

2021 Library Services Return on Investment (ROI) Calculator

Feb. 2022

I. Total Library Operations Spending Amount **\$6,007,588**

II. Circulation of Physical Books, DVDs, CDs etc....

Category	Circulation Count	Price per Item	Value	Comparison	Sellback	Net Value	% of Library Value
Books	824,426	\$23.80	\$19,621,339	Purchase	50%	\$9,810,669	
Periodicals	44,034	\$5.00	\$220,170	Purchase	0%	\$220,170	
Movies on DVD/VHS	245,666	\$3.00	\$736,998	Rent	NA	\$736,998	
Music CD/Cassette	12,364	\$9.99	\$123,516	Purchase	50%	\$61,758	
Books on CD/Tape	17,650	\$10.47	\$184,796	Rent	NA	\$184,796	
Playaway/Tablet Books	25,764	\$10.47	\$269,749	Rent	NA	\$269,749	
Physical Circulation Subtotal						\$11,284,140	36.5%

III. Electronic Circulation (eBooks, streamed movies, music downloads, etc..)

Category	Circulation Count	Price per Item	Value	Comparison	Sellback	Net Value	
eBooks	216,857	\$12.50	\$2,710,713	Purchase	0%	\$2,710,713	
Audiobook Download	134,698	\$21.00	\$2,828,658	Purchase	0%	\$2,828,658	
Magazine Digital Downloads	8,174	\$5.00	\$40,870	Rent	NA	\$40,870	
Movies Streamed	23,501	\$4.00	\$94,004	Rent	NA	\$94,004	
Music Downloads	14,909	\$0.99	\$14,760	Purchase	0%	\$14,760	
Electronic Circulation Subtotal						\$5,689,004	18.4%

IV. Reference Services

	# of Items	Value/Use				Value	
Non-circulating Periodicals used by Patrons	0	\$5.00				\$0	
	# of Library Visitors	# of Reference Items	Avg Cost	Value	Sellback	Net Value	
Use of Reference Materials	290,026	29,003	\$106.75	\$3,096,028	50%	\$1,548,014	
	# of Answers	Value/Hr.	Time/Answer			Value	
Reference Questions & Answers	62,499	\$50.00	6 minutes			\$312,495	
	Database # of Times Used	Value/Use				Value	
Electronic Database Usage Method A*	109,293	\$10.00				\$1,092,930	
* SEE INSTRUCTIONS. Fill in ONLY Cell B32 OR Cell B34, not both.	Database Hrs. Used	Value/Hr.				Value	
Electronic Database Usage Method B*	0	\$40.00				\$0	
Reference Services Subtotal						\$2,953,439	9.5%

V. Computer & Technology Services

	# of Hours	Price/Hr.			Value	
Patron Computer Use	206,110	\$29.40			\$6,059,634	
	# of Hours	Price/Hr.			Value	
Wi-Fi Use	612,418	\$5.00			\$3,062,090	
	# of Items	Price/Item			Value	
Wi-Fi "Hot Spot" Lending	394	\$14.50			\$5,713	
	# of Patron Hrs.	Value/Hr.			Value	
Computer Training	105	\$25.00			\$2,625	
Computer & Technology Subtotal					\$9,124,349	29.5%

VI. Other Library Services

	# of Events	Rent/Event			Value	
Meeting Room Use	1,745	\$50.00			\$87,250	
	Attendance	Value/Participant			Value	
Children's Library Programs	8,752	\$20.00			\$175,040	
	Attendance	Value/Participant			Value	
Young Adult Library Programs	1,286	\$15.00			\$19,290	
	Attendance	Value/Participant			Value	
Adult Library Programs	63,775	\$25.00			\$1,594,375	
	# of Sessions	Price/Hr.			Value	
Homework Help Sessions	0	\$60.00			\$0	
* SEE INSTRUCTIONS. Fill in ONLY Cell B58 OR Cell B60, not both.	# of Students Helped	Price Per Student			Value	
Homework Help Sessions	0	\$20.00			\$0	
	# Meals/Snacks Provided	Price per Meal			Value	
Summer Food Programs	0	\$2.25			\$0	
	# of Library Outreach Trips	Patron Cost Saved Per Trip	Average # of Patrons Per Trip		Value of Outreach	
Outreach Services (Bookmobile etc.) Method A**	26	\$2.90	42		\$3,167	
* SEE INSTRUCTIONS. Fill in ONLY Cell B64 OR Cell B66, not both.	Avg # of Books/Visit	# of Library Trips Saved	Cost Per Trip		Value	
Outreach Services (Bookmobile visits and books delivered to patrons) Method B**	0	3	0	\$2.90	\$0	
Other Library Services Subtotal					\$1,879,122	6.1%

Grand Total Benefits of Library Circulation & Services

\$30,930,054

VII. Ratio of Library Benefits to Expenditures

Total Library Operations spending (from cell B3) **\$6,007,588**
Direct Benefit to Spending Ratio **5.15**

VIII. Economic Multiplier

2018 BEA Household Consumption Multiplier **1.2649**
Multiplier Impact to Consumers of Value of Library Services **\$39,123,425**
Economic Multiplier Benefit to Spending Ratio **6.51**

Understanding the Findings from the 2021 Library Services Return on Investment (ROI) Calculator

Now that you have completed entering the data into the ROI Calculator, what do the results mean?

1) Ratio of Library Benefits to Spending

Cell G70 shows the Grand Total Benefits of Circulation & Library Services at your library.

This figure is compared with your library's 2019 Total Operations spending to create a ratio of Direct Library Benefits to spending in your community. This figure is the initial measure of the Return on Investment of your library and is shown in cell G74.

For example, if your library's ratio of benefits to spending was 2.5, this would mean that for every \$1.00 spent by your library, your community received \$2.50 in DIRECT BENEFITS from using library materials and services.

2) Economic Multiplier Effects

Cell B77 shows the most recent Household Consumption Multiplier from the Bureau of Economic Analysis. This multiplier indicates that every time a consumer spends \$1.00 in Ohio, an additional 26.49 cents in economic activity is generated. This multiplier is based on 2018 regional economic data.

Libraries allow users to save money by borrowing items and receiving services that they would otherwise have to rent or purchase. This means that libraries enhance the purchasing power of users by enabling them to spend their money in other ways. The true impact of libraries on the economy will include the multiplier effects of this freed up consumer spending.

The value of library benefits including the multiplier effect is shown in cell G78.

Cell G79 shows the ratio of Benefits to Spending for your library including economic multiplier effects. This figure is the cumulative Return on Investment of your library.

For example, if your library's ratio of benefits including economic multiplier effects to spending was 3.5, this would mean that for every \$1.00 spent by your library, the TOTAL ECONOMIC BENEFIT provided to your community is \$3.50.

3) The ROI Calculator does NOT include every type of Library Program

The intention of the ROI Calculator is to quantify the benefits provided by Ohio's 251 public library systems in a simple and understandable fashion.

Some services and programs have been omitted from this calculator (i.e. resume and job search workshops, personal finance workshops, GED training and testing, reading and literacy programs, etc.).

Additionally, the ROI calculator does not include the numerous "non-traditional" items that many Ohio Libraries circulate. These items include Roku streaming devices, musical instruments (especially ukuleles), board games, puzzles, computer games, telescopes, bike locks, kitchen items, laptops, tablets and Kindles, blood pressure monitors, museum passes, air quality monitors, sporting equipment, headphones, portable chargers, and others.

While the services and programs that have been omitted tend to be harder to quantify than those that have been included, that does not mean that they do not have value. Please make sure you mention these and any other additional services when you discuss your library's Rate of Return with policy-makers and constituents.

The fact that there are some library services and programs that are not included in the ROI calculator actually strengthens the findings produced by the calculator. This is because it can be unequivocally stated that whatever your library's return on investment computes to be, it will be an understatement of the true value provided by your library to your community.

Notes on Prices & Costs for 2021 Library Services ROI Calculator

II. Circulation of Physical Books, DVDs, CDs etc...

Category	Price per Item	Explanation
Books	\$23.80	\$23.80 = the Cincinnati and Hamilton County Public Library 2019 average non-discounted price of circulating books purchased. "Sellback" reflects fact that books have resale value (assumed to be 50%) to consumers. Net value is thus 50% of the \$23.80 price.
Periodicals	\$5.00	\$5.00 = average cost per issue of a typical magazine
Movies on DVD/VHS	\$3.00	\$3.00 = 2 day Redbox cost per DVD rental in 2015
Music CD/Cassette	\$9.99	\$9.99 = typical cost of music CD. Music CDs also have resale value. Thus net price reflects the 50% "sellback" value.
Books on CD/Tape	\$10.47	\$10.47 = 3 * 3.49 (cost of 1 week rental of book on tape at Cracker Barrel)
Playaway/Tablet Books	\$10.47	\$10.47 = 3 * 3.49 (cost of 1 week rental of book on tape at Cracker Barrel)

III. Electronic Circulation (eBooks, streamed movies, music downloads, etc..)

Category	Price per Item	Explanation
eBooks	\$12.50	\$12.50 per book = approximate average price of eBooks on Amazon (new releases \$14.99, older books \$9.99, recent books in between at \$10.99-\$13.99)
Audiobook Download	\$21.00	\$21.00 = estimated average price per book (including sales tax) of purchasing an audiobook from Audible. This cost is based on an assumption of 2 books purchased per month at a membership price of \$14.95 with the 2nd book costing \$24.00
Magazine Digital Downloads	\$5.00	\$5.00 = average cost per issue of a typical magazine
Movies Streamed	\$4.00	iTunes, Amazon Prime, & Cable On-Demand prices are \$5.99 for new movies and \$3.99 for older movies. Avg. Netflix movie prices vary with usage but are generally lower.
Music Downloads	\$0.99	\$0.99 = Mid-tier price per song on i-Tunes

IV. Reference Services

	Value/Use	Explanation
Non-circulating Periodicals	\$5.00	\$5.00 = average cost per issue of a typical magazine
	Avg. Cost	
Use of Reference Materials	\$106.75	\$106.75 = 2017 (\$117.00) & 2018 (\$96.50) average non-discounted price of library reference books purchased. Like circulating books, reference books have resale value. Thus, net price reflects 50% "sellback" value.
	Value/Hr	
Reference Questions & Answers	\$50.00	\$50.00 per hour = estimate of hourly cost of private research service equivalent to Master of Library Science
	Value/Use	
Electronic Database Usage Method A	\$10.00	\$10.00 per use = estimate of average cost of online article retrieval from a variety of sources
	Value/Hour	
Electronic Database Usage Method B	\$40.00	\$40.00 per hour = average cost of genealogy, job & employment, & financial professional on an hourly basis

V. Computer & Technology Services

	Price/Hr	Explanation
Patron Computer Use	\$29.40	\$29.40 = 60 minutes * 49 cents per minute (Kinkos cost for computer usage)
	Price/Hr	
Wi-Fi Use	\$5.00	Many Starbucks, Panera Bread, and other similar businesses offer free Wi-Fi (often with time limits), however you must be a paying customer in order to access it. \$5 reflects a reasonable average expenditure.
	Price/Item	
Wi-Fi "Hot Spot" Lending	\$14.50	T-Mobile portable hot spot = \$29/month. Libraries typically rent HotSpots for 2 weeks
	Value/Hr	
Computer Training	\$25.00	\$25.00 per hour = estimated cost of private computer training

VI. Other Library Services

	Rent/Event	Explanation
Meeting Room Use	\$50.00	\$50.00 per hour = average cost of renting a mid-sized meeting room in a hotel or other private venue
	Value/Participant	
Children's Library Programs	\$20.00	Approximate per person price to engage a magician, puppeteer, or similar entertainer
	Value/Participant	
Young Adult Library Programs	\$15.00	Library personnel estimate that young adult programs are less costly than children's programs.
	Value/Participant	
Adult Library Programs	\$25.00	Adult library programs are the most costly, including author visits, genealogists & other professionals
	Price/Hr	
Homework Help Sessions	\$60.00	Sylvan Learning Center charges \$60/hr. Assumption that 3 children per hour receive assistance implies \$20 per student.
	Cost/Meal	
Summer Food Programs	\$2.25	\$2.25 per meal = average price of ODE Summer Food Service breakfasts, lunches and snacks
	Cost Per Trip	
Outreach Services (Bookmobile etc.)	\$2.90	\$2.90 = Avg trip of 5 miles * 58 cents per mile (IRS 2019 cost per mile)