

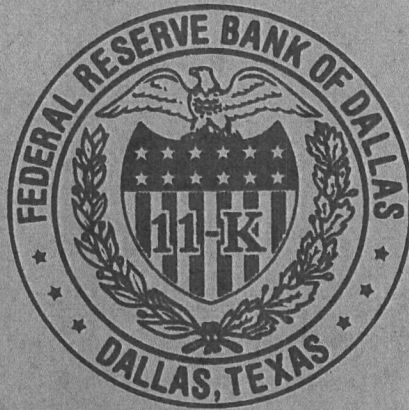
**2002-10**

Spring 2002

*Cost Benefit Analysis of  
Research Support Systems at  
the Federal Reserve Bank of  
Dallas*

Paul Benes  
Robert Sine

FEDERAL RESERVE BANK OF DALLAS



COST BENEFIT ANALYSIS  
OF  
RESEARCH SUPPORT SYSTEMS  
AT THE  
FEDERAL RESERVE BANK OF DALLAS

May 2002

Prepared By

Paul Benes  
&  
Robert Sine

## **EXECUTIVE SUMMARY**

At the request of The Federal Reserve Bank of Dallas (FED) Research Department, we have completed a study to understand the cost of their support services. In this study we outlined the methodology on how to capture data and a formulation on how to analyze the information. The methodology obtained for the Research Library serves as phase one with further possible expansion into other areas of the Research Department. With intangible values associated with research, it is difficult to obtain value figures and hence justification for some Research Department allocations. Through our development of a methodology and the formulation for analyzing the data, the information collected can be easily transferred into a report form.

Since the library consists of two major components, users and staff, the methodology must first obtain data for each. By using a cost benefit analysis approach, where the benefit is associated with the costs of not having the Research Library, we determined a method to assign values to intangibles. Through the testing of the model, we found that having no library may at times cost less than it costs to have a library. However, there are certain disadvantages to not having a library such as the lack of immediate access to certain documents, working papers, or having Fed material in print. We then suggested estimating a skeleton library with one staff person to support these services that cannot be provided by other libraries. In this case, we found that the benefit of having the library outweighs the overall costs of having a skeleton library. Values derived from this methodology can then be transferred to determine calculations for budget recommendations.

The survey developed for this study can be modified in the future to obtain any extra data needed and better understand the user characteristics of the library system. We also used a task tracker program to track the characteristics of the staff. Observing and following the methodology and formulation developed in this model can develop reporting information for yearly budget requests within the organization.

## **BACKGROUND AND PROBLEM**

The Research Library is the Eleventh District's primary source of research literature. The library is part of the Research Department. Although the library staff primarily serves the needs of the economists in the Research Department, the staff also serves other Bank personnel and the general public when requested.

Currently, the library is staffed with a library administrator, a librarian and a library technician. Among other duties, the Research Library staff maintains the collection and circulation of books, periodicals, and reference materials; receives and routes all Bank periodicals; provides literature research on specific topics; initiates the order and renewal of all periodical subscriptions; monitors receipt of all materials ordered and renewed; and processes and catalogs all new acquisitions.

In February 2002, Research Department management asked two Southern Methodist University Senior Design students to identify intangible values associated with the Research Library motivated by a desire to justify annual budget allocations. The proposal for the project is provided in Appendix A. Cost benefit analysis was chosen as a methodology to obtain these intangible values. Since no profit can be derived from a non-profit library, the decision to evaluate the cost and benefit of having a library versus alternative solutions. Alternative solutions to be considered are outsourcing, no library with option of outside research, and a skeleton library to handle Fed-specific functions. The results from the study will affect management decisions including such subjects as annual budget generation and employment decisions.

## ANALYSIS OF THE SITUATION

The general approach to the intangible valuation problem of the FED Research Library was to collect process information, define high-level methodology, collect data in each subcomponent identified, formulate model, and check feasibility of results. After collecting initial process information it was determined that a dual perspective of the Research Library needs to be estimated including internal processes of staff with Research Library and external library users. Initially, five intangible valuation methodologies were considered with respect to the library system; however, the pool of possible methodologies was reduced to a comparative cost-benefit analysis.

Comparative cost benefit analysis consists of two components, library users and staff, which encapsulate value added at different aspects of the Research Library and required various data collection processes. The input for the first component consisted of deploying a web based survey that gathered user-end utilization of various resources. The resources allowed insight into the type of resources used, rate of use, other libraries utilized, and time allocation for specific tasks. In dealing with the input for the second component, in order to determine the daily tasks of the library staff, it was necessary to instate a task tracking software that gathered data for each task performed. The task tracking software was updated by each of the library staff member and was stored in a database located on each user's computer.

The first component of the comparative cost benefit analysis took three of the following perspective scenarios for analysis: cost with FED Research Library, cost with a Skeleton Library, and cost without a Research Library present. The survey data provided a baseline for required services and utilization rates. The survey data is compiled into

relevant data sets which than are compared against each other to derive an intangible benefit to the FED via a profit of having a library, having a skeleton library, or eliminating a library. It is assumed that the demand for various identified recourses will remain constant for the various stated scenarios and that the time spent by each user of the library is a normalized fractional value of an average of all users. It is further assumed that the users of the library represent the general population and remain constant throughout the following classifications: Offices, Economists, Research Assistance and Managers. All data reported is computed is a cumulative average of all the surveyed groups and reflects an expense per users. All salaries for the general population have been estimated and do not reflect actual FED data, and the salaries are utilized in deriving the per user expense of the library and its resources.

The second component of the comparative cost benefit analysis focuses on the staff member of the Research Library and determines a value added through time saved on behave of the general population using the library. Project research tasks performed by the library staff saves the FED money through the knowledgeable staff that conducts the research, which directly saves the request time and generates a time saved benefit on the library users' behave. The derived benefit is subtracted from the per user expense associated with the FED research library. The derived benefit it added to every scenario where the staff member is not present because each requester is responsible for his or her own information. Any profit that is derived through the cost benefit analysis is distributed among the staff member of the library, in proportion the their pay, which is broken down into a profit for each task instance per staff member. Assumptions for the second component of the cost benefit analysis include constant rates of task execution on

an annual basis, profit is distributed in proportion to pay rates of the staff, and the staff is constant on an annual basis.

### **TECHNICAL DESCRIPTION OF THE MODEL**

The model starts off with data collection. There are two different sets of data collection. The first data collection is obtained through a task-tracking program to obtain the general layout of tasks and time spent by each member of the library staff. The second data collection set is obtained through surveys of the library's users. From the survey we obtain usage data to put into our model.

When formulating the data from our survey, our first step was to assign metric values to each answer. On questions where the user was asked frequency of use, daily = 175 uses per year; weekly = 35 uses per year; biweekly = 18; monthly = 9; quarterly = 4; occasionally = 1; never = 0. On questions asking number of minutes or hours needed by the user to obtain the material they needed, the upper bound was decided to be the best approximation (i.e. for 1 to 5 minutes, 5 minutes would be calculated; for 6 to 10 minutes, 10 minutes would be calculated; etc.). By obtaining a percentage of tasks uses/total uses of library and multiplying that percentage by the number of minutes associated with going to the library, we obtained a calculation of time per task. The same methodology was applied to figuring out time associated with visits to other libraries. For some information we used a best guess estimate in our tests, which could later be filled out using actual data. Such data included average salaries for library users. Wage per minute was calculated by  $W_{\min} = W_{\text{year}} \div \text{an estimated 250 working days} \div 8 \text{ working hours} \div 60 \text{ minutes}$  (see TABLE 11). To calculate the average price per user for each

task, we used the formulas  $P_{\text{avg-in}} = \text{Average Uses/User} * \text{Average Time per Use (minutes)} * W_{\text{min}}$  (see TABLE 05). The same applied for visits to other research services ( $P_{\text{avg-out}}$  – see TABLE 06). We added these two values together ( $P_{\text{avg-in}} + P_{\text{avg-out}}$ ).

The next step was to analyze the total expenses of the Research Library per user. To do this, we found the total expenses ( $TE_{\text{lib}}$ ) allocated in the budget for the Research Library and divided it by the number of users (see TABLE 11). This was then added to the  $P_{\text{avg-in}} + P_{\text{avg-out}}$ .

The last step in figuring the costs of retaining a library was to find the time saved by help from the library staff. Research projects were the only measurable help activity formulated from our task-tracker that was figured consequential to the study. The average number of minutes spent on research projects per user was calculated and then multiplied by the  $W_{\text{min}}$  to equal the total cost of special projects per user per year ( $C_{\text{spec}}$ ). This value was then subtracted from our previous sum to give us our final value for total cost per user for retaining the research library.  $\text{Total Cost With Library} = P_{\text{avg-in}} + P_{\text{avg-out}} + TE_{\text{lib}} - C_{\text{spec}}$  (see TABLE 07).

To calculate the cost without a library, we substituted in the number of minutes taken to travel to another research center into the  $P_{\text{avg-in}}$  calculation. This will give us  $P_{\text{avg-in2}}$ .  $P_{\text{avg-out}}$  must still be included as the time spent researching those resources, which should stay the same. Since  $C_{\text{spec}}$  will only happen with the library, this figure also represents the extra time needed for someone else to handle the resource without the research library. By this formulation we have  $P_{\text{avg-in2}} + P_{\text{avg-out}} + C_{\text{spec}}$ . This is the cost without the library (see TABLE 09).



For a skeleton library to take place, there would need to be approximately 1/3 the staff and space currently allocated for the research library. This assumes that 1/3 of the annual budget would be used as well. So total expenses with a skeleton library ( $TE_{skel}$ ) =  $TE_{lib} \div 3$ . So, total cost with a skeleton library = total cost without the library +  $TE_{skel}$  (see TABLE 09).

By subtracting any of these total cost calculations from another one you develop a profit for each. From our calculation, profit by having a library is only obtained if you calculate a FED running a skeleton library cost.

From profit, we can develop any calculation we would like. If you would like to know the benefit associated with a certain task, calculate the percentage of the task performer's salary to the total sum of salaries for the Research Library. Next, calculate that number multiplied by the total yearly profit (profit/user \* no. of users). Then calculate the percentage of time that a certain task fills during the course of a year. This will give you that task's yearly benefit to the Research Library.

### **ANALYSIS AND MANAGERIAL INTERPRETATION**

By testing our model, we found that from the standpoint of having a library versus having no library, little, negative or no profit is derived. However, some of the resources the library retains are unique in comparison to other libraries. Working papers, FED publications and Interlibrary Loan Requests are a few of the unique services provided by the FED Research Library. It is our belief that if no library were present, then there would at least be the need for a skeleton library or a library operating only certain small functions such as Interlibrary Loan Requests. It is our assumption that this would cost

approximately one-third of the cost of the current library on the basis of one-third the space, one-third the personnel, and one-third the expenses. By calculating this into our model and assuming a skeleton library would be needed, we have found that having the full library is more beneficial to the Research Department. By following the calculations provided in our report, one can calculate the average benefit (or profit) to each user of the library. From there you can go on and calculate any cost associated with the Research Library.

This information can be translated into budget figures and help in decisions related to the budget. From our tests, for example, we show that there is an approximate \$4000 benefit from having no library versus having a library. Though, by having no library, certain unique FED related resources are unattainable by the users and therefore makes this scenario unacceptable as a solution. However, when calculating the cost of having a skeleton library, the cost is approximately \$2000 more than it would be to have the current library (see TABLE 09). This can then be calculated into a per employee benefit or a per task benefit. All of the calculations are provided in the previous section.

## CONCLUSIONS AND CRITIQUE

Our final recommendation for this project is that since the services of the Federal Reserve Library are unique and cannot be provided by another research service, then the only benefit can be derived from assuming the costs of a skeleton library. Since, as stated, from our calculations the Research Library that is in place now shows less cost than that of a skeleton library, then there is definite benefit to be derived.

The model may have some inaccuracies that can be worked out over time, perhaps with more detailed surveys or with more specific data. Testing the model with correct data instead of estimated data is strongly recommended.

We recommend sending out a survey (along the same lines as the one produced via the web for this project) at least once a year to obtain better service to the users. Reviewing the questions and making some questions more or less specific might help in the accuracy of the survey. We also recommend occasionally implementing a task-tracking program to update data presented in our model. These are the ways to collect the data needed for our model.

Full implementation of the collection and formulation model presented is possible and will produce results to help in determining needed information for financial reports about the FED Research Library. For implementation into other areas of the Research Department, possible considerations for outsourcing options would be consulting agencies or research firms to fulfill any Research Assistant position.

Chart 1:

# Cost Benefit Analysis Components

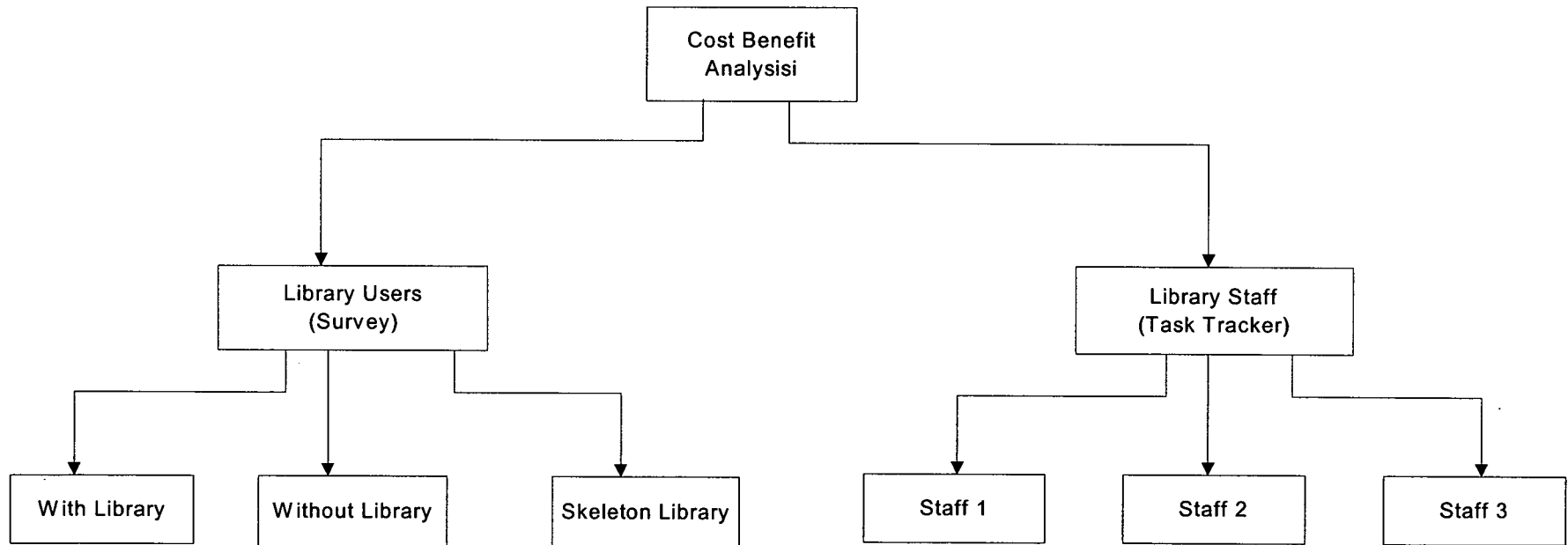


TABLE 01

Federal Reserve Research Library

	Total	Circulation Materials	Reference Books	Journals	Newspapers	Working Papers	Fed Publications	Online Catalog	Online Database Services	Online Fed in Print	Online Union List	Desktop News Services	Interlibrary Loan Requests	Reading Room Space	Self Photocopies	Other
Time Spent by Professionals (minutes)																
Going to the library	8.95	5.99	2.94	3.49	6.34	0.44	1.53	2.81	3.36	0.46	0.02	4.48	0.61	0.31	1.00	0.02
Identifying needed document	8.89	5.95	2.92	3.47	6.30	0.44	1.52	2.79	3.34	0.45	0.02	4.46	0.61	0.31	1.00	0.02
Locating the document	7.37	4.93	2.42	2.87	5.22	0.36	1.26	2.31	2.77	0.38	0.01	3.69	0.51	0.26	0.83	0.02
Obtaining a copy	6.32	4.23	2.08	2.46	4.48	0.31	1.08	1.98	2.37	0.32	0.01	3.17	0.43	0.22	0.71	0.02
Photocopying the document	6.47	4.33	2.13	2.52	4.59	0.32	1.11	2.03	2.43	0.33	0.01	3.24	0.44	0.23	0.73	0.02
Total time spent	37.99	25.43	12.49	14.82	26.93	1.87	6.50	11.82	14.27	1.94	0.07	19.04	2.60	1.34	4.26	0.09

TABLE 02

Outside Research Services

	Total	Dallas Public Library	SMU Libraries	UTD Library	Library of Congress	CSU Library	UT Library
Time Spent by Professionals (minutes)							
Going to the library	41.82	32.25	6.55	1.01	1.01	0.50	0.50
Identifying needed document	18.64	14.37	2.92	0.45	0.45	0.22	0.22
Locating the document	20.00	15.42	3.13	0.48	0.48	0.24	0.24
Obtaining a copy	11.36	8.76	1.78	0.27	0.27	0.14	0.14
Photocopying the document	11.00	8.48	1.72	0.27	0.27	0.13	0.13
Total time spent	102.82	79.28	16.10	2.48	2.48	1.24	1.24

TABLE 03

	No. of Uses Acquiring (Hours)	
Use of Library	86.74	54.92
Circulation Materials Collection	58.05	24.60
Reference Books	28.53	5.94
Journals	33.84	8.36
Newspapers	61.47	27.59
Working Papers	4.26	0.13
Fed Publications	14.84	1.61
Online Catalog	27.21	5.41
Online Database Services	32.58	7.75
Online Fed in Print	4.42	0.14
Online Union List	0.16	0.00
Desktop News Services	43.47	13.80
Interlibrary Loan Requests	5.95	0.26
Reading Room Space	3.05	0.07
Self Photocopies	9.74	0.69
Other	0.21	0.00
<b>Total</b>	<b>414.53</b>	<b>151.26</b>

TABLE 04

	No. of Uses	Acquiring (Hours)
Total Outside Research Services	7.55	12.93
Dallas Public Library	5.82	7.69
SMU Libraries	1.18	0.32
UTD Library	0.18	0.01
Library of Congress	0.18	0.01
CSU Library	0.09	0.00
UT Library	0.09	0.00
Total	7.55	8.02



TABLE 05

	Avg. Uses/Professional	Avg. Time per Use (minutes)	Average Price (\$)
Use of Library	86.74	37.99	2,023.38
Circulation Materials Collection	58.05	25.43	906.39
Reference Books	28.53	12.49	218.86
Journals	33.84	14.82	308.02
Newspapers	61.47	26.93	1,016.36
Working Papers	4.26	1.87	4.89
Fed Publications	14.84	6.50	59.25
Online Catalog	27.21	11.92	199.13
Online Database Services	32.58	14.27	285.46
Online Fed in Print	4.42	1.94	5.26
Online Union List	0.16	0.07	0.01
Desktop News Services	43.47	19.04	508.30
Interlibrary Loan Requests	5.95	2.60	9.51
Reading Room Space	3.05	1.34	2.51
Self Photocopies	9.74	4.26	25.50
Other	0.21	0.09	0.01

TABLE 06

	Avg. Uses/Professional	Avg. Time per Use (minutes)	Average Price (\$)
Total Outside Research Services	7.55	102.82	476.37
Dallas Public Library	5.82	79.28	283.24
SMU Libraries	1.18	16.10	11.69
UTD Library	0.18	2.48	0.28
Library of Congress	0.18	2.48	0.28
CSU Library	0.09	1.24	0.07
UT Library	0.09	1.24	0.07

TABLE 07

Total Expenses/User	\$18,000.00
Tasks Time Cost/User	\$5,572.84
Total Out Time Cost/User	476.37
Total Time Saved/User	-2,225.68
<hr/>	
Total Cost/User	\$21,823.54

TABLE 08

Other Research Services w/ No FED																
	Total	Circulation Materials	Reference Books	Journals	Newspapers	Working Papers	Fed Publications	Online Catalog	Online Database Services	Online Fed in Print	Online Union List	Desktop News Services	Interlibrary Loan Requests	Reading Room Space	Self Photocopies	Other
Time Spent by Professionals (minutes)																
Going to the library	41.82	27.89	13.75	16.32	29.64	2.06	7.16	13.12	15.71	2.13	0.06	20.96	2.87	1.47	4.69	0.10
Identifying needed document	18.64	12.47	6.13	7.27	13.21	0.82	3.19	5.85	7.00	0.95	0.03	9.34	1.28	0.66	2.09	0.05
Locating the document	20.00	13.39	6.58	7.80	14.17	0.98	3.42	6.27	7.51	1.02	0.04	10.02	1.57	0.70	2.25	0.05
Obtaining a copy	11.36	7.61	3.74	4.43	8.05	0.56	1.94	3.56	4.27	0.58	0.02	5.70	0.78	0.40	1.28	0.03
Photocopying the document	11.00	7.36	3.62	4.29	7.80	0.54	1.88	3.45	4.13	0.56	0.02	5.51	0.75	0.39	1.23	0.03
Total time spent	102.82	68.82	33.82	40.12	72.87	5.06	17.59	32.26	38.62	5.24	0.19	51.53	7.05	3.82	11.54	0.25

TABLE 09

	Avg. Uses/Professional	Avg. Time per Use (minutes)	Average Price (\$)
Use of Library	86.74	102.82	5,476.04
Circulation Materials Collection	58.05	68.82	2,453.03
Reference Books	28.53	33.82	592.31
Journals	33.84	40.12	833.63
Newspapers	61.47	72.87	2,750.67
Working Papers	4.26	5.05	13.23
Fed Publications	14.84	17.59	160.34
Online Catalog	27.21	32.26	538.93
Online Database Services	32.58	38.62	772.56
Online Fed in Print	4.42	5.24	14.23
Online Union List	0.16	0.19	0.02
Desktop News Services	43.47	51.53	1,375.66
Interlibrary Loan Requests	5.95	7.05	25.75
Reading Room Space	3.05	3.62	6.78
Self Photocopies	9.74	11.54	69.01
Other	0.21	0.25	0.03
		Skeletal Library Expense	6000
		Recourse Utilized	9,606.19
		Outside Library Use	476.37
		Library Support Staff	2225.68
		No Library	17,784.28
		Full-Scale Library	21823.54
		Profit on No Library	-4039.26
		Skeletal Library	23784.28
		Full-Scale Library	21823.54
		Profit on Mini-Library	1960.74

TABLE 10

	No. of Uses	Acquiring (Hours)
Use of Library	86.74	148.64
Circulation Materials Collection	58.05	66.58
Reference Books	28.53	16.08
Journals	33.84	22.63
Newspapers	61.47	74.66
Working Papers	4.26	0.36
Fed Publications	14.84	4.35
Online Catalog	27.21	14.63
Online Database Services	32.58	20.97
Online Fed in Print	4.42	0.39
Online Union List	0.16	0.00
Desktop News Services	43.47	37.34
Interlibrary Loan Requests	5.95	0.70
Reading Room Space	3.05	0.18
Self Photocopies	9.74	1.87
Other	0.21	0.00
Total	414.53	409.37

TABLE 11

	Avg. Yrly Wage	No. of People Surveyed
Officer	\$100,000.00	3
Economist	\$80,000.00	10
Research Assistant	\$40,000.00	3
Manager	\$80,000.00	1
Programmer Analyst	\$50,000.00	1
Accounting Analyst	\$50,000.00	1
Avg Yearly Wage/User	\$73,684.21	
Avg Daily Wage/User	\$294.74	
Avg Hourly Wage/User	\$36.84	
Avg Minute Wage/User	\$0.61	
Yearly Total Expenses of Research Library	\$900,000.00	
Yearly Total Expenses/User	\$18,000.00	

## RESEARCH LIBRARY SURVEY

I am a(n):  Economist  Research Assistant  Other, please specify \_\_\_\_\_

On average, how often do you visit the Research Library or use its resources?

Daily  Weekly  Biweekly  Monthly  Quarterly  Occasionally  Never

Which of the following resources or services do you use? Please indicate the average frequency using the following scale (please leave blank if not used):

d = daily w = weekly b = biweekly m = monthly q = quarterly o = occasionally

- circulation materials collection
- reference books, i.e., directories, encyclopedias, dictionaries, manuals
- journals
- newspapers
- working papers
- Federal Reserve publications
- online catalog
- online database services, i.e., Dialog, EconLit, Jstor, Stat-USA, EconBase
- online Fed in Print
- online Union List
- desktop news services, i.e., Newscast, Dow Jones, Moodys
- Interlibrary Loan request
- reading room space
- self-service photocopies
- other (please specify) \_\_\_\_\_

How often do you usually contact the Research Library on a monthly basis? Specify all that apply and frequency per month.

- personal visit
- send staff member
- E-mail
- online request form
- telephone
- inter-office mail
- fax

Have you utilized the Research Library's reference services by requesting information in person, via telephone/mail/e-mail or by sending a staff member?

- yes  no If yes, how helpful is it for the following questions on a scale 1-5, 5 being the most helpful:
- Was the staff member helpful in defining your research needs?
  - Was the requested information/materials received within the required timeframe?
  - Did the materials provided meet your information needs?
  - Overall rating of the quality of reference services provided by staff

How often do you use the Research Library web page? (<http://web9.dal.frb.org/depts/RESLIB/library/index.html>)

Daily  Weekly  Biweekly  Monthly  Quarterly  Occasionally  Never

How helpful are "web links" and "quick info," 5 being the most helpful? 1 2 3 4 5

Comments: \_\_\_\_\_

How often do you use the Research Library's "Online Services" web page to access databases?

(<http://web9.dal.frb.org/depts/RESLIB/library/online.html>)

Daily  Weekly  Biweekly  Monthly  Quarterly  Occasionally  Never

How helpful is it, 5 being the most helpful? 1 2 3 4 5

Please indicate frequently used databases and approximate uses per month (example: Dow Jones-5, Nexus-8)

When utilizing the Research Library's resources how would you classify each of the following activities in minutes?

- |                                       |                              |                               |                                |                                |                                |   |
|---------------------------------------|------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|---|
| Going to the library usually requires | <input type="checkbox"/> 1-5 | <input type="checkbox"/> 6-10 | <input type="checkbox"/> 11-15 | <input type="checkbox"/> 16-30 | <input type="checkbox"/> 31-60 | <input type="checkbox"/> - "____" hour(s) |
| Identifying needed resources          | <input type="checkbox"/> 1-5 | <input type="checkbox"/> 6-10 | <input type="checkbox"/> 11-15 | <input type="checkbox"/> 16-30 | <input type="checkbox"/> 31-60 | <input type="checkbox"/> - "____" hour(s) |
| Locating the document                 | <input type="checkbox"/> 1-5 | <input type="checkbox"/> 6-10 | <input type="checkbox"/> 11-15 | <input type="checkbox"/> 16-30 | <input type="checkbox"/> 31-60 | <input type="checkbox"/> - "____" hour(s) |
| Obtaining the document                | <input type="checkbox"/> 1-5 | <input type="checkbox"/> 6-10 | <input type="checkbox"/> 11-15 | <input type="checkbox"/> 16-30 | <input type="checkbox"/> 31-60 | <input type="checkbox"/> - "____" hour(s) |
| Photocopying the document             | <input type="checkbox"/> 1-5 | <input type="checkbox"/> 6-10 | <input type="checkbox"/> 11-15 | <input type="checkbox"/> 16-30 | <input type="checkbox"/> 31-60 | <input type="checkbox"/> - "____" hour(s) |



Which of the following libraries do you use? Please indicate the average frequency using the following scale (please leave blank if not used):

d = daily w = weekly b = biweekly m = monthly q = quarterly o = occasionally

- Dallas Public Library
- Cultural District Library Consortium (CDLC)
- Fort Worth Public Library
- SMU Libraries
- Texas Christian University (TCU) Library
- Texas Woman's University (TWU) Library
- University of North Texas (UNT) Libraries
- University of Texas at Arlington (UTA) Libraries
- University of Texas at Dallas (UTD) Libraries
- Center for Research Libraries
- Library of Congress
- Berkeley Digital Library SunSITE
- Libweb: Library Servers via WWW (please specify \_\_\_\_\_)
- other (please specify) \_\_\_\_\_

When utilizing non-Fed Library's resources how would you classify each of the following activities in minutes?

- Going to the library usually requires  1-5  6-10  11-15  16-30  31-60  - "\_\_\_\_" hour(s)
- Identifying needed resources  1-5  6-10  11-15  16-30  31-60  - "\_\_\_\_" hour(s)
- Locating the document  1-5  6-10  11-15  16-30  31-60  - "\_\_\_\_" hour(s)
- Obtaining the document  1-5  6-10  11-15  16-30  31-60  - "\_\_\_\_" hour(s)
- Photocopying the document  1-5  6-10  11-15  16-30  31-60  - "\_\_\_\_" hour(s)

If the Research Library was not there which of the following methods would you choose for you research? (specify all that apply)

- Another Library
- Colleague
- Consultant
- Personal collection
- Purchase the item
- Online Search (please specify) \_\_\_\_\_
- Other (please specify) \_\_\_\_\_

What research services do you seek outside the library? Could the Fed library provide these services?

How often do you use outside services for research?

- Daily  Weekly  Biweekly  Monthly  Quarterly  Occasionally  Never

Why do you use these outside services instead of the Research Library?

- faster
- more convenient
- I've always done it that way
- I get the information I need
- other (please specify) \_\_\_\_\_

Do you mainly use the Research Library for special projects? Light research? Research that can not be found elsewhere? Etc.?

How much time is spent for each of these services?

What different resources or services would you like the library to introduce that it does not currently provide?

Name_Surveyed	Tom Siems			Mark Guzman	John Thompson	Mark Wynne	Dan Lamendola	bob formaini
Position	Economist	Economist	Economist	Economist	Economist	Officer	Research Assista	Economist
Other_Identify								
Use_of_Library	Daily	Weekly	Daily	Daily	Weekly	Daily	Weekly	Monthly
Circulation_Materials_Collection	monthly	daily	weekly	occasionally	daily	weekly	weekly	quarterly
Reference_Books	monthly	weekly	biweekly	occasionally	occasionally	weekly	weekly	monthly
Journals	monthly	monthly	weekly	monthly	occasionally	weekly	weekly	monthly
Newspapers	quarterly	weekly	daily	daily	weekly	occasionally	daily	never
Working_Papers	occasionally	monthly	occasionally	occasionally	occasionally	occasionally	never	never
Fed_Publications	occasionally	monthly	occasionally	never	occasionally	occasionally	weekly	occasionally
Online_Catalog	occasionally	weekly	occasionally	occasionally	monthly	biweekly	weekly	occasionally
Online_Database_Services	daily	weekly	biweekly	never	monthly	occasionally	weekly	occasionally
Online_Fed_in_Print	never	weekly	occasionally	never	occasionally	occasionally	never	never
Online_Union_List	never	never	occasionally	never	never	never	never	never
Desktop_News_Services	daily	weekly	weekly	never	biweekly	never	occasionally	daily
Interlibrary_Loan_Requests	biweekly	monthly	quarterly	occasionally	monthly	monthly	never	monthly
Reading_Room_Space	never	never	biweekly	never	never	occasionally	never	never
Self_Photocopies	monthly	weekly	biweekly	occasionally	monthly	occasionally	occasionally	never
Other	never	never	never	never	never	never	never	never
Other_Resources								
Contact_Personal_Visit	4	10	#1	1	3	#8	5	#2
Contact_Send_Staff	0	#	#0	#	?	#0	0	#0
Contact_Email	8	#	#1	#	2	#8	0	#1
Contact_Online_Requests	0	#	#0	#	0	#0	0	#1
Contact_Telephone	2	#	#1	1	3	#2	1	#0
Contact_InterOffice_Mail	0	#	#0	#	0	#0	0	#1
Contact_Fax	0	#	#0	#	0	#0	0	#0
Utilized_Reference_Services	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Helpful_Staff_Defining	4	5	4	5	5	5	5	3
Received_Information	4	4	4	5	5	5	5	5
Material_Meet_Needs	5	4	4	5	5	4	4	5
Overall_Quality	4	4	4	5	5	5	5	5
Use_of_Web_Page	Weekly	Weekly	Biweekly	Occasionally	Monthly	Never	Occasionally	Occasionally
Web_Page_Helpfulness	4	4	3	-	2	-	4	4
Web_Page_Comments								
Use_of_Online_Services	Daily	Weekly	Monthly	Never	Monthly	Never	Never	Occasionally
Online_Services_Helpfulness	5	4	3	-	2	-	-	4
Frequently_Used_Databases	Factiva, EconLit, C							
Going_to_Research_Library	11_15minutes	1_5minutes	1_5minutes	1_5minutes	1_5minutes	1_5minutes	1_5minutes	6_10minutes
Going_to_Research_Library_Hours	#	#	#	#	#	#	#	#
Identifying_Resources_in_Research_Library	6_10minutes	1_5minutes	6_10minutes	#	6_10minutes	6_10minutes	11_15minutes	11_15minutes
Going_to_Research_Library1	#	#	6_10minutes	#	6_10minutes	#	#	#
Locating_Document_in_Research_Library	1_5minutes	1_5minutes	6_10minutes	#	1_5minutes	1_5minutes	6_10minutes	6_10minutes
Going_to_Research_Library2	#	#	#	1_5minutes	#	#	#	#
Obtaining_Document_in_Research_Library	1_5minutes	1_5minutes	1_5minutes	#	6_10minutes	1_5minutes	1_5minutes	1_5minutes
Going_to_Research_Library3	#	#	#	1_5minutes	#	#	#	#
Photocopying_in_Research_Library	1_5minutes	1_5minutes	6_10minutes	#	1_5minutes	1_5minutes	11_15minutes	1_5minutes
Going_to_Research_Library4	#	#	#	#	#	#	#	#
Dallas_Public_Library	never	never	occasionally	never	monthly	never	never	never
Cultural_District_Library_Consortium	never	never	never	never	never	never	never	never
Fort_Worth_Public_Library	never	never	never	never	never	never	never	never
SMU_Libraries	quarterly	never	quarterly	never	never	occasionally	never	never
TCU_Library	never	never	never	never	never	never	never	never
TWU_Library	never	never	never	never	never	never	never	never
UNT_Library	never	never	never	never	never	never	never	never
UTA_Library	never	never	never	never	never	never	never	never
UTD_Library	never	never	occasionally	never	never	never	never	occasionally
Center_for_Research_Libraries	never	never	never	never	never	never	never	never
Library_of_Congress	never	never	never	never	never	never	never	never
Berkeley_Digital_Library	never	never	never	never	never	never	never	never
LibWeb	never	never	never	never	never	never	never	never
Libweb_Server								
Other_Libraries							Colorado State Ur	
Going_to_Other	16_30minutes	#	31_60minutes	#	6_10minutes	#	6_10minutes	31_60minutes
Going_to_Other_Hours	#	#	#	#	#	#	#	#
Identifying_Resources_Other	11_15minutes	#	6_10minutes	#	6_10minutes	#	16_30minutes	31_60minutes
Identifying_Resources_Other_Hours	#	#	#	#	#	#	#	#
Locating_Document_Other	6_10minutes	#	6_10minutes	#	6_10minutes	#	31_60minutes	16_30minutes
Locating_Document_Other_Hours	#	#	#	#	#	#	#	#
Obtaining_Document_Other	1_5minutes	#	1_5minutes	#	6_10minutes	#	6_10minutes	11_15minutes
Obtaining_Document_Other_Hours	#	#	#	#	#	#	#	#
Photocopying_Other	1_5minutes	#	11_15minutes	#	6_10minutes	#	11_15minutes	11_15minutes
Photocopying_Other_Hours	#	#	#	#	#	#	#	#

John Duca Officer	Kay Gribbin Other	Sonja Kelly Research Assista	Olga Zograf Other	Lori Taylor Economist	Pia Orrenius Economist	mine yucel Officer	Stephen Brown Officer	Jackie Nicholson Other	Julia Kedrova Research Assista	Jim Dolmas Economist
	Manager		Programmer Anal					Accounting Analy		
Daily	Daily	Biweekly	Biweekly	Weekly	Biweekly	Daily	Daily	Occasionally	Daily	Weekly
weekly	occasionally	occasionally	occasionally	weekly	weekly	daily	daily	never	daily	occasionally
biweekly	occasionally	daily	occasionally	occasionally	monthly	monthly	monthly	occasionally	daily	never
weekly	occasionally	never	occasionally	monthly	weekly	daily	daily	never	weekly	weekly
weekly	occasionally	occasionally	occasionally	quarterly	quarterly	daily	never	occasionally	daily	never
weekly	occasionally	occasionally	never	occasionally	occasionally	biweekly	never	never	monthly	occasionally
weekly	occasionally	occasionally	occasionally	occasionally	occasionally	never	never	never	daily	never
daily	occasionally	weekly	occasionally	never	biweekly	occasionally	monthly	never	daily	occasionally
biweekly	occasionally	biweekly	occasionally	monthly	weekly	biweekly	weekly	never	daily	weekly
occasionally	occasionally	never	never	never	never	never	never	never	monthly	never
never	occasionally	never	never	never	never	never	never	never	occasionally	never
never	occasionally	daily	occasionally	never	never	daily	never	never	weekly	never
monthly	occasionally	monthly	occasionally	quarterly	biweekly	monthly	occasionally	never	occasionally	occasionally
weekly	occasionally	never	occasionally	never	never	occasionally	never	never	occasionally	never
weekly	occasionally	weekly	occasionally	never	occasionally	occasionally	never	occasionally	weekly	occasionally
never	never	never	never	never	quarterly	never	never	never	never	never

book purchases

5	#20	5	#2	3	4	#	#2	#	5	1
0	#	#	#	0	0	#	#2	#	0	0
2	#15	2	#	3	3	#	#1	#	1	0
0	#	#	#	0	0	#	#	#	0	0
5	#25	2	#1	2	1	#	#	#	5	0
0	#5	#	#	0	0	#	#	#	0	0
0	#	#	#	0	0	#	#	#	0	0

Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
5	5	4	5	2	4	5	4	5	4	-
5	5	5	5	4	3	5	4	5	5	-
5	5	5	4	4	4	4	4	5	4	-
5	5	5	5	4	4	5	4	5	5	-

Monthly	Weekly	Never	Biweekly	Never	Biweekly	Occasionally	Occasionally	Occasionally	Weekly	Occasionally
3	5	-	-	-	4	-	-	5	2	1
Never	Occasionally	Never	Occasionally	Never	Biweekly	Biweekly	Never	Never	Weekly	Occasionally
-	4	-	-	-	4	5	-	-	4	3

Depends on the n

16_30minutes	1_5minutes	11_15minutes	1_5minutes	6_10minutes	6_10minutes	6_10minutes	11_15minutes	1_5minutes	1_5minutes	1_5minutes
#	#	#	#	#	#	#	#	#	#	#
6_10minutes	6_10minutes	1_5minutes	6_10minutes	6_10minutes	1_5minutes	1_5minutes	6_10minutes	1_5minutes	6_10minutes	1_5minutes
#	#	#	#	#	#	#	#	#	#	#
6_10minutes	6_10minutes	6_10minutes	1_5minutes	6_10minutes	1_5minutes	1_5minutes	6_10minutes	1_5minutes	1_5minutes	1_5minutes
#	#	#	#	#	#	#	#	#	#	#
1_5minutes	6_10minutes	1_5minutes	1_5minutes	11_15minutes	1_5minutes	1_5minutes	6_10minutes	1_5minutes	1_5minutes	1_5minutes
#	#	#	#	#	#	#	#	#	#	#
1_5minutes	1_5minutes	1_5minutes	6_10minutes	#	1_5minutes	6_10minutes	#	1_5minutes	1_5minutes	1_5minutes
#	#	#	#	#	#	#	#	#	#	#

quarterly	monthly	quarterly	occasionally	occasionally	never	weekly	never	occasionally	never	never
never	never	never	never	never	never	never	never	never	never	never
never	never	never	never	never	never	never	never	never	never	never
quarterly	never	never	never	occasionally	never	occasionally	never	never	never	never
never	never	never	never	never	never	never	never	never	never	never
never	never	never	never	never	never	never	never	never	never	never
never	never	never	never	never	never	never	never	never	never	never
never	never	never	never	never	never	never	never	never	never	never
never	never	never	never	never	never	never	never	never	never	never
never	never	never	never	never	never	never	never	never	never	never
never	never	never	never	never	never	never	never	never	never	never
never	never	never	occasionally	never	never	occasionally	never	never	never	never
never	never	never	never	never	never	never	never	never	never	never
never	never	never	never	never	never	never	never	never	never	never

University of Texa

31_60minutes	1_5minutes	2	16_30minutes	#	#	31_60minutes	#	11_15minutes	#	#
#	#	6_10minutes	#	#	#	#	#	#	#	#
16_30minutes	6_10minutes	#	11_15minutes	#	#	1_5minutes	#	6_10minutes	#	#
#	#	16_30minutes	#	#	#	#	#	#	#	#
16_30minutes	6_10minutes	#	11_15minutes	#	#	1_5minutes	#	6_10minutes	#	#
#	#	16_30minutes	#	#	#	#	#	#	#	#
6_10minutes	6_10minutes	#	11_15minutes	#	#	6_10minutes	#	1_5minutes	#	#
#	#	11_15minutes	#	#	#	#	#	#	#	#
6_10minutes	1_5minutes	#	11_15minutes	#	#	#	#	1_5minutes	#	#
#	#	#	#	#	#	#	#	#	#	#