

## Quarterly Bulletin from the Culture Statistics Program

Catalogue no. 87-004-XPB

Spring 1996

Vol 8, No. 1

## Preparing for the Information Highway

this article is taken from a broader article that appeared recently in Canadian Social Trends, adapted to focus on the impact on culture of the emerging global information society1

Advances in telecommunications and in computer technology have brought about an information revolution, the impact of which may be as profound as that of the industrial revolution of the nineteenth century. The rapid evolution of telephone, cable, satellite and computer networks, combined with technological breakthroughs in computer processing speeds and information storage capacity, have made this latest revolution possible.

For decades, telephones and televisions have been standard equipment in virtually every Canadian household. More recently, technological developments and declining prices have given consumers access to an expanding range of high-tech products and services. As a result, video cassette recorders (VCRs), compact disc (CD) players, cable television, satellite dishes, facsimile (fax) machines, computers, CD-ROMs and modems have been making their way into the homes of more and more Canadians. The increased presence of such innovations in the home is gradually changing the way many people spend their working, learning and leisure time.

Canadians appear to be keeping pace with the evolution of an increasingly technological environment and their degree of computer literacy is higher than ever. As the information highway grows more elaborate, the number of opportunities for taking advantage of information technology in the home is increasing. Thus far, however, these innovations are most accessible to people in higher income households.

### Information technology infrastructure has evolved

The information highway can be described as a "network of networks" that allows for the sharing of information. In addition to information in the form of text, the information highway facilitates the interactive use of sophisticated graphic, video and audio information. Although telephone

Jeffrey Frank, "Preparing for the Information Highway: Information Technology in Canadian Households" in Canadian Social Trends Autumn 1995, Statistics Canada Cat. 11-008E, pp. 2-7.

and cable systems are competing to be the main carrier of information services in the future, other media, including direct-to-home satellite services, may become equally important lanes on the information highway.

Some information equipment that can be found in the home, including fax machines and modems, make use of standard telephone lines. Sophisticated switching and communications capabilities make telephone systems highly interactive, but the wires these phone systems currently use are limited to transmitting text and low- to medium-quality graphics. Canada's major phone companies, however, are moving quickly to increase the capacity and speed of their networks.

In contrast, cable systems use lines capable of handling high-quality graphics, animation, video and interactive computer applications. Cable services to date, however, have been a one-way medium, from distributers to consumers. Currently, there are about 1,800 cable systems in Canada serving nearly 8 million households. About 97% of Canadian households are located in areas that are wired for cable service. Like the telephone companies, the cable industry is in the process of upgrading its systems to incorporate the most recent technological developments.

In This Issue	
Preparing for the Information Highway	1
Film and Video Production	4
Government Culture Budget on the Decline	6
Culture Surveys Update	9
Introducing NAICS .	10

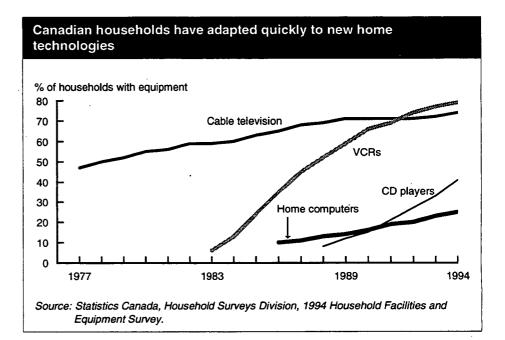
## More Canadian households with high-tech products and services

Canadians have demonstrated themselves quick to adopt many new home-based information technology products. In 1994, for example, 79% of households had at least one VCR, up from just 6% in 1983. Similarly, the proportion of Canadian households with a CD player increased to 41% in 1994 from 8% in 1988 (the first year such information was collected). Also in 1994, more than 400,000 households (4%) had a fax machine.

To receive expanded television programming and viewing choices, nearly three-quarters (74%) of households subscribed to a cable service in 1994, up from 47% in 1977. Of course, some households, especially in rural areas, do not have access to cable service. These households require a satellite dish to receive a wider range of television programming; in 1993, 3% of Canadian households were equipped with a satellite dish. This proportion will likely increase. however, as new direct-to-home satellite television services poise themselves to compete with established cable services.

Ownership of home computers has also been growing. New hardware and software products, falling prices, and the opportunity to link up with larger computer networks and services have made owning a personal computer (PC) more attractive than ever before. In 1994, 25% of Canadian households (2.6 million) had a home computer, up from 10% in 1986. This excludes computers that were strictly for business purposes and those that could only be used to play games. One in three home computers (34%) was equipped with a modem. This device sends and receives information over telephone lines, and allows households to access on-line services, bulletin board systems, and the Internet.

We must remember, however, that consumers will not necessarily embrace every new technology that comes along. Indeed, many media and formats of information-based products and services have been introduced in the past only to quickly become obsolete. Consumer preference plays an important role in determining which home-based information technologies become established. For example, the recent introduction of the digital



compact cassette (DCC) was met with considerable consumer resistance and in fact, the largest record retail chain in Canada has refused to continue to stock this low performance format (refer to "Where Culture Meets the Bottom Line . . Change in format produces rapid growth in revenues in the record industry" in Focus on Culture, Vol. 6, No. 3).

# Higher income households and those with children most likely to have and use home computers

Although the vast majority of households, regardless of income, can access many electronic services by telephone, links to the information highway are not as universally available. For example, a computer (along with a modem and appropriate software) is required to access the Internet. As might be expected, income is an important determinant of whether or not a household has a PC. In 1994, households in the highest income group were five times more likely to have a home computer (46%) than were those in the lowest income group (9%)<sup>2</sup>

Computer ownership also varies by household type (which in turn is related to other factors such as income and age). Families with children under age 18 were more likely to have a computer (35%) than were those without children (24%). Furthermore, families with children were three times as likely as one-person households (12%) to own a computer. PCs were even less common in the homes of seniors. Less than 7% of households headed by people aged 65 and over had a computer in 1994. In fact, household type is related to ownership of many electronic leisure items, including VCRs and CD players. Families with children are most likely to have all of these devices.

According to the 1994 General Social Survey (GSS), 56% of adult Canadians (12.3 million) were able to use a computer, up substantially from 47% in 1989. In 1994, 17% of computer users (2.2 million) reported having used an on-line service or the Internet in the 12 months before the survey. Using and benefiting from information technology, however, is still most common among Canadians with high incomes and among the young.

#### Implications for culture

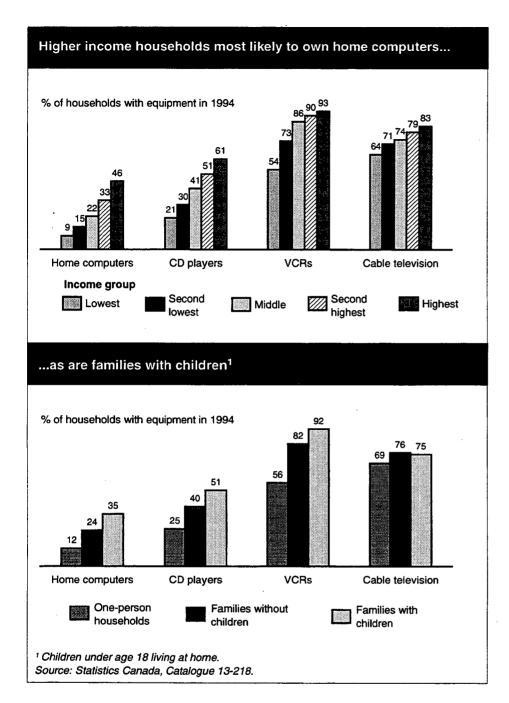
In the cultural field, the implications of information technology in the home are considerable. Consumers will be faced with many new choices in terms of content, products and services, and prices. CDs and VCRs, for example, have already changed the way

<sup>&</sup>lt;sup>2</sup> Households were ranked from those with the highest incomes to those with the lowest. Households were then divided into five equally sized groups (quintiles).

## Percentage of urban households<sup>1</sup> with selected equipment in 1994

Census metropolitan area (number of households)	Cable television	VCR	Cam- corder	Cassette or tape recorder	CD player	Home computer	Modem
				%		<u> </u>	
Calgary (270,000)	86	82	15	81	45	31	7
Chicoutimi-Jonquière (52,0	000) 77	80	12	56	32	15	
Edmonton (290,000)	79	83	17	84	47	30	12
Halifax (124,000)	87	85	11	85	46	27	12
Hamilton (244,000)	87	82	14	78	48	28	4
Kitchener (133,000)	87	85	19	82	55	36	22
London (137,000)	86	83	16	85	44	29	6
Montreal (1,246,000)	69	71	11	66	38	22	7
Oshawa (86,000)	89	88	20	81	49	29	
Ottawa-Hull (352,000)	84	81	12	81	44	34	11
Québec (266,000)	68	75	10	72	44	18	. 3
Regina (67,000)	82	83	12	87	45	26	· •
St. Catharines- Niagara (131,000)	72	82	14	70	0.5		
St. John's (54,000)	88	79	14	78	35	22	13
Saint John (44,000)	88	79 81	12	80	40	22	
Saskatoon (72,000)	72		19	84	39	17	
, , ,		78	16	87	43	27	
Sherbrooke (52,000)	89	78	12	71	42	25	
Sudbury (60,000)	83	83	18	82	47	29	
Thunder Bay (49,000)	79	83	16	78	43	27	
Foronto (1,365,000)	90	82	19	76	46	31	12
Trois-Rivières (49,000)	<b>86</b>	76	13	70	37	24	
/ancouver (660,000)	93	81	17	83	54	36	16
/ictoria (129,000)	94	79	14	87	52	36	15
Vindsor (99,000)	49	80	16	77	40	25	19
Vinnipeg (250,000)	85	77	12	79	40	21	14

Households in census metropolitan areas.
-- Amount too small to be expressed.
Source: Statistics Canada, Household Surveys Division, 1994 Household Facilities and Equipment Survey



Canadians listen to music and see films. The delivery of cultural and entertainment services may change even more profoundly as cable systems and satellites allow for direct, customized distribution to the home. Everything from pay-per-view movies, to electronically distributed sound recordings, to interactive audio-visual presentations of gallery and museum exhibits will be possible. New products, such as interactive games and virtual

reality applications, could lead to unprecedented levels of consumer participation and creativity.

As with all innovations that have been introduced in the past, new information technologies pose challenges to the protection of intellectual property. Copyright considerations will likely be a major part of public policy discussions as the information highway evolves. Another important consideration is the

The National Gallery of Canada launched its Internet site on January 8, 1996. While only four images, all by M.C. Escher, were on display, the site also provides highlights from current exhibitions, promotes future shows, lets visitors know about gallery activities, and even allows online discussions of, for instance, Escher's work. "Gallery staff say the site is deliberately conservative, for now. For one thing, the technology isn't yet sophisticated enough to allow entire exhibitions to be sent over the Internet. For another, museums are cautious about how much of their collection they release in electronic form. After all, if there's money to be made in the computer age, they want to control the flow and use of art to their advantage. For now, museums are deliberately using low-resolution images on the Internet to prevent pirating or unauthorized marketing." (from "The National Gallery goes online" in the Ottawa Citizen, January 4, 1996, p. 1). However, with museums and galleries facing increasingly restricted resources, the potential for the computer to help them directly reach a national audience at a reasonable cost is likely to be a more and more attractive option. In fact, it has been suggested that wider exposure to the visual arts may in fact stimulate greater interest in actually visiting galleries to view collections first-hand.

extent to which new technologies will affect Canadian content. The information highway knows no borders, and although Canadians will be inundated with cultural products from all over the world, so too will the world have access to Canadian culture.

### Film and Video Production

#### Fidelis Ifedi, Project Manager, Film Surveys

The Canadian film production industry recorded its best performance ever in 1993-94, generating almost \$734 million in production revenues, up 46.9% from levels four years earlier.

The expansion was due largely to tremendous growth in domestic film exports and in consumer demand for home entertainment services. Increases in government grants and contributions, and growth in business

### Note to readers

This article summarizes the activity in 1993-94 fiscal year of 743 film, video and audio-visual production companies and 164 motion picture laboratories and post-production companies in the Canadian film and video industry. The data are from a census survey of these companies in 1994.

The non-theatre sector comprises productions sponsored by advertising agencies, education institutions, government boards, agencies, crown corporations or departments and the industry at large. The theatre market represents films shown to paying audiences in regular motion picture theatres and drive-ins.

Post-production services include companies primarily engaged in processing and duplicating motion picture films and providing video production facilities.

investment were also factors. After reaching \$116 million in 1989-90, exports of Canadian films and videos dropped in the next two years, hovering around \$80 million. However, since 1991-92, exports have soared 85%, reaching \$148.8 million in 1993-94.

As with the expanding export market, the domestic market for Canadian films and videos has improved considerably. Revenues received by producers from domestic sources rose to \$585 million in 1993-94, a 53% increase since 1989-90. The major area of improvement was in the television market.

While overall film and video production revenues have increased at an annual rate of 14% since 1989-90, the revenue from the television market alone has risen 28% annually.

As a result of the improved revenue, Canadian film and video producers reported a profit of \$86.8 million in 1993-94, up 43.7% from a year earlier. That represents 9% of total revenue, unchanged from the previous year, but triple the rate of profit in 1989-90.

## Canadian films a hit on international markets

After fluctuating around the \$80-million mark in the early 1990s, revenues from exports suddenly took off in 1992-93 when they jumped almost 60% to \$132 million. In 1993-94, they rose another 13% to \$148.8 million.

The export market for Canadian films is likely to keep expanding. A major reason for this trend is the increased exports of films produced for the television market. Exports of television productions amounted to \$121.1 million, up 7% from 1992-93 and 80% from the previous year. Made-for-TV productions accounted for 81% of total exports in 1993-94.

Canadian films also gained exposure abroad through co-production agreements with foreign companies. In 1993-94, foreign direct investment in theatre and TV productions reported by producers reached \$192.8 million, with 85% invested in television productions. Foreign direct investment represented 31% of the total investments (\$612.6 million) in theatre and TV productions.

Overall, producers reported total private and public investments of \$829.9 million in films and videos in 1993-94. Foreign investments accounted for 23%, up from 14% in 1991-92. Direct investment by the federal government reached \$108.9 million or 13% of total investments, down from a 20% share in 1991-92. Other levels of government together invested \$50.8 million. The Canadian private sector invested \$477.4 million, or 58% of the total investment, up from \$318.8 million in 1991-92.

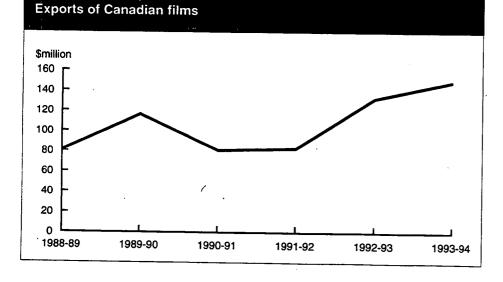
## Non-theatre sector most lucrative for producers

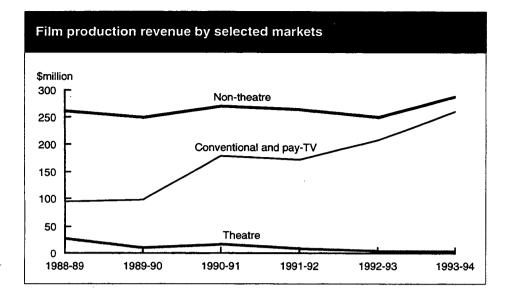
The non-theatre sector (such as advertising and educational markets) remained the most lucrative for producers, with revenues of \$288 million in 1993-94. However, the television market is on the verge of surpassing it as the major source of revenue.

After accounting for about 50% of the production revenue for a number of years, the non-theatre sector's share of revenue has steadily declined since 1989-90 to 39% in 1993-94.

Conventional and pay-TV now account for 35% of the production revenue, up from less than 20% in 1989-90. The conventional television market alone, the second most lucrative market, captured \$236.8 million or 32% of production revenue, while the pay-TV market represented another \$23 million or 3%.

The theatre market accounted for less than \$4 million, under 1% of the total production revenue in 1993-94. The remaining production revenue (\$182 million or 25%) was generated by other placements and work contracted from other production companies.





#### Revenue from post-production services rose slightly

Motion picture laboratories and postproduction services reported a revenue of \$323.7 million, up 4% from 1992-93. Their total expenses fell slightly to 92% of total revenue, from 95% the previous year.

As a result, profit before taxes rose to \$24.2 million, representing almost 8% of total revenue, slightly higher than in the previous year but less than the rate of profit recorded four years before.

#### Film revenue - Selected markets for Canadian films

	1989-90	1991-92	1993-94
		\$million	
Market			
Theatre	10.3	8.5	3.7
Conventional & pay-TV	97.7	171.9	260.2
Non-theatre <sup>1</sup>	249.0	263.6	288.0
Other production revenue <sup>2</sup>	142.6	137.8	182.0
Total production revenue	499.6	581.8	733.9
Other revenue <sup>3</sup>	84.0	106.4	262.6
Total Revenue	583.6	688.2	996.5

- <sup>1</sup> Includes advertising, government, educational, and industrial markets.
- Includes revenue from other production companies including film societies and private screenings.
- Includes revenue from rental of production facilities, post production services, dividends, grants and subsidies.

## Government Culture Budget on the Decline

#### Norman Verma, Project Manager, Government Expenditures on Culture

In Canada, governments have long supported culture through cultural policies, grant programs, tax exemptions, regulations, and through direct participation as owners and operators of cultural institutions. Government spending on culture includes both operating and capital outlays, as well as grants, contributions and transfers.

The federal, provincial/territorial and municipal governments spent \$5.8 billion on culture in 1993-94, down about 1% from the previous year. The decline halted eight straight years of growth, during which spending rose at an annual average rate of 5.2%. Municipalities were the only governments to increase cultural spending in 1993-94, allocating \$1.4 billion, up 3.7% from 1992-93.

However, when inflation is taken into account, government spending on culture has actually been falling since 1989-90. In real terms (1986 base year), all government spending on culture in 1993-94 was down 2.3% from the previous year and was 5.2% less than the peak year of 1989-90.

The cultural sector is scheduled to experience further cuts in spending as announced by the federal Minister of Finance in February, 1995. For example, by 1998, the Canadian Broadcasting Corporation will operate with a \$350 million reduction, or about one quarter of its total 1993-94 expenditures. The budgets of the four national museums (the Canadian Museum of Nature, National Museum of Science and Technology, Canadian Museum of Civilization, and the National Gallery of Canada) will be reduced by an average of 20% in total over three years1. In addition, in 1995-96 alone, authorized spending is budgeted to fall by 5% for each of the National Film Board and Telefilm Canada<sup>2</sup>.

Cultural sector experts have recently commented on the reductions in funding. "The rate at which government is withdrawing direct support is putting an awful lot of pressure on a lot of individuals and organizations to find other ways to survive. And that process of direct financial support, the reduction of that, is happening a lot faster than our ability to come up with other strategies that will ensure our survival." (Keith Kelly, National Director of the Canadian Conference of the Arts, on Morningside, CBC Radio, 26/2/96). "The number one problem [facing the visual and performing arts in this country] is the rate that government is pulling out." (Dory Vanderhoof, Toronto Arts Consultant, on Morningside, CBC Radio, 26/2/96)

## Federal spending down for third straight year

Federal spending on culture hit its peak in 1990-91 at \$2.9 billion. Since then, it has declined an average of 0.2% each year, although dropping fully 1.8% in 1993-94. By comparison, federal funding for education support fell 18%,

<sup>&</sup>quot;Assessing the Damage", *Maclean's*, March 1995, p. 78

Statistics Canada, Canada's Culture, Heritage and Identity: A Statistical Perspective, Catalogue 87-211, 1995 Edition, p. 24.

Table 1
Government Expenditures on Culture, by Level of Government (millions of dollars)

	1988-89	1992-93	1993-94	% change 1992-93 to 1993-94
Federal	2,746	2,879	2,828	-1.8
Provincial and territorial	1,560	1,970	1,934	-1.8
Municipal <sup>1</sup> All levels of government	999	1,363	1,413	+3.7
(current \$) <sup>2</sup> All levels of government	5,034	5,877	5,824	-0.9
constant 1986 \$)2	4,665	4,650	4,543	-2.3

Municipal spending is on a calendar year basis. For example, 1993-94 represents 1993.

while expenditures on national defence, and national health and welfare were up 2% and 5% respectively between 1992-93 and 1993-94. This change in federal spending on culture was uneven across the country, with 6 provinces and territories experiencing drops in spending, while the rest reported growth. The largest declines occurred in Manitoba (-8%) and Quebec (-3%), while outlays increased most in Newfoundland (+13%) and the Northwest Territories (+11%). (See Table 2 for more detail.).

In 1993-94, federal spending on broadcasting, the largest cultural industry, amounted to \$1.5 billion (no

change from the previous year), although outlays in a number of provinces/territories actually declined. Spending on broadcasting was concentrated in Ontario and Quebec. largely because of the concentration there of broadcasting production facilities and the related infrastructure. From province to province, the proportion of federal cultural funding devoted to broadcasting varied widely. For example, in the Northwest Territories, 69% of all cultural expenditures went to broadcasting, a higher proportion than in any other province or territory, while the proportion was smallest for Alberta (32%).

Expenditures on film and video, book and periodical publishing, and sound recording totalled \$413.5 million in 1993-94, a drop of 9% from the year before. The film and video sector experienced a reduction in financial assistance provided by Telefilm Canada to producers of feature films and Canadian programming.

Federal expenditures on heritage activities amounted to \$624.6 million, down nearly 1% from 1992-93. The museums sector experienced a drop of 6% to \$146.3 million in 1993-94. The largest decline in spending on heritage occurred in British Columbia (-15%), followed by Quebec (-9%), Nova Scotia (-6%) and Manitoba (-2%). Outlays increased in all other provinces and territories, led by Newfoundland (+31%) and the Northwest Territories (+24%).

Although federal spending on heritage activities occurred in all provinces and territories, the spending priority attached to this field differed across the provinces. For example, the heritage sector in Alberta received a larger proportion (56%) of total federal cultural outlays in that province than in any other province or territory, while Quebec's proportion (16%) was the smallest. (In Quebec, other sectors, such as broadcasting, and film and video consumed a more significant portion of the federal cultural budget.)

Table 2
Federal Government Expenditures on Culture by Major Function, 1993-94, with Percentage Change from 1992-93

Province or Territory	Broado	casting		cultural estries <sup>1</sup>	Her	Heritage Arts <sup>2</sup>		All acti	All activities <sup>3</sup>	
	\$'000	% change from 1992-93	\$'000	% change from 1992-93	\$'000	% change from 1992-93	\$'000	% change from 1992-93	\$'000	% change from 1992-93
Newfoundland	30,052	2.6	1,524	-6.9	22,870	31.2	619	2.0	57,269	10.0
Prince Edward Island	7,438	-5.8	545	-14.2	6,050	9.0	1,852	4.5	•	13.3
Nova Scotia	34,049	0.3	6,869	-4.5	39,255	-5.8	2,366		17,395	3.6
New Brunswick	38,817	8.8	2.050	17.5	12,969	8.8		-0.3	86,886	-0.4
Quebec	457,848	2.2	170,027	-10.6	133,398	-8.8	5,720	-8.1	63,855	8.3
Ontario	717,875	-0.3	63,930	6.5	224,655		28,584	12.1	837,037	-2.8
Manitoba	38,734	-11.2	3,633	-0.8	29,345	2.2	65,894	2.6	1,125,927	1.2
Saskatchewan	29,970	1.7	1,486	-25.0		-1.7	5,089	11.7	79,636	-7.8
Alberta	50,482	-1.5	5,781	-25.0 -10.1	12,117	4.7	1,685	15.7	48,924	-0.4
British Columbia	57,799	-5.8	40,809		88,662	4.2	5,041	0.8	157,308	-0.2
Yukon	6,911	-10.6	32	84.9	33,781	-15.0	10,130	4.7	150,443	6.3
Northwest Territories	27,395	7.4		146.2	8,056	5.6	60	-33.3	15,227	-2.5
······································	27,090	7.4	89	-1.1	.11,255	24.1	21	-48.8	39,605	11.2
Total <sup>4</sup>	1,509,358		413,497	-9.2	624,628	-0.7	132,215	-1.3	2,827,539	-1.8

<sup>--</sup> Amount too small to be expressed

<sup>&</sup>lt;sup>2</sup> Expenditures are net of inter-governmental transfers.

<sup>1</sup> Includes film and video, sound recording and literary arts.

Includes performing arts, visual arts and crafts, and arts education.

Includes other cultural activities not specified, such as multiculturalism and libraries.
 Includes also national organizations, foreign countries and unallocated expenditures.

The federal government spent a total of \$132.2 million on the arts (including performing arts, visual arts and crafts and arts education), a drop of more than 1% from 1992-93. The decline in spending on the arts was attributable to visual arts and crafts, with most of this drop occurring in Quebec and Ontario.

In the field of the arts, also, different priorities are reflected in spending across the provinces. In Prince Edward Island, for example, the federal government spent about one dollar in ten of its total cultural budget in this province on the arts, while in the Northwest Territories, it spent less than one cent in ten dollars on this field. In Prince Edward Island, the Confederation Centre of the Arts received a larger proportion of federal funding for the performing arts than establishments in any other province or territory. On the other hand, total federal spending on the arts amounted to only \$21,000 in the Northwest Territories.

Although federal involvement is evident in every field of arts and culture, on a per capita basis, the cultural budget is not distributed evenly across the country. In 1993-94, the federal spending was by far the highest, on a per capita basis, in the Northwest Territories (\$630) and the Yukon (\$476), followed by Prince Edward Island (\$132). Quebec and Ontario, where

Table 3
Per capita government expenditures on culture vary widely by province, 1993-94<sup>1</sup>

	Federal	Provincial/territorial	Municipal
Province/territory	\$	\$	\$
Newfoundland	99	48	22
Prince Edward Island	132	99	11
Nova Scotia	94	63	35
New Brunswick	85	45	24
Quebec	116	86	43
Ontario	105	55	54
Manitoba	71	71	38
Saskatchewan	49	53	51
Alberta	59	60	42
British Columbia	43	78	70
Yukon	476	266	12
Northwest Territories	630	200	26

Total government spending, on a per capita basis, is not provided, as information on transfers among the three levels of government is not available.

much of the infrastructure for the cultural industries is concentrated, came next. Federal per capita expenditures were higher in the Atlantic region than in the Prairie provinces and British Columbia (see Table 3).

#### First drop in nine years in provincialterritorial outlays

The 1.8% drop in total provincial/ territorial cultural spending in 1993-94 ended eight straight years of increases. Five of the largest jurisdictions reported declines in spending (Saskatchewan (-9%), followed by Ontario (-7%), Alberta (-6%), Manitoba (-5%) and Quebec (-4%)), while the remaining provinces and territories recorded increases (refer to Table 4).

In 1993-94, provincial and territorial spending on heritage activities amounted to \$434.5 million, a drop of 8% from the preceding year. There was a wide range in the allocation of provincial and territorial cultural budgets to heritage activities. The

Table 4
Provincial/Territorial Government Expenditures on Culture by Major Function, 1993-94, with Percentage Change from 1992-93

	Cultura	al industries¹	Lib	raries	Her	itage	A	Arts <sup>2</sup>		All activities <sup>3</sup>	
Province or Territory	\$'000	% change from 1992-93	\$'000	% change from 1992-93	\$'000	% change from 1992-93	\$'000	% charige from 1992-93	\$'000	% change from 1992-93	
Newfoundland	<b>1</b> 51	-31.4	16,758	17.4	5.054	57.2	6,010	-27.3	28,110	7.7	
Prince Edward Island	28	55.6	4,052	-6.8	5,677	18.8	1,806	12.0	13,048	7.2	
Nova Scotia	1,981	-20.5	25,270	2.7	18,395	6.9	9,251	0.4	58,100	3.9	
New Brunswick	769	15.3	19,736	8.5	9,362	22.1	3,343	107.6	33,698	18.2	
Quebec	146,189	5.8	155,472	-2.8	133,321	-13.9	108,888	-1.9	616,646	-3.7	
Ontario	120,774	-5.0	232,666	-0.5	141,144	-12.9	47,220	-18.6	594,973	-6.5	
Manitoba	3,378	-0.4	31,469	1.7	24,635	5.4	9,643	3.7	78,907	-5.0	
Saskatchewan	1,143	-14.1	23,335	1.5	16,814	-12.5	3,036	-13.5	53,345	-8.9	
Alberta	20,119	-6.1	58,024	-1.5	31,927	-4.2	42,674	0.2	160,587	-6.2	
British Columbia	22,830	28.0	183,722	16.0	38,787	1.7	25,928	45.3	275,217	15.5	
Yukon	-	· <b>-</b>	1,878	-8.2	5,249	45.8	157	74.4	8,506	19.2	
Northwest Territories	1,390	-3.3	2,235	10.9	4,147	2.3	3,842	7.9	12,567	4.3	
Total	318,750	1.5	754,618	3.3	434,513	-7.9	261,798	-1.8	1,933,705	-1.8	

Includes broadcasting, film and video, sound recording and literary arts.

Includes other cultural activities not specified, such as multiculturalism.

government of the Yukon, for example, devoted 62% of its cultural budget to heritage, whereas the government of British Columbia spent only 14% of its budget on this field.

Provincial and territorial governments spent a total of \$318.8 million in 1993-94 on the cultural industries, an increase of just over 1% from the previous year. However, changes in spending ranged from an increase of 56% in Prince Edward Island to a decline of 31% in Newfoundland.

Although the governments of Newfoundland, Prince Edward Island and the Yukon spent well under 1% of their total cultural budget on cultural industries, Quebec spent 24% of its cultural budget on these industries, the highest of all provinces and territories.

In 1993-94, provincial and territorial spending on the arts totalled \$261.8 million, a drop of 2% from the year before. Declines in expenditures were reported by Newfoundland, Quebec, Ontario and Saskatchewan, while all other provinces and territories recorded growth in spending.

In one key area the provinces increased spending in 1993-94. Libraries benefited from increased spending of more than 3%, which resulted in funding of \$754.6 million, or two-fifths of all provincial cultural budgets combined. Although most provinces and territories reported increases in spending on libraries, Prince Edward Island, Quebec, Ontario, Alberta and the Yukon recorded decreases. The proportion of the provincial and territorial cultural budgets spent on libraries ranged widely, from 67% in British Columbia to 18% in the Northwest Territories.

In 1993-94, provincial and territorial spending, on a per capita basis, exceeded the national average of \$67 in the Yukon (\$266), the Northwest Territories (\$200), Prince Edward Island (\$99), Quebec (\$86), British Columbia (\$78) and Manitoba (\$71). Spending was below the national average in the rest, with a low of \$45 per capita in New Brunswick (see Table 3).

## Municipal spending continues to grow

The growth in municipal spending in 1993 followed the upward trend of the previous eight years. It was largely the result of increased funding for libraries, which have averaged about threequarters of the total municipal cultural budget since 1984. In 1993, total municipal cultural spending grew in all provinces and territories except Ontario and the Yukon.

On a per capita basis, municipal expenditures were greater than the national average (\$49) in British Columbia (\$70), Ontario (\$54) and Saskatchewan (\$54) (see Table 3).

### And tomorrow will bring. . .?

Notwithstanding the variations in the size of declines overall, reduced levels of government spending are precipitating a change in thinking across the country. Quoting from a recent cross-Canada tour, Keith Kelly, National Director of the Canadian Conference of the Arts stated that he found "an enormous sense that the way we have done things in the past is not going to work for us any longer". He heard the sentiment time and again that "it is time for us to build an economy that will support the arts and cultural industries that isn't dependent on government . . . that we have to really look at new ways of bringing money in" (from Morningside, CBC Radio, 26/2/ 96).

## **Culture Surveys Update**

## Roberta Sametz, Chief, Culture Surveys Section

For those of you who have heard that change is afoot in the Culture Statistics Program (CSP), I can tell you that the re-engineering of our surveys is in full swing. What does this mean? More than a year ago we undertook to change the way our data are collected and processed, in order to take advantage of new technologies, reduce the time elapsed between mailout and data release, and save resources.

To the respondent, the most evident change will be the use of computer assisted telephone interviewing, known as CATI. This technology incorporates data editing while the respondent is on the telephone with the interviewer, thus catching reporting errors and inconsistencies right away and reducing the need to call the respondent again.

Changing all our systems has meant a tremendous workload for project managers and staff and has led to some delays in mailing out surveys. Happily, preliminary indications are that

timeliness will indeed be enhanced, and costs reduced, once re-engineering is complete. Most surveys are already making up time lost at the front end.

At the same time, in order to respond to the expressed needs for the CSP to investigate new and growing areas such as Commercial Performing Arts and Multi-media, as well as to increase our capacity to undertake analysis, data integration, and major special requests, almost all our surveys have been put on a biennial (every 2 years) cycle. The survey of Government Expenditures on Culture is an exception, and will continue to be undertaken every year.

Phase I of re-engineering encompasses the four Film and Video surveys -Production, Distribution, Motion Picture Theatres, and Post-production Services - as well as the surveys of Performing Arts, Periodical Publishing, and Book Publishers. These surveys are in progress for the 1994-95 data year. Despite delays in mail-out, most notably for Book Publishers, projected data release dates are mostly comparable to the previous year: June for Government Expenditures, June/July for the Film surveys, September for Performing Arts, October for Periodicals, and November for Books.

Phase II re-engineering is also underway: the mail-out for the survey of Heritage Institutions is planned for July, to collect 1995-96 data, and the Sound Recording survey redesign is in progress, with a projected October mail-out. As mentioned before, data on Government Expenditures on Culture will also be collected.

In addition, we are planning the first mail-out of the quarterly survey of Film Distribution and Videocassette Wholesaling in April, to collect data for January to March, 1996, with data release targeted for July. Subsequent mail-outs will follow every three months. We have also begun to assemble information concerning the Commercial Performing Arts, with a view toward establishing a strategy to deal with this data gap.

I am looking forward to meeting with those of you active in the sector, and to hearing from you as to current issues, concerns, ideas, needs and even wishes. We are committed to our role of providing relevant, reliable, useful, and timely information concerning the culture sector, and for that we rely on your continued input.

86-411

### Introducing NAICS (the North American Industry Classification System)

Mary Cromie, Editor, Focus on Culture and Annalisa Salonius, Standards Division, Statistics Canada

For several years now. Statistics Canada has been working on a major revision of the 1980 Standard Industrial Classification system (1980 SIC). The SIC is Statistics Canada's framework for collecting, compiling and disseminating primarily economic statistics on Canada's businesses. The codes form a classification system that permits survey activities to consistently cover and categorize establishments with similar production processes. This is not a guarantee that all classified industries will be surveyed; rather, it is a system to be followed whenever work is undertaken in a particular area. Prior to this revision, many of the cultural areas surveyed by the Culture Statistics Program were covered only at a very general level by the SIC. That is, a wide variety of industries were lumped together under one code. However, we are trying to ensure that wherever possible, the new codes better permit individual cultural industries to be separated out. For example, in the new classification, theatre, dance and music companies each have separate four digit codes; in the 1980 structure, all performing arts companies, as well as promoters and independent artists. writers and performers were all together under one code. Similarly, under the old structure, book printing and publishing were combined; the new structure provides a detailed publishing classification and firms engaged strictly in printing have been classified in manufacturing. The revision is being undertaken in cooperation with the statistical agencies of the United States and Mexico. The three countries have agreed to create a common North American Industry Classification System (NAICS), of which the new Canadian SIC will be a part.

### How do we define an industry?

The basic criteria used for setting up the industry classes are as follows.

 A proposed industry must represent a group of businesses which are primarily engaged in a common economic activity (or a common group of economic activities) which

- use similar production processes, materials and specialized labour skills. The model, therefore, is input rather than output oriented.
- 2. A proposed industry should have annual revenues of at least \$200 million. However, proposals for smaller industries have been considered if they are emerging industries or producers of advanced technology. In fact, a priority of the revision process has been better coverage of producers of advanced technology, service industries (especially services to industries, rather than to individuals), and new and emerging industries. The special attention to these three areas has stood culture in good stead.

As initial input into the process, a detailed draft framework was submitted by the Culture Statistics Program to Statistics Canada's Standards Division, who represented Canada at the tri-level negotiations. When the above criteria were applied and comments received from members of the cultural sector across the country, all proposals were discussed among the three countries and the resulting structure was provisionally accepted in September 1995. Additional comments were received until the beginning of March, 1996 and a final classification will be ready for implementation starting with the 1997 survey year.

## NAICS STRUCTURE INFORMATION AND CULTURAL INDUSTRIES

XX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	PUBLISHING INDUSTRIES Newspaper, Periodical, Book and Database Publishing Newspaper Publishing Periodical Publishing Book Publishing Database Publishing Other Publishing Industries Software Publishing Software Publishing
xx	MOTION PICTURE AND SOUND RECORDING INDUSTRIES
XXX	Motion Picture and Video Industries
XXXX	Motion Picture and Video Production
XXXX	Motion Picture and Video Distribution
XXXX	Teleproduction and Other Post-production Services
XXXX	Motion Picture and Video Exhibition
XXXX	Other Motion Picture and Video Industries
XXX	Sound Recording Industries
XXXX	Record Production Companies
XXXX	Integrated Record Companies
XXXX	Music Publishing
XXXX	Sound Recording Studios
XXXX	Other Sound Recording Industries
XX	BROADCASTING AND TELECOMMUNICATIONS INDUSTRIES
XX XXX	BROADCASTING AND TELECOMMUNICATIONS INDUSTRIES Radio and Television Broadcasting
XXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting
XXX XXXX XXXX XXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution
XXX XXXX XXXX XXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television
XXX XXXX XXXX XXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution
XXX XXXX XXXX XXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications
XXX XXXX XXXX XXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers
XXX XXXX XXXX XXX XXXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers Wireless Telecommunications Carriers, except Satellite
XXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers Wireless Telecommunications Carriers, except Satellite Telecommunications Resellers
XXX XXXX XXXX XXX XXXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers Wireless Telecommunications Carriers, except Satellite
XXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers Wireless Telecommunications Carriers, except Satellite Telecommunications Resellers Satellite Telecommunications
XXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers Wireless Telecommunications Carriers, except Satellite Telecommunications Resellers Satellite Telecommunications Other Telecommunications  INFORMATION SERVICES AND DATA AND TRANSACTION PROCESSING SERVICES Information Services
XXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers Wireless Telecommunications Carriers, except Satellite Telecommunications Resellers Satellite Telecommunications Other Telecommunications  INFORMATION SERVICES AND DATA AND TRANSACTION PROCESSING SERVICES Information Services News Syndicates
XXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers Wireless Telecommunications Carriers, except Satellite Telecommunications Resellers Satellite Telecommunications Other Telecommunications INFORMATION SERVICES AND DATA AND TRANSACTION PROCESSING SERVICES Information Services News Syndicates Libraries and Archives
XXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers Wireless Telecommunications Carriers, except Satellite Telecommunications Resellers Satellite Telecommunications Other Telecommunications  INFORMATION SERVICES AND DATA AND TRANSACTION PROCESSING SERVICES Information Services News Syndicates Libraries and Archives Other Information Services
XXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers Wireless Telecommunications Carriers, except Satellite Telecommunications Resellers Satellite Telecommunications Other Telecommunications  INFORMATION SERVICES AND DATA AND TRANSACTION PROCESSING SERVICES Information Services News Syndicates Libraries and Archives Other Information Services Data and Transaction Processing Services
XXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	Radio and Television Broadcasting Radio Broadcasting Television Broadcasting Pay TV, Specialty TV and Program Distribution Pay and Specialty Television Cable and Other Program Distribution Telecommunications Wired Telecommunications Carriers Wireless Telecommunications Carriers, except Satellite Telecommunications Resellers Satellite Telecommunications Other Telecommunications  INFORMATION SERVICES AND DATA AND TRANSACTION PROCESSING SERVICES Information Services News Syndicates Libraries and Archives Other Information Services

Two sectors have been created that include most industries that one might define as part of the culture sphere: Information and Cultural Industries; and Arts, Entertainment and Recreation. A third sector that will also contain some culture related industries - education - has not yet been accepted by all three countries.

As probably the most comprehensive sector of the three, and the one experiencing the greatest change, the Information and Cultural Industries Sector will be discussed here. It must be understood that there could still be some small changes made to this new classification structure before the final acceptance. The next issue of *Focus on Culture* (Vol. 8 No. 2) will outline the content of the new Arts, Entertainment and Recreation Sector.

## Information and Cultural Industries Sector

Although there is no age that has not relied on information as a basic element of all parts of society, the terms "information age" and "global information economy" are used with notable frequency today (see "Preparing for the Information Highway" on p. 1). The general idea of an information economy includes both the notion of industries primarily producing, processing and distributing information. and the idea that every industry is using available information and information technology to reorganize and make itself more productive. Since the mid-1980's a transformation has occurred wherein information itself has become a primary economic commodity rather than a means by which goods and services are exchanged, bartered or sold (Sheila Creth, 1995; 15).

For the purposes of the SIC revision, it is the transformation of information into a commodity - produced, manipulated and distributed by an increasing number of growing industries - that is at issue. In the 1980 SIC, these industries were distributed throughout the existing classification: traditional publishing is in Manufacturing; broadcasting and telecommunications are in Communication Industries; software production in Business Services; film production in Amusement and Recreation Service Industries; libraries in Educational Services; software publishing in Computer Services, etc. The proposed Information and Cultural Industries Sector groups three types of

establishments into one area: those engaged in producing, manipulating and distributing information and cultural products; those that provide the means to transmit or distribute these products as well as data or communications; and those that process data or transactions.

# unique characteristics of the new information and cultural industries sector

The unique characteristics of information and cultural products and of the processes involved in their production and distribution justify the creation of this new sector, distinct from the long-standing goods-producing or service-producing industries in other sectors.

Information as a commodity does not necessarily have the tangible qualities of traditional manufactured "goods", nor is it a service. Thus, the processes involved in its production and distribution can be very different than for goods. Unlike traditional goods, an "information product" is not associated with any particular form. And unlike services, information products can be easily distributed and exported. A book or newspaper could be published and then distributed on one of many physical media (print, CD-ROM, tape). or on the Internet or on-line, and, therefore, not subject to traditional goods-handling processes such as transportation, warehousing wholesaling and retailing. Similarly, a movie can be shown at a movie theatre, on a television broadcast, through video on demand or rented as a local video store. And a sound recording can be aired on radio, embedded in multimedia products or sold at a record store.

The value of these products to the consumer does not lie in their tangible qualities but in their information, educational, cultural or entertainment content.

Unlike distributors of traditional goods, distributors of information and cultural products, such as broadcasters, can also add value to the products they distribute by the addition of advertising or other information products not contained in the original. This means that unlike traditional distributors, they derive revenue not from the sale of the distributed product to the final consumer, but from those who pay for the privilege of adding information to the original product (e.g., the broadcasted programming).

Tangentially and somewhat facetiously, it has been suggested that in fact, broadcasters are in the business of selling <u>audiences</u> to <u>advertisers</u>. Programming is the vehicle, but not the product! Similarly, a CD-ROM publisher can acquire the rights to thousands of previously published newspaper and periodical articles and add new value by providing search software and organizing the information in a way that facilitates research and retrieval. These products often command a much higher price than the original information.

Unlike either goods or services, most information and cultural products can be easily copied. The law has long recognized this: copyright law protects the intangible aspects of intellectual creations such as books and sound recordings. When you have an intellectual creation, there are two property rights associated with it: the right in the physical property, and the right in the intangible intellectual property. Copyright protects this intangible right, applying to all original literary, dramatic, musical and artistic works, including databases and computer programs. Only those possessing the rights to works are authorized to reproduce, alter, improve and distribute them.

## limitations and constraints of the classification

As the concept of an Information and Cultural Industries sector is new, its definition could have been very broad or very narrow. For instance, it can be argued that establishments engaged in activities such as advertising, marketing research, public opinion polling and credit reporting should be included here since they are, in one way or another, engaged in producing, manipulating and distributing information and/or cultural products. These establishments, however, also share characteristics with establishments found in the Professional, Management and Support Services sector and it is proposed to classify them in that sector. Similarly, independent artists, writers, and performers could be classified here since they provide the creative input essential to the production of many of the industries found in this sector. However, it has been decided to classify all such establishments in a single industry in the other major cultural sector, Arts, Entertainment and Recreation.

The current classification for traditional publishing separates establishments engaged in publishing only, from those engaged in publishing and printing. In the proposed NAICS classification, these establishments are classified to five different 4-digit industries according to the type of publishing (newspaper, book, database, etc.) whether or not they are also engaged in printing activities. Software publishing, currently a component of the Computer Services industry, is now classified in this subsector.

The classification of video wholesaling to the existing Motion Picture and Video distribution class is changed; video wholesaling is now assigned to the Wholesale Trade area. Establishments

primarily engaged in videotaping are moving from the Motion Picture and Video Production industry to the NAICS class for Photography in the Professional, Management and Support Services sector. The three existing classes for motion picture and video exhibition are collapsed into one NAICS class. Independent motion picture directors, currently classified to the Motion Picture and Video Production industry, are being moved to the Arts, Entertainment and Recreation sector of NAICS.

#### Reference

Creth, Sheila. 1995. "Creating a Virtual Information Organization", Educom Review 30:2, pp. 15-16.

Deference

PUBLICATIONS

New to the CSP

87-211 Canada's Culture, Heritage and Identity: A Statistical Perspective (107 pg)

\$30.00

To order publications, please call toll-free 1-800-267-6677.

#### **How to Find Out More.....**

We hope you find this bulletin both informative and useful. Please write, fax or phone us with your comments and suggestions:

Mary Cromie
Editor, Focus on Culture
Education, Culture and Tourism Division
R.H. Coats Building, 17 C
Statistics Canada
Ottawa, ON K1A 0T6



(613) 951-6864 (telephone) or (613) 951-9040 (fax)

For information on publications, special data tabulations or the content of specific surveys, please contact any of the following:

Paul McPhie	Assistant Director, Culture	951-9038
<b>Culture Surveys Section</b>		
Roberta Sametz Erika Dugas Mary DeCuypère Fidelis Ifedi Norman Verma Erika Dugas Marie Lavallée-Farah Mary DeCuypère Norman Verma	Chief Book Publishing Periodical Publishing Film and Video Motion Picture Theatres Sound Recording Performing Arts Heritage Institutions Government Expenditures on Culture	951-9173 951-1568 951-1562 951-1569 951-6863 951-1568 951-1571 951-1562 951-6863
Research and Communic	cations Section	
Michel Durand Pina La Novara Lisa Shipley Lisa Shipley	Chief Marketing and Dissemination Data Integration Canada's Culture, Heritage and Identity: A Statistical Perspective	951-1566 951-1573 951-1544 951-1544
Mary Cromie	Consumption of Cultural Goods and Services	951-6864
Michel Durand John Gordon John Gordon John Gordon Lotfi Chahdi Tim Leonard	Economic Impact Multimedia Cultural Labour Market Analysis Radio and Television Cultural Labour Force Balance of Payments	951-1566 951-1565 951-1565 951-1565 951-3136 951-1563

Focus on Culture (Catalogue 87-004) ISSN 0843-7548 is published four times a year under the authority of the Minister responsible for Statistics Canada, © Minister of Industry, 1996.

Editor: Mary Cromie, (613) 951-6864

Subscription Rates: Canada: \$8 per issue, \$26 annually. United States: US\$10 per issue, US\$32 annually. Other countries: US\$12 per issue, US\$37 annually. Toll-free order service in Canada: 1-800-267-6677.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of Copyright Permission Officer, Marketing Division, Statistics Canada, RH Coats Building 9 "A", Ottawa, ON K1A 0T6 or fax (613) 951-1134.

Note of Appreciation

Canada owes the success of its statistical system to a long-standing cooperation involving Statistics Canada, the citizens of Canada, its businesses and governments. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

Standards of Service to the Public
To maintain quality service to the public,
Statistics Canada follows established
standards covering statistical products
and services, delivery of statistical
information, cost-recovered services
and services to respondents. To obtain
a copy of these service standards,
please contact your nearest Statistics
Canada Regional Reference Centre.

The paper used in this publication meets the minimum requirements of American National Standard for Information Sciences — Permanence of Paper for Printed Library Materials, ANSI (Z39.48 — 1984.)