
Taxpayer Return on Investment in Florida Public Libraries: Summary Report

September 2004

José-Marie Griffiths
University of Pittsburgh & University of North Carolina at Chapel Hill

Donald W. King
Christinger Tomer
University of Pittsburgh

Thomas Lynch
Julie Harrington
Florida State University

Prepared for
State Library and Archives of Florida

ACKNOWLEDGEMENTS

The research team wishes to acknowledge the contributions made by a large number of persons who participated on this study. Without their support, we would not have been able to complete the study in the short time period required. These persons include:

- The staff at the State Library and Archives of Florida who provided information, data and other support in a timely and helpful manner.
- Participants in a February workshop who provided important guidance to the study (participants listed in Detailed Report, Appendix B).
- Seventeen public libraries conducted in-library surveys in a short time period. Many of these libraries assigned a staff member to oversee the survey and in all instances did a remarkable job (participating libraries and responsible staff listed in Detailed Report, Appendix E).
- The household telephone interviews and other survey processing were performed by the University of Pittsburgh, University Center for Social and Urban Research under the able direction of Scott Beach and Janet Schlarb (co-authors of Part II in the Detailed Report).
- Rabikar Chatterjee, University of Pittsburgh, Katz School Business performed a conjoint measurement trade-off analysis (see Detailed Report).
- University of Pittsburgh, School of Information Sciences also contributed substantially including: Songphan Choemproyong, Janine Golden, Matt Herbison, Molly Murphy, Rachelle Shells, and Licia Slimon
- Background discussions were held with key stakeholders in Florida's public libraries: Claire Cardina, Sharon Ellwood, Barbara Fitos, Paula Galbraith, Melody Hainsworth, Betsy King, Dottie Reeder, and Frank Ryll; and with Ann Clarke, The British Library; Donald S. Elliott and Debra H. Moore at Southern Illinois University Edwardsville; Robert Molyneux of NCLIS; and Steven Stewart, Arizona University.
- Roswitha Poll, ULB Munster, Germany provided us with an extensive bibliography she assembled on ROI in libraries.
- Kathleen McClatchey was responsible for visual design and production of the study reports and related presentations graphics.

Finally, we are appreciative of the 2,388 adults and 169 organizations that responded to our surveys. THANK YOU ALL!

This publication has been funded under the provisions of the Library Services and Technology Act, from the Institute of Museum and Library Services, administered by the Florida Department of State, State Library and Archives of Florida.

EXECUTIVE SUMMARY

Background

The measurement of return-on-investment (ROI) has been applied to many different types of organizations and community resources. While common in the for-profit sector, the application of benefit/cost, cost-effectiveness, impact and return-on-investment measures to libraries, museums, schools and colleges, parks, etc., has lagged behind considerably. Part of the difficulty has been in quantifying benefits from non-priced goods and services that can differ from use to use, user to user, as well as from library to library (as their mix of service offerings vary). In today's climate of strained budgets and pressures for increased accountability and transparency, the need for clear and accurate statements of how public monies are allocated and used, and the resulting benefits or outcomes, is paramount in ensuring continued investment.

This Summary Report describes a comprehensive study to assess taxpayer return-on-investment in Florida's public libraries. The study used a variety of data collection and analysis methods including the public library annual data reports to the State Library and Archives of Florida, a statewide household telephone survey of adults, in-library surveys of adults, a follow-up survey of the libraries, surveys of organizations (e.g., businesses, schools, etc.) and an input-output econometric model (REMI). Public libraries allow users to share knowledge and services at a cost to them as taxpayers and in the time they spend using the libraries; however, *all* taxpayers in Florida benefit from the public libraries through their considerable contribution to education, the economy, tourism, retirement, quality of life, and so on. There are many ways to determine how public libraries contribute to the State's economy and how taxpayers achieve a return on their investment. This study examined several approaches to considering returns on public library availability and use and found they *all* show substantial returns exceeding taxpayer investment.

Key Findings

Overall, Florida's public libraries return \$6.54 for every \$1.00 invested from all sources.¹

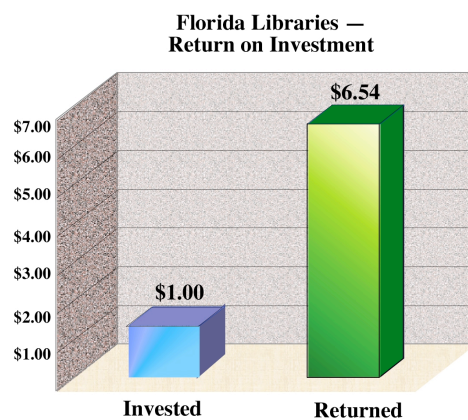


Figure 1: Florida Libraries Return on Investment

¹ \$2,933.660 million ÷ \$448.903 million = \$6.54

The total revenue investment in Florida’s public libraries is \$449 million.

The total economic return attributable to the existence of the public libraries is \$2.9 billion — based on an analysis of what would happen if the public libraries ceased to exist: includes the net benefits (added costs to use alternatives), the benefits that would be lost because users would not bother to use alternatives, and revenues that would be lost by vendors, contractors, etc.

Using State Library and Archives of Florida data and data from the surveys described above, the REMI (Regional Economic Modeling Inc.) model looked at the initial public investment in public libraries (\$443 million²) and considered the implications of not funding the public libraries, but of redistributing the money to alternative government spending activities. Projecting forward over 32 years (2004-2035), the REMI model indicated that if funding for public libraries was reallocated across Florida’s government sectors, the state economy would result in a net decline of \$5.6 billion in wages and 68,700 in jobs.

For every \$6,448 spent on public libraries from public funding sources (federal, state and local) in Florida, one job is created.

For every dollar of public support spent on public libraries in Florida, GRP increases by \$9.08

For every dollar of public support spent on public libraries in Florida, income (wages) increases by \$12.66

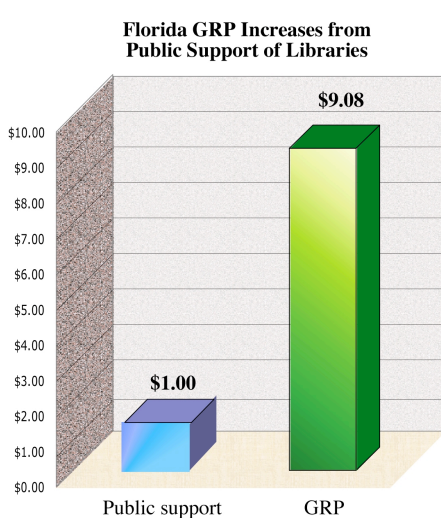


Figure 2: Florida GRP Increases from Public Support of Libraries

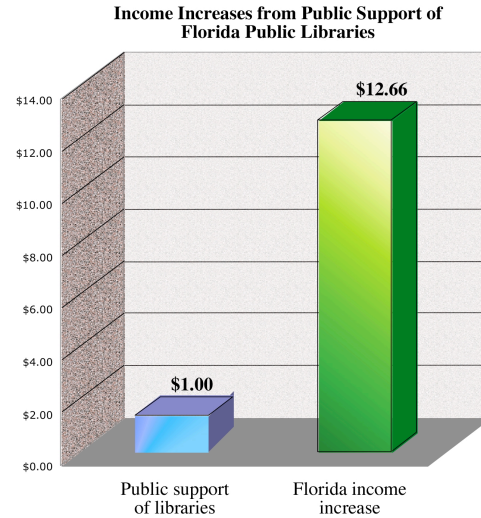


Figure 3: Income Increases from Public Support of Florida Public Libraries

² Note that this figure does not include \$6 million in state funds to the Multitype Library Cooperatives.

Benefit (B) to Cost (C) ratios are estimated from the multiple approaches using survey data or REMI as follows:

The B/C (Availability) of Florida's public libraries is 5.2 to 1.³

The benefit (B) to the state (in terms of *availability* of Florida's public libraries) is \$2.3 billion, measured as the total cost to use alternatives, if the public libraries did not exist. The cost (C) is \$449 million.

The B/C (Use) of Florida's public libraries is 7.2 to 1.⁴

The benefit (B) to the state (in terms of time and money saved through *use* of Florida's public libraries) is \$3.2 billion. The cost (C) is \$449 million.

The B/C_{REMI} (Wages) is 5.0 to 1

The benefit (B) to the state (in terms of wages) is \$9.2 billion. The cost (C) is \$1.83 billion.

The B/C_{REMI} (GRP) is 3.7 to 1

The benefit to the state (in terms of GRP or output) is \$6.7 billion. The cost (C) is \$1.83 billion.

It is clear that, regardless of the approach used, **the Florida public library benefit to cost ratios are impressive.**

³ \$2,331.922 million ÷ \$448.903 million = 5.2

⁴ \$3,211.219 million ÷ \$448.903 million = 7.2

Table of Contents

Executive Summary	I
Background	I
Key Findings	I
Introduction	1
Florida’s Public Libraries Return \$6.54 for every \$1.00 Invested	3
Investments In Florida’s Public Libraries.....	3
Returns From Florida’s Public Libraries	3
Return On Investment (ROI) In Florida’s Public Libraries.....	5
Florida’s Public Libraries Cause an Economic Ripple Effect that Increases GRP, Wages and Jobs in the State	5
Florida’s Public Libraries Provide Direct Benefits of \$6.0 Billion per Year to Florida’s Communities and Population	6
Florida’s Public Libraries Contribute \$2.1 Billion to the Workplace.....	8
Florida’s Public Libraries Contribute \$2.1 Billion Per Year to Education	9
Florida’s Public Libraries Contribute \$1.6 Billion per Year to the Personal Information Needs of Florida Adults	10
Florida’s Public Libraries Contribute a Net Benefit of \$136,000 per Year to the Recreational Needs of Florida Adults	11
Florida’s Public Libraries are Extensively Used — 94 Million Uses per Year by Individuals Plus Organizational Uses.....	11
Florida’s Public Libraries are Used by 11.8 Million People Annually.....	14
What Do People Do When They Visit the Library in Person?.....	17
What Do People Do When They Use Public Libraries Through Remote Internet Connections?	19
People Use Public Libraries for Many Purposes	19
Recreational Uses	19
Personal Uses	20
Educational Uses.....	20

Work-Related Uses.....	22
Florida Adults Indicate that Public Libraries are Important for <i>All</i> Purposes of Use	22
What Would People Do If There Were No Public Library?	24
What Would the Use of Alternatives Cost?	26
Glossary of Terms	i
Research Team.....	iv
José-Marie Griffiths, Ph.D.	iv
Julie Harrington, Ph.D.	iv
Donald W. King	v
Thomas (Tim) Lynch, Ph.D.	v
Christinger Tomer, Ph.D.....	v

Table of Figures

Figure 1: Florida Libraries Return on Investment	I
Figure 2: Florida GRP Increases from Public Support of Libraries	II
Figure 3: Income Increases from Public Support of Florida Public Libraries	II
Figure 4: Revenue Investment in Florida’s Public Libraries, 2003/2004	3
Figure 5: Total Economic Benefit of Florida’s Public Libraries to Individuals by Purpose of Use and to Communities	7
Figure 6: Average Use Benefit of Florida’s Public Libraries per Use by Purpose of Use .	7
Figure 7: Benefit to Cost Ratios of Use of Florida’s Public Libraries by Purpose of Use .	7
Figure 8: Direct Use Benefits of Public Libraries to the Workplace.....	8
Figure 9: Public Library Direct Economic Contribution to the Workplace.....	8
Figure 10: Direct Use Benefits of Public Libraries to Education.....	9
Figure 11: Public Library Direct Economic Contribution to Education.....	9
Figure 12: Public Library Direct Contribution to Teaching and Studying	9
Figure 13: Direct Use Benefits of Public Libraries for Personal Information Needs.....	10
Figure 14: Public Library Economic Contribution to Personal Information Needs.....	10
Figure 15: Direct Use Benefits of Public Libraries for Recreational Needs.....	11
Figure 16: In-Person Visits to Florida Public Libraries	12
Figure 17: In-Person Visits to Florida Public Libraries Per Year by Type of Visitor	12
Figure 18: In-Person Visits Per Year Per Capita	12
Figure 19: Total Adult Resident Uses of Florida Public Libraries	12
Figure 20: Average Annual Adult Uses Per User by Mode of Use.....	13
Figure 21: Average Annual Adult Uses Per Capita	13
Figure 22: In-Person Visitors to Florida Public Libraries.....	14
Figure 23: Percentage of Florida’s Population That Make Visits to the Public Libraries	14
Figure 24: Florida Population by Gender.....	15
Figure 25: Florida Public Library Users by Gender	15

Figure 26: Florida Population by Age.....	15
Figure 27: Florida Public Library Users by Age	15
Figure 28: Florida Population by Ethnicity.....	15
Figure 29: Florida Public Library Users by Ethnicity	15
Figure 30: Florida Population by Ethnicity.....	15
Figure 31: Florida Public Library Users by Ethnicity	15
Figure 32: Florida Population by Education Level.....	16
Figure 33: Florida Public Library Users by Education Level	16
Figure 34: Florida Public Library Users by Employment Status	16
Figure 35: Florida Public Library Users by Employment Sector.....	16
Figure 36: Florida Adult Population by Annual Household Income.....	16
Figure 37: Florida Adult Library Users by Annual Household Income	16
Figure 38: Percentage of Organizations Using Public Libraries Through Their Own Libraries	16
Figure 39: Total Number of Uses of Services Per Year by In-Person Visitors to Florida Public Libraries.....	17
Figure 40: Checking Out/Borrowing Materials From the Library by Adult Florida Residents	17
Figure 41: Use of Reference Services by Adult Florida Residents	17
Figure 42: Use of Materials in the Library by Adult Florida Residents	17
Figure 43: Library Programs for Adults and Children.....	18
Figure 44: Attendance at Florida Library Programs Per Year	18
Figure 45: Instruction at the Library — Sessions Per Year	18
Figure 46: Use of In-Library Workstations.....	18
Figure 47: In-Library Internet Uses	18
Figure 48: Remote Internet Uses of Florida’s Public Libraries	19
Figure 49: Purpose of Use of Public Libraries by Adults	19
Figure 50: Percentage of Uses of Florida Libraries for Personal Information Needs	20

Figure 51: Educational Uses of Public Libraries by Florida Adults.....	20
Figure 52: Adult Student Uses of Florida Public Libraries.....	21
Figure 53: Teacher Uses of Florida Public Libraries.....	21
Figure 54: Student Educational Uses of Public Libraries.....	21
Figure 55: Teacher Educational Uses of Public Libraries.....	21
Figure 56: Types of Work-Related Uses of Public Libraries.....	22
Figure 57: Average Rating of Importance of Public Libraries by Type of Need/Use.....	22
Figure 58: Benefits/Outcomes of Recreational Uses.....	23
Figure 59: Benefits/Outcomes of Personal Uses.....	23
Figure 60: Benefits/Outcomes of Educational Uses.....	23
Figure 61: Benefits/Outcomes of Work-Related Uses.....	23
Figure 62: Time Savings From Public Library Use.....	24
Figure 63: Monetary Value of Time Saved From Public Library Use.....	24
Figure 64: Monetary Savings From Public Library Use.....	24
Figure 65: Would Seek Alternative Sources in Absence of Public Library.....	24
Figure 66: Seeking Alternatives in the Absence of Public Libraries — Recreational Uses	25
Figure 67: Seeking Alternatives in the Absence of Public Libraries — Personal Uses ..	25
Figure 68: Seeking Alternatives in the Absence of Public Libraries — Educational Uses	25
Figure 69: Seeking Alternatives in the Absence of Public Libraries — Work-Related Uses.....	25
Figure 70: Cost to Use Alternatives to Florida’s Public Libraries, by Purpose of Use	26
Figure 71: Percentage of Total Cost to Use Alternatives to Florida’s Public Libraries by Purpose of Use.....	26

INTRODUCTION

Florida's public libraries are recognized as active community participants, offering a wide range of services to the public in their quest for knowledge, information and enlightenment. However, relatively little is known about how Florida's public libraries contribute economically to their users, the communities they serve and the state as a whole. A comprehensive study of the economic contribution and return on taxpayer investment in Florida's public libraries was conducted over the period December 2003-September 2004. The study used a variety of data collection and analytic methods including data reported to the state by the libraries, a statewide household telephone survey of adults, in-library user surveys of adults, a follow-up survey of the libraries, surveys of organizations, and an input-output econometric model.⁵

The household interviews and in-library survey of visitors collected information about cost to use the library, services used, reasons for using the services, importance of the services, ways the services were important, what visitors would do to obtain the needed information if there were no public library, and likely cost in time and money to use the alternatives. Organizations such as schools, universities and colleges, businesses, hospitals and non-profit groups rely on public libraries through direct use by their constituents (addressed by the household and in-library user surveys) and through library-to-library exchanges (addressed by the organization and public library follow-up surveys). The organization survey determined use of public library services, cost to use these services, and savings resulting from service use. The follow-up survey of libraries obtained some information about use by tourists and school age children, interlibrary lending and borrowing, expenditures and income, and business-like operations run by the library, outside persons or vendors.

Throughout the study, a conservative approach to estimating benefits and returns was used, such that the results can be considered a lower bound. This means that the return-on-investment (ROI) and benefit to cost ratios (B/C) in this report are *at least* those reported. A detailed report⁶ describes the methods used and summarizes the results. This summary report highlights the key contributions of the public libraries to the state of Florida and its residents.

It is popularly believed that public libraries are used primarily for recreational or entertainment purposes such as reading, listening to music, watching videos and attending special programs. While these important uses of public library resources and services inspire and improve quality of life, the majority of adult uses address three other basic pur-

⁵ All respondents in the surveys were adults over 18 years of age. Children were not directly interviewed because the human subjects Institutional Review Board (IRB) procedures would have delayed the study. Parents interviewed by telephone or completing the in-library use survey, were asked about the use of the public library by their school-age children. Their responses, coupled with public library reports to the state and follow-up survey of libraries, provide evidence of the children's use of public libraries.

⁶ Taxpayer Return-on-Investment (ROI) in Florida Public Libraries: Detailed Report. September, 2004.

poses: (1) personal or family needs – health and wellness issues, job seeking, day-to-day problems such as consumer purchasing and finances, occasional problems like relocation and house buying, learning about culture or heritage, etc.; (2) educational needs - as students, teachers, homeschooling, and lifelong learning; and (3) needs of businesses, non-profit organizations, schools, universities and colleges, government agencies and hospitals, through both direct use by their employees for work-related purposes and through extensive cooperation among librarians within these organizations, facilitated by the publicly supported multitype library cooperatives in the state.

Public libraries allow users to share knowledge and services at a cost to them as taxpayers and in the time they spend using the libraries; however, **all** taxpayers in Florida benefit from the public libraries through their considerable contribution to education, the economy, tourism, retirement, quality of life, and so on. While users devote extensive time using public libraries for the reasons stated above (an indication of the value individuals and organizations place on the libraries), it would cost them substantially more in their time, effort and money to use alternative sources of information which, in turn, would affect the State's economy detrimentally. For example, if teachers were required to spend additional time obtaining information, this time would detract from their teaching and other activities. Public libraries, by their very existence, stimulate an economic ripple effect through direct and indirect expenditures in other sectors, creating additional jobs in these sectors. There are many ways to determine how public libraries contribute to the State's economy and how taxpayers achieve a return on their investment. This study examined several approaches to considering returns from public library availability and use and found that **all** show returns exceeding taxpayer investment. These approaches are described below.

FLORIDA'S PUBLIC LIBRARIES RETURN \$6.54 FOR EVERY \$1.00 INVESTED

Investments In Florida's Public Libraries

Florida's public libraries receive funds from a variety of sources, both public and private. The *revenue investment* in public libraries reported in 2004 is \$449.3 million. This includes federal, state and local public funds (\$2.3 million, \$34 million and \$387 million, respectively); other funds such as grants, fees and fines (\$20 million); as well as funds that support the multitype library cooperatives (\$6 million).⁷

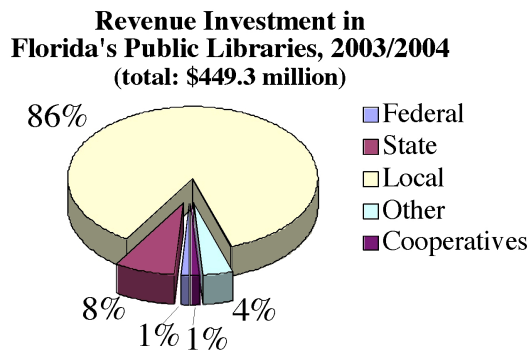


Figure 4: Revenue Investment in Florida's Public Libraries, 2003/2004

Returns From Florida's Public Libraries

The *return on public library investment* can best be determined through what is known as *contingent valuation*. This economic method of evaluation for non-priced goods and services looks at the implications of not having the goods/services. This study considers the implications of not having public libraries. It includes the added cost to use alternatives sources of information, should people choose to do so (also called *net benefit*); the portion of direct economic contribution public libraries make to their communities that would be lost; and the portion of economic benefits to the library users that would be lost.

Those who use public libraries also invest their time, travel expenses, etc., to use the libraries. This individual investment is a discretionary one and can be considered an indication of the value that users place on their libraries. The *user investment* in 2003/2004 is significant at \$1.72 billion, nearly four times the investment from all other sources together.

⁷ The multitype library cooperatives provide support to all types of libraries (public, academic, K-12 school and special (government, corporate, etc.). The entire funding for these cooperatives was included in public library funding as data that allocated the funds to each library type were unavailable.

The total *cost to use alternatives* to the public libraries is estimated to be \$4.05 billion, based on asking library users whether they would use alternatives and, if so, what would be the likely cost to use them. Depending on the specific purpose or type of use, they would use an alternative for 74 percent-97 percent of the uses, and they knew which sources they would use for 36 percent-90 percent of the uses. For the known alternatives, users estimated the time and other expenditures that would be needed to use those alternatives. The total net benefit (added cost to use alternatives) is \$2.33 billion.⁸ In addition to the fact that it would cost more to use alternatives to the public libraries, if there were no public libraries, the employees of the libraries would not receive compensation and unemployment would increase (at least for some time). The *total lost compensation* for library staff is \$241 million. *Direct in-state expenditures* by the public libraries for books, periodicals, electronic equipment and resources, etc., as well as capital projects (construction, renovation, etc.) would not be made, thereby reducing revenues to those Florida businesses. This lost expenditure totals \$105 million. Finally, there would be detrimental effects on *community economic benefits* if the public libraries did not exist. The lost community economic benefits include the elimination of library spending with non-library entities in the community and state, such as with vendors, contractors, etc. In the case of vendors operating within libraries (copying, gift shops, coffee shops, etc.) and near the libraries (restaurants, shops, coffee shops, etc.), some shift in spending patterns and, thus revenue generation, would occur. A study conducted in the U.K. identified that approximately 23 percent of these “halo” expenditures would not occur if the libraries were unavailable.⁹ Assuming the same pattern of reduced expenditure if Florida libraries were unavailable, the *pass through spending* and *halo spending* would reduce by \$195,000 and \$101 million, respectively. These *lost community benefits* total \$447 million,¹⁰ but the effect of this loss multiplies into a much greater economic loss to the communities and the state as a whole. If vendors and contractors, etc., experience a reduction in revenues, there will be fewer employees, lower expenditures and lower tax receipts. Similarly, if library employees were no longer employed, they would pay lower taxes, spend less in the community, and cause further detrimental effects on community businesses and the state.

If the public libraries ceased to exist, the user community would be faced with finding information and materials from other sources, as referred to above. Depending on the specific purpose of use, they would not bother to find and use an alternative. The proportion of uses for which no alternative would be sought are relatively low, ranging from 3 percent for both educational and work-related uses to 13 percent for personal information uses and 26 percent for recreational. However, these uses resulted in *direct economic benefits to the users (use benefits)* when public libraries were used; these benefits would be lost if there were no public libraries. The estimated *lost use benefits* amount to \$155 million. This estimate is derived only for those uses where users indicated they would not seek an alternative. The uses for which users would want to use

⁸ \$4.05 billion - \$1.72 billion = \$2.33 billion

⁹ “What Happens When a Public Library Service Closes Down?” Proctor, R., Usherwood, B., Sobczyk, G. *Library Management*. MBC University Press, vol. 18, No. 1, 1997, pp. 59-64.

¹⁰ \$241 million + \$105 million + \$195,000 + \$101 million = \$447 million

an alternative but do not know of one, might also yield no benefits and incur some costs in the attempt.

The estimated *economic return* attributable to the existence of the public libraries is \$2.93 billion.¹¹ This is based on the sum of net benefit (added cost to use alternatives, should they be used), the lost community benefits and the lost use benefits.

Return On Investment (ROI) In Florida's Public Libraries

The investment in Florida's public libraries is \$449 million and the economic returns amount to \$2.9 billion, yielding an **overall return on investment** of 6.54 to 1.00.¹² As mentioned above, this represents a conservative estimate based on the survey and annually reported data, and can be considered a lower bound (i.e., the overall ROI is *at least* 6.54 to 1.00). A similar study was performed in 2003 by the British Library for several of its services.¹³ The ROI found for the British Library services was 4.4 to 1, a similar order of magnitude to the ROI for Florida's public libraries.

FLORIDA'S PUBLIC LIBRARIES CAUSE AN ECONOMIC RIPPLE EFFECT THAT INCREASES GRP, WAGES AND JOBS IN THE STATE

The above economic analysis is static in that it ignores the economic effect public libraries have on other economic sectors over time. An econometric input-output model (*REMI*) covers 169 sectors for the state of Florida. As part of this study, the model was applied to Florida's public libraries by the Center for Economic Forecasting and Analysis at the Florida State University.¹⁴ This second analysis extends the economic contribution of libraries beyond the actual users of the libraries to yield a set of *direct, indirect, and induced effects* to the state of Florida and its communities.

The total public investment in public libraries used in the model is \$443 million.¹⁵ Below are economic effects of public libraries on *gross regional product (GRP)*, employment and real disposable income (wages) from the public funding, investment and earnings for 2004 (derived from the library use calculations above). The GRP or state output is the dollar value of goods and services produced.

¹¹ \$2.33 billion + \$447 million + \$155 million = \$2.93 billion

¹² \$2,933.660 million ÷ \$448.903 million = \$6.54

¹³ Measuring Our Value. The British Library, 2004.

¹⁴ The model establishes direct, indirect and induced effects on jobs, income and gross regional (i.e., state) product (GRP) generated per dollar of spending on various types of goods and services in Florida. It also forecasts future changes (over 32 years, in this instance) in business and service costs, prices, wages, taxes, etc. By linking the public libraries to 169 sectors (e.g., publishing, computer and office equipment, construction, etc.) the model established the economic ripple effect public libraries have on the overall state economy.

¹⁵ Note that the \$443 million of public funding does NOT include the \$6 million of annual funding to support the multitype library cooperatives.

GRP (<i>net present value</i>)	\$4.0 billion
Wages (net present value)	\$5.6 billion
Number of jobs produced	68,700

This means that the statewide GRP is estimated to increase by \$4.0 billion as a result of publicly funded public library expenditures in the state. In turn, 68,700 jobs would be created from the spending increases and personal income increased by \$5.6 billion.

Thus, for every dollar of taxpayer support for public libraries in Florida:

- GRP increases by \$9.08¹⁶
- Income (wages) increases by \$12.66¹⁷

Furthermore, for every \$6,488 dollars of public support (federal, state and local), one job is created.¹⁸

The cost to the state includes the investment in public funds, and the cost to users in their time required to use the libraries (\$1.83 billion). One benefit to the state (in terms of wages) is \$9.2 billion.¹⁹ This yields a *benefit to cost ratio (wages)* of 5 to 1²⁰ or a *net benefit (wages)* of \$7.4 billion.²¹ A second benefit in terms of GRP or output is \$6.7 billion which results in a *benefit to cost ratio (GRP)* of 3.7 to 1²² or *net benefit (GRP)* of \$4.9 billion.²³

Looked at in a variety of ways, it is abundantly clear that the Florida taxpayers' return-on-investment (ROI) in public libraries is substantial.

FLORIDA'S PUBLIC LIBRARIES PROVIDE DIRECT BENEFITS OF \$6.0 BILLION PER YEAR TO FLORIDA'S COMMUNITIES AND POPULATION

Florida's public libraries generate considerable benefits to the organizations and individuals in the communities they serve. The total *direct economic benefit* of the public libraries is \$6.0 billion per year.²⁴ The economic benefits accrue to organizations and individuals in their pursuit of knowledge and information for work, education, personal needs and recreation.

¹⁶ \$4.0 billion ÷ \$443 million = \$9.08

¹⁷ \$5.6 billion ÷ \$443 million = \$12.66

¹⁸ \$433 million ÷ 68,700 jobs = \$6,488 per job

¹⁹ \$4.0 billion + \$5.6 billion, minus the initial investment of \$443 million *which presumably would be redistributed to other government activities*

²⁰ \$9.2 billion ÷ \$1.83 billion = 5 to 1

²¹ \$9.2 billion - \$1.83 billion = \$7.4 billion

²² \$6.7 billion ÷ \$1.83 billion = 3.7 to 1

²³ \$6.7 billion - \$1.83 billion = \$4.9 billion

²⁴ \$3.2 billion in direct use benefit and \$2.8 billion in net savings

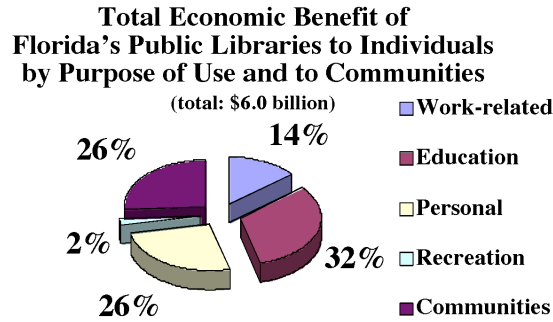


Figure 5: Total Economic Benefit of Florida's Public Libraries to Individuals by Purpose of Use and to Communities

The average direct use benefit of the public libraries varies from a high of \$144 per work-related use to a low of \$7.10 per recreational use.

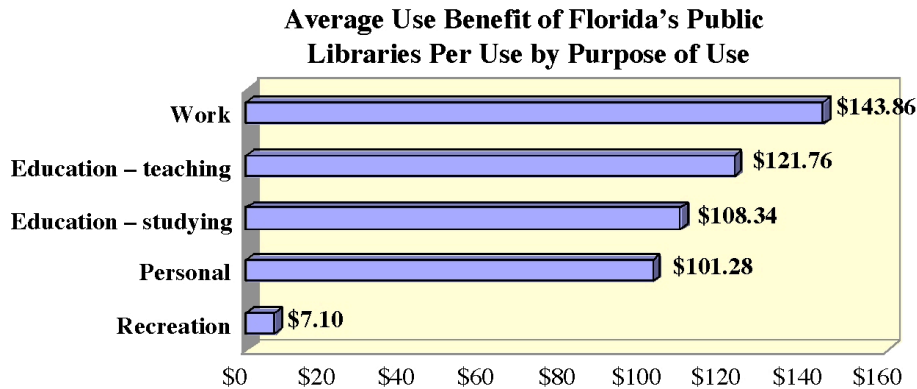


Figure 6: Average Use Benefit of Florida's Public Libraries per Use by Purpose of Use

For each major category of purpose of use, a comparison of the benefits resulting from use of the libraries to the proportion of total cost of the libraries for that purpose, results in *benefit to cost ratios (use)* ranging from 1 to 1 for recreational uses up to 20 to 1 for work-related uses.

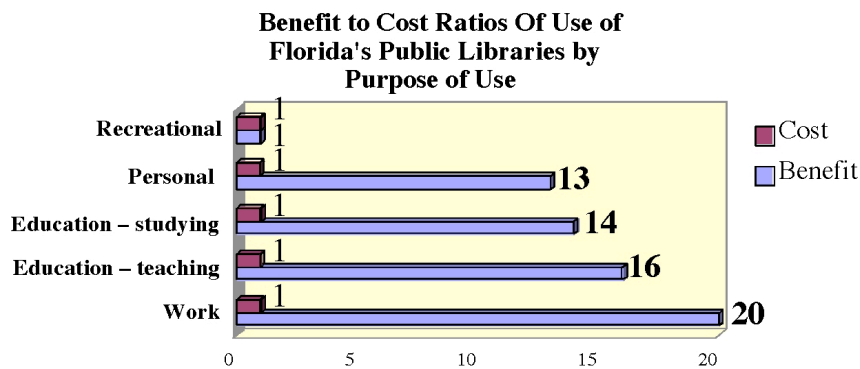


Figure 7: Benefit to Cost Ratios of Use of Florida's Public Libraries by Purpose of Use

FLORIDA'S PUBLIC LIBRARIES CONTRIBUTE \$2.1 BILLION TO THE WORKPLACE

There are 6.2 million uses of Florida's public libraries by individuals for work-related purposes. Additional uses are made by government, businesses and other for-profit and not-for-profit organization librarians accessing 8,700 documents and a wide range of services on behalf of their organizations. In all, 67 percent of business libraries and 71 percent of government and non-profit libraries in Florida take advantage of public library resources and services.

The use of Florida's public libraries for work-related purposes yields substantial use benefits to the workplace, both in terms of quantifiable economic benefits (time and monetary savings) and other benefits.

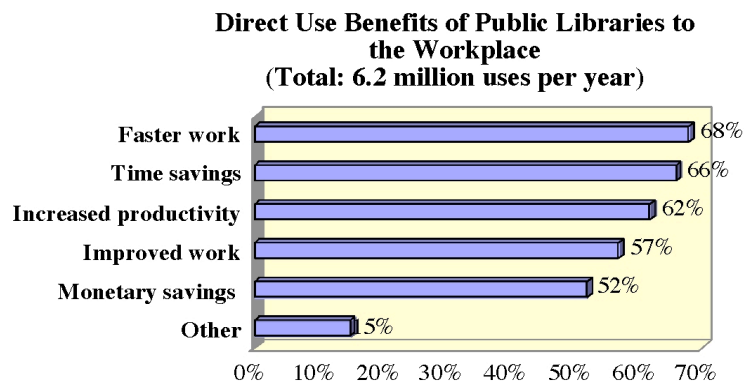


Figure 8: Direct Use Benefits of Public Libraries to the Workplace

Public libraries contribute to the economic condition of the workplace both directly and indirectly. Direct economic benefits include time and monetary savings from not having to use alternatives (net benefit of \$835 million), from use of the resources and services provided by the library (use benefit of \$514 million in time and money saved), and from financial flows to Florida businesses (direct community benefit of \$784 million). These economic contributions to the workplace total \$2.1 billion per year.²⁵

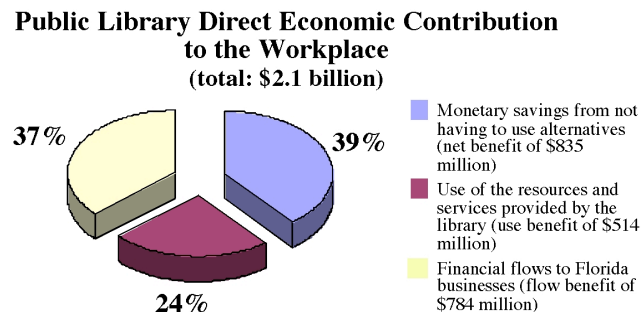


Figure 9: Public Library Direct Economic Contribution to the Workplace

²⁵ \$835 million + \$514 million + \$784 million = \$2.133 billion

FLORIDA'S PUBLIC LIBRARIES CONTRIBUTE \$2.1 BILLION PER YEAR TO EDUCATION

Florida's public libraries are used 18.4 million times per year by adults in their roles as teachers (4 million uses) and students (14.4 million uses). Additional uses are made by school and college/university librarians on behalf of their user communities, resulting in the use of 208,200 documents and other services from the public libraries.

Use of Florida's public libraries for educational purposes results in a wide range of beneficial outcomes, depending on specific need and type of use:

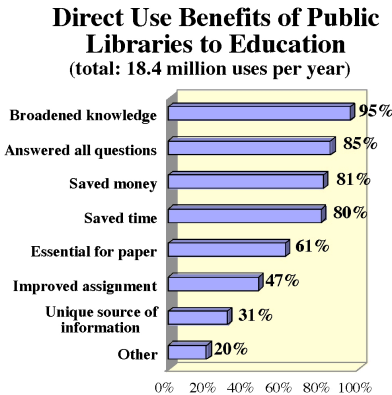


Figure 10: Direct Use Benefits of Public Libraries to Education

The direct economic contribution of Florida's public libraries to Florida education is \$2.1 billion. This contribution includes time and monetary savings from (1) not having to use alternatives (net benefit of \$1.0 billion), and (2) use of the resources and services provided by the libraries (use benefit of \$1.1 billion). The economic contribution to adult students is three times greater than the contribution to teaching.

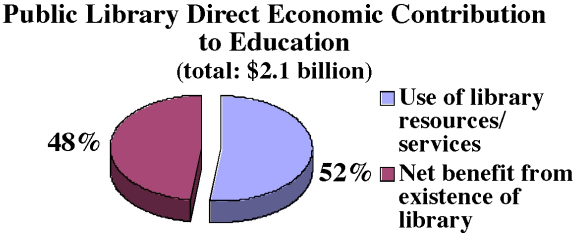


Figure 11: Public Library Direct Economic Contribution to Education

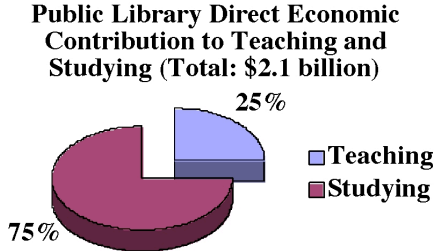


Figure 12: Public Library Direct Contribution to Teaching and Studying

In addition to adult students, Florida school-age children also rely heavily on public libraries. About 25 million in-person visits to the public libraries are by children (K-12) who use the public library as a place to study or as a source of information needed to complete a homework assignment. About 670,000 visits involve homeschooling

activities. Over 900,000 visits are for latchkey or aftercare activities which, if monetary value were considered, would contribute to direct community benefit.²⁶ While not part of formal education, life-long learning involving preschool children and adults in public libraries is important, nevertheless. Parents bring preschool children to public libraries (3.0 million visits annually) for children’s programs, to read or to check out a book, etc. Other life-long learning needs account for 5.9 million visits.

FLORIDA’S PUBLIC LIBRARIES CONTRIBUTE \$1.6 BILLION PER YEAR TO THE PERSONAL INFORMATION NEEDS OF FLORIDA ADULTS

Florida’s public libraries contribute to meeting a wide variety of personal and family-related information needs. There are over 16 million uses per year of the public libraries for needs about health, finance, job seeking, etc. The direct benefits resulting from use of the public libraries include:

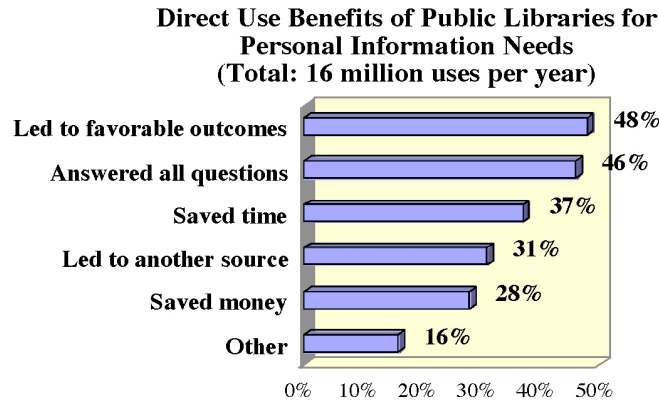


Figure 13: Direct Use Benefits of Public Libraries for Personal Information Needs

The economic contribution of the public libraries to adult Florida residents trying to address their personal information needs includes the time and monetary savings from (1) not having to use alternatives (net benefit of \$798 million), and (2) use of the resources and services of the libraries (use benefit of \$824 million). These economic benefits to adult Florida residents total \$1.6 billion per year.

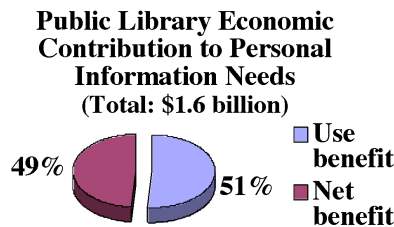


Figure 14: Public Library Economic Contribution to Personal Information Needs

²⁶ Note that the monetary value of latchkey and aftercare program were NOT incorporated in this study,

FLORIDA'S PUBLIC LIBRARIES CONTRIBUTE A NET BENEFIT OF \$136,000 PER YEAR TO THE RECREATIONAL NEEDS OF FLORIDA ADULTS

Florida's public libraries serve the recreational needs of their communities. There are about 19.2 million uses of the public libraries per year for recreational purposes. While not contributing directly to the economy, people find relaxation, inspiration and pleasure through the resources and services of the public library, and there is likely to be a positive secondary effect on the economy. The use of public libraries for recreational purposes leads to a variety of positive outcomes.

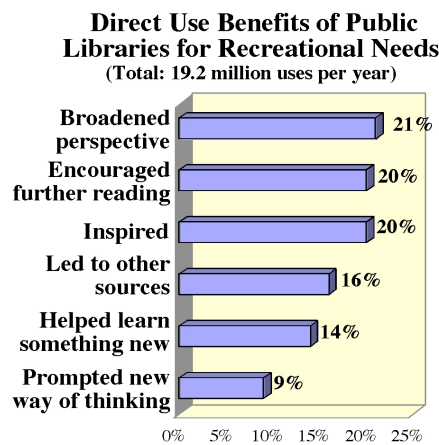


Figure 15: Direct Use Benefits of Public Libraries for Recreational Needs

The direct economic contribution of the public libraries to the recreation of Florida adults derives from time and monetary savings of not having to find and use alternatives to the libraries. This contribution amounts to a net benefit of \$136,000.

FLORIDA'S PUBLIC LIBRARIES ARE EXTENSIVELY USED — 94 MILLION USES PER YEAR BY INDIVIDUALS PLUS ORGANIZATIONAL USES

In 2003/4 there were 68.3 million in-person visits to public libraries in Florida and at least 25.2 million remote Internet connections to the public libraries (not including remote connections by children under 18 or tourists). Florida's public libraries are used an average of at least 5.24 times per Florida resident per year; or 7.74 times per year by the 54 percent of Florida residents who have visited a Florida public library in the past year.²⁷

²⁷ 90.147 million visits and remote connections (excluding tourist use) ÷ 17.192 million population = 5.24 uses per capita; 64.917 million library visits ÷ 8.392 million library visitors (excluding tourists) = 7.74 visits per visitor.

Adult Florida residents account for just over half of the total in-person visits to public libraries, school-age children account for over one-third of visits, while tourists account for about 5 percent of the visits.

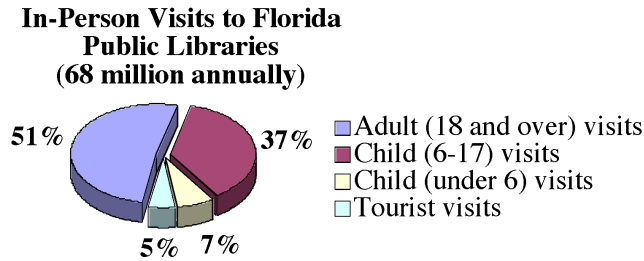


Figure 16: In-Person Visits to Florida Public Libraries

School-age children most frequently visit Florida public libraries, visiting almost twice per month.

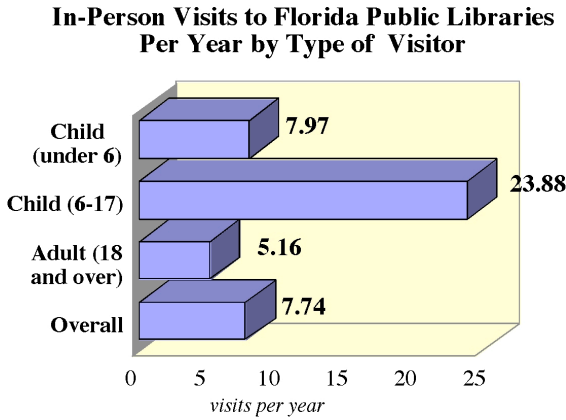


Figure 17: In-Person Visits to Florida Public Libraries Per Year by Type of Visitor

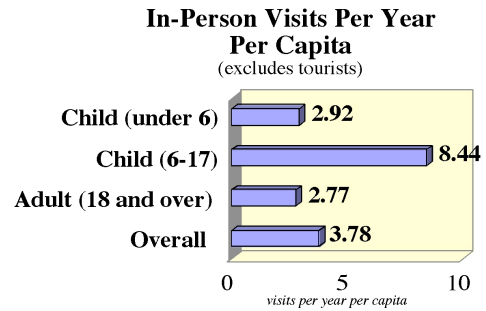


Figure 18: In-Person Visits Per Year Per Capita

Adult Florida residents tend to visit the public library in-person (34.6 million visits) rather than connect remotely via the Internet (25.2 million connections).

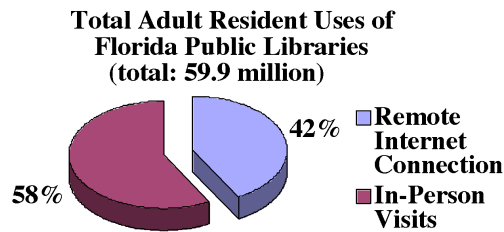


Figure 19: Total Adult Resident Uses of Florida Public Libraries

Adult Florida residents who use Florida public libraries via remote Internet connections do so much more frequently than those who visit the libraries in person.

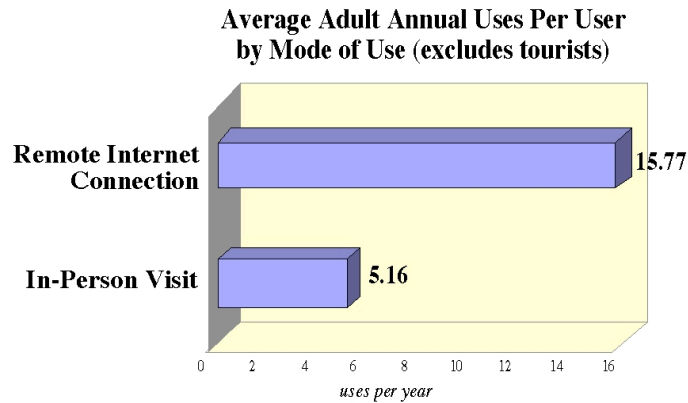


Figure 20: Average Annual Adult Uses Per User by Mode of Use

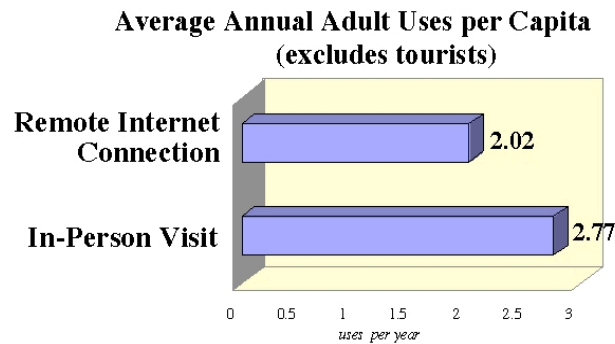


Figure 21: Average Annual Adult Uses Per Capita

Florida’s public libraries are also used by librarians in other libraries on behalf of their own user communities, including school, college/university, business, government and hospital librarians. The total number of documents obtained from the public libraries is estimated to be 271,000 per year. Organizations also used public library meeting rooms, participated in library-sponsored groups and training, and used the public libraries’ access to licensed online databases and electronic publications (from within the libraries and through remote access).

FLORIDA'S PUBLIC LIBRARIES ARE USED BY 11.8 MILLION PEOPLE ANNUALLY

In 2003-4, an estimated 11.8 million people visited Florida public libraries in person. Adult Florida residents form the majority of visitors, but tourists form a surprising 29 percent of in-person visitors to the libraries, although they account for only 5 percent of visits as they tend to visit just once.

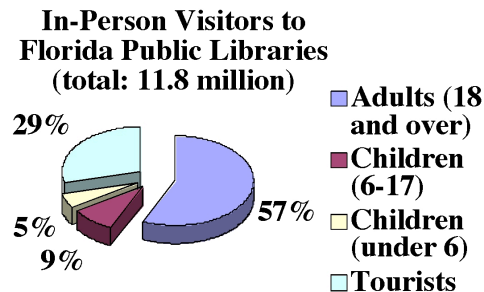


Figure 22: In-Person Visitors to Florida Public Libraries

Over half of Florida's adult resident population and over a third of all Florida children make in-person visits to Florida's public libraries. Approximately 13 percent of adult Florida residents and an unknown number of Florida children connect via the Internet to the public library.

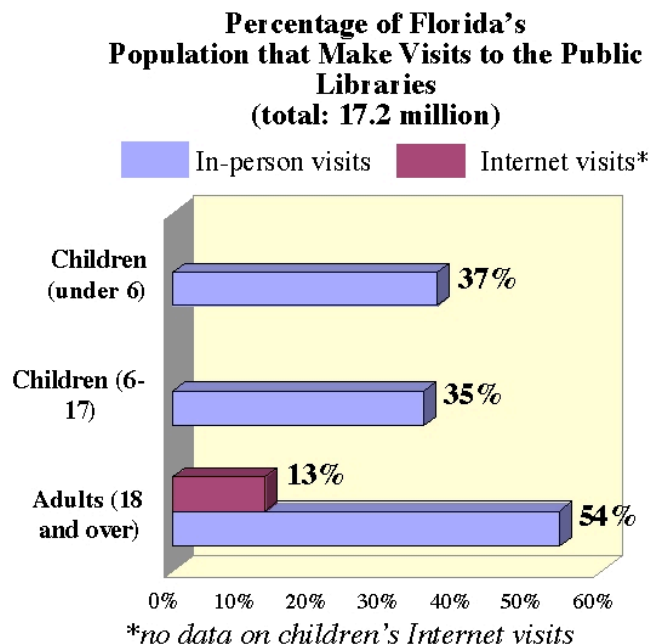


Figure 23: Percentage of Florida's Population That Make Visits to the Public Libraries

Looking at the population of library users by various demographics shows that library users are very diverse, although not in proportion to the Florida population as a whole.

Library users tend to be female, slightly older, somewhat more educated, employed or retired, and slightly more affluent than the overall population.

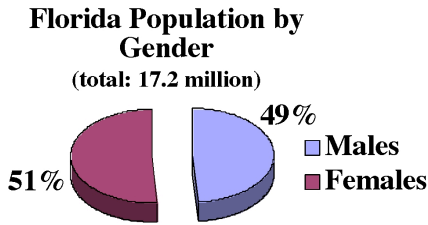


Figure 24: Florida Population by Gender

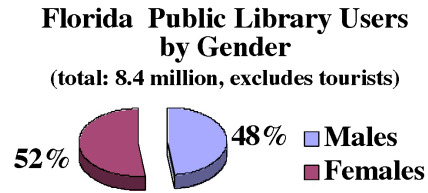


Figure 25: Florida Public Library Users by Gender

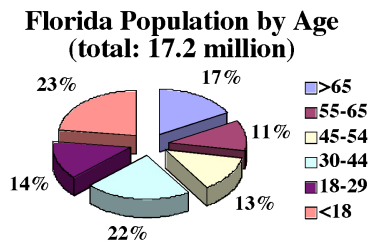


Figure 26: Florida Population by Age

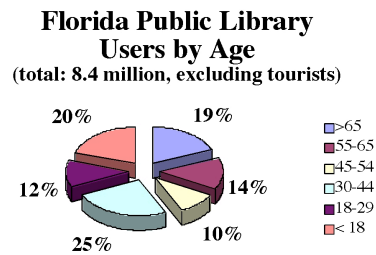


Figure 27: Florida Public Library Users by Age

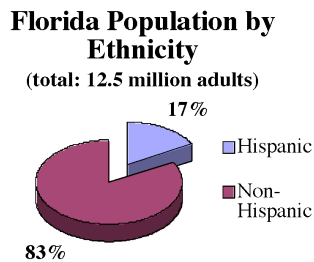


Figure 28: Florida Population by Ethnicity

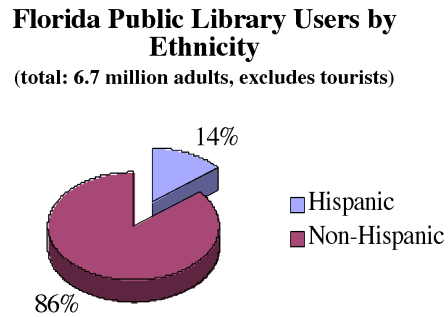


Figure 29: Florida Public Library Users by Ethnicity

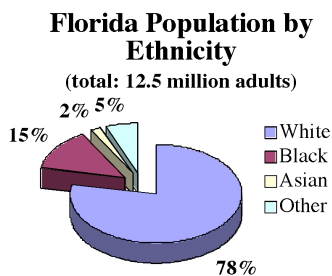


Figure 30: Florida Population by Ethnicity

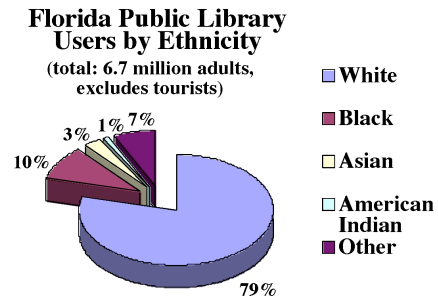


Figure 31: Florida Public Library Users by Ethnicity

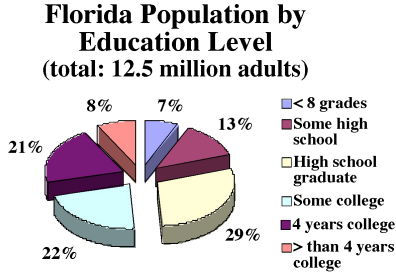


Figure 32: Florida Population by Education Level

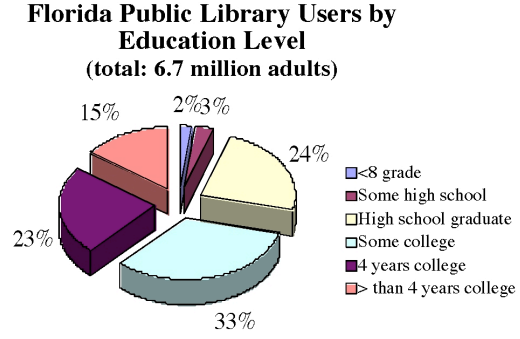


Figure 33: Florida Public Library Users by Education Level

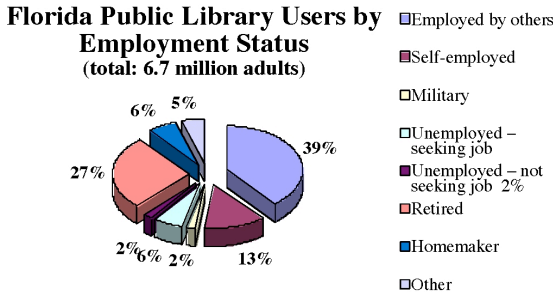


Figure 34: Florida Public Library Users by Employment Status

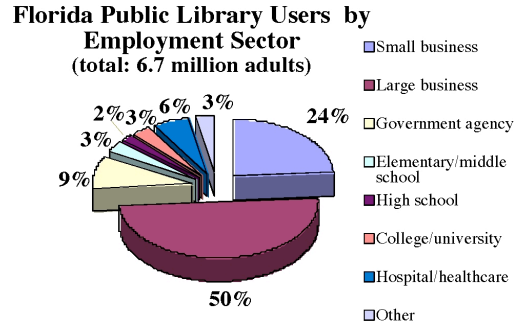


Figure 35: Florida Public Library Users by Employment Sector

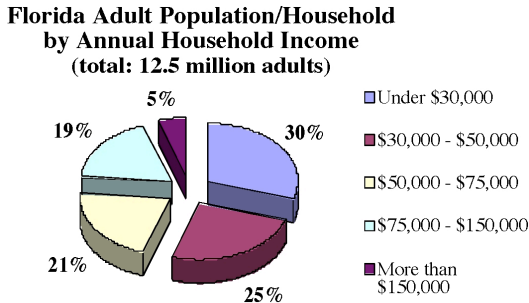


Figure 36: Florida Adult Population by Annual Household Income

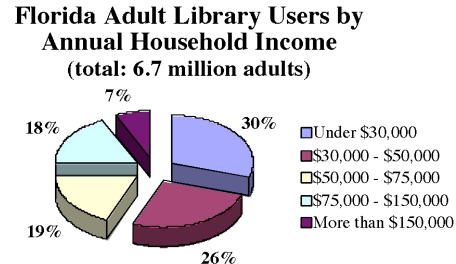


Figure 37: Florida Adult Library Users by Annual Household Income

Organizational users of the public libraries include the majority of each type of organization.

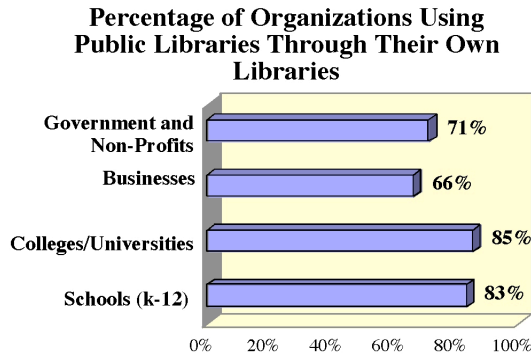


Figure 38: Percentage of Organizations Using Public Libraries Through Their Own Libraries

WHAT DO PEOPLE DO WHEN THEY VISIT THE LIBRARY IN PERSON?

People use a wide range of services offered in the public libraries, although checking out materials for use outside the library still dominates.

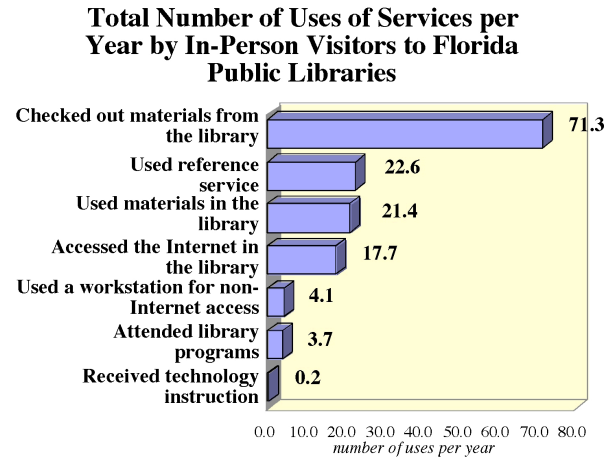


Figure 39: Total Number of Uses of Services Per Year by In-Person Visitors to Florida Public Libraries

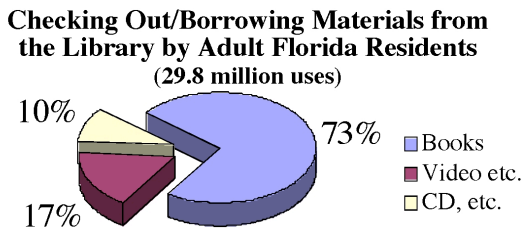


Figure 40: Checking Out/Borrowing Materials From the Library by Adult Florida Residents

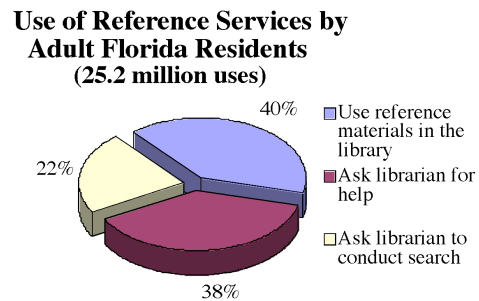


Figure 41: Use of Reference Services by Adult Florida Residents

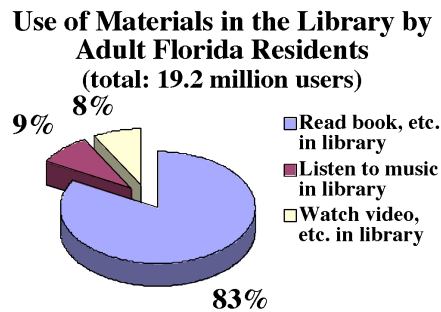


Figure 42: Use of Materials in the Library by Adult Florida Residents

Library Programs for Adults and Children (133,443 offered)

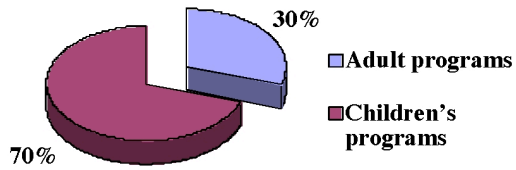


Figure 43: Library Programs for Adults and Children

Attendance at Florida Library Programs Per Year (3.7 million)

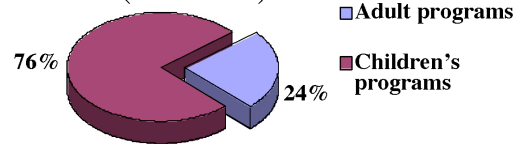


Figure 44: Attendance at Florida Library Programs Per Year

Instruction at the Library - sessions per year

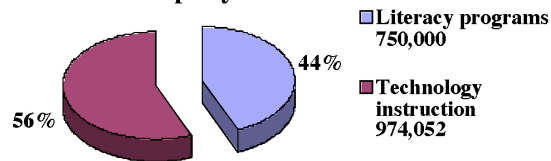


Figure 45: Instruction at the Library — Sessions Per Year

Use of In-Library Workstations (21.8 million uses)

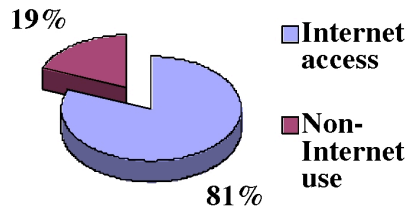


Figure 46: Use of In-Library Workstations

In-Library Internet Uses (total: 12.1 million uses)

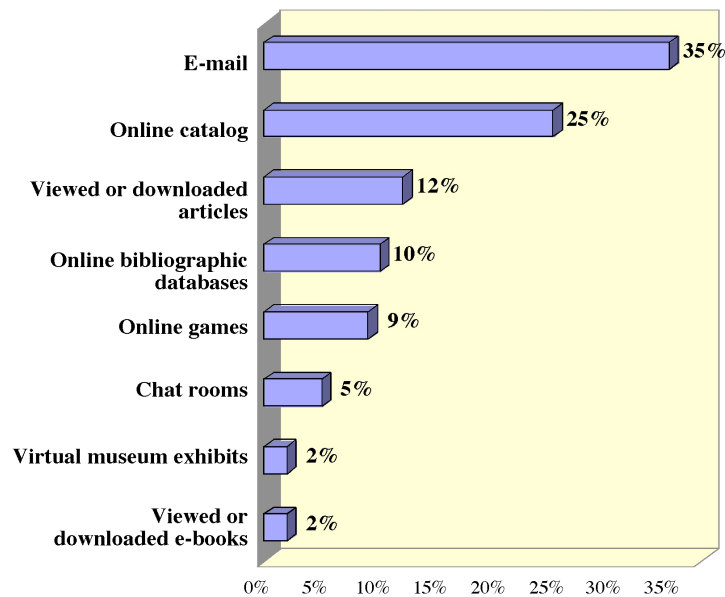


Figure 47: In-Library Internet Uses

WHAT DO PEOPLE DO WHEN THEY USE PUBLIC LIBRARIES THROUGH REMOTE INTERNET CONNECTIONS?

Remote uses of public libraries are predominantly for searching the library’s online catalog, reserving books and searching online databases.

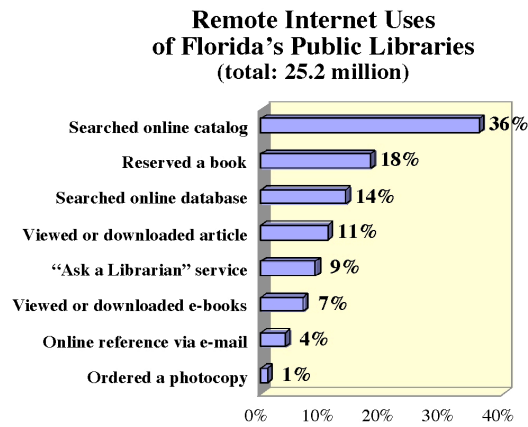


Figure 48: Remote Internet Uses of Florida’s Public Libraries

PEOPLE USE PUBLIC LIBRARIES FOR MANY PURPOSES

Public libraries are used for many different purposes. These can be organized into four major categories: recreational needs, personal needs, educational needs, and work-related needs.

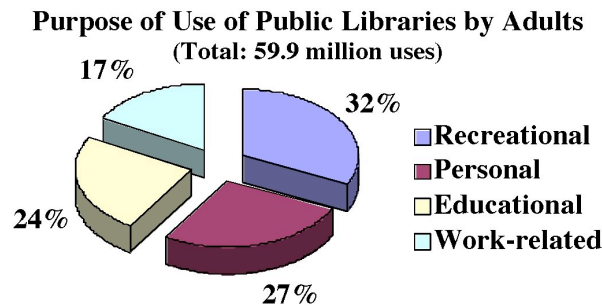


Figure 49: Purpose of Use of Public Libraries by Adults

Recreational Uses

Recreational needs account for a total of 19.2 million uses, of which 65 percent were in-person visits and 35 percent were remote Internet connections to the libraries. In 59 percent of the visits, the users had something specific in mind.

Personal Uses

Adults seek information from public libraries to support a wide variety of personal information needs. Adult Florida residents make a total of 16 million uses per year of the public library for personal information needs. Of these, 54 percent of the visits are in-person visits and 46 percent are through remote Internet connections.

The types of personal information needs range from health/wellness and hobbies/work around home to learning about culture and supporting occasional problems.

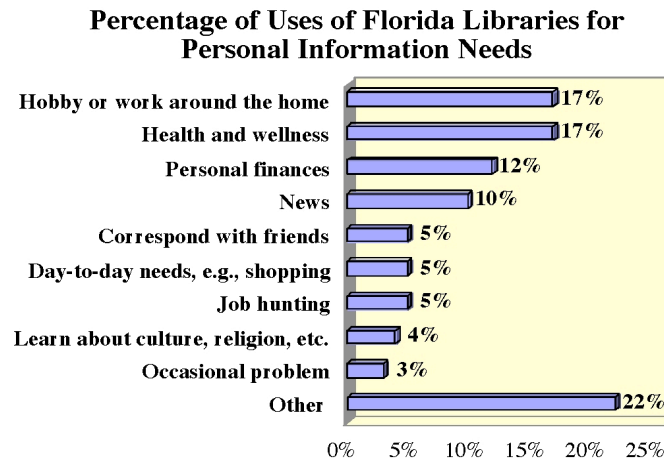


Figure 50: Percentage of Uses of Florida Libraries for Personal Information Needs

Educational Uses

Public libraries are used to support the educational needs of people – both as students and as teachers. Adult residents of Florida made a total of 18.4 million educational uses of public libraries in the past year. Of these visits, 50 percent were in-person visits and 50 percent were through remote Internet connections. The majority of the educational uses by Florida adults were in their role as students.

Educational Uses of Public Libraries by Florida Adults
(total: 16.0 million uses)

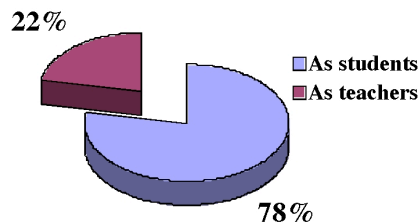


Figure 51: Educational Uses of Public Libraries by Florida Adults

The majority of adult students are engaged in undergraduate level study. Teachers' educational uses tended to be related to undergraduate and K-8 teaching.

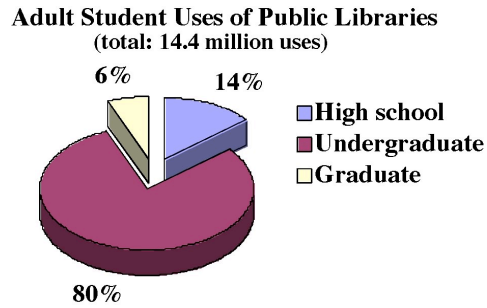


Figure 52: Adult Student Uses of Florida Public Libraries

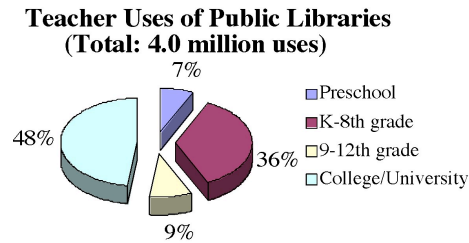


Figure 53: Teacher Uses of Florida Public Libraries

Students' educational uses of the libraries included work on assignments and as a place for study. Teachers use the public library to prepare lessons, presentations, papers, etc. and to keep up with the literature.

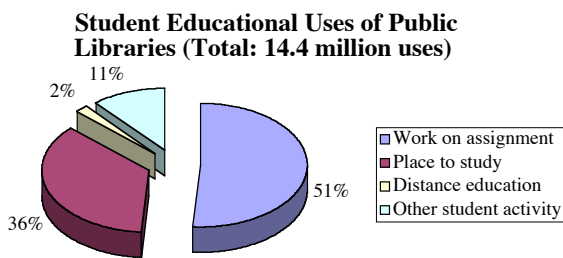


Figure 54: Student Educational Uses of Public Libraries

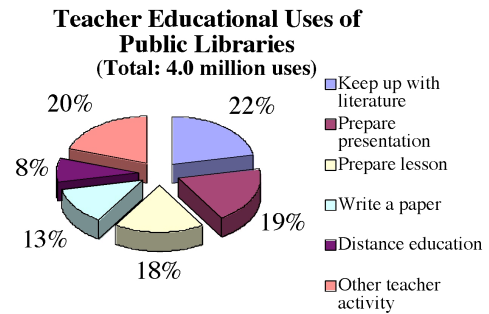


Figure 55: Teacher Educational Uses of Public Libraries

Work-Related Uses

Public libraries are also used to support people’s work-related needs. In the past year, Florida adults made 6.2 million uses of public libraries for work-related purposes. Of these uses, 70 percent were in-person visits to the libraries and 30 percent were through remote Internet connections.

The types of work-related needs of individuals who work in various organizations ranged from research to management to locating individuals.

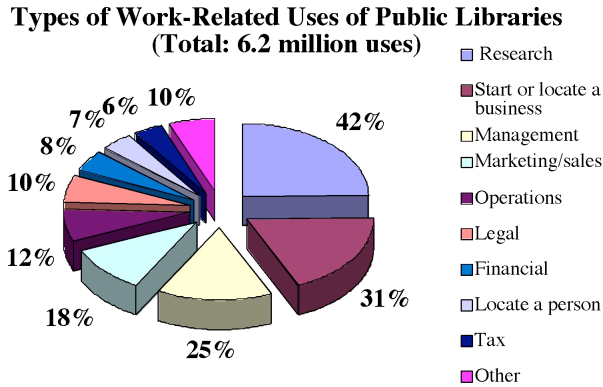


Figure 56: Types of Work-Related Uses of Public Libraries

Organizational library uses of public libraries cover a broad spectrum of services. The most common use of public libraries was for borrowing books (all types of libraries), photocopies of articles (government and non-profit libraries) and reference services (school, and government and non-profit libraries).

FLORIDA ADULTS INDICATE THAT PUBLIC LIBRARIES ARE IMPORTANT FOR ALL PURPOSES OF USE

Public libraries are important to their user communities in numerous ways, depending on the types of needs/uses. Overall, public libraries were considered more important for educational and work-related uses, than for recreational and personal uses.

**Average Rating of Importance of Public Libraries
by Type of Need/Use**
(1= Not Important; 5 = Very Important)

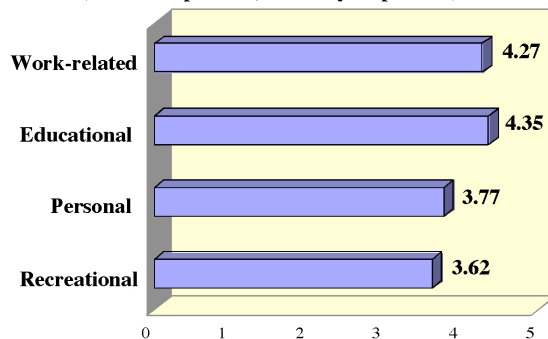


Figure 57: Average Rating of Importance of Public Libraries by Type of Need/Use

Public libraries are important in supporting the various purposes of use in many ways. Public library users consider the importance of the libraries in terms of the positive outcomes or benefits that result from their use. Some of these outcomes are quantifiable, such as time or money saved; others are more qualitative and relative in nature, such as improved assignment, answered all questions, or broadened perspective on life. But while it may be difficult to measure the comprehensive value of libraries to their user communities, it is clear that libraries do yield significant benefits to the user community.

Benefits/Outcomes of Recreational Uses

(Total: 19.2 million uses)

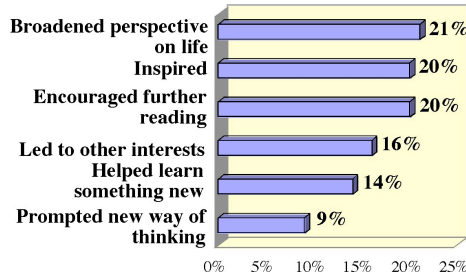


Figure 58: Benefits/Outcomes of Recreational Uses

Benefits/Outcomes of Personal Uses

(Total: 16.0 million uses)

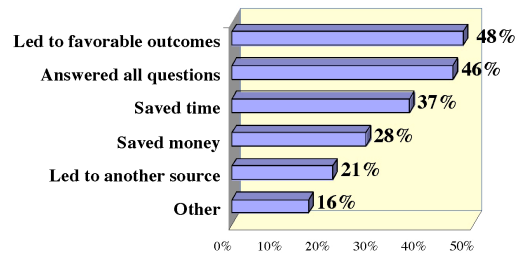


Figure 59: Benefits/Outcomes of Personal Uses

Benefits/Outcomes of Educational Uses

(Total: 18.4 million uses)

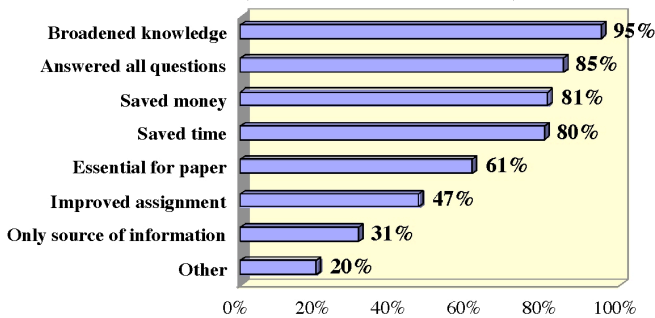


Figure 60: Benefits/Outcomes of Educational Uses

Benefits/Outcomes of Work-Related Uses

(Total: 6.2 million uses)

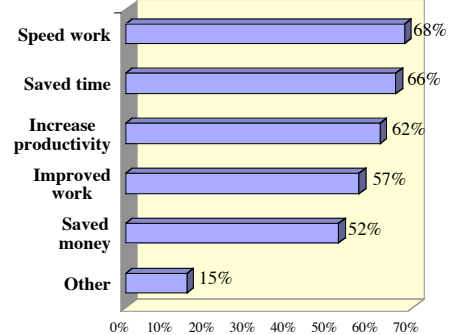


Figure 61: Benefits/Outcomes of Work-Related Uses

The quantifiable benefits of public libraries to their users can be measured in terms of savings in time and money for some of the uses. The time saved by library users is converted into a monetary equivalent. The time of individual users is based on the average personal income by type of use.

In the past year, users indicated a total of 57.6 million hours or \$1.3 billion, plus \$1.1 billion saved. Time savings accrued particularly for educational uses; monetary savings accrued particularly for personal uses as well as educational uses.

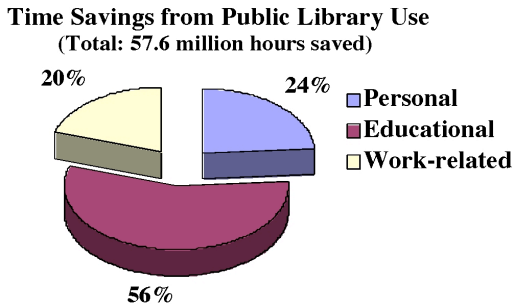


Figure 62: Time Savings From Public Library Use

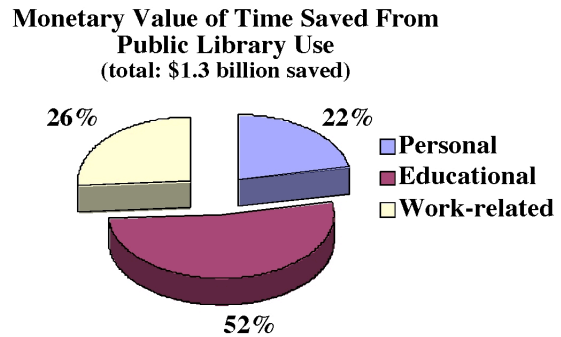


Figure 63: Monetary Value of Time Saved From Public Library Use

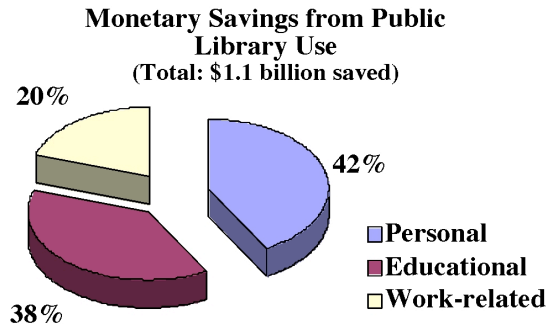


Figure 64: Monetary Savings From Public Library Use

WHAT WOULD PEOPLE DO IF THERE WERE NO PUBLIC LIBRARY?

If there were no public library, users may decide not to pursue their need, they may opt to try an alternative source, or they may want to try another source but don't know where to go. Overall, users would tend to pursue other sources for all types of need.

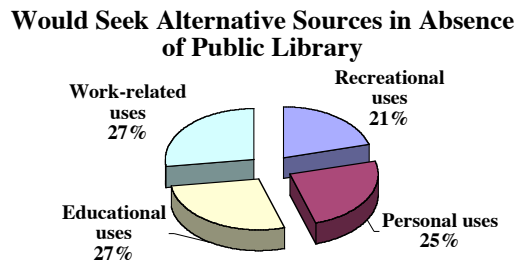


Figure 65: Would Seek Alternative Sources in Absence of Public Library

The specific alternatives that would be used in the absence of public libraries would clearly vary by type of need.

Seeking Alternatives in the Absence of Public Libraries — Recreational Uses
(total: 19.1 million uses)

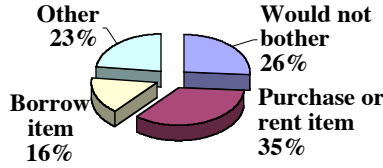


Figure 66: Seeking Alternatives in the Absence of Public Libraries — Recreational Uses

Seeking Alternatives in the Absence of Public Libraries — Personal Uses
(total: 16.0 million uses)

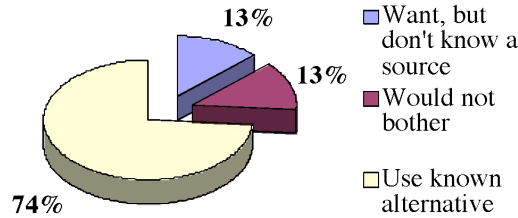


Figure 67: Seeking Alternatives in the Absence of Public Libraries — Personal Uses

Seeking Alternatives in the Absence of Public Libraries — Educational Uses
(total: 18.4 million uses)

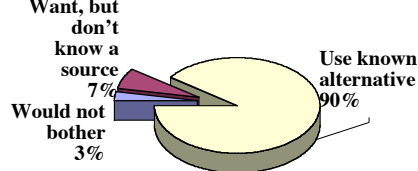


Figure 68: Seeking Alternatives in the Absence of Public Libraries — Educational Uses

Seeking Alternatives in the Absence of Public Libraries — Work-related Uses
(total: 6.2 million uses)

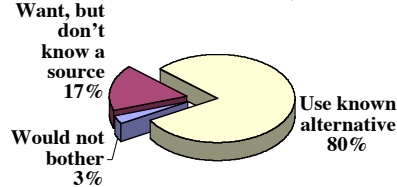


Figure 69: Seeking Alternatives in the Absence of Public Libraries — Work-Related Uses

WHAT WOULD THE USE OF ALTERNATIVES COST?

The cost to use alternative sources to the public libraries include the cost of user time, as well as monetary costs related to purchasing or renting items, or traveling to another location, etc. For those uses for which a known alternative would be used, the cost to access/acquire the alternatives would be 108 million hours or \$1.8 billion²⁸, plus \$2.3 billion in other expenses. This results in a total cost of \$4.1 billion to use alternatives to the public libraries.

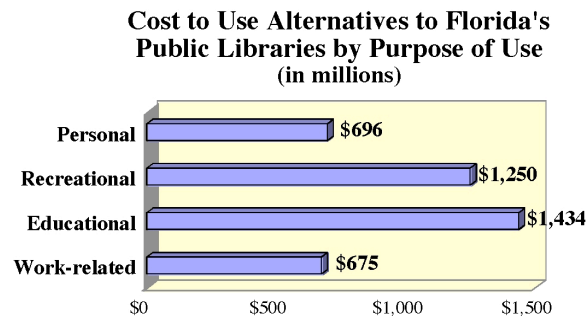


Figure 70: Cost to Use Alternatives to Florida's Public Libraries, by Purpose of Use

Percentage of Total Cost to Use Alternatives to Florida's Public Libraries by Purpose of Use
(total: \$4.1 billion)

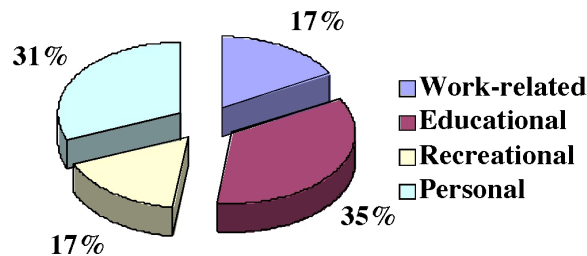


Figure 71: Percentage of Total Cost to Use Alternatives to Florida's Public Libraries by Purpose of Use

²⁸ The time saved by library users is converted into a monetary equivalent. The time of individual users is based on the average personal income by type of use. The time of organizational users is based on the average salary of librarians in each type of organization.

GLOSSARY OF TERMS

Benefits: The positive outcome or gain from public library use or from the library's existence/availability in a community. The "benefits" used in the REMI model and analysis are discounted benefits.

Benefits to the State of Florida: The amount leveraged by the investment in public libraries from public (federal, state, and local) funding sources. It is the measure of the gain from these funds.

Benefit/Cost Ratio (B/C): The relationship between the benefits derived from the use or existence of the public library and the cost to taxpayers to make the libraries available. Specific B/C ratios identified in the report are:

B/C (Availability): The relationship between the benefits derived from the availability of the library and the cost of the libraries to taxpayers.

B/C (Use): The relationship between the benefits derived from use of the library and the cost of the libraries to taxpayers.

B/C_{REMI}(Wages): The relationship between the benefits in terms of wages resulting from the existence of the public library and the cost of the libraries to taxpayers.

B/C_{REMI} (GRP): The relationship between the benefits in terms of GRP resulting from the existence of the public libraries and the cost of the libraries to taxpayers.

Community benefits: These are benefits to the community in which the public library is located and can include library expenditures, library user expenditures; jobs; income, etc.

Community economic benefits: These are benefits that flow from the public library such as library spending with vendors, contractors, etc. in the state; revenues generated by vendors and contractors in the library (e.g., copying, coffee shop, gift shop) and spending that occurs as a result of library use (e.g., restaurants, stores, coffee shops).

Compensation: The salaries/wages and benefits (vacation, sick leave, medical insurance, etc.) for employees in public libraries and other sectors.

Costs: The value or level of resources invested and used to provide a service or produce a product. So used in public library benefit and cost ratios, the cost is either the investment or cost to taxpayers, or the discounted costs used in the REMI model and analysis.

Cost to use alternatives: The estimated costs to use alternatives to the public libraries should they cease to exist, and should users decide to pursue alternatives (measured in terms of time and other expenditures).

Contingent valuation: An economic method of evaluation of (public library) services (and non-priced goods) which looks at the implications of not having the services.

Direct benefits: Positive outcomes resulting from public library use; may include those that can be expressed in economic terms (e.g., time saved) or in other ways (e.g., broadened my knowledge)

Direct economic benefits: Positive outcomes resulting from library use that can be expressed in economic terms (e.g., time and money saved)

Direct effects: The result from the expenditures on/investments in public libraries on goods and services aggregated over the state of Florida. It focuses on receiving industry sectors, business and other organizations.

Direct in-state expenditures: Expenditures by the public libraries on goods and services from in-state providers. These may include books, periodicals, electronic equipment, supplies, etc., as well as capital projects (construction, renovation, etc.).

Discounting: The process of estimating the real value of the future amount of money in today's equivalent worth. For example; the value of current public library's monetary benefits and investment or costs will likely be different at any future period of time.

Economic return: The results of public library use that can be expressed in economic terms.

Gross Regional Product (GRP): An indicator of the economic wellbeing of an area measured in terms of the total economic output. The GRP numbers in this report refer to the state of Florida only.

Halo spending: Public library users often combine trips to the public library with other activities such as shopping, eating at restaurants, etc. The spending by users in these activities is referred to as "halo" spending. If there were no public libraries these other activities and corresponding spending will decline to some degree.

Indirect effects: The value of inputs used by businesses and other organizations that are called upon to produce additional goods and services for those organizations first impacted directly by library spending.

Induced effects: The result from the direct and indirect effects of library spending. Induced effects are related to persons, businesses or other organizations that receive added income as a result of community and state-wide spending by employees of the firms that are imputed by the direct and indirect effect of library spending.

Investment:

Revenue investment: The revenues received by the public libraries including federal, state and local funds; fees and fines; cash gifts and donations; and funding for multitype library cooperatives.

User investment: The investment by users in their time, travel, purchases, etc.,

necessary to use public libraries or specific services.

Lost community benefits: Community economic benefits that would be lost if the public libraries did not exist.

Lost use benefits: Benefits derived from use that would be lost if the public libraries did not exist.

Net benefit: The added cost to use alternatives to the public library

Net present value: Discounted benefits minus discounted costs.

Opportunity costs: The resources diverted from other uses to make a program or service possible. One measure of opportunity cost is the initial public library investment assumed to be redistributed to alternative government spending activities

Pass through spending: Some public libraries have business-like operations in their facilities such as coffee shops, gift shops, etc. Revenue produced by these operations which is passed on to non-library owners, vendors, or charities is referred to as pass through spending.

Present value: Present value uses discounting to determine the spot cash equivalent of a future value where the future value is known and the present value is not.

Public library investment: The amount of public investment made from taxes and capital outlay.

Return: What is gained or lost as a result of the existence or use of the public library. A positive return is a benefit; a negative one is a detriment.

Return on investment (ROI), also Return on public library investment: The relationship between the total economic benefit and the total investment in public libraries

REMI: The Regional Economic Models, Inc. (REMI) is an integrated input-output and econometric model that was specifically used for the state of Florida. It traces linkages among industry purchases and sales and forecasts future changes in business costs, prices, wages, taxes, etc.

Revenue investment (see Investment).

Total lost compensation: The salaries and benefits currently received by public library staff that would be lost to those individuals (at least in the short term) if there were no public libraries.

Use benefits (see Benefits).

RESEARCH TEAM

José-Marie Griffiths, Ph.D.

Dean and Professor, School of Information and Library Science

University of North Carolina at Chapel Hill (as of 9/23/04), and

Doreen E. Boyce Chair & Director, Sara Fine Institute for Interpersonal Behavior & Technology, University of Pittsburgh (until 04/05)

Dr. José-Marie Griffiths has over 30 years experience in evaluating libraries, consortia and other information services. She also has served as Vice Chancellor for Information Infrastructure (University of Tennessee) and University Chief Information Officer (University of Michigan). She has published extensively on funder and user perspectives on libraries and information services. She was recently named to the President's Information Technology Advisory Committee after a six year term on the U.S. National Commission on Libraries and Information Science; Fellow, American Association for the Advancement of Science; and is recipient of the Award of Merit and Research Award from the American Society for Information Science & Technology, among many other awards and honors.

Julie Harrington, Ph.D.

Assistant Director, Center for Economic Forecasting and Analysis

Florida State University

Dr. Harrington has an extensive background in econometric and statistical analysis, input-output modeling (using the REMI (Regional Economic Modeling Inc.) and IMPLAN software), and natural resource and environmental economics. She has worked as a management consultant and for the State of Florida. In addition, previous work has comprised research on aquaculture, fisheries and water resources. Her primary research efforts are directed towards environmental economics; such as the economic analysis of coastal observing systems (NOAA) and energy economics; such as high tech (superconducting) materials. Additional projects include economic impact studies, economic analysis of University Research Centers and Institutes, and the new Economy Index for the high tech industry in Florida, among others.

Donald W. King

Research Professor

School of Information Sciences, University of Pittsburgh

Professor King, a statistician, has spent over 40 years describing and evaluating information services and organizations including statewide library and consortia studies, two regional library networks in Florida, and in-depth cost and use studies of over 100 public, academic and special libraries. He has co-authored 17 books and over 200 formal publications. In recognition of his research, he was named Pioneer of Science Information by the Chemical Heritage Foundation; Fellow, American Statistical Association; and Research Award and Award of Merit, American Society for Information Science and Technology; among other awards and honors.

Thomas (Tim) Lynch, Ph.D.

Director, Center for Economic Forecasting and Analysis, Florida State University

Chief Economist for the Center for Advanced Power Systems

Dr. Tim Lynch brings thirty-four years of working experience in the areas of utility planning and regulatory economic analysis. He leads research on the potential applications and commercialization opportunities of superconducting technologies across the national and international community and works in the areas of energy and environmental economics, and advanced transportation economics and economic modeling. He has published extensively in each of these areas both domestically and internationally and served on a number of Academy of Science and Congressional advisory committees. Dr. Lynch served seven years as Florida's Chief Environmental Economist and as the Director of Finance and Economics for the Florida High Speed Rail (HSR) Transportation Commission for 6 years. Governor Bush recently appointed Dr. Lynch to the State of Florida 2020 Electric Energy Deregulation Advisory Commission.

Christinger Tomer, Ph.D.

Associate Professor

School of Information Sciences, University of Pittsburgh

Dr. Christinger Tomer has 32 years experience in research and teaching. His research activities include digital libraries, the economics of information transfer, the open source and open access movements, and scientometrics. He has also been active in local public library affairs, where he played a lead role in the establishment and governance of the Allegheny County Electronic Information network (EIN) and Three Rivers FreeNet. He was a member of The Library of Congress Network Advisory Committee from 1992-1998, and has served a number of organizations, including the Carnegie Library of Pittsburgh and the University of Pittsburgh Library System, as information technology and digital services consultant and planner.