	0	0	120	0	90
Kingston	0	0	0	0	0	0	0	0	0
Oshawa	0	0	0	0	0	90	0	0	0
Toronto	50	120	2,500	100	290	20	240	350	140
Hamilton	0	0	0	0	150	0	0	0	0
St. Catharines–Niagara	0	0	0	0	0	50	0	0	0
Kitchener	0	0	0	0	0	0	0	0	0
London	0	0	0	0	0	0	0	120	40
Windsor	0	0	0	0	0	0	0	0	0
Sudbury	20	0	0	0	70	0	0	10	0
Thunder Bay	0	0	0	0	0	20	0	0	0
Winnipeg	0	0	0	0	0	0	0	0	0
Regina	0	0	0	0	0	0	0	0	0
Saskatoon	0	0	0	0	0	0	0	0	0
Calgary	60	0	210	0	30	0	2	0	0
Edmonton	100	0	0	0	160	0	0	50	0
Abbotsford	0	0	0	0	0	0	0	0	0
Vancouver	130	0	530	0	160	40	0	200	0
Victoria	0	0	0	0	20	0	0	0	0
CMA total	710	670	3,890	100	1,230	610	420	770	270

CMA	Performing arts–other	Photography	Recorded music production	Sculpture and painting	Total enrolments	2001 population	Total enrolments by 2001 population
St. John’s	0	0	0	0	120	172,900	0.07
Halifax	0	30	0	0	200	359,200	0.05
Saint John	0	0	0	0	0	122,700	0.00
Chicoutimi–Jonquière	0	0	0	0	850	154,900	0.55
Québec	0	0	0	0	1,320	682,800	0.19
Sherbrooke	0	0	0	0	140	153,800	0.09
Trois-Rivières	0	0	0	0	330	137,500	0.24
Montréal	0	360	0	0	6,340	3,426,400	0.18
Ottawa–Hull	0	100	0	0	2,620	1,063,700	0.25
Kingston	0	0	0	0	0	146,800	0.00
Oshawa	0	0	0	0	610	296,300	0.21
Toronto	120	280	0	28	10,510	4,682,900	0.22
Hamilton	0	0	0	0	1,270	662,400	0.19
St. Catharines–Niagara	0	0	0	0	480	377,000	0.13
Kitchener	0	0	0	0	240	414,300	0.06
London	0	140	140	0	1,620	432,500	0.38
Windsor	0	0	0	0	640	307,900	0.21
Sudbury	0	0	0	0	330	155,600	0.21
Thunder Bay	0	0	0	0	320	122,000	0.26
Winnipeg	0	0	0	0	280	671,300	0.04
Regina	0	20	0	0	20	192,800	0.01
Saskatoon	0	0	0	0	50	225,900	0.02
Calgary	0	10	0	20	1,320	951,400	0.14
Edmonton	0	50	0	0	1,220	937,800	0.13
Abbotsford	0	0	0	0	70	147,400	0.05
Vancouver	70	160	0	280	3,210	1,987,000	0.16
Victoria	0	0	0	0	130	311,900	0.04
CMA total	180	1,140	150	330	34,230	19,296,900	0.18

Note: Numbers have been rounded to nearest 10.
Source: Statistics Canada, Centre for Education Statistics.

Table A6.4: Community college graduates by culture specialization, by CMA, 1998/99

CMA	Advertising	Architectural design/ drafting technology	Engineering-architectural and construction	Fashion arts	Industrial design/ operations technology	Interior decorating	Jewellery design	Landscaping	Other graphic and audiovisual arts
St. John’s	0	10	0	0	0	0	0	0	0
Halifax	0	40	0	0	0	0	0	10	0
Saint John	0	0	0	0	10	0	0	0	0
Chicoutimi–Jonquière	0	30	0	0	0	0	0	0	0
Québec	0	40	0	50	10	40	0	0	40
Sherbrooke	0	0	0	0	0	0	0	0	40
Trois-Rivières	0	10	0	0	0	20	0	0	0
Montréal	0	120	0	110	30	80	0	0	140
Ottawa–Hull	60	100	0	0	0	50	0	20	70
Kingston	0	0	0	0	0	0	0	0	0
Oshawa	40	0	0	0	20	0	0	0	60
Toronto	300	110	0	30	50	40	0	30	400
Hamilton	50	60	0	0	0	0	0	0	0
St. Catharines–Niagara	0	0	10	0	0	0	0	0	0
Kitchener	0	0	0	0	0	0	0	0	0
London	0	40	0	30	40	50	0	20	80
Windsor	30	20	0	0	0	20	0	0	30
Sudbury	30	0	0	0	0	0	0	0	20
Thunder Bay	0	0	0	0	0	0	0	0	30
Winnipeg	40	20	0	0	0	0	0	0	0
Regina	0	0	0	0	0	0	0	0	0
Saskatoon	0	0	0	0	0	0	0	0	0
Calgary	0	0	0	0	0	40	0	0	0
Edmonton	20	60	0	0	0	20	0	30	100
Abbotsford	0	0	0	0	0	0	0	0	0
Vancouver	20	60	0	20	10	80	10	70	70
Victoria	0	0	0	0	0	0	0	0	20
CMA total	570	730	10	240	170	440	10	180	1,090

CMA	Archival science	Journalism	Library science	Other mass communica-tions	Printing and publishing	Radio and television broadcasting	Cinemato-graphy/film production/ animation	Commercial arts	Dance
St. John’s	0	0	0	10	0		0	0	0
Halifax	0	0	10	20	0	0	0	0	0
Saint John	0	0	0	0	0	0	0	0	0
Chicoutimi–Jonquière	0	0	20	140	0	0	0	0	0
Québec	0	0	20	0	0	0	0	0	0
Sherbrooke	0	0	0	0	0	0	0	0	0
Trois-Rivières	0	0	30	0	0	0	0	0	0
Montréal	20	0	90	0	100	0	0	0	10
Ottawa–Hull	60	50	30	20	100	0	30	0	0
Kingston	0	0	0	0	0	90	0	0	0
Oshawa	0	20	0	0	0	0	0	0	0
Toronto	0	130	60	150	70	0	140	60	0
Hamilton	0	0	10	0	20	210	0	50	0
St. Catharines–Niagara	0	30	0	0	0	70	30	0	0
Kitchener	0	20	0	0	0	20	0	30	0
London	0	0	10	0	0	20	0	0	0
Windsor	0	20	0	0	0	80	0	0	0
Sudbury	0	30	0	0	0	0	0	0	10
Thunder Bay	0	0	0	10	0	0	30	0	0
Winnipeg	0	0	30	40	0	20	0	0	0
Regina	0	0	0	0	0	0	0	0	0
Saskatoon	0	0	0	0	0	0	0	0	0
Calgary	0	30	0	10	0	0	0	0	0
Edmonton	0	20	0	10	0	30	0	20	20
Abbotsford	0	0	0	0	0	40	0	0	0
Vancouver	0	40	20	30	10	0	10	10	0
Victoria	0	0	0	10	0	90	0	0	0
					0				
CMA total	80	380	320	450	300	670	240	180	30

Note: Numbers have been rounded to nearest 10.

Table A6.4: Community college graduates by culture specialization, by CMA, 1998/99 – *(concluded)*

CMA	Drama	English-literature/grammar/composition	Fine and applied arts not reported	Handicrafts	Music	Other commercial and promotional arts	Other creative and design arts	Other fine arts	Performing arts/theatre arts
St. John's	0	0	0	0	0	0	0	0	0
Halifax	0	0	0	0	0	0	10	0	0
Saint John	0	0	0	0	0	0	0	0	0
Chicoutimi–Jonquière	0	0	0	0	0	0	0	0	0
Québec	0	0	0	0	10	20	0	0	0
Sherbrooke	0	0	0	0	0	0	0	0	0
Trois-Rivières	0	0	0	0	0	0	0	0	0
Montréal	40	0	0	0	20	60	0	0	0
Ottawa–Hull	0	30	0	0	0	0	20	0	20
Kingston	0	0	0	0	0	0	0	0	0
Oshawa	0	0	0	0	0	0	0	0	0
Toronto	20	20	320	0	30	0	90	250	10
Hamilton	0	0	0	0	30	0	0	0	0
St. Catharines–Niagara	0	0	0	0	0	30	0	0	0
Kitchener	0	0	0	0	0	0	0	0	0
London	0	0	0	0	0	0	0	20	10
Windsor	0	0	0	0	0	0	0	0	0
Sudbury	10	0	0	0	10	0	0	0	0
Thunder Bay	0	0	0	0	0	10	0	0	0
Winnipeg	0	0	0	0	0	0	0	0	0
Regina	0	0	0	0	0	0	0	0	0
Saskatoon	0	0	0	0	0	0	0	0	0
Calgary	20	0	0	0	10	0	0	0	0
Edmonton	20	0	0	0	50	0	0	20	0
Abbotsford	0	0	0	0	0	0	0	0	0
Vancouver	20	0	30	0	40	30	0	10	0
Victoria	0	0	0	0	10	0	0	0	0
CMA total	140	50	350	0	210	140	120	300	40

CMA	Performing arts–other	Photography	Recorded music production	Sculpture and painting	Total graduates	2001 population	Total graduates by 2001 population
St. John's	0	0	0	0	20	172,900	0.01
Halifax	0	30	0	0	120	359,200	0.03
Saint John	0	0	0	0	10	122,700	0.00
Chicoutimi–Jonquière	0	0	0	0	190	154,900	0.12
Québec	0	0	0	0	240	682,800	0.03
Sherbrooke	0	0	0	0	40	153,800	0.02
Trois-Rivières	0	0	0	0	60	137,500	0.05
Montréal	0	50	0	0	850	3,426,400	0.02
Ottawa–Hull	0	30	0	0	770	1,063,700	0.07
Kingston	0	0	0	0	0	146,800	0.00
Oshawa	0	0	0	0	140	296,300	0.05
Toronto	10	80	0	10	2,650	4,682,900	0.06
Hamilton	0	0	0	0	290	662,400	0.04
St. Catharines–Niagara	0	0	0	0	130	377,000	0.03
Kitchener	0	0	0	0	70	414,300	0.02
London	0	50	60	0	470	432,500	0.11
Windsor	0	0	0	0	120	307,900	0.04
Sudbury	0	0	0	0	100	155,600	0.06
Thunder Bay	0	0	0	0	90	122,000	0.07
Winnipeg	0	0	0	0	130	671,300	0.02
Regina	0	10	0	0	10	192,800	0.01
Saskatoon	0	0	0	0	0	225,900	0.00
Calgary	0	0	0	0	140	951,400	0.01
Edmonton	0	20	0	0	440	937,800	0.05
Abbotsford	0	0	0	0	0	147,400	0.00
Vancouver	10	30	0	80	770	1,987,000	0.04
Victoria	0	0	0	0	30	311,900	0.01
CMA total	20	290	60	90	7,870	19,296,900	0.04

Note: Numbers have been rounded to nearest 10.
Source: Statistics Canada, Centre for Education Statistics.

Table A7.1: Percentage of females in culture and non-culture labour forces, by CMA, 2001

CMA	Culture labour force	Non-culture labour force
St. John’s	52.6	49.1
Halifax	52.8	48.3
Saint John	55.4	47.8
Chicoutimi–Jonquière	50.4	42.8
Québec	45.9	47.6
Sherbrooke	45.9	47.6
Trois-Rivières	47.8	45.6
Montréal	47.7	47.1
Ottawa–Hull	53.7	47.5
Kingston	54.0	48.3
Oshawa	52.9	46.5
Toronto	48.1	47.4
Hamilton	53.7	46.9
St. Catharines–Niagara	56.9	47.3
Kitchener	52.4	46.6
London	52.4	47.9
Windsor	57.3	45.5
Sudbury	53.8	48.1
Thunder Bay	60.2	47.4
Winnipeg	49.8	47.7
Regina	59.0	49.1
Saskatoon	54.7	48.1
Calgary	51.7	46.1
Edmonton	53.6	46.4
Abbotsford	62.9	45.5
Vancouver	47.5	47.4
Victoria	52.5	49.1
CMA total	49.6	47.2
Non-CMA total	56.2	45.3

Source: Statistics Canada, Census of Canada, 2001.

Table A7.2: Percentage of labour force which is female, by culture occupations, by CMA/ Non-CMA, 2001

Culture occupation	Non-CMA	CMA
	%	
Design		
Architects	14.8	21.4
Graphic designers and illustrators	52.1	43.4
Industrial designers	22.9	22.0
Interior designers	74.9	72.7
Landscape architects	32.9	30.3
Theatre, fashion, exhibit and other creative designers	70.3	65.5
Information services		
Archivists	60.8	65.4
Conservators and curators	65.5	60.0
Editors	51.8	57.2
Journalists	49.2	47.3
Librarian	89.5	79.1
Performing, visual and literary arts		
Actors and comedians	43.9	46.0
Artisans and craftspersons	60.8	57.4
Authors and writers	52.8	53.3
Conductors, composers and arrangers	39.1	31.4
Dancers	89.8	82.6
Musicians and singers	63.6	53.9
Other performers	58.1	69.7
Painters, sculptors and other visual artists	48.2	53.1
Photographers	42.4	33.4
Producers, directors, choreographers and related	34.1	39.5

Source: Statistics Canada, Census of Canada, 2001.

Table A7.3: Level of educational attainment for culture and non-culture labour forces, by CMA/Non-CMA, 2001

CMA		Culture labour force	Non-culture labour force
			%
CMA total	No degree, certificate, diploma	7.4	19.5
	High school graduation certificate	16.2	25.1
	Trades certificate or diploma	6.8	11.0
	College certificate or diploma	24.0	18.5
	University certificate or diploma	3.9	3.0
	University degree	41.6	22.9
Non-CMA total	No degree, certificate, diploma	14.7	29.0
	High school graduation certificate	20.8	24.9
	Trades certificate or diploma	10.3	15.7
	College certificate or diploma	23.7	17.3
	University certificate or diploma	4.2	2.1
	University degree	26.3	11.0

Source: Statistics Canada, Census of Canada, 2001.