



Western Regional Storage Trust

Cycles 12 & 13 Archiving Proposals Report

Archiving Proposals Report for the Operations & Collections Council
Archive Cycles 12 & 13
August 2022

WEST Operations and Collections Council Archive Cycles 12 & 13 Archiving Proposals Report

Background

The Operations and Collections Council analyzed the regional journal holdings submitted by WEST members in fall/winter 2021. With this report, the OCC presents the following:

1. Overview of the 2022 OCC scope of work
2. Recommended Archiving Priorities for Archive Cycles 12 & 13, including:
 - a. Collections Analysis Summary
 - b. Recommended Cycles 12 & 13 Budget Allocations
 - c. Recommended Archive Holder/Builder Distribution and Budget
 - d. Recommended Criteria: Detailed Overview
3. Recommended priorities for the Gap Filling Pilot Project
4. Collections Analysis Key Findings and Recommendations

Historically, the OCC has charged a specially convened Collections Working Group (CWG) with the task of collections analysis. In order to reduce administrative overhead and streamline activities, WEST has opted to fold the CWG work into OCC responsibilities beginning with Archive Cycles 8 & 9. Collections analysis typically takes place over a 4-5 month period, during which the WEST Collections Analyst provides the group with detailed analyses of balancing scenarios. Although summaries are included in this report, the proposed title lists are available in AGUA. This report will be posted to the WEST website.

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Contents

1. Executive Summary	5
Cycles 12 & 13 Collection Characteristics	5
Major Changes to the WEST Collections Model and Analysis Priorities	5
Criteria for Archiving Proposals & Outcomes	5
Analysis for Bronze archiving proposals	6
Analysis for Silver and Gold archiving proposals	6
Summary of Cycles 12 & 13 archiving proposals	6
Key Findings and Recommendations	7
2. OCC Scope of Work	8
3. Recommended Archiving Priorities for Archive Cycles 12 & 13	9
Collections Analysis Summary	9
Modifications to the WEST Collections Model	9
Recommended Cycles 12 & 13 Budget Allocations	12
Final criteria and archiving proposals	15
Recommended Archive Holder/Builder distribution	18
Recommended Criteria: Detailed Overview	19
Duplication Ranges	20
Redistribution Criteria	20
Lock and Exclusion Criteria	21
Key Findings and Recommendations	22
Total Files and Records Ingested for Collections Analysis	22
Participation model for Archive Holders	23
Focus on scarcely held materials	23
Mitigate risks created by the WEST collections model	24
Appendix 1: Impacts of Incorporating HathiTrust Digital Library Serials and Journals Data into the WEST Collections Model	27
Appendix 2: Gap Filling Pilot Project at Arizona State University	30
Background	30
Project Goals	30
Questions to investigate	30
Analysis of ASU's Legacy Silver and Gold Archives	30
Bonus Analysis: Changes in Risk Over Time	33
Appendix 3: Archive Builder Initial Volumes Identified vs. Proposed Volumes	36
Silver Proposals	36
Gold Proposals	38
ASU Gap Filling Pilot Project Proposals	39

1. Executive Summary

WEST began its preparation for Archiving Cycles 12 & 13 in the fall of 2021, with the collections analysis taking place during the spring and summer of 2022. In close collaboration with and with significant guidance from the WEST Operations and Collections Council (OCC), the WEST project team has developed a set of high-quality journals proposed for archiving by WEST Archive Holders and Builders during Cycles 12 & 13. Additional recommendations for next steps for WEST archiving were also crafted with guidance from the OCC as a result of key findings from the analysis.

A. Cycles 12 & 13 Collection Characteristics

In the fall of 2021, all WEST member institutions were invited to submit files of unarchived serials holdings and bibliographic records to AGUA, which were used to seed the 2022 collections analysis for Archive Cycles 12 & 13.¹

The collections analysis took place during the spring and summer of 2022. In total, over 1.7 million records were submitted for 58 separate OCLC symbols; over 932,000 records matched to journals families and were included in the final analysis.

B. Major Changes to the WEST Collections Model and Analysis Priorities

Starting in Cycles 12 & 13, the WEST collections model includes a new comparator title list to identify journals to be archived as Bronze, the lowest-effort WEST Archive Type. In 2021, the WEST governance groups endorsed a recommendation to designate the HathiTrust Digital Library (HTDL) as a comparator title list for identifying journals for Title Category 1. This recommendation was based on a comparison of the HTDL repository with Portico and CLOCKSS that reviewed various preservation, operational, and technical characteristics, as well as an analysis of the potential impacts on WEST archiving in this and future Archive Cycles.

Additionally, the WEST governance groups prioritized identifying scarcely held journals in the analysis to propose for archiving as Bronze, Silver, and Gold. This is a sharp departure from WEST's historical analysis priorities to identify widely-held titles to create broad opportunities for deduplication and local deselection, and reflects a growing concern at the national level that significant content remains unprotected by shared print retention commitments. To further support this priority, WEST also conducted a one-time analysis to identify and propose for archiving higher risk materials in Archive Holders' collections that are not held by Archive Builders which have been overlooked for archiving in previous analyses due to WEST's collection model and archiving requirements.² Updating these priorities helps to close the holes in the national shared print safety net.

C. Criteria for Archiving Proposals & Outcomes

The Cycles 12 & 13 collections analysis attempted to streamline as much as possible the criteria used in shaping the final proposals made to archiving institutions. Previous analyses showed a swiftly shrinking pool of journals eligible for archiving at the Bronze level while the higher-effort Silver and, especially, Gold Archive Types were drawing down at much slower rates.³ This distribution of journals across the different Archive Types flipped in Cycles 12 & 13 with the inclusion of the HTDL serials and journals data: the vast majority of the journals included in the Cycles 12 & 13 analysis falling into the Bronze Archive Type, with relatively few eligible for archiving as Silver or Gold. Additionally, a one-time analysis to identify medium- and high-risk titles (those that match the Silver and Gold risk profiles) that are not held in any part by any Archive Builder institution increased the overall pool of journals eligible for archiving at the Bronze level by Archive Holders in Cycles 12 & 13, a consideration that influenced the final criteria for Bronze archiving proposals.

¹ During Cycles 2 through 5, WEST encouraged all members to submit serials records for collections analysis. With the shift to the new membership model in Cycle 6, only "full" WEST members were asked to submit records for analysis. As a result, WEST reduced the total number of member submissions in Cycles 6&7 through 10&11. In Cycles 12&13 WEST once again opened the collections analysis to all members, both "full" and "supporting," leveraging recently developed technical efficiencies to support the WEST governance priorities to seek out scarcely held titles to fill in gaps in the collective collections.

² The so-called 'blind spot' in WEST's collection model. Higher risk titles (those with Silver or Gold risk profiles) that are not held by an Archive Builder are not eligible for archiving because the optimal archiver is not an Archive Builder. This investigation was undertaken as part of the fifth AGUA development phase (Phase 5).

³ See the [2019 WEST Assessment Report Addendum – What's Left to Archive](#) as well as the [WEST Cycles 10/11 Collection Analysis Report](#) for a detailed discussion.

The analysis leveraged new data points added to AGUA during AGUA Development Phase 5 (2021) to support identifying scarcely held and unique materials:

- **% of published run held.** The calculated estimated completeness of the holdings compared to the full published journal backfile.
- **Count of Rosemont Institutions.** The number of [Rosemont participating libraries](#) with holdings in OCLC.
- **Count of US OCLC Institutions.** The number of institutions in the United States with holdings in OCLC.
- **Count of PAPR Institutions.** The number of retained holdings disclosed to PAPR.

Analysis for Bronze archiving proposals

Taking into account Archiver Holders' historical capacity for archiving Bronze as well as the OCC priorities to target scarcely held titles for archiving in Cycles 12 & 13, the final criteria for identifying Bronze archiving proposals were narrowly scoped to focus archiving efforts on the most at-risk titles without overwhelming local archiving capacity. Bronze Archive Holders received proposals from two separate analyses:

1. the regular analysis identifying low-risk journals to archive as Bronze, and
2. a one-time analysis of higher risk journals not held by Archive Builders that have historically been overlooked for archiving.⁴

Analysis for Silver and Gold archiving proposals

In general, the analysis to identify Silver and Gold archiving proposals prioritized scarcely held materials using the above data points. However, the addition of the HTDL data significantly impacted the distribution of collections across the Archive Types, shortening the timeline for some Archive Builders to contribute to these collections. In these cases, all eligible journals, with a handful of exceptions, were proposed to the Builders to maximize their resources and acknowledge that Cycles 12 & 13 will likely be the last opportunity for WEST to benefit from their service as Archive Builders.

Each Archive Builder was provided the opportunity to express local preferences for criteria to include or exclude journals with certain characteristics. In the past Builders have provided highly granular preferences, including subject headings, first year published, and presence on specific title lists. For Cycles 12 & 13, Builders indicated few preferences beyond overall capacity for archive creation in the coming two years. Select Builders requested preferences for materials based on location, Archive Type, or publication language. Adopting highly focused criteria helped to streamline and simplify the analysis and proposal process.

Pilot Project: Gap Filling Legacy Silver and Gold Holdings

In addition to the traditional analysis to identify Silver and Gold archiving priorities, WEST engaged in an additional analysis of Arizona State University's legacy Silver and Gold archived holdings. This analysis supports a pilot project ASU will engage in over the course of Cycles 12 & 13 to extend backfiles for select titles they have archived at the Silver and Gold level in previous Archive Cycles and to seek out contributions to fill persistent gaps in these holdings. These new volumes will be archived at the level of the original retention commitment for the title.

Summary of Cycles 12 & 13 archiving proposals

Archive Type	Title Category	Proposed Archivers	Journal Families	Estimated Volumes
Bronze	1, 2, 6	47	1,777	30,327
Silver	3	6	632	13,503
Gold	4 & 5	6	2,164	43,754

Table 1. Final proposed journal families and estimated volumes by Archive Type (includes proposals resulting from all three analyses)

⁴ At the [2019 Strategic Planning Session](#), the WEST governance groups issued the following recommendation:

- **Recommendation 3a:** Prioritize development/analysis to surface Silver and Gold titles that are invisible because they are not held by any of the six Builders.

This development and initial analysis was completed in 2021 as part of the [fifth AGUA Development Phase](#); the OCC recommended pursuing a one-time analysis to identify, propose, and secure retention commitments for these materials in Cycles 12 & 13, without pursuing development within AGUA to routinize this work.

D. Key Findings and Recommendations

Based on key findings from the collections analysis, the following recommended actions are endorsed by the WEST OCC:

i. Total Files and Records Ingested for Collections Analysis

1. Continue soliciting files from 'supporting' members to support a more complete picture of the full WEST collections during future WEST collections analyses.

ii. Participation model for Archive Holders

2. No action. Continue leveraging HTDL as a comparator title list in future analyses to identify journals eligible for Bronze archiving.

iii. Focus on scarcely held materials

3. Leveraging WEST, PAPR, and OCLC WorldCat data, continue seeking out journals scarcely held regionally and nationally to ensure the protection of these materials against total loss due to inadvertent deaccessioning.
4. Investigate incorporating additional PAPR and OCLC WorldCat data into AGUA to continue refining WEST's ability to identify journals with sufficient redundancy across the shared print community and strategically deploy WEST Archiver and program resources.

iv. Mitigate risks created by the WEST collections model

5. Consider opportunities to revisit the "high risk/no Builders" blind spot in future analyses, either by implementing another one-time analysis similar to the one conducted in Cycles 12 & 13 or by incorporating this analysis as a regular part of all future analyses.
6. Consider opportunities to encourage Archive Holder validation of materials archived as Title Category 2 ("high risk/no Builders"), such as by leveraging WEST's emerging guidelines for voluntary Bronze validation.
7. Consider other options for archiving higher risk journals that are not held by any Archive Builder, including a pipeline for transferring materials upon commitment to one of the Archive Builders to ensure validation and backfile consolidation appropriate to the risk profile.
8. After reviewing outcomes of the gap filling pilot project, consider incorporating retrospective gap-filling of legacy WEST archives as an ongoing part of the WEST collections analysis and archive creation workflows.
9. Share research findings, outcomes, and lessons learned of the gap filling pilot project with the wider shared print community (in particular, Rosemont Alliance partners) to support gap filling initiatives in other shared print programs. Consider how WEST and the wider community can support any data and infrastructure needs surfaced in this project to connect archiving institutions with potential contributors.

2. OCC Scope of Work

Starting in 2016, the WEST collections analysis and the allocation of archiving proposals have occurred biennially; WEST Archive Holders and Archive Builders continue to disclose archives on a yearly basis. Accordingly, the 2022 collections analysis identified two cycles worth of archiving proposals.

The OCC reviewed the following items to support the Cycles 12 & 13 collections analysis:

- Archive Cycles 12 & 13 budgets, as endorsed by the WEST Executive
- Recommendations for modifications to the WEST collection model and historical analysis priorities
- Abstracting & Indexing (A&I) title lists to diversify Title Categories 3 and 4
- Title keyword exclusions

Additionally, the OCC reviewed recommendations for a pilot project to investigate the viability and value of a project to dedicate Archive Builder resources to filling gaps in legacy Silver and Gold collections.

The OCC Scope of Work for the 2022 collections analysis included:

- Review and refine title lists given budget requirements from WEST Executive
- Define more specific criteria to reduce each archiving list to meet the Archive Cycles 12 & 13 budgets, with some leeway for local decision-making by Archive Holders/Builders (i.e. to over-propose to each Builder)
- Prepare summaries by Title Category, Archive Type, and proposed Archive Holder/Builder
- Report on the Cycles 12 & 13 analyses (regular, 'high risk/no Builder', and gap filling pilot project) and any recommendations, concerns, or points of interest that arise from the analyses

3. Recommended Archiving Priorities for Archive Cycles 12 & 13

A. Collections Analysis Summary

The AGUA Decision Support System was used to analyze WEST's regional journal holdings for Cycles 12 & 13 archiving.

WEST members provided over 1.7 million records for analysis from 58 OCLC symbols. In total over 932,000 records were matched to journal families (as outlined in the Ulrich's serials data service) and included for collections analysis. The risk management approach defined in the WEST Collections Model was applied to triage journal families into the WEST title categories and focus efforts on subsets of titles within each category. See the [Final Proposals](#) section for the specific criteria used to craft the final lists of archiving proposals; a full discussion of these priorities is available in the [Recommended Criteria: Detailed Overview](#) section.

WEST introduced several significant changes to the archiving priorities and to the WEST collections model that impacted the shape and outcomes of the analysis. In recognition of the ever-increasing need to strategically target high-value journals for archiving to make efficient use of WEST resources, and in response to growing efforts within the shared print community to address scarce titles (including the Rosemont Alliance), the OCC elected to target Bronze, Silver, and Gold archiving efforts in Cycles 12 & 13 on journals with very low levels of duplication across WEST that are also scarcely held across the US (as reported in OCLC) and have few or no retained copies (as reported in CRL's Print Archives Preservation Registry [PAPR]).

WEST also undertook two special analysis to investigate other facets of this question:

1. **High risk/no Builders.** This analysis targeted journals held by Archive Holders that are assigned a medium or high risk profile (corresponding to the Silver and Gold Archive Types), but which have been historically overlooked for archiving because they are not held in any part by any of the Archive Builders.
2. **Gap filling pilot project.** This analysis reviewed Arizona State University's archived titles and identified Silver and Gold archived holdings that are incomplete as compared to the full published run to target for an investigation into gap filling in legacy archived collections. ASU will revisit these holdings to extend the archived backfiles (bringing the 'end of backfile' closer to the present day) and will solicit contributions from WEST members and other institutions to fill gaps in the retained holdings..

Modifications to the WEST Collections Model

Each WEST collections analysis involves adjusting criteria used in the previous analysis to meet changing needs, such as slowly expanding the initial exclusion criteria to allow some journals into the analysis that would not have been included in earlier analyses. During the planning phase for the Cycles 12 & 13 analysis, the OCC took more dramatic steps to update the WEST Collections Model to better support priorities related to diversity, equity, and inclusion as well as engaging in the more detailed work of identifying and filling in holes in the national shared print collection.

A&I Title Lists

Prior to each collections analysis, the OCC defines the Abstracting and Indexing (A&I) database title lists that will be leveraged to identify journals for Title Category 3 (Silver) and Title Category 4 (Gold). For Cycles 12 & 13, the OCC turned a critical eye on this practice to seek out databases with a DEI focus, or that are likely to contain materials related to DEI priorities, such as environmental and social justice topics.

Of the 22 suggested new A&I title lists, 21 were included in the external sources for the analysis (the final database did not have a publicly available title list). In total, 341 journal families in Title Categories 3 and 4 matched to 16 of these new databases; 5 of the new A&I title lists did not have any journal families identified for them.

New A&I Database	Journal Families	Avg. Duplication in WEST
Arctic & Antarctic Regions	2	2.50
Criminal Justice Abstracts with Full Text	4	4.50
Historical Abstracts with Full Text	22	3.23
Jewish Studies Source	13	3.54
LGBTQ+ Source	10	1.90
SocINDEX with Full Text	39	3.74
Sustainability Reference Center	4	1.25
Wildlife & Ecology Studies	23	4.00
Gale OneFile: Diversity Studies	5	2.60
Gale OneFile: Environmental Studies	1	4.00
Gale OneFile: U.S. History	1	4.00
World Scholar: Latin America and the Caribbean	5	1.80
International Federation of Film Archives (FIAF)	39	3.33
U.S. Hispanic Newsstream	4	5.00
U.S. West Newsstream	16	3.69
Web of Science Additional Indexes (combined)	153	3.47
Total	341	3.36

Table 2. Outcomes from newly-added A&I database title lists

Compared to the full Cycles 12 & 13 data set for Title Categories 3 and 4, the journals in these new A&I title lists have slightly lower levels of duplication in WEST and slightly less complete holdings (compared to the published run). These journals also have lower levels of duplication across Rosemont members and in US holdings in OCLC, and are slightly less likely to have been archived by any institution (as disclosed to PAPR). This dovetails neatly with the other priorities established by the OCC to target scarcely held journals for proposal in Cycles 12 & 13.

HTDL

Starting in Cycles 12 & 13, the WEST collections model incorporates the HathiTrust Digital Library (HTDL) serials and journals data as a comparator list for Title Category 1,⁵ which identifies journals to be archived at the Bronze level. This data was made available by the Center for Research Libraries (CRL) through their yearly update to WEST of nationwide shared print disclosure information from the Print Archives Preservation Registry (PAPR).

Incorporating the HTDL serials and journals data into the WEST collections model had a dramatic impact on the distribution of journals across the WEST Archive Types: in the previous several analyses, the eligible WEST collections skewed increasingly toward higher effort Archive Types.⁶ With the inclusion of HTDL data, the vast majority of eligible journal families fall into Title Category 1 in Cycles 12 & 13. This revitalizes the Bronze Archive Type, extending opportunities for Bronze Archive Holders to engage with WEST in this capacity and shortening the timeline for securing commitments for titles that otherwise would have required physical validation.

⁵ The OCC designated HTDL as a comparator for Title Category 1 after comparing its digital repository characteristics against those of Portico and CLOCKSS, the other comparator data sets for TC1.

⁶ See the [2019 Program Assessment Report Addendum - What's Left to Archive](#) and the [WEST Cycles 10/11 Collection Analysis Reports](#) ("Review Participation Model for Archive Holders") for analyses of this trend and potential actions for WEST.

See [Appendix 1](#) for a detailed discussion of the impacts of incorporating HTDL serials and journals data into the WEST collections model.

High Risk / No Builders

In addition to the normal collection analysis, a secondary analysis was performed to identify high-risk titles (Title Categories 3, 4, and 5) not held by Builders. These are journals which, due to their calculated risk profile, should be archived at the Silver or Gold level, but which have not been eligible for archiving because they are not held by any of the Archive Builder institutions in any part (the so-called ‘blind spot’ in the WEST collections model). WEST conducted a preliminary investigation of this blind spot during AGUA Development Phase 5 by developing a new report to identify these titles.⁷ The OCC reviewed the findings of this analysis and endorsed a recommendation to pursue a one-time project in Cycles 12 & 13 to target these journals for archiving by non-Builder members without the normal validation requirements for Silver and Gold archiving.

For Cycle 12, the AGUA Development Team regenerated the report using the fresh data submitted by members in 2021. In total, 36 non-Builder members had journals in their submitted data identified as being high risk, but not otherwise eligible for archiving because they are not held by any of the Builder institutions. On average, the 3,886 journal families identified in this report are not widely duplicated in WEST, across Rosemont, or in US OCLC holdings, and over 86% do not have any retention commitments disclosed to PAPR. The OCC scoped the final proposals to target the most scarcely held journals and fill gaps in the national shared print collection. These journals are proposed as Title Category 2 to acknowledge that they will not be treated like traditional Silver (Title Category 3) or Gold (Title Categories 4 and 5) while also indicating their unique characteristics compared to Title Categories 1 and 6. These materials, while considered medium- to high-risk according to WEST’s Collection Model, will be archived at the Bronze level (no validation or storage requirements) in acknowledgement that while Archive Holders and WEST both do not have the operational infrastructure or capacity to support physical validation of these materials, the retention commitment itself is highly valuable to WEST and the wider shared print and scholarly communities.

Pilot Project to Fill Gaps in Legacy Silver and Gold Archives

Another threat to the national shared print collection are gaps in legacy WEST archives, in particular the higher-risk titles that have been archived at the Silver or Gold level. The validation actions performed on these titles (for completeness and, for titles archived at the Gold level, condition) make these archives highly trustworthy, but the less-than-reliable or simply nonexistent electronic availability of these titles means that each missing volume and each issue in less than ideal condition is a threat to WEST’s overall goal of preserving the print journal record.

The issue of incomplete retained backfiles in WEST is the product of two different circumstances. First, WEST defines an ‘end of backfile’ date for each Archive Cycle, which helps scope Archive Builders’ work and provide a target for concluding their activities on a title, ensuring Builders are able to dedicate appropriate time to all titles in a Cycle. Second, Archive Builders’ holdings may have gaps which they have not been able to fill through ‘calls for holdings’ (requests for contributions from WEST members) or through more passive solicitation of contributions through the Journal Retention Needs Listing (JRNL) tool.

In 2022 the WEST governance committees endorsed a proposal for Arizona State University to pilot a project filling gaps in their legacy Silver and Gold collections. To support this project, the AGUA Development team created a report of ASU’s archived holdings with current information about other WEST members’ holdings as well as current retention status of these titles in other shared print programs. The OCC reviewed this data to identify titles in ASU’s legacy WEST Silver and Gold archives to include in this pilot project.

To investigate how WEST can address this problem, the OCC developed a pilot project to revisit a selection of legacy Silver and Gold titles archived at Arizona State University to extend backfiles using both local unretained holdings and fill gaps in the retained backfiles by issuing new calls for holdings to solicit contributions from WEST members. The OCC leveraged AGUA Development capabilities to create a one-time report of ASU’s legacy retained holdings that includes information about the relative completeness of these retained holdings, WEST members’ current holdings for these titles, holdings throughout the US (as reported to OCLC), and additional retention copies (as reported in PAPR).

⁷ See “Ref 9: Surface historically unanalyzed collections” in Appendix 1 of the [AGUA Development Phase 5: Final Report](#) for details on this project.

ASU will validate these newly archived materials at the same level as the legacy retained holdings (volumes added to titles archived as Silver will be validated at the Silver level, and volumes added to titles archived as Gold will be validated at the Gold level), and will be compensated for their work through the Archive Creation Subsidy set by WEST Executive.

See [Appendix 2](#) for a detailed overview of this analysis.

B. Recommended Cycles 12 & 13 Budget Allocations

Using the AGUA Decision Support System, which includes functionality to propose to the next deepest backfile, the OCC redistributed Silver and Gold titles among the six Builders to ensure WEST can maximize individual Builders' archive creation capacity while adhering to the proposed overall Cycles 12 & 13 archive creation budget. The WEST Executive Committee endorsed an archive creation budget not to exceed \$318,500 for Cycles 12 & 13 (\$159,250 per year).

Archive Cycle	Archive Budget
Cycle 12	\$159,250
Cycle 13	\$159,250
Total for Cycles 12 & 13	\$318,500

Table 3. Archiving Budget for Cycles 12 & 13

This decrease in the archive creation budget from Cycles 10 & 11 is aligned with three Builders coming to the end of their medium- and high-risk collections that are eligible for WEST archiving: the changes to the WEST collections model (in particular the addition of the HathiTrust Digital Library [HTDL] as a comparator title list for identifying titles to archive at the Bronze level) dramatically impacted the distribution of eligible journals across the three Archive Types compared to previous analyses. Arizona State University, University of Denver, and University of Kansas saw decreases in the number of journals eligible for archiving as Silver or Gold. This natural decrease in Archive Building capacity within the program allowed WEST to adjust the archive creation budget to minimize costs while still supporting a pilot project to investigate innovative ways to pursue WEST's preservation goals.

Archive Builder	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 6	Cycle 7	Cycle 8	Cycle 9	Cycle 10	Cycle 11	Cycle 12	Cycle 13
Arizona State University	\$60,000	\$60,000	\$67,000	\$60,000	\$60,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$32,750	\$32,750
Rice University	N/A	\$27,000	\$15,000	\$27,000	\$27,000	\$28,000	\$28,000	\$28,000	\$28,000	–	–	–	–
Stanford University	\$52,000	\$19,000	\$61,000	\$61,000	\$61,000	\$40,000	\$40,000	\$40,000	\$40,000	–	–	–	–
UC Northern Regional Storage Facility	\$33,000	\$33,000	\$60,000	\$60,000	\$60,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
UC Southern Regional Storage Facility	\$59,000	\$59,000	\$64,000	\$64,000	\$64,000	\$54,000	\$54,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000	\$44,000
University of Denver	–	–	–	–	–	–	–	–	–	\$1,600	\$1,600	\$1,600	\$1,600
University of Kansas	–	\$28,000	\$23,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$20,000	\$20,000
University of Missouri	–	–	–	–	–	–	–	–	–	\$10,900	\$10,900	\$10,900	\$10,900
TOTAL	\$204,000	\$226,000	\$290,000	\$300,000	\$300,000	\$250,000	\$250,000	\$240,000	\$240,000	\$184,500	\$184,500	\$159,250	\$159,250

Table 4. Budgets by Archive Builder for all Cycles

Notes about the Archive Builder budgets and Archive Builder preferences:

- For Cycles 12 & 13, WEST is allocating no more than \$159,250 per year for archive creation.
- Cycles 12 & 13 likely represent the last years that Arizona State University, University of Denver, and University of Kansas can participate in traditional Archive Building activities. To maximize this remaining time, all journals eligible for Silver or Gold archiving are being proposed to these three Builders, with the exception of journal families with titles that have three or more copies retained across the Rosemont Shared Print Alliance member programs.
- The bulk of the Arizona State University’s archive creation budget will be dedicated to supporting the gap filling pilot project.
- The University of Denver will accept proposals for both Silver and Gold archiving in Cycles 12 & 13 (DU did not participate in Gold archiving in Cycles 10 & 11).
- The University of Missouri requested a preference for English-language materials to best leverage current local capacity.
- The UC Southern Regional Library Facility requested a heavier emphasis on Gold proposals over Silver (this was ultimately unnecessary, as the automatically-proposed journals skewed heavily towards the Gold Archive Type). The SRLF also requested prioritization of proposals where the deepest backfile is already present in their facility. This was achieved by limiting the “Proposed Archive Provider” to SRLF* and ZAS (SRLF’s OCLC symbol).

C. Final criteria and archiving proposals

Tables 5 and 6, below, summarize the final criteria and proposals for each Archive Type by Title Category (Silver and Gold are further broken down by Archive Builder).

Archive Type	Title Category	Initial Proposals	Criteria ⁸	Final Proposals
Bronze	1	28,343 journal families (1,028,963 est. vol.)	<ul style="list-style-type: none"> • Duplication in WEST = 1-3 • Count of PAPR Institutions = 0-1 • Count of US OCLC Institutions = 0-7 • Rosemont Archived = no • % of published run held ≥ 50% 	540 journal families (14,126 est. vol.)
	2	3,885 journal families (59,833 est. vol.)	<ul style="list-style-type: none"> • Duplication in WEST = 1-3 • Count of US OCLC Institutions = 1-5 • Rosemont Archived = no 	1,173 journal families (14,787 est. vol.)
	6	232 journal families (8,463 est. vol.)	<ul style="list-style-type: none"> • Count of PAPR institutions = 0-2 • Remove JSTOR titles from UC lists⁹ 	64 journal families (1,414 est. vol.)
Bronze TOTAL	1, 2, 6	32,460 journal families (1,097,259 est. vol.)	varies	1,777 journal families (30,327 est. vol.)

Table 5. Summary of Bronze (Title Categories 1, 2, and 6) Cycles 12 & 13 Criteria and final proposal

⁸ While most members that participated in the collections analysis as Archive Holders do receive archiving proposals under these criteria, a handful do not. All Archive Holders have the option of reviewing the full list of their initial proposals to identify journals for voluntary archiving.

⁹ The UC Libraries maintains a JSTOR print archive that is currently separate from WEST. Accordingly, WEST does not propose any JSTOR titles to the UC Campuses or RLFs.

Archive Builder	Archive Type	Title Category	Initial Proposals	Criteria	Final Proposals	Archiving Subsidy ¹⁰
Arizona State University	Silver	3	11 journal families (153 est. vol.)	● Exclude journals with 3+ copies retained across Rosemont	11 journal families (153 est. vol.)	\$612
	Gold	4	16 journal families (393 est. vol.)		14 journal families (303 est. vol.)	\$2,121
		5	33 journal families (441 est. vol.)		32 journal families (436 est. vol.)	\$3,052
ASU Gap Filling	Silver	3	850 journal families (15,073 est. vol.)	<ul style="list-style-type: none"> ● <i>Constant Archive Type</i>¹¹ <ul style="list-style-type: none"> ○ % complete = 30-99% ○ Duplication in WEST >1 ○ Count of PAPR Institutions = 1-3 ○ Rosemont Archived = all ○ Vol. remaining to archive ≥ 1 ● <i>Changed Archive Type</i> <ul style="list-style-type: none"> ○ % complete = 40-99% ○ Count of PAPR Institutions = 1-2 ○ Rosemont Archived = all ○ Vol. remaining to archive ≥ 1 	258 journal families (4,221 est. vol.)	\$16,884
	Gold	4	973 journal families (13,079 est. vol.)		262 journal families (3,741 est. vol.)	\$26,187
		5	1,096 journal families (24,199 est. vol.)		295 journal families (3,877 est. vol.)	\$27,139
University of Denver	Silver	3	7 journal families (235 est. vol.)	● Exclude journals with 3+ copies retained across Rosemont	5 journal families (168 est. vol.)	\$672
	Gold	4	12 journal families (189 est. vol.)		12 journal families (189 est. vol.)	\$1,323
		5	21 journal families (201 est. vol.)		21 journal families (201 est. vol.)	\$1,407
University of Kansas	Silver	3	70 journal families (1,503 est. vol.)	● Exclude journals with 3+ copies retained across Rosemont	68 journal families (1,390 est. vol.)	\$5,560
	Gold	4	170 journal families (2,060 est. vol.)		104 journal families (1,974 est. vol.)	\$13,818
		5	239 journal families (2,903 est. vol.)		239 journal families (2,903 est. vol.)	\$20,321
University of Missouri	Silver	3	109 journal families (2,721 est. vol.)	<ul style="list-style-type: none"> ● Primary language = English (first in list) ● Count of US OCLC Institutions = 0-99 ● Count of PAPR Institutions = 0-1 ● Rosemont Archived = no 	54 journal families (1,059 est. vol.)	\$4,236
	Gold	4	86 journal families (2,288 est. vol.)		52 journal families (1,409 est. vol.)	\$9,863
		5	266 journal families (4,059 est. vol.)		186 journal families (2,466 est. vol.)	\$17,262
UC Northern Regional Library Facility	Silver	3	700 journal families (15,574 est. vol.)	<ul style="list-style-type: none"> ● % of published run held > 50% ● Count of PAPR Institutions = 0 ● Count of US OCLC Institutions = 0-18 ● Rosemont Archived = no 	166 journal families (3,453 est. vol.)	\$13,812
	Gold	4	512 journal families (14,483 est. vol.)		113 journal families (2,895 est. vol.)	\$20,265
		5	1,814 journal families (33,407 est. vol.)		438 journal families (11,070 est. vol.)	\$77,490
UC Southern Regional Library Facility	Silver	3	415 journal families (9,294 est. vol.)	<ul style="list-style-type: none"> ● Proposed Archive Provider = SRLF* or ZAS¹² ● % of published run held ≥ 50% ● Count of PAPR Institutions = 0-2 	70 journal families (3,059 est. vol.)	\$12,236
	Gold	4	501 journal families (11,750 est. vol.)		115 journal families (4,269 est. vol.)	\$29,883
		5	1,893 journal families (34,367 est. vol.)		281 journal families (8,021 est. vol.)	\$56,147

Table 6. Summary of Silver (Title Category 3) and Gold (Title Categories 4 and 5) Cycles 12 & 13 Criteria

¹⁰ To support their archive creation work, WEST provides a per-volume subsidy to Builders for Silver (\$4/volume) and Gold (\$7/volume) commitments.

¹¹ To support the overall research goals of the gap filling pilot project, the OCC applied two sets of criteria to the eligible journals, one for journals that have kept the same Archive Type since they were first retained, and another for journals that have changed Archive Type due to changes in the WEST collections model and digitization of materials that were once only available in print. See the [bonus analysis in Appendix 2](#) for a discussion of this phenomenon.

¹² Indicating materials are already housed in the SRLF, maximizing SRLF's use of facility space.

D. Recommended Archive Holder/Builder distribution

For Cycles 12 & 13, WEST is balancing traditional Bronze proposals (titles found in reliable digital repositories, Title Categories 1 and 6) with proposing higher risk titles that are not held by any Archive Builder (Title Category 2), which shall be archived at the Bronze level to afford the protections of a shared print retention commitment to these historically overlooked titles while maintaining the same level of effort for Archive Holders retaining these materials.

Recommended Archive Holders	OCLC Symbol	Archive Type	Title Categories	Total Journal Families Proposed	Total Estimated Volumes
Arizona State University	AZS	Bronze	1	1	11
California Polytechnic State University	CPS	Bronze	2	1	5
California State University, Northridge	CNO	Bronze	2	7	124
Colorado State University, Fort Collins	COF	Bronze	1, 2	75	984
Iowa State University	IWA	Bronze	1, 2, 6	44	755
Kansas State University	KKS	Bronze	1, 2	37	331
Loyola Marymount University	LML	Bronze	2, 6	4	52
Mount Saint Mary's University	CMM	Bronze	2	1	9
Oklahoma State University	OKS	Bronze	1, 2, 6	21	255
Oregon State University	ORE	Bronze	1, 2, 6	18	432
Pepperdine University	CPE	Bronze	6	2	31
Portland State University	ORZ	Bronze	1, 2	11	120
Reed College	ORC	Bronze	1, 2	5	43
Rice University	RCE	Bronze	1, 2, 6	26	595
San Jose State University	CSJ	Bronze	1, 2	4	19
St. Mary's College of California	GH0	Bronze	2	1	25
Stanford University	STF	Bronze	1, 2, 6	572	8,653
Stanford University Graduate School of Business	S7Z	Bronze	1, 2, 6	46	621
The Getty Research Institute	JPG	Bronze	1, 2	122	1,696
The Huntington Library	HUV	Bronze	1, 2	9	309
UC Northern Regional Library Facility	ZAP	Bronze	1	71	1,948
UC Southern Regional Library Facility	ZAS	Bronze	1	14	405
University of Arizona	AZU	Bronze	1, 2	43	599
University of Arizona, College of Law Library	AZL	Bronze	2, 6	3	45
University of Arkansas, Fayetteville	AFU	Bronze	2	14	107
University of California, Berkeley	CUY	Bronze	1	199	5,081
University of California, Davis	CUV	Bronze	1	28	912
University of California, Davis, Health Sciences Library	CUX	Bronze	1	1	38
University of California, Irvine	CUI	Bronze	1	3	34
University of California, Riverside	CRU	Bronze	1	2	85
University of California, San Diego	CUS	Bronze	1	34	731
University of California, San Francisco	CUN	Bronze	1	1	16
University of California, Santa Cruz	CUZ	Bronze	1	4	80
University of Kansas	KKU	Bronze	1	5	95
University of Missouri, Columbia	MUU	Bronze	1	5	308
University of Missouri, Columbia, Health Sciences Library	MMU	Bronze	1	4	63
University of Oklahoma	OKU	Bronze	1, 2	14	144

Recommended Archive Holders	OCLC Symbol	Archive Type	Title Categories	Total Journal Families Proposed	Total Estimated Volumes
University of Oregon	ORU	Bronze	1, 2, 6	31	346
University of Redlands	CUR	Bronze	1	1	152
University of San Diego	CDU	Bronze	6	2	79
University of San Francisco	CUF	Bronze	2	1	4
University of Washington	WAU	Bronze	1, 2, 6	203	2,785
University of Wyoming	WYU	Bronze	2	18	246
Utah State University	UUS	Bronze	1, 2, 6	43	575
Washington State University, Pullman	NTE	Bronze	1, 2	21	341
Washington University in St Louis	WTU	Bronze	2	5	38
TOTAL		Bronze	1, 2, 6	1,777	30,327

Table 7. Summary of Bronze proposals by Archive Holder

Consistent with previous years, the OCC proposed more titles (and volumes) than WEST budgeted for Silver and Gold backfiles (see Table 8). The group recommends over-proposing each Archive Builder's title list to provide the builders with greater flexibility, in terms of selecting which titles to archive. Moreover, if funds remain unspent the additional journal families can be used to draw further archiving candidates from.

Archive Builder	OCLC Symbol	SILVER		GOLD				Total Proposed	Budget	Remaining Budget
		TC3 Journal Families	TC3 Est. Vols.	TC4 Journal Families	TC4 Est. Vols.	TC5 Journal Families	TC5 Est. Vols.			
Arizona State University (cumulative)	AZS	269	4,374	276	4,044	327	4,313	\$75,995	\$65,500	(\$10,495)
University of Denver	DVP	5	168	12	189	21	201	\$3,402	\$3,200	(\$202)
University of Kansas	KKU	68	1,390	104	1,974	239	2,903	\$39,699	\$40,000	\$301
University of Missouri	MUU	54	1,059	52	1,409	186	2,466	\$31,361	\$21,800	(\$9,561)
UC Northern Regional Storage Facility	ZAP	166	3,453	113	2,895	438	11,070	\$111,567	\$100,000	(\$11,567)
UC Southern Regional Storage Facility	ZAS	70	3,059	115	4,269	281	8,021	\$98,266	\$88,000	(\$10,266)
TOTAL		632	13,503	672	14,780	1,492	28,974	\$360,290	\$318,500	(\$41,790)

Table 8. Summary of Silver and Gold proposals by Archive Builder, with Archive Creation Subsidy and Budget impacts

The total proposed volumes identified in Tables 7 and 8 are for Cycles 12 & 13. This fall, WEST Archive Holders and Builders will be asked to commit to two cycles' worth of archiving. WEST will not divide the proposals into cycle-specific title lists; instead, the individual institutions can determine which titles are archived in Cycle 12, and which titles are archived in Cycle 13.

E. Recommended Criteria: Detailed Overview

Each Archiving Cycle, in consultation with the OCC, the collections analyst applies collections criteria in the AGUA Decision Support System to redistribute backfiles, identify journal families with desired characteristics, and further winnow down title lists through exclusion criteria. The collections analyst also reviews the title lists for quality, format, data integrity and distribution among archiver

holders and builders. Backfiles outside of WEST's scope (microform/fiche, monographic series, etc.) are excluded. Specific decisions and actions taken in the Cycles 12 & 13 collections analysis are described below.

Duplication Ranges

Duplication ranges have historically served as an initial "first cut" to reduce the size of the lists being analyzed. Historically, WEST has focused on archiving titles that are widely held across the group (medium- and high-overlap): the OCC (previously, the Collections Working Group) set a minimum level of duplication journals had to have across WEST members in order to be eligible for archiving proposal. This was to ensure that WEST was focusing its archiving efforts on journals which could provide broad opportunities for deselection and space reclamation in member libraries and facilities.

However, as WEST has completed archiving many of the available highly duplicated journals, its focus has expanded to include more 'unique' and scarcely held journals that have very low levels of duplication across member libraries. In 2013/14, the WEST Executive determined that all JSTOR, Portico and CLOCKSS backfiles should be archived by WEST. Additionally, during the Cycle 5 analysis, the Collection Working Group determined that lower overlap levels should be incorporated gradually. Accordingly, the proposed overlap levels were progressively lowered in the 2016, 2018, and 2020 analyses. Beginning in the 2018 analysis for Cycles 8 & 9, no duplication criteria are set for Title Categories 1 and 6. The 2020 analysis for Cycles 10 & 11 expanded this trend, and no duplication criteria were set for Titles Categories 3, 4, and 5 at the system level.

Prior to the beginning of the 2022 analysis for Cycles 12 & 13, the OCC endorsed a recommendation to focus the analysis on identifying scarcely held (low overlap) titles to prioritize for archiving. These titles may be at higher risk for inadvertent content loss through local deselection, and so were prioritized for archiving proposal in Cycles 12 & 13 to meet WEST's preservation goals by leveraging WEST's network-level analytical capabilities to identify these materials and extend the protections afforded by shared print retention. This work will ensure that this segment of the print record is preserved for future generations of students and scholars.

To provide maximum flexibility to pivot priorities based on the initial analysis findings, no overlap limits (upper or lower) were defined ahead of the initial analysis. After reviewing the initial, unrestricted data set, the OCC applied highly restrictive limits on overlap in the US (as represented in OCLC WorldCat) and the number of copies already retained for other shared print programs (as represented in PAPR). Overlap in WEST was not a specific target of these criteria.

Over the last several analyses, a trend emerged showing that print-only backfiles (Title Category 5) were the largest subset of the unarchived print serials being analyzed. With the inclusion of the HathiTrust Digital Library as a comparator title list for Title Category 1 (Bronze Archive Type), this distribution has changed dramatically: Title Category 1 is now the largest subset of unarchived print serials in the analysis, with over 56% having 5 or fewer copies held within the region.

Redistribution Criteria

Each Archiving Cycle the OCC leverages AGUA capabilities to redistribute proposals based on ties and "next deepest backfiles," ensuring that most Bronze Archive Holders receive archive proposals and all Archive Builders receive a desirable distribution of Silver/Gold archive proposals and are over-proposed for their Cycles 12 & 13 budgets.¹³ This standard procedure was employed for Cycles 12 & 13 for all title categories.

In WEST, a "tie" is when two or more potential archive holders have equally deep backfiles (i.e. they hold the same number of volumes for a given journal family). Accordingly, the ties redistribution ranking determines if an institution should be prioritized for receiving ties or if the system can assign an Archive Holder/Builder at random (among the institutions participating in the tie). For Cycles 12 & 13, the OCC prioritized smaller archivers and institutions to better balance the distribution of archiving proposals across the membership and not over-propose to any one institution.

¹³ WEST tries to over-propose each Archive Builder's budget. This allows Builders to select the titles that most closely align with local preservation strategies/goals.

The AGUA Decision Support System was designed to allow the OCC to re-assign some titles to institutions with the next deepest backfile.¹⁴ Similarly to ties redistribution, the OCC prioritized smaller archivers and institutions that archived last year (particularly when the original proposals were lower than the number of volumes archived last cycle), as well as Archive Builders who had not received an adequate number of proposals in Title Categories 3, 4, and 5.

Lock and Exclusion Criteria

The WEST collections analysis process offers several points at which materials can be excluded from analysis, both by applying criteria at the system level and by applying criteria that impact a single member's proposals.

Pre-analysis Exclusions

The following exclusion criteria were applied automatically for all categories during the member holdings ingest period:

- Journals in holdings location codes excluded by campus
- Government documents (as cataloged in the source record or in Ulrich's)
- LC classifications K (as assigned in Ulrich's)¹⁵
- Grandfathered UC (IEEE)
- Title keywords
- Library holdings matching "micro"
- Library holdings matching "online"
- Titles already archived by WEST
- In-progress WEST archiving commitments (from Cycles 10 & 11)

Post-Ingest Proposal Refinement

After the initial ingest period there is an opportunity to refine proposals based on Title Category and Archiver to target journal families that best meet the needs and priorities of both WEST and the proposed Archiver. AGUA includes functionalities to "lock" and "exclude" proposals based on various criteria.

Journal families with specific characteristics can be "locked" in place to ensure they will not be excluded from the proposed title lists. Lock criteria are tailored to the title category and individual archiver; this flexibility allows the OCC to prioritize certain collection characteristics, so long as it does not result in too many journal families being locked (i.e. more than was budgeted for).

Journal families with specific characteristics can be "excluded" from consideration, so long as they do not also possess a characteristic that has been locked. When a journal family is excluded, it is no longer proposed to an archiver holder/builder for the cycle in question.

Due to the complex nature of the Cycles 12 & 13 analysis and the very specific priorities the OCC identified for archiving proposals, the "lock" and "exclude" functions were not used to scope the list of eligible journal families; instead, a more manual review of the data was conducted in order to better understand the data and make informed decisions on final criteria.

Summary of OCC Priorities for Silver and Gold Proposals

In 2021, during the planning period for the Cycles 12 & 13 collections analysis, the WEST governance groups endorsed a recommendation to prioritize identifying scarcely held journals in the analysis to propose for archiving in all Archive Types. This is a sharp departure from WEST's historical analysis and archiving priorities to identify widely-held titles for archiving in order to create broad opportunities for deduplication, and reflects a growing concern at the national level that significant content remains unprotected by shared print retention commitments. In WEST, this concern is felt most strongly with regards to higher risk materials that have fewer access points, and may only be available in their print format.

This early priority established a new approach to defining the final criteria for Silver and Gold archiving proposals. Previous analyses have provided space to incorporate considerations and priorities other than duplication level and estimated volumes to be archived (such as refereed status, publication frequency, and document subtype), with the final title list winnowed down through the

¹⁴ At the June 2014 WEST Strategic Planning meeting, the Executive Committee and OCC members decided that in order to better distribute archiving responsibilities, the next deepest backfile should be considered for assigning archive title lists.

¹⁵ During Cycles 6 & 7 collections analysis, the CWG recommended lifting the automatic exclusion of LC class Z materials. For Cycles 8 & 9, the OCC reviewed LC class Z journal families and determined they would be acceptable proposals.

application of increasingly restrictive criteria. The priorities for Cycles 12 & 13 focused on identifying the most scarcely held titles to fill archiving capacity: because WEST lacked experience defining criteria focused on these priorities, the OCC did not set base criteria for identifying Silver and Gold archiving proposals for Cycles 12 & 13, opting instead to begin with the most restrictive criteria (extremely low duplication in WEST, US OCLC holdings, and retention copies disclosed in PAPR) and slowly expand them to fill each Builders’ archive creation capacity. This approach led to some differences in how each criterion was ultimately scoped for each Builder.

This investigative approach resulted in final criteria that leveraged the more quantitative aspects of WEST’s analytical practices, identifying mathematical thresholds for each criterion that would produce a final list of proposals that both satisfied WEST’s archiving priorities and filled Builders’ archive creation capacities.

F. Key Findings and Recommendations

The Cycles 12 & 13 collections analysis revealed a number of key findings. In response to these findings, the OCC presents the following recommended actions.

i. Total Files and Records Ingested for Collections Analysis

During Cycles 2 through 5, WEST encouraged all members to submit serials records for collections analysis. With the shift to the new membership model in Cycle 6, only “full” WEST members were asked to submit records for the Cycles 6 & 7 analysis, a practice that was maintained through the Cycles 10 & 11 analysis. Developments in the fourth AGUA development phase (Phase 4) increased the efficiency of the ingest and analysis workflows and ultimately saved a significant amount of technical staff time overall: at the completion of the Cycles 10 & 11 analysis the AGUA technical team noted that the unarchived holdings ingest process concluded significantly earlier than in previous years. With these staff time savings, the OCC endorsed a recommendation put forth in the Cycles 10 & 11 collections analysis report¹⁶ to expand the option to submit files for analysis to include both full and supporting members.

This decision stopped the downward trend of file submission, as seen in Figure 1.

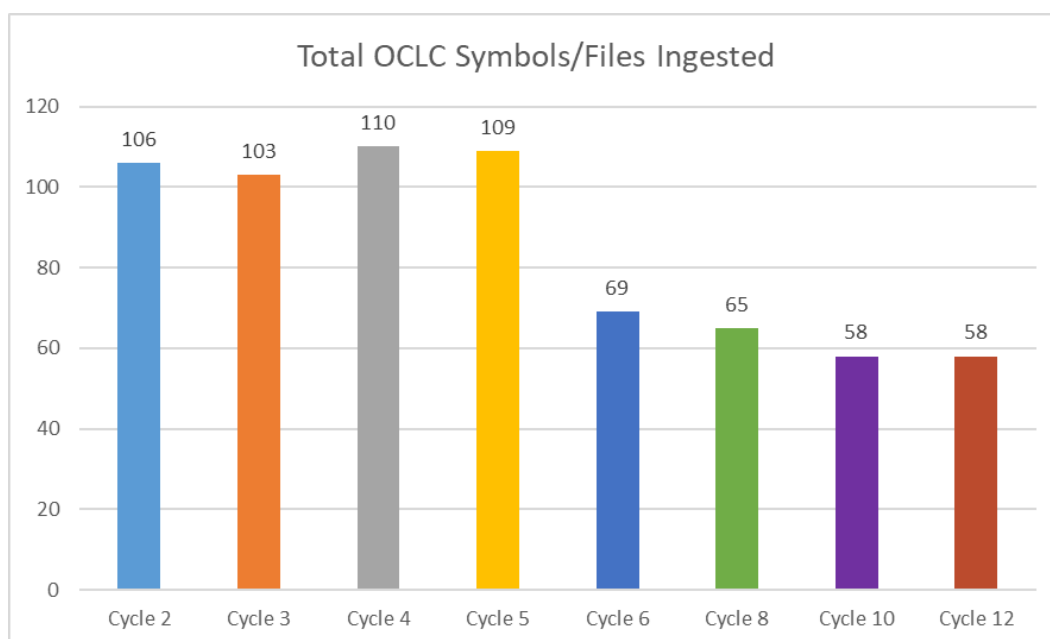


Figure 1. OCLC symbols participating in each WEST analysis

Of the nine “supporting” members that were invited to participate in the Cycles 12 & 13 analysis, six submitted files. Five of these “supporting” members also agreed to participate in the analysis as Archive Holders, providing WEST deeper insight into their

¹⁶ See page 21 of the [WEST Cycles 10&11 Collection Analysis Report](#) for more details on this recommendation.

individual collections and a more complete overall understanding of the full WEST collections, especially in the context of the Cycles 12 & 13 priorities targeting scarcely held materials for archiving proposal.

Recommended action

1. Continue soliciting files from 'supporting' members to support a more complete picture of the full WEST collections during future WEST collections analyses.

ii. Participation model for Archive Holders

The Cycles 10 & 11 collections analysis confirmed a trend in the WEST collections that Bronze archiving was nearly complete. At the time, WEST governance recommended allowing Bronze archiving to slow, relying instead on the Archive Builders to continue WEST's preservation goals in the Silver and Gold archive types. In 2021, a new data source became available: HathiTrust Digital Library. The HTDL serial and journal holdings were added to CRL's PAPR registry as part of the CDL, CRL, HathiTrust Shared Print Collaboration's (CCH Collab)¹⁷ initial project to create a tool to allow libraries to compare their local journal collections against the shared print retention commitments recorded in PAPR. PAPR shares a copy of these retention commitments with WEST each year to facilitate and support WEST's collection analysis work; this data now includes the HTDL serial and journal holdings data.

After reviewing an analysis of the anticipated impacts incorporating HTDL into the WEST collections analysis, the OCC endorsed a recommendation to designate HTDL as a comparator title list to identify journals for Title Category 1 (with Portico and CLOCKSS) to be archived at the Bronze level. The outcomes of this change to WEST's collection model were dramatic, flipping the majority of journals from higher to lower risk profile categories. While this does impact the Archive Builders by reducing the number of journals that must be archived at the Silver or Gold level, the overall impacts for the program and significant: the Bronze Archive Type is revitalized, providing significant ongoing opportunities for members to continue engaging in the WEST program as Archive Holders and reducing the overall projected timeline for archiving the eligible journals in the WEST collective collections. This change also refines and enhances WEST's understanding of the wider digitization landscape and helps focus Builder resources on archiving the remaining Silver- and Gold-eligible collections to titles that have limited or no electronic availability.

Recommended actions

2. No action. Continue leveraging HTDL as a comparator title list in future analyses to identify journals eligible for Bronze archiving.

iii. Focus on scarcely held materials

Since its founding, the WEST program's goals have been to

- Preserve and provide access to the scholarly print record, and
- Facilitate space reclamation in WEST libraries and storage facilities.

These goals are realized through regular collections analysis to identify high-quality candidates for archiving. In Cycles 1-11, the primary criterion for selection was overlap in WEST: the more widely held the title, the more valuable it was for archiving due to the significant opportunities it represented for space reclamation on members' campuses. Over time, the average duplication level of the journals eligible for WEST archiving decreased, a natural outcome of this model.

WEST is by no means unique in the shared print community in setting this early priority to provide quick relief to intense campus space constraints without sacrificing access or imperiling the print record by deaccessioning local copies without a guaranteed archive. As programs and their member institutions have made progress on this goal, the focus has broadened to consider additional substantial needs in the academic and scholarly communities beyond shelving space. The Rosemont Shared Print Alliance articulated

¹⁷ More information on the CCH Collab and their work integrating shared print more fully into the lifecycle of collections is available on their website: <https://www.cchcollab.org/>

this need in the [Last Copy Agreement](#), and implemented the Last Known Copy (LKC) Initiative, a pilot project to investigate scarcity in the collective Rosemont programs and secure retention commitments for titles held at only one Rosemont Alliance participating library and where there appears to be only a single copy in OCLC WorldCat. The success of the LKC Initiative underscored the need for action to protect these journals to prevent total loss, and the interest of the pilot participants reinforced the value of this work to our members. The Cycles 12 & 13 analysis priorities build on the success of this work.

Additionally, the Rosemont Alliance has set an ‘optimal copies’ target for titles retained by the member programs, with a goal of retaining three copies of each title across the programs.¹⁸ In recent development phases WEST has added new data to AGUA about the retention status of titles, including information from PAPR about what programs the titles have been retained for, whether the titles have been retained for a Rosemont Alliance partner program, and, most recently, the count of institutions that have retained copies of the title. This has helped refine WEST’s analysis and target Archiver resources to focus on titles with few or no copies retained nationally, though there are additional opportunities that surfaced during the course of the analysis to continue refining what national retention data WEST leverages. In particular, a new data field for a count of Rosemont-affiliated institutions in PAPR would provide more specific information about progress on retaining an optimal number of copies of that journal across Rosemont (this information is currently only available with a manual review of retention disclosures in the public PAPR database). Additionally, OCLC makes shared print information available through one of its APIs (which WEST leverages for other purposes), which may be able to provide more up-to-date information about retention commitments, and may include retention information from programs that do not participate in PAPR.

This priority is especially critical for a data-driven program such as WEST to engage in. WEST’s collection analysis model and schedule provides opportunities to review members’ print journal holdings regularly. The addition of more granular PAPR data and holdings information from OCLC WorldCat enhances WEST’s ability to identify and target journals that are scarcely held, have few copies retained for shared print nationally, or both.

Recommended actions

3. Leveraging WEST, PAPR, and OCLC WorldCat data, continue seeking out journals scarcely held regionally and nationally to ensure the protection of these materials against total loss due to inadvertent deaccessioning.
4. Investigate incorporating additional PAPR and OCLC WorldCat data into AGUA to continue refining WEST’s ability to identify journals with sufficient redundancy across the shared print community and strategically deploy WEST Archiver and program resources.

iv. Mitigate risks created by the WEST collections model

As documented throughout this report, the WEST collections model creates two major risk areas for the collective shared print collection: the ‘blind spot’ of higher risk materials that are not eligible for archiving because they are not held by any Archive Builder (“[high risk/no Builders](#)”), and the gaps in Silver and Gold retained backfiles created by defining an ‘end of backfile’ to scope Archive Builders’ validation and backfile consolidation work ([gap filling pilot project](#)).

One option for investigating the ‘blind spot’ of higher risk materials that have not been considered for archiving in past analyses because they are not held by any Archive Builder was undertaken in the Cycles 12 & 13 analysis: identifying Archive Holders to propose these journals for archiving at a lower level than their risk profile would typically indicate (archiving at the Bronze level instead of Silver or Gold). This approach has many positive aspects, including leveraging interest and enthusiasm within WEST’s Archive Holders to engage in this work and capitalizing on existing capacity to quickly provide shared print protections to these journals, but also considerations, such as injecting additional complexity into an already-nuanced collections model and foregoing validation and backfile consolidation work for expediency’s sake.

¹⁸ This goal is to create sufficient redundancy across the member program collections to support ongoing access even in the event of disaster or loss of one copy. This target is not considered a floor or a ceiling, though WEST does deprioritize titles for archiving where there are already three copies retained in other Rosemont Alliance programs.

Another option WEST may want to consider is to continue identifying higher risk materials held only by non-Builder members, but instead of proposing that the journals be archived locally establish a pipeline for transferring these titles to one of the Archive Builders to conduct validation, backfile consolidation, and storage transfer tasks appropriate to the titles' calculated risk profiles. This would likely require buy-in from both Archive Holders and Archive Builders as well as the development of additional administrative and, potentially, operational infrastructure to support such a scheme.

Recommended actions

5. Consider opportunities to revisit the "high risk/no Builders" blind spot in future analyses, either by implementing another one-time analysis similar to the one conducted in Cycles 12 & 13 or by incorporating this analysis as a regular part of all future analyses.
6. Consider opportunities to encourage Archive Holder validation of materials archived as Title Category 2 ("high risk/no Builders"), such as by leveraging WEST's emerging guidelines for voluntary Bronze validation.
7. Consider other options for archiving higher risk journals that are not held by any Archive Builder, including a pipeline for transferring materials upon commitment to one of the Archive Builders to ensure validation and backfile consolidation appropriate to the risk profile.

In addition to the 'blind spot,' the WEST collections model defines an 'end of backfile' for archiving,¹⁹ a year after which the Archiver is not required to retain volumes for an archived title. This has the benefit of scoping the Archiver's work to help manage local resources effectively, ensuring the Archive is able to dedicate appropriate time and staff expertise to each title. However, over time, this policy has also created significant gaps in the retained collection as compared to the full published run of the journal: an Archive Builder retaining a Silver journal in Cycle 5 (2015) was committing to retain v.1-2005, with no obligation to retain any volumes published in the intervening 10 years. As of this writing, that gap has grown to 17 years.

The pilot project ASU will engage in during Cycles 12 & 13 will increase WEST's understanding of the scope of this problem and begin to investigate options for mitigating this risk. The analysis performed on ASU's retained holdings has shed some light on the scope of the problem and ways in which the changing landscape of share print and archiving digitization has diminished the risk posed to many of their journals archived as Silver and Gold. ASU's ability to extend their backfiles by archiving local (unretained) holdings and to fill remaining gaps through solicitations for contributions from WEST members and beyond will provide valuable information for determining the overall viability of this type of retrospective project.

Recommended actions

8. After reviewing outcomes of the gap filling pilot project, consider incorporating retrospective gap-filling of legacy WEST archives as an ongoing part of the WEST collections analysis and archive creation workflows.
9. Share research findings, outcomes, and lessons learned of the gap filling pilot project with the wider shared print community (in particular, Rosemont Alliance partners) to support gap filling initiatives in other shared print programs. Consider how WEST and the wider community can support any data and infrastructure needs surfaced in this project to connect archiving institutions with potential contributors.

¹⁹ See the [WEST Disclosure Policy](#), Collection scope and definition of 'backfile'

Appendix 1: Impacts of Incorporating HathiTrust Digital Library Serials and Journals Data into the WEST Collections Model

Incorporating the HTDL serials and journals data into the WEST collections model had a dramatic impact on the distribution of journals across the WEST Archive Types: in the previous several analyses, the eligible WEST collections skewed increasingly toward higher effort Archive Types. With the inclusion of HTDL data, the vast majority of eligible journal families fall into Title Category 1 in Cycles 12 & 13, revitalizing the Bronze Archive Type and shortening the timeline for archiving titles that would otherwise have required higher levels of physical validation.

Figure 2 illustrates the impacts on the distribution of journal families across Title Categories.

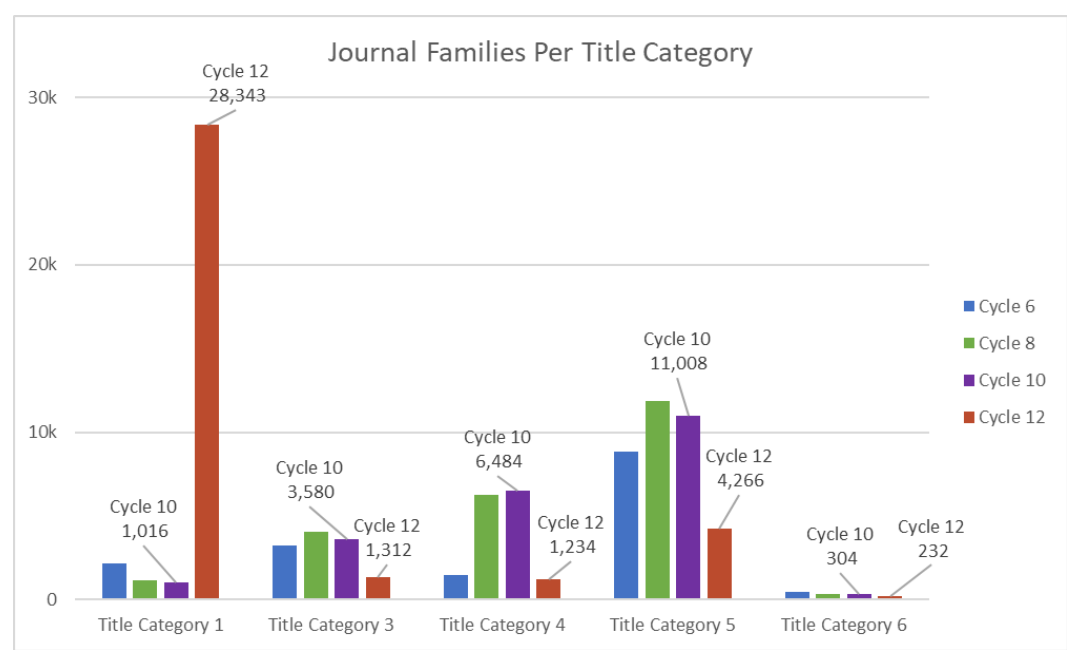


Figure 2. Journal families per Title Category after applying all exclusions, Cycles 6-12

11,580 of the Cycle 12 Title Category 1 journal families were found in the Cycle 10 dataset while 16,763 were not eligible for archiving in Cycle 10. Of the 11,580 journal families that were also in the Cycle 10 dataset, most were assigned to higher-effort Title Categories in Cycle 10. Figure 3 shows the movement of journal families between title categories from Cycle 10 to Cycle 12 (note that only movement to TC1 is labeled; for a detailed overview of movement between titles categories from Cycle 10 to Cycle 12, see Table 9).

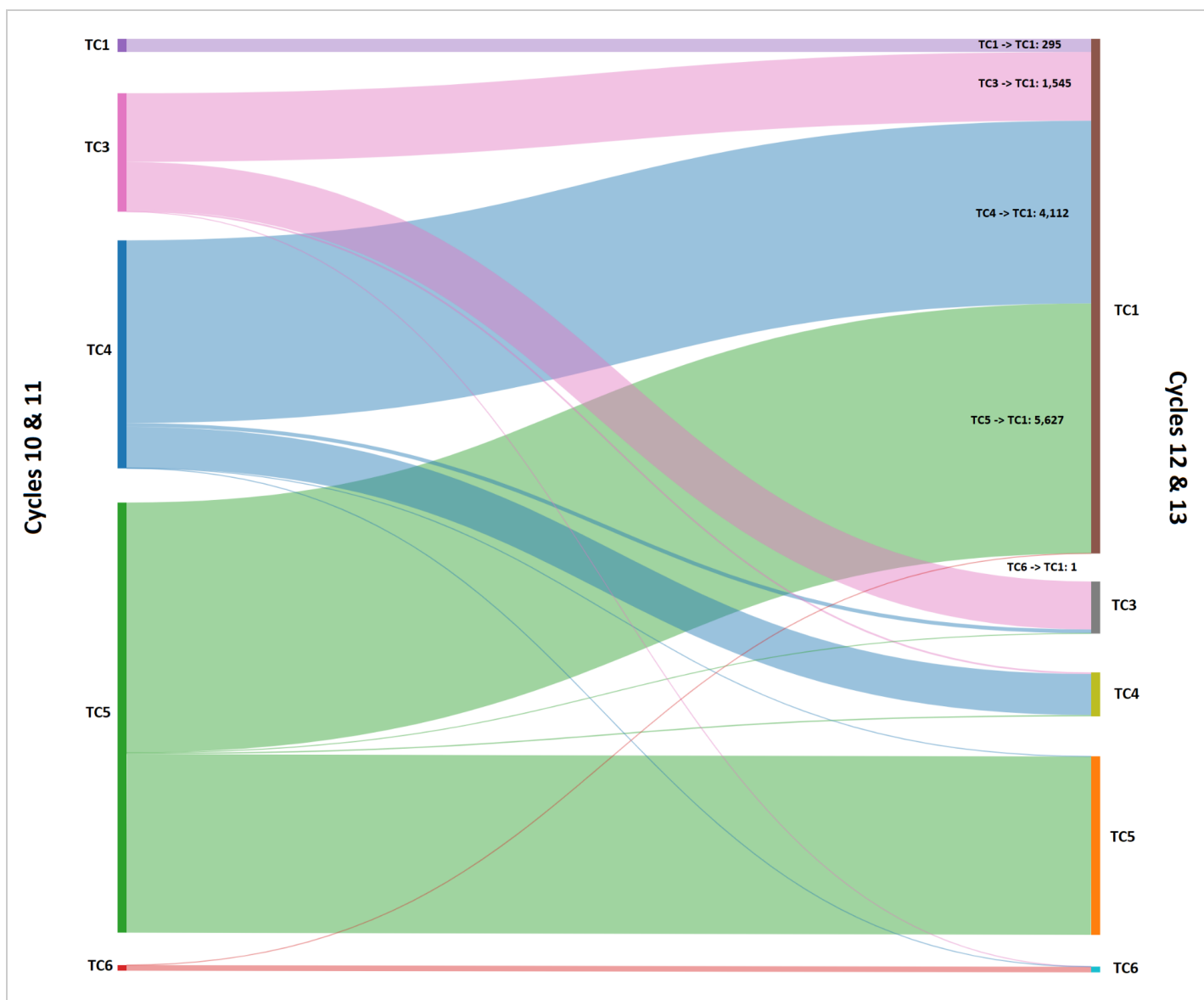


Figure 3. Summary of journal family movement between Title Categories from Cycle 10 to Cycles 12 (limited to only journal families found in both data sets)

Of the 28,343 journal families that fall into Title Category 1 in Cycles 12 & 13, 27,071 are found in HTDL and not in Portico or CLOCKSS. Of these, 15,852 were included in the Cycle 10 dataset but were not assigned to a title category. There are a number of possible explanations why these journal families are eligible for archiving in Cycle 12 when they were not in Cycle 10, including enhancements to catalog records and the fact that these journal families are now eligible for archiving at any WEST Archiver, and are not dependent on the six Builders making them eligible for analysis or archiving proposal. An additional 2,049 journal families assigned to Title Category 1 due to their presence in HTDL were not found in the Cycle 10 dataset at all, meaning that they are newly eligible for archiving in Cycle 12.

Archive Cycle Title Category	Cycle 12 Title Category 1	Cycle 12 Title Category 3	Cycle 12 Title Category 4	Cycle 12 Title Category 5	Cycle 12 Title Category 6	Grand Total (Cycle 10)
Cycle 10 Title Category 1	295	0	0	0	0	295
Cycle 10 Title Category 3	1,545	1,080	38	0	2	2,665
Cycle 10 Title Category 4	4,112	85	923	7	2	5,129
Cycle 10 Title Category 5	5,627	7	28	4,013	0	9,675
Cycle 10 Title Category 6	1	0	0	0	125	126
Cycle 10 #N/A	16,763	140	245	246	103	17,497
Grand Total (Cycle 12)	28,343	1,312	1,234	4,266	232	

Table 9. Detailed correlation chart of journal family movement between Title Categories from Cycle 10 to Cycle 12 (17,497 journal families in Cycle 12 were not found in the Cycle 10 collection analysis data set)

Appendix 2: Gap Filling Pilot Project at Arizona State University

Background

Archiving for the WEST project began in 2011, with new titles added every year since. As of this writing, WEST Archivers have retained holdings for over 33,000 distinct titles, including over 17,000 high-risk titles archived at the Silver or Gold level. These retained holdings are of varying levels of completeness, depending on a number of factors:

- the completeness of the local holdings at the time the retention commitment was made;
- the Archive Type and holdings consolidation requirements for retention;
- the willingness and ability of WEST members to participate in holdings consolidation by the Archive Builders and the working definition of ‘backfile’ at the time the commitment was made.²⁰

Because of these factors, a significant number of holdings in the WEST archives are incomplete.

In the spring of 2022 the OCC and WEST Executive Committee reviewed and endorsed a project proposal to dedicate a portion of one Archive Builder’s archive creation capacity in Cycles 12 & 13 to extending their legacy archived Silver and Gold backfiles and filling persistent gaps in these archived holdings. The governance groups agreed that Arizona State University was an ideal candidate to lead this investigative project: as shown in the Cycles 10 & 11 collections analysis, ASU has made considerable progress archiving medium- and high-risk titles in their collection, and is coming to the end of their Silver- and Gold-eligible holdings. ASU’s long service as an Archive Builder and their deep familiarity with Builder workflows and WEST archiving goals will help provide valuable operational and strategic information about backfile extension and gap filling efforts, which may inform future projects.

Project Goals

This project is designed to accomplish a number of goals, including both tangible benefits to the WEST archives and intangible benefits to the WEST program and broader shared print community:

1. Increase the completeness of the WEST archives;
2. Research the viability of dedicated gap filling projects within the WEST archiving model; and
3. Share research findings to support other projects both within and beyond WEST.

Questions to investigate

This project aims to learn more about opportunities to fill gaps resulting from these circumstances, and outcomes should provide answers to the following high-level questions:

- What is the measurable impact of a dedicated gap filling project on the completeness of the WEST Archives?
- Are Builders likely to be able to extend backfiles for their archived Silver and Gold holdings from their local collections?
- What is the success rate for retrospective calls for holdings?
- Do the benefits of conducting a dedicated gap filling project (as measured in the above questions) balance with the effort and financial investment necessary to complete the tasks?

Analysis of ASU’s Legacy Silver and Gold Archives

ASU has archived 2,919 journal families at the Silver or Gold level, covering an estimated 82,264 volumes. These backfiles are estimated to be, on average, 72% complete compared to the full published run of the journal; over 52,000 published volumes have not been archived for these journals.

²⁰ During Archive Cycles 1-7 (2011-2017), the backfile was defined as “v.1-2005”; this was later updated to “v.1-2015” for Archive Cycles 8-11 (2018-2021), and will be revised again to “v.1-2020” beginning in Archive Cycle 12 (2022). See the [WEST Disclosure Policy](#) section “Collection scope and definition of ‘backfile’” (pg 4) for details regarding changes in the definition of ‘backfile’ over time.

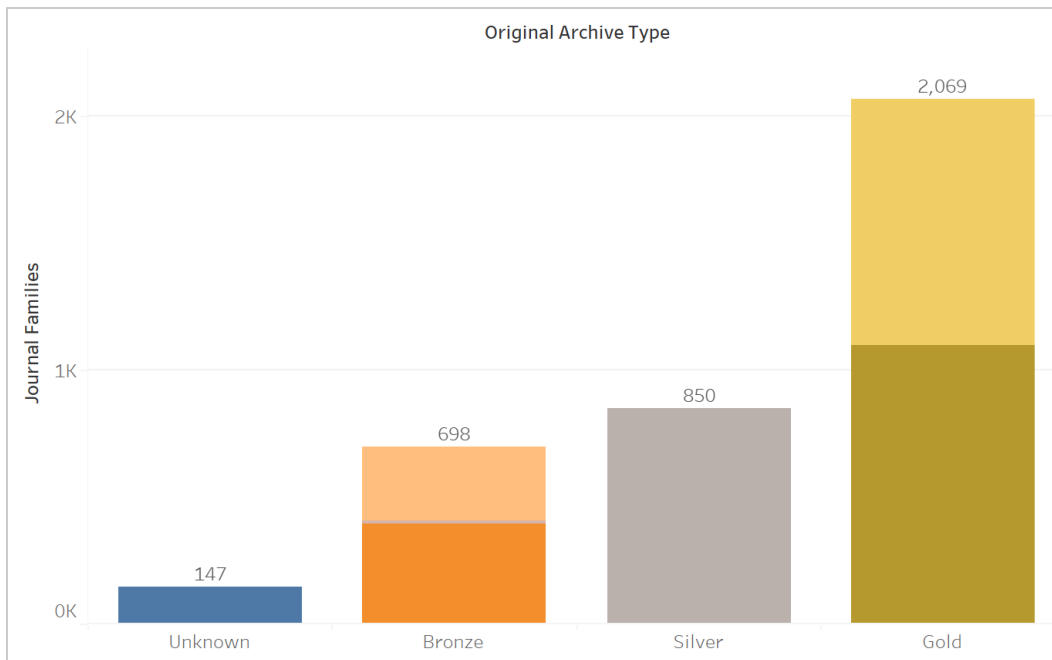


Figure 4. Distribution of ASU's legacy WEST archived journals across Archive Type²¹

Archive Type	Journal Families	Est. Volumes Archived	Avg. % of Published Run Archived	Est. Volumes Retaining to Archive	Avg. Duplication in WEST
Silver	850	32,011	73%	15,073	17
Gold	2,069	50,253	72%	37,278	13
TOTAL	2,919	82,264	72%	52,351	14

Table 10. Summary of ASU's Silver and Gold archives

Of the 2,919 journal families archived by ASU as Silver or Gold, over 2,200 were found to be less than 100% complete. Over 2,100 Silver and Gold journal families were found to have fewer than three copies disclosed to PAPR as retained for another shared print program; over half of these have not been retained by any other Rosemont Shared Print Alliance partner program.²²

²¹ It is unclear why 147 journal families are categorized as having an "Unknown" Archive Type. Since this problem affected a very small portion of the journal families in this report, the OCC decided to flag this data discrepancy for further investigation if a similar gap filling project is implemented again in the future and to limit the eligible journals to only the known Silver and Gold journals.

²² The Rosemont Alliance has agreed that, to ensure sufficient redundancy to support ongoing access needs, three copies represent the optimal number of copies of any given title to retain across the partner programs.

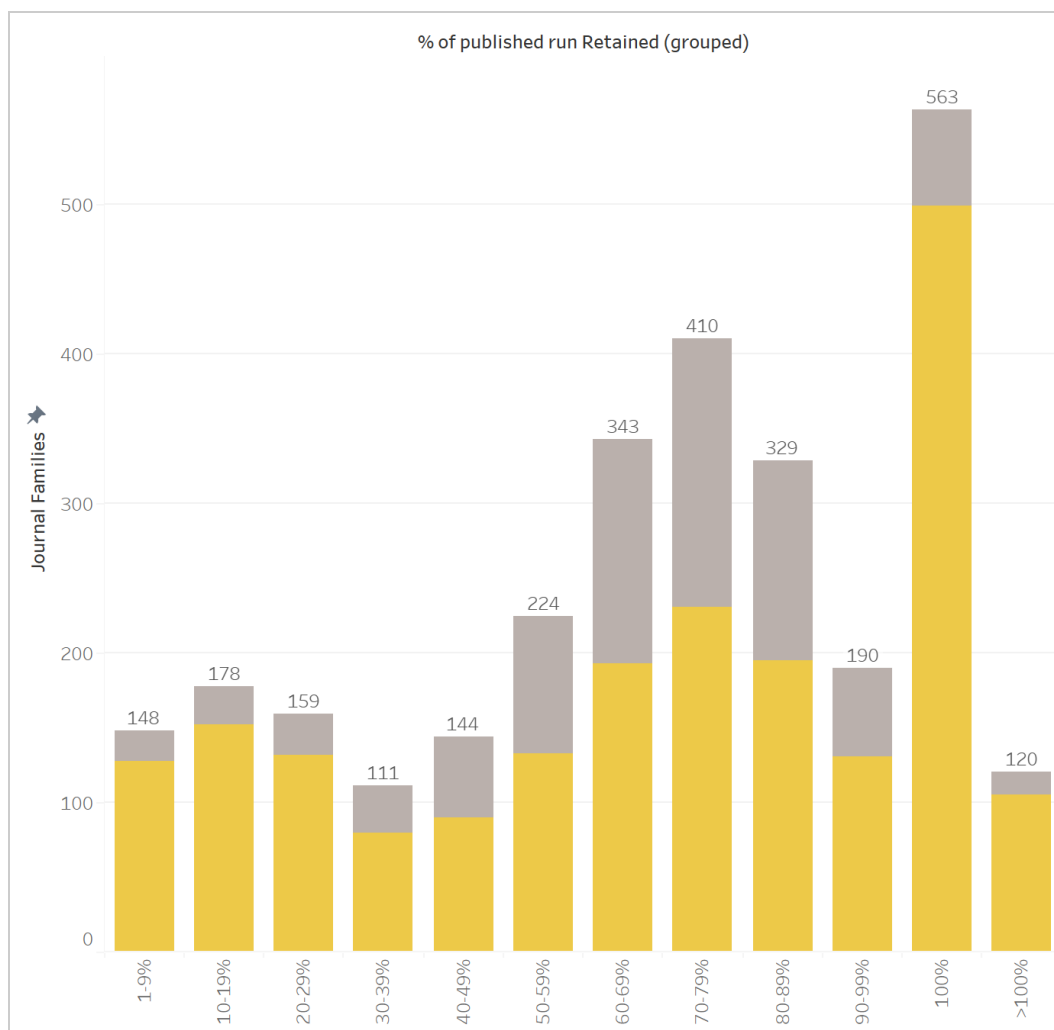


Figure 5. Average estimated completeness of ASU's Silver and Gold archived holdings

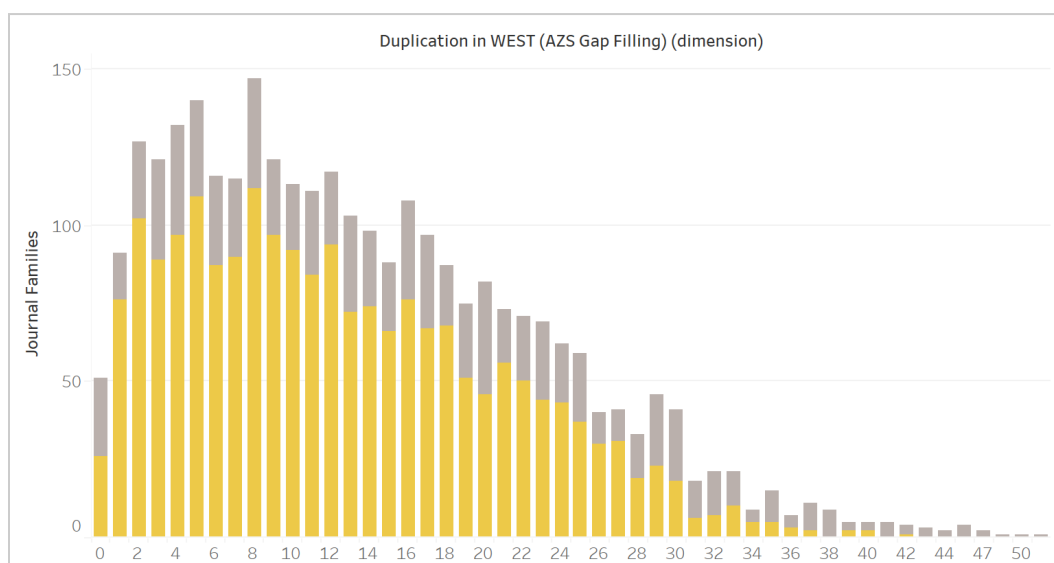


Figure 6. ASU's Silver and Gold archived journal families by duplication in WEST, with Archive Type detail

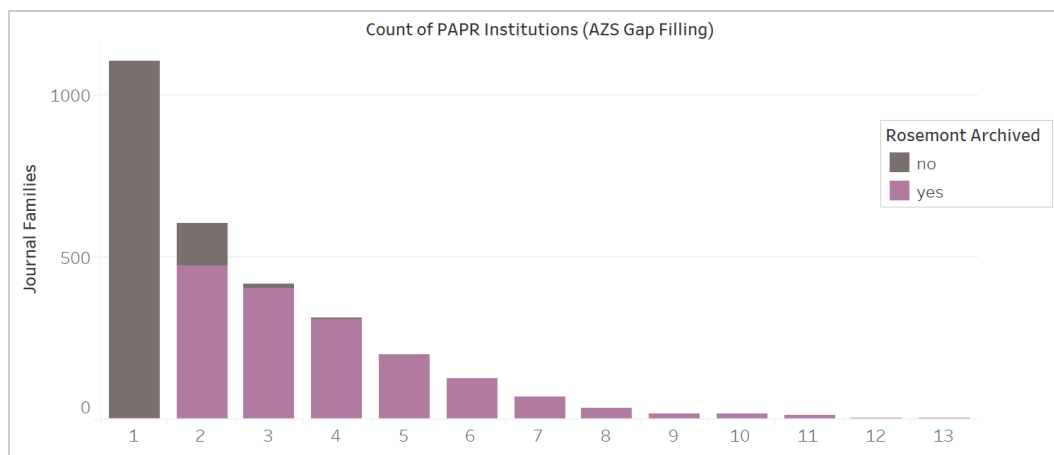


Figure 7. ASU’s Silver and Gold archived journal families by count of PAPR institutions (i.e., copies archived in other shared print programs), with Rosemont archiving status

To support post-implementation analysis of what variables impact ASU’s ability to fill gaps, current subscription information was added to the data set, as were notes about materials missing from the archived holdings (as recorded in ASU’s disclosure records as part of their physical validation work). These variables were not considered when crafting the final list of proposals, but will be leveraged to help analyze what factors best support the overall goals of this gap filling project.

Bonus Analysis: Changes in Risk Over Time

When developing the AGUA report to support this project, an unexpected analysis opportunity presented itself. The AGUA system initially (and incorrectly) processed the archived titles data as if they were new, unarchived titles, assigning a Title Category using current information about electronic availability. This error was corrected, but the ‘new’ title category was preserved to help better understand how risk changes over time.

The comparison is striking: most journal families that have been archived as Silver or Gold would be categorized as Bronze (low risk due to reliable electronic availability) if they were being proposed for archiving for the first time in Cycles 12 & 13. This trend points to the reduction in risk over time as materials are digitized, and especially as they are added to trusted digital repositories. In particular, adding the HathiTrust Digital Library serials and journals data as a comparator for identifying journals to archive at the Bronze level had a considerable impact on changing the risk profile for ASU’s Silver and Gold journals: 77% of ASU’s Silver and Gold journals are found in HTDL, compared to 8% found in Portico and just 5% found in CLOCKSS.

Archive Type	Total Journal families	Journal Families in CLOCKSS	Journal Families in Portico	Journal Families in HTDL
Silver	850	105 (12%)	128 (15%)	630 (74%)
Gold	2,069	41 (2%)	103 (5%)	1,624 (78%)
TOTAL	2,919	146 (5%)	231 (8%)	2,254 (77%)

Table 11. ASU’s Silver and Gold archived journal families that have been digitized for CLOCKSS, Portico, and HTDL

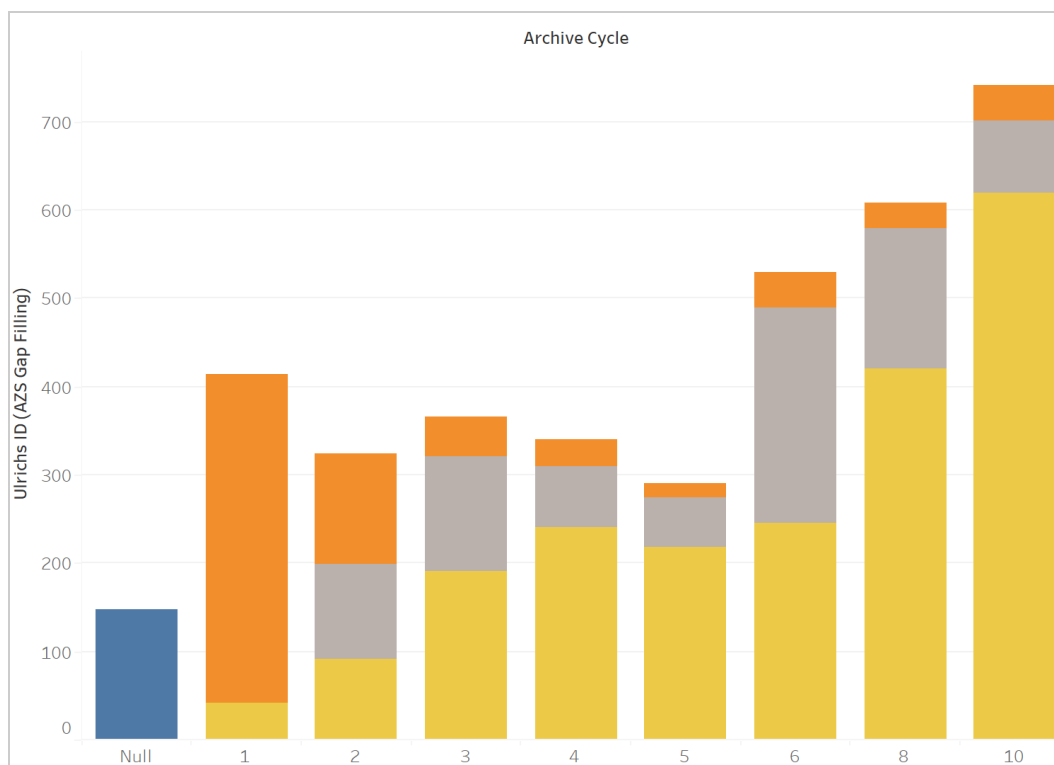


Figure 8. Original Archive Type²³ assignments for ASU's archived journals (assigned in the original Archive Cycle, using information available at that time)

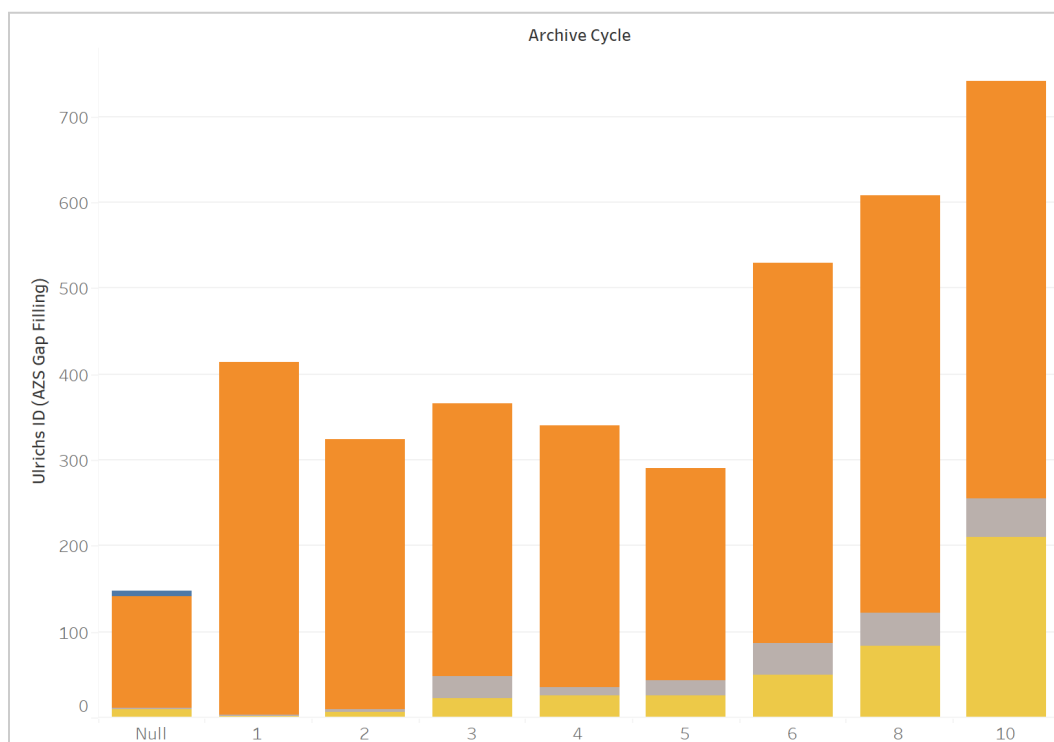


Figure 9. Updated Archive Type assignments for ASU's archived journals (assigned using information available in the Cycles 12 & 13 analysis)

²³ It is also unclear why some journal families have an Archive Cycle of Null. This data discrepancy was also ignored for this pilot project, but should be investigated if a similar gap filling project is implemented again in the future.

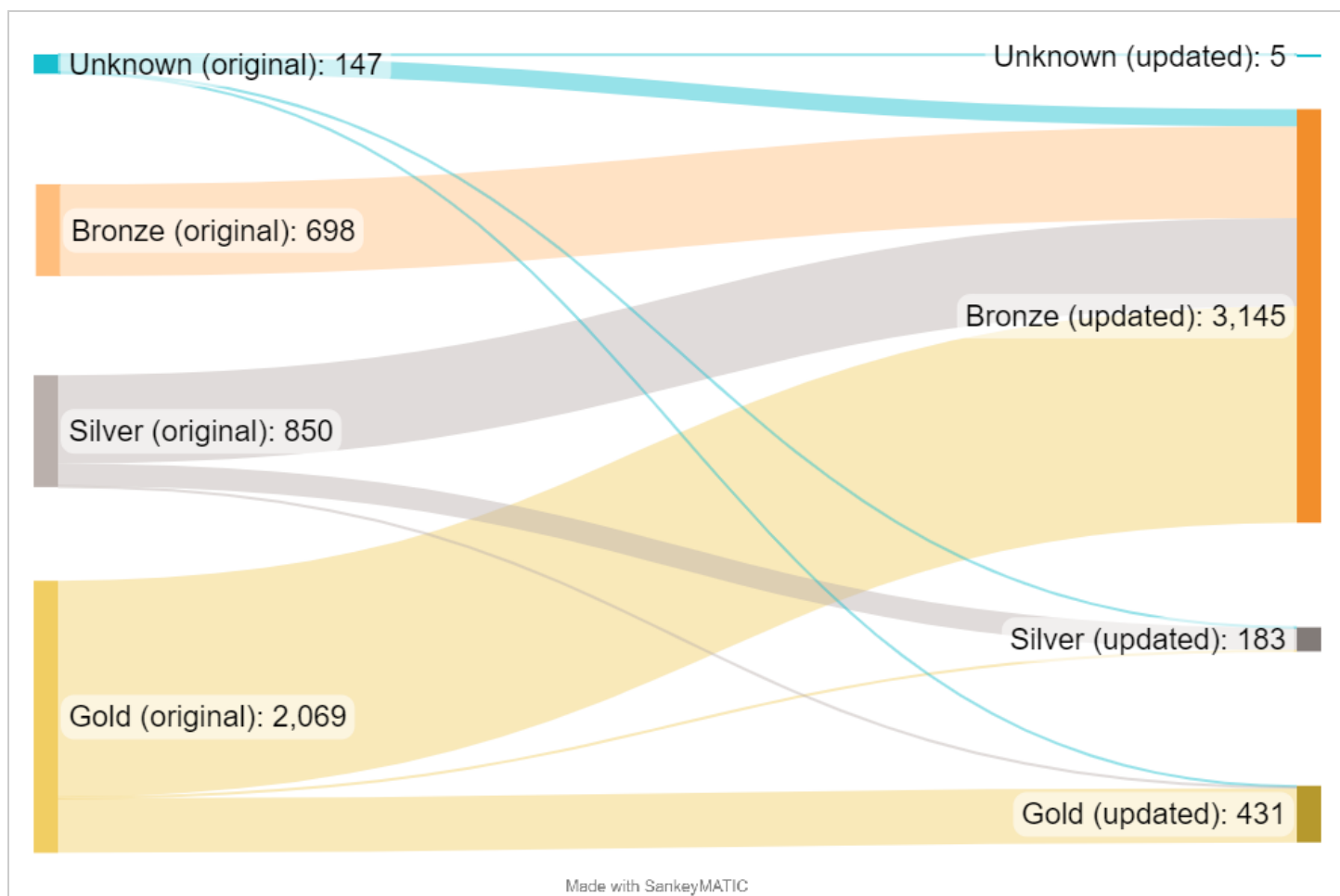
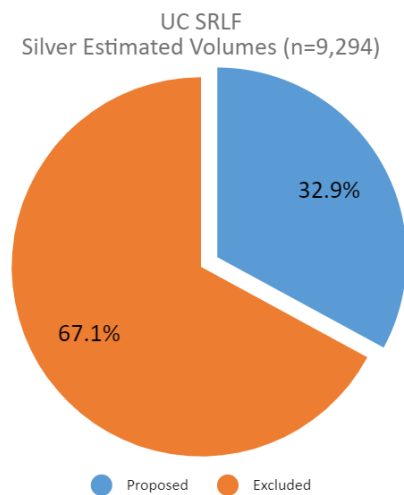
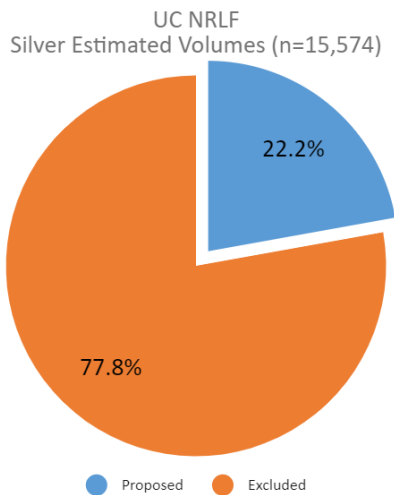
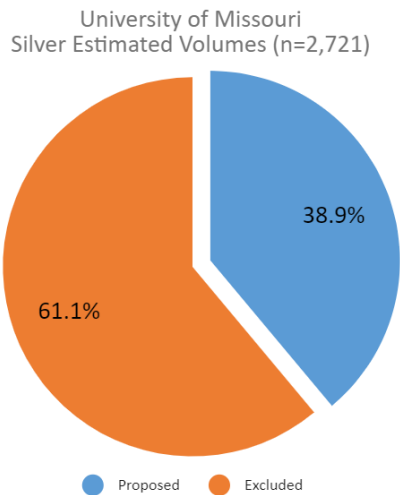
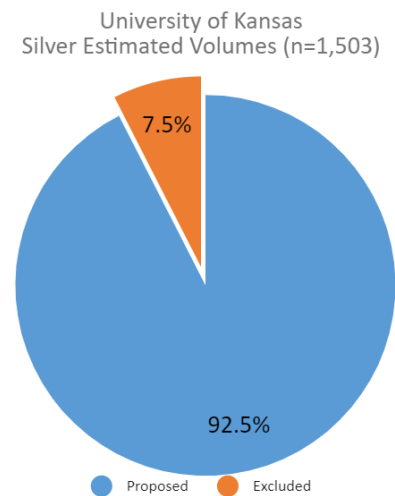
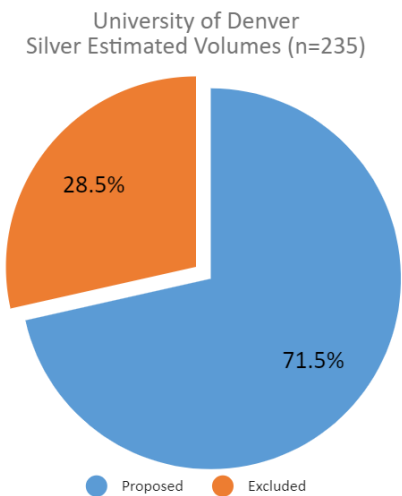
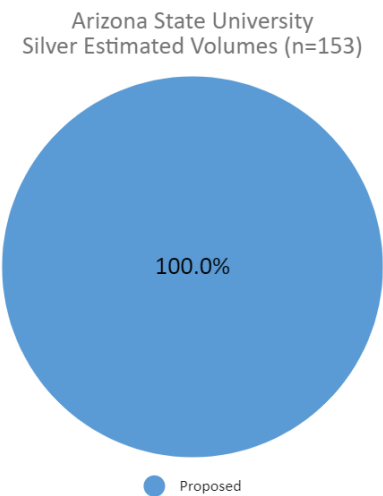


Figure 10. Summary of overall movement of ASU's archived journals between Archive Types (original analysis data compared to current Cycles 12 & 13 analysis data)

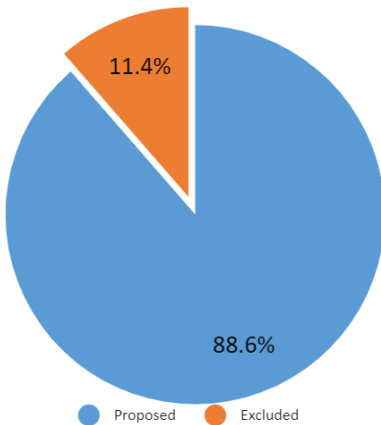
Appendix 3: Archive Builder Initial Volumes Identified vs. Proposed Volumes

Silver Proposals

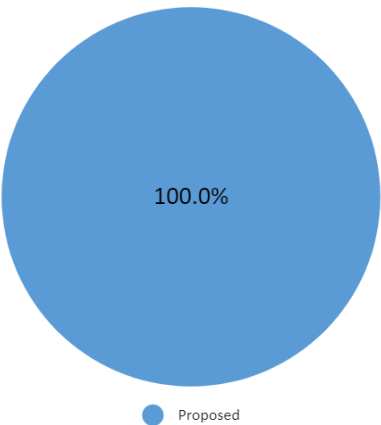


Gold Proposals

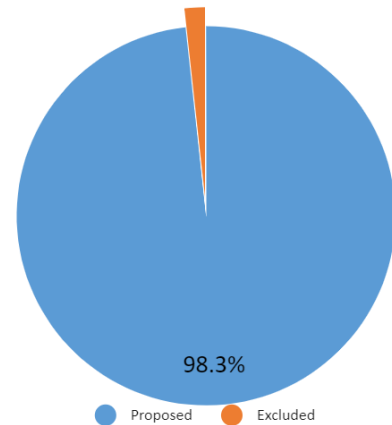
Arizona State University
Gold Estimated Volumes (n=834)



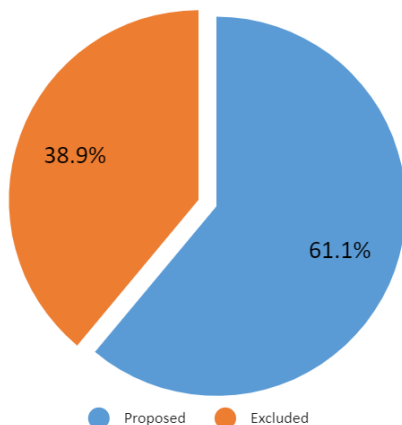
University of Denver
Gold Estimated Volumes (n=390)



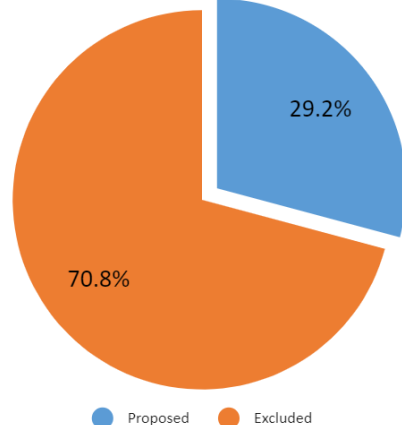
University of Kansas
Gold Estimated Volumes (n=4,963)



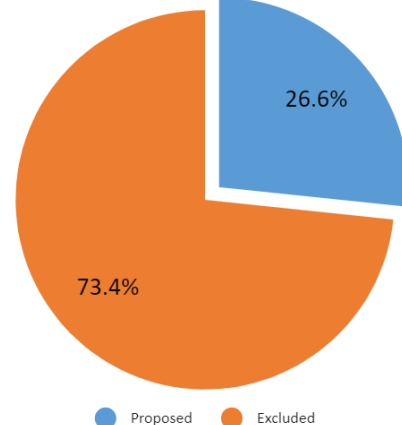
University of Missouri
Gold Estimated Volumes (n=6,347)



UC NRLF
Gold Estimated Volumes (n=47,890)



UC SRLF
Gold Estimated Volumes (n=46,117)



ASU Gap Filling Pilot Project Proposals

