

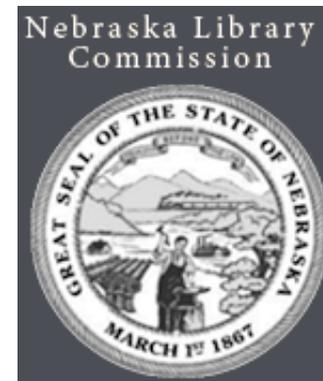


What's It Worth to You?

How to Do a Return on Investment Study for Your Public Library



Presented by
Keith Curry Lance



Outline



- Contingent Valuation Model
- Market Valuation Model
- Nuts-and Bolts of Conducting a Study
 - Alternating between presentation/general discussion & library team discussions/reports
 - Note about PowerPoint philosophy

Per-Dollar Ratios for Existing ROI Studies



State	Scope	ROI	State	Scope	ROI
VT	State	\$6.96	WI	State	\$4.06
FL	State	\$6.54	NY	4 libraries	\$3.93
PA	State	\$5.50	OH	9 libraries	\$3.81
CO	8 libraries	\$4.99	PA	Pittsburgh	\$3.00
SC	State	\$4.48	IN	State	\$2.38

ROI Approaches



- Contingent Valuation
- Market Valuation
- Time Valuation

Contingent Valuation Studies



- Florida
- Pennsylvania
- Colorado



Taxpayer ROI in FL Public Libraries



- Overall, \$6.54 to \$1
- Time savings to users
 - 57.6 million hours, or \$2.4 billion
- \$2.1 billion to education (use by students & teachers)
 - Preschool to higher education (incl. home schooling)
- For every \$6,488 in taxpayer support:
 - 1 job created
- For every \$1 of taxpayer support:
 - + \$9.08 Gross Regional Product
 - + \$12.66 income (wages)

Taxpayer ROI in FL Public Libraries



- Multiple methods
 - Surveys of library visitors (N = 1,500+ in 17 libraries)
 - Household telephone poll (~900)
 - Survey of organization libraries (138 school, academic & special)
 - Follow-up library survey
- Survey details
 - Education, work uses
- Multiple ROI dimensions
 - Contingent valuation
 - Other econometric models
- Universe: all state residents

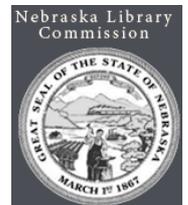
What's It Worth to You?

ROI Study of Selected CO PLs



ROI for 8 Colorado Libraries

Eagle Valley Library District	\$4.28
Mesa County Public Library District	\$4.57
Rangeview Library District	\$4.81
Denver Public Library	\$4.96
Douglas County Libraries	\$5.02
Montrose Library District	\$5.33
Fort Morgan Public Library	\$8.80
Cortez Public Library	\$31.07



What's It Worth to You?

ROI Study of Selected CO PLs



- Median: \$4.99 to \$1
- Surveys of ~ 5,000 library visitors, plus available data from libraries (staff, local spending)
- Universe: library visitors (excluded remote-only users)
- Simplified questionnaire
 - Fewer detailed questions
 - More ranges, fewer precise figures
- Excluded time savings factor

Contingent Valuation Components



- Cost to Use Alternatives
- Lost Use
- Time Savings
- Halo Spending



Cost to Use Alternatives/ Value of Lost Use



- If the library did not exist, what would you have done to address the reason for your visit?
 - I would have tried to get the information from another source
 - How much would you have spent?
 - I would not have tried to get the information
 - I would not have known where else to get the information

Alternative Sources of Info



- Bookstore, video store
- Internet
 - Home, work, school
 - Fee-based public (airport, hotel, café)
 - Free public
- Estimated spending on alternative
 - \$0, < \$5, \$5-9, \$10-14, \$15-19, \$20-24, \$25+

Calculating Cost to Use Alternatives



- Total visits: 35,000
- X percent of surveyed visits with alternative use: 95%
- X average cost to use alternatives: \$25.00
- Total value: \$831,250

Alternative Cost Question



- What are the alternatives in your community?
 - Which alternatives are not available?
- Will you ask for a specific cost estimate or give ranges with which to respond?
 - If ranges, what ranges make sense for the cost to use alternatives in your community?
 - Remember, the ranges you offer—especially the upper limit—are key



Calculating Value of Lost Use



- Total visits: 35,000
- X percent of surveyed visits with lost use: 5%
- X average value of lost information: \$25
- Total value: \$43,750

Lost Use Question



- Will you include the lost use factor in your survey?
 - Why
 - Or why not?



Time Savings



- How much time did you spend using the library?
- How much time would it have taken you to use the alternative to the library you identified?
 - < 15, 15-29, 30-44, 45-59, 60+ minutes

Calculate Time Savings



- Total visits: 35,000
- Time savings = time to use alternative minus time spent using library: 30 minutes
- Time savings X total visits = 17,500 hours
- 17,500 hours X \$17 =
- \$297,500

Time Savings Question



- Will you include the time savings factor in your study?
 - Why
 - Or why not?
- If yes, what dollar multiplier for time makes the most sense?
 - General estimate based on Census or state figures?
 - Respondents' reported income levels?



Halo Spending



- Transportation
 - Drove (mileage, fuel)
 - Public transit (bus, shuttle, senior van)
 - Taxi
- Transit costs
 - Parking
 - Fare
 - Toll
- Other activities
 - Restaurant, coffee shop
 - Shopping
 - Medical appointment
 - Post office
 - Bank
- Estimated Spending
 - \$0, < \$5, \$5-9, \$10-14, \$15-19, \$20-24, \$25+

Calculating Value of Halo Spending



- Total visits: 35,000
- X percent of surveyed visits with halo spending: 33%
- X percent of halo spending lost without library: 23% (based on a study)
- X average value of halo spending: \$25
- Total value: \$66,412

Halo Spending Questions



- Will you include the halo spending factor in your study?
 - Why?
 - Or why not?
- Do you accept the 23% figure as reasonable, or will you modify it?
 - Why or why not?
 - Up or down?



Local Library Expenditures

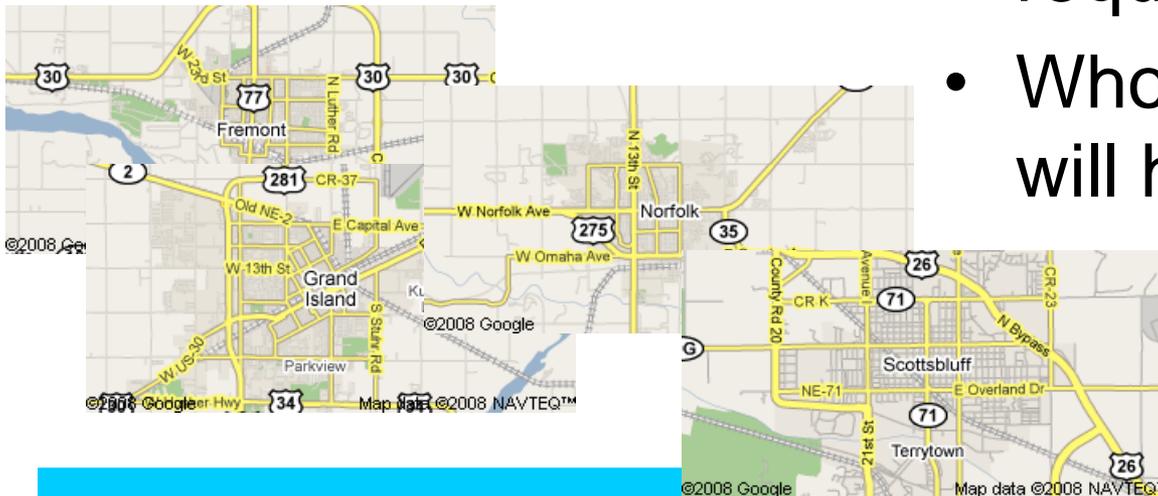


- Human resources (beyond salaries & benefits)
- Library collection
- Information technology
- Utilities
- Supplies & equipt
- Facilities mgmt
- Track spending on local vendors and contractors in these areas for 1 year

Local Expenditures Questions



- What is the relevant geography for your community?
 - Local, county, state, region?
- Which of these data are readily available for your library?
- Which ones will require special effort?
- Who has the data, or will have to gather it?



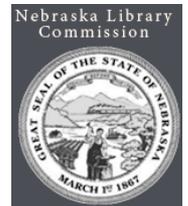
Staff Expenditures



- Salaries
- Wages
- Employee Benefits
 - Holds if most staff live in library's community
 - If not, option is to sum expenditures for those who do

The Bottom Line





Market Valuation Studies



- South Carolina
- Vermont
- Wisconsin
- Suffolk County, New York
- Southwestern Ohio
- Indiana
- Basic ideas
 - Identify services
 - Gather data on them
 - Determine dollar multipliers for each
- Major differences
 - Dollar multipliers & rationales for them
 - Services included

Economic Impact of Public Libraries in SC



- Overall, \$4.48 to \$1
 - \$2.86 direct (value of library service output)
 - \$1.62 indirect (library spending)
- Multiple surveys:
 - General (N=3,689)
 - Business (161)
 - Personal investment (172)
 - Job-seeking (298)



Economic Impact of Public Libraries in SC



- 92% -- Quality of life
- 73% -- Personal fulfillment
- 73% -- Love of reading
- 64% -- Personal enjoyment
- 47% -- Local property values
- 44% -- Patronage to local businesses
- 38% -- New businesses to the community
- 37% -- More productive on job
- 32% -- Manage finances or save money
- 25% -- Job search or business opportunity
- 15% -- Improve or start own business
- 11% -- Obtain new job

Economic Impact of Public Libraries in SC

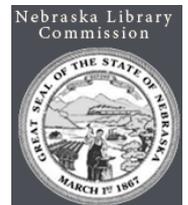


- More outcome-oriented
- Surveyed library visitors & online users
- Used total library spending less 75% of collection spending
- Non-tax funds: grants, gifts, endowments
- Book circulation x half of average book price
- Periodical holdings x average price (\$200)
- Non-print circulation x $\frac{1}{4}$ of average price of DVD, VHS, CD, cassette
- Reference questions x half of median hourly wage for community
- In-library use of materials x half of median hourly wage for community
- Value of facilities & equipment use (10% of total operating \$)

Economic Contribution of WI Public Libraries



- \$4.06 to \$1
- Output-based market valuation
 - Library service outputs x value multipliers
- Econometric estimates of impact on larger economy
- SWOT analysis
- Cost savings from library use
 - Part of user survey, along with outcomes



Economic Contribution of WI Public Libraries



- In-state library spending
- Visitor (halo) spending
- Job creation (but not output or income)
 - Economic multipliers available from econometric modeling firm in state

Economic Contribution of WI Public Libraries



- Loans of materials
 - Print circulation x 20% of retail book prices (children, adult)
 - Non-print circulation x used DVD, CD prices from Amazon, etc
- Reference services
 - Questions x 15 minutes (based on \$23, avg hrly wage of librarians)
- Computer use
 - 2/3 of computer hours x \$4 (\$3.50 operating, \$0.50 hardware)
- Programs
 - Attendance x \$4 for children, \$6 for adults (YMCA, parks & rec, etc)

Economic Contribution of WI Public Libraries



- Survey of 2,500+ users
- Types & frequency of use, outcomes
- Average monthly savings from library use
vs.
 - Buying books and periodicals
 - Renting DVDs and videos
 - Buying DVDs and videos
 - Attending events elsewhere

Economic Contribution of WI Public Libraries

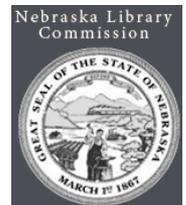


- SWOT analysis by focus groups
 - 29 sessions, 200 participants
- Strengths
 - Resources, services, mission, technology, gathering place, staff
- Weaknesses
 - Funding (for everything), space
- Opportunities
 - Updating resources and technology, outreach and marketing
- Threats
 - Explosive growth of info, perception of Internet as alternative

Placing an Economic Value ... Suffolk Co, NY



- Output-based market valuation
 - Library service outputs x value multipliers
- Secondary economic impact
 - Library operating & capital spending
 - Multipliers for output, earnings, employment
 - Industry-specific multipliers
 - Find out if your city, county, or region provides



Placing an Economic Value ...

Suffolk Co, NY



- Library collections: \$132 million
 - Holdings by format x average retail price, according to Bowker, etc
- Library services: \$449 million
 - Circulation by format x average retail price (high: \$63 for adult non-fiction)
 - Reference questions x \$29 (Google Answers)
 - ILLs received x \$27 (average ILL cost, ARL)
- Programs: \$8 million
 - Children, YA, adult, other attendance x \$9 (St Louis study figure adjusted for inflation)
- E-resources: \$60 million
 - E-usage x annual AOL cost (\$288), Google answers (\$29, cost per chat, e-mail session)

Placing an Economic Value ...

Suffolk Co, NY

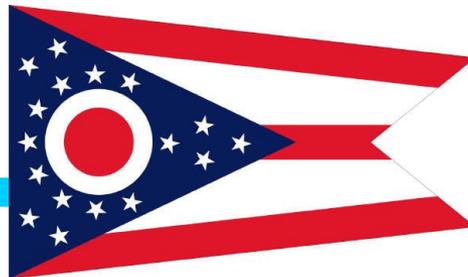


- For each \$1 of library spending:
 - Economic output increases \$1.83
 - Earnings increase \$0.34
- For every \$1 million of library spending:
 - 8.4 other jobs are generated

Economic Benefits of PLs: Value for Money (SW OH)



- \$3.81 to \$1
- Market valuation
- Value of book, music circulation
 - Circulation x (acquisition value [i.e., library discount] – resale value [usually 50%]) = \$7.42 for books (children's = \$4.14), \$3.00 for music
- Value of DVD/VHS, e-book, downloadable book circulation
 - DVD/VHS circulation x \$X (average rental fee in area) = \$1 based on McDonald's DVD vending machines
- Value of periodical circulation
 - Circulation x \$5 (lost periodical fee)



Economic Benefits of PLs: Value for Money (SW OH)



- Value of reference books, periodicals
 - Same as for circulating
- Value of reference services
 - Questions x (\$5--\$50/hour /10, based on typical private info service rates)

Economic Benefits of PLs: Value for Money (SW OH)



- “Positive externalities” (outcomes)
 - Reading: encouraging, training trainers
 - General support of education
 - Support for business and job-seekers
 - Support for the elderly, blind & disabled
 - Cultural programs (writers, artists, musicians)
 - Craft programs
 - Patriotic, historical & genealogical programs
 - Cultural understanding & tolerance
 - Cooperation with community organizations

Economic Benefits of PLs: Value for Money (SW OH)

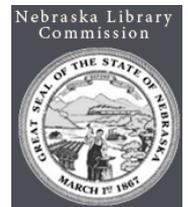


- Uses of library meeting rooms (\$50 / use)
 - Education
 - Business
 - Government
 - Health & social services
 - Community & political organizations
 - Cultural & recreational groups

Economic Impact of Libraries in IN



- \$2.38 to \$1 (market value only)
- Public & academic libraries
- Economic benefits
 - Effects of library spending on local economies
 - Market value of services
- Surveys of library staff, patrons & local leaders
 - Capacity
 - Customer satisfaction
 - Outcomes
 - Needs assessment
 - 12 business case studies



Economic Impact of Libraries in IN



- Market value of library services

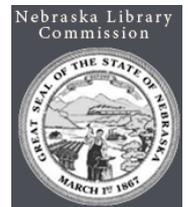
– Adult circulation:	\$479M
– Children’s circulation:	\$ 68M
– Reference questions:	\$ 54M
– Meeting rooms:	\$ 8M
– Computer use:	\$ 7M
– Children’s program attendance:	\$ 6M
– Adult program attendance:	\$ 5M
– Magazines & newspapers:	\$ 2M

Economic Impact of Libraries in IN



- 6,898 jobs in IN public libraries
- \$263M spent on payroll, goods & services
- Input-output analysis
 - Impacts by industry & by county
 - +\$216M in economic activity
 - +2,000 jobs

* Based on % of holdings ** proxy

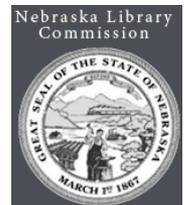


Economic Impact of Libraries in IN



Service	Output	Value	Source
Children's books	C's circulation	\$4.14	20%, average hardcover
YA/adult books	Gen'l circulation*	\$7.42	20%, average hardcover
Videos/films	Gen'l circulation*	\$1.00	Avg, used
Audio/music	Gen'l circulation*	\$3.00	Avg, used
E-books	Gen'l circulation*	\$7.42	Cost per D/L
Periodicals	Computer users**	\$0.25	"non-zero" vs Web

* Based on % of holdings ** proxy



Economic Impact of Libraries in IN



Service	Output	Value	Source
Computers	Computer users (avg, 2 hrs per user)	\$0.50/ hr	H/W, S/W, connection; 3 years/work hrs
Reference	Questions	\$10.00	\$100/hour
Adult programs	Non-C program attendance	\$5.00	Avg, CBO, parks & rec
Children's programs	C program attendance	\$4.00	Avg, CBO, parks & rec
Meeting space	Non-library events	\$75.00	Avg, ½ day

Market Valuation Questions



- Which services will you include? (Which ones do you have data for?)
- What multiplier will you use for each of those services? (Or, at least, how will you determine that multiplier?)

Time Valuation



- Carnegie Library of Pittsburgh



Carnegie Library of Pittsburgh: Community Impacts & Benefits



- \$3.81 to \$1
- Neither market nor contingent valuation
- Value of time (i.e., users' time)
 - How much time do you typically spend at the library when you visit?
 - < 1 hour, 1-2, 3-4, 4-6, 6-8, 8+ hours
 - Hours x median personal income per hour
- Operations
- Customer (halo) spending

ROI Study “Extras”



- Econometric estimates
 - Output, earnings, employment
- SWOT analysis
 - User-identified strengths, weaknesses, opportunities & threats
- Needs assessment
 - Learn about users’ needs
- Customer satisfaction
 - Find out how users feel about library performance
- Outcome measurement
 - Data about how services make a difference

ROI Study “Extras” Question



- Does your ROI patron survey need to include a component for
 - Needs assessment?
 - Customer satisfaction?
 - Outcome measurement?
- Does a SWOT analysis involving various groups make sense?
- Do you want to add an economic impact analysis (re output, income, employment impact)?
- **What are the operational &/or political reasons for including?**

Economic Impact Multipliers



- Regional Economic Models, Inc. (REMI)
 - <http://www.REMI.com>
- Regional Input-Output Modeling System (RIMS II), Bureau of Economic Analysis (BEA), US Department of Commerce
 - <http://www.bea.doc.gov/bea/regional/rims/>
- IMPLAN, Minnesota Implan Group (MIG)
 - <http://www.IMPLAN.com>
 - All 3 project impacts on output, income & employment
 - All 3 require services of economist (even to explore potential use & cost)

Survey Design



- Components
 - Contingent valuation items
 - Other items, if desired
- Use previous study questionnaires as models
 - ... but know why you are choosing to include each item
 - Exactly what will you do with answers?

Survey Design Questions



- Who will participate in designing the questionnaire?
 - Staff, trustees, other decision-makers, public
- Who will pre-test and revise it?



Sampling Patrons for ROI Survey



- Use online sample size calculator to determine ideal sample target
 - <http://www.surveysystem.com/sscalc.htm>
- Multiply by 3 for number of questionnaires to distribute
- Determine sampling interval (every Nth person to receive questionnaire)
 - Divide monthly or weekly visitors by number of questionnaires to distribute
- If necessary, use random date generator to choose distribution dates
 - <http://www.LRS.org/interactive/randomdate.php>

Sampling Question



- Who will your study sample, and why?
 - All users
 - Library visitors
 - Age limit
 - Users of specific services, or for specific purposes



Administering ROI Survey



- Publicize study well in advance
- Provide online and print versions of questionnaire
- Recruit and train staff or volunteers to distribute questionnaires
- Distribute questionnaires
- Provide incentives for participation
- Provide secure, well-labeled box for return of paper questionnaires, or get postal permit
- Check response rate frequently during administration period
- Revise sampling interval, if needed

ROI Survey Administration Questions



- How will you publicize your ROI study?
- What incentives will you provide for participation by your library's users?
- Who will distribute questionnaires?
- Who will receive and store returns?



Entering & Analyzing ROI Data



- Use online survey for computer-assisted data entry of paper returns
- Calculate (as appropriate)
 - Cost to Use Alternatives
 - Value of Lost Use
 - Time Savings
 - Halo Spending

Analysis Questions



- What specific issues does your ROI study need to address?
 - Education
 - Economic development
 - Other
- What patron demographics do you need?
 - Gender, age, race/ethnicity, family status, school status, educational attainment, income, other
- Who will enter data?
Who will analyze it?



Using ROI Data



- Reporting formats
 - Report, flyer, brochure, poster, web page
- Reporting venues
 - Board meeting, government hearing, press conference, newspaper article, radio spot, TV spot, speeches, outreach activities
- Role of calculators
 - Library and/or user perspectives

Reporting Results Questions



- Which report formats work best generally with your decision-makers and public?

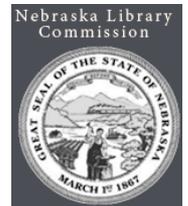


- Which reporting venues are most likely to be available for sharing your study's results?
- Which report formats will be best for those venues?
- Who will be prepared to make presentations about results?

ROI Calculators



- ME: Library Use Value Calculator
- IN: Library Value Calculator
- CO: Library ROI Calculator
- CO: Personal ROI Calculator



ME Library Use Value Calculator



- Available online
- Also downloadable as spreadsheet, permitting customization
- Based on an earlier MA calculator

ME Library Use Value Calculator



Item	Value	Explanation
Book borrowed	\$27	Avg cost hardcover
Paperback borrowed	\$7	Avg cost paperback
Children book borrowed	\$20	Avg cost hardcover
Magazine borrowed	\$3.50	Avg newsstand cost
Video borrowed	\$22	Avg video cost
Audio book borrowed	\$41	Avg audio book cost
In-library periodical use	\$10	Avg monthly cost
Interlibrary loan	\$30	Avg national cost

ME Library Use Value Calculator



Item	Value	Explanation
Meeting room use/hr	\$50	Estimate
Auditorium use/hr	\$250	Estimate
Program/class, adult	\$10	Estimate
Program/class, child	\$6	Estimate
Computer use/hr	\$12	Copy center hourly rate
ME online articles	\$1	Avg cost / article
Databases (months)	\$20	Min. cost for database
Reference questions	\$15	Est. cost / question

IN Library Value Calculator

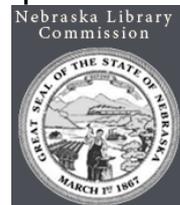


- Downloadable Excel spreadsheet, permitting customization
- Based on similar earlier calculators

IN Library Value Calculator



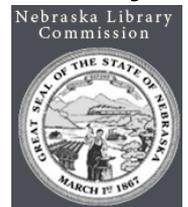
Service	Value	Service	Value
Adult books	\$7.42	Periodicals read	\$0.25
Children's books	\$4.14	Mtg rm use (fee)	Enter
Video	\$1.00	Mtg rm use (free)	\$250.00
Audio	\$3.00	Auditorium use	\$500.00
Periodicals	\$0.50	Reference mat'ls	\$0.50
Downloads	\$3.00	Home-school mat'l	\$4.14
Computer use (hrs)	\$0.50	Adult program	\$5.00
Reference requests	\$10.00	Child'n's program	\$4.00



CO Library ROI Calculator



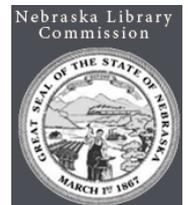
- Customized to CO libraries
- Identify your library & its closest peer among 8 ROI study libraries
 - Region of state, metro status, population, N of outlets, collection size by format, N of computers
- Enter:
 - Annual visits
 - Total operating expenditures
 - Annual staff expenditures (salaries & benefits)
 - Annual local income
- Peer data applied to visits
- Other data for your library



CO Personal ROI Calculator



- Choose your library
- Enter your monthly use:
 - Book borrowed
 - Magazines
 - Videos
 - Audio books
 - In-library magazine use
 - Interlibrary loans
 - Meeting rooms
 - Program/class attended (adult, child)
 - Computer use
 - Databases used
 - Reference questions asked
- Multipliers taken from ME calculator
- ROI calculation based on your library's local revenue
- Individual results being captured for analysis



Calculator Questions



- Will you provide a user calculator based on your study's results?
- Will you provide a library calculator for other libraries like yours?
- If yes to either, who will participate in developing calculator(s)?
- If yes to either, who will you promote your calculator(s) and how?



Conducting Your ROI Study



- Consulting with NLC & KCL
- Choosing method
 - Contingent valuation
 - Market valuation
- Designing & administering patron survey questionnaire
- Compiling available data from library
- Analyzing & reporting results

The Big Questions



- Will your library conduct an ROI study?
- If so, which type—contingent or market valuation?
- If so, who is the contact person for your library?
- If you aren't ready to decide now, what else (if anything) do you need to know, and who will make the decision?
- Who should be contacted and when to learn the decision?

Available Support



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