Emphasis is placed on the establishment of a cost effective program of records management with scientific controls of records required in the course of operating a business. The control of cost and information must be given consideration along with the problem of effective information dissemination. For success, the program's objectives must be clearly stated and the program properly organized. A physical records inventory must be taken. All record series must be analyzed and appraised by a division of functional responsibilities. Clear, tailor-made records flow schedules must be issued and explained. An effective, low cost records center must be set up. Vital records protection must be provided where required. Media of record storage and handling must be evaluated. Forms, records, and correspondence must be controlled. Cost of information systems must be analyzed, where warranted. With all the scientific controls implemented, it is clear that records management can effectively control costs associated with paperwork and control information. (Author/MM)
A STUDY OF RECORDS MANAGEMENT AS AN OPPORTUNITY FOR INFORMATION AND COST CONTROLS

A Thesis
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the Faculty of the Graduate School of Business
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Master of Business Administration

by
James O. Leonard
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ABSTRACT

The growth of information and records in today's business world has effected a "paper explosion." This explosion has resulted in soaring costs and poor communications of vital data.

In order to rectify the problem, a formal program of Records Management must be implemented to provide effective data and cost control.
A STUDY OF RECORDS MANAGEMENT AS AN OPPORTUNITY FOR INFORMATION AND COST CONTROLS

APPROVED

Arthur Neale, Ph.D.
Instructor
May 1971
PREFACE

The writer is indebted to the members of the American Records Management Association who provided encouragement and meaningful intercourse of ideas and concepts. Their time and interest are greatly responsible for any contribution that this thesis may make to the profession of Records Management.

This thesis is not a replacement of any of the excellent publications to which the writer referred, but is an expansion of basic principles with regard to the ever-changing science of management. It is hoped that the contents of this thesis and the referenced publications will stimulate the reader to recognize Records Management as a vital corporate tool.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PREFACE</strong></td>
<td>iv</td>
</tr>
<tr>
<td><strong>Chapter</strong></td>
<td></td>
</tr>
<tr>
<td>1. <strong>INTRODUCTION</strong></td>
<td>1</td>
</tr>
<tr>
<td>THE PROBLEM</td>
<td>1</td>
</tr>
<tr>
<td>Statement</td>
<td>1</td>
</tr>
<tr>
<td>Justification</td>
<td>1</td>
</tr>
<tr>
<td>History</td>
<td>3</td>
</tr>
<tr>
<td>Sources of Data</td>
<td>7</td>
</tr>
<tr>
<td>PREVIEW CHAPTER BY CHAPTER</td>
<td>8</td>
</tr>
<tr>
<td>2. <strong>GLOSSARY AND INITIAL ELEMENTS OF A RECORDS MANAGEMENT PROGRAM</strong></td>
<td>13</td>
</tr>
<tr>
<td>3. <strong>INVENTORY OF RECORDS</strong></td>
<td>25</td>
</tr>
<tr>
<td>Questionnaire Method</td>
<td>26</td>
</tr>
<tr>
<td>Consultation Method</td>
<td>27</td>
</tr>
<tr>
<td>Physical Inventory Method</td>
<td>27</td>
</tr>
<tr>
<td>4. <strong>RECORDS ANALYSES AND APPRAISAL</strong></td>
<td>30</td>
</tr>
<tr>
<td>5. <strong>RECORDS FLOW SCHEDULES AND MAINTENANCE</strong></td>
<td>37</td>
</tr>
<tr>
<td>6. <strong>CORPORATE RECORDS CENTERS</strong></td>
<td>44</td>
</tr>
<tr>
<td>7. <strong>VITAL RECORDS PROGRAM</strong></td>
<td>49</td>
</tr>
<tr>
<td>Disasters Requiring Records Protection</td>
<td>50</td>
</tr>
<tr>
<td>Records Requiring Protection</td>
<td>51</td>
</tr>
<tr>
<td>Method of Protection</td>
<td>53</td>
</tr>
<tr>
<td>Audit of Vital Records Program</td>
<td>54</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>8. MEDIA OF RECORD STORAGE AND HANDLING</td>
<td>55</td>
</tr>
<tr>
<td>Filing Equipment</td>
<td>55</td>
</tr>
<tr>
<td>Microfilm</td>
<td>57</td>
</tr>
<tr>
<td>Electronic Data Processing</td>
<td>59</td>
</tr>
<tr>
<td>9. FORMS CONTROL</td>
<td>64</td>
</tr>
<tr>
<td>10. REPORTS AND CORRESPONDENCE</td>
<td>69</td>
</tr>
<tr>
<td>Reports Management</td>
<td>69</td>
</tr>
<tr>
<td>Correspondence Control</td>
<td>72</td>
</tr>
<tr>
<td>11. FINANCIAL ANALYSIS OF INFORMATION SYSTEMS</td>
<td>74</td>
</tr>
<tr>
<td>12. CASE STUDIES AND SUMMARY</td>
<td>79</td>
</tr>
<tr>
<td>Case Studies</td>
<td>79</td>
</tr>
<tr>
<td>Summary</td>
<td>81</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>83</td>
</tr>
<tr>
<td>1. Evaluation Form for Records Retention</td>
<td>83</td>
</tr>
<tr>
<td>2. Records Schedule Worksheet</td>
<td>84</td>
</tr>
<tr>
<td>3. Records Flow Schedule</td>
<td>85</td>
</tr>
<tr>
<td>4. Standard Procedure: Records Flow Schedules; Origination, Revision, Approval, and Distribution</td>
<td>86</td>
</tr>
<tr>
<td>5. Standard Procedure: File Review; Destroying Outdated Records and Transfer of Records to the Corporate Records Center</td>
<td>89</td>
</tr>
<tr>
<td>6. Standard Procedure: Retrieval of Records from the Records Center</td>
<td>93</td>
</tr>
<tr>
<td>7. Standard Procedure: Control Over Filing Equipment</td>
<td>95</td>
</tr>
</tbody>
</table>
### Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Break-Even; Hard Copy Storage Cost vs. Microfilming Cost</td>
<td>97</td>
</tr>
<tr>
<td>(Without Present Value Considered)</td>
<td></td>
</tr>
<tr>
<td>Value Considered)</td>
<td></td>
</tr>
<tr>
<td>10. Standard Cost Analysis of a Microfilm Project Considering Present</td>
<td>99</td>
</tr>
<tr>
<td>Value</td>
<td></td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>100</td>
</tr>
</tbody>
</table>
CHAPTER I

STATEMENT OF THE PROBLEM

In the face of today's information and paperwork explosion, can a formal program of Records Management with scientific controls of records required in the course of operating a business be an effective corporate cost and information control?

JUSTIFICATION OF THE PROBLEM

A major problem confronting business today is the requirement for data and records which has caused paperwork, information and associated cost to become a serious drain on both budgets and efficiency. As industry itself has followed a path to bigness and complexity with companies diversifying, expanding and merging, new records are piled on top of old ones causing communication and records problems to multiply. Thus, cost and confusion have increased proportionately.

The control of cost and information must be given consideration along with the problem of getting the right
information, in the right form, at the right place, at the right time, and in the hands of the proper person. Planning a records management program must be along the lines of controlling these costs. The largest corporate overhead cost is for information, which has produced an over-abundance or deluge of paper in American companies. There are several factors contributing to this deluge. The reproduction equipment in today's offices can spew out copies at the speed of sixty copies per minute. The computer printer can generate 72,000 lines of print an hour. The computer output on microfilm devices can multiply the computer's output by a factor of at least ten, or 720,000 lines an hour. All governmental agencies are requiring an ever-increasing number of reports. The technical information needed to operate a company today is far more complex than ever before. The body of law, such as product liability, property rights, and possible side effects of the corporate legal image, must be maintained.

There are records needed for planning purposes, both short and long term, to conduct business in the future.

Case studies in later chapters will illustrate the justification of this pressing problem with an analysis of the cost of failure to cope with one's records problems. The next section of this chapter attaches a dollar savings to Records Management Programs in the Federal Government.

A BRIEF HISTORY OF RECORDS MANAGEMENT

Early man had little need of records; however, due to information being a perishable commodity, even he had to rely on written records to store his ideas and impressions. His crude symbols and pictures on the walls of caves, and later on parchments, were the forerunners of stored information.

Early days of American business life were simple, and the need for records was confined to bills and invoices which were stored on spindles, or in barrels, boxes, pigeonholes, and desks. Even then, vital or important papers were stored in strongboxes. But these simple days are of a

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bygone era, for today's business records can deal with the whole scope of knowledge, depending upon the thrust of the corporate interest.

The Second World War created a special need for information and action which caused the simple paperwork systems of the time to break down. This demand caused the generation of tons of records which were difficult to store and nearly impossible to retrieve. During this period, the President of the United States appointed a special Commission to study paperwork problems, such as efficiency and organization, in an effort to break up the red tape and bottlenecks. This Commission was headed by former United States President Herbert Hoover. The recommendations which were made are the foundation of the principles of records management today.

The first study made recommendations to the Congress which it passed into law as Public Law 152 (June 30, 1949), establishing the General Services Administration for the Federal Government. A later law (Public Law 754), passed by Congress, reinforced the administration of GSA by giving the administrator the responsibility of improving records management by the promotion of basic principles throughout
all agencies of the Federal Government.

In 1955, a second Hoover Commission made further recommendations which called for the placing of the responsibility of controlling the mounting paperwork problem at the highest level of management, not at the low clerical level. Findings showed that $255,000,000 could be saved within a decade if proper records management programs were established in the Federal Government Agencies. As a result of the scientific records management controls for paperwork, the Federal Government destroyed the equivalent of more than a million file drawers of obsolete records. Converted into space savings, this would be 250,000 file cabinets or 750,000 square feet of office space. Using average cost per year per square foot of office space of eight dollars, this means a savings of $6,000,000 in space alone for the first year. Also, the equipment cost should be considered. The empty files were valued at an average cost of $100 per file, or a total cost of $25,000,000. Thus, a conservative estimate of the savings was set at 31 million dollars in the first year of the program alone.

These savings were widely publicized, and the private sector of the economy started to study their own accumulations of records for possible similar savings. Also, the Presidential Commission had used a large number of people who had gained valuable experience in the basic principles of Records Management Programs, and they were available to aid many companies in handling Corporate Records Management Programs.

Out of this, in an effort to advance the Profession of Records Management, there grew professional organizations to promote, refine, and advance, both the principles and skills of their members. The membership of these organizations was made up of people from all aspects of business, government, and nonprofit organizations. The leading organization, dedicated to the advancement of Records Management, is the American Records Management Association, with a membership in excess of 1,500, covering all areas of the United States. The second such association is the Association of Records Executives and Administrators, which is confined to the New York and Washington areas. To these two groups is owed much credit for the advancement of Records Management.

The state of the art today is one of implementation
of established principles of Records Management, refinement of these principles, evaluation of new hardware, evaluation of new concepts, and evaluation of results to insure that proper economies are generated.

SOURCES OF DATA

One source of data used in researching information for this thesis has been the books published by individuals involved with Records Management Programs. These individuals are leaders in the field who have made major written contributions to the concepts and techniques of implementing such programs.

Another source of information has been personal contact with many of the major corporate Records Managers throughout the United States. This contact has come through the American Records Management Association, for which I have served as New Jersey Chapter president for the past two years.

The National Association publishes a quarterly which contains articles of special interest pertaining to various aspects of Records Management. These articles will shed light on particular areas of the total Records Management
Program which this thesis will evaluate. Also, articles have been collected from various trade periodicals, some of which are written on Records Management and others on topics useful in measuring the effectiveness of Records Management. Examples of this are the articles pertaining to the concept of financial analysis, or return on investment, which will be used to measure the dollar value of a Corporate Records Management Program.

PREVIEW CHAPTER BY CHAPTER

Chapter II Organizing a Records Management Program

This chapter covers definitions of terms used in the profession, thus giving the reader a clear understanding of the basic vocabulary needed to understand the principles of Records Management. The need for top management backing, and placement within the corporate organizational structure, will be discussed. The initial program elements and procedure, acceptance of records management, records survey, active and inactive areas, selling management, and setting objectives will be presented. Also, the use of consultants will be considered.
Chapter III Inventory of Records

Consideration will be given to the means of obtaining a records inventory, which is the foundation for the set of corporate records flow schedules. The structure, approaches, equipment, and means of maintaining such an inventory current, will be illustrated.

Chapter IV Records Analysis and Appraisal

This chapter will cover the organizing of the data collected during the inventory, and deal with the criteria used to establish the retention of each record series.

Chapter V Records Flow Schedules and Maintenance

This chapter deals with the major problem confronting records managers, and the portion of work requiring the greatest attention to detail and understanding of the backbone of Records Management. Types of schedules, contents, format, item identification, schedule distribution, authorization, destruction, and auditing of departments, will be touched upon.

Chapter VI Corporate Records Centers

The establishment and operation of a Corporate Records
Center, and the storage area of inactive records, its layout, location, physical characteristics, equipment, use of a commercial facility, transfer of records, handling storage, retrieval, control, destruction, activity, and the cost associated with this operation, will be reviewed and evaluated in this chapter.

Chapter VII Vital Records Program

Vital records will be defined and ventilated with the criteria for selection of such records, structuring the procedures, proper storage, and auditing of the program to determine its effectiveness.

Chapter VIII Media of Record Storage and Handling

This chapter deals with the current available hardware and techniques used for processing and storing active records and information, hard copy, microfilm, tapes, disc, core, and cards, which are devices with which the records people must cope.

Chapter IX Forms Control

Most of the records generated in business today are on forms assigned to that function. So, in effect, forms
control is birth control for records. The Records Manager's role will be discussed along with the basic principles of forms control.

Chapter X  Reports and Correspondence

Due to the special problems pertaining to the control of reports and correspondence, they will be handled in a chapter of their own. The value of control to facilitate the retrieval of this information, and the need to avoid duplication to control the cost of handling, are the objectives in structuring a reports and correspondence management program.

Chapter XI  Financial Analysis of Information Systems

The financial analysis of information systems is a neglected field in today's business ventures. The glamour of the computer has started to wear thin, with the result being a closer look at its role, along with various other pieces of hardware and manual systems, to determine the cost and information impact to the corporation. The careful evaluation and financial analysis of proposed information systems, with alternative solutions, is a must for the cost conscious controller. The advancements in the area of
financial analysis will be applied to information systems.

Chapter XII Case Studies and Summary

The last chapter deals with case studies showing results of various Records Management Programs, in an effort to measure the value and effectiveness in controlling information and the cost associated with records, and the savings or lack of savings generated by various Records Management Programs. The summary will reiterate the solutions as to the best means of making Records Management an effective corporate cost and information control, and recap the findings as to the means of evaluating and measuring that effectiveness.
CHAPTER II

The first portion of this chapter covers definitions of terms used in the profession of Records Management, which should give the reader an opportunity to understand the basic vocabulary needed to discuss the principles of Records Management.

Glossary of Records Management Terms

Acetate jacket: A thin card form used to hold portions of film strips or microfilm.

Active records: Records which are referred more than once a month per file drawer.

Alphabetical filing: Arrangement of records in accordance with the alphabet. Captions may be subjects, name, place or organization.

Alpha-numeric: A hybrid system combining features of alphabetical and numerical filing systems.

Archival standards: Standards set to assure permanence of microfilm images set by the U.S. Bureau of Standards.


Archive: A collection of historical records significant to a company.

Backshifting: The moving of folders and guides back in order to allow the insertion of new materials throughout the file.

Blow-back: The production of hard copy from a microfilm storage medium.

Caption: The heading or lettering on a guide or file folder which indicates the category of records filed behind or within.

Card file: A systematic arrangement of information recorded on cards.

Centralized files: A single location for files of several organization units.

Charge-out: The recording of the individual using the record and responsible for its return.

Chronological file: A numeric file using a date to determine the arrangement of the records.

Coding: The indicating of file reference on records to be filed, thus determining file location.

Collating: The operation of placing material in a desired sequence needed for a report.
Commercial records center: A records center operated by a private service company for use by many different companies in order to house records at a set charge.

Compressor: A follow block to press standing folders together in order to prevent their falling down.

Convenience file: A private file physically located near its user for convenient reference.

Cost/cubic foot: A basic unit used to measure the operating cost of a records center so as to build comparative cost for evaluating the program.

Cross-reference: A notation in a file to signal other possible locations of given information.

Cubic/square foot ratio: The relation between the volume of records that can be stored per square foot of area in a given location.

Decentralized files: Records stored near the location or offices immediately responsible for those functions which cause their generation.

Decimal file: The subject-classifying of records in units of 10 and coded to be numerically arranged.

Destruction notification: A notice announcing the scheduled destruction of records.
Dictionary pattern: The filing of records with captions in strict alphabetic order regardless of subject relationships.

Dispersal: Placement of sets of records in removed location as to insure the survival of one set in the event of a catastrophe.

Edge-notched cards: Cards with border holes indicating the code for retrieval.

Equipment surveillance: A program by records management to review all requests for procurement of filing equipment.

Encyclopedic pattern: An alphabetized sequence of subject headings with related files alphabetically arranged within the subject headings.

File index: A list arranged in the same sequence as records are physically filed.

Filing: The storing of records so arranged as to be readily found when needed.

Functional forms file: Forms filed by the type of action they are designed to generate.

Geographic filing: Location captions filed alphabetically.

General schedule: A records flow schedule covering records common to several functions.
Guides: A measured breakdown of the type of filing needed to speed retrieval.

Key word: Descriptive words contained within the records as a means of indexing.

Microfiche: A card size strip of film usually containing 60 images at a 20/1 ratio of reduction.

Numeric file: A file arranged in ascending order of numbers-1, 2, 3, etc.

Peak loads: A period of maximum activity.

Physical inventory: An actual item count by viewing.

Pulpit ladder: A safety-type ladder used to view records stored at high levels.

Purging records: The removal of records in accordance with a records flow schedule from an active file or records center.

Reader: A projector and screen device used to view micro-images.

Reader printer: A reader which also blows back microimages to hard copy.

Records: Any paper, book, photograph, film, reproduction, sound recording, tabulation card, data processing tape, map, drawing, or other document, that has been prepared or received in the transaction of business of the company or for information contained thereon.
Records analyst: A high-level position in the field of records management, involved with the critical examination of records.

Records appraisal: The analysis of records for the purpose of establishing their operational; legal, tax, and planning value to the company; therefore, its retention file.

Records center: A lower cost, centralized area for storage of inactive and semi-inactive records which do not warrant office space and equipment.

Records consultant: A specialist who sells advice about records problems.

Records flow schedule: A comprehensive schedule showing the life cycle and the action to be taken in relation to the disposition of business records.

Records inventory: A physical audit, listing by records series the contents of a file, with sufficient supporting information to enable a proper evaluation of the records to be made.

Records management: The function of planning, organizing, coordinating, directing, controlling, and supervising, all types of records within a company, from their creation to final disposition, assuring that needless records will not be created or kept and valuable records will be preserved and available to provide proper economy.
Records manager: The program director who is responsible for all areas of the total records management program.

Records series: A unit of records usually used as a group, being identical or related, which are classified for scheduling under one title.

Retention period: The time a record is kept in-office, destroyed, or kept in the records center.

Scientific method: A logical, orderly, and rational procedure.

Sorting: The placing and separating of records according to the index of the file in which they are to be placed.

Specific schedule: A records flow schedule covering a function of the company, listing, with retention periods, all records maintained in that area.

Sub-classification: Subordinate captions of an index scheme.

Targets: A sheet used to aid indexing of roll microfilm introducing the contents or separating series of documents.

Terminal-digit filing: A numeric filing scheme which places the last digits in the primary position.

Vital records: Those records, without which the company could not operate or which would severely limit the company's operation.
Work station: An area where particular work is performed, equipped for all the needs of the given worker.

The second portion of this chapter will deal with the initial program elements, use of consultants, the need for top management backing, and the placement of this function within the corporate structure.

The initial program elements are: a records survey, program acceptance by top management, procedures, proper formation of active and inactive records areas, and setting objectives.

A survey of the status of records management in a corporation should be the basis for determination of the seriousness of the problem and what objectives and priorities should be established. The survey should include the volume of records presently being retained in high price office areas, history of file equipment purchases, shortage of office space, dollar expenditures for forms, and the excessive time consumed in locating information. This information will be useful in determining what dollar goals to set for
the initial program and, therefore, how much effort or money to spend to secure the projected savings. This survey should indicate the status of records management and be the basis of projected dollar savings to management, thus making them aware of the problem along with a sound solution.

The underlying principle for action and procedures should be to maintain only active records in high price office space, to transfer inactive and semi-inactive records to a low cost records center, and destroy obsolete records.

The objectives of a records management program are twofold, in that it is concerned with cleaning out waste paper of yesteryears and controlling the wastefulness of tomorrow. Therefore, the objective set, or goal within a corporation, would depend, in part, on the age of the company and the state of its records management as to whether the emphasis should be placed on avoiding cost or deleting cost.

2 Benedon, pp. 9-10.

3 Place and Popham, pp. 11-12.
The objectives of the program can rest on four points:
1) Fewer and improved office files, 2) Regular flow of records, 3) Preservation of archival documents, and 4) Vital records protection.

The use of consultants merits special consideration, due to their relatively high cost and the importance of starting a records management program only on a sound, fundamental basis. There are the large corporations which will need a full-time records manager, but the smaller companies will require the use of a currently employed person on a part-time basis.

The limited use of consultants at the initial stage of the records management program is recommended for two reasons. First, most companies lack expert records management personnel within their companies; therefore, to put the initial program on a sound base, their guidance is useful. Also, at this stage, the consultant can work with the new full-time records

manager to be, or the currently employed part-time records manager to be. Thus, the individual, with long term records management responsibility to the company, gains valuable experience in structuring a records management program and, in effect, the consultant is used as an instructor. The second reason why consultants are useful in the initial stage of a records management program is that this is a peak period in the life of a records management program and, by using consultants, a company may avoid additions in personnel who will not be used after the initial stages of the program.

Once approval is obtained from top management that it wishes to have a records management program, a letter or directive to all management should be sent by the president of the corporation, outlining who is responsible for the program and the need for total cooperation by all managerial personnel. The consultants and records manager should be held responsible to achieve the goals set by the records survey which was used to sell management on the program. The goal

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5 Benedon, pp. 10-11
must be quantitative and detailed as to the dollar savings that must be generated in order to call the program a success.

The placement or reporting relationship of the records manager is very important to the program's success. Experiences of most companies have shown that he should report to one of the following corporate functions: Administrative Services, Corporate Secretary, Controller, or Systems and Methods Department. The reporting relationship varies in the companies surveyed; however, the consensus is that, the higher the reporting relationship within the corporation, the better the chances of success.

Due to the variance from corporation to corporation, careful consideration should be given to this reporting relationship, so as not to doom it prior to the program's inception by assigning this important function to a lower managerial area. Usually, the consultants can advise in this reporting relationship once they become familiar with the corporation.

CHAPTER III

INVENTORY OF RECORDS

An inventory of records is the basis for a formal program of Records Management, and is the first step in making it an effective corporate cost and information control.

A complete inventory of all records in a company is essential to this stage of a records management program. Facts are gathered which will be used to base the creation or maintenance of records flow schedules and determine the initial dollar savings to be generated once the program is implemented. The dollar savings will be calculated from inventory data pertaining to equipment and space. The records inventory or survey should be a complete listing of all files and equipment housing records within a given functional area, by category, together with sufficient supporting information to enable a proper evaluation of the record's function and activity.

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There are three basic methods or approaches by which the data can be generated or a complete listing compiled. The methods are by questionnaire, consultation, and physical inventory.

**THE QUESTIONNAIRE METHOD**

The questionnaire method is the fastest, and requires the least amount of time of records management personnel, because the data are filled in by the various departments, themselves. However, the various departments will look upon it as an added chore and, if hastily prepared, it would cause incorrect assumptions to be made, both in possible dollar savings and records flow schedules which would be based on the data. With the questionnaire method, records management personnel do not have an opportunity to exchange ideas with the departments or understand the problems presented in various areas of the company.

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THE CONSULTATION METHOD

The consultation method is where records management personnel consult with personnel in the various departments of the company and thus compile the information needed for the records inventory. This is the best possible information that can be generated because, by using trained records management personnel, the data will have continuity and expertise of collection. Also, the departmental personnel are usually the most familiar with their particular records and how they are used, which is a strong criterion for in-office retention. However, this method is slow and consumes many company man-hours, and may disrupt daily operations.

THE PHYSICAL INVENTORY METHOD

The last method is a physical inventory where trained records management personnel do a complete coverage of active and inactive records by looking through all records of a given functional area. The advantages of this method are that the people most able to understand records problems are doing the work, causing little interference with the company's daily operations. A drawback of a physical inventory

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is the nature of some records, the contents of which do not make readily apparent what they are or how they are used. Also, the time span from when the project is started and completed may be excessive, due to the lack of availability of trained personnel. However, a well-trained person can usually cover an average of 300 to 350 cubic feet of records per day.

The data that are to be compiled should include a complete inventory of filing equipment, by category, and the volume of records being maintained in-office in each functional area. Also, each records series should have a completed evaluation form which contains the following: name of record, form number if any, which copy, annual accumulation, the period for which the record is presently being retained in office, documents contained in the file, purpose of record, where other copies of this record are retained, activity level of reference to this record, type of requests, alternative information or records, record copy, legal value, tax value, recommended retention, functional area, and name

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5 Benedon, p. 15.
of the person preparing the form. (For a sample form, see exhibit one in the appendix.) If properly gathered, these data can give a solid base to generate records flow schedules.

Carelessness in taking an inventory will come back to haunt every succeeding step of the records management program. Therefore, the best means of gathering the data must be used. The best means is a physical inventory, where possible, supplemented by consultation with departmental personnel, wherever necessary. Due to the time span required to gather these data, the use of consultants for larger companies should be considered. However, it is a great training ground for future records management personnel, if time allows their use during this stage of the records management program. If time allows, the future corporate records manager should be involved from this initial stage.

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CHAPTER IV

RECORDS ANALYSIS AND APPRAISAL

This chapter will cover the organization of the information collected during the inventory, which was covered in Chapter III and illustrates the criteria used to establish the retention and flow of each record series to be listed on records flow schedules. For each function throughout the corporation, the record series will be listed alphabetically on a record schedule worksheet, for approval by the Operational Personnel, Tax Manager, Law Department, and Records Administrator. (See item number two in the appendix for a sample form of the records schedule worksheet.) The length of retention of any record should be based solely on the time frame within which a referral need exists. This is a supreme test, and, almost always, the only one necessary. Consideration must be given first to the length of time a record should be retained in office or high priced space. Only active

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records should be retained in-office, and, by definition, active records are records which are referred to more than once a month per file drawer. Secondly, the retention period of semi and inactive records must be established as in Corporate Record Center retention. Even though the Records Center is a much cheaper area to store records than in prime office space, that retention period must also be minimized. Again, the test of referral applies. The third column, or total retention period, is the sum of in-office and records center retention.

Because the schedules are based on a physical inventory, supplemented by consultation where necessary, the end resulting schedules will be tailor-made for each functional area of the company. Tailor-made schedules are the only schedules that will work because departmental personnel will have no difficulty in matching records in their offices with the scheduled records series. Thus,

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departmental personnel will be able to determine the disposition instructions of each applicable records series without being confused as to records series titles. Departmental personnel will not use general schedules.

The physical inventory, which contains the facts for records analysis and appraisal, must have been gathered by people who understand the process, in order to insure the correct selection of facts. Duplication of records throughout the corporation should be detected, to make possible the selection of one set as official for the longest referral and, therefore, avoidance of more than one such set being transferred to the Corporate Records Center. This interrelationship of records must be understood in order to schedule records. Detail records may be contained in summary form in a report, and, if possible, the greater processed record should be retained whereas the voluminous detail records should be destroyed. At this point, in-office retention should be established by file activity and preliminary total retention suggested by taking into
consideration possible legal, tax, corporate planning, and corporate policy. The final authority for each respective area must be the signatory for that area. However, the greater the knowledge and understanding of the records personnel of the needs of each of these areas, the smoother the flow in the scheduling process. The tentative records flow schedule is now ready for the consultation and negotiation stage as it is presented to section heads first, then higher management for review, and, lastly, tax and legal for final approval.

The Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., prints a book called "Guide to Record Retention Requirements," which tells the reader what records must be kept, who must keep them, and how long they must be kept to fulfill Federal requirements. Likewise, there are many state and local publications which will help in the analysis of state and local legal requirements governing records for companies operating within these states.

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Although the law may be quite clear as to the length of time certain information must be retained, usually the records manager has the best expertise to determine which records are needed to fulfill the requirement, and, certainly, the impact the requirement has on the total corporate records structure. Wherever possible, legal requirements must be pinned down and referenced on the appropriate records schedule worksheet.

There are many records that have no connection with statutes or regulations and, in these cases, studies of actual usage are required. The in-office period can probably be established fairly quickly but, after the first year, usually departmental personnel will not have a realistic idea as to referral needs. But, through negotiation, the in record center period can be established initially. However, in most cases, a check on referrals to the records once

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transferred to the Records Center will show a reduction of total retention is possible due to total lack of referrals after a given time frame. The scheduled reduction can be done at a later stage of the records management program.

The first set of tailor-made, negotiated, records flow schedules will launch the program, but the Records Manager will find that they will lack continuity due to the variances in outlook of the different departments. At this point, the particular tailor-made schedules should be analyzed and appraised for consistency and corporate retention policy, and then standardized within these guidelines and reissued as standardized tailor-made schedules, with top managerial backing, along with procedures for action. The procedures should be in the same form that any other corporate procedures are issued.

The setting of, and issuance of, retention schedules is the backbone of the records management program. It will require time-consuming gathering of facts, analysis, and appraisal, but, if reasonable records flow schedules are established, every hour spent will have an excellent
return for the company. The strategy and policies of structuring a corporate-wide analysis and appraisal of records can generate an effective information and cost control of those costs associated with records handling. The records management program must be based on schedules which are properly analyzed and appraised.

6 Blegen, p. 28.
CHAPTER V
RECORDS FLOW SCHEDULES AND MAINTENANCE

This chapter deals with the major problem confronting records managers, and the portion of work requiring the greatest attention to detail and understanding of the backbone of Records Management. The types of schedules, contents, format, distribution, revision procedures, destruction, and auditing of departments, will be covered. This part of the Records Management Program is the bulk of the analytical work of Records Management, requiring the greatest skills of the staff in the continual operation of the program.

The Records Flow Schedule is a comprehensive schedule, showing the life cycle and the actions to be taken in relation to the disposition of business records. In the previous chapter, the signatories to the records schedule worksheet were discussed. These worksheets should be a controlled set of documents, with complete traceability as to changes, and with functional responsibilities divided to the areas of responsibility as indicated by the signatories.
The types of schedules are in two basic classes; one being general, and the other being specific. The general records flow schedule has selected records series which are common to many functional areas of the corporation, and/or may also list important records series in an effort to insure their proper handling. By the listing of records series which are common to many functional areas of the corporation, the general schedule may avoid the need to repeat such series on the several functional or specific records flow schedules issued to the various departments. However, this is not of great value, in that the confusion caused by the need to refer to more than one schedule, and the need to select out only items applying to a given functional area, is exactly why specific records flow schedules are of assistance to departmental personnel.

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The best use of a general records flow schedule is for the records manager to compile such a schedule for all records series throughout the corporation, as a basis for analysis of uniformity, total coverage, and appraisal for future development of specific schedules and changes in requirements that will be forthcoming. However, this composite listing would not be published to other departments.

The specific records flow schedule, or tailor-made records flow schedule, will cover only records maintained in the functional area for which the schedule is issued. Thus, all records series listed are familiar to the user of the schedule in that each is maintained in his area. Thus, confusion is avoided. A sound records management program must be based on specific tailor-made schedules, in order to stimulate proper records flow.

The Records Flow Schedule's content and format are important factors in the appearance and acceptance of the schedule. (For a sample records flow schedule, see item number three in the appendix.) The tailor-made schedule should have proper identification as to the functional area it is designed to cover. The record
series titles must be familiar to the functional area and precise. They should be listed in alphabetical order to aid in locating any single item by the user. The required retention period must be clear and exact. If the schedule is authoritative looking, its acceptance will be enhanced. Schedules and manuals which are issued should be flexible because changes are constant in a viable corporate records structure.

The distribution of schedules which indicate the proper records flow must encompass all individuals who have record keeping responsibilities or are involved in records handling. For example, a manual and schedules may be issued to the accounts payable supervisor, but he will delegate the task of transferring to his assistant who must have proper information. Therefore, the size of the operation would dictate the number of schedules issued to the operation. In each case, only the specific schedule is issued to the operation. Thus, by issuing only the specific schedules to the various functional areas, they receive only schedules covering exclusively their own records. The records

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3 Benedon, p. 53.
4 Benedon, p. 53.
manager must have control over the schedule distribution to insure adequate information is in the hands of the users.

Schedule revisions should be processed in the same manner that the schedules were originated. The department management should notify the Records Manager if a record type or series is not covered by the Records Flow Schedule, or is not originated and maintained in his area, if the format of the record is changed or its routing, if a record series is discontinued, if the department's organization changes, or if a new functional area is created. (Item number four in the appendix is a sample procedure governing the origination, revision, approval, and distribution of Records Flow Schedules.) However, in practice, the records audit is the only way to maintain currency of the corporate records flow schedules.

Changes and/or revisions to schedules should be processed on a schedule worksheet as a change notice. The change notice should list only the items that are to be revised, clearly stating the action to be taken. An example would be: delete, add, or change from-to. Then, the change notice should be handled in the same manner as schedule generations are handled.
Destruction of records from in-office, as per the given records flow schedule, should be as stated on the schedule. But, if the records are confidential in nature, the record center personnel should destroy them to insure that the information is not compromised. If proper flows are maintained, deleting unnecessary records from offices, savings in space, equipment, and time can be achieved.

As with all procedures throughout the corporation, once established, auditing becomes a necessity to insure compliance and to measure the effectiveness of the procedure. In a records management program, top management's backing is most apparent when the initial program is launched, but, after the first goals have been achieved, the currency of the program is the full responsibility of the Records Manager. Audits for compliance with Records Management's procedures can be conducted by, or assisted by, the internal auditing, in that they review many records series in the normal course of their work. If records coordinators are used in various departments, they should assist in auditing the program. However, records management personnel, and

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5 Fujita, p. 27.
records analysts in particular, are the surest means of maintaining a continued audit with corporate continuity. All departments of the corporation should be audited at least once a year.

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CHAPTER VI

CORPORATE RECORDS CENTERS

The Corporate Records Center should be a low cost, centralized area for storage of inactive and semi-active records which do not warrant office space or office type equipment. The establishment, operation, layout, location, physical characteristics, equipment, commercial facility, system of handling transfers and retrievals, control, destruction, activity, and cost associated with its operation, will be reviewed and evaluated in this chapter.

There is much published material detailing exactly how to set up and operate a Corporate Records Center, but this chapter will be orientated to the objectives of the Corporate Records Center and minimization of cost associated with its operation. (For details to assist the reader in setting up a Records Center, the referenced material should be reviewed.) The objectives of a Corporate Records Center are to provide a safe, accessible, low cost facility for the housing of corporate records which the Records Flow Schedules (covered in the previous chapter) indicate should be so housed.
The cost of maintaining and operating a records center effectively will average between $1 and $2 per cubic foot of records maintained per year. The area of the country will affect this figure, along with the skill and control of the Corporate Records Management Program. However, the cost/cubic foot in the Corporate Records Center must be compared with the cost/cubic foot to maintain records in prime office space, to establish the saving generated by its operation. Some Records Management Programs have established the ratio as forty to one of office cost per cubic foot of records to records center cost per cubic foot of records. In establishing the cost/cubic foot in the Corporate Records Center, the following items should be considered: annual rental or allocated cost for the space, utilities, supplies, equipment, furniture and fixtures, wages, fringe benefits, and transferral of records to Center. Both costs should be considered before Federal income taxes because the real


value is the ratio between in-center cost and in-office cost. A ratio of forty to one is excellent for, if $20,000 is spent on the Corporate Records Center, a possible saving would be $800,000. This does not mean all records should or can be transferred to the Records Center, but it does show the waste of storing semi and inactive records in prime office space.

The establishment and operation of the Records Center will depend upon the location, layout, physical characteristics, equipment, and system, of handling transfers, retrievals, and destruction of records. In locating the Records Center, consideration must be given to accessibility for reference, accessibility for material handling, inhabitability, and minimum cost. The layout used must be the highest yield of cubic foot of records stored per square foot consistent with good material handling and accessibility. The recommended equipment is primarily open shelving and tote boxes.

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4 Blegen, p. 46.
Most major records centers using this equipment find it fills the needs at the lowest cost.

The system and procedure for handling transfers, retrieval, and destruction of records must have exacting control. (For a sample procedure, see items five and six of the appendix.) Service is the keystone to future growth of any Records Management Program. Departmental personnel will not release records to the Corporate Records Center if requested information is delayed. The system used to handle transactions with the Corporate Records Center must be as accessible as the needs of the corporation for the records retained. Routine service should be given within twenty-four hours, with the capability of giving service within the hour should the need arise.

In many areas of the country, there are commercial records centers operated by private service companies, for the use by many different corporations in order to


house records at a set charge. Most large corporations will find the cost substantially above the price of maintaining their own records centers; however, if your costs are high, a commercial center should be considered. Smaller companies, who can not take advantage of a sizeable inventory of records to be stored in their own Records Center, may find a commercial center to their advantage. Consideration should be given to commercial records centers, and the nature of the particular company will dictate if their use is advisable.

In summary, cost of the operation of the Corporate Records Center must be minimized consistent with the needs of the corporation for service.

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7 Benedon, Records Management, p. 80.
CHAPTER VII

VITAL RECORDS PROGRAM

A vital records program involves the storage of information and records which are necessary for the continuance of a business operation in such a manner that, if the records which are normally generated in the course of business are destroyed by a major disaster, such as, flood, tornadoes, acts of war, along with all the physical plants and property, the necessary records would be available to insure the continuance of business. This program should not be undertaken until a sound records management program has preceded it. The Corporate Records Manager, who has operated the records management program, will have the necessary information to make the proper judgments in developing a vital records program as the need and opportunity presents itself. The need for, and nature of, such a program will depend on the individual company, its geographical location or locations, and the structure of the industry within which it does business. A vital records program is a measure of insurance that the necessary information and records will survive a given disaster. Like any other insurance,

there is a cost, risk, and probable benefit. After a disaster, a company might re-establish itself without vital records, but the fact remains that their availability due to protection will lighten the burden of reconstruction immeasurably and avoid costs associated with the loss of such information and records.

Disasters Requiring Records Protection

The first question that must be answered by the corporation seeking a vital records program is which types of disaster it wishes protection against. The disaster requiring the greatest protection and cost is an all-out nuclear war. In the past, and even today, many companies have installed hard sites at great expense to protect records against such a disaster. This cost, in most cases, is not warranted, due to the lack of protection for personnel in such disasters. No better protection for records should be afforded than for personnel who use them. A leader in vital records protection, Mr. George M. Derry, in his 1967 article, deals in detail as to the structure of such an all-out program. However, in his


most recent speech before the New Jersey Chapter of the American Records Management Association, he has revised his concepts to limit the protection to natural hazards. This is a decision each corporation must make in the process of installing its program.

A vital records program should protect business information and records against four basic hazards: fire, water, theft, and misplacement or displacement. Natural disasters, such as floods, etc., can be the cause of water and fire damage. Thefts can be motivated by fraudulent conversion or industrial espionage; whereas, misplacement or displacement are usually caused by human factors.

Records Requiring Protection

The categories of functions of business activities requiring records protection to fulfill obligations are: preservation of the legal identity of the company, re-establishment of bonds and security issues, payment of dividends to stockholders, payment of salaries and wages

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to employees, distribution of goods to customers, accounts receivables, manufacturing, continual computer operations, communications, tax payments and liabilities, bank accounts, research and patents, major contracts, assets, and employee benefits. Each record series throughout the company should be reviewed as to its value in establishing any of the above functional categories. The measure of protection must be guided by the cost of protection and the risk of loss. In most companies, only 2% of all corporate records are considered vital.

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Derry, p. 10.
Moore, pp. 32-33.
Shiff, pp. 79-81.

6
Blegen, p. 125.
Method of Protection

Existing built-in dispersal. As part of existing procedures, copies of vital records are maintained in two or more separated locations. This method is generally used by companies with operations that are geographically dispersed.

Improvised dispersal. When the original record is not required for normal operational purposes, it may be forwarded to the vital records center for protection.

On-site vaulting. When the original record is referred to frequently, its housing in a fire resistant vault, safe, or file may give it ample protection. This type of record is not duplicated and may contain information that changes from day to day.

Duplication of the original. When a copy is not available and dispersion is required, then a microfilmed copy or other duplicate may be generated to give the needed copy for protection.

7
Derry, pp. 10-11.
Shiff, pp. 81-82.
Audit of Vital Records Program

Like all programs and procedures, auditing is a necessity to insure their effectiveness. It would be embarrassing and deplorable to encounter a disaster and discover only obsolete records are being maintained in the vital records program. Audits must be routinely scheduled to insure the daily operations of the procedure are being followed.

In summary, it must be remembered that hindsight has little value, and catastrophe does not send advance warning. Since fire, flood, cyclones, and hurricanes are an ever-present danger, management must insure the survival of needed information as well as the funds to reconstruct the company's business.

8 Blegen, p. 128.
CHAPTER VIII

MEDIA OF RECORD STORAGE AND HANDLING

This chapter will be restricted to the role of the Corporate Records Manager in the evaluation of media of records storage and handling. (The evaluation of the media could be a thesis in and of itself.) In Chapter VI, inactive and semi-active records storage and handling were covered; therefore, this chapter will deal only with in-office handling and storage. The areas which will be reviewed are filing equipment, microfilm, and electronic data processing.

Filing Equipment

In most information systems, filing equipment facilitates the use of the information by the end user. The records management program must develop standards to measure the effectiveness of the many mechanical devices and equipment which can be used in all stages of paperwork operations. Due to the various makes and models, it is important to know what equipment to purchase by an evaluation of price and performance to determine the
best equipment for a given application. The Records Manager is the best suited to match equipment with the needs of the user; therefore, he should control all purchases of such equipment. Item number seven of the Appendix is a sample procedure illustrating such control and delineating justification for new or additional equipment. This is an excellent control and audit point for compliance with corporate schedules to insure that obsolete records are being destroyed.

Factors in the criteria for judging and selecting filing equipment must include volume, reference, safety, security, accessibility, cost, wear, space, utilization, and protection from disaster.

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There is a wide range of equipment, and the Records Manager must be informed if he is to select properly. His sources of information are the various manufacturers, their publications, Buyers' Laboratory reports, and studies pertaining to the assorted types of equipment. The usual types of equipment fall in the following categories: drawer files, shelf files, visible index files, vertical card files, motorized units, transfer files, and sorters.

Microfilm

Due to microfilm being a record storage medium and a system of handling records, it should be controlled by the Corporate Records Manager. The costs associated with microfilm are substantial, and the Records Manager should have the necessary information to perform feasibility studies, where needed, to compare the cost of filming to the cost of not filming. However, cost is not the only consideration, and, if the advantages are real, the excess cost or additional cost of filming may be nominal when compared to other considerations. (See item number nine in the Appendix for a chart showing the break-even point of storage of records compared to microfilming for space savings. Also, see item ten for a corrected standard cost analysis of a microfilm project which

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3 Popham, pp. 93-109.
considers present value of expenditures. Present value is a consideration which is seldom examined, but is a real factor in a cost comparison.) In order to make a judgment as to the value of a microfilm system, a correct cost analysis is imperative, for only then can the projected cost be clearly understood.

The advantages of microfilm can be: conservation of space, protection of vital records, rapid information retrieval, facilitating reproduction, historical development, ease of circulation and distribution, ease of handling bulky material, ease of references, accuracy, and ease of safekeeping.

The disadvantages are the need for peripheral equipment to operate the system, users' resistance, difficulty of updating, and cost associated with its use.

The costs and trade-offs must be clearly understood to determine objectively the best uses of microfilm. Many improvements have been made in the last few years, particularly in microfilming equipment, which

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will give greater speed of filming and reproduction at lower costs. It is important that the Records Manager keep abreast of the developments to insure his company of the best use of microfilm. He should be aware of its capabilities as well as its shortcomings. However, he need not attempt to become a technician but, as a manager, should be conversant with its applications.

Electronic Data Processing

In most companies, the greatest shortcoming, and yet the greatest potential, for the Corporate Records Management Program is in the area of the corporation's electronic data processing operations or Management Information Systems Department. The first effect of electronic data processing has been the skyrocketing of the volume of records produced and maintained throughout the corporation. Even the secondary records throughout the Management Information Systems department will be kept "just in case," with no one


taking the responsibility of saying "destroy it" or "erase it," within any reasonable time frame. More money is being spent on data processing than any other phase of industry throughout the United States, with a waste factor of 65% in many cases. The tendency has been to automate the problem in place of using electronic processing of data to make strides in the elimination of paperwork. If properly controlled, it could create speed and economy in office operations. The problems cannot be solved through mechanization or microminiaturization, but only through sound principles of records management. The streamlining


9 Aitchison, p. 16.
Porter, p. 9.
of information management, through scientific controls of records management, must be used to optimize the possible profit improvements available through its use.

The role of the Corporate Records Manager in relation to Management Information Services must be as a control function. To avoid waste, computer application must be controlled. Feasibility studies should be performed prior to the building of a computerized system, to evaluate the cost associated with the system, thus weighing its real value. If properly done, with top and middle management's backing, many problems will be averted. An important principle should be the elimination of paperwork before it is created. There seems to be a headlong rush to build the total data bank, thus putting everything on the computer with little regard for the relevancy of the data. The Records Manager is usually in an objective position, and can assist in determining how the company is best served with what information,


11 Aitchison, p. 16.
Due to the changing nature of the field of data processing, the pay-back, or break-even point, must be kept to within three years of the investment. The role of the Records Manager in this important area must be control in the elimination of unnecessary records, records handling, and records generation.

Control does not mean a direct reporting relation, only a functional clearance of the record keeping, generating, and distribution aspects of electronic data processing.

Because of this important task, it has been stated that the person heading this function should be a Vice President in Charge of Records Management. This is not necessary, but top management must place him on a sound footing and give him proper backing both in position and staffing.

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12 Aitchison, p. 17.

13 Lynn, p. 27.

14 Aitchison, p. 16.
The future for computers is unlimited and, through controls, it can solve many problems without wasteful side effects. The glamour is sometimes obscured because the fundamental issues are lost. The sound principles of records management now in use can apply to the new problems if questions of security, continuity, documentation, costs, secondary needs, implementation, and history are carefully considered.

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CHAPTER IX

FORMS CONTROL

A total records management concept should include all areas in paperwork administration which are closely related. Since forms generate most of the records by which a company operates, it is important that they be designed and constructed to assure a smooth flow of data at the lowest cost consistent with quality and performance. Forms control is very fundamental to the records management concept. Paperwork must be tightly controlled at the point of creation, for lack of such control will result in too many records, poor design, and waste. Forms control is an area of records management which creates a concept of "creation to disposition" of paperwork, thus providing a team which should be aware of existing and potential cost. Again, controlling of cost is basic to the records management concept. Forms control is a tool to control paperwork and has more in common with records

management than any other corporate function. From the view of overall records management, the generation or revision of a form is one of the most profitable areas of centralized control.

Records Management cannot control records when they are not aware of their existence and only find out about their existence after the fact, which creates the problem of deciding what to do with their impossible shapes or sizes and the voluminous copies.

The records analyst, who is already in contact with all areas of the company, has most of the information needed to determine the factors pertaining to the needs, or lack of needs, for a given form. Therefore, to have a forms analyst repeat this gathering of information is


merely redundant. The information must be organized, interpreted, and arranged for a graphic presentation by the analyst, with consideration given to what information the form will contain, who will prepare it, where, what method of entering the date will be used, copy distribution, method of handling, means of filing, and retention requirements of all copies.

The objectives of forms control under records management should be: 1) Elimination of unneeded forms, 2) Promotion of clerical efficiency by the proper design of needed forms, 3) Standardization of clerical activities by consolidation of forms with similar functions, 4) Documentation and auditing of clerical procedures, 5) Reduction of cost of distribution, printing, and handling, and 6) Control of the sources of supply and dissemination of forms information.

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4 Bubnash, p. 17.

5 Von Talge, p. 12.
Throughout the establishment of a staff control function such as forms control, it is of utmost importance to minimize the appearance of control and emphasize the service and assistance aspects of the operation to the functional users, thus avoiding unnecessary resistance and gaining users' cooperation. A function of the analyst is to educate line personnel, not to coerce them. While top management's backing is needed, the proper approach throughout the corporation will do much to build a lasting understanding of the need for control and generate genuine cooperation.

An important tool of forms control is a functional file that brings together all forms that can do the same task, regardless of their titles or areas of use. The analyst should never clear a new or revised form without using the functional file, to avoid duplication by elimination or combining the prospective form, if possible. This functional file should be based on sameness of purpose rather than alikeness of physical format. The objectives of forms control can only be achieved through the use of a properly structured

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6 Carpenter, p. 13.
Some of the techniques of procurement of forms are individual orders, group orders, contract buying, competitive bidding, block purchasing, and inside vs. outside purchases. Forms control must evaluate each to determine the lowest cost consistent with needs of a given form or information flow.

Forms control is an important clerical tool in the controlling of paperwork, and must be part of the total records management concept.


Reports Management

Reports control should provide the best reports at the least expense, by eliminating duplication, redundancy, or otherwise unnecessary reports, thus providing management with the exact information needed. Reports must be designed to assist in the decision making process. The management of reports is similar to any other area of records management, and the application of sound principles of paperwork management can be used. An inventory of reports should be compiled to evaluate each report against established guidelines.


Forms are the source documents used to gather information to be tabulated and issued as reports. So, in effect, reports management is the next logical step after forms control. Even when electronic data processing is used, the goals are usually defined in terms of reports summarizing the data previously collected and processed. The reports serve as an "information feedback," assisting the decision making process of managerial policies and judgments. The ease of generation of reports by electronic data processing must be resisted, to avoid an avalanche of needless paper which would swell the corporate paperwork system if uncontrolled. Like any other records, reports must be controlled to assure effectiveness.

The following principles can be used as a guide to reports structuring and control:

1) Give the reader only the data needed.
2) Keep the report single, clear, accurate, and brief.
3) Exclude all matters not directly pertaining to the subject.
4) Arrange all parts logically.
5) Use a readable and attractive style.
6) Draw only logical conclusions, based on accurate, factual presentation.
7) Use creative displays.
8) Send copies only to recipients with a need to know. 4

Reports management's objective must be the best communications at the lowest cost.

4 Johnson and Kallaus, p. 353.
Benedon, p. 217.

Correspondence Control

Records management can evaluate both the retention of records and the filing system used for handling correspondence throughout the company, to assure control. No matter how well forms are designed, how expertly reports are prepared, or how clearly letters are written, their value is diminished if they cannot be readily retrieved. The proper filing system provides for the classifying, arranging, and storing of correspondence systematically so it will be located quickly when needed.

The development of a workable filing system includes the arrangement of records into workable units, based on volume and recall identification utilized by the user. The first consideration must be the recall identification used to request records which will dictate the filing arrangement. Records may be requested by name of individual or organizational name, subject, location, number, or date. The second consideration is the proper arrangement, which can be

6 Benedon, p. 231.

7 Johnson and Kallaus, p. 11.
alphabetic, numeric, subject, chronological, or geographic, depending again upon the type of request used to recall records. Each of these basic methods has variations which must be evaluated in each application. However, simplicity and logic will minimize the time required to locate files.

An example of an unworkable filing unit would be a file based on subject categories, but using a geographic recall identification. This would necessitate culling each folder for the requested records.

Records management principles can be used effectively in both correspondence control and reports management.

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8 Benedon, pp. 231-252

9 Johnson and Kallaus, p. 11.

CHAPTER XI

FINANCIAL ANALYSIS OF INFORMATION SYSTEMS

The financial analysis of information systems is a neglected field in today's business ventures. The glamour of the computer has started to wear thin, resulting in a closer look at its role, along with various other pieces of hardware and manual systems, to determine the cost and information impact to the corporation. The careful evaluation and financial analysis of proposed information systems, both software and hardware, with alternative solutions, is a must for the cost conscious controller. The reward for careful consideration of information systems can be the avoidance of costly mistakes. The advancements in the area of financial analysis can be applied to the generative aspects of information systems to aid in that portion of the analysis. Although information systems are qualitative in most respects, an evaluation of the quantitative aspects can indicate the cost of the qualitative values. This can assist the decision making process pertaining to information systems.
A comparative cost should be considered in any major system change to determine its cost to the company, even though the end result is hoped to be an "improvement" in the system as to the possible value of the information. The means of doing this is to develop cash flows for the present system and alternative systems, taking into consideration present value of money. Normally, a system change has a cost attached to it and a possible savings for future fiscal periods. Due to the many changes in long range plans, a five-year projection is adequate. Also, consideration must be given to the various volume levels of information which correlate to the projections in the long range plans to meet possible future needs for information. Each alternative system should include the cost of conversion and parallel operations for a reasonable period. In choosing between various systems, management needs information regarding the immediate past and estimates as to the future.

*All footnotes to financial books refer only to accounting and not information systems.

The discounted cash flow model must show each alternative compared to the present system, to evaluate the magnitude and timing of expected future cash flows relative to the initial expected cost of conversion. "A dollar return received one year from today is worth more to us than a dollar return received five years from now." Therefore, the timing of cash flows must be considered. By isolating differences in the timing of the cash flows for the various alternatives, a comparison can be made taking into consideration present value of each cash flow. A standard ten percent can be used to compare, but, once an alternative is selected, then the internal rate of return can be found by solving for $r$.

The present value formula is:

$$PV = \frac{1}{(1+k)^n}$$

The internal rate of return formula is:

$$\sum_{t=0}^{n} \left[ \frac{A_t}{(1+r)^t} \right] = 0$$


This cannot be used as an acceptance criterion, as would generally be the case in capital budgeting, because, again, the quantitative or cost factors of information systems are only a consideration, not the criterion. However, this information can show the cost consideration in a precise light.

Applying the principles of records management by questioning the following aspects of the alternative solutions can avoid transitory problems. 

1) Is the degree of information protection consistent with the value of the data stored? 2) Is adequate parallel operation provided to avoid transition problems? 3) Has the new alternative been fully documented? 4) Does management have a full cost picture? 5) Does the new system meet all ancillary needs which are fulfilled by the old system? 6) Have implementation plans for the new alternative been properly phased? 7) Have audit, tax, legal, and long range planning requirements been considered?

The answering of these questions with recorded rational answers will make an essential contribution to the system conversion.

---

A formal analysis is not needed for every systems project or change, but management must be able to think in terms of cost and use cost guidelines to control management information systems.
Case Studies

The dollar savings reported in various Records Management Programs should motivate all companies to improve or, at least, study their records handling practices to produce similar savings. Each of the following referenced savings should be reviewed for possible application to areas of records keeping practices in any corporation embarking on a Records Management Program.

The State of California was able to save $50,000,000 per year through the implementation of the recommendations resulting from a study of efficiency and cost control pertaining to records.

Through only one filing recommendation, an Australian firm was able to save $15,000 per year.


Last year, Boeing's Records Management Program reported a savings of $200,000.

Within twelve weeks of the start of Columbia Broadcasting's program, a savings of $41,000 was reported.

Richfield Oil Corporation reports saving 7,000 square feet of records storage area, 3,300 square feet of office space, and a reduction of $15,000 in annual expenses for office files.

These case reports are only a sample of savings which can be an eye opener for any cost minded executive. Savings are important, but of even greater importance is the avoidance of needless expenses by proper planning. In each case cited, it was lack of planning or attention to Records Management's principles that caused an ineffective situation to occur, and thus made possible the reported savings.

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savings. Therefore, as important as these savings are, it is of greater urgency to avoid the waste in the first place by having an established Records Management Program.

Summary

In the face of today's information and paperwork explosion, a formal program of Records Management, with scientific controls of records required in the course of operating a business, can be an effective corporate cost and information control, given proper implementation and backing. Top management's backing is a must, both in voiced support for the program and allocation of resources for its advancement. If properly administered, the program can drastically cut costs associated with paperwork and records throughout the corporation. All the component parts of the program must be used. The objectives must be clearly stated and the program properly organized. A physical records inventory must be taken, and supplemented by consultation where necessary. All records series must be analyzed and appraised by a division of functional responsibilities. Clear, tailor-made records flow schedules must be issued and explained. An effective, low cost records center must be set up. Vital records protection must be provided, where
required. Media of record storage and handling must be evaluated. Forms, reports, and correspondence must be controlled. Cost of information systems must be analyzed, where warranted. With all the scientific controls implemented, it is clear that Records Management can effectively control costs associated with paperwork and control information. The company that does not implement a sound Records Management Program is disregarding an opportunity for continuous cost control and savings.
# APPENDIX

## EVALUATION FORM FOR RECORD RETENTION

<table>
<thead>
<tr>
<th>NAME OF RECORD:</th>
<th>FORM NUMBERS:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANNUAL ACCUMULATION: (IN LINEAR FEET)</th>
<th>FOR WHAT PERIOD OF TIME IS RECORD RETAINED?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DOCUMENTS CONTAINED IN FILE:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>PURPOSE OF RECORD:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHERE ARE OTHER COPIES OF THIS RECORD RETAINED?</th>
</tr>
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<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHAT IS THE ACTIVITY LEVEL OF REFERENCE TO THIS RECORD?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHAT TYPE OF REQUESTS ARE MADE THAT REQUIRE REFERENCE TO THIS RECORD?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHAT OTHER RECORD COULD FULFILL THIS REQUIREMENT?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IS THIS THE RECORD COPY?</th>
<th>DOES THIS RECORD HAVE LEGAL VALUE?</th>
<th>DOES THIS RECORD HAVE TAX VALUE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHAT IS THE RECOMMENDED RETENTION PERIOD IN OFFICE</th>
<th>RECORD CENTER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>COMMENTS:</th>
</tr>
</thead>
<tbody>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>SECTION</th>
<th>DEPARTMENT</th>
<th>DIVISION</th>
</tr>
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<tbody>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME OF PERSON PREPARING FORM</th>
<th>EMPLOYEE INTERVIEWED</th>
<th>DATE</th>
</tr>
</thead>
</table>
## RECORDS SCHEDULE WORKSHEET

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ROCHE FORM NO.</th>
<th>RECORD TITLE</th>
<th>X IF APPLICABLE</th>
<th>REQUIRED RETENTION PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

### Required Fields
- **TAX VALUE**
- **LEGAL VALUE**
- **OFFICIAL RECORD COPY**
- **IN OFFICE**
- **IN RECORD CENTER**
- **TOTAL**

### Purging Key

### Signatures and Dates
- **DEPARTMENT MANAGER APPROVAL**
  - Signature
  - Date
- **TAX DEPARTMENT APPROVAL**
  - Signature
  - Date
- **LAW DEPARTMENT APPROVAL**
  - Signature
  - Date
- **RECORDS ADMINISTRATOR REVIEW**
  - Signature
  - Date
<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>FORM NO.</th>
<th>RECORD TITLE</th>
<th>OFFICIAL RECORD COPY</th>
<th>REQUIRED RETENTION PERIOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>010</td>
<td>F605</td>
<td>Branch Bank Payments</td>
<td>X</td>
<td>1 Y 6 Y* 7 Y* D</td>
</tr>
<tr>
<td>020</td>
<td></td>
<td>Cancel &amp; Credit Memos (Separate File Copy)</td>
<td></td>
<td>1 Y - 1 Y D</td>
</tr>
<tr>
<td>030</td>
<td></td>
<td>Class 3 Invoices-Returns to Vendors</td>
<td></td>
<td>1 Y 6 Y* 7 Y* D</td>
</tr>
<tr>
<td>040</td>
<td></td>
<td>Correspondence (Inter-Department)</td>
<td></td>
<td>6 M 6 M F</td>
</tr>
<tr>
<td>050</td>
<td></td>
<td>Correspondence (Vendor)</td>
<td></td>
<td>6 M 6 M F</td>
</tr>
<tr>
<td>060</td>
<td>F60</td>
<td>Daily Input Control Sheets</td>
<td></td>
<td>3 M 3 M C</td>
</tr>
<tr>
<td>070</td>
<td></td>
<td>Daily Voucher Register &amp; Cash Disbursements Control Worksheet</td>
<td></td>
<td>1 Y 1 Y D</td>
</tr>
<tr>
<td>080</td>
<td>F50</td>
<td>Freight Bills - Paid</td>
<td>X</td>
<td>6 M 6 Y* 7 Y* F</td>
</tr>
<tr>
<td>090</td>
<td></td>
<td>Listing of Drafts Issued to Representatives</td>
<td>X</td>
<td>6 M - 6 M F</td>
</tr>
</tbody>
</table>

* COMMENTS: UNLESS OTHERWISE NOTED, IN ADDITION TO THE PERIOD SHOWN IN THE "IN OFFICE" COLUMN, THE CURRENT YEAR'S RECORDS SHOULD BE RETAINED.

* Must be retained until Tax Manager approves destruction.
STANDARD PROCEDURE

I. SCOPE

This procedure is to be used by Department Management and the Records Administrator to originate, revise, approve, and distribute Records Retention Schedules.

II. PURPOSE

To outline the approvals necessary for formalizing retention periods and to specify distribution of Retention Schedules.

III. DEFINITIONS

A. Record

Any paper, book, photograph, film, reproduction, sound recording, tabulation card, data processing tape, map, drawing or other document that has been prepared or received in the transaction of business of the Corporation.

B. Records Flow Schedule

The official control document which specifies the established periods of time that records will be retained.
IV. PROCEDURE

A. Origination or Revision of Records Flow Schedules

The Department Supervisor will notify the Records Administrator if:

1. A record type or series not covered by the Records Flow Schedule is originated.
2. The format of the record changes (such as, from hard copy to microfilm or computer tape).
3. A record type or series is discontinued.
4. The organization of the department changes.
5. A new department is created.

The Records Administrator, assisted by the Department Supervisor, will revise or prepare the Records Flow Schedule Worksheet. The Worksheet will then be reviewed as outlined under "B", to obtain approval of specified supervisory personnel.

B. Approval of Flow Schedules

1. Department Supervisor's Approval

The Department Supervisor will review and approve the Schedules, to indicate that suggested retention periods are adequate for the department's operating requirements.

2. Department Manager's Approval

The Department Manager will revise and approve the Schedules, indicating that retention periods are realistic in relation to departmental operating requirements.
3. Tax Manager's Approval

The Tax Manager will review and approve the Schedules, signifying that retention periods satisfy Federal, State, and Local Tax requirements.

4. Patent Attorney's Approval

When appropriate, a Patent Attorney will review and approve the Schedules, denoting that retention periods are adequate for patent requirements.

5. Secretary's Approval

The Secretary's Office will review and approve the Schedules, signifying that legal and overall corporate retention requirements have been met.

6. Records Administrator's Review

Before the Flow Schedules are typed, the Records Administrator will review the Schedules, to determine that all approvals have been obtained and that the Schedule format is correct.

C. Distribution of Flow Schedules

The Records Administrator shall issue and handle the distribution of all Records Flow Schedules.
I. SCOPE

This procedure is to be used by all company locations.

II. PURPOSE

This procedure provides detailed instructions for reviewing files, destroying records, and transferring records from company locations to the Corporate Records Center. Included in these instructions are guidelines for preparation of the Corporate Records Center labels.

III. DEFINITIONS

A. Corporate Records Center Label

The label used to identify the contents of a tote box.

B. Record

Any paper, book, photograph, film, reproduction, sound recording, tabulation card, data processing tape, map, drawing, or other document that has been prepared or received in the transactions of the Corporation.
IV. PROCEDURE

A. Review of Files

Office files should be reviewed in accordance with the purging key shown on the Records Flow Schedule. Records which have exceeded the in-office retention period should be removed and transferred to the Corporate Records Center, or destroyed as discussed in Sections B and C following.

B. Purge Notice

Prior to a major purge period, all recipients responsible for purging will receive notice as to which records to purge.

C. Destruction of Outdated Records

1) Corporate Headquarters

Outdated records should be destroyed in accordance with retention periods shown in the Records Flow Schedules.

2) Other Than Corporate Headquarters

A list of outdated records should be compiled by listing all records which have exceeded their total retention period as per the Records Flow Schedules. The list should be sent to the Records Administrator for review and approval to destroy such records.

D. Destruction of Confidential Records

Important records and documents which contain confidential information should be shredded and given to the incinerator crew for burning. If a shredder is not available, the Corporate Records Center will pick up the records and verify destruction.
E. Transfer of Semiactive and Inactive Records to Corporate Records Center

1) Corporate Headquarters

Records with retention periods noted in the Record Center column of the Schedule are to be transferred to the Corporate Records Center.

2) Other Than Corporate Headquarters

Areas for inactive records should be established in all off-site locations, as dictated by the volume of records being retained. Records Management will assist in setting up such areas as the need arises.

F. Distribution of the Corporate Records Center Label

When transferring records to the Corporate Records Center, place the filled out label, intact, into the tote box on top of the records.

The following distribution will be made by the Corporate Records Center:

<table>
<thead>
<tr>
<th>Copy</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Corporate Records Center file</td>
</tr>
<tr>
<td>Canary</td>
<td>Corporate Records Center destruction file</td>
</tr>
<tr>
<td>Pink</td>
<td>Returned to sending department</td>
</tr>
<tr>
<td>White</td>
<td>Attached to box</td>
</tr>
</tbody>
</table>

Notify the Corporate Records Center and arrange for pickup of the tote boxes.

G. Storage of Records at the Corporate Records Center

The Corporate Records Center will receive and store semiactive and inactive records. Storage will be under the security conditions until the retention period expires.
H. Destruction of Outdated Records at the Records Center

After records have been retained at the Corporate Records Center for the approved retention period, a notice of intent will be given to the sending department.
I. SCOPE

This procedure is to be used by all company locations requesting records from the Records Center.

II. PURPOSE

This procedure provides instructions for preparation of the form necessary to control the movement of documents from the Records Center to authorized requestors.

III. DEFINITIONS

A. Request for Records (F100)

A control document used to request records and to ascertain that the request was made by an authorized employee, and is answered within a reasonable period of time.

IV. PROCEDURE

A. Requesting Stored Documents

Departmental Supervisors or other authorized employees requiring stored documents should use the following procedure:

1. Refer to file of Record Retention Labels (Pink Copy).
2. Locate the label for the box containing the required data.
3. Fill out the Request for Records Form (F100).
B. Answering of Requests by Record Center

The Records Center will receive the request, locate and remove the record from storage and send it to the requesting department. Routine requests will be answered within one day. When immediate delivery of a request is required, a special messenger service will be used and the record should be received in approximately one hour.

C. Returning Requested Records to the Record Center

Records contained in one tote box or less should be sent to the Records Center via the Interoffice Mail Service. Records presenting special handling problems should be picked up by Records Center personnel. Call Extension 123 for this service.
I. SCOPE

This procedure is to be used by the Records Administrator to review requests for filing equipment, and by departments requesting such equipment.

II. PURPOSE

To provide instructions for the processing of requests for filing equipment and to aid in standardization, control, and utilization of files.

III. PROCEDURE

A. Requests for Filing Equipment

Additional file cabinets for in-office storage of records may be requested from the Records Administrator. Department Supervisors should prepare, in duplicate, a purchase request. After approval by the Department Manager, the completed form should be sent to the Records Administrator.

B. Justification for Additional Filing Equipment

Compliance with established records retention schedules is a prerequisite before requests for additional filing equipment can be considered.
B. Justification for Additional Filing Equipment - continued -

Requests for additional equipment may be based on one of the following reasons:

1. Record Volume Increase - Only when it is due to increased activity, such as additional sales, additional production, etc.

2. Staff Location - When previously combined operations are separated, there may be a need for additional files.

3. New Functions - When new record keeping requirements are added to an individual's operations.

4. New Employees - When new departments are created or new personnel are added to existing departments.

C. Approvals

The request for filing equipment will be reviewed by Records Management, using the above mentioned justifications as criteria, and submitted to the appropriate Department Head for approval.

D. Assignment of Filing Equipment

Upon completion of his review, and with his approval, the Records Administrator will consult his listing of equipment available for assignment. If the requested equipment is in stock, the Records Administrator will arrange for its transfer to the requesting department. If the equipment is not available, the Records Administrator will sign and forward the request to the Purchasing Department.
ASSUMPTIONS

1) Average cost to film the contents of a four drawer file - $200.00

2) Average cost of Records Center storage per year - $8.00

3) Cash flow - $8.00 per year for Records Center storage

---

BREAK-EVEN
HARD COPY STORAGE COST VS. MICROFILMING COST
(PRESENT VALUE CONSIDERED)

ASSUMPTIONS

1) Average cost to film the contents of a four drawer file - $200.00
2) Average cost of Records Center storage per year - $8.00
3) Cash flow - $8.00 per year for Records Center storage
4) Rate of return of 3.4% on an $8.00 cash flow for 50 years will equal $200.00 present value

Note: If a 6% rate of return is used, the records could be stored in hard copy form permanently, at a savings as compared to microfilming.

STANDARD COST ANALYSIS OF A MICROFILM PROJECT

CONSIDERING PRESENT VALUE

<table>
<thead>
<tr>
<th>Year</th>
<th>To Microfilm</th>
<th>Present Value*</th>
<th>To Store Hard Copy</th>
<th>Present Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Camera rental</td>
<td>$ 62.50 $ 62.50</td>
<td>0 Boxes $ 22.05</td>
<td>$ 22.05 $ 22.05</td>
</tr>
<tr>
<td>0</td>
<td>Film cost</td>
<td>120.00 120.00</td>
<td>0 Preparation 32.00</td>
<td>32.00 32.00</td>
</tr>
<tr>
<td>0</td>
<td>Preparation</td>
<td>128.00 128.00</td>
<td>0 Transfer 18.00</td>
<td>18.00 18.00</td>
</tr>
<tr>
<td>0</td>
<td>Operator</td>
<td>272.00 272.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Inspection</td>
<td>48.00 48.00</td>
<td>1-21 Cost to store</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>for 21 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>at $1.60 2,116.80</td>
<td>538.37**</td>
</tr>
<tr>
<td>0</td>
<td>Postage</td>
<td>2.00 2.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$632.50 $632.50

* Present value is based on an expected rate of return of 18%.

** Present value of -$100 for 21 years (5.3837).

If present value is not considered, the erroneous conclusion would be that there is an economical justification to film these files.


