

Where Does the Time Go?

The Staff Allocations Project

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Between 2003 and 2004, Notre Dame and Vanderbilt University Libraries worked together to conduct time and cost analyses in their libraries, a project that is referred to in this article as the Staff Allocations Project. The goal was to take two peer libraries, both of which are mid-sized members of the Association of Research Libraries (ARL), and compare the way staff time and costs were allocated across all library activities. This article provides an analysis of two sample weeks of this study. While this represents preliminary information, and more samples are needed for greater validity, it is information not previously available to the profession. It also represents the first librarywide comparative study in the United States in which the same methods were used to gather data on staff time and costs.

Most time and cost studies have taken a narrower approach, targeting a department or a division. There are few that look at operations throughout an entire library. Ellis-Newman described activity-based costing (ABC) that showed ABC's costs and benefits to managers in libraries at Edith Cowan University and the University of Western Australia in Perth.¹ ABC shows the cause-and-effect relationship between activities and costs by collecting costs for functional cost pools, then allocating these costs to products on the basis of the events that drive the costs (cost drivers). The study was based on interviews with staff, who identified the main activities they performed. From these interviews, management identified activity centers in which separate costs reports were needed (for example, circulation, reference, monographs acquisitions, and so on). Costs were assigned to the appropriate activities from library accounting records. Some staff had rosters that identified the time spent at each activity, but most did not, and the allocation of costs to activities was based on staff estimates of time spent. Activity costs were calculated on a cost per cost drivers (loans, borrowers, items shelved, inquiries, and so on).

Activity-based costing, funded by the German Research Foundation, also was tested at the University and Regional Library, Münster University, and two partner libraries.² In this study, staff kept logs for two weeks identifying the time spent on activities. Forty-four cost centers and 442 separate activities were defined. Annual costs were projected from the two-week log of activities.

Another approach by Lawrence et al. looks at library costs over the total life cycle of a library collection item.³ Using both measurements and estimations, the authors were able to quantify the relationship between an item's purchase cost and its ongoing maintenance costs.

While many studies are based on estimating staff time spent on activities and assigning salaries to those activities, in the Staff Allocations Project, employees actually tracked their time for sample weeks according to defined cost centers and tasks, and actual salaries of employees were used in calculating costs. Because all staff time is tracked, including that of administrators, a more accurate picture of overhead costs is possible.

The Staff Allocation Project

Notre Dame and Vanderbilt University libraries, along with the Chronos Group, Inc., President Dilys Morris, developed librarywide time and cost centers and their inclusive tasks. Their work was based on the Technical Services Time and Cost Study, 1998-2001.⁴ In November 2003, Vanderbilt tested the centers and tasks using TCA DecisionBase software.⁵ After this trial, the centers and tasks were revised (see appendix A for a complete list of centers and tasks). Library activities were divided into nineteen centers, and each center into tasks. More than two hundred tasks were defined.

The libraries decided to sample four weeks in 2004. They were February 23-29, May 10-16, August 30-September 5, and November 15-21. Vanderbilt was not able to conduct all four sample studies and instead completed only the first two; a week in June was substituted for the May sample week. Notre Dame did gather data for the four sample weeks. The following data compares Notre Dame and Vanderbilt for the first two sample weeks only (February 23-29 at both libraries, and May 10-16 at Notre Dame and June 10-16 at Vanderbilt).

Methods

All staff time was tracked for a seven-day sample week from Monday through Sunday. The four sample weeks

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were selected using a systematic sampling process, excluding weeks with holidays. Sample weeks may be selected using the criteria of when a university is in session, out of session, or a mix of both. In this study, there was a mix. The universities were in session during most of the sample weeks, except for the May sample week for Notre Dame and the June week for Vanderbilt, when the universities were in recess.

Staff time was tracked according to the tasks performed during the week. The tasks are organized into sixteen Product and Service Centers that correspond to the library divisions that create products and services; three Overhead Centers, which support the creation and provision of products and services; and one Excluded Center, which tracks time that is not used in reports (see figure 1). Ten new centers and tasks were developed for this study and were beta tested:

- Circulating Materials;
- Collection Development and Management;
- Development and PR;
- Digital Collections;
- Electronic Resources;
- ILL and Document Delivery;
- Instruction;
- Manuscripts and Archives;
- Storage and Stacks Maintenance; and
- User Assistance.

The other nine centers were those used in the previously mentioned Technical Services Time and Cost Study, 1998–2001.

Numerous tasks were added to the Automation and Systems and the Administrative and Support Services centers to incorporate librarywide functions. Because all employee time must be accounted for during a sample week, leave without pay time is tracked in the Excluded Center.

The approach allows administrators to look at costs in two ways. The first shows the costs of each of the nineteen centers. The second approach spreads the costs of the Overhead Centers to the Product and Service Centers, showing the impact of overhead costs on the cost of providing products and services. Costs included in this study consist of employee salaries with benefits.

Each employee has a position code reflecting the organizational structure. Individuals working in multiple organizational units are assigned multiple position codes. To collect the time sampling data, every employee records work time by the tasks performed for the entire week.⁶ Data for each position code is entered after the sample week data collection period ends. Time is recorded in fifteen-minute increments, and is rounded to the nearest quarter of an hour. Break time is not recorded; instead, employees spread break time over the tasks worked.

The pay of every employee is entered. For salaried staff, TCA DecisionBase calculates an hourly salary for

Product and Service Centers	Overhead Centers	Excluded Center
Acquisitions	Paid Leave	Time Not Counted
Cataloging	Automation and Systems	
Catalog Maintenance	Administrative and Support Services	
Circulating Materials Collection		
Development and Management		
Development and PR		
Digital Collections		
Electronic Resources		
ILL and Document Delivery		
Instruction		
Major Projects		
Manuscripts and Archives		
Preservation		
Storage and Stacks		
Maintenance		
User Assistance		
Volume Preparation		

Figure 1. Staff Allocations Project Centers

each employee by calculating a weekly salary and dividing it by the actual hours worked during the sample week. With professional employees, whose weekly hours may vary, their hourly wages will vary if their hours do.

The hourly wage is multiplied by task time to arrive at task costs for every employee. Individual employee task time and costs are summed into task and center time and costs totals. Aggregate reports by administrative and employee groups are produced. No reports are produced on individuals. Production statistics are entered for sample weeks to determine unit costs and times. The separation of time and cost data allows for differences in salary scales to be readily identified when comparing costs across libraries.

Implementation in the Two Libraries

Vanderbilt was a participant in the earlier Technical Services Time and Cost Study, 1998–2001. A number of the staff had participated in this earlier study, and many more knew some of its background and results. Though a number of staff understood the potential benefits and usefulness of the information gathered, the time and cost study was an unpopular activity. In extending the methodology to the entire library, meetings for all staff were held to explain the rationale and purpose and to discuss the specifics of the centers and task and how to record time. Meetings between the project coordinator and individual work units were also conducted to allow for further exploration of the process.

Participation in this study occurred at the same time that the library was making progress on its strategic plan.

All were in agreement that there were a number of things that were not being done in the library for lack of time, and that it was necessary to better identify how time was being spent and where savings might be found. There was also some fear on the part of staff that the information gathered might be used to eliminate positions; reassurance was given, though that may have had limited effect as the library had eliminated a few positions the year before as directed by the university. Assurance was also provided that no individual's actual time would be used in any way separate from an aggregate.

A Web site was created for staff to use; it included all the centers and tasks, sample data gathering forms, an FAQ with questions and decisions about how to record particular kinds of activities, and study results. Advance communication was provided, reminders were sent during the actual data gathering periods, and thank-you notes were sent after the fact. Summary result charts were shared with library directors and unit heads, and they were posted on the Web.

The initiation of a time study project is very time consuming, with major requirements for training and effective communication. With repetition, each data-gathering period becomes easier and more routine. Such an implementation works best when there is a commonly shared appreciation among managers of the potential usefulness of the results and a real desire to learn more about how the library actually functions and uses its resources.

At Notre Dame, one might have said that 2002–2003 was the best of times and the worst of times to begin a time and cost study at the University Libraries. On the positive side, a tight budget made it increasingly important that the library understand how its allocation of time aligned with its service ambitions. On the other hand, a time-tracking project was not generally welcomed by people swamped with work and concerned about a shrinking work force. Many viewed the study as a time-consuming threat and feared that valued, traditional services would be eliminated.

To prepare the way for the study, a small time study working group was established. This group, with assistance from systems and administrative staff, organized a series of implementation activities. These included:

- explaining and promoting the study;
- refining and customizing the definitions of centers and tasks;
- completing the organizational position and salary charts; and
- organizing training.

A Web page for the study was created to assist internal communication. This was in addition to numerous discussions in other forums.

The group first worked to clarify the purposes and value of the study. Dilys Morris visited the campus. Speaking to large and small groups, she demonstrated the types of data

that could be generated. The study was linked to the earlier technical services project and to ARL's New Measures initiative. Attention was primarily focused on testing the instrument, and, secondarily, on understanding time allocation by centers and work tasks. The working group met with individual department heads to identify areas that they might want to study and help design tasks that supported their particular interests. Technology-related tasks were more problematic, as the work is rapidly evolving. Some managers wanted data tracking meeting and training time.

To ensure that the focus was on understanding overall time allocation rather than how individuals used their time, and to allay fears about confidentiality, the working group used an alphanumeric code instead of names in the employee database. An electronic interface allowed individuals to input their own statistics so that supervisors never saw the individual's raw data. Reports showed only group activity.

Completing the organizational and salary charts was time-consuming, but fairly routine. Notre Dame did not fully anticipate the need for regularly updating the data. At times the charts failed to reflect promotions, salary changes, or position shifts within the organization.

Although the system seemed fairly intuitive, department heads were offered individual coaching in using the electronic interface for data recording. Open sessions were also available for all employees. Most departments, however, sent only one or two staff to secure the information for their colleagues.

As the study began, a chocolate bar labeled "thanks for your time" was given to every employee. Working group team members handled a flurry of questions—most of which focused on the definitions of terms, using the electronic interface, and the way to record parts of an hour. Between the first and second sample weeks, questions and answers as to the recording of some individual tasks, such as training, were reviewed. Minor changes were made to definitions and task recording practices.

Locally generated reports about Notre Dame as well as reports comparing Notre Dame and Vanderbilt were posted on the Web. The general nature of the data quieted some fears about position loss and even generated some interest in a future study in individual, targeted areas. By the end of the study, this interest, however, ultimately was overshadowed by other events. Adjustments to the Fair Labor Standards Act initiated by the campus, implementation of the library online system upgrade, and the expansion of e-services seized prime time and attention.

Results

Distribution of Staff Time by Product and Service Centers

At Notre Dame, all organizational units of the University Libraries participated in the two studies. Kresge Law Library is part of the Law School, not part of the University

Libraries, and was not included in the study. At Vanderbilt, the law and medical libraries are also separate libraries and did not participate. In the February sample week, 21 percent of the Vanderbilt Library staff (Divinity, Management, Music, and Peabody libraries) did not participate, but in the June study all library operations participated. These differences in participation should be considered while examining the results.

The nineteen centers have been grouped into the following seven categories based on library services:

- Overhead;
- User Services;
- Collections;
- Access;
- Materials;
- Special Resources; and
- Miscellaneous.

Table 1 shows the percent of total library time spent in nineteen centers, grouped in the seven categories at each library. The percentages are averages of the two sample weeks at each library. Table 1 also evaluates the statistical significance of the comparisons between the two libraries. A T-Test was performed to assess whether the averages of the two libraries are statistically different from each other.⁷ The risk level or alpha level was set at .05, which means five times out of a hundred a statistically significant difference could be found even if there were none (such as by chance). The degree of freedom (DF) was determined for each center and is the total FTE at both libraries minus two.⁸ The T-Table Value is from a standard statistical table. If the absolute value of the T-Test Value is less than the T-Table Value, there is no statistical difference between the averages at each library.

The T-Test demonstrates that there is only a statistical difference between the averages at the two libraries for Access, Special Resources, and Miscellaneous. The number of staff (degrees of freedom) and the percent of time involved in Special Resources and Miscellaneous are so small that a T-Test is not really effective. Only the Cataloging Center shows a statistical difference.

Special Resources shows a difference, but this is not unexpected as the Electronic Resources component is a relatively new area. Also during the first two sample weeks, Notre Dame did not use the Manuscripts and Archives Center and instead placed task time in other centers.⁹ The Miscellaneous category constitutes a very small percentage of time, and the Major Projects Center is locally driven.

Table 1 also shows that the standard deviation numbers are higher at Vanderbilt than at Notre Dame, meaning there was greater variability between sample week data at Vanderbilt. Because Vanderbilt added more libraries to the June study that were not included in the February study, greater variance is expected. Table 2 shows the nineteen centers in rank order by time.

In fact there is a remarkable similarity in the way staff time is distributed at both libraries. The rank order of the seven categories is basically the same, except for Access. This difference is caused by the major variance in the times spent in the Cataloging Center. Notre Dame allocates more staff time to cataloging.

Distribution of Staff Costs by Product and Service Centers

When examining staff costs (table 3), the order of the seven library activity groups stays the same for both libraries (Overhead, User Services, Collections, Access, Materials, Special Resources, and Miscellaneous). With the overhead centers, the percent of cost is significantly higher at both libraries than the percent of time. This is not unexpected, because the salaries of staff involved in many of the tasks classed as overhead are generally higher. Administrative and Support Services is the most expensive center in both libraries.

At both libraries, Collection Development has a higher percent of cost than percent of time, reflecting the greater involvement of librarians versus support staff. At both libraries it has the highest cost per hour. Access Services (Cataloging and Catalog Maintenance), which are supported by international collaboration and strong automation, are no longer the expensive activities in libraries that they once were.

While Vanderbilt has the higher cost per hour, there is a strong relationship between center costs per hour at both libraries. At both libraries, Volume Preparation has the lowest cost per hour. Catalog Maintenance has the greatest variance in cost per hour, followed by Electronic Resources. Table 4 shows the nineteen centers in rank order by cost.

Overhead Center Costs Spread to Product and Services Center Costs

To see the full cost of the Product and Service Centers, the Overhead Center costs must be spread to them. This means vacation and sick leave costs, plus costs of time spent at Administrative and Systems activities, are layered onto each of the Product and Service Center costs. The Overhead Center costs are apportioned to the Product and Services Centers according to the cost of the center.¹⁰

The overhead spreading is done incrementally. The allocation begins within each administrative unit. The overhead costs of the staff in the unit are allocated back to the Product and Services Centers in which those employees worked. Besides the overhead costs of the staff in the administrative unit, the overhead costs of all superior administrative units are proportionately allocated down to all administrative areas supervised. Thus the Office of the Librarian Overhead Center costs are allocated across the entire library. If a unit both supervises others and does work in Product Centers, its Overhead Center costs are

Table 1. Variance Between Vanderbilt and Notre Dame Two Sample Week Averages, Percentage of Time in a Week

	Vanderbilt		Notre Dame		T-Test Value	T-Test	
	AVG (%)	STDEV (%)	AVG (%)	STDEV (%)		DF	T-Table Value
Overhead	38.3	3.4	35.6	1.9	0.99	125.4	1.98
Admin and Support Services	23.3	1.9	19.9	1.6	1.97	71.9	1.99
Automation and Systems	6.8	0.4	6.9	0.0	-0.40	21.8	2.07
Leave	8.2	1.9	8.8	0.3	-0.44	27.7	2.05
User Services	20.2	4.3	19.2	3.1	0.28	66.0	2.00
Circulation	6.6	0.4	6.6	1.0	-0.01	20.7	2.08
ILL	4.2	0.9	3.2	0.0	1.60	10.5	2.20
Instruction	0.8	0.5	1.3	0.1	-1.59	1.7	4.30
User Assistance	8.7	2.5	8.1	1.9	0.27	27.1	2.05
Collections	15.0	0.7	14.4	0.5	1.07	48.8	2.01
Acquisitions	10.7	1.0	9.9	0.8	0.77	33.5	2.03
Collection Development	4.4	0.4	4.5	0.3	-0.28	13.3	2.16
Access	8.9	0.4	14.7	1.2	-6.65	40.3	2.02
Cataloging	6.5	0.2	11.9	0.5	-14.11	31.2	2.04
Catalog Maintenance	2.3	0.6	2.9	0.7	-0.83	7.1	2.36
Materials	10.7	0.8	11.7	0.7	-1.28	37.0	2.03
Preservation	3.3	1.1	4.6	0.5	-1.51	12.0	2.18
Storage and Stacks	5.6	1.4	4.9	1.4	0.52	16.1	2.11
Volume Preparation	1.7	0.5	2.2	0.1	-1.32	4.9	2.57
Special Resources	4.1	0.1	3.5	0.2	3.40	10.9	2.20
Digital Collections	1.5	0.1	1.3	0.3	0.57	2.9	3.18
Electronic Resources	1.6	0.2	2.1	0.1	-3.81	4.5	2.57
Manuscripts and Archives	1.1	0.2	0.0	0.0			
Miscellaneous	2.8	0.5	0.9	0.0	5.91	4.0	2.78
Development and PR	0.8	0.0	0.7	0.0	14.14	0.6	12.71
Major Projects	2.0	0.5	0.2	0.0	5.52	1.4	4.30

allocated proportionately both to the Product Centers in which its staff worked and down to all units supervised.

Table 5 demonstrates how Product and Service Center costs grow when Overhead Center costs are allocated to them. Because Leave is fairly uniform across a library, variance results more from the amount of staff time spent in Automation and Systems and in Administrative and Support Services. The second column for each library shows the total cost for each Product and Service Center after the Overhead Center costs are spread to each center. The third column, Increase, gives the proportion by which each center grew because of the overhead spreading. By looking at how overhead is

spread, it is possible to identify services that have higher overhead costs.

Overhead support for Product and Service Centers varies between the two libraries. For instance, while User Services at the two libraries is similar in percent of time and percent of cost (without overhead), once the overhead costs are allocated, a larger difference emerges. User Services activities at Notre Dame are requiring more overhead support than at Vanderbilt. The reverse is true for Collections; Notre Dame has less overhead costs than Vanderbilt. Access has more overhead costs at Notre Dame, and Materials is similar at both libraries. Major Projects at Vanderbilt is a strategic planning process, with a high

proportion of senior management staff involved. Once all costs are applied, Major Projects emerges as Vanderbilt's fifth most expensive center (thirteenth in time).

In both libraries, the User Services category grew by the largest percentage when overhead was spread (+13.6 percent at Vanderbilt, +17.4 percent at Notre Dame). At both libraries, the User Assistance Center showed the greatest increase once overhead is spread (+6.6 percent at Vanderbilt, +9.4 percent at Notre Dame). Second place for center cost increase was Collection Development at Vanderbilt (+6.2 percent) and Cataloging at Notre Dame (+7.4 percent). Third place at both libraries was Acquisitions (+5.9 percent at Vanderbilt, +5.3 percent at Notre Dame). Table 6 shows Product and Service Centers in rank order once the Overhead Center costs are spread.

Distribution of Staff Time by Tasks

Every center is divided into tasks to allow a micro look at library operations, and there are more than two hundred defined tasks. Data can be collected at the center level, the task level, or as a mix of the two. Vanderbilt collected all of its staff time at the task level, but 8.6 percent of Notre Dame's staff did not, instead collecting time only at the center level. When comparing tasks between the two libraries, this difference should be considered. Also, greater precision in definitions and more discussions between participating libraries would enhance data collection and thus comparisons at the micro level.

Each center has tasks that are unique to that center, such as Acquisitions Receiving, Copy Cataloging, Collection Policy, Digitization, Reference Assistance, and so on. Besides the tasks that are unique to each center, there is a set of uniform tasks that appear in every center. They are:

- Training, Revision, Procedures, and Policies;
- Consulting and Problems;
- Administrative Work;
- Meetings; and
- Other, used for unusual activities that are not identified by the center definitions.

By adding the task time spent in these uniform tasks for all centers, the total time spent at the uniform tasks can be determined. Table 7 shows that Vanderbilt spent 23.7 percent of an average week's time in these five common tasks, while Notre Dame's average time was 21.4 percent.

Table 2. Centers in Rank Order by Percent of Time in a Week, Two Sample Week Averages

Vanderbilt	(%)	Notre Dame	(%)
Admin and Support Services	23.3	Admin and Support Services	19.9
Acquisitions	10.7	Cataloging	11.9
User Assistance	8.7	Acquisitions	9.9
Leave	8.2	Leave	8.8
Automation and Systems	6.8	User Assistance	8.1
Circulation	6.6	Automation and Systems	6.9
Cataloging	6.5	Circulation	6.6
Storage and Stacks	5.6	Storage and Stacks	4.9
Collection Development	4.4	Preservation	4.6
ILL	4.2	Collection Development	4.5
Preservation	3.3	ILL	3.2
Catalog Maintenance	2.3	Catalog Maintenance	2.9
Major Projects	2.0	Volume Preparation	2.2
Volume Preparation	1.7	Electronic Resources	2.1
Electronic Resources	1.6	Digital Collections	1.3
Digital Collections	1.5	Instruction	1.3
Manuscripts and Archives	1.1	Development and PR	0.7
Development and PR	0.8	Major Projects	0.2
Instruction	0.8	Manuscripts and Archives	0.0

Administrative Work is the largest task at both libraries. It includes planning and strategizing, evaluations and assessment, and reports and memos as well as overseeing operations and services and administrative reading. Meetings is the next largest uniform task, followed by Consulting and Problem Solving. Training takes the least time at both libraries. This, too, is a broad group of tasks including not only training and revision activities, but also all procedure and policy documentation. If work is completed during training, it is counted in the task and not as training.

As noted, beyond the uniform tasks, each center has a series of unique tasks that are exclusive to the center. Vanderbilt spends the remaining 76.3 percent of the week's time in these unique tasks, while the unique tasks account for only 70.1 percent of Notre Dame's time. Comparing the results from the two libraries should be done with care, because, as shown in table 7, 8.6 percent of Notre Dame staff time was not tracked at the task level.

Table 8 shows the top ten unique tasks at each library. By comparing the results of table 7 to table 8, it is clear that the total time spent in the uniform tasks of Administrative Work or Meetings at each library accounts for more time than any unique tasks. While it may seem that General Desk Assistance at Vanderbilt or Copy Cataloging at Notre Dame are taking a large chunk of time, neither of these accounts for as much time as each library is spending in either Administrative Work or Meetings.

The following five unique tasks made the top ten at both libraries:

Table 3. Percent of Total Weekly Cost, Two Sample Week Averages

	% Weekly Cost		Cost per Hour (\$)	
	Vanderbilt	Notre Dame	Vanderbilt	Notre Dame
Overhead	44.7	43.3		
Admin and Support Services	28.5	25.1	28.23	25.82
Automation and Systems	7.7	8.2	26.20	24.23
Leave	8.5	10.0	23.74	23.29
User Services	15.7	16.1		
Circulation	4.7	4.6	16.40	14.40
ILL	3.0	2.3	16.78	14.87
Instruction	0.9	1.7	26.84	27.60
User Assistance	7.1	7.4	18.70	18.68
Collections	14.6	15.9		
Acquisitions	8.6	9.3	18.55	19.04
Collection Development	6.1	6.6	32.14	30.39
Access	8.5	12.9		
Cataloging	6.4	10.9	22.46	18.91
Catalog Maintenance	2.1	2.0	21.10	14.39
Materials	6.9	7.4		
Preservation	2.6	3.9	17.90	17.53
Storage and Stacks	3.5	2.5	14.43	10.59
Volume Preparation	0.8	1.0	10.97	9.00
Special Resources	3.9	3.3		
Digital Collections	1.2	0.9	17.99	14.10
Electronic Resources	2.0	2.4	28.99	23.20
Manuscripts and Archives	0.8	0.0	17.62	
Miscellaneous	5.6	1.1		
Development and PR	1.0	0.9	27.92	26.62
Major Projects	4.7	0.2	52.83	22.36
Average Cost per Hour			23.05	20.50

- Non-reserve Circulations;
- Shelf Maintenance: shelving and reading;
- Administrative and Support Services Office Management;
- Copy Cataloging; and
- Building Activities.

Distribution by Employee Categories

Each library coded its data by uniform employee categories: exempt staff and non-exempt staff; the latter includes student employees. Exempt staff is the group not restricted by federal forty-hour week labor regulations.

Table 9 shows the sample week averages for exempt and non-exempt staff at each library. While there is more variance at this level of detail, there is still a strong correlation in the way the two categories of staff are allocated across library activities. At the two libraries there is a greater correlation in the distribution of the exempt staff and more variance with the non-exempt staff.

Cataloging, which has the greatest variance at the center level, shows that Notre Dame has a higher percent of non-exempt staff involved in cataloging. While Acquisitions is very similar at the center level, at this finer level the data shows that Vanderbilt has more non-exempt staff, and Notre Dame has more exempt staff involved in the activity.

Cost per Unit

Costs per unit were calculated for the Interlibrary Loan and Document Delivery, Circulating Materials, and Cataloging Centers. These unit costs are based on only two sample weeks. The unit cost is determined by dividing the entire center costs by the number of production units.¹¹ The costs resulting from the Product Center activities and from the related Overhead Center cost are presented separately in table 10. The total cost is the sum of both.

ILL costs are within the ranges calculated by the ARL study. The Cataloging costs also fall into the ranges calculated during the Technical Services Time and Cost Study mentioned earlier. The Circulating Materials costs are new. The ranges demonstrate the high and low cost at each library.

Observations about the Results

The two libraries are medium-sized, academic research libraries at private institutions. Though each has its distinct attributes, they share a sameness of mission and delivery of collections and services to their constituencies. It is not surprising, then, that their overall profiles of how time is distributed to library functions are likewise similar, although some differences in time and cost appeared in certain areas, such as cataloging. The differences could result from any number of factors, including salary scales, category of employee carrying out the activity, library priorities, level of service delivered to library users, design of work flows, or use of library vendors. While a reassuring note can be found in the similarities, the differences offer interesting opportunities for further investigation. For example, with the data from this study, one of the libraries could choose to explore the differences in staffing levels for cataloging.

Some of the results were unexpected. Both libraries maintain a strong commitment to staff development and training. It was surprising to see how little time during these two weeks was recorded as time spent in the training tasks (1.3 percent of total weekly time at Vanderbilt, and 2.5 percent at Notre Dame). It should be noted that for the time study, tasks concluding in an actual result are considered doing, and thus recorded as part of that task, not as part of training. It is impossible to know how much hands-on, real work training would add to the percent of training time, but it probably would increase the overall time spent. The results might also suggest that training occurs in more periodic cycles—for example, when new services are

Table 4. Centers in Rank Order by Cost, Percent of Total Weekly Cost, Two Sample Week Averages

Vanderbilt	(%)	Notre Dame	(%)
Admin and Support Services	28.5	Admin and Support Services	25.1
Acquisitions	8.6	Cataloging	10.9
Leave	8.5	Leave	10.0
Automation and Systems	7.7	Acquisitions	9.2
User Assistance	7.1	Automation and Systems	8.2
Cataloging	6.4	User Assistance	7.4
Collection Development	6.1	Collection Development	6.6
Circulation	4.7	Circulation	4.6
Major Projects	4.7	Preservation	3.9
Storage and Stacks	3.5	Storage and Stacks	2.5
ILL	3.0	Electronic Resources	2.4
Preservation	2.6	ILL	2.3
Catalog Maintenance	2.1	Catalog Maintenance	2.0
Electronic Resources	2.0	Instruction	1.7
Digital Collections	1.2	Volume Preparation	1.0
Development and PR	1.0	Digital Collections	0.9
Instruction	0.9	Development and PR	0.9
Volume Preparation	0.8	Major Projects	0.2
Manuscripts and Archives	0.8	Manuscripts and Archives	0.0

introduced or library system upgrades take place—than in every week cycles. Data from two weeks does not tell the full story, but when coupled with knowledge of how the training programs are structured, the data can help to fill in the picture regarding time spent on training. Because of these findings, Notre Dame is studying its staff training programs to better understand them and expand them as necessary.

On the other hand, the results showing that the Overhead Center costs of Administrative and Support Services and Automation and Systems (table 3) are very expensive activities were surprising in just how expensive they are. When the time spent in all centers at administrative activities and meetings is compiled, it is clear that a large percentage of time at both libraries goes into these two activities. More time is spent at these activities than in some of the major service activities of libraries, including such tasks as General Desk Assistance, Copy Cataloging, Acquisitions Receiving, Circulating Non-reserve Materials, Shelving Books and Shelf Reading, ILL Borrowing, or Reference Assistance. Like other large, complex organizations, libraries require a support system for effective functioning. It does not necessarily follow that the support costs are too large for either library. However, the results do provide the opportunity for the libraries to assess the amount of time needed for support and to explore alternatives for reducing the time spent on support activities or for ensuring support activities are used most effectively.

Table 5. Overhead Centers Cost Spreading: Product and Service Centers Growth, Percent of Total Weekly Cost, Two Sample Week Averages

	Vanderbilt (%)			Notre Dame (%)		
Overhead Centers	44.7			43.3		
Admin and Support Services	28.5			25.1		
Automation and Systems	7.7			8.2		
Leave	8.5			10.0		
	Without Overhead (%)	Overhead Center Costs Spread		Without Overhead (%)	Overhead Center Costs Spread	
Product Centers	(%)	Total (%)	Increase (%)	(%)	Total (%)	Increase (%)
User Services	15.7	29.3	13.6	16.1	33.4	17.4
Circulation	4.7	8.5	3.9	4.6	9.3	4.7
ILL	3.0	5.3	2.3	2.3	3.9	1.6
Instruction	0.9	1.7	0.9	1.7	3.4	1.7
User Assistance	7.1	13.7	6.6	7.4	16.8	9.4
Collections	14.6	26.7	12.1	15.9	25.6	9.7
Acquisitions	8.6	14.5	5.9	9.2	14.6	5.3
Collection Development	6.1	12.2	6.2	6.6	11.0	4.4
Access	8.5	15.1	6.6	13.0	21.9	8.9
Cataloging	6.4	11.2	4.9	10.9	18.3	7.4
Catalog Maintenance	2.1	3.8	1.7	2.0	3.5	1.5
Materials	6.9	11.9	5.0	7.4	12.1	4.6
Preservation	2.6	4.0	1.5	3.9	6.0	2.1
Storage and Stacks	3.5	6.4	2.9	2.5	4.5	1.9
Volume Preparation	0.8	1.4	0.6	1.0	1.6	0.6
Special Resources	3.9	7.2	3.3	3.3	5.6	2.2
Digital Collections	1.2	2.0	0.9	0.9	1.5	0.6
Electronic Resources	2.0	3.7	1.8	2.4	4.1	1.6
Manuscripts and Archives	0.8	1.5	0.7	0.0	0.0	0.0
Miscellaneous	5.6	9.8	4.2	1.1	1.5	0.4
Development and PR	1.0	1.6	0.7	0.9	1.1	0.2
Major Projects	4.7	8.2	3.5	0.2	0.4	0.2
			44.7			43.3

Note: Numbers do not appear to add up due to rounding.

Internal Library Assessment

Understanding user satisfaction with library collections and services leads the way in assessing how well the library is doing in meeting its needs and expectations. The information gained from rigorously tested assessment tools such as LibQUAL+ has enabled libraries to identify areas of high, medium, and low service quality.¹² Time and cost data is a tool that enables the library to understand its performance from another view—its resource allocation. Are the library priorities accurately reflected in the staffing patterns.

Is the library and, by extension, its users, well-served by the distribution of staff to library functions? A knowledge of which service areas in a library are entailing higher overhead costs is important information in assessing how resources are matched to library priorities. Further, the time and cost information will help in determining whether a reallocation of resources or priorities (to ensure priorities can be well carried out) is needed.

For example, at Notre Dame, the staff in one branch library used the time study results to find out how much time was being spent on a specific task and then

to assess whether the task being done was worth the time spent. They concluded that too much time was being spent, that the time represented a lost opportunity, and so they discontinued the task. Clearly, they had a hunch prior to the study, but they were able to use the data to support what they wanted to do. Had the data shown very little time spent, their response might have been different, but the data did help them decide how best to invest their time.

At Vanderbilt, several of the libraries were concerned about the levels of activities at the service desks when staff and students were not helping patrons. The General Desk Assistance task was used to capture the amount of time that staff and students were available for providing user assistance, but where no actual library tasks, user assistance or some other, were being performed; for example, studying, Web surfing, and so on. While it was expected that there would be some time investment in this task, it was a real surprise to find that it was the task with the greatest amount of time allocated. As a result of the information gained, several libraries were able to restructure desk activities during slow periods to ensure that more library work could be accomplished.

Library budgets typically show resource allocation in the major categories of salaries, library materials, and all other operating expenses, which makes it difficult to get information on what services cost. A decade ago, the major ARL study on the costs of interlibrary loan services gathered the necessary data by adding together the costs of resources allocated to that function, including staff, supplies, hardware and software, and other associated costs.¹³ For the costs of staff time, a time and cost study component would have provided another means of determining staff costs. Especially in those libraries in which staff are involved in interlibrary loan activities for some, but not all, of their time, the time and cost study data would have been very useful. It also would have provided fuller information about overhead costs.

Time and cost studies figure prominently in library history. One challenge, however, has been the difficulty of comparing data collected by individual libraries. LibQUAL+ has demonstrated the value of having a consistent pool of data as a reference point for how an individual library is performing. One specific purpose is to identify best practices in library service. Likewise, developing and using a standardized, rigorously tested time and cost tool offers the opportunity to identify the best, most cost-effective practices in creating these library services. There are many

Table 6. Product Centers with Overhead Center Costs Spread, Percent of Total Weekly Cost, Two Sample Week Averages

Vanderbilt	(%)	Notre Dame	(%)
Acquisitions	8.6	Cataloging	10.9
User Assistance	7.1	Acquisitions	9.2
Cataloging	6.4	User Assistance	7.4
Collection Development	6.1	Collection Development	6.6
Circulation	4.7	Circulation	4.6
Major Projects	4.7	Preservation	3.9
Storage and Stacks	3.5	Storage and Stacks	2.5
ILL	3.0	Electronic Resources	2.4
Preservation	2.6	ILL	2.3
Catalog Maintenance	2.1	Catalog Maintenance	2.0
Electronic Resources	2.0	Instruction	1.7
Digital Collections	1.2	Volume Preparation	1.0
Development and PR	1.0	Digital Collections	0.9
Instruction	0.9	Development and PR	0.9
Volume Preparation	0.8	Major Projects	0.2
Manuscripts and Archives	0.8	Manuscripts and Archives	0.0

Table 7. Uniform Task Time Distribution, Percentage of Time in a Week, Two Sample Week Averages

	Vanderbilt (%)	Notre Dame (%)
Uniform Tasks: Time from all Centers		
Administrative Work	10.8	7.5
Meetings	5.7	5.4
Consulting and Problem Solving	3.8	3.4
Other	2.2	2.7
Training, Procedures and Policies	1.3	2.5
Time in all Uniform Tasks	23.7	21.4
Time in Unique Tasks	76.3	70.1
No Tasks: Time only at Center Level	0.0	8.6

demands on the time of all staff, and over the years, there have been many changes in the activities of exempt and non-exempt staff alike. Particularly as libraries look to developing new library services, it is important to know how the time of staff is being used. Are there activities that could be shifted among staff? Are there activities where a more efficient workflow could be implemented? Are there activities that exempt staff are doing in one library that are being done by non-exempt staff in other libraries, and does this represent an opportunity to free up time for the development of new services? Being able to compare staff responsibilities between libraries is a useful tool in evaluating assignments for librarians and staff alike. The data from this study shows that there is a greater correlation of exempt staff assignments and less for non-exempt. More knowledge of how non-exempt staff is being used successfully could aid in freeing exempt staff time for the development of new service areas.

The time and cost data also shows the effect of cooperative services on the cost of library activities. For many years, the cost of cataloging was a concern among library directors, but the introduction of copy cataloging, especially since OCLC came on the scene, has significantly reduced the unit cost. Collection development is another expensive activity at both libraries. Vendor approval plans provide support in selecting materials, but unlike cataloging, collection development has little interlibrary collaborative support, yet it is an activity that is repeated at every institution, sometimes to acquire the same materials. The time and cost data alone will not provide full answers, but it does indicate areas of high costs where there might be opportunities for change or collaboration.

Suggestions for Targeting Library Needs

Time and cost studies can lead to changes within the organization, thus linking issues of implementation with potential outcomes. The usual procedures for introducing new projects into the library, which include meeting with staff to define the purpose and discuss how the results will be used, are essential to completing a successful study. Specifically, it is helpful to discuss what the library wants to learn from the study.

At Notre Dame, that included the following questions:

- How much time is spent on training and professional development?
- How much time is spent in meetings of all types?
- Overall, what activities are done by each group of staff? What activities are done by two (or more) levels of staff?

At Vanderbilt, an active strategic planning process was underway; data was needed on which to base decisions about the feasibility of new services. What can be given up, and how much time will it save, are constant questions in reviewing the appropriateness of staff allocation.

When library budgets were growing at a respectable pace, studies of library activities were seen as less threatening to staff positions, library units, or activities. Today, when all budgets are under fire, looking ahead to what might be learned is one way of addressing staff concerns about the study. Finding out how much time is spent in meetings does not mean all meetings will stop. It could,

Table 8. Top 10 Unique Tasks, Percentage of Time in a Week, Two Sample Week Averages

Center	Unique Tasks	(%)
Vanderbilt		
User Assistance	General Desk Assistance	4.7
Acquisitions	Receiving	4.7
Circulating Materials	Non-reserves	3.2
Storage and Stacks	Shelving and shelf reading	3.1
Admin and Support Services	Office Management	2.9
Cataloging	Copy Cataloging	2.7
Admin and Sup Services	Business Activities	2.5
ILL and Doc Delivery	Borrowing activities	2.3
User Assistance	Reference Assistance	2.0
Admin and Support Services	Building Activities	1.8
	Total Time in Top 10	29.9
Notre Dame		
Cataloging	Copy Cataloging	5.0
Admin and Support Services	Office Man and Time Study Work	3.3
Admin and Support Services	Building Activities	2.9
Storage and Stacks	Shelving and shelf reading	2.8
Acquisitions	Record Maintenance	2.1
Automation and Systems	Solving Problems and Maintaining SW/HW	1.8
Cataloging	Recataloging	1.8
Circulating Materials	Non-reserves	1.7
Acquisitions	Ordering	1.7
Volume Preparation	Physical Shelf Preparation	1.7
	Total Time in Top 10	24.8

however, lead to a new emphasis on enabling productive, shorter meetings.

Institutionalization of regular, ongoing data collecting ensures that data will be available when needed; its reliability improves with repetition as the staff absorbs it as a familiar activity; and the time required to collect the data diminishes as the process becomes more standardized and less problematic.

Conducting a time and cost study requires a commitment and resources from the library. Like other studies, the benefits are realized only over time, as library staff and managers use the data to change current activities. Every library has its own life cycle, and, just as the results from other assessment tools are used selectively, it is important for each library to identify high-payback areas. The existence of data across libraries, collected in a standardized manner, supports library benchmarking and identification of best practices, which, in turn, is one way of identifying high-payback areas for further exploration.

Concluding Remarks

A time and cost study is not a quick fix, nor is it a substitute for experienced, thoughtful judgment on the part

Table 9. Exempt and Non-Exempt Staff Comparisons, Percentage of Time in a Week, Two Sample Week Averages

	Exempt Staff		Non-Exempt Staff	
	Vanderbilt (%)	Notre Dame (%)	Vanderbilt (%)	Notre Dame (%)
Overhead	22.4	21.1	15.9	14.5
Admin and Support Services	11.6	11.3	11.6	8.6
Automation and Systems	6.3	5.6	0.5	1.3
Leave	4.5	4.3	3.8	4.5
User Services	6.5	6.6	13.7	12.6
Circulation	1.4	1.2	5.1	5.3
ILL	1.3	0.6	2.9	2.6
Instruction	0.7	1.1	0.0	0.1
User Assistance	3.0	3.6	5.7	4.5
Collections	4.4	5.9	10.6	8.5
Acquisitions	1.0	2.2	9.6	7.8
Collection Development	3.4	3.8	1.0	0.7
Access	4.5	4.5	4.4	10.2
Cataloging	3.7	4.1	2.8	7.8
Catalog Maintenance	0.7	0.5	1.6	2.4
Special Resources	2.3	2.3	1.8	1.1
Digital Collections	0.5	0.6	1.0	0.7
Electronic Resources	1.5	1.7	0.1	0.4
Manuscripts and Archives	0.3	0.0	0.8	0.0
Materials	1.5	1.4	9.1	10.3
Preservation	0.6	0.7	2.7	3.8
Storage and Stacks	0.9	0.4	4.8	4.5
Volume Preparation	0.1	0.2	1.7	2.0
Miscellaneous	2.5	0.7	0.3	0.2
Development and PR	0.5	0.5	0.3	0.2
Major Projects	2.0	0.2	0.1	0.0
Totals	44.0	42.5	56.0	57.5

Table 10. Unit Costs, Two Sample Week Averages

Activity	Product Center (\$)	Overhead Centers (\$)	Total Cost (\$)
Item Circulated	1.29–1.65	1.32–1.37	2.59–3.02
Filled ILL Transaction	4.61–7.05	3.08–5.25	7.69–12.30
Title Cataloged	13.69–15.06	10.17–10.50	24.19–25.23

of library management and staff. Time study data is not a blueprint for change, but, as an indicator of how resources are being allocated, it is a tool that offers the opportunity to bring data into the process of improving the creation of library services. It supports informed decision-making because it shows the relationship between service costs and the activities that cause the costs.

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References and Notes

1. Jennifer Ellis-Newman and Peter Robinson, "The Cost of Library Services: Activity-based Costing in an Australian Academic Library," *The Journal of Academic Librarianship* 24, no. 5 (Sept. 1998): 373-79; Jennifer Ellis-Newman, "Activity-Based Costing in User Services of an Academic Library," *Library Trends* 51, no. 3 (Jan. 2003): 333-48.
2. Roswitha Poll, "Analyzing Costs in Libraries," *The Bottom Line: Managing Library Finances* 14, no. 3 (2001): 185-91.
3. Stephen R. Lawrence et al., "Life Cycle Costs of Library Collections: Creation of Effective Performance and Cost Metrics for Library Resources," *College and Research Libraries* 62, no. 6 (Nov. 2001): 541-53.
4. Dilys Morris while assistant director of technical services at Iowa State University conducted a study (1998-2001) with five libraries (Iowa State, University of Missouri at Kansas City, University of California at Santa Barbara, Cornell University, and Vanderbilt University) to compare technical services time and costs. The libraries evaluated and improved the methods developed at Iowa State University and gathered data based on uniform time and cost centers and tasks.
5. TCA DecisionBase software is a product of the Chronos Group, Inc. that was tested and used during the Technical Services Time and Cost Study. It uses Access 2000 or 2001 and is available for sale from the Chronos Group.
6. Notre Dame developed and used a software application to allow each staff member to enter anonymously the time worked by tasks.
7. There is no T-Test for Manuscripts & Archives since the center was not used at Notre Dame.
8. It was not possible to determine the number of employees involved in each center. Instead a more conservative estimate of FTE's was calculated by dividing the number of hours by forty and rounding up.
9. The University Archives is not part of the University Libraries at Notre Dame.
10. Allocating overhead costs is an accounting function. The allocation could be based on various factors, such as the number of employees or the amount of time. In this study the cost of each center is used to determine the amount of overhead allocated, which is a usual practice.
11. The normal method of determining unit costs is to enter the actual weekly production units (for example, the number of titles cataloged), but for this study actual production units were not kept for the sample week. Instead the annual production total was divided by fifty-two and used as an average weekly production unit.
12. Association of Research Libraries, "Welcome to LibQUAL+!" www.libqual.org (accessed Sept. 15, 2005).
13. ARL Access Program, "1995-1997 ILL/DD Performance Measures Study," www.arl.org/access/illdd/illdd.shtml (accessed Sept. 15, 2005).

Appendix A. Staff Allocations Project Time Centers 2004

Overhead Centers

(activities not resulting in products or services but supporting provision of products and services)

Administrative and Support Services

AS00 All Center Time
 AS01 Training, Procedures, and Policies
 AS03 Administrative Work
 AS04 Meetings: Not Related to a Product and Service Center
 AS05 Other
 AS06 Professional Work
 AS07 General Reading
 AS08 Staff Development
 AS09 Time Study Activities
 AS10 Office Management: Routine Activities
 AS11 Business Activities
 AS12 Building Activities
 AS13 Grants Preparation and Maintenance
 AS14 Personnel Activities
 AS15 Budget Activities
 AS16 Copyright Management

Automation and Systems

AU00 All Center Time

AU01 Training, Procedures, and Policies
 AU02 Consulting
 AU03 Administrative Work
 AU04 Meetings
 AU05 Other
 AU06 Solving Problems and Maintaining Software and Hardware
 AU07 Installing Software and Hardware
 AU08 Programming and Application Development
 AU09 Network and Server Management
 AU10 Workstation Management
 AU11 Personal Computer Management

Leave

LV00 All Center Time
 LV01 Vacation
 LV02 Sick Leave
 LV03 Holiday

Product and Service Centers

Acquisitions

AC00 All Center Time
 AC01 Training, Revision, Procedures, and Policies
 AC02 Consulting and Problems

- AC03 Administrative Work
- AC04 Meetings
- AC05 Other
- AC06 Searching
- AC07 Ordering
- AC08 Record Maintenance
 - AC08.1 Record Maintenance—Firm Orders, Continuations
 - AC08.2 Record Maintenance—Serials, Periodicals
- AC09 Receiving
 - AC09.1 Receiving—Firm Orders, Continuations, Approvals
 - AC09.2 Receiving—Serials, Periodicals
- AC10 Payments
 - AC10.1 Payments—OPAC—Firm Orders, Continuations, Approvals
 - AC10.2 Payments—OPAC—Serials, Periodicals
 - AC10.3 Payments

Cataloging

- CA00 All Time Center
- CA01 Training, Revision, Procedures, and Policies
- CA02 Consulting and Problems
- CA03 Administrative Work
- CA04 Meetings
- CA05 Other
- CA06 Authority Work
- CA07 Copy Cataloging
- CA08 Full-level Original Cataloging
- CA09 Minimal-level Original Cataloging
- CA10 Recataloging
- CA11 Enhanced Access
- CA12 Outsourced Cataloging
- CA13 Passing Records into Local System
- CA14 Call Number Verification
- CA15 Editing and Inputting Catalog Records

Collection Development and Management

(center does not include pre-order searching, acquisition record creation and maintenance, or fund accounting, all of which are covered in the acquisitions center)

- CD00 All Center Time
- CD01 Training, Revision, Procedures, and Policies
- CD02 Consulting and Problems
- CD03 Administrative Work
- CD04 Meetings
- CD05 Other
- CD06 Selection
- CD07 Approval Review
- CD08 Collection Review
- CD09 Collection Policy
- CD10 Records
- CD11 Vendor Selection Profiles
- CD12 Gifts

Catalog Maintenance

- CM00 All Center Time
- CM01 Training, Revision, Procedures, and Policies
- CM02 Consulting and Problems
- CM03 Administrative Work
- CM04 Meetings

- CM05 Other
- CM06 Card Maintenance
- CM07 Online Editing
- CM08 Shelf Listing
- CM09 Database Clean-up Projects
- CM10 Holdings and Location Changes
- CM11 Item Record Creation
- CM12 End Authority Work

Circulating Materials

(includes media and reserve services)

- CR00 All Center Time
- CR01 Training, Revision, Procedures, and Policies
- CR02 Consulting and Problems
- CR03 Administrative Work
- CR04 Meetings
- CR05 Other
- CR06 Circulating Materials (non-reserve)
- CR07 Circulating Reserve Materials
- CR08 Delivery services
- CR09 Records (non-reserve)
- CR10 Reserve Records
- CR11 Searching for Materials (non-reserve)
- CR12 Searching for Reserve Materials
- CR13 Electronic Reserves Creation and Maintenance
- CR14 Photocopy Services
- CR15 Media Materials Creation and Maintenance

Digital Collections

(creation and management center limited to local digitization)

- DC00 All Center Time
- DC01 Training, Revision, Procedures, and Policies
- DC02 Consulting and problems
- DC03 Administrative Work
- DC04 Meetings
- DC05 Other
- DC06 Project Planning
- DC07 Collection Development and Management
- DC08 Outsourced Services
- DC09 Management and Maintenance
- DC10 Digitization
- DC11 Access Tools: Creation and Management

Development and Public Relations

- DP00 All Center Time
- DP01 Training, Revision, Procedures, and Policies
- DP02 Consulting and Problems
- DP03 Administrative Work
- DP04 Meetings
- DP05 Other
- DP06 Publications: Editing, Preparing, Distributing
- DP07 Donor Relations: Development and Maintenance
- DP08 Fund-Raising
- DP09 Celebrations
- DP10 Friends Groups
- DP11 Marketing

Electronic Resources

(does not include work related to locally digitized material)

- ER00 All Center Time

ER01 Training, Revision, Procedures, and Policies
ER02 Consulting and Problems
ER03 Administrative Work
ER04 Meetings
ER05 Other
ER06 Content and Access Tools
ER07 Programming and Application Development
ER08 User Materials: Creation and Maintenance

Interlibrary Loan and Document Delivery

IL00 All Center Time
IL01 Training, Revision, Procedures, and Policies
IL02 Consulting and Problems
IL03 Administrative Work
IL04 Meetings
IL05 Other
IL06 Lending Activities
IL07 Borrowing activities

Instruction

IN00 All Center Time
IN01 Training, Revision, Procedures, and Policies
IN02 Consulting and Problems
IN03 Administrative Work
IN04 Meetings
IN05 Other
IN06 Introductory Classes
IN07 Subject-related instruction
IN08 Conferences
IN09 Class Preparation

Major Project

MP00 All Center Time
MP01 Training, Revision, Procedures, and Policies
MP02 Consulting and Problems
MP03 Administrative Work
MP04 Meetings
MP05 Other
Note: When using this center, you will need to define project-specific tasks

Manuscripts and Archives

MA00 All Center Time
MA01 Training, Revision, Procedures, and Policies
MA02 Consulting and Problems
MA03 Administrative Work
MA04 Meetings
MA05 Other
MA06 Manuscript Processing
 MA06.1 Acquisitions and Appraisal
 MA06.2 Arrangement
 MA06.3 Description
MA07 Archive Processing
 MA07.1 Acquisitions and Appraisal
 MA07.2 Arrangement
 MA07.3 Description

Preservation

PR00 All Center Time
PR01 Training, Revision, Procedures, and Policies

PR02 Consulting and Problems
PR03 Administrative Work
PR04 Meetings
PR05 Other
PR06 Pamphlet Binding and Stiffening
PR07 Collation and Binding Preparation
PR08 Conservation Treatment and Repair
PR09 Brittle Book Processing and Reformatting
PR10 Shelf and Book Cleaning
PR11 Collection Surveying
PR12 Disaster Preparedness and Response
PR13 Outreach Services
PR14 Mass Deacidification
PR15 Environmental Monitoring and Control
PR16 Distribution

Storage and Stacks Maintenance

SS00 All Center Time
SS01 Training, Revision, Procedures, and Policies
SS02 Consulting and Problems
SS03 Administrative Work
SS04 Meetings
SS05 Other
SS06 Shelf Maintenance: Reading and Shelving
SS07 Stacks Shifting
SS08 Transfers
SS09 Records

User Assistance

(if staff working at a public desk are performing other work, record the time in the appropriate center for the work being performed)

UA00 All Center Time
UA01 Training, Revision, Procedures, and Policies
UA02 Consulting and Problems
UA03 Administrative Work
UA04 Meetings
UA05 Other
UA06 Reference Assistance
UA07 Directional Assistance
UA08 Research Consultation Services
UA09 User Materials: Creation
UA10 User Materials: Maintenance
UA11 General Desk Assistance

Volume Preparation

VP00 All Center Time
VP01 Training, Revision, Procedures, and Policies
VP02 Consulting and Problems
VP03 Administrative Work
VP04 Meetings
VP05 Other
VP06 Physical Shelf Preparation
 VP06.1 Physical Shelf Preparation: Monographs
 VP06.2 Physical Shelf Preparation: Serials
VP07 Distribution