



Placing an Economic Value on the Services of the Northport-East Northport Public Library in Suffolk County, New York

A Research Report by the
Long Island Association

Prepared by
Dr. Pearl M. Kamer
LIA Chief Economist
March 2006

**The Economic Value of the Northport-East Northport Public Library
In Suffolk County, New York**

**By Dr. Pearl M. Kamer, Chief Economist
Long Island Association, Inc.**

Executive Summary

At the request of the Northport-East Northport Public Library, the Long Island Association performed the following special research report, which compares the value of the direct services provided by the Library with the tax dollars used to support it. It also estimates the economic impact of the operating and capital expenditures made by the Library. The data on which it is based pertain to the Library's 2004-05 fiscal year, which extends from July 1, 2004 through June 30, 2005. Key findings of the study are as follows:

- The Northport-East Northport Public Library uses the tax dollars it receives to good effect. The, \$7,304,735 in state and local tax dollars that it received in fiscal 2004-05 generated library services valued at an estimated \$24,102,808 This is equivalent to a ratio of 3.30 to 1. Thus, library users received \$3.30 in services for every tax dollar they invested in the library.
- The library's operating and capital expenditures resulted in increased output, earnings and employment throughout Long Island but particularly in its local community. As a result of operating and capital expenditures made by the Library in fiscal 2004-05, the total Long Island output of goods and services expanded by \$14,669,015 including the original expenditure. Long Island earnings increased by almost \$3.7 million and approximately 91 support jobs were created throughout the Long Island economy.

The Northport-East Northport Public Library is truly the cultural center of the community and 80% of community residents are patrons. This highly educated community, which utilizes its public library heavily, recognizes the value of shared resources through its continued support and investment. Annual visits this past year to the Northport-East Northport Public Library numbered 575,663. The library has become an access point for state-of-the-art technology and a magnet for community gatherings and activities.

Unique collections and services developed over the years support the needs, talents and interests of the community. One of the Library's most extensive collections specializes in art and architectural resources. This repository for art resources was established in 1961 in a cooperative project with Suffolk Libraries. It now houses more than 18,500 volumes. The collection strongly supports a thriving local industry

consisting of art appraisers, gallery owners, antique dealers, local artists and post-graduate students.

The Library's Ray Freygang Business Center with 2,500 volumes was established through a generous bequest in 1993. It provides business people and investors with daily guidance on starting a business, finding venture capital, promoting their products, developing business plans and researching investments. The Library has also initiated a community outreach partnership entitled "Taking the Stacks to the Streets". This initiative provides 40 small business owners and their customers with targeted library resources.

Part of the Library's mission is to inform and educate the community. It performs this mission through the Educators Collection, Parents Center and the Professional Development Center. The Professional Development Center specializes in continuing education courses provided by the professional librarians. The Parents Center, a partnership with the Northport-East Northport School District, contains a collection of 3,000 titles. In the past year, the Parents Center provided vital support for child growth and development to 463 parents. The Special Loan Service For Our Schools program supports the curricular needs of local schools. During the 2004-05 academic year, this program loaned more than 360 materials to local school faculty members. This sharing of resources enhances the educational experience and gives our schools and their students an economic advantage. Technology facilities at the Library have turned the Digital Divide into a Digital Dividend for untold numbers of library patrons. Last year, the Library provided training and access to the Internet for patrons in 23,832 separate sessions. It provided access to application software a total of 23,216 times last year.

Priceless original works and manuscripts can be found in the distinctive literary collections held by the Library. These include the renowned Jack Kerouac Collection, Rex Brasher's *Birds and Trees of North America*, the Aaron Kramer Poetry Collection, the original works of children's author and illustrator Rosemary Wells and *The Little Prince*, written by Antoine de Saint Exupery. The library regularly provides researchers with global access to these collections. These "collectors' collections" have influenced and inspired authors and artists and will continue to impact future generations.

The library has also reintroduced coffee houses, a literary tradition dating back to the 17th Century, when they were places to read, gather, and enjoy the company of others. The Northport-East Northport Public Library's Library Cafes served thousands of patrons with 86,504 transactions in 2004-2005.

The Economic Value of the Northport-East Northport Public Library In Suffolk County, New York

**By Dr. Pearl M. Kamer, Chief Economist
Long Island Association, Inc.**

Introduction

Most public libraries do not receive extensive funding from outside their immediate region. Because they are local in nature they tend to recycle local tax dollars. Libraries confer both direct and indirect benefits to the communities in which they are located. For example, the use of libraries helps to create a literate population, which is a major indirect benefit, especially in an economy that requires an increasing degree of knowledge. Yet, it is difficult to measure indirect benefits. However, the direct benefits to library users are measurable and this study estimates those benefits based on the fiscal 2004-05 performance of the Northport-East Northport Public Library.

This study analyzes the cost of operating the Northport-East Northport Public Library and compares the value of the direct services provided with the tax dollars used to support the Library. The study also measures the secondary economic impact of library operating expenditures on the community. For example, the wages it pays, the goods and services it purchases and the buildings it constructs or remodels recycle local tax dollars and have a ripple effect on the economy.

Part I of this study compares the state and local tax dollars received by the Northport-East Northport Public Library with the measurable direct benefits to Library users. Part II of this study examines additional economic benefits conferred upon the community by library operating and capital expenditures.

PART I: Direct Benefits to Library Users

Methodology

Several frequently used library services have been selected for analysis. They fall under these general categories: library collections, circulation and reference transactions, programming, and electronic resources. The frequency of use of these services in fiscal 2004-05 was quantified by using the New York State Annual Reports for Public and Association Libraries. Each of the services has been assigned a market value: that is, the dollar amount that users of the particular service would have paid had the resources of the library been unavailable. By multiplying the number of users by the market value of each service, it is possible to estimate the total value of library services to their users. This figure was then compared with the state and local tax dollars received by the Northport-East Northport Public Library during its 2004-05 fiscal year. The result is a cost-benefit analysis that demonstrates the economic value of the tax dollars used to operate the library. This method was used by the St. Louis Public Library¹ in its seminal study of the value of its services to users.

¹Holt, Glen E. , Elliott, Donald, and Moore, Amonia. Placing a Value on Public Library Services. 1998.

The Value of Library Collections

It is important to recognize that Northport-East Northport Public Library has a large and diverse collection of books, journals, recordings and software. The estimated value the Library's collection and the manner in which it was derived is shown below in Table 1. The results show that the collection is valued at almost \$12.1 million. The value of this collection can be measured in terms of its relationship to state and local tax dollars needed annually to operate the library. For fiscal 2004-05, the Library received state and local tax dollars totaling \$7,304,735. In effect, the Northport-East Northport Library collection is valued at 1.65 times the state and local tax dollars needed to operate the Library.

Table 1: Value of the Northport-East Northport Library Collection

Materials Owned	Number	Estimated Value Per Item	Total Estimated Value	Source of Value Estimate
Adult Fiction Books	45,217	\$27.56	1,246,181	Bowker Annual Library Almanac
Adult Nonfiction Books	110,986	62.84	6,974,360	Bowker Annual Library Almanac
Children's Fiction Books	44,437	24.37	1,082,930	Bowker Annual Library Almanac
Children's Nonfiction Books	47,881	24.37	1,166,860	Bowker Annual Library Almanac
Print Serials (volumes)	8,399	4.83	40,567	Library Journal
E-Journals	2,302	303.62	698,933	Bowker Annual Library Almanac
E-Books	3,400	25.00	85,000	NetLibrary
Audio Recordings (Music)	4,883	17.00	83,011	School Library Journal
Audio Recordings (Books)	4,278	75.00	320,850	School Library Journal
Video Recordings (DVD's)	16,702	20.00	334,040	School Library Journal
Other (CD-ROM, software)	1,475	31.66	46,698	Average Price paid by Suffolk Libraries
Total	289,960		12,079,430	

Source: Northport-East Northport Public Library

The Value of Library Services: Circulation and Reference Transactions

The two greatest values for users of library services are the circulation of the library's collection of books, music, videos and other materials and the reference transactions performed by its librarians.

The number of transactions conducted in 2004-05 by the Northport-East Northport Public Library is shown below in Table 2. Each of these transactions has been assigned an estimated market value. The findings indicate that the market value of transactions involving the circulation of library materials and reference help by library staff exceeded \$19.1 million in 2004-05. This is based on total circulation of 465,771 items and 196,796 reference transactions.

Table 2: Estimated Value of Circulation & Reference Transactions, Northport-East Northport Public Library, 2004-05

Item Circulation	Circulation	Proxy Dollar Value Per User	Total Proxy Dollar Value	Source of Proxy Value Estimate
Adult Fiction	69,754	\$27.56	\$1,922,420	Bowker Annual Library Almanac
Adult Nonfiction	96,957	62.84	6,092,778	Bowker Annual Library Almanac
Children's Fiction	78,488	24.37	1,912,753	Bowker Annual Library Almanac
Children's Nonfiction	43,905	24.37	1,069,965	Bowker Annual Library Almanac
Other Adult Material				
Audio Recordings, Books	5,015	75.00	376,125	School Library Journal
Audio Recordings, Music	67,638	17.00	1,149,846	School Library Journal
Other (CD-ROM, software)	745	7.00	5,215	Blockbuster Rental Price
Other Children's Material				
Audio Recordings Books	2,249	75.00	168,675	Av. Price, Books on Tape
Video	95,543	17.00	382,172	CD Purchase Price
Other (CD-ROM, software)	5,477	7.00	38,339	Blockbuster Rental Price
Total Circulation	465,771		13,118,288	
Reference Transactions	196,796	29.00	5,707,084	Average Price, Google Answers
ILL Materials Received*	10,760	27.00	290,520	Av. Cost of Interlibrary Loan— Assn. of Research Libraries
Grand Total	673,327		19,115,892	

- Materials received from other libraries. Source: Northport-East Northport Library

The Value of Library Services: Programming Services

The Northport-East Northport Public Library also provides extensive entertainment, educational and other programs for library users. These include special programs for adults and young adults, children's programs and outside group meetings. More than 43,000 library users participated in these programs in 2004-05 at an estimated value of \$448,601.

Table 3: Value of Library Programming, Northport-East Northport Public Library, 2004-05

Type Of Service	Participants	Proxy Dollar Value Per User	Total Proxy Dollar Value	Source of Proxy Value Estimate
Adult Programs	10,039	\$10.42	104,606	St. Louis Public Library
Young Adult Programs	1,310	10.42	13,650	St. Louis Public Library
Children's Programs	16,318	10.42	170,034	St. Louis Public Library
Other Programs	3,227	10.42	33,625	St. Louis Public Library
Outside Group Meetings	12,158	10.42	126,686	St. Louis Public Library
Total	43,052		448,601	

Source: Northport-East Northport Public Library

The Value of Library Services: Electronic Resources

The Northport-East Northport Public Library also provides a broad array of electronic resources to users. One of them is SuffolkNet, a source of dial-up Internet access for library cardholders. For many library patrons it is their only source of Internet access. Other electronic services include database searches, full text retrievals, Live Librarian chat sessions and Live Librarian responses to e-mail questions. Utilization of these electronic resources makes it possible for library users to receive answers to their reference questions regardless of whether or not the library is open. The number of transactions involving electronic services is shown below in Table 4 along with the estimated dollar value of these services to each user. The analysis shows that the Northport-East Northport Library provided electronic services valued at \$4,538,315 to 125,413 users in fiscal 2004-05.

Table 4: Value of Library Electronic Services, 2004-05

Type of Service	Number of Users	Proxy Dollar Value Per User	Total Proxy Dollar Value	Source of Proxy Value Estimate
SuffolkNet Service	3,512	\$288.00	\$1,011,456	Annual Cost, AOL
Database Searches	116,356	29.00	3,374,324	Average Cost, Google Answers
Full Text Retrievals	4,135	27.00	111,645	Average Cost, ILL Article (Association of Research Libraries)
Live Librarian Chat Sessions	541	29.00	15,689	Average Cost, Google Answers
Live Librarian E-Mail Questions	869	29.00	25,201	Average Cost, Google Answers
Total	125,413		4,538,315	

Source: Northport-East Northport Public Library

Cost-Benefit Analysis of Services-

The foregoing analysis indicates that the Northport-East Northport Public Library conducted almost 842,000 individual transactions in 2004-05 and provided services valued at more than \$24.1 million to their users as indicated in Table 5.

Table 5: Estimated Dollar Value of Services Provided by the Northport-East Northport Public Library, 2004-05

Type of Service	Number of Uses	Total Proxy Dollar Value
Circulation & Reference Transactions	673,327	19,115,892
Programming	43,052	448,601
Electronic Services	125,413	4,538,315
Total	841,792	24,102,808

Source: Northport-East Northport Public Library

Since the Northport-East Northport Public Library is funded primarily by state and local tax dollars, it is useful to compare the dollar value of services provided during 2004-05 with the state and local tax dollars used to generate those services. This comparison is called a cost-benefit analysis. It measures the dollar value of library

benefits provided per tax dollar. In 2004-05, the Northport-East Northport Public Library received state and local tax revenues totaling \$7,304,735. These tax dollars generated \$24,102,808 in library services. This is equivalent to a ratio of 3.30 to 1. *Thus, library users received about \$3.30 in services for every dollar they invested in the library during fiscal 2004-05.*

Table 6: State and Local Tax Revenues Going to The Northport-East Northport Public Library, 2004-05

Type of Tax Revenue	Dollar Amount
Local Property Taxes	\$7,293,700
State Aid	11,035
Total Tax Revenue	7,304,735

Source: Northport-East Northport Public Library

PART II: Additional Economic Benefits Attributable to Northport-East Northport Public Library

Introduction

The foregoing cost-benefit analysis expresses the economic benefits of the Northport-East Northport Public Library in the terms of tax dollars invested in the library. However, the library is also a major employer in its area. Most library employees live within or close to their respective communities. As a result, they tend to spend their wages locally. These wages are injected into the Long Island economy and undergo several rounds of re-spending so that the ultimate economic impact of these wages is a multiple of the original expenditure. This is the so-called ripple or multiplier effect. For example, library employees spend their wages at local retailers, who in turn buy goods and services from other Long Island businesses so that the process continues. Operating and capital expenditures made by the library are also injected into the economy and are subject to the multiplier process. There is some leakage out of the system, as when wages are spent off Long Island. However, as a general rule, most wages generated by the Library remains within the Long Island economy and are subject to the multiplier process.

Methodology

The use of an input-output model of the Long Island economy makes it possible to estimate the secondary economic impact of operating and capital expenditures made by the Northport-East Northport Public Library. The Long Island Association commissioned such a model from the Bureau of Economic Analysis of the U.S. Commerce Department. The model is called the Regional Input-Output Modeling System or RIMS II. It is specific to the Long Island economy and reflects inter-industry relationships on Long Island. That is, it shows the industries from which Long Island businesses purchase their inputs and the industries to which they sell their output.

The model contains multipliers for output, earnings and employment. The output multipliers show how much Long Island's total output of goods and services, its gross

metropolitan product, increases in response to each dollar of spending by the Northport-East Northport Public Library. The earnings multipliers show how much overall Long Island earnings increase in response to such spending. The employment multipliers show how many secondary jobs are created for every one million dollars of spending by the Library.

The Secondary Economic Impact of Library Operating Expenditures.

In fiscal 2004-05, operating expenditures by the Northport-East Northport Public Library totaled \$7,571,960. The RIMS II multipliers are industry specific, which makes it possible to demonstrate the economic impact of public library spending on specific Long Island industries. As Table 7 indicates, 2004-05 operating expenditures of \$7,571,960 caused total Long Island output to expand by \$14,491,217, including the original expenditure. This is equivalent to a net output increase of more than \$6.9 million. Long Island earnings increased by more than \$3.6 million and 90 additional jobs were created throughout the Long Island economy. The greatest impact occurred in various service industries. However, virtually all Long Island industries benefited from this spending, including construction and real estate. Most of this impact is local and occurs in the local community.

Table 7: Output, Earnings and Employment Gains by Industry Resulting from 2004-05 Operating Expenditures, Northport-East Northport Public Library

Industry	Output Increase	Earnings Increase	Employment Increase
Agriculture, Forestry, Fishing	\$20,444	\$4,543	0
Mining	4,543	757	0
Utilities	352,096	65,876	1
Construction	422,515	149,925	3
Manufacturing	826,101	166,583	4
Wholesale Trade	429,330	124,180	2
Retail Trade	436,902	134,781	6
Transportation & Warehousing	243,817	84,049	2
Information	314,994	75,720	1
Finance & Insurance	655,732	151,439	2
Real Estate; Rental & Leasing	946,495	58,304	2
Professional, Scientific & Technical Services	676,176	276,377	5
Management of Companies & Enterprises	124,180	49,218	1
Administrative & Waste Management Services	355,882	123,423	4
Educational Services	65,876	26,502	1
Health Care & Social Assistance	490,663	214,286	5
Arts, Entertainment & Recreation	58,304	21,959	1
Accommodation & Food Services	190,813	65,119	4
Other Services	7,876,354	1,824,085	46
Households	0	2,271	0
Total	14,491,217	3,619,397	90

Source: LIA computations based on RIMS II Input-Output Model of the Long Island Economy

The Secondary Economic Impact of Library Capital Expenditures.

The Northport-East Northport Public Library made capital expenditures of \$86,009 during 2004-05. RIMS II multipliers for the construction industry were applied to this figure to determine the secondary economic impact of this capital spending. The findings show that this spending caused total Long Island output to expand by \$177,798 including the original expenditure. This is equivalent to a net output increase of almost \$92,000. Local earnings increased by \$55,373 as a result of this spending.

Table 8: Output, Earnings and Employment Gains by Industry Resulting from 2004-05 Capital Expenditures, Northport-East Northport Public Library

Industry	Output Increase	Earnings Increase	Employment Increase
Agriculture, Forestry, Fishing	\$292	\$60	0
Mining	146	43	0
Utilities	1,961	361	0
Construction	86,577	30,688	1
Manufacturing	14,355	2,787	0
Wholesale Trade	6,519	1,884	0
Retail Trade	10,975	3,380	0
Transportation & Warehousing	2,942	946	0
Information	4,171	981	0
Finance & Insurance	9,874	2,279	0
Real Estate; Rental & Leasing	11,388	662	0
Professional, Scientific & Technical Services	7,517	3,139	0
Management of Companies & Enterprises	2,288	903	0
Administrative & Waste Management Services	3,174	1,187	0
Educational Services	963	396	0
Health Care & Social Assistance	7,543	3,294	0
Arts, Entertainment & Recreation	894	327	0
Accommodation & Food Services	2,812	963	0
Other Services	3,407	1,032	0
Households	0	61	0
Total	177,798	55,373	1

Source: LIA computations based on RIMS II Input-Output Model of the Long Island Economy

Aggregate Impact of Spending by Northport-East Northport Library, 2004-05

By aggregating the foregoing tables, it is possible to ascertain the secondary economic impact of operating and capital spending by the Northport-East Northport Public Library during the 2004-05 fiscal year. Those results are shown below in Table 9. They indicate that total operating and capital spending of \$7,657,969 caused the total Long Island output of goods and services to expand by \$14,669,015 including the original expenditure. This is equivalent to a net output increase of \$7,011,046. Long Island earnings increased by almost \$3.7 million and approximately 91 support jobs were created throughout the Long Island economy.

Table 9: Output, Earnings and Employment Gains by Industry Resulting from Total Expenditures, 2004-05, Northport-East Northport Public Library

Industry	Output Increase	Earnings Increase	Employment Increase
Agriculture, Forestry, Fishing	\$20,737	\$4,603	0
Mining	4,689	800	0
Utilities	354,057	66,237	1
Construction	509,092	180,613	4
Manufacturing	840,456	169,370	4
Wholesale Trade	435,850	126,064	2
Retail Trade	447,877	138,161	6
Transportation & Warehousing	246,759	84,995	2
Information	319,165	76,700	1
Finance & Insurance	665,606	153,718	2
Real Estate; Rental & Leasing	957,883	58,966	2
Professional, Scientific & Technical Services	683,693	279,516	5
Management of Companies & Enterprises	126,468	50,121	1
Administrative & Waste Management Services	359,056	124,610	4
Educational Services	66,839	26,898	1
Health Care & Social Assistance	498,206	217,581	5
Arts, Entertainment & Recreation	59,199	22,286	1
Accommodation & Food Services	193,626	66,082	4
Other Services	7,879,757	1,825,117	46
Households	0	2,331	0
Total	14,669,015	3,674,769	91

Source: LIA computations based on RIMS II Input-Output Model of the Long Island Economy

Conclusions

The Northport-East Northport Public Library uses the tax dollars it receives to good effect. The, \$7,304,735 in state and local tax dollars that it received in fiscal 2004-05 generated library services valued at an estimated \$24,102,808. This is equivalent to a ratio of 3.30 to 1. Thus, library users received \$3.30 in services for every dollar they invested in the library. The library's operating and capital expenditures resulted in increased output, earnings and employment throughout Long Island but particularly in the local community. As a result of this spending, the total Long Island output of goods and services expanded by \$14,669,015 including the original expenditure. Long Island earnings increased by almost \$3.7 million and approximately 91 support jobs were created throughout the Long Island economy.

About the Long Island Association

The Long Island Association is Long Island's chamber of commerce and the largest business-to-business networking organization in the region. Its networking events include trade shows and seminars geared to the needs of small, medium and large businesses. Its issue-oriented committees deal with housing, taxation, transportation and environmental matters. They develop agendas for change that are communicated to the New York State legislature and the governor's office. Thus, the LIA is much more than a chamber of commerce. It lobbies for social and economic changes that benefit all Long Islanders. The LIA can be reached by telephone at 631-493-3006 or by email at www.longislandassociation.org.

Dr. Pearl M. Kamer, the LIA's Chief Economist, monitors national, regional and local economic trends and publishes regular reports concerning the area's changing business environment. She also prepares special studies for local businesses, governments and non-profit organizations at their request on a fee-for-service basis. This is one such study.

Dr. Kamer joined the LIA in 1995. She earned her M.B.A. and Ph.D. degrees at New York University and received her B.A. from Queens College, where she was elected to Phi Beta Kappa. Dr. Kamer has taught at various area colleges. Her fields of specialization include international business, regional economics, and public and corporate finance. She is the author of two books: *The U.S. Economy in Crisis: Adjusting to the New Realities* and *Crisis in Urban Public Finance: A Case Study of Thirty-Eight Cities*. She has also authored numerous business articles and is widely quoted in the media.

Dr. Kamer is past president of the New York Metropolitan Economic Association and the Regional Economist's Society. She currently serves on the Board of Directors of the Broadhollow Bioscience Park at Farmingdale State University and the Health and Welfare Council. She is Vice-Chair of the Route 110 Redevelopment Corporation and serves on the Technical Advisory Committee of the Long Island Index. Dr. Kamer was recently appointed as an economic advisor to the Ways and Means committee of the New York State Assembly.