

**LIBRARIES “SUSTAINABLE ACCESS” TASK FORCE REPORT 2/29/2016**  
**AMENDED BY SENATE LIBRARY COMMITTEE 3/2/2016**  
**APPROVED BY FACULTY SENATE 3/7/2016**

The Western Libraries (WL) are projecting significant budget shortfalls beginning in FY17 (*Charge to University Task Force: Sustainable Access to Scholarly Resources for Teaching, Learning, and Research*). The Sustainable Access Task Force (SATF) has consequently been charged with determining criteria and processes for reducing expenditures on WL resources while minimizing the impact on faculty and students. This report summarizes the SATF recommendations.

### **General principles**

1) Faculty and student access to resources may be delayed but should not be reduced. An overriding goal of the SATF is that faculty and students be able to obtain all of the resources they are currently able to access, although the mode and timeliness of resource access will likely be impacted with any expenditure reduction.

2) Delayed access is preferable to no access. Some resources may be accessible via multiple modes (e.g., articles in Journal X via direct subscription, versus articles in Journal X via ILLIAD [inter-library “loan”]). The mode with the quickest access (e.g., direct subscription) is generally more expensive than other modes (e.g., ILLIAD). Other resources, however, may not be available except by a single mode (e.g., a citation database subscription). All other things being equal, maintaining access to single-mode resources is considered more important than maintaining access to the quickest delivery mode of a resource that may be obtained via a different (and less expensive) mode.

3) The primary criterion for eliminating resources should be based upon resource usage and resource cost. Additional criteria are discussed below in 4).

4) Subject to funding availability, exceptions to 3) may be allowed based on *defensible criteria* including, but not necessarily limited to, the following:

- Providing resource access for small and/or emerging disciplines (as defined by WWU Catalog rubrics)
- Providing resources for new faculty lines
- Providing resource access for faculty-identified critical resources
- Accreditation requirements
- Funding dedicated to specific resources (e.g., decision packages)
- Relative journal costs across disciplines
- Lack of overlap with existing resources, especially for non-full text resources.

5) The process of selecting resources for non-renewal should allow for faculty and student input before the decision is finalized. After resources identified for non-renewal are identified using criteria based upon 3), faculty and students should have the opportunity to request consideration for individual resources based upon the additional criteria in 4). *Making such a request is no*

*guarantee that it will be granted.* WL will evaluate such requests and make a final decision for each such resource.

6) New resources should not be added to the WL portfolio without justification based partly on the same criteria used to eliminate existing resources. Advocates for adding Journal X, for example, should be able to show that usage for Journal X (via ILLIAD) and its cost satisfy the criteria specified in 3) and/or 4).

### Primary criterion

The primary criterion for eliminating resources shall be expected “cost per use” (CPU) based on each resource’s annual cost and the usage over the past n years. For example, a journal with a current cost of \$500 per year, and usage over the last n = 3 years of 300 articles downloaded, would have a CPU of (3 years) x (\$500 / year) / (300 articles over 3 years) = \$5. Resources with a high CPU would be eliminated before resources with a low CPU. The basic idea is that resources with relatively high cost and/or low use should be eliminated prior to low-cost, high-use resources. For non-full-text resources, such as citation databases, a use is defined as a single query (e.g., citation search) that yields a query result (e.g., list of citing articles).

More precisely, for the  $i^{\text{th}}$  resource, “cost per use” ( $\text{CPU}_i$ ) shall be calculated as follows:

Define:

Y	Calendar year during which CPU is calculated
n	Number of prior years to include in CPU calculation
$u_{i,t}$	Annual usage of resource i in year t
$c_{i,Y}$	Annual cost of resource i in year Y.
$\text{CPU}_i$	Cost per Use of resource i

Then:

$$\text{CPU}_i = \frac{n \times c_{i,Y}}{\sum_{t=Y-n}^{Y-1} u_{i,t}} \quad (1)$$

### Definition of a single resource

In calculating  $\text{CPU}_i$  and considering resources for termination, resources should be defined by their smallest purchasable unit. For example, a single journal would be defined as a single resource and have its  $\text{CPU}_i$  calculated, as would a single database; a journal package that was “all or nothing” (e.g., WL can either purchase the entire package or not, but cannot purchase part of the package) would be considered as a single resource; but a journal package that was “a la carte” should have its composite journals considered as single-resources.

### Process for resource non-renewal

As mentioned above, the primary recommended criterion for eliminating resources is “cost-per-use.” However, to follow the general principles stated above, additional steps must be built into the process.

- To follow Principle 2, a distinction should be made between full-text resources and non-full-text database resources (such as citation or reference databases) that do not provide full-text access but provide information (e.g., results of citation searches) that cannot be obtained via ILL. The threshold cutoff for full-text resources should be lower than the threshold cutoff for non-full-text database resources, since full-text resources can generally be obtained with a delay while non-full-text databases cannot. The size of the threshold cutoff for non-full-text resources relative to the threshold cutoff for full-text resources can be expressed as a multiple  $q$ . For example, if  $q = 5$ , the threshold cutoff for citation databases would be five times higher than the threshold cutoff for journal subscriptions.
- To follow Principle 4, it is necessary to initially cut a larger amount of resources than WL has determined must ultimately be cut. For example, suppose that WL determined that \$250,000 needed to be cut, and applied equation (1) to cut \$250,000 in resources. Then there would be no ability to consider other criteria for any of the eliminated resources; this is contrary to Principle 4. If, however, \$300,000 were initially cut, when the eventual target was \$250,000, then the buffer amount of \$50,000 could be used to restore cuts based on criteria in addition to CPU. The buffer can be expressed as a fraction  $b$  of the final \$ amount to be cut.

Define:

$R_1$	Final \$ amount of targeted reduction for resource expenditures in year Y
$R_2$	Initial \$ amount of targeted reduction for resource expenditures in year Y, including buffer
$b$	Buffer fraction (e.g., a buffer of 0.20 implies that 20% more cuts than needed will be made in the first round).
$J$	The set of all WL resources that feature full-text periodical access (online and print journals, full-text databases, memberships, online packages)
$D$	The set of all WL resources that feature non-full-text database access (all databases not in $J$ , e.g., reference and citation databases)
$q$	Desired multiple for threshold cutoff value of resources in $D$ relative to threshold cutoff value of resources in $J$ [e.g., if $D$ resources were five times more valued per use than $J$ resources, $q$ would be 5]. Since $J$ resources are usually available in multiple delivery modes, and $D$ resources are typically single source, Principle 2) implies that $q > 1$ .
$k_J$	The threshold CPU cutoff for all WL resources in $J$ . All $J$ resources with a CPU less than $k_J$ will be eliminated in the initial round.
$k_D$	The threshold CPU cutoff for all WL resources in $D$ . All $D$ resources with a CPU less than $k_D$ will be eliminated in the initial round.

1) Set  $R_2 = (1 + b) \times R_1$ .

2) Determine  $k_J$  and  $k_D$  such that:

$$\sum_{i \in J | CPU_i \geq k_J} c_{i,Y} + \sum_{i \in D | CPU_i \geq k_D} c_{i,Y} = R_2 \text{ and } k_D = q \times k_J \quad (2)$$

- This formula simply states that once the initial target reduction  $R_2$  and the D / J threshold cutoff multiplier  $q$  are determined, WL must search for the cutoff values  $k_J$  and  $k_D$  that result in cuts of  $R_2$ . This is a mechanical process involving a simple one-dimensional search.

3) Prepare a draft list of resources to be eliminated: all resources in J with a CPU higher than  $k_J$  and all resources in D with a CPU higher than  $k_D$ . This is the first round of elimination.

4) Publish the draft list of resources to be eliminated on the WL website. Notify all departments that significant resources are to be eliminated and invite feedback. Only resources on the list are to be considered for elimination.

5) Departments petition WL using criteria identified in 4) for retention of selected resources. Departments should understand that the default outcome is that all resources on the list in 4) will be eliminated, and there is not likely to be a large enough buffer to accommodate all requests. The burden is on departments to justify an exception under Principle 4, but faculty and staff can work with WL to obtain data to support such requests.

6) WL makes the final decisions, without the possibility of appeal, with final expenditure reductions no greater than  $R_1$ . Petitioning departments are notified and results are posted on WL website.

### **Recommended parameter values**

The SATF recommends the following values for the key parameters of the process:

Parameter	Recommended Value
n	3
b	15%
q	5

### **Observations and Possible Concerns**

1) The potential cost of ILLIAD article purchases due to resources being terminated is unknown. In 2015, 7,558 articles were obtained through ILLIAD and the “average” cost per ILLIAD article was \$10.02. However, this average cost is potentially misleading as the total cost number used in the calculation includes fixed costs, and the variable cost per ILLIAD article is also volume-dependent. WL does not keep article-specific costs on file so no better estimates can be made of the likely ILLIAD costs at the present time. In the absence of data, there is disagreement on the task force about the significance of this potential cost, which depends not only on the cost per ILLIAD article but the total number of articles obtained via ILLIAD. If this number were significant, it would be another cost that could result in the need for greater cuts.

2) Books are not considered in this analysis.

3) The dollar value of the cuts being discussed by WL are significant. To minimize disruption to faculty and students, WL needs to prepare to educate faculty and students how resources that have been eliminated can be successfully obtained via other means (e.g., via ILLIAD, *institutional repositories, open access, etc.*)\*.

*4) Broader discussions need to take place at the university level with regards to the issue of funding for libraries resources. Without a different solution, inflationary pressures will lead to continued cuts for the indefinite future.\**

\* Italicized passages added by Senate Library Committee.