Feature
The economic and job creation benefits of Ontario public libraries

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Abstract

Describes economic benefits of Ontario public libraries. These benefits include services and information for businesses, lifelong learners and job seekers. Ontario public libraries create work including short-term construction work and longer-term information infrastructure work. Provides job multiplier models for library building capital and information infrastructure capital with examples. Ontario public libraries have a direct and indirect impact on the Ontario economy, measured in terms of gross domestic product (GDP). Suggests a framework to help public libraries promote their economic impact in a time of economic restraint and funding cutbacks. This framework includes an analysis of library jobs, direct and indirect library impact on the GDP, a promotion of public electronic access to information, generation of economic-oriented patron anecdotes, economic impact survey, and development of an entrepreneurial spirit in public libraries.

Introduction

Ontario public libraries have an enormous economic impact on their communities and on the province. They have unparalleled potential to be public access points to globally-available multimedia information available through the provincial information infrastructure. Despite this opportunity for growth and recognition, Ontario public libraries are facing economic restraint and funding cutbacks at the provincial and municipal level. Ontario public libraries must be able to convince government funders and the private and not-for-profit sectors of the job creation benefits they provide and of the economic role they have.

This article summarizes some research done by the Ontario Ministry of Citizenship, Culture and Recreation on Ontario public libraries' socio-economic benefits and suggests a framework that can be used elsewhere by public libraries or government and other funding organizations that support public libraries. It is based on an unpublished report, *The Economic and Job-Creation Benefits of Ontario's Public and First Nations Libraries*.

Ontario public libraries – background

Libraries are economic resources for Ontario communities. Libraries help local businesses to access information crucial to their ongoing success. Libraries provide access to provincial and global information resources. Most Ontario libraries (348 of Ontario's 408 public libraries) provide access to the interlibrary resource-sharing Information Network for Ontario (INFO) which covers information held in public libraries across Ontario. INFO-based resource-sharing ensures Ontarians in small and rural communities have access to the same information as their urban counterparts. The library is the "one place to look"[1] that provides community residents with access to information available from around Ontario and beyond. Libraries provide a welcoming environment for literacy skills learners. Career, life-long learning and education information needed to build coping skills in a time of economic restructuring can be found in Ontario's libraries.

Public libraries are recognized by federal, municipal and provincial governments and the public as community providers of information. The Information Highway Advisory Council (1995), a federally-appointed body, recognizes the importance of libraries as community information highway access points. The provincial Ontario government has also recognized this by promoting library-based electronic access to government information, described below. Ontario's public libraries provide free access, evening and weekend hours of operation, trained library staff and are located in most Ontario communities. Ontario public libraries provide information literacy skills training for information sector workers who in turn provide this training for all Ontarians.

Some quick Ontario public library facts: one in six Ontarians use their public library every week and one in three use a library every month. In 1995, there were 1,192 library service locations in Ontario; these libraries held 28,775,703 books, circulated 98,417,271 items and answered 13,966,918 reference questions. In 1995 Ontario residents visited their public libraries 71,929,270 times; 2,023,036 people attended library programs, while $366,468,705 in funding was spent on Ontario's public libraries[2, pp. 1-2]. Eighteen county and regional library systems provide centrally-administered library service to approximately 350 small, rural and medium-sized communities in Ontario. Ontario's public libraries provided 322 public access points to the Ontario government's electronic Environmental Bill of Rights and Environmental Registry. By the end of 1996 approximately 90 libraries will have implemented public Internet access, many of them assisted by federal Industry Canada Community Access Program funding.

Ontario public libraries provided 6,480 jobs in 1993/1994. Their direct and indirect impact in terms of jobs numbered more than 9,000 in 1993/1994, while their direct and indirect impact on gross domestic product (GDP) reached $486 million in 1993/1994. Library capital projects provide local short- to medium-term building construction jobs while library information infrastructure projects provide longer-term work and promote Ontario's growing technology sector, as described below.

Ontario public libraries and their local business impact

From 1982 to 1992, the number of Canadian small businesses rose 30 percent and the number of self-employed Canadians rose by 31 percent. Small businesses, including the self-employed, account for two-thirds of private-sector employment in Canada. Factors including the growing service sector of the economy, rising unemployment, job mobility, increased subcontracting, changing economies of scale, the move toward deregulation, and the adoption and generation of new technologies are seen as likely contributors to the continuing growth of small businesses and a corresponding creation of new jobs. Most small businesses cannot absorb the cost of acquiring extensive business collections or of accessing business databases, especially with the wealth of information produced daily[3, p. 25]. To meet the needs of the small business library user group, many public library business services have developed a small business orientation. Business resources located in libraries and accessible via the information infrastructure have a direct economic impact on local businesses in Ontario communities. Libraries provide businesses with access to databases and other information to help businesses compete.

Each year an average of 100,000 firms or entrepreneurs have registered a new business in Ontario. Public libraries are the best community resource for people researching how to start new businesses. Business people and new entrepreneurs can go to their local library to access business information on contacts, products, laws, and taxes, investment and loan opportunities, up-to-date business articles, business operations, strategy and management items, import/export data, customs procedures and opportunities, marketing strategy, government information, and to gather information on competitors. Business information specialists within public library systems can contact local business users, identify their information needs, and publicize the library's ability to meet these needs. These specialists may also contribute to the development of databases on local companies, products and locations.

The library as community amenity

Libraries help attract new or relocating businesses and new residents to communities. By helping to attract businesses and residents, modern library facilities have a direct impact on local tax-dollars and economic renewal. Libraries often are located near business districts and people using the library visit neighbouring businesses leading to increases in customers and revenue. Libraries offer meeting space needed by business organizations to help in their planning and other activities. An example of the library as a crucial community amenity is illustrated by the following description of Kelowna, British Columbia. Kelowna is "a developer's dream, because of its new art gallery, library and courthouse." The city's population grew by 24 percent in the past five years because of company relocations including Northern Airborne Technology Ltd, Western Star Truck Inc., Wood Gundy Inc., Northside Steel Fabrications Ltd, and even Florida-based Piper Aircraft Corp.[4].

Entrepreneurial, market-oriented Ontario public libraries

1996 is a time of economic restructuring and Ontario libraries are exploring new means of revenue generation. Many Ontario libraries provide value-added services that go beyond core library services. The fact that businesses and others are willing to pay for these services attests to the economic impact they have. The Metropolitan Toronto Reference Library and Hamilton Public Library are two Ontario public libraries that have created value-added, fee-based services. Hamilton's Info Express Service builds on the library's business expertise to provide value-added database searching and document delivery services.

Ontario public libraries market business services and collections through business and information fairs held in conjunction with the local chamber of commerce or by more traditional library displays. Online reference demonstrations, business breakfast programs, start-up information kits for potential entrepreneurs, brochures, mailings, newsletters, bibliographies, and open houses all promote library services to business. Examples include the

Nepean Public Library which developed a Libraries Mean Business project to reach out to the business community to make the community aware of library resources and increase the library's profile in that community. The initiative was launched during Small Business Week, October 1994. Events included an open house at the Central Library's business section. All marketing activities were cosponsored by local business partners[5]. Kitchener Public Library developed a program that included noon lectures on management topics[6]. Metropolitan Toronto Reference Library conducted a Pacific Rim seminar to relay export and import advice from government representatives and showcase its business collections and services to entrepreneurs.

Libraries that have hosted business seminars and acted on marketing opportunities gain support from their local business communities and provide these businesses with value-added services that improve competitiveness. It takes determination, imagination, creativity, and salesmanship to establish visible and active support between the business community and the library[3, p. 27]. The business community, including local small businesses, recognize and appreciate library services through financial support for library fund raising.

In 1990, Collingwood Public Library identified a need to become more involved in providing services to community businesses. Trustees and staff asked community businesses, organizations, service clubs, and education institutions what the library could do for them. As a way to increase communication and involvement with local business people, board and staff members volunteer on community and business boards, committees and projects. A local designer donated the logo used in library marketing; as a result of the exposure gained through this campaign, the designer established a small business and secured contracts to create other logo designs.

Thunder Bay Public Library sought alternate sources of revenue as a result of funding cuts. Response to the launch of their Corporate Sponsorship Campaign has been favorable; 19 corporate sponsors were secured and $43,000 in sponsorships and donations in goods and services raised in 1995. "Now that they [businesses] have agreed to contribute to our initial

campaign it will be much easier to persuade business to get involved in the future. Their participation will also encourage other large corporations to support the library[7]." From its fund-raising, the Thunder Bay Public Library produced The Thunder Bay Index which is made up of articles of current and historical interest from local newspapers and magazines. Articles include information on topics such as current events, people, business, industry, organizations, clubs, crime. The library can now provide the index on disc to educational institutions and government agencies.

Career information for the public

In *What Color Is Your Parachute?* job seekers are advised to use the library in the research phase of the job hunting process[8]. Libraries provide services and collections to support individuals who are job hunting, career planning or retraining to meet the demands of the changing workforce. Libraries carry career information, such as occupational dictionaries and guides, information on specific careers, course calendars for publicly-funded and private learning institutions, and career related databases.

Pickering Public Library partnered with local employment agencies to help the unemployed. The Pickering library offers a range of career-related resources and programming, including a weekly Employment Legal Clinic held by the Durham Community Legal Clinic. This is a free legal service for low income residents of Durham region who meet certain financial guidelines. The library also houses a JobBank, described below.

Kingston Public Library's Career Information Centre and job search workshops were established in partnership with local social service and immigration agencies in response to community needs. The primary goal was to raise the library's profile as the first place for job seekers and those planning a career change to look for information. Since 1993, the library has taken part in Kingston's Employment Network Job Fairs, putting together information packages on resources and services the library offers.

Education, literacy, lifelong learning, and Ontario's public libraries

Public libraries play a key role in educating Ontario's children and youth and providing lifelong learning opportunities. A 1990 Ontario Institute for Studies in Education survey found that 90 percent of Ontarians rank libraries highest among cultural institutions in meeting lifelong learners' needs[9]. Despite shrinking budgets, libraries retain one of their key purposes – helping individuals of all ages and backgrounds stay educated and informed. The need for education and a competitive, educated workforce has been recognized by many business and government leaders. A strong general education including a healthy exposure to the resources of public libraries, and the ability to navigate through the complex world of information, continue to be important building blocks for success whether of an economic or other nature. As we approach 1999 – just as in 1899 - libraries must be among the leaders providing that foundation[10]:

> The opportunity to learn to read and write is fundamental for all people. Basic literacy includes numeracy and information literacy. Literacy is an important requirement for participating in the economic, social, cultural, and political life of the country[11].

Against this backdrop, it is estimated that only 62 percent of Ontarians aged 16 to 69 have reading abilities sufficient to deal with most everyday reading requirements. The reading skills of 16 percent of Canada's adults are too limited to allow them to deal with the majority of written material. Within this latter group, 2 percent of Canada's adult population has no skill in either of Canada's official languages. A further 22 percent of Canadian adults can use reading materials to carry out simple reading tasks[12]. The cost of this level of illiteracy to Canada's businesses is estimated to be over $1.6 billion annually. Costs include accident and safety related matters as well as in-house costs due to lost productivity, excessive supervisory time, poor product quality, difficulties in training illiterate workers, or problems related to employee morale. Costs to business outside the workplace include loss of consumption in the marketplace because people cannot understand or gain access to information about a

company's products[13]. The cost to Canadian society as a whole is estimated to be up to $10 billion or more annually.

Ontario's libraries were among the first institutions to recognize and respond to a need for community-based literacy tutoring [14]. A study called "How Libraries Help" noted that people who used libraries for literacy services felt they were helped in more ways by the library than by any other organization[15]. In 1993, the Literacy Services Guild of the Ontario Library Association and Alpha Ontario distributed 700 questionnaires to Ontario libraries to find out what libraries are currently doing to promote literacy. Results from responding libraries showed that 75 percent collect printed materials for new adult readers, 59 percent collect print materials for tutors, 82 percent provide space for tutoring, 77 percent maintain information on literacy providers, and 31 percent coordinate literacy efforts in the community. Clearly, Ontario public libraries have a major impact on promoting literacy in Ontario; and a literate population has a major impact on Ontario's economy.

Higher level reading skills, computer and information literacy, and the ability to reason and solve problems are required in today's job market. People without basic knowledge and skills require retraining. In a survey of public attitudes toward education in Ontario, the Ontario Institute for Studies in Education found that 92 percent of respondents thought public libraries are either very important or fairly important in furthering the education of adults after their formal schooling has been completed[9, p. 23].

The library is the formal education sector's most significant community partner. Libraries provide public access to information and are Ontario's public on-ramp to the global information infrastructure. Public libraries can provide key instruction on navigating the resources of the global information infrastructure.

The Canadian National Institute for the Blind (CNIB) states that over 250,000 Ontarians are unable to use print due to visual impairment and that this population will grow. Many are in smaller communities and require information for school work, job training, and lifelong learning. Public libraries help make educational information needed in the workplace accessible to people with disabilities and increase their awareness of economic prospects. Large print books and talking books are found in most public library collections. The National Library of Canada provides assistance to libraries with its adaptive technology for libraries program. The Canadian Union Catalog of Library Materials for the Handicapped (CANUC:H) is a database of resources in Braille, large print, and talking books held in Canadian libraries and available for inter-library loan. The Hamilton Public and Metropolitan Toronto Reference libraries have centers for persons with disabilities. Technical and adaptive aids provide opportunities to equalize access to the global information highway and enable fuller participation in the community. North York Public Library is piloting implementation of a wide area employment network, a database and resource for persons with disabilities including the visually impaired, to help them locate job opportunities.

Government information and services at Ontario libraries – for business, job-seekers, and the public

Numerous government services are now available in electronic format for business people, lifelong learners and the general public to access at Ontario libraries. This trend will continue through the 1990s as governments promote cost-effective public access while reducing costs. In Ontario some key library-accessible electronic government services are the Ontario Ministry of Consumer and Commercial Relations (MCCR) Clearing the Path for Business Success initiative, the Ontario Management Board Secretariat's Government of Ontario Information online service, the Ontario Ministry of the Environment and Energy's (MOEE) Environmental Registry, and Human Resource Development Canada's (HRDC) Job Bank.

MCCR's Clearing the Path initiative simplifies requirements for business registration. Using a graphical electronic registration program, individuals register business names, apply for vendor permits and register for employer tax programs at OBRA (Ontario Business Registration Access) workstations.

Businesses receive consolidated statements from the provincial government regarding taxes and business fees owed. Two Ontario public libraries, Nepean and Mississauga, are piloting the program in 1996. These library pilots will assist MCCR to determine the best ways to enhance the system for subsequent releases.

More than 210 public libraries and community information centers offer public access to Government of Ontario Information. This Bulletin Board application provides details on government information and services, addresses and contact numbers for Members of Provincial Parliament, local government access points, and a list of information available under the Ontario Freedom of Information and Protection of Privacy Act. Similarly, over 322 public libraries and community information centers provide access to the Ontario Environmental Bill of Rights and Environmental Registry electronic Bulletin Board system via local dial-up or a 1-800 number. These access points cover all areas of the province and include first nation libraries. Access to the Environmental Registry is provided through library INFO CD-ROM capacity and modem equipped workstations or other workstations provided directly to libraries by MOEE.

HRDC is reengineering its services to a network of several hundred automated self-serve terminals providing remote access to Job Bank information. Labour market information and other employment information and services including training opportunities will also be available through this system. The majority of these kiosks will be located in shopping malls and educational campuses, but many have been placed in Ontario public libraries. Libraries have information literacy skills trained-staff, supporting employment and business materials and the information-oriented environment job-seekers using Job Bank workstations need.

Library-based opportunities for education and business on the information highway

Electronic networks and the information infrastructure are the foundations of the new global economy. The provision of quality content on the Internet is a challenge, and libraries are meeting that challenge by creating specialized, well-indexed databases, digitized special collections and content of an educational nature for optimal public access and retrieval.

In 1992, a survey by the Ontario Institute for Studies in Education (OISE) highlighted public opinion on the participation of public libraries in computerized information networks. Three-quarters of respondents said that all publicly funded libraries should be required to provide access for the public to computerized information available from other libraries, government agencies, and other organizations[16]. In a 1994 OISE survey, four in ten Ontarians reported an interest in accessing library catalogs and other databases or to take educational programs over the information highway[17]. The same survey found that 69 percent of Ontarians want educators and libraries to play a major role in shaping the information highway. Gallup Canada conducted national surveys in 1993 and 1994 to measure the knowledge level of Canadians about information technology. A majority (74.9 percent) approve of the increased use of computers on the job, in recreation and in education, 51.6 percent said they have used a computer at work, 38.6 percent reported they have computers at home, and almost a third (32.3 percent) reported they planned to take a course on computers in the coming year. More than half of all Canadians have some awareness of the information highway, and more than two-thirds view this new phenomenon as a good idea. Clearly, Canadians have achieved in a remarkably short time frame, a high level of understanding and interest in the potential of information technology and the information highway[18].

Industry Canada shares the vision of enhanced public access to educational opportunities on the Internet for students and life-long learners. The rapid emergence of the information highway represents a unique opportunity for rural communities to experience economic and social growth and create new opportunities for jobs. Following on this philosophy, Industry Canada funds the School-Net Community Access Project to bring local Internet access to rural communities and to fund Internet workstations, connectivity costs and training. Industry Canada has identified public libraries as the best location for this

access; in 1995, 51 Ontario public libraries partnered or led Community Access proposals that received Industry Canada funding to make them the community access point for the Internet. By the end of 1998, Industry Canada's SchoolNet suite of programs will link all of Canada's schools, libraries, colleges and universities to the information highway. The Community Access program is complemented by another Industry Canada initiative, the Computers for Libraries program which helps public libraries acquire 386 surplus computers as public access workstations, and by Ontario Ministry of Citizenship, Culture and Recreation Library Project Grants which provide multimedia workstations to Ontario public libraries.

By providing access to local community networks and the Internet, libraries provide an important service to the business community. Public libraries with Internet access help business people to gain experience on the Internet before investing in their own Internet access. Many Ontario businesses use the Internet and local community networks to promote public awareness of their products. Free public access to this business information, provided by libraries, can lead to increased sales and a thriving business that contributes to the economy. Internet access through libraries gives business people access to a wide variety of business information which permits them to remain competitive with businesses that have access to the same information. Examples of business information on the Internet include advice on starting new businesses, government information and electronic small business periodicals.

Brantford Public Library provides Internet training workshops to facilitate public use of the Internet. This library's Public Internet Access Project objectives are to conduct World Wide Web classes, develop community partnerships to secure funding for the project and provide participants with access to a search terminal for at least an hour after completion of orientation sessions. The community benefits because business people, students and others have a place to go for electronic access to information. This project has positioned the library as the best community resource for accessing the information highway. "A public library should be seen as that place where expertise exists about information in any form. With this project we have successfully positioned the Brantford Public Library as that place"[19]. St. Thomas Public Library, the first Ontario public library with a home page on the World Wide Web, was also the first to provide public access to the Internet with a graphical interface. The St. Thomas library-based website now leads Internet surfers to local tourism and hospitality businesses.

Information infrastructure

Information infrastructure projects include regional library and information resource-sharing automation projects, individual library automation projects, and telecommunications links. Ontario public libraries have forged regional information infrastructure partnerships with community information centres, schools, social agencies, government, community colleges, universities, and other information providers. Innovative projects are under way throughout Ontario. Some of those implemented include 807-CITY, a northwestern Ontario information partnership that includes Thunder Bay Public Library, Lakehead University, a local college, school boards, the municipality and the Ontario Library Service-North; the Elgin information network which comprises St. Thomas Public Library, Fanshawe College, local school boards and the private sector; Halton information network (HALINET), a multi-type information partnership of Burlington, Halton Hills, Milton, and Oakville public libraries, community information centres, municipal governments, community colleges and the regional municipality of Halton and Hamilton-Wentworth Free-Net which includes Hamilton, Dundas, and Wentworth county public libraries.

Information infrastructure partnerships that include public libraries provide enhanced public access to information, deploy library-trained information organizational expertise and achieve cost-effective economies of scale at a time of reduced funding from all sources. Local businesses, job-seekers, lifelong learners and people acquiring literacy and other skills are just some of the groups and individuals that

gain economically by these information-sharing partnerships.

Job creation

Ontario public libraries spend $40 million annually in the publishing industry[2, p. 3]. Much of the material is purchased in Ontario including at local bookstores and wholesalers. 826 municipalities in Ontario receive public library service and local economies benefit from this. Library payrolls and budgets in each community provide jobs and generate ripple effects into the local economies, through services such as contracts for cleaning library buildings.

The economic impact of library information technology

Libraries are substantial purchasers of information technology products. Since 1984, the Ontario public library sector has spent more than $33 million on library automation projects. Of this, the provincial government contributed over $6 million; the rest was provided by municipalities and other partners. From 1984 to 1995, more than 125 Ontario public libraries automated assisted by provincial government funding.

The provincial information infrastructure contributes significantly to job creation. For example, funding of community Free-Net projects provides long-term jobs in participating Ontario communities. Funding for database creation creates employment opportunities in libraries and participating agencies. Training in these projects provides valuable technology job skills. Information technology skilled workers are able to find or create additional jobs. Telework and electronic cottage industries are developed that are ideally suited to workers who combine family and work opportunities in the home.

In Ontario $34.2 billion is generated annually by the information technology sector[20]. Ontario's wealth and employment levels are supported by the information technology industry. It numbers more than 7,500 firms and employs over 200,000 people (more people than the automotive industry). This industry reinvests almost $2 billion in research and development every year[21]. The amount of money spent by libraries on automation-related areas helps support Ontario-based technology companies. Ontario has an international reputation through the work of its information technology companies. Geac, ISM, Gandalf, Pendragon, Pixel Productions, Software Kinetics and Fulcrum are examples of Ontario-based information technology companies that have gained international exposure and some of this success may be attributed to sales and implementation in Ontario public libraries.

Ontario public libraries provide a potential $60 million market for Ontario automation industries. This is an annual figure over and above the initial hardware and software purchases for the companies and from sales outside Ontario.

Long-term jobs including the library workforce

Conventional capital funding provides construction jobs. Although these jobs provide employment in times of economic hardship and reduce the load on unemployment funding programs, there is no permanence to these jobs and employees may return to unemployment when the construction job is completed. The redefinition of capital funding programs to include information technology-based infrastructure indicates a shift to a new paradigm. Investment in technology infrastructure is a cost-effective, long-term solution to employment in a sophisticated, information-based economy that can compete competitively in a world market.

A fully automated library spends approximately 20 percent of its budget on technology related hardware, software, maintenance contracts and training[22].

Information technology job multipliers

Statistics Canada has developed information technology job multipliers that provide job creation projections in the information technology sector. For example, in the telecommunications industry, for every $1,000 of industry output 0.01164 people are directly employed, or for a $1 million investment in this field, 11.64 jobs are created.

Table I provides information technology job creation data using project amounts of $500,000 in three information technology areas. It shows the job creation impact that library information technology projects have.

Short-term jobs: library building capital job multipliers

Library building construction capital projects create short-term jobs. Library automation capital projects create short-term database entry work as well as short-term automation installation and implementation work. Library building and construction projects are community-driven. In county and regional municipalities and union libraries, they also involve partnerships between clusters of municipalities that have services administrated centrally for greater cost savings and economies of scale.

Table II uses an Ontario government funding formula to show that recent, provincially-assisted, library building capital projects created local construction jobs and helped lever local matching funding.

The economic impact of Ontario public libraries

On a national basis, a calculation of the direct impact of Canada's public libraries on the country's economy involves the measurement of business production through the calculation and analysis of the contribution the library sector makes to Canada's GDP. GDP measures the value of total production of goods and services, and represents earnings resulting from employment and the use of labour and capital. GDP analysis shows the value added by public

Table I Information technology job creation

Information technology sector	Total investment examples ($)	Jobs/person years of work created
Telecommunications/ hardware installation	500,000	5.82
Telecommunications manufacturing/leasing	500,000	5.23
Computer and peripherals manufacturing	500,000	3.01
Source: [23]		

Table II Library building capital job creation

Library building capital projects	Total project costs ($) provincial/total		Jobs/person years of work created
Cambridge	797,500	3,167,500	59.4
Harrow	171,046	522,297	9.8
Gloucester	109,500	328,500	6.2
Douro	16,255	48,734	0.9
Englehart	152,914	459,201	8.6
Bruce Mines	75,000	226,500	4.2

Note: Formula =

$$\frac{\text{Total project cost} \times 75\%}{\$40,000} = \frac{\text{person years of work} \times \text{labour \% of costs}}{\text{average annual construction wage}}$$

libraries in Ontario to national GDP or to the total value of all production in Canada. The direct impact of Ontario public libraries as measured by their contribution to the national GDP was valued at $286 million in 1993/1994. In terms of the impact on the labour market direct Ontario public library employment exceeded 6,480 jobs in 1993/1994 (see Table III).

Direct purchases by the library sector are only part of public library contributions to the economy. In interactions with other businesses such as suppliers of materials and services, libraries generate considerable spending leading to indirect demand for goods and services from other industries. An economic analysis model on the circular flow of economic activity involving libraries looks at indirect demand and measures economic spin-offs. Taking into account both direct and indirect impacts, in 1993/1994 Ontario public libraries contributed $486 million to the GDP. The direct and indirect impact in terms of jobs reached more than 9,000 in 1993/1994 (see Table III). Government direct and indirect revenues generated by public library activity in Ontario, calculated from direct and indirect taxes, duties, and from the sale of cultural goods and services are estimated to generate almost $38 million in revenue to various levels of government. The 1992/1993 contribution to national GDP for all types of Canadian libraries is shown in Figure 1. In 1993/1994 there were 6,480 employees in public and First Nations libraries in Ontario and an additional 6,087 volunteers. This is approximately 50 percent of all workers in Canadian public libraries[2]. Statistics on the

Table III Economic impact of public libraries in Ontario, 1993-1994

	Jobs	GDP
Direct impact		
Public libraries [a]	6,480	286.0
Provincial government infrastructure [b]	329	12.2
Municipal government infrastructure [c]	901	78.7
Direct and indirect impact		
Public libraries	9,072	406.0
Provincial government infrastructure	461	17.3
Municipal government infrastructure [c]	1,262	111.8
Multipliers		
Libraries	1.40	1.42

Notes:
[a] See [2].
[b] Includes the impact associated with government infrastructure. This typically includes activities such as the development of library policies, programs, and the tracking and monitoring of the performance of such policies and programs by cultural departments and agencies.
[c] Includes all types of libraries
Source: [24]

numbers of library employees in all types of libraries in Canada for 1992/1993 are provided in Figure 2.

Toward a framework promoting the economic and job creation benefits of public libraries

Public libraries can follow a framework to show their economic impact. This framework can be used by libraries, municipalities, government, foundations or other sources of funding to build support for library operating, building and information infrastructure capital and project expenditures. It focuses on:
(1) Job data and GDP/GNP (gross national product) contributions;
(2) Publicity for electronic information access;
(3) Collecting anecdotes of an economic nature supported by library patron-surveys with an economic focus; and
(4) Entrepreneurial and value-added services.
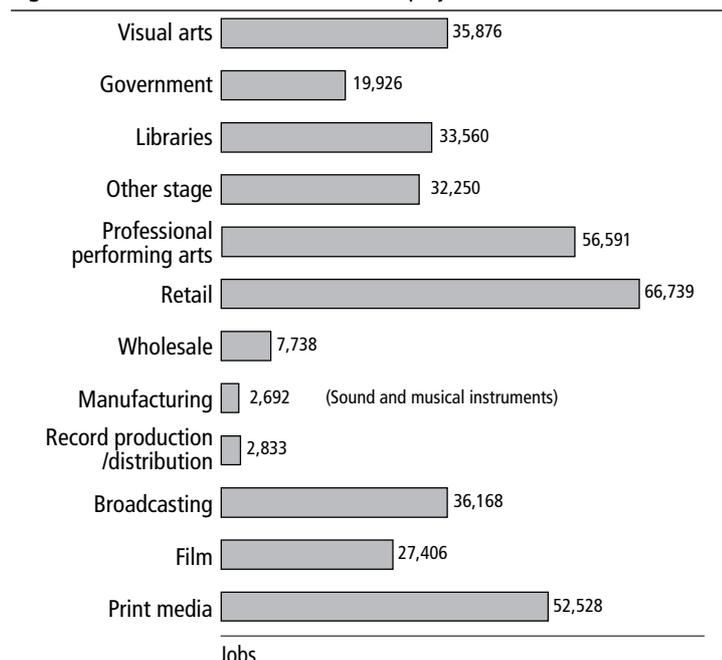
Jobs, GDP and GNP

Public libraries or provincial or state libraries can gather direct employment and expenditure statistics and use the Table III multiplier model to show the direct and indirect contribution

Figure 1 Arts and cultural sector: contribution to GDP, 1992-1993
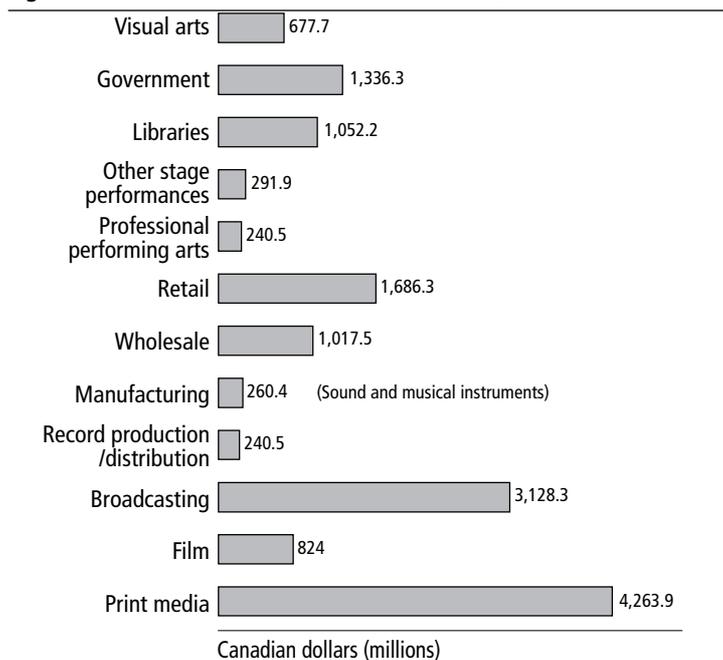
Source: [25]

Figure 2 Arts and cultural sector: direct employment in Canada

Source: [25]

libraries have on GDP (Canada) or GNP (US) and the indirect jobs they create. They can promote and market these statistics in conjunction with the impressive levels of service they provide at the community, state or provincial level. They can highlight medium- to long-term jobs associated with information technology using a multiplier model similar to the one in Table I and short-term job creation involved with library building projects with multipliers similar to the one in Table II. Multipliers will be available from governments or industry at the state, provincial or national levels and may vary by jurisdiction.

Information infrastructure, electronic government information and Internet deployment

Public libraries can provide public Internet access and work with industry and government to ensure preferential telecommunication tariff rates are available for public electronic access to information. Libraries can showcase the electronic services they provide and the public market exposure they can provide to attract support from information technology and telecommunications companies that can partner with them. This can help public libraries partially to offset diminishing government funding and help them to acquire low cost or free information technology.

Public libraries can take on the role of public electronic provider of government information. They may want to take this role on and promote value-added services patrons can access (such as an information literate staff and back-up print resources to complement electronic information) at budget times when approaching their municipal or state/provincial sources of funding. Other government agencies that do not provide direct public library funding are increasingly producing electronic information and services. Public libraries that approach these government agencies newly entering the electronic information and service business to request operating or cost-covering funding should understand that they face competition as public electronic access points from other public locations including shopping malls or municipal buildings. Electronic access to government information and services is a hot growth area and public libraries should seize the opportunity to provide these services.

Collecting economic-oriented patron anecdotes; economic impact surveys

Public libraries should gather current, quick-hitting, anecdotal examples from library patrons that describe economic benefits the library has helped provided patrons with. Examples can be from:

- job-seekers who found employment by using the library's resources;
- students able to choose education paths and careers thanks to the library's resources;
- business people able to secure addresses, articles, contact names, etc. to help them land a contract, sales or business;
- career-changers and people re-entering the workforce successfully helped by library resources;
- users of electronic government information able successfully to conclude business with the government thanks to library-based electronic workstations;
- artists, writers and other cultural workers who have gained inspiration leading to artistic fulfillment, sales and economic success;
- municipal or other politicians or their staff helped by the public library to gather research information;
- business people and others successfully working with the Internet thanks to an introduction at the library;
- people who have acquired literacy skills with the library's help and who went on to gain more fulfilling employment for themselves;
- business people who used the library's meeting space to help in their business endeavors;
- companies and their employees attracted to a location because of the quality local library amenities and services among other factors;
- researchers who successfully concluded some research for economic benefit, by using the library's material or interloan services.

One example of the above, with feedback from a library patron, involved an Ontario county library system. The county library borrowed books and information on herbs using interlibrary loans for a patron. The patron became an expert on herbs, establishing a business and publishing her own works. The patron has credited the library for much of her success.

The usefulness of this item, notwithstanding the interest it has on its own merits, is the feedback the patron provided to the library, and the fact the library made a point of recording it.

Libraries should gain permission to use patrons' names, business names, and the use of both for references. Staff or volunteers can be encouraged to gather "economic success" information that underscores the economic and job creation benefits library services have. Anecdotes should be gathered on a continual basis to remain current. Public libraries must be bullish about their economy-driving and job creation-related successes. A compilation of "economic success" anecdotes makes a powerful rationale and provides qualitative information for funding and other support and is suggested as an integral element in a framework on the economic and job creation benefits libraries have.

Public libraries, government library-funding agencies, schools of library and information science and economists can produce model library surveys of a purely economic nature. A review of library and information science literature reveals there is very little research done on the economic and job creation benefits of public libraries. Model patron questionnaires and local business surveys can be deployed to help fill this gap. Surveys can be developed that can be adjusted to meet local library needs. These patron questionnaires and user studies can focus entirely on providing support on the economic impact public libraries have. Areas covered above – job creation, business benefits, career development, business use of library facilities, literacy and more can be addressed, and the positive results gathered can then be given the publicity they need. Composite data from local libraries can then be gathered for state or provincial purposes. Results from these surveys can be reinforced by library statistics that showcase advantageous customer service cost-to-service statistics such as the costs of answering reference questions.

Entrepreneurial libraries

Public libraries should continue to reach out to local businesses, chambers of commerce, boards of trade and other organizations to run joint-programs, host business workshops and tailor services to support business. Value-added database searching and document delivery services should be marketed to position the public library as a key economic driver in the local economy. Even when these services just break even in the accounting ledger, they provide public libraries with visibility and public relations value beyond the funding they bring in.

Public libraries should showcase their hours of operation and usage statistics to lever partnerships with technology companies. This can enable a public library to acquire reduced cost or free information technology while information technology companies gain market exposure for their products and goodwill by contributing to the local library and economy.

Public libraries should highlight the business services they provide and partnerships they have entered into in their publicity material. They should gather similar program and service information from other public libraries to show interested parties the sorts of services libraries provide to business and in support of the economy, to gain comparative information from other communities with which to compare services.

Conclusion, and thoughts on further research

Business people, job seekers and lifelong learners need public libraries; public libraries are offering important electronic access services to the public as we shift to a knowledge-based economy. Literacy learners learn at public libraries and go on to find employment with their new skills. Public library building and information infrastructure creates jobs. Library information infrastructure has the potential to create long-term jobs. Entrepreneurial public libraries are reaching out to their business communities and finding important allies. As has been shown, Ontario public libraries contribute directly and indirectly to the Ontario economy and have an important economic and job creation role.

More research is needed, however, on the contribution public libraries make to the economy. An Arizona study concluded that 2.3 percent of small businesses relied on public libraries as their main source of business information. The same article noted that 36 percent relied on magazines as their main source of

information, 12.8 percent on newspapers, 8.2 percent on directories, 4.1 percent on the government and 1 percent on databases. Public libraries carry these sources and more; but even if the lower 2.3 percent figure is used as a starting point, further studies may link information acquisition directly and indirectly to equivalent generations of revenue, sales and economic activity underlining the effect public libraries have on the overall economy[27].

Further studies on public libraries' indirect economic contribution may provide the convincing economic argument public libraries need to defend their funding and very existence during a time of economic restraint. These studies may be able to use existing education models depicting the net effect education funding has on GDP, GNP or on productivity, and substitute library funding and expenditure figures for those of education.

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