"The Commitment Problem"

Spending to Zero to Maximize the Efficiency of the Collections Budget

Robert M. Cleary

The difficulty for a library to spend their collections budget efficiently is a timeless problem. The diversity of a typical budget, with its mix of one-time and continuing funds, for an array of resources that have both regular and sometimes irregular frequencies, provides great challenges. Approval plans, usually expending one-time funds, generate expenditures that contain high variability on a weekly basis. Standing orders for serials fall into the same category. With some effort, it is possible to expend all continuing funds. But it is the commitments that do not result in expenditures, with funds remaining in cash balances that can determine what university administrators call "efficient results." Acquisitions personnel must take an aggressive approach to commitments with the goal of turning as many possible into expenditures. New expenditures will compensate for the orders that remain committed. Based on the assumption that efficient spending focuses on a library budget's final cash balance, this article presents a method to consistently achieve a zero or negative cash balance.

Most historically underfunded libraries pursue additional funding for their collection development budgets. During this process, university administrators may question why collection funds are not spent by a seemingly high percentage. They may reject the standard response to the question about the level of carryover, or cash balance, which identifies unpaid firm orders as the problem. Unless the library records commitments in the same system that is used by university budget personnel, they will appear as unspent cash. The resulting carryover largely represents outstanding orders, plus excess cash, and illustrates that acquisitions processes are not necessarily clear cut. This paper explores a method to achieve a less-than-zero cash balance, a requirement that one library budget manager called "unlikely."[1] Librarians responsible for collections funds can apply these methods to any size budget. Depending on the particular situation, the net result of the close attention paid to commitments (encumbrances) and cash balance will be the maximum efficient use of funds.[2] The methods the author describes were developed following nine years of meeting the goal to spend the collections budget as close to zero as possible. Results have varied, but it is possible to achieve a zero-percent cash balance (rounded), even with a negative final balance.

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Literature Review

The literature on this topic focuses on the allocation process, but rarely outlines how to obtain efficient expenditure goals or attempts to define the nature of an efficient goal. Statements such as "allocations should present a realistic plan for expenditures" appear to be goal neutral, or caution against over-expenditure by a large amount.[3] Carpenter suggested using overencumbrance and established cut-off dates for firm orders, and proposed using deposit accounts to expend excess cash.[4] Gammon and Ficken believe that few budgets allow carryover and stress the need to "stretch" limited dollars, and focus on the reconciliation of ledgers between the library and university accounts.[5] Gibbs discussed the problem of receiving more money in the budget, yet her library was only required to commit, not expend, the funds by the end of the fiscal year.[6] Martin, in a sample budget, considered that 91 percent expended and 9 percent committed was an example of meeting a reasonable goal for cash expenditures.[7] Miller cautioned against excessive deficits or commitments carried over and was aware of the problems of predicting expenditures for continuations, but offered little advice on how to achieve the "success" mentioned in the title of his article.[8] McGinnis and Faust defined spending goals as effective and timely, and stressed the need to monitor cash balances regularly, but did not define how to meet a cash balance goal.[9] Clendenning, Martin, and McKenzie focused on the problem of unexpended commitments, and provided sound advice to reduce balances, but did not examine the consequences for the overall cash balance.[10] None of these authors tackled the difficulty of meeting a progressively efficient cash balance goal. It is likely that many libraries have developed a locally defined goal for an acceptable final cash balance, including an acceptable level of commitments.

The predictability of collection budget expenditures is highly variable and can be categorized by levels of degree of predictability. The ability to project and control the effects of a diverse group of library materials provides challenges. While it is common to divide a ledger into one-time and continuing expenditure funds, the only truly unobligated fund is likely to be contingency or reserve funds. If the percentage of reserve funds is low, predictability becomes an important factor.

Predictability: One-Time Funds: Firm Orders, DDA, Approvals, Prepayments, and Deposit Accounts

Commitments may not reflect actual prices, but should be close. By instituting a policy of suspension of new, non-rush or reserve, firm orders no later than a determined date, along with other measures, it is possible to reduce a final commitment level to .04 percent to .25 percent of one's total expenditures.[11] A focus on commitments, starting in February (or the eighth month) or sooner, will reveal duplicate orders, orders that are highly unlikely to result in expenditures that may be cancelled. Corresponding with vendors regarding materials received but not invoiced, or materials neither received nor invoiced, will provide the best result—a completed firm order. Concentrated efforts on order maintenance help the general goal to provide financial clarity: to determine whether there are sufficient funds to purchase new and possibly expensive resources. German proposed that allowing commitments to be increased by 10 to 30 percent is a method to spend available cash, but only if staff are not available to claim or cancel older orders.[12] While this method may work for part of the fiscal year, employing it in the latter half will quickly prove to be unmanageable. There is no substitute for substantial efforts to turn commitments into expenditures. Martin described institutions that have to cancel all outstanding orders at the end of the year, leaving the library with "substantial unexpended funds."[13] An alternative is to cancel as needed and reinstate when that cancellation decision turns out to be premature. Cancelling orders may appear to be the best way to reduce commitments, but if done too early in the fiscal year, the need to reinstate cancelled orders may prove overwhelming. If commitments do not turn into expenditures, they must be expended as if they did not exist. The importance of focusing on cash balance as opposed to an available balance occurs near the end of the fiscal year.

Demand-Driven or Patron-Driven Acquisitions (DDA/PDA) present budgeting challenges and require some measure of control, either through limiting available records to a single subject collection or setting dollar limits with vendors. DDA requests represent a variation of firm orders, with a key difference. In an academic setting, faculty and students submit firm requests through librarians, who control any further action. DDA orders are presented to libraries as invoices for which no specific commitment has been established. To avoid over expenditure, suspend patron access to these records at the same time as firm orders. This will allay the concerns of collection managers that instituting such a program will inhibit a library's ability to control costs.[14]

Approvals are the most unpredictable group of library expenditures that occur on a week-to-week basis. Setting dollar limits with a library's vendor will help, but may generate the need for more firm orders in the next fiscal year if the shipments stop. If the goal is to maintain receipt and payment of approval shipments as long as possible, any projection of expenditures must be fairly accurate. Whether your library allows rejections of approvals, one can track and predict approval expenditures on a monthly basis. After six months, setting up projections for the remaining six months

and monthly thereafter will prove valuable further along in the process. Despite Granskog's assertion that approvals are "fairly predictable and even," comparison on a weekly basis of the total value of a shipment of approvals reveals variations.[15] The author's experience has shown that approval shipments can vary from each other weekly by as much as 50 percent. If approval rejections are permitted, tracking their monetary value will allow the calculation of a predictable percentage. With careful management of available funds, and the advance notice of the value of the current shipment, it is possible to accept an approval shipment and pay for it on the last payment day of the fiscal year. Allow for one shipment the last week, but be prepared to not process it. This can be a hedge against uncertainty. Access to a vendor's system to determine in advance the total value of the current shipment can provide enough information to stop any bulk loading process. What happens in a given year can be hard to predict because of the variability of publishing output, but recording values of entire shipments on a weekly cycle will provide a basis for prediction. If approvals are a manual process, stop approval processing by the next to last week to pay invoices.

Some vendors require prepayments for firm orders and are helpful to reduce cash, and prepayments for subscriptions may result in discounts for future use. Any library that lost funds to the 2002 divine/Faxon bankruptcy may no longer have this option. Using deposit accounts presents possible auditing concerns about expenses with vendors for unspecified materials. Depositing an amount at the end of the fiscal year, just to reduce the cash balance, does not help a library progress by adding new resources. It does reserve the expenditure for the library's use in cases where funds are provided on a "use it or lose it" basis. The author has not been able to use this method to reduce the cash balance to zero, so it should not be necessary to accomplish the goal, but deposit accounts remain an option for some libraries.

Predictability: Continuing Expenditures

Pursuing renewal invoices is a mandatory activity to meet a zero-spend down goal. An additional benefit is to stay ahead of vendors who are slow to bill and might cancel because of lack of payment. Librarians typically construct allocations to allow payment for one subscription period, not two. The consequences of not being active in this area are many, and none are positive. If an invoice for an unpaid subscription arrives after the renewal period has begun, the opportunity to cancel and get a refund may be missed, if that was the intent. Another consequence of not paying close attention is that the funds may have been spent on other resources, and payment will be delayed until the next budget is available. An additional consequence will be the need to provide funding in next year's allocation, when invoices for two fiscal years will appear. The goal is to pay for these resources and to focus elsewhere. By May (or the eleventh month), with strong efforts in this area, only a handful of outstanding invoices should remain. Not all integrated library systems have a separate serial encumbrance feature; nevertheless, serial allocations should be considered to be committed 100 percent, unless proven otherwise. Only a precise projection review will determine whether there is a surplus or a deficit, and whether one can add to reserve funds or deduct from them.

Databases and E-journal Packages

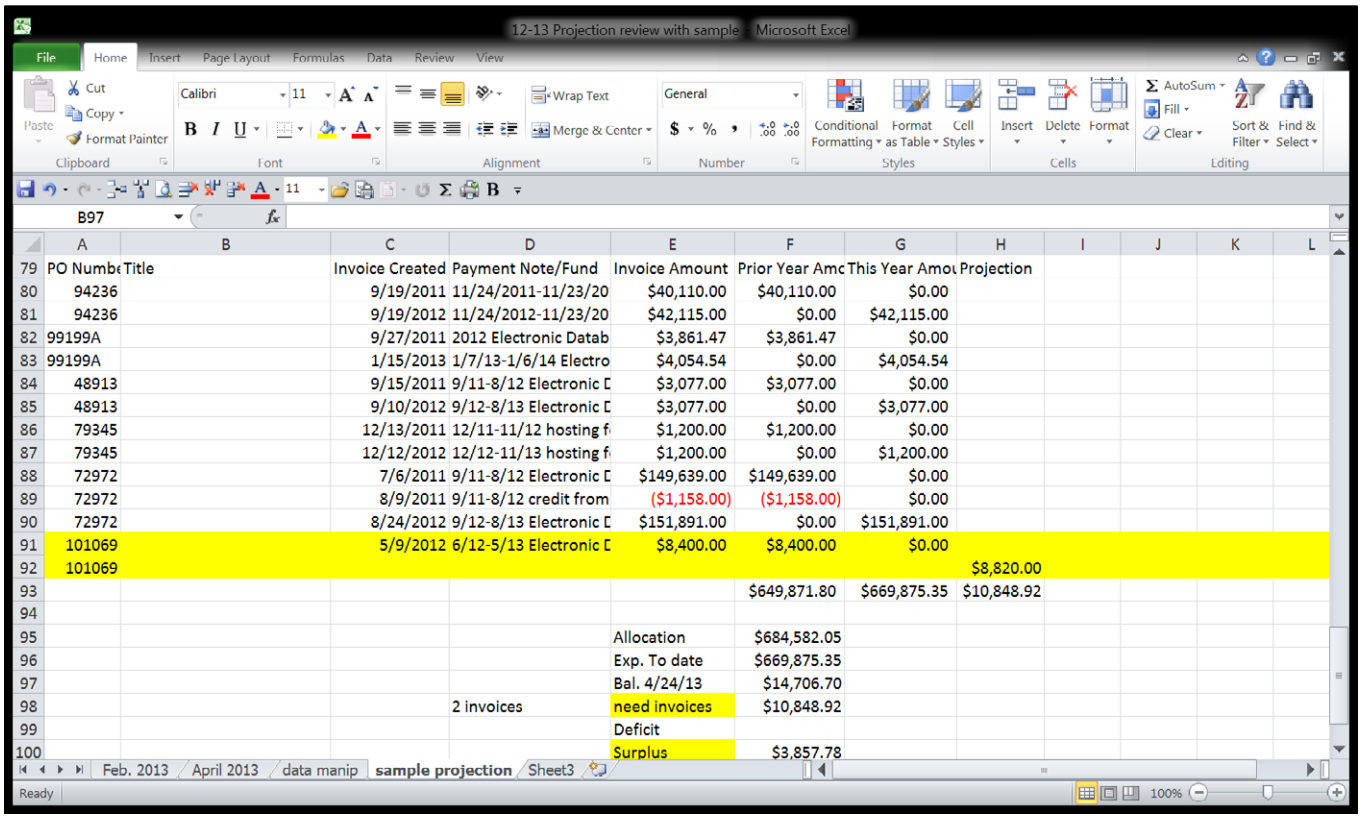
Many libraries have experimented with various funding mechanisms for their most expensive resources, including funding them first, separating resources that cost more than $10,000 into separate fund codes or distributing funds to subject area fund codes.[16] Whatever method a library uses, strict attention is necessary. If cost data are tracked in an Electronic Resource Management System (ERMS), there will be less dependence on separate fund codes. Using the renewal function of an ERMS to identify unpaid resources can be used as an interim step before creating projections to determine surpluses or deficits. Planning for and pursuing invoices is necessary in any case. After renewals are paid in July or August (or the first two months), September (or the third month) is a good time to start setting up projection reviews for these resources. Because these resources are the most expensive, they are more likely to be a source of significant surpluses or deficits.

Periodical Subscriptions (Print and Electronic)

After the main renewal is processed, typically before the end of the calendar year, it is an ideal time to review periodical funds balances. Allow funds for "bill laters," which will not follow any consistent pattern because of their irregular publishing cycle. The cost benefit of pursuing less expensive resources will diminish and there are limits to what billing can be forced, so reserve some funds on the basis of common pattern in billing. Typically, this means matching last year's expenditure level at a minimum. If the ledger structure has a large parent fund containing many dependent funds, the author's experience has shown that the underspent funds can support the overspent funds. The assumption is that all ledgers should have at least one contingency fund for transfers when needed.

Standing Order Serials

Standing order serials are less predictable than periodical subscriptions, but more predictable than monographic



	A	B	C	D	E	F	G	H
79	PO Numbe	Title	Invoice Created	Payment Note/Fund	Invoice Amount	Prior Year Amc	This Year Amou	Projection
80	94236		9/19/2011	11/24/2011-11/23/20	$40,110.00	$40,110.00	$0.00	
81	94236		9/19/2012	11/24/2012-11/23/20	$42,115.00	$0.00	$42,115.00	
82	99199A		9/27/2011	2012 Electronic Datab	$3,861.47	$3,861.47	$0.00	
83	99199A		1/15/2013	1/7/13-1/6/14 Electro	$4,054.54	$0.00	$4,054.54	
84	48913		9/15/2011	9/11-8/12 Electronic D	$3,077.00	$3,077.00	$0.00	
85	48913		9/10/2012	9/12-8/13 Electronic D	$3,077.00	$0.00	$3,077.00	
86	79345		12/13/2011	12/11-11/12 hosting f	$1,200.00	$1,200.00	$0.00	
87	79345		12/12/2012	12/12-11/13 hosting f	$1,200.00	$0.00	$1,200.00	
88	72972		7/6/2011	9/11-8/12 Electronic D	$149,639.00	$149,639.00	$0.00	
89	72972		8/9/2011	9/11-8/12 credit from	($1,158.00)	($1,158.00)	$0.00	
90	72972		8/24/2012	9/12-8/13 Electronic D	$151,891.00	$0.00	$151,891.00	
91	101069		5/9/2012	6/12-5/13 Electronic D	$8,400.00	$8,400.00	$0.00	
92	101069							$8,820.00
93						$649,871.80	$669,875.35	$10,848.92
94								
95					Allocation	$684,582.05		
96					Exp. To date	$669,875.35		
97					Bal. 4/24/13	$14,706.70		
98				2 invoices	need invoices	$10,848.92		
99					Deficit			
100					Surplus	$3,857.78		

Figure 1. Sample Projection Review

series. One can project expenditures in this group to a reasonable degree. Martin stated that "standing orders offer the most trouble in predicting budgets."[17] The author tried to do this with his standing orders vendors, with limited success.[18] Creating a reserve of about $10,000 for all standing orders will be helpful. The timing and the amount will change on the basis of a library's particular needs. Allocations based on the previous year's expenditures may not be helpful in this area because of the lack of predictability.

Monographic Series

Monographic series can be highly unpredictable because of irregular publishing cycles. Series that produce more than one title per year, but not consistently, make any projection difficult. Including these standing orders in a reserve of $10,000 may work for your library.

Binding, Processing, and Shipping Charges

Binding, processing, shipping, and service charges require review for surpluses or deficits. Because of conversions of print subscriptions to electronic only, binding needs have steadily declined. Binding can be seasonal on the basis of patterns that may be uncontrollable. Processing charges for shelf-ready materials will vary because of shipment size of approvals and seasonal levels of firm orders. Shipping charges will decline as fewer firm orders are received, but approvals and standing orders will require continuous funding. Service charges will drop after the main renewal but will continue to present lower, but unpredictable, costs. Using an average weekly cost to project any of these charges may not work well, but consider all if the goal is to spend funds efficiently.

The allocation in figure 1 was determined on the basis of a projection using set percentages. The method of using known prices plus projections requires additional effort and will be more accurate. To determine an allocation, using the base budget increase added to the previous year's expenditures is a common method. A projection of some type is unavoidable because increased costs to databases and ejournal packages can be 0–8 percent or greater. In the course of nine years of managing this process, the author has not had to resort to using more sophisticated prediction models, such as those cited in the literature.[19] The ideal situation is to have as many actual expenditures as possible, and waiting until more invoices are paid will help provide financial clarity. Resist requests to transfer funds for other

purchases until a thorough projection reveals a potential surplus or deficit.

Minimum Requirements

Ability to Reconcile to the Central Ledger

If there is not an established process to reconcile your library's ledger with the central ledger, one must first be established. Otherwise, a goal of zero will not agree with the numbers seen by various accounting offices that review library balances. There will always be payment transactions and transfers of funds that are beyond the control of the library's normal payment processes. For example, credit card charges are extensively reviewed before posting, and the timing is variable; the same applies to wire transfers. Transfers of funds between departments can occur and corresponding transactions must reconcile the library's ledger to the ledger of record. Allocations and expenditures in the library ledger should match the central ledger. If one's budget has received a percentage increase, and to avoid an artificial inflation of that number, accounting will process any infusions of cash such as transfers or refund checks as expense reductions. This means that the library should reflect this transaction in the same manner as a credit memo.

Invoice Feed to Centralized Disbursements

For many libraries to process invoices, another department may handle the production of checks. The manual process of filling out requisition forms with invoices attached delay check writing and posting to the university ledger. Many libraries have an automated process that works with a centralized disbursements operation. It is possible to spend efficiently without an automated invoice feed, but reconciliation to the central ledger will be more problematic. Having a batch invoice process reduces reconciliation time by providing expenditure figures in aggregate. Dependable scheduling helps establish important deadlines, especially near the end of the fiscal year. The author is fortunate to have the access and processes needed to reconcile the library and university ledgers weekly. Obtaining this form of access is worth the time and effort to engage all of the entities that need to be involved to establish this automated process.[20]

Reports of Expenditures

It is easier to generate reports from some systems and is absolutely essential. Reports must contain all of the elements shown in figure 1.

Ledger Structure

A reasonably informed allocation process based primarily on expenditure history is a logical starting point. Allocations based on previous fiscal years may be too high or low. Basic divisions of the library ledger outlined above are minimum requirements. The structure of one's ledger will determine the ability to identify deficits and surpluses. The number of allocated fund codes can determine how many projection reviews are necessary. It is unreasonable to expect perfection in the allocation process. Most library ledgers separate one-time from continuing expenditures, and may also subdivide within those two groups. One-time funds will cover firm orders, but may also need to cover approvals. Separate fund codes for approvals or some other means of distinguishing approval expenditures are essential. It is typical to allocate approvals on the basis of previous year's expenditures. A percentage reserved for contingency funds will cover inflation and other emergencies, such as serial cost overruns. All allocations must be projected against expenditures and reviewed for accuracy to determine deficits or surpluses.

During the first two years of managing the spend down process, the author worked with a ledger that featured major e-resource expenditures organized into general fund codes that were allocated first. Subject fund allocations had a minimum of four allocated fund codes; one-time, periodicals, serials, and monographic series all had an allocation. The former ledger contained more than 250 allocated fund codes. The example in figure 2 reflects a major revision to the ledger that consolidated allocations and redistributed funds for electronic resources from the general to the subject areas. The red squares indicate a summary level, and the blue triangles designate an allocated fund code. Instead of three allocated fund codes for serials, only one remains. Expensive databases are allocated separately as "Humanities E Resources" and "VPA E Resources" in figure 2, which allows for a simpler projection review. Costs for e-journal packages are shared on a percentage basis in each subject area's serials fund to more accurately show support by broad subject area: arts and humanities, science, etc. Formerly, e-journal packages were allocated in the "General-Miscellaneous" area. The ledger in figure 2 contains fifty-three allocated fund codes. The author's experience has shown that having fewer allocated fund codes requires less tracking and transfers to help focus on the final cash balance.

Calendar for the Fiscal Year

Table 1 provides a defined period, activity, and goal, starting from the beginning of the fiscal year and ending in June (or the twelfth month). The process begins with establishing a

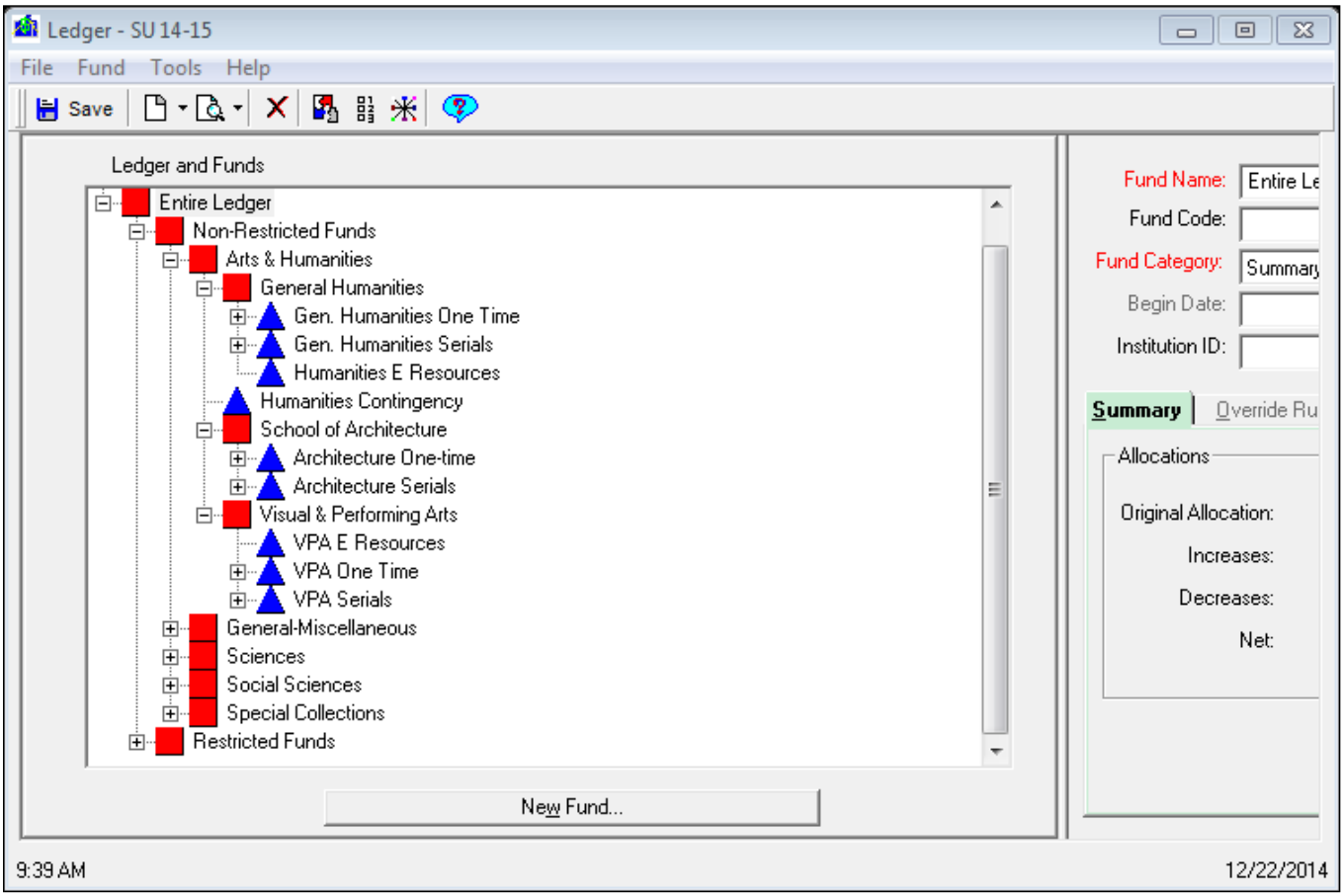


Figure 2. Sample Ledger

true cash balance and concludes with spending as close to zero as possible.

Zero-Countdown Spreadsheet

After invoices for expensive resources have been paid, predicting how cash will be spent is necessary. This can be done with a simple spreadsheet, which is provided in figure 3. In most systems, approvals are not committed in advance and are tracked with a projection figure. By May (or the eleventh month), there will be ten months' worth of data to project a monthly or weekly approval shipment value. The state of reserve funds will determine how many "big ticket" items can be purchased. The assumption is that these will be electronic resources, given that the turnaround time for acquisitions is short. One way to accommodate the unknown is to ask vendors for installment payment plans, usually starting in one fiscal year, with another in July (or the first month), when the new fiscal year starts. In some cases, advancing the schedule with an additional payment will help especially if the cash balance is too high. It will be necessary to work closely with collection development personnel to determine options for various amounts to expend available cash. While the temptation to expend aggressively may alleviate anxiety about meeting the goal, a conservative approach should match the time of the fiscal year. Delaying a decision on an expensive "big ticket" item can often be a wise choice and will prove to be either possible or not, as time progresses.

The zero-countdown spreadsheet example starts with four weeks left in fiscal year. A macro records the date and time and pertinent financial figures. The university ledger numbers are recorded one week later. The challenge of focusing on the cash balance is determining how to handle commitments. Given the need to spend beyond the available balance to spend-down cash, the question is one of how much. Within the range of roughly $10,000, establish a preference for orders that are formally committed, and maintain that policy as long as possible into the fiscal year. If invoices are paid using a batch process and there is an early cut-off date for paying invoices, this becomes even more challenging.

The author tracked commitments for big ticket items in the zero countdown sheet because the cash level remains

Table 1. Fiscal Year Calendar

Period	Activity	Goal
July–June (or Jan.–Dec.): weekly	Reconcile expenditures and cash balance to main ledger	Establish true cash balance
July–June (or Jan.–Dec.): monthly	Record approval expenditures	Establish data for projection of approvals in January to June (or last six months)
September through November (or third-fifth months)	Monitor original allocations versus expenditures for databases and e-journal packages	Determine deficits or surpluses
December (or sixth month)	Process main subscription renewals; review state of serial allocations.	Determine uninvoiced resources.
January (or seventh month)	Predict approval expenditures based on six months of data	Determine potential deficits or surpluses
February (or eighth month)	Analyze commitments	Determine available cash
March (or ninth month)	Retire database fund codes	Determine available cash
April (or tenth month)	Retire database fund codes	Determine available cash
May (or eleventh month)	Reduce firm orders to rush/reserve; turn off demand-driven acquisitions; determine available cash	Acquire big ticket items
June (or twelfth month)	Balance known and unknown obligations; closely monitor approval shipments; establish priorities for available cash; determine whether more big ticket items can be purchased or additional installment payments can be made; hold invoices to avoid over expenditure.	Spend as close to zero as possible

the focus. Focus on the base level of commitments, which can become obscured by commitments for big tickets, as shown in figure 3. That is why a calculation for the base level is provided, which generally includes commitments for materials that are less than $1,000. Since big tickets have already been counted as reducing one's cash needs, the balance after all of those items will reveal what can be spent on firm orders and uncommitted serials. The author has found that this method is preferable to using serials allocations. Every invoice that could be paid has been paid, and any subsequent invoicing is hard to predict or control. The assumption is that all subscriptions costing four figures and above have been paid, and subsequent invoices, for bill later titles for example, will involve lesser sums of money.

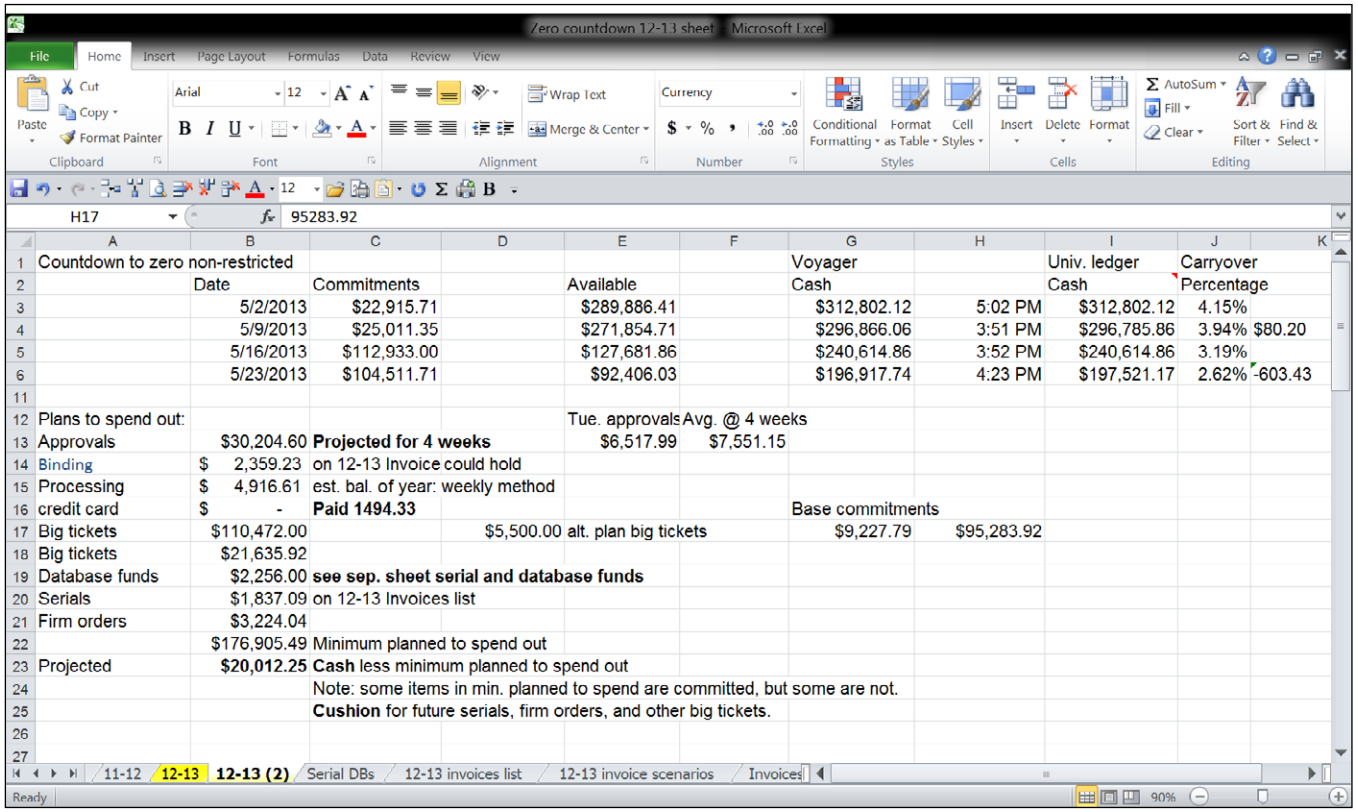
The list on the left-hand side of figure 3, under "plans to spend out" is a mix of projections and known figures. All projected figures must be adjusted against real figures. For example, by Wednesday, invoices for that week's approvals, firm orders, serials, and processing charges for shelf-ready books will be available. Approvals and processing charges have projections, and those figures will be adjusted. Processing firm orders will directly reduce cash and committed levels. Paying serial invoices will only reduce cash.

There will always be situations where combining committed and uncommitted, planned and unplanned expenditures on invoices will be problematic. If firm orders are sent with materials when only a quote was expected, if previously cancelled orders arrive, or if smaller, irregular approval plans produce materials with invoices, one must make a decision to deduct, accept, or defer. All decisions have consequences for the final balance, and a good practice would be to consider how accrual accounting practices would view a particular transaction.

Accrual accounting systems are more common in libraries than cash accounting systems.[21] The ability to accrue unexpended commitments and carryover a corresponding cash balance is unquestionably a less efficient use of a budget from a managerial accounting view. The author has applied these methods under an accrual accounting system, but because commitments are not recorded in the university's central accounting system, adjustments in approach to the cash balance are required. Offsetting remaining commitments with additional expenditures to reduce cash is a reasonable way to reconcile the concerns of efficiency and the accurate recording of obligations required.

At the beginning of June, holding all binding, processing, and serial invoices will allow the committed balance to go down. This will reserve cash to continue paying for all firm orders. The next step is to total the invoices held until the total exceeds the cash balance. Recording them in a spreadsheet and sorting by amount will show that various scenarios will help reduce the cash balance to slightly beyond or close to zero. It is possible to construct a group of twelve or fewer invoices that will clear the cash balance.

During the last possible week to pay invoices, make decisions about your approval shipment, and any invoices in



	A	B	C	D	E	F	G	H	I	J	K
1	Countdown to zero non-restricted						Voyager		Univ. ledger	Carryover	
2		Date	Commitments		Available		Cash		Cash	Percentage	
3		5/2/2013	$22,915.71		$289,886.41		$312,802.12	5:02 PM	$312,802.12	4.15%	
4		5/9/2013	$25,011.35		$271,854.71		$296,866.06	3:51 PM	$296,785.86	3.94%	$80.20
5		5/16/2013	$112,933.00		$127,681.86		$240,614.86	3:52 PM	$240,614.86	3.19%	
6		5/23/2013	$104,511.71		$92,406.03		$196,917.74	4:23 PM	$197,521.17	2.62%	-603.43
11											
12	Plans to spend out:				Tue. approvals	Avg. @ 4 weeks					
13	Approvals	$30,204.60	**Projected for 4 weeks**		$6,517.99	$7,551.15					
14	Binding	$ 2,359.23	on 12-13 Invoice could hold								
15	Processing	$ 4,916.61	est. bal. of year: weekly method								
16	credit card	$ -	**Paid 1494.33**				Base commitments				
17	Big tickets	$110,472.00		$5,500.00	alt. plan big tickets		$9,227.79	$95,283.92			
18	Big tickets	$21,635.92									
19	Database funds	$2,256.00	**see sep. sheet serial and database funds**								
20	Serials	$1,837.09	on 12-13 Invoices list								
21	Firm orders	$3,224.04									
22		$176,905.49	Minimum planned to spend out								
23	Projected	**$20,012.25**	**Cash** less minimum planned to spend out								
24			Note: some items in min. planned to spend are committed, but some are not.								
25			**Cushion** for future serials, firm orders, and other big tickets.								
26											
27											

Figure 3. Zero-Countdown Spreadsheet

hand. If a library's approval invoices are batch loaded, it is best to avoid having to repeat the process by only accepting some invoices. If one has planned well, there will be more invoices than the budget can pay, but not too many. Once the goal of spending to zero is met, a follow-up goal for the next fiscal year is to avoid having too many accrued obligations. A key factor to success is to develop a feel for what is an acceptable "cushion." This will vary by the time of year, with the target amount trending progressively smaller. For example, a cushion at the beginning of May (or the eleventh month) of $50,000 is fine, and at the end of May (or the eleventh month), it should be about $20,000 and progress downward in June (or the twelfth month). This will vary with the size of the library's budget. It becomes extremely difficult to project standing order expenditures, and the cushion is intended to cover the hard to predict and control expenditures.

An alternative plan is needed if the cushion is too small to cover another large one-time purchase, but unpaid invoices do not cover the cushion amount. One choice is to violate the practice of only one payment per fiscal year for subscription renewals and to change the schedule of payments. Typically, there will be invoices that cover a renewal period of July–June (or January–December) that are traditionally paid in July (or January). With good planning, advancing that schedule is a choice that will have minimal effect on one's allocations. Most vendors understand that libraries do not pay all invoices for subscriptions in advance, but would surely appreciate an earlier payment. The problem is that this practice does not help the library progress in collection development by adding to its holdings. Another problem is the need to decide to stay with the new alternative schedule, or revert to the old, technically late, schedule of payment.

If there are multiyear agreements for large one-time purchases, this is likely the result of the need to spread the effect over the course of two or more budget years. These types of arrangement can be a source of additional expenditures if the cushion is too large to cover invoices in hand. This choice is sounder than changing the schedule of payment for subscription renewals, since access has already been granted.

During this process, and if a library's fiscal year runs from July to June, vendors that are more responsive to your needs to spend by the end of the fiscal year will be obvious. Vendors operate on a calendar-year basis and offer sales deals with a deadline of the end of December. It has been the author's experience that providing lead time is essential for electronic resources, even if all that is needed is to get a rider attached to an existing licensed signed and processed. Initiate big-ticket purchases no later than the last week in May (or the eleventh month) if your fiscal year ends as early as June 20 (or December 20).

The results of all of this attention are reflected in figure 4, in which actual balances appear. Over time, one develops

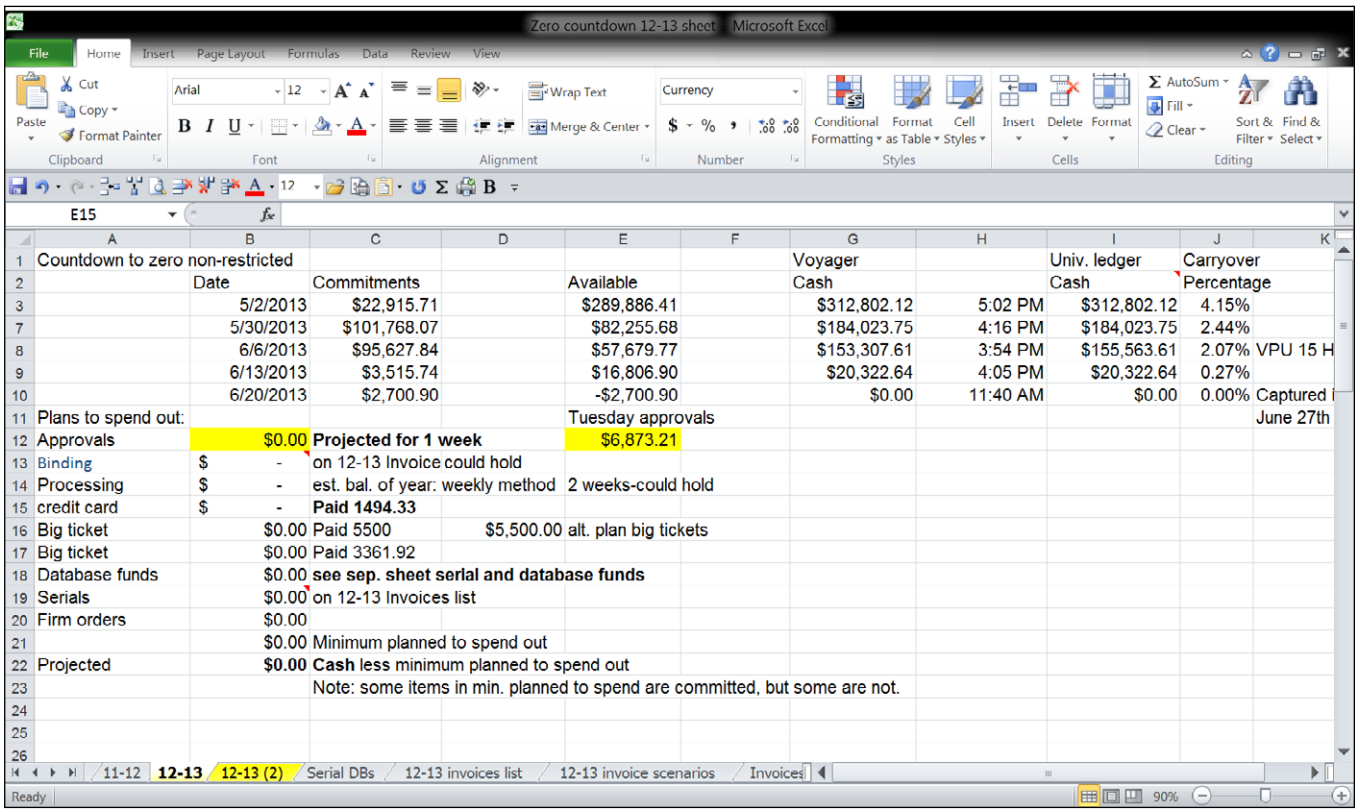


Figure 4. Final Working Spreadsheet

a sense for how much of a "cushion" is needed before deciding to expend large sums on new resources. It is necessary to avoid creating new obligations and subsequently being unable to pay for current standing orders because funds were depleted. Martin stated that the goal should be to spend your budget "properly and profitably," but your institution will define what that means.[22] The consequences of overspending can vary from creating a perception of mismanagement, attracting the attention of accountants if large accrued invoice amounts are held when they could have been paid in the current fiscal year, negative carryover, or a large burden on the next year's budget. If your institution requires that expenditures that belong in the current fiscal year be expended in that year, there will be negative carryover. What should be acceptable is a reasonable balance. If the invoices held match the outstanding commitments, one has met this goal reasonably well.[23]

Best Practices

The following best practices are recommended:

- Establish a reconciliation process for the local and parent ledgers.
- Create reserve funds for a minimum of 5 percent of total allocation.
- Separate expensive resources into easily examined fund groups.
- Project approvals on a monthly basis.
- Limit expenditures on subscriptions to one payment per fiscal year.
- Project expenditures for as many unexpended resources as possible.
- Review existing commitments for anomalies and pursue unexpended orders regularly.
- Create flexibility by using installment payment plans for large one-time expenditures.
- Track cash balance on a daily basis in the final two months.

Conclusion

The problem of the difficulty of spending a collection development budget to zero is timeless. Whether 75 percent of one's budget pays for electronic resources or less, what has changed is that there are more tools to help speed up the process. The fax machine used to receive invoices on a

rush basis has been replaced by scanned PDF copies sent by email. Incidents of invoices lost in the mail happen less often. The need for paper invoices for an audit trail has not changed. Libraries still need cooperation from all personnel involved. In 1979, Snowball and Cohen reported that their methods for efficient expenditure resulted in .65 percent deficit on a budget of $1,336,000.[24] That translates into a deficit of $8,684, which would result in negative carryover at many institutions. Better results can be obtained using the methods outlined in this paper. When the author first had to meet this goal, five months remained in the fiscal year and a final negative cash balance resulted in negative carryover in the next fiscal year. In subsequent years, with an entire year to focus on the goal, no negative carryover was assessed, perhaps because of the relatively low negative cash balance (less than -$100). This is a goal that can be met with steady effort for any collection development budget.

Notes and References

1. Kathryn Hammell Carpenter, "Forecasting Expenditures for Library Materials: Approaches and Techniques," *Acquisitions Librarian* 1, no. 2 (1989): 31–48.
2. The author will use commitments throughout to also refer to what some systems call encumbrances. Primary references to timing are based on a July 1 to June 30 fiscal year, with other fiscal years noted in parentheses. A basic assumption is that a library's non-restricted budget is larger than any one restricted fund, but the same methods can be applied on a smaller scale to a restricted fund.
3. Lisa German et al., *Guide to the Management of the Information Resources Budget* (Lanham, Md: Scarecrow, 2001), 3.
4. Carpenter, "Forecasting Expenditures for Library Materials," 44. The author has used over encumbrance and cut-off dates, but the use of deposit accounts was not an option. Having this option allows the expenditure of flexible amounts without a specific resource in mind. Negative carryover has not been assessed when overspending was less than $100.
5. Julia A. Gammon and Carol A. Ficken, "The Balancing Act; or, How Much Money Do We REALLY Have Left?" *Acquisitions Librarian* 6, no.12, (1994): 37–49.
6. Nancy J. Gibbs, "It's Hard Work Spending Money: Handling Budget Aberrations," in *Acquisitions '91: Conference on Acquisitions, Budgets, and Collections*, ed. David C. Genaway (Canfield, Oh: Genaway & Associations, 1991), 115.
7. Murray S. Martin, *Collection Development and Finance: A Guide to Strategic Library-Materials Budgeting* (Chicago: American Library Association, 1995): 108.
8. Robert C. Miller, "Acquisitions Budgets: Planning and Control for Success," *Acquisitions Librarian* 1, no. 2 (1989): 1–11.
9. Mildred McGinnis and Mary Faust, "Establishing, Monitoring, and Spending the College and University Acquisitions Budget," *Acquisitions Librarian* 1, no. 2, (1989): 133–44.
10. Lynda Fuller Clendenning, J. Kay Martin, and Gail McKenzie, "Secrets for Managing Materials Budget Allocations: a Brief Guide for Collection Managers," *Library Collections, Acquisitions, & Technical Services* 29, no. 1, (2005): 99–108.
11. These percentages correspond roughly to $2,500 to $12,200 in outstanding commitments at year-end.
12. German et al., *Guide to the Management of the Information Resources Budget*, 13.
13. Martin, *Collection Development and Finance*, 13.
14. Denise A. Garofalo, "Tips from the Trenches," *Journal of Electronic Resources Librarianship* 23, no. 3 (2011): 274–76.
15. Kay Granskog, "Basic Acquisitions Accounting and Business Practice," in *Understanding the Business of Library Acquisitions*, 2nd ed., ed. Karen A. Schmidt (Chicago: American Library Association, 1999): 310.
16. Christina Kulp and Karen Rupp-Serrano, "Organizational Approaches to Electronic Resource Acquisition," *Collection Management* 30, no. 4 (2005): 3–29.
17. Martin, *Collection Development and Finance*, 61.
18. One vendor, who usually batches shipments together to arrive in May, but typically not June, changed their pattern in 2013. The cushion was sufficient to pay the invoice.
19. Carpenter, "Forecasting Expenditures for Library Materials," 42.
20. Rosann Bazirjian and Randall Ericson, "The Accounting Office Interface: Syracuse University," *Library Acquisitions: Practice & Theory* 16, no. 4 (1992): 393–403.
21. Nancy M. Stanley, "Accrual Accounting and Library Materials Acquisitions," *Bottom Line*, 7, no. 2 (1994): 15–17.
22. Martin, *Collection Development and Finance*, 82.
23. For example, if outstanding commitments are $2,701 and held invoices total $2,563, a scenario that creates a zero cash balance, in theory that represents an over-obligated budget by $2,563. The fact that the two numbers are so close is why the author states that the goal was met. The only result that would achieve perfection would be to have no invoices to hold, no commitments, and no cash. Once one has achieved a zero cash balance, this can be the next goal.
24. George J. Snowball and Martin S. Cohen, "Control of Book Fund Expenditures Under an Accrual Accounting System," *Collection Management* 3, no. 1 (1979): 5–20. The authors stated that "encumbered funds are regarded as spent" so it is possible that the deficit they cited was a mix of cash and encumbrances.