

September 29, 2009

To: Five Colleges Libraries
From: Jay Schafer, Chair Five Colleges Librarians Council
Subject: Technical Services Consolidation Task Force Report 1

The Five Colleges Librarians Council (FCLC) has received the Technical Services Consolidation Task Force's first report. After review of the report at our last meeting and asking the Chair to make minor changes or add clarification in some sections, FCLC is releasing this report for review by library staff and other appropriate individuals on each campus.

It is important to note that this is just the first step in an effort to plan for the centralization of technical services functions. It specifically looks at the acquisitions, cataloging and physical processing of books (monographs). As noted in the report, the Task Force used the best available data at the time to compare costs and workflows across institutions. FCLC has asked for updates with FY 2009 data, but in the interest of time, we are distributing the report as submitted. Future Task Force reports will include this updated information. .

Please read this report knowing that it just the first step in an ongoing process. Many of us tend to be driven by details. This document is attempting to set an initial framework for the project, report on the Task Force's work thus far, and indicate the next areas for investigation. There's more work to be done. This report does not address all the details we'll need to know but it's a start.

Your feedback and input is critical to informing the process. Please send comments to your FCLC representative or to me as FCLC Chair by October 19 so that they may be incorporated into the planning process. In the meantime, the Task Force will continue discussions about other aspects of the workflow for books such as gifts, theses and dissertations, special collections, withdrawals and Depository transfers.

Finally, FCLC wishes to thank Susan Dayall (Chair), Susan Sheridan (Amherst), Dan Schnurr (Hampshire), Gail Scanlon (Mount Holyoke), Jim Montgomery (Smith), Gary Hough (UMass), and Susan Perry, consultant, for their dedicated and groundbreaking work on this Task Force.

**Technical Services Consolidation Task Force
Report 1, 9/9/09; rev. 9/23/09**

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1. Charge and membership

Charge to the Technical Services Consolidation Task Force, 4/13/09

This Task Force will plan for the centralization of technical services functions including acquisitions, cataloging and physical processing of library materials. The goal of this project is to enable increased efficiency and decreased unit cost of operations in the Five College libraries through a single, consolidated work flow, and post-processing distribution of true shelf-ready library materials to each institution. Planning for a workflow covering books should be completed and ready to implement as of July 1, 2010. Future goals include adding other monographic formats as well as serials and electronic resources to the consolidated workflow by July 2011.

The Task Force will call upon other library staff with detailed knowledge of the various processes involved through the formation of subcommittees, including one to examine ALEPH system configuration and needed changes. The Task Force will also keep all institutions apprised of its progress in this shared project through its Five College membership and regular communications from its chairperson.

The members of the TSC Task Force are: Susan Dayall, Chair; Susan Sheridan, Amherst; Dan Schnurr, Hampshire; Gail Scanlon, Mount Holyoke; Jim Montgomery, Smith; and Gary Hough, UMass; Susan Perry, Consultant.

2. Meetings

The TSC Task Force began meeting in April 2009, and has met once or twice a month since that time, with data collection assignments between meetings.

Our first effort was to prepare a preliminary cost study for books, comparing librarian, staff and student FTE, staffing costs, and numbers of books processed across our institutions. We based the report on FY2008, the year for which we had full statistics at the time. This report was shared with the Librarians Council and appears as Appendix A.

Included in this cost study were staff FTE and costs for the central processing facility in each institution for the tasks of ordering, receiving, cataloging, and processing monographs. Excluded were staff FTE and costs associated with selection of materials, budget assignment, and invoice coding and transmission to institutional accounts payable, which were deemed to be necessarily maintained as tasks performed at the individual institution. Also excluded were strictly managerial functions.

Our next task involved comparing workflows for books across our institutions, then devising outlines for the two main workflows to be implemented by a joint facility, one with YBP shelf-ready processing, and one for all other material, whether YBP or other vendor. We found general agreement with the steps necessary, with a few variations in current practice, mainly due to different organizational structures. However, these did not prevent us from reaching agreement as to the general outline to be followed. These workflows appear as Appendix B. As will be seen in the workflows, materials selection and budget management (both the assignment of budget codes to requests and the transmission of invoices to institutional accounts payable) remain the responsibility of the individual institution. If direct transmission of invoices from ALEPH to institutional accounts payable is implemented (see the TSC/ALEPH Subcommittee report in Appendix D), this function could probably be added to the central facility as well.

In relation to the workflows, we discussed standards for order review, condition of received material, and cataloging records. Although we have not devised the actual standards, it became clear that we are close enough in current practice that reaching agreement should be very feasible. We also recommend the involvement of the Cataloging Committee in defining the standards for catalog records.

Our last task was to estimate, based on what each institution knows about its acquisitions budget in FY2011, the numbers of books projected to be acquired starting in July 2010. This estimate appears as Appendix C.

2a. TSC/ALEPH Subcommittee

The TSC/ALEPH subcommittee met concurrently to research questions relating to the TSC project and the use of the ALEPH ILS (Integrated Library System). Their charge is as follows:

Charge for TSC/ALEPH Subcommittee, 4/28/2009

This committee should determine the feasibility, procedures and expense (either doing the work in-house or contracting with Ex Libris) of modifying the following ALEPH functions to facilitate the Technical Services Consolidation workflow for both monographs and serials.

1. Utilizing a single bibliographic record for the Five Colleges from a defined date forward.
2. Merging existing bibliographic records to a single bibliographic record, either at once or as a staged process.
3. Allowing central TS staff to receive monographs in each ADM, and create/modify item and holding records.
4. A desirable but not immediately essential project to output invoice information from ALEPH directly to each institution's administrative computer system.

If it is determined that work needs to be done by Ex Libris, the committee will obtain a price quote and a time estimate for any work to be done. This information should be sent to the TSC Task Force by Aug. 31, 2009 so that a grant application can be prepared to support this work.

If it is determined that work can be done by the Five Colleges, the committee will propose a time table and recommend personnel to accomplish the work.

The TSC/ALEPH Committee members are: Stephanie Schmitt, Chair; Jane Beebe, Amherst; Michael Edwards, Hampshire; D. Bonner, Mount Holyoke; Jim Montgomery, Smith, and Mike Allard, UMass.

The TSC/ALEPH Committee explored questions 1 and 2 of their charge, and consulted with Ex Libris as well as OCLC and Backstage Works concerning the re-merging of Five College bibliographic records. They concluded that the costs, both monetary and in staff time, considerably outweighed the benefits of such a project. Since the TSC Committee itself, in devising the shared workflows, came to the conclusion that the re-merge would not be necessary for the project to proceed, we accepted their recommendation. Question 3 is a matter of ALEPH permissions, and should not be an obstacle. Question 4 is already possible from the ALEPH side, but may require programming from the individual institution's administrative computer staff.

The Report of the TSC/ALEPH Committee is included as Appendix D.

3. Estimates

Using the data collected by the committee, the following estimates were prepared:

3a. TSC Delivery.

The current volume of the Five College library delivery system was estimated, and the impact of redistributing the jointly processed materials to their owning libraries was calculated.

Briefly, the TSC project would increase the estimated delivery volume by about one-sixth. Our recommendation would be to increase the delivery to two runs per day in December and May, the times of highest volume for book returns. We also recommend the acquisition of a more suitable vehicle than the existing van, such as a reconditioned UPS truck or something with a lift gate, to increase the efficiency of the delivery. The full TSC Delivery estimate appears as Appendix E.

3b. YBP Processing Costs

Based on the Print Book Estimates in Appendix C, costs for shelf-ready processing from YBP were estimated for each institution based on an estimate of \$1.85 per book. The exact cost will vary depending on the options chosen by each library, but the usual package includes call number label, barcode, two ownership stamps, detection strip and bookplate if desired. We believe YBP will continue to bill each institution directly for this processing, since specifications, barcodes, bookplates, etc. will continue to be institutionally determined and/or supplied. This estimate appears as Appendix F.

3c. TSC FY2011 Staff Estimates

Finally, utilizing all the information collected by the committee in terms of current staffing, workload and volume estimates, the committee prepared an estimate for the number of staff in each of the three categories (professional, clerical and student) needed for the consolidated facility. It is important to reiterate that these estimates cover standard book processing only at this point, and do not include other monographic formats such as sound recordings, DVDs, or most special collections material.

Based on the TSC Cost Study (Appendix A), the Five Colleges employ the following staff in receiving, processing and cataloging standard books:

Professional	3.05 FTE	
Clerical	14.02 FTE	Total: 19.39 FTE
Student	2.32 FTE	

Based on the reduction in volume alone between the Cost Study figures for FY2008 (Appendix A) and the projected volume for FY2011 (Appendix C), with no modification of current technical services practice, that is, no consolidation or pre-processing by YBP, staffing estimates for the Five Colleges would be:

Professional	2.13 FTE	
Clerical	9.81 FTE	Total: 13.56 FTE
Student	1.62 FTE	

However, based on the UMass experience with shelf-ready processing, and the Smith and UMass experience with PromptCat, we further estimate that the staff requirements for the consolidated facility would actually be:

TSC Professional	1.0 FTE	
TSC Clerical	8.0 FTE	Total: 10.5 FTE
TSC Student	1.5 FTE	+
		1 FTE Manager
TSC Manager	1.0 FTE	

Note that managerial personnel were not included in the original TSC Cost Study, and we strongly recommend that the TSC Manager should be a professional cataloger, capable of assisting with the professional cataloging workload.

In making our estimate for the necessary staff, we have included a generous estimate for the clerical staff needed to handle YBP shelf-ready books. UMass considers that less staff time than was estimated would actually be required. This should facilitate the consolidated department, once it is established, taking other monographic print materials (non-YBP sourced) into the established workflow. We still need to further address issues and workflow related to "non-standard" acquisitions and cataloging, such as standing orders, approval plans and gifts.

Detailed reasoning for arriving at these estimates appears in Appendix G, TSC FY2011 Staff Estimates.

Note 1: Note that systems staff for batch loading YBP records into ALEPH are not included in this estimate. This would not be, however, a major time commitment once the system is set up.

Note 2: We also note that cataloging foreign language material benefits from the availability of subject specialists who can contribute language skills.

Note 3: The FCLC notes that the staffing estimates included in this report are insufficient in themselves to calculate unit costs for the combined facility.

3d. A note on OCLC charges.

The TSC Task Force assumes that OCLC will continue to bill each institution separately for its own cataloging expenses even if the work is done in a consolidated facility. Since cataloging is folded in with other expenses such as ILL and consortial e-resource purchases, and since the consolidated facility will update and enter records on behalf of each individual institution, this seems the most logical arrangement.

4. Future Tasks

This document constitutes the first report to the Five College Librarians Council on the work of the TSC Task Force. It will be up to the Librarians Council to determine the next steps, including whether an outside consultant will be engaged to test the validity of this approach.

The Task Force feels that, if the decision is made to proceed with this project, hiring a TSC Manager would be an important first step. The Manager would work with the committee to plan for implementation of the agreed upon workflows in detail, rather than have the committee itself do the detail planning.

The method of staffing and the location of the combined facility will also need to be determined. See Note 2 in section 3c which addresses the need for available foreign language expertise.

Once these are decided upon and the process of workflow conversion is begun, the TSC Task Force can begin planning for other monographic formats such as CDs, DVDs, and music scores.

Further discussion is needed on strategies for joint cataloging of special collections material as well as the best means for dealing with CJK and other non-European foreign languages. We have had only a preliminary discussion of gift collections, processing backlogs and retrospective conversion projects, and more discussion will be required to determine if these can usefully or practically be undertaken by a joint facility. The same holds true for processes involving withdrawing material from the library collections or transfers to the Five College Depository.

The Task Force also recommends consideration of a joint book repair/conservation facility, as well as a joint binding contract for the Five Colleges. Something in this regard will be required for implementing the basic workflows as we have defined them, as books are occasionally received that require minor repairs.

The Archivists are also interested in joint coding of finding aids.

Finally, the second part of our charge, planning for serials and electronic resources, may very well need a change in committee membership.

Susan Dayall, Chair,
For the Technical Services Consolidation Task Force

Appendix A. TSC Cost Study, 6/09

Category	Amherst	Hampshire	Mount Smith Holyoke	UMass	
Professional FTE	0.5 FTE	0.33 FTE	0.00 FTE	0.75 FTE	1.47 FTE
Clerical FTE	2.0 FTE	0.55 FTE	1.62 FTE	4.25 FTE	5.6 FTE
Student FTE	0.4 FTE	0.22 FTE	0.00 FTE	1.0 FTE	0.7 FTE
Professional salary	\$25,967	\$20,152	\$0	\$42,519	\$109,998
Clerical salary	\$67,721	\$20,520	\$59,528	\$159,725	\$260,431
Student salary	\$7,659	\$2,912	\$0	\$11,200	\$8,920
Books purchased	14,041	1,407	9,214	17,074	26,808
Books not purchased	341	264	502	1,307	0
Unit cost	\$7.05	\$26.08	\$6.13	\$11.61	\$15.18
Standard turnaround time	5 days	5 days	3 days	5 days	3 days
Rush turnaround time	4-24 hrs	less than 24 hours	3 hours	1 day	1 day

Notes: Data based on FY2008. FTE and salaries figured on 52 weeks/year, excluding benefits. Turnaround time is in business days. Costs do not include supplies or services such as OCLC, except as noted below.

AC Notes: Estimate excludes Special Collections but includes Music and Science branches.

HC Notes: Includes Div IIIs (senior theses) and Special Collections.

MH Notes: Includes Honors Papers, Special Collections and Music/Dance branch library.

SC Notes: Excludes senior theses and documents. Estimate includes only work done in Neilson Library Collection Services, not in Josten or Special Collections.

UM Notes: Cost estimate includes \$27,687 in YBP processing costs. Estimate includes processing both shelf-ready and non-shelf-ready material. Turnaround time is for books received shelf-ready; time for non shelf-ready books varies.

Appendix B. Workflow Outlines, 7/09

Consolidated Technical Services Workflow 1 GOBI with Shelf-Ready Processing

7/1/09

Central Facility

Own Institution

SELECTION

Book requests received from selectors or patrons, or approval slips received

Selectors make decision to purchase

Fund code and location assigned, green light given to order

ORDERING

Order checked against defined criteria for each institution, deleted if necessary

Order finalized with YBP

Brief bibs with order, item [and holdings?] records downloaded from GOBI into ALEPH

CATALOGING

YBP sends manifest to OCLC which supplies PROMPTCAT records and sends call numbers to YBP for labels

PROCESSING

When items are shipped, PromptCat records are loaded into ALEPH, overlaying brief bibs

RECEIVING

Books received from YBP with full processing per institutional specification (label, barcode, stamps, detection strip, etc.), plus paper invoice

Staff checks book condition per institutional specification, checks off invoice

Scans barcode in ALEPH Acq, re-links item and order records, checks basic info to make sure book matches order

Checks cataloging record according to agreed triage standards

Problems with condition or invoice resolved with vendor; cataloging problems sent to cataloging dept.

Receives item in ALEPH

Sends invoice to owning institution for payment

Codes invoice and sends to institutional accounts receivable for payment

DELIVERY

Shelf-ready books packed in sealed boxes, sent to owning institution

Consolidated Technical Services Workflow 2

Non-YBP Firm Orders

7/21/09

Central Facility

Own Institution

SELECTION

Book requests received from selectors or patrons

Selectors make decision to purchase

Fund code and location assigned, order transmitted to central facility

ORDERING

Requests checked against defined criteria for each institution

Searched in OCLC, record downloaded

Vendor assigned, order and item record created in ALEPH, order transmitted to vendor

RECEIVING

Books received and unpacked

Staff checks book condition per institutional specification, checks off invoice

Searches in ALEPH, checks basic info to make sure book matches order.

Problems with condition or invoice resolved with vendor

Receives item in ALEPH Acq, barcodes book and scans into item record

Sends invoice to owning institution for payment

Codes invoice and sends to
institutional accounts
receivable for payment

CATALOGING

Checks cataloging record according to agreed standards and updates record for branch locations, holdings record, copy info, etc.; cataloging problems sent to cataloging dept. (3 kinds of cataloging: DLC/DLC, copy cataloging, and original cataloging)

Updates OCLC holdings

PROCESSING

Physical processing done according to institutional specifications

DELIVERY

Shelf-ready books packed in sealed boxes, sent to owning institution

Appendix C. TSC Print Book Estimate, 8/09**Print Books Estimates, FY2011**

	Total titles	YBP shelf-ready	Non-YBP non-shelf-ready
Amherst	15,480	6,192 (40%)	9,288 (60%)
Hampshire	1,500	1,350 (90%)	150 (10%)
Mt. Holyoke	7,500	6,525 (87%)	975 (13%)
Smith	15,000	11,250 (75%)	3,750 (25%)
UMass	10,000	8,000 (80%)	2,000 (20%)
	-----	-----	-----
Total	49,480	33,317	16,163
Percent	100%	67%	33%

Appendix D. TSC/ALEPH Committee Report, 9/09

Technical Services Consolidation, ALEPH Subcommittee Report to the Technical Services Consolidation Committee Final Report 9 September 2009

Introduction

In April 2009, the Technical Services Consolidation Committee chaired by Susan Dayall created the ALEPH Subcommittee (TSC-ALEPH). It was charged with determining the feasibility, procedures and expense (either doing the work in-house or contracting with Ex Libris) of modifying the ALEPH functions to facilitate the Technical Services Consolidation workflow for both monographs and serials. Specifically this report attempts to determine the feasibility of the following directives:

1. Utilizing a single bibliographic record for the Five Colleges from a defined date forward.
2. Merging existing bibliographic records to a single bibliographic record, either at once or as a staged process.
3. Allowing central TS staff to receive monographs in each ADM, and create/modify item and holding records.
4. Outputting invoice information from ALEPH directly to each institution's administrative computer system. (A desirable but not immediately essential project).

Conclusions are interspersed among the TSC-ALEPH recommendations regarding the four charge directives (rewritten for specificity and clarity below).

Recommendations

1. Is it possible and practical to utilize a single bibliographic record for the Five Colleges from a defined date forward?

The TSC-ALEPH committee unanimously recommends that the Five Colleges **not** pursue workflow changes that would utilize a single bibliographic record for the Five Colleges from a defined date forward. If this decision were made, the bibliographic catalog would become a divided catalog. Long-term management of this work environment would become more complex and artificially and unnecessarily convoluted.

In such an environment where part of the bibliographic database is merged and the majority of the database is not, procedures for processing workflows, record manipulation projects, etc. would become permanently bifurcated. Maintenance of ownership tags, record flags and markers would require two-tiered management regulations indefinitely. Long-term projects would require heightened attentiveness whenever materials are replaced, moved, transferred, or weeded. An example highlighting why the Five Colleges should not implement procedures to merge bibliographic records in a staged process: there would be a negative impact on workflows such as exporting records from OCLC if the majority of records have 'OWN' tags and some do not.

2. What is required to merge existing bibliographic records to a single bibliographic record? (a) either at once (b) OR as a staged process?

The TSC-ALEPH committee unanimously recommends that the Five Colleges **not** pursue a project to merge bibliographic records in the ALEPH system. This recommendation is made for both the 'at once' scenario and the 'staged process'. In the 'at once' process, bibliographic records would be merged by an intensive, comprehensive merger project. A staged process implies the establishment of a divided catalog. The ramifications of a staged merger project have been addressed above. The fiscal burden of implementing a project to merge the Five Colleges bibliographic records will be significant and the expected outcome will not resolve problems assumed by its advocates.

TSC-ALEPH communicated with Ex Libris, OCLC and Backstage, all companies with extensive experience in bibliographic projects. Ex Libris' ability and willingness to attempt a merger was confirmed. However, their project proposal and their presentation clearly stated that their strategy would be restrictive and would engage us with contractual limitations that would not adequately meet the requirements for record matching needed by the Five Colleges. Ex Libris provided the TSC-ALEPH

committee with algorithms that would not provide a high enough percentage of automatically and accurately matched records. The Cataloging Functional Committee reviewed Ex Libris' merging algorithms and made the recommendation to TSC-ALEPH that it was necessary to pursue third-party vendors.

TSC-ALEPH contacted OCLC about the project. The conclusion of our respective deliberations was that OCLC is not interested in attempting or willing to try to address the requirements of the project.

TSC-ALEPH contacted Backstage about the project and they are willing to engage us further in details of the project if the Five Colleges were to go forward with a merger of existing bibliographic records. The Backstage costs presented for the project were within an expected range.

TSC-ALEPH has determined that a project to merge bibliographic records at once has an undeterminable level of success. The limitations of automated match points would necessitate manual merging initiatives for a high percentage of the records.

The Five Colleges shared catalog has 5,550,000 bibliographic records. 10-20% of that number is 555,000 – 1,110,000 records. Manually merging 500 records/day would take between 1,110 and 2,220 work days to complete. 20 records per hour times 7 hours per day would require about three and a half full-time staff members dedicated to merging records manually every day for 1,110 to 2,220 work days or for 4 to 6 years. If the number of records requiring manual merging is only 2-3%, the situation would still require 3.5 full-time staff to dedicate all their time to the merging project for over 1 full year.

3. What is required to allow central TS staff to receive monographs in each ADM, and to create/modify item and holding records?

In order to allow a centralized technical services staff to receive monographs in each ADM, staff would need appropriate permissions to work within the ADMs. Permissions settings are a practical and manageable factor for any workflow being determined by the Technical Services Consolidation Committee.

4. Is it possible to output invoice information from ALEPH directly to each institution's administrative computer system?

TSC-ALEPH has determined that it is possible to export invoice information from ALEPH in formats appropriate for upload to each institution's administrative computer system and that this would require a project both with Ex Libris and with each institutions administrative computing department. The expected costs for this project are relatively low.

TSC-ALEPH determined that feasibility of loading financial records in and out of the ALEPH system could be managed centrally given the appropriate permissions settings in the central technical services environment.

Respectfully submitted to the Technical Services Consolidation Committee by the TSC-ALEPH subcommittee on September 9, 2009.

Technical Services Consolidation – ALEPH Subcommittee Membership from April – August 2009

Mike Allard	University of Massachusetts Amherst
Jane Beebe	Amherst College
D. Bonner	Mount Holyoke College
Michael Edwards	Hampshire College
Jim Montgomery	Smith College
Stephanie Schmitt	Five Colleges, Inc.

Appendix E. TSC Delivery Estimate, 8/09

Increase in Five College Delivery

Estimate of number of volumes transported by the Five College delivery, 2007-08:

	Direct Borrowed Returns	PDQ Volumes to Hold Shelf
AC	28,388	15,219
HC	14,579	7,752
MH	21,251	19,514
SC	48,294	11,650
UM	43,766	16,500
	-----	-----
Total	156,278	70,635

Total volumes transported, 2007-08: 226,913 (100%)

Estimated total TSC Additional: 49,480 (22%)

Note that if the facility is located at UMass or another institution, that institution's material will not need to be transported through the Five College delivery system, saving the transport of, e.g., 10,000 volumes (UM). This would give a figure of:

Estimated 4 College TSC Additional 39,480 (17%)

A 17% increase in volume, though not negligible, would not necessitate doubling the delivery service among the Five College libraries. Since the TSC delivery quantity would not vary significantly over the course of the academic year, whereas the main volume (circulation and PDQ) does vary enormously, we would recommend doubling the delivery runs during December and May. This would yield an increase very close to an additional 17% delivery.

Appendix F. YBP Processing Costs, 8/09**YBP Processing Cost Estimate, FY2011**

The TSC Task Force has estimated that 67% of books can be received shelf-ready from YBP, a total of 33,317 volumes. A cost estimate for the YBP processing follows, based on a YBP average charge of \$1.85 per book. This includes \$1.20 for four basic services (barcode, detection strip, two stamps), \$.35 for a spine label, and \$.30 for a bookplate or other additional service. Other services, such as paperback lamination, are also available at an additional charge, not included in this estimate. The assumption is that YBP will charge the individual institution based on their volume.

Amherst	\$11,455.20
Hampshire	2,497.50
Mt. Holyoke	12,071.25
Smith	20,812.50
UMass	14,800.00

Appendix G. TSC FY2011 Staff Estimates, 9/09

Staff Estimates, FY2011

Summary of Five College staffing and volume counts, FY2008 for standard book processing (added across all institutions from TSC Cost Study, 6/09, this represents an aggregate of the staff resources that the Five Colleges are using now)

Professional	3.05
Clerical	14.02
Student	2.32
Total books processed, FY 2008	70,958
TSC estimate for total books, FY2011	49,480
Divided by FY2008 books	70,480

Proportional factor to multiply FTE	.697 = 70%
Professional	3.05 x .70 = 2.13
Clerical	14.02 x .70 = 9.81
Student	2.32 x .70 = 1.62

Simply taking into account the reduction in Five College materials volume estimated for FY2011, this would be the staff needed to process that amount of material in a consolidated facility, if no changes in workflow were instituted. We can consider this the upper limit of staff that might be needed for the consolidated facility.

However, we do plan changes in workflow, most notably, contracting with YBP to deliver shelf ready books. For all institutions except UMass, this will represent a major change in staffing requirements.

In order to determine staffing requirements for the consolidated facility, we estimated first the staff required for non-shelf ready books, and then estimated the staff for processing shelf ready books.

Staff Estimates for Non-Shelf-Ready Books, FY2011

Based on the TSC Cost Study (6/09), we looked at the unit costs to determine the average unit cost in the valley, for the purpose of estimating staff requirements. Smith represents the median, at \$11.61. The mean of all five institutions is \$13.21; if the highest (HC) and lowest (MH) are taken out, the mean of the remaining three is \$11.28. This is very close to the Smith figure, so this estimate will be based on the Smith FTE figures supplied for the cost study. Smith does not receive any books shelf-ready currently, so they are a suitable candidate for this part of the estimate.

To estimate the staff requirements, we first needed an estimate of the number of non-shelf-ready books to be processed. In addition to the 33% non-YBP books, a certain percentage of the supposedly shelf-ready books require some additional work.

UMass provided the committee with a study they conducted in Spring 2009 of the shelf-ready books received from YBP.

"Shelf-ready" books received from YBP	1708	100%
True shelf ready books	1388	81%
Needing more work, chiefly location, call number, some cataloging	320	19%

It seems reasonable to add 19% of the 33,317 shelf-ready books, or 6330 books, to the non-shelf-ready category of 16,163, increasing the estimate to 22,493 volumes. This results in a generous estimate, since some of the problems found in these books are relatively simple to solve, e.g. location problems.

Estimate for full processing of the books not received shelf-ready from YBP, based on Smith FTE figure):

TSC Non-shelf-ready volume estimate:	22,493
Divided by Smith volume from Cost Study	18,381

Proportional factor to multiply FTE	1.22
Smith Professional	0.75 FTE x 1.22 = 0.92 FTE
Clerical	4.25 FTE x 1.22 = 5.18 FTE
Student	1.0 FTE x 1.22 = 1.22 FTE

This represents an estimate of the number of staff required to process books received either non-YBP, non-shelf ready or with problems even though supplied by YBP, using TSC Workflow 2.

Staff Estimates for True Shelf-Ready Books, FY2011

The quantity estimate for true shelf-ready books is 26,587 items.

The assumption is that true shelf-ready books will take no professional staff time (for cataloging), and no additional student time (mainly data entry and physical processing). Comparing TSC Workflow 1 with TSC Workflow 2, it will be seen that the remaining tasks on these items have to do with receiving, condition and cataloging triage, and invoice checking. Most tasks including ordering, cataloging and processing will simply not need to be performed for these items. Receiving them all from a single vendor, YBP, should simplify receiving and vendor problem solving as well. A reasonable estimate would be that this handling would require less than half the time, than dealing with a non-shelf ready item. Even though the difference between 26,587 shelf-ready and 22,493 non-shelf-ready (4094 items) represents an 8% increase, we think it reasonable to estimate that half again as many clerical staff (an additional 2.59 FTE) could handle this volume. UMass believes this is a very generous estimate.

Total Staffing Estimates for TSC Facility

Accordingly, these would be our estimates for the Consolidated Technical Services facility staffing requirements (rounded up to whole or half FTE):

TSC Professional	1.0 FTE
TSC Clerical	8.0 FTE
TSC Student	1.5 FTE
TSC Manager	1.0 FTE

This represents a saving of FTE across all staffing categories, beyond the savings due to a reduction in volume for FY2011. The rounding up also means that some additional staff time should be available to begin to deal with any cataloging backlogs in the valley.

In addition to this staff for the facility, a manager would be required, who should also be able to contribute to the professional (cataloging) workload. This function was not included in the FTE estimates compiled for the TSC Cost Study (6/09).