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What determines labour market success for recent culture graduates?

By Jacqueline Luffman

What are the chances that recent culture graduates will find employment related to their field of study? How do university graduates fare compared with college graduates¹? This article examines these questions and explores the factors connected to the success or failure of recent culture graduates in finding employment.

Labour market success depends on many factors, including an individual's level of education and previous work experience, the state of the economy and the size of the labour pool. The relative influence of such factors depends in turn on the needs of a particular industry. The culture sector, like many others, has weathered a period of widespread downsizing and restructuring. Like others, it faces large worker outflows in the years ahead as baby boomers move into retirement.

The fact that most new jobs created in the 1990s require post-secondary education has not been lost on Canadian students who wish to pursue a career in culture². The supply of highly educated culture workers has grown at a rate comparable to other parts of the economy. Enrolments in all university programs grew by 9% between the 1990-1991 academic year and the 1998-1999 academic year. Overall college enrolments rose 24% over the same period. Although

enrolments in university culture studies grew more slowly (4%), culture studies at colleges saw above average increases (28%).

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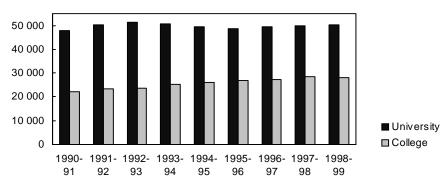


The term "college" will be used to refer collectively to postsecondary non-university educational institutions, including community colleges, trade schools, vocational schools, CEGEPs, technical institutes and similar public institutions providing technological training in specialised fields.

² See also Luffman, Jacqueline, 2000" Culture jobs increasing: Update on the Culture Labour Force", Focus on Culture, Vol. 12, No. 2 and "Labour market outcomes of arts and culture graduates", Focus on Culture, Vol. 12, No.3, 2001.

Figure 1
Full-time enrolment in culture fields of study rose gently through the 1990s





The graduating class of 1995

In 1995, 11% of all university graduates received a degree in culture-related studies, while 7% of college students graduated from culture programs. The 1990s saw an expansion of the programs offered by colleges (particularly in such fields as graphic and audio-visual arts) and a stronger growth in enrolments.

What are culture fields of study?

The academic disciplines selected for this study include: fine arts, music, performing arts, dance, drama, industrial design, applied arts, advertising, commercial arts, photography, recorded music production, printing and publishing, jewellery design, fashion design, graphic or other audio-visual arts, interior decorating, mass communications, cinematography and film animation, radio and television broadcasting, English, French and other language literature, journalism, translation and interpretation, library and record sciences, archival sciences, architectural design and drafting, architecture and landscape architecture. The selection is based on the definitions contained in the (draft) Canadian Framework for Culture Statistics.

What are culture industries?

Also selected on the basis of the Canadian Framework for Culture Statistics, the culture sector includes 16 categories from the Standard Industrial Classification System 1980:

- Advertising Services
- Architectural, Engineering and Other Scientific and Technical Services
- Camera and Photographic Supply Stores
- Combined Publishing and Printing Industries
- Library Services
- Motion Picture Exhibition
- Motion Picture, Audio and Video Production and Distribution

- Museums and Archives
- Musical Instrument and Record Stores
- Musical Instruments and Supplies, Wholesale
- Photographers
- Photographic Equipment and Supplies
- Publishing Industries
- Telecommunication Broadcasting Industries
- Theatrical and Other Staged Entertainment Services
- Other Services not elsewhere classified

What are culture occupations?

Culture occupations include the following 43 categories from the 1991 Standard Occupational Classification:

1. Culture occupations

a) 'Creative jobs': Creative and artistic production

Actors; Architects; Artisans and craftspersons; Conductors, composers and arrangers; Dancers; Editors; Graphic designers and illustrating artists; Industrial designers; Interior designers; Journalists; Landscape architects; Musicians and singers; Other performers; Painters, sculptors and other visual artists; Photographers; Producers, directors, choreographers and related occupations; Theatre, fashion, exhibit and other creative designers; Writers

b) Heritage, collection and preservation

Archivists; Conservators and curators; Librarians

2. Culture support occupations

a) Cultural management occupations

Library, archive, museum and art gallery managers; Managers in publishing, motion pictures, broadcasting and performing arts; Supervisors, library, correspondence and related information clerks

b) Technical and operational occupations

Announcers and other broadcasters; Architectural technologists and technicians; Audio and video recording technicians; Broadcast technicians; Correspondence, publication and related clerks; Drafting technologists and technicians; Film and video camera operator; Graphic arts technicians; Landscape and horticultural technicians and specialists: Library and archive technicians and assistants; Library clerks; Other technical occupations in motion pictures, broadcasting and the performing arts; Patternmakers: textile, leather and fur products; Professional occupations in public relations and communications; Support and assisting occupations in motion pictures, broadcasting and the performing arts; Technical occupations related to museums and galleries; Translators, terminologists and interpreters.

c) Manufacturing Occupations
Binding and finishing machine
operators; Camera, platemaking and
other pre-press occupations;
Photographic and film processors;
Printing machine operators; Printing
press operators; Supervisors, printing
and related occupations; Typesetters
and related occupations.

Despite the new college programs, culture students continued to show a strong preference for university education. Of 28,000 culture graduates in 1995, 63% graduated from university and 37% from college. This is in contrast with choices made by the 270,000 graduates of non-culture programs: 52% graduates from university and 48% from college (Table 1).

The National Graduate Survey (NGS) shows that the likelihood of culture graduates landing a job in a culture field are not great. Two years after graduation, over 80% of culture graduates did not work in a field

related to their education, although outcomes varied by level of education³. Specifically, 13% of university culture graduates worked in a culture occupation and 15% worked in a culture industry two years after graduation. Culture college graduates fared somewhat better: 27% were working in a culture occupation and 30% in a culture industry (Table 1).

Interestingly, about 6.2% or 7,000 of non-culture university and about 4.3% or 4,500 non-culture college graduates were working in the culture sector two years after graduation (Table 1). Many jobs in

the culture industries require the skills and abilities of other non-culture professions such as lawyers, financial managers, accountants, computer technicians, sales and marketing managers, etc. As a result these types of non-culture graduates are hired to fill essential jobs in the culture sector.

One would expect that most graduates would want to find a job in their chosen field of study. Other research has shown that job satisfaction is higher among

Table 1 Characteristics of the Class of 1995, by field of study and level of study

Characteristics	University Graduate	Trade, Vocational and College Graduates	Total Graduates	University Graduate	Trade, Vocational and College Graduates	Total Graduates		
		ulture fields of stud	ly	A	ll other fields of stu	dy		
Number of graduates 1995 Males Females	17,510 31.1 68.9	10,170 43.9 56.0	27,680 36.0 64.0	139,400 41.8 58.1	130,400 46.6 53.3	269,800 46.0 54.0		
Income				\$				
Average income from wages and salaries Median income from wages and salaries	18,994 16,000	17,310 16,000	18,420 16,000	27,736 26,000	20,925 20,000	24,640 22,000		
		Percent (%)						
Previous experience % had job in culture profession prior to graduation for 6 months or more % had job in culture industry prior to graduation for 6 months or more	2.6	3.3 4.3	2.9 3.7	n.r. 1.7	n.r. 1.8	0.9		
Labour Force Status June 97 % employed % unemployed % self-employed % had permanent job % had temporary job	76.2 11.7 9.1 50.2 49.7	81.8 12.0 12.2 61.7 38.3	78.2 11.8 7.5 42.1 35.2	83.4 7.6 5.8 59.3 40.6	82.3 11.1 5.1 69.5 30.5	82.9 9.3 4.1 51.5 28.7		
% working in culture occupation, June 97 % working culture industry, June 97	13.3 14.7	26.6 29.7	18.3 15.9	1.2 6.2	n.r. 4.3	n.r. 4.3		
% went back to school after graduation	26.5	10.1	20.5	16.6	12.3	14.6		
Job and education relationship % closely related % somewhat related % not related at all	31.6 27.3 41.1	40.6 23.2 36.2	35.0 26.0 39.0	53.6 23.3 23.1	55.6 20.1 24.3	55.0 22.0 24.0		

n.r. Not reliable

Source: National Graduate Survey

³ Luffman, Jacqueline, 2001.

What is the National Graduate Survey (NGS)?

Statistics Canada, in partnership with **Human Resources Development** Canada, has conducted the National Graduate Survey since 1982. The survey is designed to capture information on the labour market experiences of graduates two and five years after graduation. To date, information is available on graduates of 1982, 1986, 1990 and 1995. Information on the Class of 2000 is currently being collected, with funding from the Policy Research Initiative. Each cohort was interviewed two and five years after graduation in order to collect information about their educational experiences and early labour market outcomes.

This article draws on the results from the NGS for 1997, reflecting the labour market outcomes of the graduating class of 1995 two years later. (Results for this cohort five years after graduation are scheduled for release in the summer of 2002 and were therefore not available when this analysis was undertaken.) The survey gives researchers the opportunity to track job spells, changing working conditions, overall employment outcomes and the acquisition, possession and use of specific skills.

Of note, is that the NGS contains only data on post-secondary training so that students from specialised non-post-secondary training schools as the National Ballet School and The National Theatre School are not included.

graduates who see a strong relationship between their education and job⁴. In 1997, only about one-third of culture graduates reported that their job was closely tied to their education compared with over half of other graduates. Once again, results differed by level of education: 32% of university culture graduates reported a strong link between education and job, compared with 41% of college graduates (Table 1).

The seemingly weak connection between a culture education and culture-related employment may need to be viewed in a different light. Culture students who choose university may be more interested in a broad-based general education whereas college culture students may be focused on specialized job training. In the end, many university graduates may be interested in culture as a field of study but not interested in a career in the culture sector.

Graduates seeking highpaying jobs

The recession early in the 1990s demonstrated that graduates were not immune to unemployment. In addition, the 1990s saw a major shift away from grants to loans for postsecondary students. Government transfers to universities declined in the mid-1990s and tuition fees generally increased. As a result, more students began to borrow to finance their education and the average student debt load rose⁵.

Given the mixed messages of the labour market, and increasing debt loads, recent graduates place a high priority on pay when seeking work. The NGS asks graduates to indicate their top criteria when job hunting. About 33% of university graduates and 29% of college graduates ranked high pay as number one. Students with very large loans (over \$20,000) were more likely to rank high pay as the top criterion than those who had not borrowed money⁶.

Graduates may not find it easy to secure a high-paying job in the culture sector. Most culture occupations receive earnings below the Canadian average. Based on results from the 1996 Census of Population, earnings across all full-time, full-year culture occupations in 1995 averaged less than \$30,000⁷.

This level of pay may have acted as a deterrent and pushed some recent culture graduates to seek employment in other sectors.

In a similar vein, self-employment is very prevalent and growing feature of the culture sector. More than a third of culture workers are self-employed compared to about 17% of all workers. Self-employment accounts for more than half of all "creative jobs" (see text box) in the culture sector. But recent graduates may find self-employment particularly risky at a time when they need to repay student loans.

Access to culture jobs

What factors affect a recent graduate's chances of finding work in Canada's culture sector? Some studies suggest that entry depends in part on a student's ability to network with others in the industry, to secure an internship or apprenticeship⁸. However, a tight economy has decreased the number of entry-level positions and made this type of experience difficult to obtain. Most post-secondary graduates (over 80%) in the 1990's were working either

⁴ Bowlby, Geoff. 1996. "Relationship between postsecondary graduates' education and employment". Education Quarterly Review. July 1996, Vol.3, No. 2. Statistics Canada, Cat.No.81-003.

⁵ Clark, Warren 1999, "Student debt from 1990-91 to 1995-96: an analysis of Canada Student Loan data, Education Quarterly Review, July 1999, Vol. 5, No. 4. Cat. No. 81-003.

⁶ Ibid

⁷ Luffman, Jacqueline. 2000. "Earnings of selected culture workers: what the 1996 Census can tell us., Focus on Culture, Vol. 12. No. 1.

⁸ Human Resources Development Canada. Job Futures. http://jobfutures.ca/ jobfutures/ and Industry Profiles. http:/ /www.hrdc-drhc.gc.ca/sector/english/ industryprofiles/prsearch.shtml (accessed June 2002).

full-time or part-time two years after graduation. However, although the majority of graduates were employed, not all graduates found it easy to find a job.

Culture graduates from the class of 1995 were more likely to report some difficulty finding a job related to their field of study (42%) than other graduates (31%). In addition, culture graduates were more likely to report some difficulty knowing about job openings (46%) than were other graduates (32%) (Figure 2).

Many factors may influence the chances of finding work in the culture sector, including the level and type of degree or diploma, field of study, previous work experience and demographic characteristics. To sort out the relationship between these variables, a technique known as logistic regression was used.

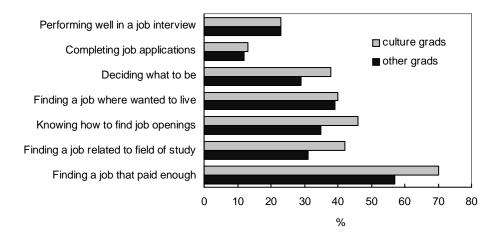
What is logistic regression?

Logistic regression is a technique that examines the relative importance of various factors in explaining particular outcomes (or odds of an outcome) – in this case, predictors of an individual's propensity to work in the culture sector. Logistic regression is more powerful than simply looking at each variable individually because, in examining the importance of a particular variable, it holds constant the other variables that are under the lens.

Odds are the relative probability of an individual falling into one of three groups:

- Odds ratios greater than 1 indicates an increase in the chances of a person working in culture
- Odds ratios less than 1 indicates a decrease in the chances of a person working in culture
- Odds ratios equal to 1 indicates no effect on the chances of a person working in culture

Figure 2
Percent of graduates who reported at least some difficulty with their job search by type, 1997



University graduates have lower odds than college graduates of working in culture industries 2 years after graduation

The majority of culture graduates in 1995 had attended university, but they had lower odds of finding work in culture industries than did their college contemporaries (Table 2). And yet, 38% of the total culture workforce that year held a university degree – a rate well above the average for all employed workers⁹.

The labour market appears to have shifted in the 1990s, favouring the specialized training or technical skills obtained through a college program. Other research has also shown that vocational graduates were more successful finding employment at the early stages of their careers. In the short-term (two to five years after graduation), the field of study is found to significantly influence the ease of the transition by favouring "vocational over liberal [arts] graduates with regard to labour force

status, job permanence and job satisfaction."¹⁰

Meanwhile, university culture graduates, particularly those with graduate degrees, may be more likely to seek employment in educational services. In fact, about 30% of the class of 1995 were working in educational services in 1997. Educational services includes establishments that provide formal academic or technical training including elementary, secondary and post-secondary institutions as well as other types of educational institutions.

University culture graduates were also more likely to return for more schooling than college culture

⁹ Unpublished data drawn from the Labour Force Survey, Statistics Canada.

¹⁰ Zeng, Lin, et. al 2000. Consequence and policy implications for university students who have chosen liberal or vocational education: labour market outcomes and employability skills. Human Resources Development Canada, Applied Research Branch, 2000, No. R-00-2-3E, p. 3.

graduates. About a fifth of the culture class of 1995 returned to some form of post-secondary education within two years of graduation, however, university culture graduates returned to school in higher numbers (27%) than college culture graduates (10%).

Prior work experience favours the odds of working in the culture sector

Less than 5% of culture graduates had at least 6 months of prior work experience in a culture industry, but such experience had a major impact on the likelihood of securing a

Table 2
The odds of working in the culture sector favour college over university graduates

Variables	Working in culture 1997: odds ratio
Educational attainment	
University degree	0.23
College, trade or vocational graduate	1.00
Age at graduation	0.98
Gender	
males	0.72
females	1.00
Region where employed	
Atlantic provinces	1.20
Ontario	3.40
Western Provinces	2.10
Quebec	1.00
Full-time work experience in the culture sector	
yes	7.40
no	1.00
Completed another degree, diploma after grad	
yes	0.12
no no	1.00
Deciding what wanted to be	
had great or some difficulty	0.41
had no or little difficulty	1.00
Finding a job that paid enough	
had great or some difficulty	1.30
had no or little difficulty	1.00
Finding a job related to field of study	
had great or some difficulty	1.45
had no or little difficulty	1.00
Most important criteria when selecting a job	
High salary/pay	0.00
yes	0.88
no	1.00
Job location	0.00
yes	0.96
NO	1.00
Like the kind of work	0.40
yes	0.40
no	1.00
Amount of loan	1.57

Note: The benchmark group is shown in italics. An odds ratio of close to 1.0 for the comparison group means there is little or no difference in working in culture between the comparison and the benchmark groups, when the effects of other factors shown in the table are controlled for.

Not statistically signficant below the p<.10 level

Source: National Graduate Survey

culture job. In fact, culture graduates with prior work experience in the field had odds 7 times greater of working in the culture sector two years after graduation than their contemporaries with no previous culture work experience.

Graduates with prior work experience were also less likely to go back to school for further studies, fewer reported difficulties in finding a job after graduation and they had higher average earnings than those with no prior work experience in the culture sector (Table 2).

Use of literacy and technology skills linked to culture jobs

Graduates were asked to self-report their own skill level in writing and their use of writing skills. Culture graduates who reported using their writing skills had odds 3 times higher of working in the culture sector than did graduates who reported little use of their writing skills (Table 3). These skills may have helped them to obtain work in the culture sector. It is equally possible that culture sector jobs in general provide greater opportunity to use writing skills.

Technology skills, acquired through education or training, were also a significant predictor of working in the culture sector. Culture graduates who reported having acquired technology skills from their education had odds 3 times higher of working

Table 3
Culture graduates with literacy and technology skills had 3 times the odds of working in the culture sector than those with limited skills

Variables	Acquisition of skills	Possession of skills	Use skills in current job
		Working in culture	e 1997
Thinking			
to a great or some extent	1.4	3.7	7.1
little or not at all	1.00	1.00	1.00
Writing			
to a great or some extent	0.4	0.7	3.2
little or not at all	1.00	1.00	1.00
Technology			
to a great or some extent	3.1	0.5	1.4
little or not at all	1.00	1.00	1.00
Problem Solving			
to a great or some extent	1.2	0.8	1.8
little or not at all	1.00	1.00	1.00
Work effectively with others			
to a great or some extent	0.61	1.22	1.30
little or not at all	1.00	1.00	1.00
Supervisory skills			
to a great or some extent	0.6	1.2	0.3
little or not at all	1.00	1.00	1.00

Note: The benchmark group is shown in italics. An odds ratio of close to 1.0 for the comparison group means there is little or no difference in working in culture between the comparison and the benchmark groups, when the effects of other factors shown in the table are controlled for.

Not statistically signficant below the p<.10 level Source: National Graduate Survey

in the culture sector than did those who reported limited acquisition of such skills (Table 3).

Results show a relationship between level of education and the extent of technological skills reported by the graduate. Specifically, those who reported technological skills were more likely to be college graduates. During the early and mid-nineties, the culture sector (much like other sectors) was undergoing rapid adjustment to new technologies and changing working conditions. The technological skills may have stood the college graduates in good stead in their search for a culture job.

Conclusion

The recruitment and entry of recent culture graduates into the workforce is an issue of interest to the culture community. An Ontario study of the human resource needs in the culture sector highlighted that a combination of apprenticeship, internship and mentoring (A.I.M.) is the most effective method of helping new culture graduates make the transition from school to work. 11 In fact, A.I.M directly focused on "both increased employability and earning power". 12 The same message was reiterated by a parliamentary standing committee on Canadian Heritage (1999) which concluded that individuals who are training in culture fields of study should have opportunities for co-op and internship programs similar to those in other fields of study. The committee stated that "earning while learning" would be an attractive method to assist young professionals as they enter the culture sector. 13

Many factors influence labour market success and they vary depending upon the age, stage and amount of experience gained by graduates in the workforce. Analysis of the employment patterns of culture graduates over the longer-term would shed light on what other factors might be beneficial to their developing careers.

An overview of the specialized design services industry, 1999

By Klarka Zeman

This article, originally based on 1998 data, is reprinted from **Services Indicators**, Statistics Canada catalogue no. 63-016-XPB, 1st quarter 2001, and has been updated to include 1999 data.

Introduction

This article examines characteristics of the specialized design services industry in Canada. While the industry is relatively small, it is strategically important as good design can make products and services more competitive. At a more detailed level, this article provides a 1999 snapshot of the design industry's five subindustries: landscape architecture, interior design, industrial design, graphic design and "other" design

¹¹ Yi-Leu, Du. May 1998. "Proposal for Effective and Efficient Training for Ontario's Cultural Industry". Prepared for the Ontario Cultural Human Resource Council. Genovese Vanderhoof & Associates. p. 6.

¹² **Ibid**.

¹³ "A Sense of Place - A Sense of Being", Ninth Report, Standing Committee on Canadian Heritage, House of Commons, June 1999, (Recommendations 8 and 9).

services (see Box for detailed definitions of each sub-industry).

The article discusses how expansion in the scope of services offered by today's design sub-industries has made it more difficult to properly categorize individual firms. The size of firms and how size might be related to expenses, employment patterns in the industry and characteristics of the design workforce are also studied. Also investigated are the regional distribution of design firms, the types of clients they serve and the activities they undertake.

One of the main challenges faced in studying this sector is a problem of definition. The ways in which various design services providers define themselves do not necessarily match design sub-industry definitions under the North American Industry Classification System (NAICS). For example, a firm that earns a significant portion of its revenue from providing graphic design services might also offer other services such as web design, market research and brand management. With the NAICS, a business is classified to the industry through which it earns the largest proportion of its revenues. Therefore, while a firm might see itself as being in graphics design, if it earns the majority of its revenues from web design, under the NAICS it would be classified under "computer systems design and related services" rather than "graphics design".

More competition leads to more diversification

Further exacerbating these definition problems is the trend in design services to diversify in response to clients' expectations for a wider range of services. Clients are demanding other services in addition to design,

such as market research and brand consulting from graphic designers, and facilities management from interior designers. To become more competitive, designers are increasingly marketing themselves as "onestop shops" for a range of services.

In the graphic design field, the pressure to diversify is partly due to

the increased use of desktop publishing software. This software enables potential graphic design clients to do their own graphic design.² To maintain these clients, graphic designers must demonstrate the value they can add, and must

The sub-industries of specialized design services

1997 is the first year for which Statistics Canada explicitly collected data about the types of design services categories examined in this article. Under the previous Standard Industry Classification the design categories discussed in this article were placed in broader categories. Landscape architectural services were placed under SIC 7759 "other scientific and technical services". Graphic design services were formerly other advertising services (SIC 7749). Finally, interior design services, industrial design services and other specialized design services were all placed into a catch-all category called "other business services" (SIC 7799). In 1997, Statistics Canada began collecting data on the design industry under the North American Industry Classification System (NAICS). As is the case with many other industries, NAICS enables the various types of design services to be better categorized.

Here are the five design services sub-industries as they are classified under NAICS:

541320 Landscape Architectural Services. Landscape architects plan, design and administer the development of land areas by applying their knowledge of land characteristics, location of buildings and structures, use of land areas and design of landscape projects. This sub-industry includes landscape architectural services, city planning services (except engineers), ski area planning services, golf course design services, offices of town planners and urban planning services. It does not include landscaping services and retail nursery and garden centres that also provide landscape consulting and design services.

541410 Interior Design Services. Interior designers plan, design and administer projects in interior spaces to meet the physical and aesthetic needs of people. They take into account building codes, health and safety regulations, traffic patterns and floor planning, mechanical and electrical needs and interior fittings and furniture. This category does not include retailers who sell furniture and furnishings and also provide interior design services.

541420 Industrial Design Services. Industrial designers create and develop designs and specifications that optimize the function, value and appearance of products. These services can include the determination of the materials, construction, mechanisms, shape, colour and surface finishes of the product, taking into consideration human needs, safety, market appeal and efficiency in production, distribution, use and maintenance. Industrial designers work in the automobile, furniture and package design industries and may also provide industrial design consulting and modelling services. However, designers who apply principles of engineering are not included in this category. Neither are designers of clothing, shoes and jewelry.

541430 Graphic Design Services. Graphic designers plan, design and manage the production of visual communication, so as to convey specific messages or concepts, clarify complex information or project visual identities. This may include the design of printed materials, packaging, video screen displays, advertising, signage systems and corporate identification. Commercial artists, medical illustrators and silk screen designers are included in this sub-industry. Printers, cartoonists and photographers, publishers, market strategists, media buyers or firms that create and place advertising campaigns are excluded from this sub-industry.

541490 Other Specialized Design Services. This category includes designers who are not classified to any of the above. These include clothing designers, fashion designers, float designers, set designers, shoe designers and textile designers.

Price Waterhouse, 1996. Shaping Canada's Future by Design. Ottawa.

therefore offer more services than just graphic design.

Graphic designers get largest share of design revenues

In 1999, the overall specialized design services industry earned \$1.76 billion in revenues (Table 1). As they are defined under the NAICS, of all the design sub-industries, graphic designers comprise the largest subindustry with 57% of the industry's revenue and 52% of its firms. Interior designers take the next largest shares of revenue and firms at 24% and 26%, respectively. Finally, industrial design, landscape architecture and other design make up similar proportions at between 5 to 10% each of both revenue and number of firms.

Most specialized design services firms are small

In the Canadian design industry, a firm with 20 or more employees is considered large.³ Only 5% of Canada's specialized design services firms fall in this category. However, in the United States, a 20-person design firm is considered a small-to-medium sized firm.⁴ According to Industry Canada, the majority of Canadian design firms have fewer than 5 employees.⁵ Therefore, Canada's specialized design services firms are fairly small, especially compared to those in the United States.

If design firms are placed into size categories according to their 1999 revenue,⁶ the largest 2% of firms are found to earn 22% of the industry's revenues (Table 2). Meanwhile, the 81% of design firms in the small category earn 36% of the industry's revenues. This suggests that there is at least some degree of industry concentration in specialized design services.

Table 1
The specialized design industry by size of sub-industries

Sub-industries	Total revenue	% of revenue	% of firms
	\$	%	%
Landscape architecture	123,300,000	7	6
Interior design	416,235,000	24	26
Industrial design	131,192,000	7	8
Graphic design	1,002,412,000	57	52
Other design	84,342,000	5	7
All design services	1,757,481,000	100	100

Source: 1999 Survey of Service Industries: Specialized Design

Table 2
The specialized design industry by size of firm*

% of industry's revenue		% of firms
Large	22	2
Medium	42	15
Small	36	81

^{*} Large firms are those with total revenue greater than 2\$ million. Medium firms have a total revenue less than 2\$ million but greater than \$500,000. Small firms have a total revenue less than \$500,000. Source: 1999 Survey of Service Industries: Specialized

Desian

About half of the industry is located in Ontario

Design activity in Canada is heavily concentrated in Ontario and Quebec with 76% of the industry's revenue earned in these two provinces (Table 3). This pattern also generally applies to each of the separate design sub-industries. About half of all landscape architect, interior design, graphic design and other design services industries' revenues are earned in Ontario. Industrial

designers, however, are less concentrated in Ontario and more evenly spread between Ontario and Quebec. Since industrial design firms rely on manufacturers as their major clients, they tend to locate near most of Canada's heavy industry in Ontario and Quebec.

However, this concentration in Quebec and Ontario may diminish in the future due to greater use of the

Table 3
Provincial distribution of revenue

	Atlantic	Quebec	Ontario	Prairies	B.C.	Territories	
	Percentage (%)						
Landscape architecture	3	20	47	15	14	1	
Interior design	1	18	54	14	13	Х	
Industrial design	2	38	40	10	11	Х	
Graphic design	2	20	58	8	11	1	
Other design	1	36	35	11	17	Х	
Specialised services	2	22	54	10	12	Х	

x Suppressed to meet the confidentiality requirements of the Statistics Act. Source: 1999 Survey of Service Industries: Specialized Design

² Society of Graphic Designers of Canada National Secretariat. GDC.net, January 2000. (GDC web site, accessed June 2001). <www.gdc.net>

³ Price Waterhouse.

l Ibid.

Industry Canada. "Designing in a High-Speed Networking Environment". (Strategis web site, accessed June 2001). <strategis.ic.gc.ca/SSG/ss00028e.html>

⁶ For the purpose of this analysis, firms are categorized as being large if their total revenue exceeds \$2,000,000.

Medium firms have a total revenue less than \$2,000,000 but greater than \$500,000. Small firms have a total revenue less than \$500,000.

Internet for communications between design firms and their clients. Through specially enabled web sites, designers may share documents and collaborate on-line through project tracking, project storage, file transfer, messaging, scheduling, application sharing, video-conferencing and whiteboarding. The Internet also allows designers to collaborate with other designers in virtual project teams. These developments enable small design firms to work together on larger projects which might ordinarily be out of their scope (for an average project a designer will use seven sub-contractors, subconsultants, suppliers and serviceproviders).7 Designers may also use the Internet to advertise and to allow clients to view their work on-line.8 With the rise of Internet use in design work, not only is firm size becoming less of a factor, so too is proximity to other designers and clients.

Wages and salaries are the largest expense item

The largest expense for each of the specialized design services sub-industries is salaries and wages (Table 4). At a minimum, salaries and wages equal about one-third of revenues in the graphic design, interior design, industrial design and other design sub-industries, and at most 46% of total revenue for landscape architect firms.

For some industries, such as interior design and other design, expenses for materials, components and supplies are significant. This is to be expected in interior design as part of the service might include procuring furniture, building supplies and decorating supplies for the client.

Expenses breakdowns are similar for large, medium and small firms—with

Table 4
Operating expenses by type as a percentage of total revenue

% of industry revenues	Salaries, wages and benefits	Design work contracted to others	Occupancy and other rental	Materials, components and supplies	Other expenses	Profit margin
Size:						
Large	34	6	6	20	19	15
Medium	36	9	5	15	19	16
Small	23	8	7	12	26	24
Design sub-industry:						
Landscape architecture	46	6	6	1	23	18
Interior design	33	6	7	19	17	18
Industrial design	30	7	7	10	25	21
Graphic design	30	9	5	15	24	17
Other design	33	5	7	17	19	19

Note: All figures are for surveyed firms only. As well, the "other expenses" category also includes some non-operating

Source: 1999 Survey of Service Industries: Specialized Design

one exception. The proportion of small design firms' revenue going towards salaries, wages and benefits is relatively low. This may be due to the way these firms report wages and profits. The working proprietors of unincorporated small firms often include their own salaries in the firms' profits. This is why salaries and wages are lower in small firms, with corresponding larger profit margins in these same firms. Except for this anomaly, however, larger design firms' operating expense breakdowns do not differ significantly from those of smaller firms.

There is little difference in profit margins for the different sub-industries. Although, the profit margin in the graphic design industry is slightly lower, this may be due to the relative abundance of larger firms—unlike their smaller counterparts, larger firms' profits do not include owners' wages and salaries.

High proportion of designers are self-employed

Anecdotal evidence suggests that design firms, on average, have relatively few employees.⁹ They operate with as few full-time, permanent employees as possible in order to adjust quickly to slackening demand. When business slows, design work is among the first things to be cut as it is seen as a luxury rather than a necessity. This sensitivity to business cycles is supported by data from the Labour Force Survey (LFS). During the recession of the early 1990s, for example, design industry employment declined markedly. On the other hand, it increased in most years during which the economy expanded. Total employment for the industry stood at 45,900 in 2000.

Firms that contract out are more flexible in adjusting their employment levels to changing economic conditions. With 46% of large firms using contract workers, they are far more likely than their small- and medium-sized counterparts to contract out (Table 5). Among the different sub-industries, contract workers are more common in the interior design and other design services sub-industries.

Self-employment is also common in specialized design services, in part because career advancement can be

⁷ Industry Canada.

⁸ Ibid.

⁹ Price Waterhouse.

Table 5
Large specialized design services firms are more likely to employ contract workers

	% of firms using contract workers
Firm size:	
Large	46
Medium	33
Small	24
Design sub-industry:	
Landscape architecture	34
Interior design	32
Industrial design	17
Graphic design	24
Other design	16

Source: 1999 Survey of Service Industries: Specialized Design, surveyed firms only.

limited for some designers unless they open their own design firms. Since formal job titles and documented job descriptions are uncommon in the industry, once designers reach a certain level in a firm there are normally no positions remaining to which they may progress. As a result, many design professionals opt to start their own design firms either as owners or freelancers. ¹⁰

The assertion that many designers start their own firms is supported by 1996 Census data. The proportion of designers that are self-employed is significantly higher than the proportion in the "all occupations" category. This is the case in all design occupation categories except urban and land use planning¹¹ (Table 6).

Table 6
High proportion of designers are self-employed

	All occupations	Landscape architects	Urban and land use planners	Industrial designers	Graphic designers	Interior designers	Other designers
				Percent (%)		
Employees Self-employed	87 12	61 39	90 10	79 21	66 34	51 49	69 31

Source: 1996 Census, reference year 1995

Over the longer term, the overall design services workforce has expanded very rapidly. Labour Force Survey data show that, while the average annual employment growth rate in the overall economy was 1.5% from 1987 to 2000, it was 5.1% in design services during the same period. 12

Earnings are highest for urban and land use planners

1996 Census data enable us to examine some characteristics of the design workforce in 1995. Among employees in the sub-industries studied in this article, urban and land use planners were the highest paid, as of 1995, with an average employment income of \$52,662 (Table 7). 13 This was significantly higher than the average employment income in the "all occupations" category covering the whole economy (\$37,566). There are reasons why urban and land use planners would be paid more. First, they are over four times more likely than people in other occupations to have a university degree or higher level of schooling. Also, on average, urban and land use planners work more weeks per year (47) than people in other occupations (42).

Among the design occupations, industrial designers are the second highest paid with an average employment income of \$43,966. They

also tend to have higher levels of education. Some 29% of industrial designers have a university degree, compared with 17% for other occupations. Industrial designers also work more hours, averaging 43 hours per week compared with the all-occupations average of 38. They also work four more weeks per year than the average worker in Canada.

Landscape architects are the next highest paid with an average employment income of \$40,464, slightly higher than the average for all occupations. They are more than three times as likely as the average worker to have at least a bachelor's degree. This is because the only education programs that are deemed to produce "professional" landscape architects are those offered at universities. 14 The CSLA suggests that the lack of programs offered elsewhere may become problematic because two bachelor's degree programs (at the University of Toronto and the University of British Columbia) in landscape architecture have been converted into master's programs. The worry is that fewer

Human Resources Development Canada. "Industry Profiles: Design Industry". (HRDC web site, accessed June 2002).
www.hrdc-drhc.gc.ca/hrib/hrp-prh/ssd-des/english/industryprofiles/ D06/ busenv.shtml>

¹¹ In other sections of this paper, urban and land use planners are included in the "landscape architecture" category as that is the way in which they are coded under NAICS (please see Box). See also, Canadian Society of Landscape Architects. CSLA Bulletin, October 2000, Volume 15, Issue 2. (CSLA web site, accessed June 2002). <www.csla.ca>

¹² Statistics Canada, Labour Force Survey.

¹³ Average employment income refers to the average income received by persons 15 years of age and over during calendar year 1995 as wages and salaries and net income from non-farm unincorporated business and/or professional practice.

¹⁴ Price Waterhouse.

landscape architects will graduate from university due to the additional years of study and greater requirements of master's programs. With fewer university-educated landscape architects available, firms may instead have to hire graduates from fields such as environmental planning and design, environmental design, environmental landscape design, and landscape architecture technology. There are already a growing number of non-landscape architects filling the positions formerly filled by professional landscape architecture graduates.

Interior designers earn an average employment income of \$32,885 which is less than the average for all occupations. While 29% of interior designers hold a university degree and another 40% have a nonuniversity certificate, some 53% of interior designers were primarily educated in fine and applied arts. Yet, university programs in interior design may be in short supply. According to students and faculty of college design programs, this is problematic because employers prefer graduates of university-level design programs over graduates of non-university programs. 15

Graphic designers and illustrating artists earn an average employment income of \$31,875, about 12% below the overall average. Half of graphics designers and illustrators are under age 35, and 45% had fine and applied arts as their major field of study.

All five of the design occupations share certain characteristics. Compared with other occupations, the percentage of designers in each

Table 7
Characteristics of the design workforce

	All occupations	Landscape architects	Urban and land use planners	Industrial designers	Graphic designers	Interior designers	Other designers*
Average 1995 employment incomes	\$37,566	\$40,464	\$52,662	\$43,966	\$31,875	\$32,885	\$28,856
Average hours worked per week	38	44	39	43	40	37	38
Average weeks worked per year	42	41	47	46	43	42	41
Average age	38	39	40	39	35	39	38
Age groups				Percent (%)			
15-24	15	2	3	7	12	7	12
25-34	26	36	28	32	40	31	33
35-44	28	37	38	31	29	34	29
45-54	21	18	26	19	13	21	19
55-64	9	5	5	9	4	5	6
65 years and older	2	2	1	2	1	2	1
Total	100	100	100	100	100	100	100
Sex							
Male	54	75	68	80	57	29	35
Female	46	25	32	20	43	71	65
Total	100	100	100	100	100	100	100
Highest level of schooling							
Less than grade 9	5	3	0	0	1	0	3
Grades 9 - 13	33	13	5	11	13	9	21
Trades certificate or diploma only	4	2	1	2	3	3	3
Other non-university certificate only	29	14	13	40	47	40	37
University without bachelor's degree	12	12	_9	17	16	18	18
University with bachelor's degree or higher	17	57	73	29	21	29	19
Total	100	100	100	100	100	100	100
Major field of Study							
No post-secondary qualifications	50	22	10	21	26	19	37
Fine and applied arts	3	1	1	11	45	53	34
Social sciences and related fields	5	4	59	3	3	3	3
Commerce, management and business							
administration	11	2	6	4	5	5	5
Engineering and applied sciences	2	60	9	22	2	5	2
Engineering and applied science technologies				_			
and trades	11	6	7	32	. 7	5	. 5
Other fields of study	18	7	9	7	11	9	14
Total	100	100	100	100	100	100	100

^{*} Includes theatre, fashion, exhibit and other creative designers (NAICS 541 490)

Note: Totals may not sum to exactly 100% due to rounding.

¹⁵ *Ibid*.

sub-industry with post-secondary qualifications is much higher even though their qualifications differ. There is also a general trend in the industry towards certification and licensing. Because qualifying for a certificate or license usually requires a professional degree or diploma, designers may increasingly seek educated candidates that can meet these certification or licensing requirements. ¹⁶

The design disciplines differ by gender. Landscape architects, urban and land use planners and industrial designers tend to be male. These are also professions in which some of the major fields of study are engineering and applied sciences-fields of study which were traditionally considered male dominated. Table 7 shows that graphic designers and illustrating artists are more evenly split at 57 percent male, 43 percent female. Interior designers and other designers are more likely to be women. Also, the majority of graphic designers, interior designers and other creative designers have fine and applied arts as their major field of study.

Landscape architects do more government work

Most of the revenues earned in industrial design, graphic design and other design come from other businesses (Table 8). For example, because industrial designers design processes and products, their clients tend to be manufacturers. Graphic designers often work for advertising firms, or work directly for a business to create a "look" or visual identity for that business.

In contrast, landscape architects earn two-fifths of their revenue from government clients, although a

Table 8
Proportions of operating revenues from different client types*

	Households and individuals	Businesses	Governments	Foreign clients
		F	Percent (%)	
Landscape architecture	16	43	40	2
Interior design	31	52	10	6
Industrial design	11	70	5	15
Graphic design	3	80	8	9
Other design	24	56	8	11
Overall specialized design services	12	71	8	9

^{*} Surveyed firms only

Source: 1999 Survey of Service Industries: Specialized Design

similar proportion also comes from other businesses. Interior design is the only design sub-industry that relies heavily on demand from households and individuals.

None of the design sub-industries earn a large percentage of their revenues from foreign clients. One report on the overall specialized design services industry suggests that this is because Canadian design firms lack marketing and exporting expertise. 17 As shown in Table 7, only a small percentage of designers have commerce, management or business administration as their major field of study. In this industry, firms in the industrial design category rely the most on exports, with 15% of their revenues coming from foreign clients. The majority of these exports go to the United States.

Designers earn revenues from providing various types of services

The "1999 Survey of Service Industries: Specialized Design" is the second year in which designers reported the proportions of their revenues earned through providing various types of design services. Not surprisingly, each of the design subindustries relies most on revenues earned from providing design services (Table 9). However, they also receive revenues for design consultation, project management and other services. Landscape architects, for example, derive about 30% of their income from project management, while interior designers earn onethird of their revenues from design consultation.

Table 9
Proportions of revenues derived from various activities

	Provision of design services	Design consultation	Project management	Other services		
		Percent (%)				
Landscape architecture Interior design Industrial design Graphic design Other design	33 43 53 53 42	25 33 22 16 19	28 11 14 13 9	14 13 11 18 30		

Source: 1999 Survey of Service Industries: Specialized Design

¹⁶ Ibid.

¹⁷ Ibid.

Conclusions

This article has demonstrated that Canadian design firms are relatively small, and are most likely to be located in Ontario and Quebec. Many designers are self-employed either as owner-proprietors of small firms or as freelancers. Overall design industry employment levels were also found to shift according to macroeconomic fluctuations.

As in most professional service industries, salaries and wages are the major expense items for design firms. There is stiff competition among these small firms, which leads them to diversify their activities in order to differentiate themselves. Most revenues earned by design firms arise from demand from businesses rather than households and governments. Although firms are concentrated in central Canada, this may change as Internet use by design firms becomes more common.

The use of e-commerce may also facilitate growth of the export of Canadian design services. Industry analysts suggest that Canadian firms also have a number of other strengths: a well-educated workforce,

proximity to major clients, and a high likelihood of being "connected and computer-literate". Additional advantages include the flexibility to expand or contract when required, multilingualism and capabilities in ecologically responsible design and design for extreme climactic conditions. ¹⁸

Klarka Zeman was an analyst in the Service Industry Division when this article was written. She now works in Culture, Tourism and the Centre for Education Statistics Division.

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¹⁸ Industry Canada.

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Table 1 Number of publishers and periodicals, 1992-1993 to 1998-99

	Year					
	1992-93	1993-94	1994-95	1996-97	1998-99	
Number of publishers reporting in Canada	1,266	1,256	1,219	1,137	1,470	
Publishers of one periodical Publishers of more than one periodical Number of reported periodicals	1,098 168 1,692	1,088 168 1,678	1,059 160 1,612	964 173 1,552	1,274 196 2,027	

Table 2
Largest publishers are earning a reduced share of industry revenues and circulation

	Year					
	1992-93	1993-94	1994-95	1996-97	1998-99	
Total number of publishers	1,266	1,256	1,219	1,137	1,470	
Largest 4 publishers						
% share of revenue	33.3	32.4	32.5	31.6	29.0	
% share of circulation	30.9	32.4	32.4	30.1	24.5	
% share of remuneration	18.6	20.1	18.7	18.0	19.9	
Largest 8 publishers						
% share of revenue	43.3	42.7	42.1	41.3	38.3	
% share of circulation	38.9	40.4	38.2	36.1	32.7	
% share of remuneration	26.3	28.3	26.2	25.4	26.5	
Largest 12 publishers						
% share of revenue	47.7	46.7	46.7	46.9	43.6	
% share of circulation	44.3	45.9	43.7	42.3	38.9	
% share of remuneration	29.6	31.4	29.3	29.2	32.3	

Source: Periodical Publishing Survey

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