Computing the Total Cost of Archival Processing

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Editor's Note: The idea for a technical leaflet series originated with the New York Caucus of MARAC. The series, as developed by the Caucus, is intended to provide brief, practical information about selected archival topics suitable especially for beginners in the profession.

The series editor welcomes proposals for future publications and comments from readers.

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Computing the Total Cost of Archival Processing

by Thomas Wilsted

With the concern in recent years over institutional accountability, archivists are increasingly interested in modern management techniques and in trying to measure the performance of their institutions. Certainly measurement is not new in the profession. Archivists for many years have counted the number of accessions, amount of archival material processed, number of reader inquiries and similar statistics. But while these statistics compare results from one month or one year to the next, they do not indicate the actual cost of each service in terms of time or money expended.

If archivists are going to plan adequately for future development or justify their budgets, they must begin to quantify cost of time and materials. Because archival collections vary so greatly, it is difficult to offer any standard as to how much it is likely to cost to process a particular collection. It is imperative, therefore, that each institution begin to compile its own history of processing costs.

1. Define terms. While individuals sometimes use the words "arrangement and description" interchangeably with "processing," archivists must take care to define the various tasks involved in arrangement and description if they expect to develop useful and accurate statistics. The tasks involved in arrangement encompass background reading and research, appraisal, preliminary arrangement,

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1 A similar version of this paper appeared as MARAC's "Dear Archivist", Volume 1, Number 2 (Summer 1982) which accompanied the Mid-Atlantic Archivist.
arrangement and detailed weeding. Arrangement may also include preservation tasks, such as unfolding, cleaning, removal of paper clips and staples, refolding and boxing materials. Descriptive tasks include drafting of collection descriptions, compiling subject references, writing a detailed finding aid, and the typing or entry of the finding aid into a database. These tasks are often done simultaneously making it difficult to separate the time spent on each step. When compiling statistics, however, the archivist must be certain to include the time spent on all phases of processing.

2. Assess the value of statistics on processing costs. Assuming it is possible to determine these costs, why are they valuable and how can they be used? Archivists can use statistics on cost as a means of comparison and in planning future projects. Statistics provide the means for many types of comparisons. We can compare the cost of processing between two different archivists or between processing by a professional archivist and a clerical assistant. Another comparison might be between two types of processing, one that describes material at the series level and another that describes material at the folder level. Yet another comparison might be between different types of records, such as 18th-century manuscripts versus 20th-century business records. To make such comparisons, archivists must apply some standard form of measurement to specific cases.

With statistics on the cost involved in processing, an archivist can plan for future development. When planning grant proposals, one can indicate to the funding agency the cost of processing and project the amount of time needed to complete a project. In developing a long-range plan, an archivist can project future needs on the basis of the amount of unprocessed material and offer statistics on how long it will take to process a given amount of material.
3. **Compute the cost of processing time.** What is a standard measurement for time spent processing a collection? The most accurate is hours per cubic feet. To obtain this measure, take the number of hours spent processing a collection and then divide by the number of cubic feet processed:

\[
\frac{28 \text{ hours spent processing}}{4 \text{ cubic feet of archives}} = 7 \text{ hours per cubic foot}
\]

By keeping an accurate count of the processing time spent on particular types of material along with the amount of material processed, an archivist can begin to project how long it will take to process a collection of 19th-century personal papers or 20th-century organizational records.

However, such raw data does not take into consideration all factors in the arrangement and description chain, nor does it give us figures on the cost of processing. To get this cost, take the basic formula used above, multiply by the cost per hour and then add the cost of supplies and shelving. This gives the cost of processing one cubic foot of archives:

\[
\text{cost per hour} \times \frac{\text{hours spent processing}}{\text{cubic feet of archives}} + \text{cost of shelving & supplies} = \text{cost per cubic foot}
\]

While we can easily derive the number of hours spent processing and the amount of material processed, the cost per hour and miscellaneous costs can be more difficult to determine. When staff are paid on an hourly basis with no fringe benefits except social security, their cost per hour is their hourly wage plus their social security tax. However, staff on an annual salary receiving a variety of fringe benefits are less easily classified on an hourly basis. To do this, first include all monetary benefits:
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$21,000  salary
  1,600  social security
  1,200  medical insurance
  200  misc. taxes and other benefits
$24,000  total cost to the institution

To account for other fringe benefits such as annual leave, sick leave, and paid holidays, subtract these items before trying to obtain the salary on an hourly basis:

260  working days per year
- 10  days annual leave
- 10  paid holidays
- 5  sick days
- 5  personal days
230  days

230 days  X  7.5 hours per day  =  1,725 hours

$24,000
1,725 hours  =  $13.90 per hour

To determine total processing cost, consider time spent by all staff members in the processing of a collection. A typical case might include:

44 hours processing time  @ $13.90 per hour  =  $611.60
1 hour supervisory time  @ $18.50 per hour  =  18.50
2 hours secretarial time*  @ $8.50 per hour  =  17.00
$647.10

* Time spent typing the inventory and collection descriptions.

4. Compute the cost of materials. In addition to the cost of labor, we must also include the cost of both supplies and shelving. We can easily derive the cost of supplies by keeping an accurate count of folders and boxes. This cost can vary, however, depending on the type of boxes and folders used. In the example above, we used the following materials:

15 acid-free boxes  @ $3.00 per box  =  $45.00
100 acid-free folders @ $ .25 per folder  =  25.00
Total cost of supplies  =  $70.00
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Determining the cost of shelving can be difficult if the shelving has been installed for some time. The cost can also vary widely depending on whether the archives uses industrial, library or mobile shelving. The latter is the most expensive, costing 75-100% more than industrial shelving. On the basis of a 1982 Salvation Army shelving installation, the cost of industrial shelving was $9.00 per cubic foot.

Using our same example, the following components give the total cost per cubic foot of processing this nine cubic foot collection.

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>labor</td>
<td>$647.10</td>
</tr>
<tr>
<td>supplies</td>
<td>70.00</td>
</tr>
<tr>
<td>shelving</td>
<td>81.00</td>
</tr>
<tr>
<td><strong>Total cost</strong></td>
<td><strong>$798.10</strong></td>
</tr>
</tbody>
</table>

The figures in the example above accurately reflect one collection processed at The Salvation Army Archives and Research Center. It contained the personal papers of a 20th-century composer and included correspondence, manuscripts of books and articles, scrapbooks, photograph albums and sketchbooks. Tasks performed while processing the collection included preliminary research, appraisal, arrangement down to the folder level, weeding, removal of paper clips and staples, refoldering, boxing, drafting an inventory and catalog cards and their typing.

5. Determine the effect of appraisal and other factors on comparisons. While the cost per cubic foot can be a useful comparative measurement, there are factors affecting processing costs that archivists must consider when making comparisons. Some collections require that a great deal of time be spent on the cleaning and repair of dirty or torn records, the imposition of order on records that are either disorganized or whose original order is not useful, or appraisal to determine which records have permanent
value and which do not. The inclusion of any of these factors in processing can radically alter the cost per cubic foot of processing.

As an example, I have shown below the costs for a series of Salvation Army personnel records where appraisal became a major factor in the overall costs.

1. Personnel Costs:

<table>
<thead>
<tr>
<th>Time Description</th>
<th>Rate per Unit</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 hrs processing time</td>
<td>@ $13.90 per hour</td>
<td>$208.50</td>
</tr>
<tr>
<td>1/2 hr supervisory time</td>
<td>@ $18.50 per hour</td>
<td>9.25</td>
</tr>
<tr>
<td>8 hrs appraisal time</td>
<td>@ $18.50 per hour</td>
<td>148.00</td>
</tr>
<tr>
<td>1/2 hr secretarial time</td>
<td>@ $8.50 per hour</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Total personnel cost = $370.00

2. Supply Costs:

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Rate per Unit</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 folders</td>
<td>@ $.25 per folder</td>
<td>$7.55</td>
</tr>
<tr>
<td>3 records center boxes</td>
<td>@ $3.00 per box</td>
<td>9.00</td>
</tr>
</tbody>
</table>

Total supply cost = $16.50

3. Shelving Costs:

<table>
<thead>
<tr>
<th>Cubic Feet Description</th>
<th>Rate per Unit</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 cubic feet</td>
<td>@ $9.00 per cubic foot</td>
<td>$27.00</td>
</tr>
</tbody>
</table>

4. Total Cost:

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>$370.00</td>
</tr>
<tr>
<td>Supplies</td>
<td>16.50</td>
</tr>
<tr>
<td>Shelving</td>
<td>27.00</td>
</tr>
<tr>
<td>Total cost</td>
<td>$413.50</td>
</tr>
</tbody>
</table>

\[
\frac{$413.50 \text{ total cost}}{3 \text{ cubic feet of records processed}} = \frac{$137.83}{\text{per cubic foot}}
\]

We felt that the appraisal time by the supervising archivist was justified because a substantial portion of the collection did not have permanent archival value. As a result of the appraisal, we reduced the size of the collection from ten to three cubic feet. This lowered the
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overall cost of processing by 50%, thereby offsetting the increase in cost per cubic foot. For this reason, we must take care when comparing processing costs per cubic foot to be certain that there are no wide variations between components used as the standard.

Conclusion. These cost figures indicate just how labor-intensive the archival profession has become. By realizing this fact and using information gleaned from an institution's experience, archivists can begin to justify their existence in a cost-conscious world and accurately plan for future institutional development.
Suggested Readings


