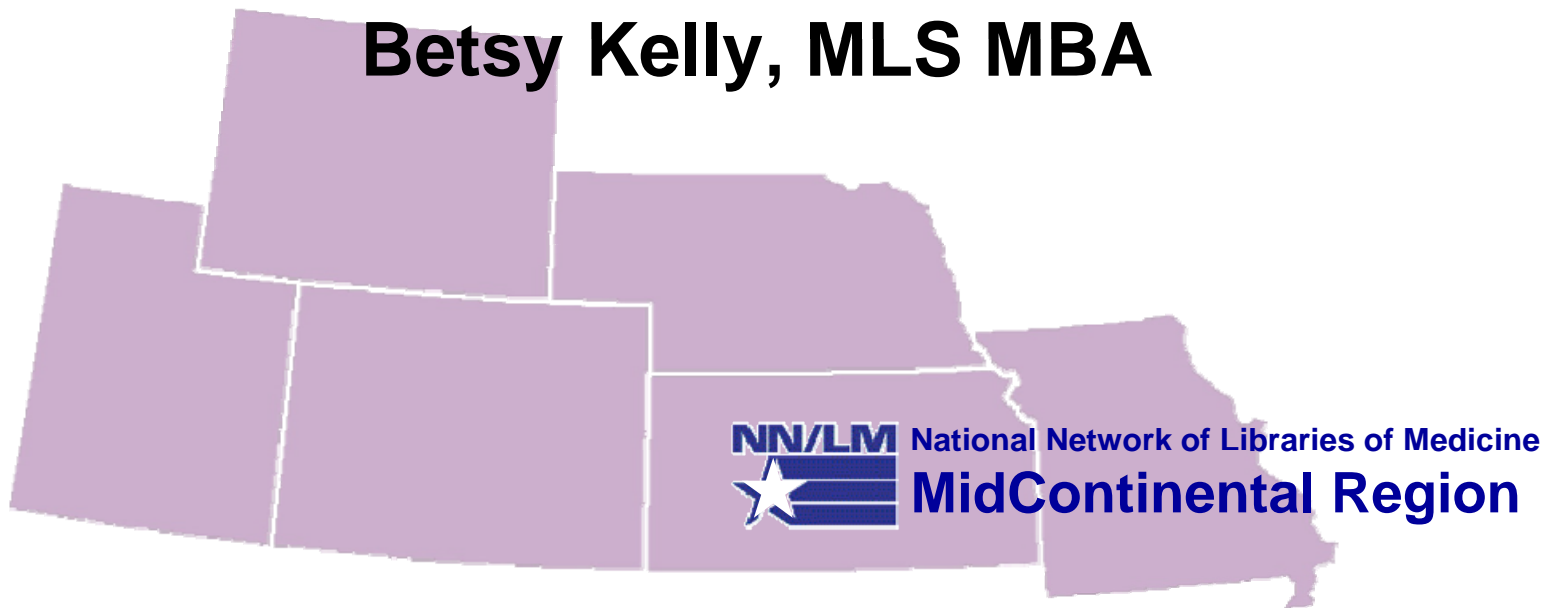


Calculators for Measuring the Impact of Health Science Libraries and Librarians

Barbara Jones, MLS

Betsy Kelly, MLS MBA



Valuing Libraries and Librarians

“Libraries are not ends in themselves, and they should not be supported because they have intrinsic value.”

Plutchak TS. Means, not ends. J Med Libr Assoc 2004 Jul;92(3):294

And

In the middle of difficulty lies opportunity.



Library service is value-added

- **Cost savings**

- Institutional & Personal

- **Time savings**

- Travel, discovery, skills acquisition, opportunity for other uses of time

- **Access**

- Opportunity to use/apply information

- **Impact on clinical, research, safety practice**



The bottom line – either you are

- **Generating income or controlling expenses or supporting those who do**

OR

- **Creating recognized value expenses**

OR

- **Creating expenses that must be controlled or eliminated**

Will Welton, PHD, Director, MHA Program, University of Washington

NN/LM National Network of Libraries of Medicine

 **MidContinental Region**

Statistics

Not everything that can be counted counts and not everything that counts can be counted.

Albert Einstein



Your statistics

- What do you collect?
- What do you do with it?



Calculating the value of your library

- **What is the value of the resources and services your library provides?**
- **What would your users pay on the open market?**
- **Would your institution pay the retail costs?**
- **Would your institution pay for everyone who needs information or for select staff?**



Your institution realizes a benefit of \$ for every one dollar budgeted.

Where is your library?

What type of library is it?

Library Annual Budget - you *must* enter your library's annual budget without commas

Number of months of stats you are using:

Number of Uses

Library Resources or Services

Cost of Resource or Service

Value of Resources or Services

<input type="text"/>	Print and e-Books used (in house, checked out or online)	<input type="text" value="125"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Print journals used (in house or checked out)	<input type="text" value="35"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	E-Journal articles accessed	<input type="text" value="35"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Document Delivery (Items borrowed for/delivered to users)	<input type="text" value="18"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Reference questions Answered	<input type="text" value="45"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Mediated searches	<input type="text" value="75"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Class hours taught (Sum of students/class x hours/class)	<input type="text" value="30"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	AVs used or borrowed	<input type="text" value="150"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Self service photocopies	<input type="text" value="10"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Meeting room use	<input type="text" value="50"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Hours of computer use (i.e. Internet, MS Word, etc.)	<input type="text" value="12"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Add another service or resource	<input type="text"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Add another service or resource	<input type="text"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Add another service or resource	<input type="text"/>	\$ <input type="text" value="0.00"/>

Clear Form

\$

Calculator data points

- Where do the values come from?
- What does each line mean?
- <http://nnlm.gov/mcr/evaluation/valuation.html>

Becker Library

Value of Library Resources and Services

Your institution realizes a benefit of \$12.10 for every one dollar budgeted.

Where is your library?

What type of library is it?

Library Annual Budget - you *must* enter your library's annual budget without commas

Number of months of stats you are using:

Number of Uses	Library Resources or Services	Cost of Resource or Service	Value of Resources or Services
<input type="text" value="35224"/>	Print and e-Books used (in house, checked out or online)	<input type="text" value="125"/>	\$ <input type="text" value="4403000.00"/>
<input type="text" value="22268"/>	Print journals used (in house or checked out)	<input type="text" value="35"/>	\$ <input type="text" value="779380.00"/>
<input type="text" value="1762613"/>	E-Journal articles accessed	<input type="text" value="35"/>	\$ <input type="text" value="61691455.00"/>
<input type="text" value="1525"/>	Document Delivery (Items borrowed for/delivered to users)	<input type="text" value="18"/>	\$ <input type="text" value="27450.00"/>
<input type="text" value="17425"/>	Reference questions Answered	<input type="text" value="45"/>	\$ <input type="text" value="784125.00"/>
<input type="text"/>	Mediated searches	<input type="text" value="75"/>	\$ <input type="text" value="0.00"/>
<input type="text" value="1380"/>	Class hours taught (# students x total class hours)	<input type="text" value="30"/>	\$ <input type="text" value="41400.00"/>
<input type="text"/>	AVs used or borrowed	<input type="text" value="150"/>	\$ <input type="text" value="0.00"/>
<input type="text" value="96124"/>	Self service photocopies	<input type="text" value="10"/>	\$ <input type="text" value="9612.40"/>
<input type="text"/>	Meeting room use	<input type="text" value="50"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Hours of computer use (i.e. Internet, MS Word, etc.)	<input type="text" value="12"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	<input type="text" value="Add another service or resource"/>	<input type="text"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	<input type="text" value="Add another service or resource"/>	<input type="text"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	<input type="text" value="Add another service or resource"/>	<input type="text"/>	\$ <input type="text" value="0.00"/>

\$

J Otto Lottes Library

Value of Library Resources and Services

Your institution realizes a benefit of \$4.71 for every one dollar budgeted.

Where is your library?

What type of library is it?

Library Annual Budget - you *must* enter your library's annual budget without commas

Number of months of stats you are using:

Number of Uses	Library Resources or Services	Cost of Resource or Service	Value of Resources or Services
<input type="text" value="27550"/>	Print and e-Books used (in house, checked out or online)	<input type="text" value="125"/>	\$ <input type="text" value="3443750.00"/>
<input type="text" value="2427"/>	Print journals used (in house or checked out)	<input type="text" value="35"/>	\$ <input type="text" value="84945.00"/>
<input type="text" value="168264"/>	E-Journal articles accessed	<input type="text" value="35"/>	\$ <input type="text" value="5889240.00"/>
<input type="text" value="12739"/>	Document Delivery (Items borrowed for/delivered to users)	<input type="text" value="18"/>	\$ <input type="text" value="229302.00"/>
<input type="text" value="9250"/>	Reference questions Answered	<input type="text" value="45"/>	\$ <input type="text" value="416250.00"/>
<input type="text" value="2532"/>	Mediated searches	<input type="text" value="75"/>	\$ <input type="text" value="189900.00"/>
<input type="text" value="1158"/>	Class hours taught (Sum of students/class x hours/class)	<input type="text" value="30"/>	\$ <input type="text" value="34740.00"/>
<input type="text" value="6"/>	AVs used or borrowed	<input type="text" value="150"/>	\$ <input type="text" value="900.00"/>
<input type="text" value="332703"/>	Self service photocopies	<input type="text" value=".10"/>	\$ <input type="text" value="33270.30"/>
<input type="text" value="738"/>	Meeting room use	<input type="text" value="50"/>	\$ <input type="text" value="36900.00"/>
<input type="text" value="26780"/>	Hours of computer use (i.e. Internet, MS Word, etc.)	<input type="text" value="12"/>	\$ <input type="text" value="321360.00"/>
<input type="text"/>	Add another service or resource	<input type="text"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Add another service or resource	<input type="text"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Add another service or resource	<input type="text"/>	\$ <input type="text" value="0.00"/>

Clear Form

\$

HSLNKC Library

Value of Library Resources and Services

Your institution realizes a benefit of \$2.32 for every one dollar budgeted.

Where is your library?

What type of library is it?

Library Annual Budget - you *must* enter your library's annual budget without commas

Number of months of stats you are using:

Number of Uses	Library Resources or Services	Cost of Resource or Service	Value of Resources or Services
<input type="text" value="50"/>	Print and e-Books used (in house, checked out or online)	<input type="text" value="125"/>	\$ <input type="text" value="6250.00"/>
<input type="text" value="1442"/>	Print journals used (in house or checked out)	<input type="text" value="35"/>	\$ <input type="text" value="50470.00"/>
<input type="text" value="2649"/>	E-Journal articles accessed	<input type="text" value="35"/>	\$ <input type="text" value="92715.00"/>
<input type="text" value="747"/>	Document Delivery (Items borrowed for/delivered to users)	<input type="text" value="18"/>	\$ <input type="text" value="13446.00"/>
<input type="text" value="20"/>	Reference questions Answered	<input type="text" value="45"/>	\$ <input type="text" value="900.00"/>
<input type="text" value="635"/>	Mediated searches	<input type="text" value="75"/>	\$ <input type="text" value="47625.00"/>
<input type="text" value="15"/>	Class hours taught (# students x total class hours)	<input type="text" value="30"/>	\$ <input type="text" value="450.00"/>
<input type="text" value="58"/>	AVs used or borrowed	<input type="text" value="150"/>	\$ <input type="text" value="8700.00"/>
<input type="text"/>	Self service photocopies	<input type="text" value="10"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Meeting room use	<input type="text" value="50"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	Hours of computer use (i.e. Internet, MS Word, etc.)	<input type="text" value="12"/>	\$ <input type="text" value="0.00"/>
<input type="text" value="328"/>	<input type="text" value="Internet article printouts"/>	<input type="text" value="35"/>	\$ <input type="text" value="11480.00"/>
<input type="text"/>	<input type="text" value="Add another service or resource"/>	<input type="text"/>	\$ <input type="text" value="0.00"/>
<input type="text"/>	<input type="text" value="Add another service or resource"/>	<input type="text"/>	\$ <input type="text" value="0.00"/>

\$

But wait, there's more!



Cost/Benefit Analysis and Return on Investment

- Finance terms that relate costs and benefits
- Express benefits in \$\$
- Articulate costs
- CBA is a ratio
- ROI is an interest rate

Benefits

Value of

- **Books used (in house or borrowed)**
- **Print journals used (in house or borrowed)**
- **EJournal articles accessed**
- **Database searches**
- **Patron time saved**
- **Value of information available for clinical, research, teaching, etc**



Costs

Value of

- Purchase price
- Staff time
- Space, light, heat, computers, benefits

- **CBA: Benefits/Costs**
- **ROI: ((Benefits-Costs)/Costs) *100**
- **CBA/ROI Calculator**



Salary Information:	User's Average Annual Salary	\$ <input type="text" value="60000"/>	User Hours Worked Per Year	<input type="text" value="2080"/>	Library Salary Budget	\$ <input type="text" value="45000"/>
----------------------------	------------------------------	---------------------------------------	----------------------------	-----------------------------------	-----------------------	---------------------------------------

Benefits		Costs		TOTAL Benefit	TOTAL Cost
Books used (print and electronic)				\$ <input type="text" value="0"/>	\$ <input type="text" value="0"/>
Number borrowed or used	<input type="text"/>				
Average retail cost of a book	\$ <input type="text" value="125"/>	Book budget	\$ <input type="text" value="0"/>		
User time saved for each book borrowed (in 10ths of an hr)	<input type="text" value="0"/>	Portion of all staff time devoted to the book collection (order, receive, catalog, process,shelve,etc) in 10ths	<input type="text" value="0"/>		
Journals used (print and electronic, in house or checked out)				\$ <input type="text" value="0"/>	\$ <input type="text" value="0"/>
Number articles read by all users	<input type="text"/>				
Per article price from a vendor	\$ <input type="text" value="35"/>	Journal budget (print and electronic)	\$ <input type="text" value="0"/>		
User time saved per article available through library (in 10ths of an hr)	<input type="text" value="0"/>	Portion of all staff time devoted to journal collection (order, license, receive, process, manage, shelve, etc.) in 10ths	<input type="text" value="0"/>		
Database use				\$ <input type="text" value="0"/>	\$ <input type="text" value="0"/>
Database sessions	<input type="text"/>				
Average retail cost of a single search by a broker	\$ <input type="text" value="75"/>	Library's Cost for Database(s)	\$ <input type="text" value="0"/>		
User time saved for each search session	<input type="text" value="0"/>	Portion of all staff time devoted to supporting the database	<input type="text" value="0"/>		

<input type="button" value="Clear Form"/>	Total Benefits Value: <input type="text" value="0.00"/>	Total Costs: <input type="text" value="0.00"/>
Benefit/Cost Ratio - \$ Benefit for each \$ spent:		
<input type="text" value="0.00"/>	ROI %: <input type="text" value="0.00"/>	

J Otto Lottes Library

Salary Information:	User's Average Annual Salary	\$ 100000	User Hours Worked Per Year	2080	Library Salary Budget	\$ 1085864
----------------------------	------------------------------	-----------	----------------------------	------	-----------------------	------------

Benefits		Costs		TOTAL Benefit	TOTAL Cost
Books used (print and electronic)				\$ 3774901.00	\$ 287452.24
Number borrowed or used	27550				
Average retail cost of a book	\$ 125	Book budget	\$ 113714		
User time saved for each book borrowed (in 10ths of an hr)	.25	Portion of all staff time devoted to the book collection (order, receive, catalog, process,shelve,etc) in 10ths	.16		
Journals used (print and electronic, in house or checked out)				\$ 8436231.96	\$ 682215.48
Number articles read by all users	170691				
Per article price from a vendor	\$ 35	Journal budget (print and electronic)	\$ 606205		
User time saved per article available through library (in 10ths of an hr)	.3	Portion of all staff time devoted to journal collection (order, license, receive, process, manage, shelve, etc.) in 10ths	.07		
Database use				\$ 0.00	\$ 0.00
Database sessions					
Average retail cost of a single search by a broker	\$ 75	Library's Cost for Database(s)	\$ 0		
User time saved for each search session	0	Portion of all staff time devoted to supporting the database	0		

<input type="button" value="Clear Form"/>	Total Benefits Value: 12211132.98	Total Costs: 969667.72
	Benefit/Cost Ratio - \$ Benefit for each \$ spent: 12.59	ROI %: 1159.31

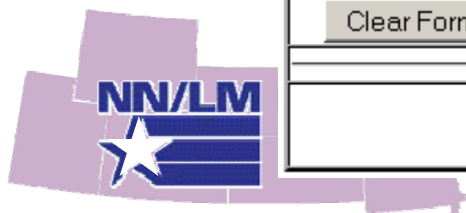


Becker Library

Salary Information:	User's Average Annual Salary	\$ 100000	User Hours Worked Per Year	2080	Library Salary Budget	\$ 2100000
----------------------------	------------------------------	-----------	----------------------------	------	-----------------------	------------

Benefits		Costs		TOTAL Benefit	TOTAL Cost
Books used (print and electronic)				\$ 4825981.42	\$ 490000.00
Number borrowed or used	35221				
Average retail cost of a book	\$ 125	Book budget	\$ 196000		
User time saved for each book borrowed (in 10ths of an hr)	.25	Portion of all staff time devoted to the book collection (order, receive, catalog, process,shelve,etc) in 10ths	.14		
Print journals used (print and electronic, in house or checked out)				\$ 92506812.4	\$ 1935000.00
Number articles read by all users	1784881				
Per article price from a vendor	\$ 35	Journal budget (print and electronic)	\$ 1725000		
User time saved per article available through library (in 10ths of an hr)	.35	Portion of all staff time devoted to journal collection (order, license, receive, process, manage, shelve, etc.) in 10ths	.1		
Database use				\$ 738520.00	\$ 74481.00
Database sessions	1480				
Average retail cost of a single search by a broker	\$ 499	Library's Cost for Database(s)	\$ 53481		
User time saved for each search session	0	Portion of all staff time devoted to supporting the database	.01		

<input type="button" value="Clear Form"/>	Total Benefits Value: 98071313.89	Total Costs: 2499481.00
	Benefit/Cost Ratio - \$ Benefit for each \$ spent: 39.24	ROI %: 3823.67



Values for ILL services

■ Document Delivery services

- Librarian's time ($\$20/\text{hr} \times .25$) = \$5
- Fee charged by lending library = \$15
- TOTAL: \$20

■ Pay per view

- Patron's time ($\$60/\text{hour} \times .3$) = \$18
- Provider's fee – \$35 - \$65
- TOTAL: \$53



CBA of ILL service

$$\$53/\$20=\$2.65$$

(cost of pay per view /one ILL)

**\$2.65 of benefit for each dollar spent
by library on ILL service**



ROI of ILL service

$$\$53-20/\$20=1.15$$

(cost of pay per view-cost for one ILL/cost for one ILL)

115% return on each ILL



EFTS vs Paper Invoicing and Payment

■ Average cost to Invoice

- produce and transmit a paper invoice = \$5
- e-invoice = \$1.65.

■ Average cost to Pay

- process a paper payment = \$4.50
- e-payment = \$1.90

The Return

Charge	Paper Transaction	EFTS Transaction
ILL national max cost	\$11.00	\$11.00
Invoice generation	\$5.00	\$0.00
EFTS 5% charge	\$0.00	\$0.55
Net income	\$6.00	\$10.45
Income from 100 ILLs	\$600.00	\$1,045.00
EFTS ROI for Lending		74% ROI
Payment processing	\$4.50	\$1.90
Net Cost	\$15.50	\$12.90
Costs for 100 ILLs	\$1,550.00	\$1,290.00
EFTS ROI for Borrowing		20% ROI



MidContinental Region

So who cares?

- **Pick the best answer:**

- The doc in the clinic
- The nurse on the unit
- The patient
- The CFO

Manage Your Environment

- **Calculate your financial value**
 - Use for budget development & negotiation
- **Illustrate your contribution to the bottom line**
 - Annual reports
 - Bookmarks, flyers, posters, publications
 - 30 second elevator talks



Your turn

- **What one thing can you do to show the \$\$ value of your library?**
- **Need help? Call us! 800-338-7657**



Share your value

- **Help create a national picture of the value of health sciences libraries**
 - Use the Retail Value Calculator to determine your library's value
 - Hit the submit button to add your data to the national Value of Health Sciences Libraries Database
- **Watch for a paper describing the financial contribution of health science libraries**

nationwide!

NN/LM National Network of Libraries of Medicine

 **MidContinental Region**

Preliminary data

Region	Average CBA
GMR	4.77
MAR	6.42
MCR	5.59
NER	7.93
PNR	5.13
PSR	4.70
SCR	7.66
Sea	6.76
Not USA/Can	2.80
TOTAL	5.56

