SURVEY RESULTS
EXECUTIVE SUMMARY

Introduction
ARL has conducted a number of SPEC surveys about remote shelving that focused on physical facilities, selection of materials, user access, services, and cost, but those represent print collection management decisions in the pre-electronic back-file, pre-Portico, and pre-HathiTrust era. The idea for this survey came from the experiences of the authors as they attempted to manage major projects related to collections space planning, on-site shelving for materials, off-site shelving of materials, and the formation of a collaborative print collection with another research university. These activities were undertaken simultaneously and with some inflexible, externally imposed deadlines. The first step in determining the best course for print retention decisions was a literature review, and the authors discovered that most of the literature related to these decisions was created more than 10 years ago, which represents a very different time for libraries and collections. This survey investigates whether print collection management strategies have changed since the last SPEC survey in 2006. The intuitive notion was that many of the concerns regarding the availability of stored materials would have been abated by the widespread electronic availability of content and by the simple reality that many libraries’ print journal and government documents collections are no longer growing significantly and are appropriately dubbed “legacy” collections.

This survey was distributed to the ARL member libraries in June 2013 and these results are based on data submitted by 65 of the 125 ARL member libraries (52%) by the deadline of July 15, 2013. The survey asked respondents about print retention decision making strategies related to storage of materials in three different types of facilities or circumstances: on-site, staff-only shelving, remote shelving, and collaborative retention agreements. The survey also examined the decision making and practices surrounding the deaccession of library material. Because in many cases the decision to retain certain materials will imply a decision not to retain other materials, the survey concluded with questions regarding deaccessioning strategies for print materials at member institutions. For each retention or deaccession strategy, the survey explored the type of on-going or project-based nature of the work, the involvement of stakeholders, the selection process and criteria for materials to be retained or deaccessioned, the communication strategy with internal and external audiences, and the responses from the libraries’ internal and external audiences to these endeavors.

The Print Retention Landscape
All but four of the respondents indicated that their library had recently been involved in activities to either relocate or deaccession print materials. Of the 61 libraries (94%) that had participated in these activities in the last two years, 30 have sent print material to on-site, staff-only shelving, 45 have sent material to remote shelving, and 53 have deaccessioned print items. The great majority of libraries (between 77% and 84%) have managed this work through a combination of both on-going and project-centered processes. Forty libraries have collaborative retention agreements, and 33 of these have deaccessioned print material.

Stakeholder Involvement
The involvement of stakeholders varies slightly across the storage or deaccession decision scenarios. Senior
library administrators and library directors were most often identified as the champion of a strategy. Library directors, senior library administrators, and university administrators were involved with budget decisions for shelving facilities, but non-library stakeholders were rarely involved in budgeting for deaccessioning activities. Senior library administrators were most involved with policy decisions, and had input from directors, subject selectors/bibliographers, and preservation staff. They also worked with selectors and preservation staff on procedures. Only a small number of respondents reported involving any other categories of stakeholders in the initial strategy decision making.

The development of criteria for the selection of materials, across the scenarios, rests to a high degree with subject selectors and bibliographers. However, senior library administrators also play key roles across the different tasks associated with the selection of materials for either storage or deaccession. Twenty-three respondents (38%) involved faculty in the decisions to move items to storage or deaccession them, ten of these asked faculty to review lists of recommended materials, at least until these became routine activities. Only six asked faculty to help develop selection criteria.

**Strategies and Considerations for Including or Excluding Materials**

All but a few respondents use a combination of strategies to select print materials for storage or deaccession. Strategies for identifying items for local, staff-only shelving differ only slightly from the strategies used for identifying materials for remote shelving. For local shelving, selection based on a group or collection of materials is used somewhat more often than title-by-title review using lists; for remote shelving, the opposite is true. This difference may be a reflection of a perceived lower risk of inaccessibility in local shelving. Relying on system-generated lists of titles and reviewing items title-by-title at the shelf are somewhat less-used strategies for storage decisions. Deaccession decisions rely more on title-by-title review, either of lists or at the shelf.

The criteria used to generate lists of titles for review also differs depending on whether items are being selected for storage or deaccession. Publication date, circulation history, format, condition, and subject area were commonly reported criteria for storage decisions. Duplication in either print or electronic format was overwhelmingly the reason for deaccession. Only rarely was low-use mentioned as a criterion for deaccession.

Certain materials are excluded from consideration for local, staff-only shelving, remote shelving, or deaccession, although the types of materials and reasons for exclusion vary widely. Format is the most common reason to exclude materials from local shelving, while condition of materials is the most common reason they are excluded for consideration for remote shelving. Finally, the subject area of the material is the most common reason materials are not considered for deaccession.

**The Importance of Electronic Content in Decision Making**

The importance of electronic collection content to print retention decision making was heavily underscored in this survey. From the perspective of serving users, it is not surprising that of the 22 respondents (82%) who stated that they did not consider availability of content in secure print archives when making decisions to transfer to on-site shelving, 16 did consider the availability of electronic surrogates in making the decision to store items on-site. The decision making is similar for remote shelving; of the 28 who don’t consider whether items are available in print repositories, 23 do consider the availability of electronic formats. However, it is interesting that 25 respondents (49%) did not consider the availability of content in other print repositories when making deaccession decisions, while 47 (90%) did consider the availability of electronic surrogates in making the decision to deaccession.

Further, 62 of the responding libraries (97%) reported having policies that encourage acquisitions of serials in electronic format and 53 (83%) have policies that encourage acquisition of monographs in electronic format. This would suggest that the future of print management strategies will include a focus on an ever-shrinking proportion of print library materials.
Communication
Across strategies, the responsibility for communicating libraries’ plans for including materials in local shelving, remote shelving, or deaccessioning them rests primarily with the collection development department. However, for decisions involving moving materials to remote shelving or deaccessioning, it becomes more likely that library administration will take on some responsibility for communication.

The most common communication strategy, regardless of the action being proposed, is presentations to groups. Libraries’ websites are also commonly used. Respondents reported using communication strategies to reach external audiences to a much higher degree for moves to remote shelving than for deaccession initiatives.

Attitudes and Resistance
At first glance, it was surprising that 54% of the respondents had experienced resistance to on-site shelving plans and 70% of the respondents reported resistance to remote shelving plans, while the percentage reporting resistance to deaccession plans was only 58%. While this is an area for further study, some potentially likely scenarios are that materials selected for deaccession may be in categories that do not raise as many concerns for users. Examples of this could be materials duplicated in print or electronic formats, materials that are deemed damaged beyond repair, or materials that are dated but with seemingly small historical value.

Overall, 48 respondents reported some resistance and 13 reported no resistance to decisions about print material disposition. Of the libraries that reported resistance, 15 experienced resistance to one strategy, but not another. Respondents’ comments indicate that initial concerns about print material strategies have been alleviated over time by positive experiences with the outcomes.

Collaborative Retention Agreement Strategy
For the purposes of this survey, a Collaborative Retention Agreement was defined as a commitment by one partner to retain a specific volume so that another partner may deaccession or store their duplicate copy. The focus of this question was on agreements independent of shared shelving facility agreements. The majority of respondents (40, or 66%) indicated that their libraries participate in these arrangements. They reported using a number of different agreements, including major regional endeavors such as the Western Regional Storage Trust (WEST) and the Association of Southeastern Research Libraries (ASERL) Collaborative Journal Retention Program. Other respondents noted agreements that cover two or three libraries or library systems, such as the collaborative agreement between the University of Iowa, Iowa State University, and the University of Wisconsin. It seems that there is a degree of redundancy among agreements, which is logical given both the scale of preservation that needs to occur and the varied nature of these arrangements. This strategy is an area where further evolution and development is expected. For example, ASERL and the Washington Research Library Consortium (WRLC) have recently agreed to share their print journal archives under a new agreement called Scholars Trust.

Conclusions
Striking the right balance of continued ownership, access, and preservation of print materials is one of the many challenges 21st Century research libraries face. Off-site shelving, collaborative retention agreements, and careful deaccession are the existing pragmatic answers to the question, “Can research libraries simply keep adding print holdings forever?” This survey confirms that these practices are now an entrenched part of the work of libraries and also shows that, when responsibly administrated, the libraries’ constituents view these activities as acceptable. As libraries strategically and creatively think about how to best provide access to materials and serve their long term obligations to preserve content, this SPEC Kit provides a snapshot of best practices as of 2013. Going forward, the trajectory seems to be toward highly collaborative and distributed ownership of legacy print materials. Areas for continued monitoring include the evolution of electronic and print archiving programs and the impact that these changes will have on local or consortial decisions regarding print retention plans.
The SPEC Survey on Print Retention Decision Making was designed by Scott Britton, Associate University Librarian for Instruction, Access & User Engagement, Boston College, and John Renaud, Assistant University Librarian for Research Resources, University of California, Irvine. These results are based on data submitted by 65 of the 125 ARL member libraries (52%) by the deadline of July 15, 2013. The survey’s introductory text and questions are reproduced below, followed by the response data and selected comments from the respondents.

In FY 2007–2008 ARL academic libraries reported for the first time that expenditures for electronic resources exceeded 50% of the library materials budget, on average. That average now exceeds 65% and ranges from a low of just under 30% to a high of nearly 99%. While the percentage of library materials budgets dedicated to electronic resources has increased, data indicates a decline in the use of legacy print materials (See: Anderson 2011, http://www.libraryjournal.com/lj/home/890835-64/print_on_theMarginsCirculation.html.csp)

Along with the shift in material formats has come a transformation in library services that is leading libraries to seriously reconsider how existing space is used. Whether in response to pressing space constraints or to long range planning for repurposing space, for many years research libraries have been relocating materials to non-browsable, staff-only shelving facilities both on and off-campus, systematically deaccessioning print materials from their collections, and developing collaborative retention agreements with consortia and other partners.

ARL has conducted a number of SPEC surveys about remote shelving that focused on physical facilities, selection of materials, user access, services, and cost, but those represent print collection management decisions in the pre-electronic back-file, pre-Portico, and pre-HathiTrust era. This survey investigates whether print collection management strategies have changed since the last survey in 2006 and focuses on the range of stakeholders, the print retention decision-making process, and successful strategies for communicating decisions to users. Questions cover four print collection management strategies: moving items to staff-only, on-site shelving; moving items to a remote shelving facility; participation in a collaborative retention agreement (i.e., a commitment by one partner to retain a specific volume so that another partner may deaccession or store their duplicate copy); and deaccessioning.

Information on how libraries are currently responding to their new reality will help libraries make appropriate decisions regarding the retention of print materials. As counterintuitive as it may seem, strategies to address print collection issues remain paramount as libraries work to make their spaces and collections dynamic for 21st century users.
PRINT MATERIAL RETENTION ACTIVITIES

1. Within the past two years, has your library been involved in activities to determine whether print materials should be relocated to a staff-only, on-site shelving area, or a remote shelving facility, or considered for a collaborative retention agreement, or deaccessioned? N=65

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>61</td>
<td>94%</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>6%</td>
</tr>
</tbody>
</table>

If you answered “Yes” above, when you click the Next>> button below you will skip to the section On-site Shelving Strategy, the first of four sections on each print retention strategy.

If you answered “No,” when you click the Next>> button below you will skip to the section on Managing the Growth of Print Materials.

ON-SITE SHELVING STRATEGY

2. Does your library send print materials to a staff-only, on-site shelving area, for example, an automated retrieval system, adjacent shelving annex, etc.? N=61

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30</td>
<td>49%</td>
</tr>
<tr>
<td>No</td>
<td>31</td>
<td>51%</td>
</tr>
</tbody>
</table>

If yes, are these decisions part of on-going collection management activities or are they handled on a project basis? N=30

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both on-going and project-based</td>
<td>25</td>
<td>83%</td>
</tr>
<tr>
<td>Project-based</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>Part of on-going activities</td>
<td>1</td>
<td>3%</td>
</tr>
</tbody>
</table>

Comments N=8

Both on-going and project-based

Certain categories of new materials are sent to our automated retrieval system (RRS). In addition, there have been several weeding projects that have identified materials for the RRS since the initial load.

Chiefly print journals. The back files were moved into storage approximately two years ago and new issues of active titles are shelved in storage with the back files as they are received.

Materials are routinely moved to the on-site shelving area, primarily through annual loads of serial runs.

Project-based currently, but on-going activity soon.

Project-based

Government documents, archival collections

Mostly consolidation of print holdings, but one branch will close in the near future.
Primarily used as swing space.

**Part of on-going activities**

We currently have two on-campus, closed-stack shelving facilities. In the coming year we will be a part of two off-site facilities.

If you answered “Yes” above, you will continue to questions about your on-site shelving strategy.

If you answered “No,” you will skip to the section Remote Shelving Strategy.

**ON-SITE SHELVING: STAKEHOLDERS**

3. Please indicate which stakeholders were involved in the initial decision to use a staff-only, on-site shelving area to manage print collections, and the role they played. Check all that apply. N=28

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Champion of the strategy</th>
<th>Policy decisions</th>
<th>Procedures</th>
<th>Budget</th>
<th>Design and construction</th>
<th>Other role</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior library administrator</td>
<td>12</td>
<td>21</td>
<td>18</td>
<td>11</td>
<td>14</td>
<td>—</td>
<td>25</td>
</tr>
<tr>
<td>Library director</td>
<td>19</td>
<td>13</td>
<td>1</td>
<td>13</td>
<td>7</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>Subject selector/bibliographer</td>
<td>4</td>
<td>13</td>
<td>14</td>
<td>—</td>
<td>1</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>Preservation staff</td>
<td>3</td>
<td>12</td>
<td>9</td>
<td>—</td>
<td>3</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>University administrator (provost, president, etc.)</td>
<td>4</td>
<td>3</td>
<td>—</td>
<td>11</td>
<td>5</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Property control (or other capital equipment monitoring office)</td>
<td>—</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>University advisory body (Faculty Library Committee, etc.)</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Board members/trustees</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Academic department (English, History, etc.)</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Other stakeholder</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Total Responses</td>
<td>25</td>
<td>28</td>
<td>28</td>
<td>21</td>
<td>18</td>
<td>6</td>
<td>28</td>
</tr>
</tbody>
</table>

If you selected “Other role” above, please identify which stakeholder and briefly describe their role. N=5

For the director and university administrator, the other role has been fundraiser.

Trustees would have had to approve construction of the facility. University advisory body: informational, consultative. University administrator: fundraising. University advisory body, Academic department: assist with policy and service impacts, design advisory, communication, collection policy decisions. Property control: project management, space utilization per campus plan.

If you selected "Other stakeholder" above, please identify the stakeholder. N=9

Collections and e-resources librarian (procedures).

Head, Database Maintenance, Processing and Bindery (other role). In addition to the Head of DMPB, others were involved in establishing the decision some years ago, but their role isn’t known.

Middle management (procedures and budget).

Technical and Automated Services (other role).

The off-site storage facility includes archival, special collections, and art objects. Format specialists were involved in establishing policies, procedures, and particularly appropriate design and construction parameters. Senior support staff with experience in collection management and handling were involved in design and construction and establishing procedures. Metadata and systems staff were heavily involved in establishing procedures and implementation of the dedicated system that manages inventory and interacts with the library catalog.

The other stakeholders are the members of a standing committee of libraries’ faculty and staff that are charged with RRS materials decision-making.

The physical plant unit on campus played a role in design & construction.

Two stakeholders: Head of Collection Development; Collection Development Coordinator (champion, policy decisions, procedures).

University’s facilities management leadership and staff (budget, design and construction).

4. Please indicate which stakeholders are involved in deciding which print materials are selected for the staff-only, on-site shelving area, and the role they play. Check all that apply. N=27

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Develop selection criteria</th>
<th>Select material for transfer</th>
<th>Review/approve lists of recommended material</th>
<th>Research availability of duplicates in other repositories</th>
<th>Other role</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject selector/bibliographer</td>
<td>17</td>
<td>23</td>
<td>21</td>
<td>8</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>Senior library administrator</td>
<td>20</td>
<td>9</td>
<td>11</td>
<td>5</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>Library director</td>
<td>6</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Preservation staff</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Academic department (English, History, etc.)</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>University advisory body (Faculty Library Committee, etc.)</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>—</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
Stakeholders | Develop selection criteria | Select material for transfer | Review/approve lists of recommended material | Research availability of duplicates in other repositories | Other role | N
---|---|---|---|---|---|---
University administrator (provost, president, etc.) | 1 | — | — | — | — | 1
Other stakeholder | 5 | 5 | 6 | 5 | 3 | 10
Total Responses | 27 | 26 | 25 | 15 | 7 | 27

Note: No one selected Board members/trustees, or Property control.

If you selected “Other role” above, please identify which stakeholder and briefly describe their role. N=7

Academic staff can request items be returned permanently from off-site storage. These requests are reviewed by the AVP for Collections.

Circulation staff do a first pass through shelves flagging items that meet the criteria developed by the bibliographers.

Library dean has high-level approval of guidelines for decision making.

Library director: approved policy decisions. Academic departments: consulted on selection criteria.


Subject specialists talked with faculty and other users to explain project. Faculty library committee championed the project and talked with colleagues.

Technical and Automated Services: create & run reports; participated in decision making by Library Resources Council.

If you selected “Other stakeholder” above, please identify the stakeholder. N=9

Access Services staff (develop selection criteria, select materials, review/approve lists)

For all facilities, we have always had a shelving selection committee comprised of academic librarians and paraprofessional staff (develop selection criteria, select materials, review/approve lists).

Staff in the Collection Management Section and sometimes other staff work with lists developed based on criteria. They pull and compare pieces for condition review, research duplication, etc.

Standing committee of libraries faculty and staff (develop selection criteria, select materials, review/approve lists, research duplicates)

Student employees do searching (research duplicates).

Technical and Automated Services (develop selection criteria, select materials, research duplicates)

Technical Services staff (review/approve lists, research duplicates)

Technical Services staff generated lists of potential nominees and researched availability of electronic versions.
Two: Head of Collection Development and Collection Development Coordinator (develop selection criteria, review/approve lists)

ON-SITE SHELVING: SELECTION

5. Please indicate which strategy is used to select print materials for inclusion in your on-site shelving area. Check all that apply. N=28

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group selection based on type of collection (e.g., age of publication, specific location, specific format)</td>
<td>22</td>
<td>79%</td>
</tr>
<tr>
<td>Title-by-title review using lists (no review at the shelf)</td>
<td>20</td>
<td>71%</td>
</tr>
<tr>
<td>System-generated list of titles with little or no title-by-title review</td>
<td>15</td>
<td>54%</td>
</tr>
<tr>
<td>Title-by-title review at the shelf</td>
<td>13</td>
<td>46%</td>
</tr>
<tr>
<td>Other strategy</td>
<td>7</td>
<td>25%</td>
</tr>
</tbody>
</table>

Please briefly describe the other strategy. N=7

A wide range of strategies are used. Generally, criteria are identified to yield sets of items appropriate for remote storage and then when transfers are made, staff are making condition evaluations, etc.

For journals, availability of stable online access.

Group selection based on space requirements in other campus libraries.

Identified categories of materials that should NOT be given priority for placement in the storage annex & types of material that should be given priority.

In the theology library, certain items are automatically sent to the staff-only collection area: theses and dissertations, archival materials, etc. Other items are added on a case-by-case basis.

Lists together with shelf review.

Procedure developed in technical services that is based on format and physical size of the material.

If your selection strategy included lists or was based on type of collection, please describe the list criteria or identify the type of collection. N=21

1) All materials from off-site shelving. 2) Call numbers and publication dates for engineering materials. 3) Online availability for journal back files. 4) All microforms. 5) All government documents except reference/guides. 6) All materials from textiles branch library. 7) Selected special collections.

Chiefly print serials

Collections in branch libraries

Criteria for lists included format, language, circulation history, date of publication, and subject discipline.

Date of publication, condition, scarcity (“medium-rareness”)

Examples include: older and less used social science materials; pre-1978 literature in specific languages; selected formats (e.g., vinyl LPs); bound periodicals in some subject areas.
In the medical library, selection was based on linear footage available in on-site storage space. We used publication date criteria and discarded volumes for which library had electronic counterpart and stored those that did not have an e-counterpart. In other libraries, lists were generated based on date of publication and number of checkouts over the last 10, 20, 20+ years.

Items also available electronically were selected by group with the opportunity to opt out or make exceptions.

Journal runs with electronic equivalents, local dissertations, unprocessed government documents, low use archival material

List criteria: circulation history

Low use and duplication are the main criteria for selection. Some items in poor condition (shrink-wrapped) are sent to the facility to minimize further deterioration. Some special collections are stored at the depository. Frequency of use is a general criterion, although condition can play a role.

Most reports identified duplicate holdings across system. One project was entirely based on print duplication. Another is under way, also adding online holdings to the mix.

Our criteria emphasized deciding which materials should remain on open stacks, rather than what should go to off-site storage. Criteria for remaining on stacks were based on supporting key activity of browsing by topic and for new additions. Generally, print materials are kept on the open stacks for 10 years after receipt, materials older than this that have not circulated in the last 5 years are sent to off-site storage. Exceptions are made for certain classes of material, notably items classed in the PN’s and play-scripts. This exception was made due to the very diffuse pattern of use, which would have seen a disproportionate amount of this material sent to storage.

Pre-1900 publication date

Print journals, other formats like microfiche (based on publisher and use); archival collections; maps, based on usage.

Serials; reference materials designated for storage

Some indexes, abstracts; digitized series by title

The nature of the list criteria can vary by subject area and/or library. Type of collection may include age of publication, specific format, circulation, date of last circulation, or preservation quality.

The reference collection is reviewed for publication date, duplication, and availability in other formats on an on-going basis.

This varied from library to library, depending on disciplines served, but it would generally be based on publication dates, number of copies in the system, and publication dates.

We use various criteria for storage, too numerous to list here.

6. Are any print materials excluded from consideration for your on-site shelving area because of their condition, completeness, format, or subject area? N=28

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>46%</td>
<td>54%</td>
</tr>
</tbody>
</table>
If yes, please briefly explain the criteria for excluding material. N=13

**Format N=7**
- Excluded microforms.
- Focus is on print serials. Other material types have not in the past two years been routinely moved to storage.
- Limited to print monographs and/or serials.
- No photographic materials; no monographs, including rare books; no serials from Special Collections
- Placed a limit on the number of oversized items, usually no loose issues of periodicals, no microforms, no graduate theses.
- Rare books that require security and/or appropriate environmental controls.
- So far, no non-paper materials

**Condition N=6**
- Damaged items that need extra protection; items with incomplete bibliographic records.
- Had to be mold-free and have a good binding.
- Mold or similar damage sent to quarantined storage area.
- No brittle books (materials in facility must be service-ready).
- Rare or valuable materials
- Unimportant material in poor condition

**Subject area N=5**
- For our first facility, we have several titles that were not considered because of the loss of browsability and other concerns by our patrons.
- Full runs of Abridged Index Medicus (AIM) titles are maintained in the medical library.
- High-value rare books
- Limited to subject targets, particularly areas of over-crowding.
- No TR classification of any format

**Completeness N=4**
- Entire sets preferred over individual volumes.
- Had to be bar-coded.
- Only Last Copy titles are added to the Annex.
- Selected superseded material
7. Did your library consider whether the items were available in other print repositories (e.g., consortium holdings, ReCAP, Western Regional Storage Trust, etc.) when selecting them for inclusion in your on-site shelving area? N=27

Yes 5 18%
No 22 82%

If yes, please identify the print repository. N=5

ASERL, WEST, Linda Hall
CRL, WEST, CIC shared storage
Ohio shared academic compact storage facilities
Utah Academic Library Consortium; WEST
WEST

8. Did your library consider whether the items were available in electronic format or in an electronic repository when selecting them for inclusion in your on-site shelving area? N=28

Yes 22 79%
No 6 21%

If yes, please indicate which electronic format or repository was considered. Check all that apply. N=21

Purchased e-format 21 100%
Licensed e-format 17 81%
HathiTrust 11 52%
Portico 10 48%
CLOCKSS 4 19%
LOCKSS 4 19%
Other e-format or repository 1 5%

Please briefly describe the other e-format or repository. N=1

CRL
ON-SITE SHELVING: COMMUNICATION STRATEGY

9. Please indicate which channels are used to communicate to library staff or an external audience the decisions about which print materials to include in your on-site shelving area. Check all that apply. N=28

<table>
<thead>
<tr>
<th>Channels</th>
<th>Library staff</th>
<th>External audience</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentations to groups</td>
<td>21</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>One-on-one meetings</td>
<td>18</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>Website</td>
<td>15</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Informational materials</td>
<td>9</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Press releases</td>
<td>2</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Talking points</td>
<td>5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Other channel</td>
<td>8</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Total Responses</td>
<td>28</td>
<td>23</td>
<td>28</td>
</tr>
</tbody>
</table>

If you selected “Other channel” above, please describe the channel and the intended audience. N=11

**Library Staff**

- Committee reports and written procedures
- Staff intranet

There are no regular reports out on the use of the depository to staff. As projects develop, affected selectors are engaged as appropriate, sometimes through meetings, sometimes through one-on-one conversations. For on-going projects, new phases may be managed via email communication. There is no regular reporting on depository activities to external audiences beyond those required for regular budgeting processes. There is an annual budget request prepared as part of a request for state funding. It does not include information about collections added.

**External Audience**

- Limited communication with individual faculty who expressed concern
- Online catalog

Informational materials: library annual reports noted that print copies of journals available in full text online would be removed from collection to preserve collection space for a browsable monograph collection particularly in the social sciences and humanities.

**Library Staff and External Audience**

- Department and advisory committee meetings (Senate Library Committee and Faculty Advisory Committees). Subject liaison librarians as communicators.
- Email
- Email to staff and faculty
Notes in catalog records

Other librarians may be told informally (through email, for example) when older reference materials are sent to storage. Older journals are sent to storage from a branch library on a routine basis and this is stated in the online catalog.

10. What department is responsible for crafting and implementing the communication strategy about which print materials to include in your on-site shelving area? N=20

Associate University Librarian, Collections/Services to Libraries

Because we have had on-site shelving for 30 years, there has been little need for a major communication strategy. If we did, strategy would be set by the dean, the AUL for Collections, or the Library Executive Council. In general, communications are tailored to specific disciplinary audiences by the relevant liaison librarians.

Collection Development (2 responses)

Collection Development Officer, Director of Library, and committee selecting materials going into facility

Collection Management, administration, public relations

Collection Management, External Relations

Collection Strategies

Collection Strategy and Management

Collections

Collections; Communications; Public Services

Communications

Communications Office

Library administration

Mostly done via Library Resources Council or Access Services (Annex policies & web pages). Our communication strategy is fairly informal and limited to library employees.

Senior administrators, collection management staff

Technical Services Division/Collection Management

The standing committee has made recommendations and been responsible for internal communication. Dean’s office has been responsible for external communication.

We don’t have a formal communication strategy.

11. Were external sources of information, such as reports from Ithaka, ARL, ALA, OCLC, etc., consulted when developing the communication strategy? N=25

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>%</td>
<td>16%</td>
<td>84%</td>
</tr>
</tbody>
</table>
If yes, please briefly describe which reports. N=4

CRL, ARL, ALA, CIC
Data from ARL about other libraries’ storage facilities
OCLC for extent of holdings
OCLC Print Management at Mega Scale, ARL Statistics, Ithaka faculty survey 2012/13

12. Were there any specific challenges in crafting your library’s communication strategy? N=24

Yes 5 21%
No 19 79%

If yes, please briefly describe the challenge(s). N=5

Communicating with department chairs has not always resulted in information diffused to larger department.
Communication should have been more proactive and strategic.
Deciding how to describe what a closed facility means for a major research library.
External communication was limited until finalized plans and signed agreements were in place. This led to delay in communication to external stakeholders.
Faculty and grad student unhappiness about the move to storage

ON-SITE SHELVING: RESPONSE TO RETENTION DECISIONS

13. Were there any points of internal or external resistance to transferring print materials to your on-site shelving area? N=28

Yes 15 54%
No 13 46%

If yes, please briefly describe the nature of the resistance. N=15

A few stakeholders felt uninformed about the library’s plans. These issues were resolved after specifics of plan and access procedures were clarified to faculty.
Concerns about ease of access (including reliability of automated storage and retrieval system), and some resistance to material not being available for browsing.
Faculty and grad students in affected subject areas were unhappy with the move of resources from open shelving.
Faculty and student desire for immediate open access to materials at the shelves and browsing at the shelves.
Initially, concerns about accessibility of the collections. Users may make requests via an online form and has proven to be mostly a non-issue.
Loss of browsability; loss of open access to run of a serial; loss of open access to some older reference serials.

Occasionally, faculty or staff will express displeasure about not having immediate access to some older print materials.

Some faculty were initially reluctant to move materials out of the general stacks.

Some resistance based on just-in-case collecting instincts of some librarians.

Some subject librarians and, reportedly, some teaching faculty did not want material removed from “browsable” collection.

Subject librarians and teaching faculty have concerns about browsability.

The loss of browsing because it was closed stacks. Also, loss of control at/identification with the branch library.

There has been some concern about the ability to browse materials. Most materials can be borrowed or used in the reading room or made available via document delivery.

There were and continue to be disagreements on specific materials, particularly dissertations. We anticipate challenges in the near future as we expand the materials to include non-serials.

Worries about browsing physical items (internal/external), response time (internal/external), physical handling/storage conditions (internal), workload (internal).

Answered No

After the transfer, if a complaint or request is received, the item in question is returned to the open stacks.

However, when the main library was renovated, its footprint was reduced. This reduction of on-campus collection space did spark some protests when the building was re-opened.

REMOTE SHELVING STRATEGY

14. Does your library send print materials to a remote shelving facility that is owned, leased, or shared? N=61

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>45</td>
<td>74%</td>
</tr>
<tr>
<td>No</td>
<td>16</td>
<td>26%</td>
</tr>
</tbody>
</table>

If yes, are these decisions part of on-going collection management activities or are they handled on a project basis? N=44

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Both on-going and project-based</td>
<td>37</td>
<td>84%</td>
</tr>
<tr>
<td>Project-based</td>
<td>5</td>
<td>11%</td>
</tr>
<tr>
<td>Part of on-going activities</td>
<td>2</td>
<td>5%</td>
</tr>
</tbody>
</table>

Comments N=9

Both on-going and project-based

In the first years, sending print materials was linked to library renovations, so it was project based, but for the last two years, as we have no more space for print, it is part of on-going activities.
It is hard to say whether the development of the facility is one or the other. There is an on-going process of identifying appropriate content as successive phases are completed.

Largely project based at about 5-year intervals. Due to space needs, relocating materials for improved access and closing branch library.

Removal from the main library was expedited in the last few years to make room for major renovations repurposing space for public use.

The ability to shift to the remote storage facility (known as the Annex) is governed by the Tri University Group (TUG) Libraries Preservation of Last Copy Agreement. This agreement outlines our obligations and the limits of the facility—the last copy. Annually, the library runs lists of no use last copy items that are then automatically shifted to the Annex. In the last several years, these lists have gone without any further review. Individual selectors have also done subject specific projects to shift no/low use items. Some individual selectors have also reviewed their holding in the Annex. Key examples are a review of abstracts and government ephemera. TUG has done several rationalization projects, which have resulted in materials being shifted to the Annex. They have also done many projects to reduce the amount of material within the Annex. Key projects have included JSTOR rationalization as each collection becomes closed, reference title rationalization (e.g., Who’s Who), and duplicate reviews.

We have been feeding on-going ingest operation at remote storage facility with project-based groups of materials. Don’t see any end to the list of projects, but that does not preclude materials also being sent as part of on-going routines (such as new cataloging or digitization-on-demand services) in future.

While most of our work has been project-based (initial move, ASERL, Index/Abstracts), some of the ASERL journals have current subscriptions and therefore will be on-going.

**Project-based**

The facility is a small ad hoc remote store.

These decisions were on-going in the past but are now mostly project-based. This is mainly because we now want to avoid sending materials to remote storage if there is any possibility that they might later be withdrawn as part of a consortial de-duplication project.

If you answered “Yes” above, you will continue to questions about the remote shelving strategy.

If you answered “No,” you will skip to the section Collaborative Retention Agreement Strategy.

**REMOTE SHELVING: STAKEHOLDERS**

15. Please indicate which stakeholders were involved in the initial decision to use a remote shelving facility to manage print collections, and the role they played. Check all that apply. N=44

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Champion of the strategy</th>
<th>Policy decisions</th>
<th>Procedures</th>
<th>Budget</th>
<th>Design and construction</th>
<th>Other role</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library director</td>
<td>39</td>
<td>26</td>
<td>2</td>
<td>26</td>
<td>14</td>
<td>—</td>
<td>43</td>
</tr>
<tr>
<td>Senior library administrator</td>
<td>27</td>
<td>42</td>
<td>34</td>
<td>25</td>
<td>23</td>
<td>—</td>
<td>43</td>
</tr>
<tr>
<td>Subject selector/bibliographer</td>
<td>2</td>
<td>19</td>
<td>26</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>31</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Champion of the strategy</td>
<td>Policy decisions</td>
<td>Procedures</td>
<td>Budget</td>
<td>Design and construction</td>
<td>Other role</td>
<td>N</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>--------------------------</td>
<td>-----------------</td>
<td>------------</td>
<td>--------</td>
<td>--------------------------</td>
<td>------------</td>
<td>---</td>
</tr>
<tr>
<td>Preservation staff</td>
<td>4</td>
<td>13</td>
<td>21</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>University administrator (provost, president, etc.)</td>
<td>9</td>
<td>2</td>
<td>—</td>
<td>17</td>
<td>6</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>University advisory body (Faculty Library Committee, etc.)</td>
<td>3</td>
<td>12</td>
<td>4</td>
<td>—</td>
<td>—</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Property control (or other capital equipment monitoring office)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>10</td>
<td>9</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Board members/trustees</td>
<td>1</td>
<td>1</td>
<td>—</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Academic department (English, History, etc.)</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Other stakeholder</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Total Responses</td>
<td>42</td>
<td>44</td>
<td>44</td>
<td>37</td>
<td>30</td>
<td>10</td>
<td>44</td>
</tr>
</tbody>
</table>

If you selected “Other role” above, please identify which stakeholder and briefly describe their role. N=9

- Architects office took proposal to both state legislature and higher ed commission for approval.
- Bibliographers selected materials to be placed in off-site facilities. Library Faculty Committee & some academic departments in consultation with subject bibliographers served in advisory capacity.
- Circulation staff manage our off-site repository, including moving the materials.
- Preservation folks established standards for climate control and selected archival quality materials for ingest and storage operations.
- Subject selectors: policy decisions and procedure development
- Trustees: approval of design and construction and authorization of funding
- University administrator: approval for budget appropriations
- University advisory body gave endorsement to the project.
- University advisory body: advising

If you selected “Other stakeholder” above, please identify the stakeholder. N=11

- Access Services staff are responsible for annex management; they are involved in policymaking and procedural decisions. Facilities manager assisted with design and management of the buildings.
- Access services staff in charge of stacks management in main library were heavily involved in developing and testing policy, procedures, etc.
Committee: Associate dean, heads from two branch libraries, technical service representatives, library systems and information technology representatives

Facilities management leadership and staff instrumental in budgeting, design and construction, and on-going management of the facility.

Head of circulation, head of stacks, head of interlibrary loan (procedures)

ILL and cataloging helped develop policies and procedures. Campus legal office reviewed MOU before signing.

Manager, Bibliographic Services: procedures. Senior administrator for facilities: procedures.

Mid-level library administrators/librarians in facilities, circulation, collections, technical services, local library systems (IT), and the manager of off-site facility (champion, policy decisions, procedures, design and construction)

Project Manager (procedures)

The initial decision to build remote storage facilities (rather than ever larger library buildings) was made for our state universities at the Board of Regents level more than 20 years ago. In my library, everyone who had any direct involvement has now been retired quite some time, so many of my responses to this question are educated guesses.

TUG Information Resources Group was a key working group that defined, and now manages, the Annex. Circulation Services, Collection Maintenance unit was deeply involved in the procedures for shifting and report development. They continue to do the work required for the shifting and maintenance of the collection.

16. Please indicate which stakeholders are involved in deciding which print materials are selected for the remote shelving facility, and the role they play. Check all that apply. N=44

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Develop selection criteria</th>
<th>Select material for transfer</th>
<th>Review/approve lists of recommended material</th>
<th>Research availability of duplicates in other repositories</th>
<th>Other role</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject selector/bibliographer</td>
<td>26</td>
<td>38</td>
<td>32</td>
<td>15</td>
<td>1</td>
<td>41</td>
</tr>
<tr>
<td>Senior library administrator</td>
<td>33</td>
<td>16</td>
<td>17</td>
<td>4</td>
<td>2</td>
<td>36</td>
</tr>
<tr>
<td>Preservation staff</td>
<td>7</td>
<td>8</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Academic department (English, History, etc.)</td>
<td>3</td>
<td>1</td>
<td>8</td>
<td>—</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Library director</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>—</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>University advisory body (Faculty Library Committee, etc.)</td>
<td>3</td>
<td>—</td>
<td>2</td>
<td>—</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Other stakeholder</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>14</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Total Responses</td>
<td>40</td>
<td>40</td>
<td>38</td>
<td>29</td>
<td>8</td>
<td>43</td>
</tr>
</tbody>
</table>

Note: No one selected University administrator, Board members/trustees, or Property control.

One respondent reported: We are not currently adding new materials to our off-site storage.
If you selected “Other role” above, please identify which stakeholder and briefly describe their role. N=8

Access Services staff generated lists of holdings (e.g., JSTOR, PAO) that were candidates for off-site storage. Final decisions determined by bibliographers. Specific academic faculty requested materials to be excluded from being transferred to off-site storage.

All faculty and graduate students were surveyed about behaviors and preferences relative to collection access and use, and perceived impacts of alternative access on research and teaching.

Collections Steering Group

Faculty opinion was sought after.

Interceding in case of appeal by faculty or subject specialists that certain materials not be transferred, or be transferred back (library director, senior library administrator).

Library director: budgeting. Faculty Senate Library Committee: reviewed selection criteria.

Preservation staff review condition of materials before sending off-site or for binding and other physical care conditions.

Subject specialists communicate with faculty and other users; preservation staff evaluate for appropriateness of condition and treat individual items as part of ingest. University library committee will champion selection criteria with their colleagues.

If you selected “Other stakeholder” above, please identify the stakeholder. N=16

Task forces for stacks transfers and periodicals management develop guidelines and propose procedures. Staff in technical services develop procedures. Bibliographer assistants and support staff research availability of duplicates.

Access services staff in charge of stacks management in main library are directly involved in selecting material for transfer, usually according to pre-set criteria, but occasionally in response to other considerations, e.g., to relieve permanently or temporarily local shelving congestion in the main library.

Access Services staff run reports and check for duplication.

Acquisition Department staff (research duplicates)

Central Technical Services: research availability of duplicates in repositories.

Consortial storage partners (develop selection criteria, select material, review lists)

Library assistants run analysis programs on the “pick lists” to identify duplicates.

Library staff (research duplicates)

Mid-level library administrators/librarians in Collections, and Access Services, self-selecting academic faculty (develop selection criteria)

Staff in Collections (research duplicates)

Students do searching for duplicates.

Tech Services staff and Access Services staff develop lists of potential candidates for transfer and solve inventory problems. Stacks management staff are the actual “selectors” of the material from the shelf.
Technical Services staff (select material, review lists, research duplicates)

The Collection Management office, which includes the head and an assistant (develop selection criteria, select material, review lists, research duplicates)

The consortium project managers identified titles needed. Locally, the lists were reviewed by collections, circulation, and depository staff to identify appropriate local copies for transfer to the facility. Condition assessments were made as needed.

The TUG directors were involved in deciding that only last copy items could go into the Annex and how we would communicate deaccession of last copy materials. Circulation Services, Collection Maintenance unit develops the reports used for the automatic shifting in compliance with the TUG Preservation of Last Copy Agreement. TUG Information Resources Group manages the overarching projects in regards to rationalization projects (collection areas targeted, rationalization decision-making principles, stability of e-collection). TUG IR also communicates around last copy deaccession.

REMOTE SHELVING: PARTNERS

17. To how many remote shelving facilities does your library send print materials? N=45

<table>
<thead>
<tr>
<th>Number of facilities</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

18. Is the remote shelving facility owned or leased only by your institution or is it a shared facility? Check all that apply. N=43

<table>
<thead>
<tr>
<th>Facility Owner</th>
<th>Facility 1</th>
<th>Facility 2</th>
<th>Facility 3</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institution only</td>
<td>28</td>
<td>5</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>Shared facility</td>
<td>16</td>
<td>7</td>
<td>—</td>
<td>19</td>
</tr>
</tbody>
</table>

If your library participates in any shared facilities, please answer the following questions. Otherwise, continue to the next screen.

19. Please identify the names of all shared facilities in which your library participates (e.g., WRLC, ReCAP, etc.) or, lacking a formal name, please list the partners in any shared facility. N=22


CIC (the remote shelving facilities are owned by the individual institutions).

CIC Shared Print Repository (SPR) (2 responses)

Duke University Libraries, UNC Chapel Hill Libraries
Emory University and Georgia Tech are currently designing a shared high-density storage facility, which we expect to be online in about two years.

Five College Libraries Depository

FLARE (2 responses)

Harvard Depository

Iron Mountain Underground Storage

Libraries Services Center (all JHU libraries and University of Maryland)

Minitex

MOSS

Northeast Ohio shared academic repository. AssureVault commercial repository (part of The HF Group)

PASCAL

RecordKeeper. Access Information Management.

The only current participants in the Southeast Ohio Regional Library Depository are Ohio University Libraries and OU’s regional campus libraries, but this facility does also function as part of a state network of five remote storage facilities. The libraries in this state network do make some joint decisions about what we will retain—for example, the number of copies of bound journals—but there is also a fair amount of autonomy.

Tri University Group of Libraries Long-Term Storage Facility (Annex)

University of California Southern Regional Library Facility (SRLF) (3 responses)

20. Does the shared facility have a policy regarding retention of a “single copy” of an item within the facility? N=22

Yes 14 74%
No 5 26%

Comments N=11

Answered Yes

For Northeast Ohio shared academic repository: single copy in ONE of FIVE shared Ohio facilities.

In the early days of this facility we paid no attention to the number of duplicate copies sent to remote storage, but now we do not keep more than one copy of a work.

Items already at SRLF or NRLF may not be sent to the other RLF.

Single copy for facility for journals, and single copy per institution for monographs.

The facility only collects and houses single copies.

Answered No

It is a commercial record storage company.
No, but it ought to.
Not that we know about.

Additional Comments

Policies are currently being formed.
The Emory-Georgia Tech Collaboration is considering a single copy retention strategy.
The TUG Preservation of Last Copy Agreement delineates that only one copy can be kept in the Annex, and this should be the last copy in TUG. In the mid-2000s a large-scale project was undertaken to remove duplicates in the Annex.

21. Does the shared facility have a policy regarding retention of a “last copy” of an item within the facility? N=21

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>%</td>
<td>40%</td>
<td>60%</td>
</tr>
</tbody>
</table>

Comments N=10

Answered Yes

For Northeast Ohio shared academic repository
If we have the last copy available in the OhioLINK consortium, we will not withdraw without a compelling reason (such as mold).
The TUG Preservation of Last Copy Agreement delineates that only one copy can be kept in the Annex, and this should be the last copy in TUG.
Yes, there is language regarding retention of a “last copy” in the Five College Libraries Depository Policy. The “last copy” agreement extends to collections on our respective campuses, too.

Answered No

Currently discussing “last copy” issues.
Currently under discussion for the Joint Library Storage Facility.
Not that we know about.
The facility only houses single copies.
The UC shared facilities have a persistence policy.

Additional Comment

Policies are currently being formed.
REMOTE SHELVING: SELECTION

22. Please indicate which strategy is used to select print materials for inclusion in the remote shelving facility. Check all that apply. N=45

<table>
<thead>
<tr>
<th>Strategy</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title-by-title review using lists (no review at the shelf)</td>
<td>33</td>
<td>73%</td>
</tr>
<tr>
<td>Group selection based on type of collection (e.g., age of publication, specific location, specific format)</td>
<td>30</td>
<td>67%</td>
</tr>
<tr>
<td>System-generated list of titles with little or no title-by-title review</td>
<td>28</td>
<td>62%</td>
</tr>
<tr>
<td>Title-by-title review at the shelf</td>
<td>22</td>
<td>49%</td>
</tr>
<tr>
<td>Other strategy</td>
<td>9</td>
<td>20%</td>
</tr>
</tbody>
</table>

Please briefly describe the other strategy. N=9

For monographs, combination of publication date and total historical use.

Items from on-site storage transferred off-site if not requested in years.

Just selecting special collections material for remote storage at this time.

Lists are generated at the system level and then reviewed locally for availability and appropriateness for contribution (completeness, condition, online duplicate available).

Making decision based on CIC SPR holdings and local electronic back file purchases.

One trigger of a transfer project is when the stacks are particularly crowded in a certain call number range.

Periodical titles to which we no longer subscribe or for which we have electronic access are usually sent to off-site storage. Other items in off-site storage are selected on a title-by-title basis.

Subject specialists determine criteria for each subject.

University of California/JSTOR

If your selection strategy included lists or was based on type of collection, please describe the list criteria or identify the type of collection. N=31

Serials available electronically. Monographs that have not circulated.

Branch library

Criteria depend on the goals of the project (e.g., opening up space in a particular area of the stacks) and the subject area, but we generally concentrate on materials that are older and have not circulated for a number of years.

For monographs, two major parameters are age of publication and circulation history. For serials, lists of titles available in electronic form are reviewed.

For monographs, suggested 10 years or older with fewer than 3 checkouts with a last circulation date 8 years ago, subject to bibliographer criteria revision. For serials, UC/JSTOR project.

For project-based: lists of serials that had been cancelled with faculty oversight; lists of books published earlier than 1990 that haven’t circulated since 2001. For on-going: publication date 15 years or older and not circulated since 2001.
Journals: prior to 2005. Theses & dissertations: availability in online formats, previous editions, language (must be roman-alphabet).

JSTOR electronic journal subscription lists

Just selecting special collections material for remote storage at this time.

Lists generated by two processes/criteria: 1) Print equivalents for JSTOR collections; 2) Print titles included in the Council of Prairie and Pacific University Libraries Shared Print Archive Network. Titles then reviewed for storage, keep or discard.

Lists generated using algorithms based on publication date, number of circulations, and recency of last circulation.

Lists include journals with specific date ranges; low circulating monographs; journals that have ceased publication.

Lists of titles in selected electronic journal packages such as JSTOR or PAO. Lists were then reviewed by individual bibliographers for decision for off-site storage.

Little used monographs, back files of journals with electronic surrogates; certain categories of print government documents, superseded or outdated reference materials, collections of print materials digitized by local project.

Location, format, electronic availability, condition, language, circulation history

Monographs (not serials): age of publication, number of total circulations, date of most recent circulation

Our list criteria vary by collection, but in general the lists include materials that are more than five years old (pub date), have fewer than ten circs, three or fewer browses, no use at all in the last five years.

Publication date and circulation history

Separate projects for monographs (2011) and journals (2013)

Some collections identified by format (e.g., maps) or targeted because of operational needs (e.g., branch consolidation).

System-generated lists of eligible titles based on such criteria as age and date of last circulation.

The current selection strategy is focused on a shared collection of print journal back file volumes primarily in STM fields. Ingest of materials is handled one publisher at a time.

The initial movement of materials in year 1 was primarily done using system generated lists that were reviewed title-by-title by subject specialists. The lists were based on age and lack of circulation. Subsequent years’ transfers have mainly been system-generated lists without review except for group selections such as closed branches’ collections, or large journal runs for which online access has been obtained.

TUG has undertaken many rationalization projects for serials publishers’ collections and reference materials. Typically, these are collections we feel need to be retained, but for which rationalization can quickly create significant space savings.

Type-based selection: Print index/abstracts (most with electronic equivalents). Pre-1980 journals (this type was selected in 1996 for an on-site storage area. The material has since been transferred to our off-site facility). Journals selected for Cooperative Journal Retention (ASERL).

Types of collection: Brittle materials and back runs of bound journals

We are a member of the Five College Libraries and has shared an off-site storage facility with our partners for the past decade. We have employed a number of strategies to select materials to send to this facility. It has included supplying
serial lists to subject selectors so they can designate materials to send to the depository. There are no specific criteria we employ per se other than our practice to automatically transfer serial runs that overlap with online access we make available to users, for example, JSTOR, American Chemical Society, IEEE, etc. More recently, we have output lists that indicate collection overlap between the storage facility and in our on-campus collection. Our collection deaccessioning strategy outlines a process to identify and withdraw overlapping volumes. This applies primarily to serials, as they have been our primary focus to date. We have also outlined a strategy for sending monographs to the facility that includes looking at the age of the material, circulation over the past decade, availability within the Five Colleges, Boston Library Consortium, and HathiTrust. We have not started to deploy this, although we anticipate doing so in the next couple of years.

Varies

Was limited to monographs titles believed from available data to be low-circulation.

We use various criteria for storage, too numerous to list here.

While title-by-title review at the shelf or using lists was preferred in the first years, we are using more and more system-generated lists. List criteria for books: Combination of publication year, last check-in date, circulation statistics, duplicates. For journals: Cancellation date, availability of e-journal.

23. Are any print materials excluded from consideration for the remote shelving facility because of their condition, completeness, format, or subject area? N=45

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>23</th>
<th>51%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>22</td>
<td>49%</td>
<td></td>
</tr>
</tbody>
</table>

If yes, please briefly explain the criteria for excluding material. N=23

Condition N=12

Advanced deterioration

Damaged materials were not sent.

Materials recommended for storage must be in good physical condition or, in the case of frail or damaged conditions, such materials must be containerized using products that conform to archival standards that create a breathable, dust-free, and environmentally sound microclimate before they are accepted into storage. All materials must be clean and free of molds or vermin, without exception.

Mold detected.

Mold or similar damage sent to quarantine storage area.

Must be in good condition.

Obviously damaged materials

Rare materials/special collection; items requiring mediated access

Remote shelving facility has better environmental conditions than stacks. Sometimes materials are sent for preservation purposes.
The only items we exclude are items that are not in serviceable condition or no longer have intellectual or research value. Serviceable condition will be defined as physically usable. Intellectual/research value will be determined by a library selector or other subject expert in the field.

Velum or leather binding; any material where environmental conditions do not enhance preservation.

We generally do not send items in poor condition to remote storage.

Format N=9

Bulky objects, elephant folios, and heavy objects (e.g., Babylonian tablets, LPs) are not sent to storage.

In general, monographic materials are not included.

Included only monograph volumes.

Microfiche/microfilm is not kept in the Annex (though some irregularities exist).

Microforms, AV, selected federal government documents

Monographs (to date)

Nothing except paper-based material, so far.

Print only

We generally do not send items that do not fit into the standard sizes of trays used in our Harvard-model facility.

Completeness N=7

If the serial has only scattered volumes and the title is not currently received.

Lack of full text electronic availability drove many bibliographers’ decision to retain print on-campus.

Multi-volumes are excluded because of lack of tables of content in the bib. Retrieval of a particular volume is difficult without the TOC.

Sometimes items are excluded on a case-by-case basis because the way they are cataloged would make them difficult to identify and request from a remote facility.

Validation is at the issue level.

Volume level review

We try not to break up serial runs or monographic series.

Subject area N=6

Circulating collections are no longer selected.

High demand subjects as determined by faculty input stay on site.

Print that should be moved to Special Collections.

Special Collections

Unique Latin American holdings housed in the Benson Latin American Collection.

University’s collections of distinction or emphasis
24. Did you library consider whether the items were available in other print repositories (e.g., consortium holdings, ReCAP, Western Regional Storage Trust, etc.) when selecting them for inclusion in the remote shelving facility? N=44

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>16 36%</td>
</tr>
<tr>
<td>No</td>
<td>28 64%</td>
</tr>
</tbody>
</table>

If yes, please identify the print repository. N=15

- ASERL Cooperative Journal Retention agreement, Information Alliance Consortium, CRL
- ASERL Print Journal Retention Program
- Availability in SRLF has been a criterion for on-going selection for local storage.
- CIC print repository, CRL collection, and availability from other nearby research library collections.
- CIC SPR
- CRL and other print repositories listed in CRL’s PAPR database.
- CRL, WEST, CIC
- Shared Ohio facilities
- Sometimes. Depends upon subject specialist.
- We generally check to see how many other copies are available in OhioLINK but do not worry about whether the copies are in campus libraries or in remote storage.
- WEST, local shared repository
- Western Regional Storage Trust (WEST) (3 response)
- WEST, CRL

25. Did your library consider whether the items were available in electronic format or in an electronic repository when selecting them for inclusion in the remote shelving facility? N=45

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>39 87%</td>
</tr>
<tr>
<td>No</td>
<td>6 13%</td>
</tr>
</tbody>
</table>

If yes, please indicate which electronic format or repository is considered. Check all that apply. N=39

<table>
<thead>
<tr>
<th>Format/Repository</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased e-format</td>
<td>37 95%</td>
</tr>
<tr>
<td>Licensed e-format</td>
<td>23 59%</td>
</tr>
<tr>
<td>HathiTrust</td>
<td>17 44%</td>
</tr>
<tr>
<td>Portico</td>
<td>16 41%</td>
</tr>
<tr>
<td>LOCKSS</td>
<td>6 15%</td>
</tr>
<tr>
<td>CLOCKSS</td>
<td>5 13%</td>
</tr>
<tr>
<td>Other e-format or repository</td>
<td>2 5%</td>
</tr>
</tbody>
</table>
Please briefly describe the other e-format or repository. N=2

JSTOR

Scholars Portal perpetual holdings is a significant player for the local decisions to shift to the Annex. This will occur if an item should be retained in print, but we do not feel it will frequently be accessed in print. Outside of JSTOR, TUG Information Resources group has not tried to factor e-holdings into the rationalization process.

REMOTE SHELVING: COMMUNICATION STRATEGY

26. Please indicate which channels are used to communicate to library staff or an external audience the decisions about which print materials to include in the remote shelving facility. Check all that apply. N=44

<table>
<thead>
<tr>
<th>Channels</th>
<th>Library staff</th>
<th>External audience</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-on-one meetings</td>
<td>27</td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Presentations to groups</td>
<td>37</td>
<td>22</td>
<td>38</td>
</tr>
<tr>
<td>Press releases</td>
<td>3</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Informational materials</td>
<td>15</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Talking points</td>
<td>10</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Website</td>
<td>22</td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td>Other channel</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Total Responses</td>
<td>44</td>
<td>34</td>
<td>44</td>
</tr>
</tbody>
</table>

If you selected “Other channel” above, please describe the channel and the intended audience. N=6

**Library Staff**

- CIC website and in future webcasts
- Email
- Email to campus, direct emails to faculty liaisons in academic departments
- We posted the proposed strategy on the staff intranet and asked department heads to share and discuss it with staff in addition to numerous committee meetings in which it was vetted.

**External Audience**

- Conference presentations nationally and provincially about our shared print initiative
- Our faculty and student advisory committees were used to communicate with external customers at the time of inception of the remote shelving facility. We had presentations to staff and met with individual faculty and departments at that time as well. Subsequent transfers after year 1 have only been covered by our static website giving the selection criteria. We do not communicate about individual titles.
Additional Comments

Moving material to the off-site facility is a common workflow here. We are not constantly communicating what is going where.

The shelving facility opened in 1998 with lots of controversy. Today, it is just “normal business” and thus there isn’t any on-going formal communication.

We are only just beginning work, with communications yet to be developed.

27. What department is responsible for crafting and implementing the communication strategy about which print materials to include in the remote shelving facility? N=36

- Administration
- Assistant Dean for Collections & Access
- Chief Librarian’s Office
- Collection Development (3 responses)
- Collection Development, Library Dean, and AD’s
- Collection Development, Subject Librarians
- Collection Management
- Collection Management Department in conjunction with the Libraries’ Director of Communications
- Collection management, administration, public relations
- Collection Services, Outreach
- Collection Strategies, Executive Group
- Collections
- Collections & Scholarly Communication, Access Services, and Marketing
- Collections and Technical Services
- Collections Strategy and Management
- Collections, in collaboration with others (including the dean)
- Communications, Collection Development and Management, Administration
- Dean’s Office in consultation with University Communications. Using practices developed for previous project.
- Dean’s office, Outreach office
- Information Resources Council (A group of all of the GT Library subject selectors)
- Libraries Communications Office
- Library Administration
- Library Administration, in conjunction with collection development staff
On-site Services

Our Access Services department provides information on our website to library users who want to request material from our off-site storage facility. This does not include details about how materials were selected for remote storage. We have no formal communication strategy for the selection process itself and have not needed one beyond answering questions as they come up, which happens infrequently.

Public Relations in concert with Associate Dean
Senior administration and public relations staff
Senior library administrators in the Office of the Vice Provost

Storage, Acquisitions

The Libraries started sending materials to the off-site facility in 2002, so this activity has long been part of our practice. Our efforts started when we needed to consolidate two branch libraries into one as a summer project. Library Development and Communication worked with senior administrators to craft announcements about the project. The press release, though, was largely about the closing of one facility for duration of the project, not the materials that would be moved off-site, instead providing a contact for concerned constituents. Efforts focused on sending print serials where the Libraries also provided online access. There was considerable consultation done in advance with faculty to get their input.

There is no on-going communications strategy.

This is so standard for us that we do not generally have mass communication.

This was a joint venture between Access Services and Collection Development.

TUG Information Resources group has been a key part in crafting central messaging. Locally, the Information Resources Management Committee has been the lead in developing the messaging and accompanying material. It is chaired by the AUL, Information Resources & Academic Excellence and includes the Heads, Information Services & Resources, Head, Acquisitions, Head, Cataloguing, and liaison librarians.

28. Were external sources of information, such as reports from Ithaka, ARL, ALA, OCLC, etc., consulted when developing the communication strategy? N=44

<table>
<thead>
<tr>
<th>Yes</th>
<th>13</th>
<th>30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>31</td>
<td>70%</td>
</tr>
</tbody>
</table>

If yes, please briefly describe which reports. N=9

CRL PAPR, RLG Malpas Report, OCLC Lizanne Payne (2007), WEST "Collections Model" document

Ithaka, ARL, OCLC

Ithaka, OCLC

Not sure really. The off-site storage has been around for more than ten years, but none of the people involved in launching it and communicating about it are still here. More recently, we have relied on OCLC reports on shared print the most.

OCLC Print Management at Mega Scale, ARL Statistics, Ithaka faculty survey
Tangentially, the Education Advisory Board’s “Redefining the Academic Library” plus conducting an environmental scan of strategies deployed in peer institutions.

Unknown, too long ago

We used models gathered from the ACRL storage facility discussion group.

What to Retain report

29. Were there any specific challenges in crafting your library’s communication strategy? N=42

<table>
<thead>
<tr>
<th>Yes</th>
<th>9</th>
<th>21%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>33</td>
<td>79%</td>
</tr>
</tbody>
</table>

If yes, please briefly describe the challenge(s). N=8

A concept paper developed by the dean and associate dean on the possible consolidation of print collections from 7 libraries to 3 libraries (using remote storage) generated internal and media attention. This created an environment that was emotional.

Complexity of the decision making and strategic context.

Coordination of communication with our partner organization made planning outreach more challenging.

Explaining issues of space and budget always need to be addressed to university faculty and administrators.

Moving retained items to another location is easier to communicate than the corollary—withdrawal of local print copies.

Past frustrations expressed by some faculty in program review reports.

Past perceptions of deaccession strategies ensured that the messaging was targeted, open, and frequent.

We wanted to make the campus community aware of our plans to move selected, little used materials off-site. We guaranteed scanning and emailing or delivery of physical materials to campus within 48 hours of receiving a request.

We took great care not to compromise service. The biggest challenge was striking a careful balance in telling users what was happening and what we could deliver without causing undue concern.

REMOTE SHELVING: RESPONSE TO RETENTION DECISIONS

30. Were there any points of internal or external resistance to transferring materials to the remote shelving facility? N=43

<table>
<thead>
<tr>
<th>Yes</th>
<th>30</th>
<th>70%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>13</td>
<td>30%</td>
</tr>
</tbody>
</table>

If yes, please briefly describe the nature of the resistance. N=30

A few librarians and collegiate faculty were opposed because they thought material would be lost forever.
A few library subject specialists did not want to transfer as much material as would be needed in their disciplines, other librarians did not want to transfer some general periodical runs even though they were represented by full text online.

Although there was considerable upfront work done locally, looking at use patterns, there was concern that this little used material might be in more demand than circulation and re-shelving data demonstrated. We were concerned about faculty push back. Staff were concerned, too, that we might be overwhelmed with retrieval requests. None of these concerns have been realized in any significant way in the past decade.

At first, but our service model quickly erased any doubts and now it is an accepted part of how things are.

Certain faculty, need for browsing, competing library priorities

Concern about retrieval and browsability

Faculty concerns about availability

Faculty resistance to any delay or inconvenience

Humanities resistance

In 1998, the humanities faculty mourned the loss of collection browsability. They also believed that books would be lost. Today, it is seen as one of our most efficient and effective delivery services.

Initial resistance to concept of remote storage faded quickly with good retrieval times.

Initially, there was some resistance from subject librarians, but now it is generally seen as positive.

Less resistance to the transfer of print serials than of monographs.

Many librarians and some faculty had concerns that ability to browse the collection would be hindered.

Resistance from faculty who feared loss of browsing capability (much less now than in early days). Difficulty in tracking cited reference material when needed titles are in remote shelving.

Same desire for immediate access and browsing at shelf.

Some collection development librarians were initially resistant to the idea of “splitting up” the collection and avoided selecting materials until absolutely necessary. But we have had a facility now for about 20 years and resistance has disappeared over time and in the face of the obvious need to relieve crowding. Our users are sometimes unhappy that material from remote storage is not immediately available (the typical turnaround time is 24 hours, so it’s not a long wait), but they have not questioned or objected to the selection criteria.

Some concern on the part of faculty and some bibliographers about materials in certain subject areas being retained off-site. Electronic document delivery from off-site storage facility and more frequent turnaround times for delivery from off-site facility to the requesting library has alleviated some concerns.

Some external due to loss of ability to browse shelves.

Some faculty were concerned/uncomfortable.

Some faculty were unhappy about our retention/transfer criteria.

Some faculty, especially in the humanities, did not want any material shelved in a remote location.

Some initial mild resistance from library staff and faculty at moving things off-site, but that was alleviated by the efficiency of access to those materials. Also, resistance to the idea of moving content in languages using non-Roman
characters (Hebrew, Chinese, Korean, etc.) due to problems with online discovery in the catalog. We do not move those materials to remote storage as a general rule.

Some people felt sense of loss, even if the materials can be requested and delivered in 24 hours.

The arts and humanities communities are less enthusiastic about off-campus storage of materials.

There are still faculty around who get angry about transfer decisions that were made many, many years ago, but in some cases those were actually bad decisions made without using logical criteria. In more recent years we have repatriated some of those materials that should not have been sent (a fair amount of work but worth it) and that has helped to restore trust and lower the aggravation levels.

There has been faculty resistance to shifting material off-campus, in particular from humanities faculty members. They are concerned about the loss of browsability, serendipitous discovery, and delays in access. They are at times also concerned about reduction to one last copy.

There have been concerns about policies and procedures, which have not yet been formalized.

There was internal resistance, sense of de-valuing print.

There were some concerns expressed about the loss of the ability to browse, as well as concerns about timely delivery of materials.

**Answered No**

The library worked diligently to prepare faculty. The name of the facility did not use the word “storage.” We call it “Ivy Stacks.” It opened in 1996.

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**COLLABORATIVE RETENTION AGREEMENT STRATEGY**

31. Does your library participate in any collaborative retention agreements (i.e., a commitment by one partner to retain a specific volume so that another partner may deaccession or store their duplicate copy) independent of a shared shelving facility agreement? N=61

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40</td>
<td>21</td>
</tr>
<tr>
<td>%</td>
<td>66%</td>
<td>34%</td>
</tr>
</tbody>
</table>

If yes, please identify the partners in your collaborative retention agreement(s). N=40

- ASERL (3 responses)
- ASERL Cooperative Journal Retention
- ASERL distributed print archive
- ASERL/WRLC Cooperative Journal Retention
- ASERL, LOCKSS, but we have not leveraged these partnerships in making decisions for storage.
- BALLCO (Boston Academic Law Library Collaborative), Boston Library Consortia
- CIC participants of the shared print repository
CIC SPR

CIRLA and working on ASERL shared journals. Also work with our library partners in the off-site facility.

Council of Prairie and Pacific University Libraries (COPPUL) in Canada (2 responses)

Council of Prairie and Pacific University Libraries Shared Print Archive Network (COPPUL-SPAN) (2 responses)

Council of Prairie and Pacific University Libraries (COPPUL); NEOS (The name no longer means anything. This is a local consortium that shares our library catalogue.)

Expensive monographic series “adopted” by most UC campuses.

Greater Western Library Alliance (GWLA)

GWLA, WEST

In addition to our agreement with the Five Colleges, we participate in a “last copy” agreement with members of the Boston Library Consortium (BLC).

Iowa/Iowa State/University of Wisconsin distributed print repository

Members of the Western Regional Storage Trust (WEST)

NLM’s MedPrint program

Ontario Council of University Libraries members

Pennsylvania Academic Library Consortium (PALCI) (2 responses)

The CIC (Committee on Institutional Cooperation) Libraries

Tri University Group of Libraries is made up of the University of Guelph, Wilfrid Laurier University, and the University of Waterloo. It excludes affiliated colleges of any of these institutions.

Triangle Research Libraries Network, ASERL, Center for Research Libraries. This is a pilot.

TRLN Cooperative Print Retention (CPR) and ASERL Cooperative Journal Retention

University of Iowa, University of Wisconsin-Madison

University of Texas System and Texas A&M System libraries participating in the Joint Library Storage Facility in Bryan, Texas. University of Texas at Austin and Texas A&M College Station for materials at the Library Storage Facility in Austin, Texas.

University of Wisconsin-Madison, Iowa State University

We are participating in a journal retention program run by ASERL that is in its early stages.

WEST, and University of California shared print agreements.

WEST, GWLA

WEST, UC Shared Print, RLF agreements

Western Regional Storage Trust (WEST) (3 responses)
32. If yes, please briefly describe what criteria were used to select items for retention as part of the collaborative retention agreement(s). N=35

Agriculture journals

American Chemical Society, Royal Society of Chemistry. Print volumes of journals from major publishers. Two copies of full runs kept within the consortia.

Areas of strength at each institution

Assigned by consortium.

Based on criteria identified by WEST. University of California shared print agreements were based on coordinated recommendations from consortia-wide subject bibliographer groups.

Bronze archive criteria: electronically available where the digital form is also preserved in Portico, CLOCKSS, or LOCKSS. These titles are also highly duplicated in print among WEST members.

Chosen by publisher: American Chemical Society, American Institute of Physics, and the American Physical Society.

Completeness and condition of journals holdings, subject emphases on campus

Completeness of run, centrality to curriculum/local needs

Completeness, local significance, availability in other libraries/repositories

Cost, campus location determined by academic interest or need

Each institution uses their own criteria.

Focuses on retaining at least one print copy of a journal in the region.

GT used four sets of criteria for determining our contributions to the ASERL project. 1) Online access (leased or purchased) and important to our institutional mission (e.g., ACM, IEEE, AIAA). 2) Online access (purchased with ILL rights) not contributed by another school, where our holdings were complete. 3) Mostly complete titles related to the state of Georgia. 4) Mostly complete titles related to paper science.

GWLA members retain Annual Reviews collaboratively. Retention based on completeness of title run. WEST: see their website.

Health sciences journals for which we had complete print back files.

Heavily duplicated journals with stable e-versions in first phase. Subsequent phases will include less widely held journals and may include monographs or items of local historic interest and relevance.

Here are the criteria, excerpted from the BLC policy: No library will discard/withdraw the last copy of a monograph edition in serviceable condition, and deemed to have intellectual or research value, held within the consortium unless there are more than 50 holdings reflected in OCLC. No library will discard/withdraw a copy of a monograph edition in serviceable condition, and deemed to have intellectual or research value, held by only one other BLC member (i.e., a total of two copies within the BLC), unless there are more than 30 holdings reflected in OCLC. For all monographs with less than 30 holdings reflected in OCLC, it is recommended that at least three copies be retained within the BLC.

Initial selection of journal series title “Annual Reviews,” widely held, small runs

Kentucky-related publications and ornithology
Particular journal runs by publisher (physics journals). We committed to retain American Physical Society (APS) journals as a “light archive” copy in consortium while others committed to retain other publisher’s runs.

Print copies of widely held journals also electronically available.

Publishers where participants had licensed electronic versions of the journal titles. Journals only, print only, assembling complete runs, single copies.

Retained items are print journal runs. Participation is elective.

Risk management, issue-level validation, Ithaka S+R optimal copies research and withdrawal recommendations, overlap analysis

Selected titles in areas of research of historical importance to the university

Serial volumes housed by a multiple libraries. One copy of serial volumes to be retained at Joint Library Storage Facility and to serve as a Resource in Common for any library holding a copy of said volume.

Serials held by the member libraries, with a focus on high-duplication titles

Spring, Wiley, Elsevier STM journal back files

The Annex is used to house only the last copy of an item owned by any of the TUG libraries. In general, if there are two or more copies of any item in the Annex, only one copy will be retained. In general, none of the TUG libraries will send anything to the Annex if there is already a copy in the Annex, or if there is a copy elsewhere in any of the TUG collections. If any of the TUG libraries have serials in the Annex for which that library also has negotiated perpetual access to an electronic version, the print copy will be removed.

Titles had e-surrogates, print held by 9 or more COPPUL members, post-cancellation access rights.

Titles owned electronically and held at the majority of our libraries.

Unique items from our consortium (NEOS). Extensive holdings and ensuring a last copy is kept (COPPUL).

Uniqueness—we are the only holding library in TRLN. Space issues were a consideration for other schools in TRLN, i.e., they identified long runs of titles that were duplicative and available online and each school took on “retention” of different titles on the list. This was also a drive for deaccessioning but as yet the library hasn’t done this.

Widely held print journals with digital equivalents and licensed post-cancellation access rights

33. If yes, please briefly describe what criteria were used to select items for deaccession as part of the collaborative retention agreement(s). N=27

Deaccession due to agreements has not happened yet.

Each institution decides whether or not to deaccession.

Have not acted on this yet, but planning to do so. Only withdraw holdings that match those retained, perpetual access. Will retain those of local interest or where quality of images is a concern.

In progress

Last copy items may be deaccessionned as long as all three TUG libraries agree. In working practice, the library that wishes to deaccession the material sends a Last Copy Withdrawal Bulletin to the two other TUG counterparts. If one
of the TUG counterparts believes an item should be retained, then that library takes over ownership of the item and the item is transferred to their space or library. If no one selects the item for retention, it is deaccessioned as per local practices.

Left to the individual member libraries.

N/A

No deaccessioning, yet.

None yet

Perpetual access to corresponding e-versions; adequate ability to procure copy of print via ILB (requires holdings in one of a number of print retention projects underway around country), if necessary; digitization of older issues was adequate, especially regarding graphics; color digitized images, where applicable

Once items are secured and available for loan (e-version is already available), then all duplicate print can be deaccessioned.

Only deaccessioned titles that were *not* the last print copy in the OCUL institutions.

Please see BLC policy above.

Principle was that for any title we held print equivalent volumes and were not the archiving institution, we would deaccession unless there were compelling reasons not to do so, e.g., poor quality images in e-surrogate.

Shared print agreements allowed campuses to choose to retain or deaccession on a case-by-case basis. JSTOR titles were also deaccessioned on a case-by-case basis. Deselection was not a requirement.

Specific journal titles from certain publishers, held by all three institutions

Subject emphases on campus, persistence of partner holdings

That an item has been contributed to ASERL/WRLC is a factor in our deaccession process. Completeness, internal usage, and electronic availability (unpurchased/purchased/leased) are additional factors.

The agreements address retention and do not require deaccession.

This project is so new that no one has yet deaccessioned anything.

Thus far, serial volumes housed by a multiple libraries. One copy of serial volumes to be retained at Joint Library Storage Facility and to serve as a Resource in Common for any library holding a copy of said volume.

Titles in good condition in subjects not likely to be used and requested for transfer by other WEST members.

Titles owned electronically and held at the majority of our libraries.

We are not deaccessioning these titles; we are retaining them so that others can deselect.

We have not yet deaccessioned anything based on these co-operative agreements.

We have not yet discarded any materials as a result of the cooperative retention agreement program. We understand some other PALCI libraries have discarded.

Withdrawal will be optional.
DEACCESSIONING STRATEGY

34. Does your library deaccession print materials? N=61

<table>
<thead>
<tr>
<th>Yes</th>
<th>53</th>
<th>87%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>8</td>
<td>13%</td>
</tr>
</tbody>
</table>

If yes, are these decisions part of on-going collection management activities or are they handled on a project basis? N=53

<table>
<thead>
<tr>
<th>Both on-going and project-based</th>
<th>40</th>
<th>77%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project-based</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Part of on-going activities</td>
<td>5</td>
<td>10%</td>
</tr>
</tbody>
</table>

Comments N=18

Both on-going and project-based

Currently we are only deaccessioning serial titles that are duplicated across our campus libraries.

Government documents are withdrawn on project basis.

Purchase of a back file collection triggers a review of print holdings that overlap the back file.

Space constraints often drive projects.

The library, based on title-based rules created by liaison librarians, will automatically deaccessioned previous editions and duplicates. The library also runs usage reports to identify no use items that should be reviewed for deaccession by the liaison librarians. On an on-going basis, as titles are deaccessioned, depending on their LC range, the previous editions will be deaccessioned as well as they are discovered. The library recently did a visual inspection of the shelves to identify duplicates for deaccession and non-critical superseded editions. This process took place over six months in the Arts & Environment Library. The library also undertook a focused project on government information after the floor had exceeded critical capacity. The library is currently involved in a consortia project to reduce duplication of no/low use items across the TUG libraries and the Annex.

There are on-going weeding projects due to overcrowding in the stacks and in the RRS. We also routinely deaccession print material based on condition, duplication, and relevance to the collection.

We deaccession print materials due to library renovation projects and when we purchase new back files/archives.

We have a quite limited deaccessioning program, primarily focused on removal of duplicates or those items that have become functionally obsolete due to digitization or decay.

We have had projects such as eliminating unused duplicate copies, but selectors in certain subject areas (such as computer science) routinely deaccession materials.

Yes, if duplicated in the library system, otherwise we retain all uniquely held titles.

Project-based

Journal back files purchased electronically are deaccessioned in print.
Mostly focused on buildings being reorganized and one branch scheduled to close. Duplication of print holdings has been the most important focal point for these projects. The branch project has led to factoring in online holdings of journals too.

We normally do not deaccession unless the material is duplicated elsewhere in our collection. The closure of several libraries recently has caused significant transfers to the shelving facility and de-duping.

**Part of on-going activities**

Good weeding creates useful collections.

We deaccession only duplicates.

**Additional Comments**

Of course we withdraw materials routinely, but these questions seem to imply a more systematic approach, which we have not taken so far; we anticipate that changing in future, however. We will deaccession more significantly as part of overall collection (and library space) strategy.

We have such a regular stream of projects we have three staff plus student resources continuously dedicated to relocating and deaccessioning collections. Perhaps you can decide how that meets your categories above.

We do deaccession a very limited number of items when they are damaged beyond repair or for a few serial titles where the new volume entirely supersedes the old. We have no large-scale strategy for deaccessioning that your questions seem to be getting at, which is why I answered “no” to the question in general.

If you answered “Yes” above, you will continue to questions about the deaccession strategy.

If you answered “No,” you will skip to the section Managing Future Growth of Print Materials.

**DEACCESSIONING: STAKEHOLDERS**

35. Please indicate which stakeholders were involved in the initial decision to manage print collections by deaccessioning, and the role they played. Check all that apply. N=53

<table>
<thead>
<tr>
<th>Stackholder</th>
<th>Champion of the strategy</th>
<th>Policy decisions</th>
<th>Procedures</th>
<th>Budget</th>
<th>Design and construction</th>
<th>Other role</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior library administrator</td>
<td>36</td>
<td>47</td>
<td>32</td>
<td>23</td>
<td>5</td>
<td>—</td>
<td>51</td>
</tr>
<tr>
<td>Subject selector/bibliographer</td>
<td>10</td>
<td>28</td>
<td>40</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>46</td>
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<tr>
<td>Library director</td>
<td>29</td>
<td>22</td>
<td>1</td>
<td>15</td>
<td>1</td>
<td>—</td>
<td>39</td>
</tr>
<tr>
<td>Preservation staff</td>
<td>2</td>
<td>13</td>
<td>22</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>University advisory body (Faculty Library Committee, etc.)</td>
<td>3</td>
<td>6</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>
### Survey Results: Survey Questions and Responses

#### Stackholder Champion of the strategy Policy decisions Procedures Budget Design and construction Other role N

<table>
<thead>
<tr>
<th>Stackholder</th>
<th>Champion of the strategy</th>
<th>Policy decisions</th>
<th>Procedures</th>
<th>Budget</th>
<th>Design and construction</th>
<th>Other role</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property control (or other capital equipment monitoring office)</td>
<td>—</td>
<td>4</td>
<td>3</td>
<td>—</td>
<td>1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Academic department (English, History, etc.)</td>
<td>1</td>
<td>3</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>University administrator (provost, president, etc.)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1</td>
<td>—</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Other stakeholder</td>
<td>5</td>
<td>6</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Total Responses</td>
<td>46</td>
<td>51</td>
<td>50</td>
<td>25</td>
<td>6</td>
<td>9</td>
<td>53</td>
</tr>
</tbody>
</table>

Note: No one selected Board members/trustees.

If you selected “Other role” above, please identify which stakeholder and briefly describe their role. N=9

- Academic department library faculty representative reviews the Last Local Copy Withdrawal Bulletin to advise if any decision should be reversed. Circulation Services, Collection Maintenance unit was critical in alerting to capacity issues locally and in the Annex.

- Academic department: consultation

- Circulation staff do the pulling of journal runs.

- Faculty and graduate students were surveyed regarding their behaviors and preferences for collection access and use, and perceived impacts of alternative access on research and teaching.

- Property Control: has rules for deaccessioning capital assets. Academic departments: consultation.

- Selectors/bibliographers actually do some of the physical work involved.

- Subject selectors deaccession based on criteria and title by title review. Preservation staff recommend deaccession based on condition of item and other criteria.


- We anticipate beginning this process in the coming months; these are the areas where we will begin discussions.

If you selected “Other stakeholder” above, please identify the stakeholder. N=13

- Access Services staff were involved with procedural decisions.

- Again, our shelving and storage committees do this work (all categories).
Both at the time we were opening our remote shelving facility and a couple years later when we closed several STEM branch libraries, Access Services staff who manage the main library stacks and remote shelving facility were very concerned to eliminate duplicate (copy 2) books and journals rather than transfer these to the remote shelving repository.

Central Technical Services (procedures)

Circulation staff (pull journal runs)

Collection Assessment Coordinator (champion, policy decisions, procedures)

Collections Steering Group (policy decisions)

Committee: Associate Dean, Heads from two branch libraries, technical services representatives, Library Systems and Information Technology representatives.

Staff in access services, technical services, and digital conversion unit (procedures, design and construction)

Staff in Technical Services have a primary role in updating OCLC holdings and bibliographic records.

Technical and Automated services, Access Services (policy decisions, procedures, plus see above)

There is a head of collections position at the library, as well as an AUL position (champion, policy decisions, procedures).

Two: Head, Collection Development; Collection Development Coordinator (champion, policy decisions, procedures)

Additional Comment

I don’t believe that this was ever a “decision” made by library staff or administration, but rather has been within the purview of individual subject liaisons and the collection management leadership.

36. Please indicate which stakeholders are involved in deciding which print materials are selected for deaccessioning, and the role they play. Check all that apply. N=53

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Develop selection criteria</th>
<th>Select material for transfer</th>
<th>Review/approve lists of recommended material</th>
<th>Research availability of duplicates in other repositories</th>
<th>Other role</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject selector/bibliographer</td>
<td>36</td>
<td>42</td>
<td>38</td>
<td>24</td>
<td>—</td>
<td>50</td>
</tr>
<tr>
<td>Senior library administrator</td>
<td>41</td>
<td>17</td>
<td>20</td>
<td>7</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Preservation staff</td>
<td>12</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>Academic department (English, History, etc.)</td>
<td>1</td>
<td>—</td>
<td>5</td>
<td>—</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Library director</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>—</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>University advisory body (Faculty Library Committee, etc.)</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>—</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Property control (or other capital equipment monitoring office)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2</td>
</tr>
</tbody>
</table>

---
<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Develop selection criteria</th>
<th>Select material for transfer</th>
<th>Review/ approve lists of recommended material</th>
<th>Research availability of duplicates in other repositories</th>
<th>Other role</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other stakeholder</td>
<td>10</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Total Responses</td>
<td>50</td>
<td>49</td>
<td>44</td>
<td>35</td>
<td>13</td>
<td>53</td>
</tr>
</tbody>
</table>

Note: No one selected University administrator or Board members/trustees.

If you selected “Other role” above, please identify which stakeholder and briefly describe their role. N=12

*Academic department: consultation*

*Access Services head helped develop the selection criteria as a member of the Collections Services Advisory Group.*

*Access Services staff assisted some bibliographers with OCLC holdings information about potential withdrawal candidates. Staff also identified physically deteriorating for bibliographers to make collection decisions. Faculty provide input in selected cases concerning the retention of selected materials.*

*Preservation staff may review the material’s physical condition.*

*Property Control: communicated rules for deaccessioning capital assets.*

*Property Control helped us with procedures.*

*Senior librarian recommended hiring a consultant to identify books eligible for deselection. Director approved and funded.*

*Teaching departments were involved initially (10–15 years ago) but withdrawal is routine now and they are not involved.*

*Technical and Automated Services (develop report program; develop lists, including determine duplication)*

*The director and senior administrators played a role in policy decisions but are not directly involved.*

*The senior library administrator might be involved in budgeting if additional short-term staff need to be hired.*

*We anticipate beginning this process in the coming months; these are the areas where we will begin discussions.*

If you selected “Other stakeholder” above, please identify the stakeholder. N=13

*Access Services staff perform much of the work of deaccessioning.*

*Access Services staff (develop selection criteria, research duplicates).*

*Again, our shelving and storage committees do this work (all categories).*

*Both at the time we were opening our remote shelving facility and a couple years later when we closed several STEM branch libraries, Access Services staff who manage the main library stacks and remote shelving facility were very concerned to eliminate duplicate (copy 2) books and journals rather than transfer these to the remote shelving repository.*
Circulation Services, Collection Maintenance unit developed the criteria and procedures for automatic shifting to the Annex. Based on reports meeting the criteria approved by the Information Services & Resources Departments, they transfer the material.

Collection Assessment Coordinator (review lists, research duplicates)

Collection coordinators (#9), database management unit (review lists, research duplicates).

Library information technology staff, e.g., in Systems. They play a role in generating data for informing the decision.

Tech Services staff (select material, review lists, research duplicates)

Technical and Automated Services (develop selection criteria, research duplicates)

The coordinator, collections management would be involved in developing selection criteria and researching availability in other repositories.

There is a head of collections position at OSUL, as well as an AUL position. Staff in the Collection Management Section and sometimes other staff work with lists developed based on criteria. They pull and compare pieces for condition review, research duplication etc.

Two: Head, Collection Development; Collection Development Coordinator (develop selection criteria, review lists).

---

**DEACCESSIONING: SELECTION**

37. Please indicate which strategy is used to select print materials for deaccessioning. Check all that apply. N=53

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title-by-title review using lists (no review at the shelf)</td>
<td>36</td>
<td>68%</td>
</tr>
<tr>
<td>Title-by-title review at the shelf</td>
<td>35</td>
<td>66%</td>
</tr>
<tr>
<td>System-generated list of titles with little or no title-by-title review</td>
<td>23</td>
<td>43%</td>
</tr>
<tr>
<td>Group selection based on type of collection (e.g., age of publication, specific location, specific format)</td>
<td>23</td>
<td>43%</td>
</tr>
<tr>
<td>Other strategy</td>
<td>17</td>
<td>32%</td>
</tr>
</tbody>
</table>

Please briefly describe the other strategy. N=17

Case-by-case situation, not applied broadly

Circulation history

Citation counts are often used as a criterion.

Duplicates are reviewed title by title, but they might be identified as being duplicates by system-generated lists.

For journals, deselect when electronic back file is purchased.

In the medical library, when titles are contained in electronic journal packages (with PORTICO or LOCKSS backup) or electronic back files/archives with perpetual access agreement and PORTICO or LOCKSS backup.

Last copy retention guidelines (deaccessioning duplicates)

Lists together with shelf review
Materials in damaged or brittle condition are flagged at the circulation desk.

OCLC holdings
Only dups are deaccessioned.

Publisher/platform specific reviews after a back file purchase.

Science librarians at the various branches coordinate off-site storage decisions and deaccessioning of duplicate print.

Targeting duplicates
The library has now created Collection Retention Policy, which outlines strategic areas where deaccessioning will occur very rarely. This is typically based on format within targeted subject areas.

University of California/JSTOR project
We deaccession on a very small scale and on a case-by-case basis, primarily when materials are damaged beyond repair or entirely superseded by a new edition (relatively few items fall into the supersession category as we often keep older editions for possible historical interest).

If your selection strategy included lists or was based on type of collection, please describe the list criteria or identify the type of collection. N=32

A combination of factors: duplicate titles/editions in the system, JSTOR what to withdraw titles, perpetual access, low circulation of monographs, age of publication, broken or insignificant runs of periodicals, superseded editions.

All deaccessioning of print is predicated on either deduplication of multiple print copies or local availability of digital copies coupled with access to a secured print copy held at either CRL (for JSTOR titles) or the CIC SPR.

Availability of electronic format, including back files; duplicates in collection; outdated reference material; limited partial runs of periodicals

Circulation history, condition, subject area, location

Condition, usage statistics, age of publication, number of copies, language, subject

Currently we are mostly deaccessioning bound periodicals for which we own the digital back files; in these cases we begin with a publisher-based list of titles and volumes held. Our monograph deaccessioning projects are infrequent and much more limited in scope. We generally begin a monograph deaccessioning project with a review list based on specific location (collection or call number range), age of item, number of uses, and date of most recent use (e.g., last checkout more than ten years ago).

Digitized journals by title or publisher, some indexes and abstracts

Duplicate materials, year of publication, condition, juvenile/K-12 instruction materials

Duplicates list

Duplication of print holdings, in building & system wide. Digital resources added to mix for branch closing project under way.

For example, government documents and print journals available in fulltext online.

For journals: electronic back file lists. For books: lists generated by consultant.
For monographs: suggested 10 years or older with fewer than 3 checkouts with a last circulation date 8 years ago, subject to bibliographer criteria revision. For serials: UC/JSTOR project.

Journal back files purchased electronically, then print is deaccessioned.

Journal back files that are also in JSTOR.

Journals with electronic availability and/or duplicate holdings in consortium (OhioLINK) if local demand is low.

Lists based on usage and age of materials, and whether digital surrogates were available.

Lists generated by two processes: 1) print equivalents for JSTOR collections we own; 2) print titles included in the Council of Prairie and Pacific University Libraries Shared Print Archive Network. Titles then reviewed for storage, keep, or deaccession.

Lists of government documents and lists of print journals now available in electronic form (JSTOR, specific publisher packages)

Lists were created of duplicate (copy 2) books and journals and these were then compared at the shelf to pick the one in better condition to retain, and the worse was discarded. It was really a one-time effort.

Online availability

Our largest print deaccessioning projects have been in withdrawing print serials back files when stable, perpetual online access was available to the content. In terms of monographs, our largest project has been removing duplicate copies of titles from our general stacks. Smaller weeding projects focused on the reference collection and pockets of material where stable e-book versions of the content were available have also been undertaken.

Print and micro materials readily available online

Print journals that are available online and that are in secure archive (e.g., JSTOR)

Publication date, acquisition date, circulation/use history, electronic surrogate

Reports are sometimes created based on LC ranges where material may no longer fit the campus needs. Reports are created for zero-use items that have been in the collection for over 20 years, and are then reviewed by the liaison librarians. The library has also run publisher reports for textbooks, which are then reviewed by selectors. The library developed a report for government ephemera (e.g., pamphlets).

Serials held in JSTOR, CRL, other repositories, duplicate monographs

Shelf list with usage

The nature of the list criteria can vary by subject area and/or library. Type of collection may include age of publication, specific format, circulation, date of last circulation, or preservation quality.

This is very much the same as the criteria for sending materials to the shared off-site storage facility. We have employed a number of strategies to select materials to send to this facility. It has included supplying serial lists to subject selectors so they can designate materials to send to the depository. There are no specific criteria we employ per se other than our practice to automatically transfer serial runs that overlap with online access we make available to users, for example, JSTOR, American Chemical Society, IEEE, etc. More recently, we have output lists that indicate collection overlap between the storage facility and in our on-campus collection. Our collection deaccessioning strategy outlines a process to identify and withdraw overlapping volumes. This applies to primary serials as they have been our primary focus to date. We have also outlined a strategy for sending monographs to the facility that includes looking at the age of the material, circulation over the past decade, availability within the Five Colleges, Boston Library Consortium, and...
HathiTrust. We have not started to deploy this although we anticipate doing so in the next couple of years.

We dedup against lists of materials other libraries have put into FLARE.

We withdraw multiple copies of titles and do not attempt to replace some missing items based on various criteria, too numerous to list here.

38. Are any print materials excluded from consideration for deaccessioning because of their condition, completeness, format, or subject area? N=51

Yes 29 57%
No 22 43%

If yes, please briefly explain the criteria for excluding material. N=28

**Subject area N=20**

- 19th century English literature
- Abridged Index Medicus (AIM) titles
- Art resources, local government publications
- Faculty-identified high-demand subjects remain on site.
- Local interest
- Many subject areas
- Materials in special collections
- Paper science, translations and their original language holdings
- Photography
- Select subject areas will likely be fully or partially excluded.
- Special Collections (3 responses)
- Special collections, government documents
- Special consideration is given to Latin American materials.
- Those that have a unique connection to the university.
- Unique Canadiana
- University collection areas of distinction or emphasis
- Usually retain Mormon materials
- Veterinary medicine; some specific government agencies

**Condition N=6**

- Advanced deterioration
Candidates for weeding checked vs. catalog holdings in case other copies were in worse condition.

Good condition

The only material we exclude are items that are not in serviceable condition or no longer have intellectual/research value. Serviceable condition will be defined as physically usable. Intellectual/research value will be determined by a library selector or other subject expert in the field.

Unique/rare items, low OCLC holdings, high value

Volumes in the public domain were excluded until the availability of an e-version could be verified.

Completeness N=6

Check if supposed duplicates still exist in the collections.

Full runs of serials

Intermittent runs of serials, for example

Materials that are highly graphic in content [especially illustrations]

Some journals or serials

We use a metric for completion as a factor in guiding deaccession/retention.

Format N=5

OCUL’s Thunder Bay Agreement keeps one print copy in one OCUL library.

Rare books collection

Special, unique, or rare materials

Theses, some digitized, and gift materials

Trade journals

39. Did your library consider whether the items were available in other print repositories (e.g., consortium holdings, ReCAP, Western Regional Storage Trust, etc.) when selecting them for deaccessioning? N=51

Yes 26 51%
No 25 49%

If yes, please identify the print repository. N=24

All deaccessioning of print is predicated on either deduplication of multiple print copies or local availability of digital copies coupled with access to a secured print copy held at either CRL (for JSTOR titles) or the CIC SPR.

ASERL Cooperative Journal Retention Program, CRL
ASERL, WEST, Linda Hall Library
CIC Shared Print Repository
COPPUL agreement retention, though this is a distributed print retention scheme
CRL and repositories listed in CRL's PAPR database.
CRL, WEST, CIC
Five Colleges Bunker, Mass; JSTOR
Five College Libraries Depository
In some situations, consideration of total OCLC holding libraries is considered.
National Library of Medicine, BALLCO
OCLC holdings
OhioLINK holdings
OhioLINK library holdings [NOT a repository]
Past reviews have looked at the ASERL Cooperative Journal Retention. Future reviews look at other repositories using CRL’s PAPR.
Shared Ohio depositories
SRLF and NRLF
University of California Southern Regional Library Facility
University of Florida storage facility
We included libraries with repositories as part of our “peers” list for consultant to use to compare our collection with selected other libraries.
WEST, JSTOR
Western Regional Storage Trust (WEST) (3 responses)

Answered No
But we are hoping to do so in the near future.

40. Did your library consider whether the items were available in electronic format or in an electronic repository when selecting them for deaccessioning? N=52

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>47</td>
<td>5</td>
<td>10%</td>
</tr>
</tbody>
</table>

If yes, please indicate which electronic format or repository is considered. Check all that apply. N=46

<table>
<thead>
<tr>
<th>Format/Repository</th>
<th>Yes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased e-format</td>
<td>42</td>
<td>91%</td>
</tr>
<tr>
<td>Licensed e-format</td>
<td>29</td>
<td>63%</td>
</tr>
<tr>
<td>HathiTrust</td>
<td>25</td>
<td>54%</td>
</tr>
</tbody>
</table>
Please briefly describe the other e-format or repository. N=7

For journals: if the back files are in JSTOR.

Google

JSTOR

Other libraries, especially national, Internet Archive

Regional government document depository

Scholars’ Portal

We also check Internet Archive and Google Books.

41. How are deaccessioned print materials disposed of? Check all that apply. N=52

<table>
<thead>
<tr>
<th>Disposition</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recycled</td>
<td>40</td>
<td>77%</td>
</tr>
<tr>
<td>Donated to another organization</td>
<td>30</td>
<td>58%</td>
</tr>
<tr>
<td>Sold</td>
<td>29</td>
<td>56%</td>
</tr>
<tr>
<td>Discarded</td>
<td>22</td>
<td>42%</td>
</tr>
<tr>
<td>Other strategy</td>
<td>10</td>
<td>19%</td>
</tr>
</tbody>
</table>

Please briefly describe the other strategy. N=10

According to appropriate university regulations.

All withdrawals are boxed at Surplus Sales, as per policy.

If the material is not a TUG last copy, it is first offered to the affiliated college libraries. If they do not want it, it is given to the Used Student-Run Bookstore, based on criteria they have developed. All other material is recycled.

Made available to other libraries in state in accordance with Regents’ Rules. Materials not selected by other libraries are sold by sealed bid process to book dealers at an annual book sale.

Needs and Offers List for government documents

Serials are recycled, withdrawn monographs are sent to Better World Books.

Sold to paper recycling company. Some of the branches have held book sales.

There are specific campus-wide procedures that need to be followed for all the above strategies.

Transferred to another library’s collection. Sent to vendor for scanning.

We offer all materials to Friends Group, campus, and system libraries within our consortium.
DEACCESSIONING: COMMUNICATION STRATEGY

42. Please indicate which channels are used to communicate to library staff or an external audience decisions about which print materials to deaccession. Check all that apply. N=47

<table>
<thead>
<tr>
<th>Channel</th>
<th>Library staff</th>
<th>External audience</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentations to groups</td>
<td>37</td>
<td>15</td>
<td>37</td>
</tr>
<tr>
<td>One-on-one meetings</td>
<td>30</td>
<td>13</td>
<td>30</td>
</tr>
<tr>
<td>Website</td>
<td>13</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Talking points</td>
<td>6</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Informational materials</td>
<td>10</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Press releases</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Other channel</td>
<td>8</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Total Responses</td>
<td>46</td>
<td>29</td>
<td>46</td>
</tr>
</tbody>
</table>

If you selected “Other channel” above, please describe the channel and the intended audience. N=11

**Library Staff**

- Email
  - For JSTOR deduplication, selectors review title lists.
  - Staff intranet
  - Staff meetings
  - There is a paper form that travels with the item to be deaccessioned.

**External Audience**

- Subject librarians communicating with academic departments in their areas of responsibility.
- Targeted email to faculty, department chairs, library representatives in the academic departments.
- The Last Local Copy Withdrawal Bulletin is a key communication channel.

**Both**

- Email
  - Email to librarian staff and external audience
  - Library catalog. Email to library staff and occasionally to inform faculty.

**Additional Comment**

- Deaccessioning is a very loaded term for faculty, therefore not communicated widely.
43. **What department is responsible for crafting and implementing the communication strategy about which print materials to deaccession? N=32**

- Access, Information and Research; Collection Strategies; Library Administration
- Administration
- Administration, Acquisitions
- AUL, Collections/Services to Libraries
- Collection Development (5 responses)
- Collection Development, Library Dean, and AD’s.
- Collection Management, administration, public relations
- Collection Management (2 responses)
- Collections
- Collections and Technical Services
- Collections Services, Outreach
- Collections Strategy and Management
- Collections, Communications, Special Collections, Copyright Office
- Dean’s Office in consultation with University Communications. Using practices developed for previous project.
- Dean’s office, Outreach office
- Information Resources Council (all subject selectors), Library Administration
- Library Administration (2 responses)
- Library administration with the research services (liaison librarians) teams
- Library administration, in collaboration with collection development staff
- Library has a policy of light deaccessioning on a regular basis, so no special communication is required. When we have larger scale projects, we then do much more external communication.
- Library Resources Council
- No single department
- The Information Resources Management Committee oversees the communication of the Withdrawal Bulletin, which is developed by the Cataloguing Department.
- The shelving and storage committees
- There is no formal communication strategy. Policies are developed within the Collections Division.
- University Librarian’s Office
44. Were external sources of information, such as reports from Ithaka, ARL, ALA, OCLC, etc., consulted when developing the communication strategy? N=45

Yes 10 22%
No 35 78%

If yes, please briefly describe which reports. N=8

All the above
CIC, ALA, ARL
Consultation of literature on other libraries’ communications strategies and deaccession policies
Information gathered from ARL libraries about their disposal of JSTOR volumes
Ithaka what to withdraw and OCLC shared print at Mega-scale
JSTOR reports
References are sometimes made to the overall trends among ARL institutions or to reports such as those from Ithaka.
Scholars’ Portal updates, annual reports

45. Were there any specific challenges in crafting your library’s communication strategy? N=45

Yes 8 18%
No 37 82%

If yes, please briefly describe the challenge(s). N=7

A concept paper developed by the dean and associate dean on the possible consolidation of print collections from 7 libraries to 3 libraries: some librarians worked actively to undermine the project with the department they liaise with.

Clarifying the distinction between campus-owned and university-owned and ILL access options.

Engaging with faculty is difficult due to busy academic schedules. Expectations for respective roles of library staff and faculty in final decision-making in this area are not always understood.

Faculty concerns over loss of print volumes.

Past decision favoring online-only journal policies not known to some academic faculty. Required negotiations with a few faculty.

There is no unified library communication strategy.

We worked through the Faculty Senate Research Library Council to get faculty input on plans to selectively deaccession materials. A “De-Accessioning Strategy” document was drafted, shared with internal stakeholders, revised based on their feedback, then shared with the Faculty Senate Council. That was our main strategy. We have not sent out a press release because the focus of our strategy at this moment is to withdraw materials that are duplicates within our own collection at present. Once we complete this stage, we'll look at duplication within the Five Colleges. It is a delicate balance intended to assure our users they will continue to have access to these materials.
46. Were there any points of internal or external resistance to deaccessioning the selected materials?  
N=48

Yes 28 58%
No 20 42%

If yes, please briefly describe the nature of the resistance. N=26

A few folks were extremely attached to the physical object at first but this has abated.
A subject librarian was concerned about quality issues with e-journal back file scanning.
Concern about appropriate nature of research library collections
Faculty concerns over loss of print volumes.
Humanities faculty were not happy about disposing of some volumes.
Initial concerns were expressed and then allayed when assurance was given that only print resources with image-based online equivalents would be considered for deaccession.
Initially, there was some resistance from subject librarians, but now it is largely accepted.
It was noted that an agreement such as the Thunder Bay Agreement relies/is based upon mutual trust.
Occasional push back on specific titles, but this is sparse.
Our first round of deaccessioning was related to a mold outbreak in an on-site storage facility. The contractors did not follow the outlined protocol and tossed the items into an open dumpster at a library loading dock in site of the history department. This sparked some concern that was mediated.
People were concerned regarding the work being done to make sure we were paying attention to quality of materials being retained.
Reluctance to deaccessioning materials in research collection
Removal of local copies is seen as detrimental by some academic departments. There are concerns about the counts for program accreditations and ARL.
Resistance to deaccessioning JSTOR materials. Some general feelings that libraries should not discard materials.
Same demands for immediate access and browsing.
Selected faculty and bibliographer concerns about long-term availability and access to a physical copy.
Some departments on campus. We retained print for some titles and monitored them for usage and shared that data with the interested departments. Then the material was discarded.
Some faculty were unhappy with the retention and transfer criteria.
Some individuals fear discarding anything.
Some internal resistance from some librarians as they feel it de-values print.
Some reluctance to give up print in the belief that some users still want print.

Some sentiment for keeping copies of classic works in multiple libraries, esp. where colleagues preferred a Just in Case approach.

The nature of our role as a cultural heritage institution; the nature of the role of the librarian in building collections; the continual question of what will happen if..., the lack of national and regional print repositories

There are concerns that both LOCKSS and CLOCKS coverage are not comprehensive enough to deaccession many low use print journal runs that have electronic counterparts.

There are concerns the duplicative material we’re deaccessioning is used more than circulation data demonstrates. However, the items remain available within the Five Colleges. If necessary, the library could request materials in the shared repository be sent to our campus. To date, no such requests have come forward.

There was some resistance to the deaccessioning of print materials from some faculty and librarians, but not many.

Answered No

The duplicate copy reduction effort was a limited one-time project so there was little dissension.

**MANAGING THE GROWTH OF PRINT MATERIALS**

47. **What strategies does your library use, or plan to use, to manage the growth of print collections?**

   Check all that apply. N=64

   - Policies that encourage acquisition of serials in electronic format 62 97%
   - Policies that encourage acquisition of monographic materials in electronic format 53 83%
   - Consortial acquisition agreement 37 58%
   - Other strategy 18 28%

   Please briefly describe the other strategy. N=18

   - A careful review and reduction of our exchange and gift programs
   - Blanket agreements with select publishers for acquisition of monographic materials in electronic format
   - Construction of an on-site storage facility
   - Deduplication; purchase of online journal back files
   - Demand driven acquisitions of both print and electronic monographs
   - Demand driven acquisitions. Retention of titles in place via distributed repositories like WEST.
   - Funding challenges
   - Joint storage with other local library to accommodate storage growth
   - “Managing growth of print collections” is not a strategy for us. Rather it is to purchase materials in the formats that are best suited to the needs of our different users.
   - Planning for a new storage facility
Readily available in stable electronic environment

Restrict Approval Plan & resume PDA as funds are made available.

Robust on-going program of annexing and deaccessioning

Shared print collections; shared print storage

The rise in the use of electronic formats has the consequence of decreasing the print collections rate of growth, but we are not basing the decision to move towards electronic resources on this consideration.

There is no strategy to limit growth of print collections, however, selectors are encouraged to minimize duplication of digital collections, of local collections, and to some extent with regional holdings, and to consider where users will prefer or find greater value in digital formats.

We are looking at other methods for acquiring needed materials for faculty, like purchase of single articles in lieu of subscriptions. We continue to transfer materials to on-site facility.

We have an e-preferred model for serials but have not rolled out an equivalent policy across the full monograph collection. We are increasingly purchasing e-book packages in certain subject areas or with specific publishers and have implemented a broad e-book PDA platform, both of which have the de facto effect of reducing some purchasing of print monographs. We make efforts to avoid purchasing the same title in both print and electronic format (not always possible with packages), and do not regularly purchase multiple copies of a title in any format. A second copy would only be purchased when circulation or other data demonstrates a demand for greater access.

ADDITIONAL COMMENTS

48. Please enter any additional information that may assist the authors’ understanding of your library’s strategies and decision-making process for managing print collections. **N=23**

1. Where the opportunity exists, we secure online access to information products instead of acquiring printed copies.
   2. As time goes on, we think we should (a) spend decreasing amounts of money on published print materials and (b) dedicate a decreasing amount of space to published printed materials, but we do not assume that the demand for printed materials will ever completely disappear. 3. We buy fewer published books and rely more heavily on patron-driven and demand-driven acquisitions.
   4. Where feasible and appropriate, we intend to work actively with local, regional, and national partners to identify opportunities for cooperative collecting and preservation.
   5. Where possible, low-use printed materials should be moved out of high-demand library spaces so that those spaces may be put to other uses as desired by the library’s constituency.
   6. We are proposing to explore a three-tiered approach to archiving of print materials that might simultaneously facilitate real-time access to knowledge, better use of library space, and provide for the long-term preservation of printed documents. Those tiers might look something like this: a. Tier 1-Support for Dark Archives. Give support to third party dark-archive initiatives to foster an environment in which we are able to deaccession certain low-use materials without fear that they will become permanently inaccessible.
   b. Tier 2-Regional Participation in Archival Initiatives. Actively participate in regional and consortial archiving initiatives, such as WEST. These initiatives would allow us to deaccession low-use journals in full confidence that they will remain readily available from other institutions in the region.
   c. Tier 3-Local Archival Strategies. We may create local dark archives of materials that get little use but should, for whatever reason, be safeguarded and preserved for the future.
   7. We are hoping to enlarge our on-going discussions with other local research libraries regarding collaborative collection development and collaborative deaccessioning.
   8. Generally speaking, we acquire formally published documents for purposes of supporting real-time research and teaching needs, and unpublished documents for purposes of preservation and future...
research needs. The division between these endeavors is not absolute or perfectly consistent, but it is consistent enough to be meaningful, and it must shape the way we think about print strategies.

Circulation of print steadily decreasing. Space is limited in remote storage unit.

Emory and Georgia Tech are partnering to transition to a single shared collection. While still in the planning phases this will involve, in part, a shared Harvard style high-density storage facility and involve de-duping stored collections.

Expected new building that will house six of our libraries was the catalyst for hiring a consultant to provide a libraries-wide assessment of our book collection. Increased focus on adding library materials in support of current research and teaching needs of campus.

For our medical library: Basically we have limited medical campus storage space for older bound print journals, and we do not have a budget for remote storage. Due to limited space in the library, we purchase only e-journals, and our expenditures on e-books far exceeds our print book budget. Our print books aren’t expanding since we maintain a balance weeding older books and purchasing new books based on our limited circulating collection space in the library. Our strategy has primarily been to purchase electronic back files/archives with perpetual access agreements (and PORTICO or LOCKSS back-up) since we do not have any more space available in our on-campus storage space.

I believe that if librarians and faculty trust the library administration and understand the process, there will be less resistance to processes and projects that involve weeding.

Libraries will join HathiTrust, which will change approach to certain holdings, esp. to brittle volumes. One branch is closing, and another may.

Moving to “just in time” rather than “just in case” wherever possible.

Since we have several projects in the works (off-site shelving facility and the CIC Shared Print) we are just starting the process of these decisions. Our shelving and storage committee makes recommendations and we distribute and discuss from there with ample time for input from various library constituencies.

The Libraries created a new position in 2012 for the Head of Collection Management. This position is responsible for providing leadership and advocacy for furthering a comprehensive vision for the Libraries’ physical collections. This includes: developing policies and procedures related to physical collections; research, design, and implement data collection and analysis strategies to support effective collection management of existing and prospective physical collections; and developing a comprehensive collection plan that integrates physical and electronic resources.

The library, including Special Collections, is very selective about the acceptance of gifts to the collection—insuring that these materials fit well within the scope of our collection development policies.

The over-riding concern has been space constraints in the stacks and more recently space constraints in the RRS. As a result, there have been increasing efforts at deaccessioning.

The questions on this survey suggest that some libraries now regard their print collections as liabilities to be minimized. Although we have converted our journal subscriptions to electronic format whenever possible and appropriate, we continue to value our existing print holdings and do not regard them as problems to be done away with. We also purchase ebooks, but do not (yet) regard them as necessarily preferable to print books and we are still somewhat wary concerning their permanence (especially patron-driven acquisition programs, which we do participate in and value for their convenience to current users, but don’t see as replacing traditional collections at least in the near future).

The university is a participant in WEST. We plan to use the print archive to make decisions about drawing down print—especially in the science library, which we plan to renovate and expand over the next several years.
This survey was extremely hard to answer as none of our activities seem to match your categories well. Our high-density storage facility houses three million volumes. It is on our west campus—not adjacent to our facilities or our regular classroom buildings, but is not technically “off campus.” Please feel free to move our answers accordingly. Our high-density facility is partly state-funded and part of a state network of storage facilities although all of the materials housed in the facility are owned by the Libraries, it is on university property and staffed by library employees. It also houses special collections staff, offices, and their reading room. We also participate and have collections stored in the CIC-operated Shared Print Repository at Indiana. We are in the process of bringing online “outsourced” storage as well. That will be a contract with a vendor for storing extensive special collections in a vendor-managed facility. I don’t know how to fit that information into your categories. Our high-density storage facility was brought online in the 1990’s and thus it is hard to say who was involved in decision-making, etc. The communication questions are similarly hard to answer. These activities have been normal operations for many years, if not decades. It is not necessary for us to do any particular communications regarding them. We certainly provide information on the locations patrons see in our catalog and explain how to request materials from our facilities. However, we offer office delivery for our collections regardless of where they are housed, so it is relatively irrelevant whether they are in the main library or our high-density storage facility (we scan articles as well and ship our monographs to offices).

UNC Chapel Hill shares, with Duke University Libraries, a high-density storage facility, the Library Service Center. We do have a consortial arrangement for maintaining single copies of journal titles. We at UNC have sent more than 1.5 million volumes into the facility and are now engaged in a long-term, more moderately paced process.

We “float” our collection among our campuses so that if a book is checked out to a patron at one campus, they can return it to that campus and it will sit on the shelf at that campus until it is requested by someone else at another campus.

We are about to initiate an analysis of our print monograph collections, working with an outside vendor, to support decision-making around retention of print. Currently, we have collections housed at a commercial facility, and two separate on-campus locations. Decision-making has been opportunistic, not strategic, to date. There is recognition of the need to develop a strategic, selective decision-making process.

We are already a member of several resource sharing partnerships. We will continue to build on these and, hopefully, enter into some shared collection development partnerships. Where possible we will only purchase content in e-formats.

We are increasingly interested in HathiTrust or other stable digital content providers. We have an active digitalization and digital preservation program. And we are actively involved and interested in emerging initiatives for shared print archiving, including in other Canadian and US-based regions and networks.

We are just beginning many of these processes. We have had off-site storage for some time, it mostly holds print materials that we have in electronic format. We anticipate ramping up decision-making about what stays on campus, what goes into storage, and what is deaccessioned. We are developing guidelines for these activities now and once draft guidelines are approved, we will develop a comprehensive communication plan.

We currently purchase a very small proportion of our monographs in electronic format, but I anticipate that will increase over time.

We have moved large (700,000+ items to one facility; 400,000+ to another) active collections off-site to transform central library floors into labs and study spaces. Off-site collection remains available in the catalog and can be requested for next-day delivery from larger remote site and 3-day delivery from smaller site.
### RESPONDING INSTITUTIONS

- University of Alberta
- Arizona State University
- Boston University
- Boston College
- Brigham Young University
- University of British Columbia
- University of Calgary
- University of California, Irvine
- University of California, San Diego
- University of California, Santa Barbara
- Case Western Reserve University
- University of Chicago
- University of Colorado at Boulder
- Colorado State University
- University of Connecticut
- Duke University
- Emory University
- University of Florida
- University of Georgia
- Georgia Institute of Technology
- University of Hawaii at Manoa
- University of Illinois at Chicago
- Indiana University Bloomington
- University of Iowa
- Iowa State University
- Johns Hopkins University
- Kent State University
- University of Kentucky
- Louisiana State University
- University of Louisville
- McMaster University
- University of Manitoba
- University of Maryland
- University of Massachusetts, Amherst
- Massachusetts Institute of Technology
- University of Miami
- University of Michigan
- University of Minnesota
- University of Nebraska–Lincoln
- University of North Carolina at Chapel Hill
- North Carolina State University
- Northwestern University
- Ohio University
- Ohio State University
- University of Oklahoma
- University of Oregon
- University of Ottawa
- Pennsylvania State University
- Purdue University
- Rice University
- University of Rochester
- Rutgers University
- University of Saskatchewan
- Southern Illinois University Carbondale
- University at Albany, SUNY
- Syracuse University
- Temple University
- University of Texas at Austin
- University of Utah
- University of Virginia
- Washington University in St. Louis
- University of Waterloo
- University of Wisconsin–Madison
- Yale University
- York University