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14

AN INVESTIGATION OF PRINTING PROCUREMENT  
METHODS AND SYSTEMS USED IN SELECTED  
BUSINESS ENTERPRISES

BY

DONALD F. REILLY

A thesis submitted  
in partial fulfillment of the requirements for the  
degree Master of Science, Department of  
Printing and Journalism, South Dakota  
State College of Agriculture and  
Mechanic Arts

March, 1962

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AN INVESTIGATION OF PRINTING PROCUREMENT  
METHODS AND SYSTEMS USED IN SELECTED  
BUSINESS ENTERPRISES

This thesis is approved as a creditable, independent investigation by a candidate for the degree, Master of Science, and is acceptable as meeting the thesis requirements for this degree, but without implying that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Thesis Adviser

Head of the Major Department

### ACKNOWLEDGMENTS

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DFR.

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## CHAPTER I

### INTRODUCTION

#### Reasons for Undertaking the Study

The subject of printing procurement methods and systems employed by business enterprises, large and small, has always been of interest to the investigator. Actual commercial printing plant experience and a background of graphic arts consulting have combined to point out an area worthy of research study.

Business employs inanimate "workers" costing more than \$2 billion annually; generally considered to be a sound and worthy outlay. These "workers" are in the form of printing. About 75 per cent of the cost pays for the workers to advance the business--the product, demonstrators, salesmen, promoters, ambassadors--in print. This is advertising or creative printing. The remaining 25 per cent are the routine workers, mostly internal, handling many and varied jobs that help smooth out and speed up the business operation. Forms, records, production control, work planners, dispatchers and messengers--all in print. This type of printing must be called general business printing (9-42).

This study will be essentially concerned with the methods and systems used by business enterprises in regard to their general business printing procurement as opposed to the advertising or creative segment of printing procurement. While there are limited problems similar to both segments of printing procurement--advertising and general business printing--the two classifications must not be considered interchangeable

in regard to the problem of procurement.

If the management of any organization will take a laudable interest in the printing procurement requirements of the enterprise the overall operation can be made more efficient, and savings in time and money can be made. "In a business that lacks this management interest the responsibility for the preparation and obtaining of a work force of printed materials is likely to get scattered around the organization-- at a dozen or more detached points, and without coordination, uniform standards, or common objectives" (8-42).

The cardinal reason for undertaking this study of printing procurement is the fact that there is little information available or applicable to this specific management function--printing purchasing. The writer could not locate any books published on this phase of procurement. The only available, but limited, information on graphic arts purchasing is published in trade journals and purchasing magazines. From this limited background on printing procurement principles, this study was initiated to investigate the actual policies utilized by various enterprises.

General printing procurement cannot be construed to be a mere problem of supply. Printing is not cheap. The printing industry is the seventh largest industry in relation to wages paid, according to Department of Labor statistics. Commercial printing receipts totalled more than \$6 billion in 1958 (6-98). Printing ranks third in the 20 manufacturing categories, eighth in value added by manufacture and ninth in total number of employees--U.S. Census of Manufactures (3-85). Wage

rates in the graphic arts industry rank among the highest in the nation, which tends to create a "high-priced" overhead charge--business printing. This overhead charge classification places printing with office supplies and stationery.

One of the secondary problems which must be considered is that of the private printing plant, often referred to as a "captive" plant. The private plant will modify many purchasing problems but will also create new ones. The problem of the captive shop has been academically attacked from many sides but the results of such studies have not been clear. A study published by the Printing Industry of America entitled, "The Private Printing Plant...Asset or Liability," points out that in most cases the captive shop is a losing proposition. In this study there were four types of private printing plants, each equipped to do a basically different volume and quality of work (16-2):

- 1) The private plant owned by an organization whose business is unrelated to printing;
- 2) The private plant owned by a publisher of books or magazines and where the product is, in fact, directly related to the business of the owner;
- 3) The private plant established to perform a limited service in confidential communication;
- 4) The private plant owned by an agency of the government, or a religious, educational or charitable institution.

The interest of the proposed study will be directed for the most part to point number one (1), and to a limited degree point number three



(3).

Other applicable considerations will be given to forms analysis and simplification, and inventory of printed materials. A combination of these factors will attempt to give a clearer picture of the printing procurement functions. This study will attempt to evaluate the methods used in printing procurement by various business enterprises.

#### Objectives of the Study

The overall objective of this investigation is to evaluate expediency and effectiveness of purchasing policies in regard to printing procurement. Purchasing is often referred to as, "Buying materials of the right quality, in the right quantity, at the right time, at the right price, and from the right source" (7-13). This is a broad generalization, indicating the scope of the purchasing function, which involves policy decisions and analyses of various alternative possibilities, before the actual purchase is consummated. Attempts will be made to determine the "right" of purchasing in regard to overall desired accomplishments.

In some of the business organizations the printing buyer coordinates with the methods and procedures department. In other organizations printing buyers are divided between purchasing, advertising and sales departments (10-36). The conclusions reached in this investigation might tend to clarify the position of printing procurement in the business enterprise. Determining the department in which printing purchasing should be done, where the responsibility for printing

procurement should be placed, what the status of the printing buyer should be, and how printing purchasing could be improved are several points that will aid in any resultant evaluation of the printing purchasing function.

Purchasing, as a corporate function, has gained stature and extended responsibility only within the past 15 years. The old style "clerical" purchasing agent has been superceded by a qualified line executive within the management framework (4-70). The responsibility to effect savings in general printing purchasing should be as large as it is in buying any other materials used directly in the manufacture of the company's products or services. This study is intended to bring to light ideas that might aid and abet the inclusion of printing procurement into the scheme of professional procurement to which most other types of purchasing have progressed.

This investigation is directed into one area where little or no research has been accomplished. There is no existing theory to which this investigation can be compared or evaluated. It should be stated that the conclusions presented in this investigation represent the investigator's opinion only, based upon an analysis of the limited available information. This study is not to be construed as representing the feelings or attitudes of South Dakota State College, the Printing and Journalism Department of the College, or any company or individual interested in the aspects of printing procurement. It is hoped, however, that this presentation of a fresh viewpoint will interest and stimulate purchasing departments to recognize the need for modifications and

improvements. By careful investigation of the merits and defects of individual procurement systems, a set of guides and warnings might be developed although no formal attempt will be made to establish a standard purchasing procedure. Any suggestions or conclusions might tend to serve as an outline for further printing procurement development. Finally, by utilizing the information secured from this study of medium and large printing procurement systems, the results might be effectively conditioned to meet the needs of the smaller enterprise.

#### Organization and Procedure of the Study

This research study is an investigation of the methods and systems of printing procurement in various business enterprises. "Far too many companies are wasting money on their graphic arts materials purchasing" (8-76). The recommendations of Chapter IV are partially based on principles accepted by printing procurement specialists. These experts are feature writers for printing trade journals and purchasing magazines, from which a limited amount of background material for this study was gleaned.

Additional reference material was gathered from the writer's printing trade experience. The investigator had been employed in a variety of printing plant capacities, thus he was able to witness the overall degree of efficiency of printing procurement at the production level. The investigator was fortunate to have been associated with a graphic arts consultant for a period of time. This background permitted the investigator to critically evaluate the complete procurement cycle used in large industrial enterprises. It is thought that the trade and

consulting experience gained by the writer served to stimulate interest and curiosity to the extent that a research study of printing purchasing would be of interest to the purchasing profession and the writer. "Too often a buyer is handicapped by ignorance of buying methods and preparation. No one benefits when there is waste" (24-3).

Chapter III of this study contains case studies on the subject of methods and systems of printing procurement as observed by the investigator. The companies were contacted by mail and an interview with the purchasing agent was arranged. The 50 companies chosen to participate in the study were chosen as representative of the particular industries in which those companies had gained recognition as leaders. Letters were addressed to the following companies:

Keystone Automobile Club	National Biscuit Company
Girard-Corn Exchange National Bank	Bayuk Cigar Company
John Wanamaker	Breyer's Ice Cream Company
Strawbridge and Clothier	John B. Stetson Company
Germantown Savings Fund Society	Crown Cork & Seal Company
Fidelity Mutual Life Insurance Co.	Reading Railroad
Sun Oil Company	Leeds and Northrup Company
Philadelphia Gas Works	Whitman Chocolates
Philco Corporation	Bellevue-Stratford Hotel
Publicker Industries	Sun Ray Drug Company
Burroughs Corporation	Merck, Sharp & Dohme
Midvale, Heppenstall Company	Yellow Cab Company
First Pennsylvania National Bank	National Drug Company

Penn Fruit Company	Best Markets
Atlantic Refining Company	Radio Corporation of America
Philadelphia National Bank	Tasty Baking Company
Bell Telephone Co. of Penna.	The Budd Company
University of Pennsylvania	Temple University
Hercules Powder Company	Atlas Powder Company
Insurance Company of No. America	Sears, Roebuck & Co.
Philadelphia Electric Company	Philadelphia Transportation Co.
Pennsylvania Railroad	Smith, Kline & French Labs.
Gimbel Brothers	Lit Brothers, Inc.
Fidelity-Philadelphia Trust Co.	Campbell Soup Company
I-T-E Circuit Breaker Company	Lukens Steel Company

All of the companies listed were located within a forty-mile radius of Philadelphia, Pa. Two interviews were arranged, if possible, with different companies in the same general industry. In some cases a single investigation was made because of lack of interest or cooperation of similar companies. Of the 50 companies originally contacted, 34 agreed to a definite interview; three companies declined because of the fact that their printing procurement was controlled by the main office in another city. Because of lack of time, the investigator was unable to contact six of the companies with which an interview was arranged. The remaining 13 companies failed to respond. The purchasing official, with the assistance of the printing buyer, (or the printing plant supervisor, if the company in question had a private plant) and other personnel directly connected with printing procurement were included in the interview in many cases. The interviews ranged from a minimum of 30

minutes to a maximum of more than two hours. The groups or individuals were asked a schedule of questions (sample reproduced in the appendix) and the investigator listed the answers and any other pertinent information for future reference. The schedule of 32 questions was divided into six categories: procurement function, organizational structure, forms analysis and simplification, inventory control, printing supplier relations, and other considerations. These classifications combined to cover the area of printing procurement to the investigator's satisfaction. Both open-end and closed-end questions were used in the interview. The unstructured interview was selected because of the inherent flexibility. Because there is no set pattern of questioning associated with the unstructured interview, there was greater opportunity to probe the respondent's answers. The responses might be considered more valid because the interviewer did not suggest possible answers to any of the questions.

The personal visit and interview were deemed necessary to obtain the complete background on each company's method and system of printing procurement. A mail questionnaire to gather the same information would have been long and complicated. An extended schedule of questions undoubtedly would have been poorly received by the busy purchasing official. Because of the limited degree of uniformity present in purchasing departments, it was felt a personal interview would provide more complete and useful information. "One of the most striking features of the personal interview is the high percentage of acceptable returns obtainable, especially in a well-organized and carefully planned undertaking" (15-73). The investigator had limited or no experience

with the company's method of printing procurement in most cases. It was his problem to evaluate the extent and nature of the methods and systems used in printing procurement. The results of ten of the interviews appear in Chapter III. The companies selected to appear in this chapter were chosen as representative of different types of printing procurement systems. The other 24 companies interviewed had systems similar to the ones selected as representative.

After extensive research, the investigator found fewer than eleven articles specifically devoted to printing procurement. This point alone attests to the scarcity of specialized information on this subject. Perhaps there are many adequate printing procurement systems, but little or no effort is made to bring these programs to the attention of others. The subject of this investigation has not been covered by any previous studies known to the investigator.

## CHAPTER II

### THE PROBLEM

#### Printing as a Management Aid

Printing can assist the management function in many ways. Its primary task is to strengthen the attractive forces that hold employees, customers, and investors to the corporate society (19-1). This task can be furthered by the use of printing to instruct employees so that they can improve and advance themselves; to teach customers to use products more effectively and consequently to value them more; and to inform investors of views, plans and accomplishments of the firm so that they may properly appreciate their opportunity and security.

Printing is not an independent force. It cannot supply or compensate for morals, capacities or initiatives lacked by management (19-1). Printing is not a stimulant nor a cure for a weak and ailing enterprise. In the main, printing is a medium for circulating managerial expressions for the purpose of inducing people to subject themselves to the influence of management. Therefore, proper consideration of needs for printing must be derived from a consideration of managerial tasks and objectives.

Similarly, conceptions of the "nature" of printed expression are indicated, in fact determined, by the philosophy of management. Therefore, a primary requirement of anyone employed to plan printing for the enterprise should be to seek a precise comprehension of the philosophies, objectives, and tasks of the management of the organization (19-1).



To meet this need for printed materials required by the business organization, a printer should be able to supply the customer with various printing processes: letterpress, lithography, and gravure to list the main processes. With this large and varied mechanically productive background the printer sells craftsmanship. The machines do the actual fabrication, the printer sells a service. Printing is included in the manufacturing category because following the actual production, a product has resulted; a printer adds value to the material on which the order is to be done utilizing the productive capacities of the equipment and the skilled abilities of the craftsmen in order to deliver a mass-produced piece of work.

"Production is the core of manufacturing, the focus of all other activities" (18-1). Efficient production is dependent upon having the materials and services available at the time and place where they will be required and upon maintaining quality and quantity requirements sufficient to continue the manufacturing process effectively. A failure in any one of these respects is delay, often exceeding the value of the missing ingredient by a large margin, or the inability to maintain the continued product that is representative of efficient management. The degree of manufacturing efficiency can be directly influenced by the internal control function maintained by applicable forms and records. The manufacturing process can also suffer through the neglect of non-productive segments of production such as internal forms.

#### Management and Purchasing Intangible Aids

To be effective, a business enterprise is predicated on three

intangible factors--communication, co-ordination and co-operation.

These three factors, too, can be influenced through the use of proper internal control based on the effectiveness of the paper work routine.

"Despite the refinement of media and techniques, communications remains management's number one problem." The reason for this lies in the industry's failure to recognize the all-pervasive character of the communications process, and to see past the gimmicks and frills to the core of the problem (21-702). The principle of communications will increase as the department and business enterprise increase in size and scope; as the size of the enterprise expands, the theory of communication must correspondingly expand to meet the requirements of increased diversification. Where communication is limited or poor, one department will be unaware of what is transpiring in all other departments of the organization; hence, costly overlapping or duplication of needless effort will result. An outmoded communication system introduces barriers that hamper co-ordination. Adequate communication systems must be predicated on a well-designed and applied method of internally used printed forms.

Co-ordination of plant functions is the responsibility of management. The actual physical responsibility for co-ordination is vested in a suitable system of meaningful forms. Because co-ordination involves cutting across multiple organizational units, an up-to-date and functional communication system is essential (20-77). At present there is considerable concern in management circles that, for lack of due emphasis, co-ordination is a neglected and declining art. Among other

influences, the growth and organizational complexity and the mushrooming of executive assistants, aides, committees and liaison officials have had the effect of inducing the executives to assume that these agents will look after the co-ordinating function (20-74).

Co-operation between the various departments and individuals must not be assumed in any company functions. The overall necessity for co-operation should be obvious; it is achieved through co-ordinated management effort. Co-operation to be effective must be voluntarily accepted.

These three intangible aids to management are important because they represent a state of mind rather than a formal list of rules. The responsibility for communication, co-ordination and co-operation rests squarely upon the management segment of the organization and is assisted in varying degrees by the internal control function aided by a simple, but adequate, routine system of paper work.

This treatise is intended to show that practically all of management's functions and responsibilities can be hindered or assisted through the misuse or effective utilization of forms control. Paper control is taken too much for granted. It should not be. Many of the problems connected with printed forms procurement will be discussed in this chapter.

### The Theory of Printing Procurement

There is a genuine lack of uniformity in regard to printing procurement. In many cases printing procurement is divided between purchasing, advertising, sales or any combination of these or other

departments.

"In some instances an eagerness to fiddle with company printing becomes a habit, disease, or a costly splurge of misdirected energy" (9-44). The crux lies not in organizational procedure or system but in whether management recognizes purchasing as a major function coordinate with engineering, production, and accounting, and implements this in the scope of the responsibility that is assigned to the head of the department (11-99).

Current trends in purchasing organization and reorganization have recognized that (13-49):

- 1) There is a growing recognition by management of the basic importance of procurement as one of the major functions of business;
- 2) There is an increasing recognition of the interdependence of design, production, and supply in determining proper quality;
- 3) There is a growing awareness of the essential nature of inventory control particularly as far as production materials are concerned;
- 4) There is a corresponding organizational trend to consolidate the various segments of procurement into an executive department;
- 5) There is an increasing concern over the definite need for acquiring and developing the right type of procurement personnel.

Purchasing departments must rely on a two-way system of

communication to render a satisfactory procurement operation. In printing procurement the intangible factors of communication, co-ordination, and co-operation are essential because the entire purchasing function is seldom the responsibility of one department. Segments of purchasing are commonly vested in other departments--stores, traffic, inspection, and others. Other company departments might be fully centralized and completely separate, i.e., legal or sales departments (13-52).

To require such co-operation some degree of written policy in regard to purchasing must be in effect. "A recent survey covering more than 600 companies showed that fully 77 per cent had no written purchasing policies of any kind" (5-29). The companies surveyed represented a liberal cross-section of all industry, large and small, engaged in fabricating, processing, or service, where purchasing was considered to be an integral factor. Because of the sums of money involved in the purchasing function, its broad range of contact, and its key role in maintaining company supply, an adequate written policy should exist.

There are two distinct types of purchasing manuals: the external type, which is given to suppliers, and the procedural type, used for internal control. The internal procedural manual usually contains a thorough and detailed account of the systems and methods operating and governing conduct between the various departments of the organization. Once a company has increased in size, conflicts--either inside or outside--begin to develop; spelling out those policies and procedures can effect a substantial savings of money, time and supplier good will

(5-84).

"Printed stationery and office forms constitute a substantial and complicated class of purchases in most organizations" (7-401).

The purchasing department should be considered the logical department for all general business printing procurement. Purchasing departments have become cognizant of the fact that there are special skills needed for systematic spending of money and that trained personnel must be acquired or developed to carry out this function (4-70). In many instances other departments (advertising and sales) might be asked to lend technical assistance or make other recommendations to assist the purchasing department in its printing procurement endeavor. The graphic arts buyer, a segment of the purchasing department, is a purchasing specialist who has the know-how to do a thorough job through pre-buying analysis and post-buying follow-up (8-76). This printing buyer cannot be interchanged with other commodity buyers. He will be able to include his thinking at the idea stage and throughout the entire printing procurement function (4-72). In this respect the graphic arts buyer is considered a specialist in that specific area of printing procurement.

Purchasing departments, in most cases, have adequate and reliable records that will materially assist in the procurement function. The demands made by the purchasing agent or graphic arts buyer on printing suppliers are generally within the range of normal company policy. In certain respects, purchasing agents have a very conservative approach when it comes to printing procurement. Excellent ideas conceived by the printing supplier might be turned down in favor of the established

routine developed for printing procurement.

The advertising department should develop and purchase the advertising or creative promotional printing--not the general business printing. In most instances advertising men regard advertising or promotional printing as their private domain entrusted to their specific care and guardianship. Advertising departments are less likely to develop a routine of buying policies, but rather are notoriously lax in efficiency, quite the opposite of modern purchasing. Advertising departments are considered to be poor in record keeping ability, relying instead on memory. Printing suppliers who call on ad departments are not generally treated with the efficiency and dispatch that, again, usually accompanies dealing with a qualified purchasing department. Unlike purchasing agents, the advertising men have a strong tendency to increase a printing job with extras, then rave when the appropriate charges for the additional work are presented (2-114).

General business printing procurement must be considered to be a province of the purchasing department.

#### Purchasing Agent and His Function

General business printing appears to be among those non-durable, non-productive goods purchased to aid and abet the manufacturing or service function of the business enterprise. Printing is classified, in many cases, as a minor item that is purchased in a routine manner as one might buy a box of paper clips. It should not be so.

"Some printers say that 75 per cent of their business printing suffers from poor planning and preparation" (9-42). Printers are not

satisfied with this condition and will, in some cases, assist the purchasing agent in any reorganization endeavor directed at the company printing requirements. Printers estimate that about 10 per cent of all job costs are due to avoidable difficulties (9-42). The same problems limit as well as cause problems for the printer. Business pays the premium--the penalty for ineffective planning and organization. Money costs are not the only factor that must be considered. Poorly planned general business printing can fall short of its intended functional goals.

The purchasing department cannot be held strictly accountable for this waste, yet this department should consider that accruable savings can be effected through competent organization and co-ordination of all other departments and of purchasing. To purchase printing effectively the purchasing department should develop and maintain adequate ties with the group directly connected with forms analysis and simplification. Forms analysis has become an integrated facet of business organization in recent years. In some instances the purchase requisition must be initialed by a forms analyst before any requisition for printed forms is passed on to the purchasing department (see Figure 7). Simplification will tend to increase the efficiency of internal forms from a functional standpoint.

The purchasing agent should make every effort to secure all printed materials utilizing the best combination of criteria for procurement--service, quality and price. A recent survey conducted by a class in marketing research at the University of Kentucky revealed that



the services most highly valued by printing buyers were: 1) fast service, 2) on time delivery, and 3) creative assistance (17-4). In many cases all three points were considered a single factor, rather than each being thought of as individual points.

A purchasing agent who buys at the lowest possible price invariably sacrifices on quality, delivery, inventory turnover, and vendor relationships (1-137). Similarly, a department with a rock-bottom operating cost simply will not have the quality and quantity of personnel required to do an adequate job in achieving all other purchasing objectives (1-137).

Purchasing agents can attempt to minimize the additional costs created in general business printing and locate the reasons for those charges which are in excess of the quotations and estimates submitted by the printing suppliers. Excess costs can be attributed to any of the following reasons (9-44):

- 1) Alterations in the proofs--author's alterations;
- 2) Alterations in negatives and plates;
- 3) Rush work and change orders;
- 4) Late changes in job specifications;
- 5) Delays in customer approval of proofs, etc.

A sample check of all printing bills can bring to light the excess charges. Further analysis can point out the department or individual responsible for overcharges and attempts can be made to eliminate such costs. Within the realm of printing procurement, the purchasing agent must attempt to apply effective and economical determinants to all

phases of general printing procurement. The graphic arts purchasing agent should maintain and utilize the following control functions (16-20):

- 1) File of printed items--each company, regardless of size, should maintain a file of all company printed items. Such a file places the company in a position to analyze each new item before it is purchased and to re-analyze each old form before it is repurchased. From a file it is possible to develop specifications, avoid unnecessary duplication of work, and control jobs for more effective use and greater economy.

- 2) Inventory of printed items--many engineers who have studied the purchasing of printing agree that more money is lost through the waste of printed items, through over-purchasing and under-purchasing, than can be saved by the elimination of the printer's profit. There is evidence from a government study that even the cost of mimeographing can be as much as 25 per cent less through the control of inventory. Sound inventory control permits the purchaser to estimate requirements more accurately and to avoid waste.

- 3) A list of reliable sources of printing--printers who are best-equipped to produce various kinds of work. A sound purchasing setup enables the selection of proper sources both in terms of kind of equipment best suited for the work and quality expected.

The purchasing agent, depending upon the size of the company, will purchase printing in a variety of ways. In the larger companies the printing purchasing might be taken care of by a printing buyer. He

will report directly to the purchasing agent. A printing buyer will generally have a complete background in the graphic arts plus a knowledge of the purchasing function. Since the printing buyer usually purchases nothing else, he can direct his entire efforts into the area of printing procurement. The purchasing agent in the smaller company will not generally have the technical background in the graphic arts that the regular printing buyer will have, but he can utilize common sense, good judgment and a degree of basic interest to purchase efficiently all the printing needs of the company.

#### Purchasing Records and Forms

Maintenance of an effective purchasing function requires a well-devised system of records, control forms and clerical procedures.

"Simplicity of routine and records facilitates performance, frees the attention of the purchasing staff for the more important aspects of policy and practice, and is a reliable index of departmental efficiency" (7-297).

Purchasing of printing can be accomplished within the framework previously stated with a minimum of records and control forms, provided they are meaningful.

#### The Requisition

The requisition form should be one of the main forms used to order any commodity through the purchasing department. It is not an order upon a supplier and does not obligate the company, the requisition is simply an expression of a desire to buy the item listed (18-149).

The form is generally made out by the department manager or other official. This method informs the management and departmental officials as to the nature of the material ordered and charged to that specific department. This system permits department officials to evaluate the worth and need of all requisitions. It also protects the purchasing section against indiscriminate ordering or irresponsible requests by maintaining a check on the requisitioning process (7-298). A sample of a requisition appears as Figure 1. This requisition is prepared by the ordering department and sent to the purchasing department. There are two possible functions of this requisition:

- 1) Becomes an authority to purchase from a suitable outside source;
- 2) By addition of specific information inserted by the purchasing department, the form becomes a work order (or reorder) for printing from the company printing plant or duplicating department.

There is no one "ideal" form that will approximate perfection or standardize all requisitioning systems for every purchasing department. Therefore, as a check or control feature, a sample of the form or forms requested should be attached to the requisition. To be effective, the requisition should state completely and exactly what is to be purchased. Checking back on incomplete requisitions is a time-consuming and costly process that could be eliminated at the source by a more thorough appreciation of the work involved. The requisition starts the purchasing cycle in motion by informing the purchasing department of the needs of the firm and grants authority for such a purchase.



## The Purchase Order

The culmination of all the foregoing is the purchase order, the issuance of which is a binding obligation to buy. Because of this legal characteristic, the authority to issue purchase orders should be vested only in responsible persons (18-154).

A purchase order specifically designed for printing procurement is not common. An example of this type form (first sheet of a six-part snap-out form) is reproduced as Figure 2. This six-part printing order form is divided for the following departmental distribution:

- a) Original--Supplier
- b) Receiving copy
- c) Purchasing copy
- d) Expediting copy
- e) Accounting copy
- f) Remittance advance

This form is prepared upon receipt of a requisition for any printing order that will be purchased from an outside supplier. This procurement method designed specifically for printing purchasing appears to be the utmost in a printing order form. The company utilizing this method probably purchases enough printing on a yearly basis to justify the additional cost of this system.

Any effective purchase order for printing should include the following information: purchase order number, delivery date, delivery instructions, quantity, name of the form, form number, price, and other pertinent information.

## Inventory or Warehouse Control Card

The inventory or warehouse control card is simply a "paper"

- IMPORTANT**
1. DO NOT INVOICE UNTIL ITEMS HAVE BEEN SHIPPED
  2. INVOICE IN DUPLICATE INCLUDING TAXES AND SHIPPING CHARGES
  3. INCLUDE SHIPPING-RECEIPT (OR B.L.) WITH INVOICE WHERE APPLICABLE
  4. FORWARD ABOVE ITEMS TO EXPENSE CONTROL DEPARTMENT
  5. ACCEPTANCE OF ORDER IS GOVERNED BY CONDITIONS ON REVERSE SIDE

PURCHASE ORDER

**No.**

TO	QUANTITY	FORM NO.	ITEMS	DATE	PRICE

  

PAID	PKGS.	BOXED	DELIVERY DATE	AUTHORIZED SIGNATURE

  

<input type="checkbox"/> ORDER CONTINUATION ATTACHED	<input type="checkbox"/> DISTRIBUTION SCHEDULE ATTACHED	NO. OF DESTINATIONS
--	---	---------------------

Figure 2. An example of a purchasing order designed specifically for printing procurement

record of inventoried supplies. This form clearly shows the quantity on hand and available for use, subject to periodic verification and adjustment by a physical inventory check (7-387). The purchasing agent will use the inventory or warehouse control card (7-389):

- 1) As a check against requisitions;
- 2) As a source of requisitions for stock items as minimum quantity levels are reached;
- 3) To provide detailed data as to rates of use, upon which ordering quantities are based.

Depending on the company size and procurement method, the inventory or warehouse control card may be maintained in the purchasing department or inventory department. A sample of this form is reproduced as Figure 3. In conjunction with the inventory or warehouse control card there is a companion form--the stock low form. This form indicates that the supply of an individual form has reached the pre-set minimum limit. In most cases the stock low form is filled out by the inventory control clerk who returns the form to the purchasing department where additional procurement information is supplied. An example of this form is reproduced as Figure 4. The purchasing agent returns the form to the approving department where once approved it becomes an authorization to reprint or reorder. The reason for returning the form to the approving department is a control check to verify that no changes are to be made in the form before it is reordered. All stock low forms that are prepared have a sample copy of the form attached as another control precaution.





Stock Low Date \_\_\_\_\_ **PLEASE ADVISE THE PURCHASING DEPT. AT  
ONCE IF YOU PLAN TO WITHHOLD APPROVAL** **STOCK LOW FORM**

☐ ☐ ☐

The stock of the attached is low. Please fill in this form completely; advising the amount to be ordered on the basis of a ONE year's supply, unless changes are expected. Kindly advise the Purchasing Dept. of any changes to be made before reprinting.

Dept. _____
Form No. _____
Name of Form _____
Quantity Now on Hand _____
Lot Number _____
Quantity on Hand when last Ordered _____
Quantity Last Ordered _____
Date Last Ordered _____
Pads of _____

Forms Control \_\_\_\_\_ Date \_\_\_\_\_

Quantity to be Ordered \_\_\_\_\_  
Dept. to be charged \_\_\_\_\_

Proof Wanted: \_\_\_\_\_  
Yes ☐ No ☐ Destroy ☐ Run Out ☐

If Distribution is to be made, indicate Consignees:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**APPROVALS:** Dept. \_\_\_\_\_ Date \_\_\_\_\_  
Purchasing \_\_\_\_\_ Date \_\_\_\_\_

Figure 4. A sample of a Stock Low Form used in conjunction with the Inventory or Warehouse Control Card\*

\*If any printed form reaches the minimum order point, this form is filled out and sent to the purchasing department for restocking purposes.

Other forms that can be used by business enterprises but are less important to printing procurement regardless of the size of the organization are the following:

1) Printing Specification form designed to meet the need for an accurate, complete set of printing specifications. Forms like this if filled out completely will eliminate the possibility of guesswork by the person ordering the printed piece. A sample of this form is reproduced as Figure 5.

2) Continuous Form Printing Specification form designed to meet the need for complete specifications in the ordering of snap-out or continuous type forms. A sample of this form is reproduced as Figure 6.

3) Printery Production Problem Report form designed to function as a control form in regard to private printing plant problems. A sample of this form is reproduced as Figure 7.

There is no general procedure that will be readily applicable to every printing procurement system, however the system outlined briefly appears to cope effectively with the seemingly complex problem of printing procurement. Size differences between companies and the emphasis placed on printing procurement by management will determine the adequacy of any printing procurement system.

#### Forms Control\*

Forms control should not be interpreted as a unit that impairs,

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\*This outline of forms control was prepared by the investigator in 1958, while employed as a graphic arts consultant. The description was based on a personal evaluation of the need for an adequate forms control system as viewed by the investigator.

## PRINTING SPECIFICATIONS

PREPARED BY \_\_\_\_\_ DATE \_\_\_\_\_

FORM NO.		TITLE				SIZE	
OLD							
1 PAPER STOCK	PART NO.	DESCRIPTION				GRADE	WT. COLOR
2 MARGINS	FRONT				BACK		
	ON		TOP	ON	LEFT	ON	TOP ON LEFT
3 INK	BLACK	HECTO	OTHER			PRINT	
					ONE SIDE	TWO SIDES	HEAD TO HEAD HEAD TO FOOT
4 PAD	IN PADS OF		SHEETS SETS	PADDED ON		INCH	
5 PUNCH	NO. HOLES	TYPE	CENTERED ON	LEFT TOP RIGHT BOTTOM		CENTER OF HOLES	
			INCH	INCH FROM	INCH	EDGE	CENTER TO CENTER
6 PERFORATE	ALL	OTHER					
7 REGISTER	IN SETS OF		WITH FORM NO.		OTHER		
8 SNAP SET	NO. OF PARTS		STUB SIZE AND LOCATION				CARBON PAPER
			TOP	BOTTOM	LEFT	RIGHT	
9 CONTINUOUS FORM	MARGINAL PERFS.						
	LEFT	RIGHT					
10 COLLATE	SHEETS PER SET		IN FOLLOWING ORDER				
11 NUMBER	SINGLY	ALL PARTS	FORWARD Last No. on top		REVERSE First No. on top		
12 PEN RULING			D. BROWN	L. BROWN	D. GREEN	MARGIN	
	Horizontal						
13 GRAIN	Vertical					ON TOP	
	DO NOT SPECIFY UNLESS NECESSARY						
14 BINDING	GRAIN OF STOCK MUST RUN WITH		STITCH		INCH DIRECTION OF FORM		
	IN BOOKS OF				PLASTIC BINDING		
SPECIAL INSTRUCTIONS							

Figure 5. A sample of a Printing Specification Form which is necessary for satisfactory printing procurement or to be used as a work order for a private printing plant or duplicating department

## CONTINUOUS FORM PRINTING SPECIFICATIONS

FORM NO.		TITLE		DATE	PREPARED BY
				NO. PARTS	SIZE
PAPER STOCK	PART	DESCRIPTION		WT.	COLOR
	1				
	2				
	3				
	4				
	5				
	6				
	7				
CARBON PAPER	<input type="checkbox"/> FLOATING	GRADE	WIDTH	WT.	
	<input type="checkbox"/> PROCESS	GRADE	WIDTH	WT.	TAB <input type="checkbox"/> YES <input type="checkbox"/> NO HORIZONTAL PERFS.

## BINDERY

Collate in order shown under paper stock

HORIZONTAL CRASH PERFS.	VERTICAL CRASH PERFS.		CARBON PLACEMENT	CRIMP	GLUE	CRASH SERIAL NUMBER
	" From Left			<input type="checkbox"/> Left	<input type="checkbox"/> All Parts	<input type="checkbox"/>
Teeth Per Inch.	" From Right	Teeth Per Inch	Inch From Left Edge	<input type="checkbox"/> Right	<input type="checkbox"/> Right <input type="checkbox"/> Left	
SPECIAL INSTRUCTIONS						

## PRESS

INK <input type="checkbox"/> Black <input type="checkbox"/> Green	MARGINS			
	FRONT	ON TOP		BACK
	ON	TOP	ON	LEFT
	ON	TOP	ON	LEFT
HORIZONTAL PERFS.	VERTICAL PERFS.		OTHER PERFS.	
	" From Left			
Teeth Per Inch.	" From Right	Teeth Per Inch		
LINE HOLE PUNCHING	FILE HOLE PUNCHING			
NO. HOLES	DIAM.	CENTERED ON	CENTER OF HOLES	CENTER TO CENTER
		LEFT TOP RIGHT BOTTOM	INCH FROM	INCH EDGE
Center To Center				
SPECIAL INSTRUCTIONS				

Figure 6. A sample of a Continuous Form Printing Specification form used for the designing and procuring of carbon interleaved (snap-out and continuous type) forms

## PRINTERY

White—Shop Order Copy  
Pink—Office File Copy  
Yellow—Initiator Copy

WHITE COPY TO BE ATTACHED TO SHOP ORDER—OTHER COPIES TO BE SENT TO FRONT OFFICE

Figure 7. A sample of the Production Problem Report\*

\*A control form designed to accumulate information concerning problems that develop in the private printing plant.

discourages, or makes difficult the procurement of forms or related printed materials. Conversely, forms control offers assistance, by specialized personnel, in the design and production of better forms. Forms control can provide a service to both the user and the purchasing agent in a continuing effort toward standardization. Substantial production and clerical savings and better printing services are made possible through forms control.

#### Objectives of Forms Control

- 1) To provide forms which are designed to obtain necessary information in the most rapid, economical, and accurate manner;
- 2) To design forms in such a way that they will lend themselves to the most economical means of production;
- 3) To assist all concerned in an effort to eliminate unnecessary forms that obtain information already available through other means;
- 4) Whenever possible to combine similar forms into one standard form that can be used by more than one location in order to facilitate supply and reduce production costs.

#### Problems of Forms Control

- 1) Establish and maintain numerical and functional files in order to maximize benefits of proper control;
- 2) Establish positive identification for each form;
- 3) Establish lines of communication to inform all interested persons of contemplated changes;
- 4) Make changes for the sake of economy with no disruption in

the operations of the department involved.

#### Forms Analysis

- 1) Maintain numerical files with samples of forms submitted, samples of revised printings, and additions to forms not originally included as they are reordered;
- 2) Establish and maintain functional file of one each of all forms;
- 3) Correct duplications and recommend changes in systems where duplications occur;
- 4) Make continuous studies of functional groups of forms to eliminate, consolidate or improve existing forms;
- 5) Develop proposals and present findings to responsible departments and assist in standardizing and simplifying paperwork;
- 6) Contact locations periodically regarding obsolescence of items that reflect inactivity.

#### Forms Design

- 1) Design new and revised forms based on information from a forms data sheet, or personal interview with author; an example is reproduced as Figure 8;
- 2) Determine whether forms are internal or external;
- 3) Mark-up design in printers' measures (Specify type, rules);
- 4) Determine paper stock to be used;
- 5) Prepare production specifications for the printer;
- 6) Standardize sizes, rulings, padding, and punching of forms;



REQUEST FOR FORM DESIGN APPROVAL				THIS BOX FOR USE OF FORMS CONTROL ONLY		
				Approved Form Title		
				Form Number	Functional File No.	Inventory Code
To	Forms Control Analyst				Date	
From						
Following is a Request For: <input type="checkbox"/> Form Revision <input type="checkbox"/> New Form						
Proposed Form Title					Proposed Form Number	Old Form Number
Is This A Repetitive Form? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Specify Type Form <input type="checkbox"/> General <input type="checkbox"/> Local <input type="checkbox"/> Internal <input type="checkbox"/> External						
BRIEFLY EXPLAIN NEED FOR FORM*						
*Give the purpose, need and advantages to be gained by adoption of Revision or New Form. (attach one copy of Proposed Form.)						
DOES THE M. O. P. AUTHORIZE USE OF THIS FORM? YES _____ NO (IF YES GIVE M. O. P. PART NUMBER) _____				WILL PROCEDURES BE ISSUED INVOLVING USE OF THIS FORM? YES _____ NO (ATTACH COPY OF NEW OR REVISED PROCEDURE) _____		
WILL THE PRESENT FORM BE MADE OBSOLETE? YES _____ NO (ATTACH COPY OF FORM IF OBSOLETE) _____				METHOD OF DISPOSAL OF OLD FORM DESTROY _____ EXHAUST INV. _____ USE UNTIL REV. FORM IS AVAILABLE		
ENTRIES ON THE FORM WILL BE MADE BY PENCIL _____ INK _____ TYPEWRITER _____ OTHER (SPECIFY) _____				HANDLING OF THIS FORM WILL BE LIGHT _____ MEDIUM _____ SEVERE _____		
METHOD OF FILING FOLDER _____ RING BINDER _____ NO, HOLES SPACED " C TO C (SPECIFY) _____						
RETENTION PERIOD OF RECORD OR FILE COPIES YRS ACTIVE FILE _____ YRS INACTIVE FILE _____ FORM MAY BE DESTROYED AFTER _____ YRS.						
QUANTITY OF FORMS REQUESTED				QUANTITY ON HAND OUTSIDE STOCKROOM		DATE REQUIRED
INITIAL DISTRIBUTION	THREE MONTHS STOCK	TOTAL REQUESTED	BASIS	Quantity	No. Months Supply	
			SHEETS _____ SETS _____ PADS _____			
NUMBER OF FORMS PREPARED AT ONE WRITING				PRINTING		COLOR OF INK
FILL OUT FOR SETS PADS AND SNAP-OUTS						PEN RULING
Copy No.	Grade	Weight	Color	Routing To	Use	
1						
2						
3						
4						
5						
6						
7						
8						
SPECIAL INSTRUCTIONS						
APPROVAL						
Department Approval				Forms Control Approval		
DATE				DATE		
REQUESTED BY _____				ANALYST _____		
APPROVED BY _____						
DIVISION HEAD _____						
PRINCIPAL DEPT. HEAD _____						

Figure 8. A sample of the Request for Form Design Approval form\*

\*This form will be used by the Forms Department in any forms design or redesign function.

7) Remove from forms restrictive information such as names, departments, to allow a wider usage and fewer changes due to personnel changes;

8) Eliminate expensive printing operations, such as pen ruling, when it will not effect the use of the form;

9) Participate in the development of experimental or test forms;

10) Design and prepare specifications for outside purchases;

11) Standardize sizes and windows of envelopes;

12) Eliminate separate printings through the use of trade mark or other standard permissible headings;

13) Eliminate separate printings by stocking and grouping.

#### Copy Preparation

1) Prepare final copy for offset and duplicating operations;

2) Vari-Type for manuals and procedure duplicating;

3) Create masters when variations of the same form are required;

4) Vari-Type for minor revisions to printed forms and supply form numbers for offset;

5) Handle emergency requirements when composing facilities are not available.

#### Related Functions

1) Assist in development and maintenance of a sound system of stock control;

2) Control form numbers;

3) Supply technical information;

- 4) Determine volume of outside purchases of forms periodically;
- 5) Provide information relating to forms;
- 6) Conduct special form studies and research projects;
- 7) Maintain a close relationship with other committees working with the forms department.

Forms control is a recognized tool for efficient management of all forms used in the organization. It involves control, co-ordination, and service for all departments of the company in the design, procurement, storage, use of forms and their relationship to company procedures. This is forms analysis and simplification in its entirety. The degree to which it is followed will be determined by the interest shown by company management.

#### Private Printing Plants and Duplicating Departments

The private or "captive" printing plant and the duplicating or reproduction department can have a direct bearing on the methods of printing procurement utilized by business enterprises. The private plants visited by the investigator appeared to be of two types:

- 1) A printing plant equipped to meet almost any need;
- 2) A duplication or reproduction department limited to short-run work completed within a minimum period of time.

The basic difference between these two types of printing possibilities cannot be made according to any pre-set standard. The investigator arbitrarily chose the press size of 14" by 20" to be the line of demarcation between the classification of facilities--the duplicating department and the private printing plant.

It is not the intent of the investigator to evaluate the worth of either type of printing organization, but rather to point out the salient points noted on his visit to these companies. The investigator interviewed 28 business enterprises, noted 20 companies with duplicating departments, five with printing plants, and three without facilities of either type. One of the companies which operated a duplicating department at the time of the interview, decided afterward to consider the possibility of setting up a complete printing plant. Four of the companies operating duplicating departments at the time of the visit had operated private printing plants in the past. These plants were discontinued for different reasons: insufficient work load to maintain a steady and economical operation, high cost and low production, and union problems.

Private printing plants have decreased in number during the past 15 years because of one or more of the following factors (16-22):

- 1) Inability to obtain and hold suitable employees. Skilled craftsmen tended to migrate to commercial printing establishments.
- 2) Wage and union conflict between the printing department and other departments of the organization; printing employees generally seek higher wages than other plant workers, with subsequent time-consuming labor negotiations.
- 3) Steady employment problems--the difficulty of planning on steady volume of work throughout the year complicated personnel problems.
- 4) Weakness of mechanical supervision--frequent cause of private plant failure was rapid turnover of mechanical supervisors.

5) Retaining of obsolete equipment. Tendency for conservative business to keep equipment in production until amortized or longer instead of replacing it with more modern machinery. Much of the machinery which was versatile was often slow and inefficient when compared with one of the better machines for producing a special printing job.

6) Inadequate cost accounting. In many cases private plant cost records did not cover elements which are considered of critical importance to commercial printing plants.

7) Uneconomic operations. Many firms, after investigation, had found their printing plant was operated uneconomically.

Through the advent of the so-called office duplicators, reproduction departments began to fill the gap created by the larger private printing plant closings. An adequate training program initiated by printing press manufacturers supplied the necessary training in the operation and maintenance of the duplicating presses. Unlike the printers in printing plants the operators of the duplicating machines did not have to be printers. Almost anyone with a normal amount of manual dexterity could be trained to operate a duplicating machine. Since the quality of the forms and other printed material did not have to be highest quality, a majority of all work produced was acceptable. The duplicating department was set up originally to take care of work that was urgent or confidential printed matter that should be restricted to the immediate company printing facility.

In many instances the duplicating department was considered a

self-supporting department which charged the other departments for printing services rendered. There were three principal reasons for internal billing by the duplicating department for services (22-6):

- 1) To make the department self-supporting;
- 2) To discourage unnecessary or incorrect use of facilities;
- 3) To obtain accurate all-inclusive operating costs in the various departments or activities that use the duplicating services.

The duplicating department is not plagued with many of the limiting factors that have caused the demise of many of the larger private printing plants. Lithography had permitted an ease of operation through the use of the direct image plate. Xerox plate-making developments and other offset refinements have tended to create a relatively simple process of duplication. In many instances new press operators were trained by the supervisor of the duplicating department or other qualified instructor. After the press operator became competent and experienced, he left to accept a similar position at an increased rate of pay. Another point mentioned by the duplicating supervisor was that of elimination of union problems. None of the duplicating departments visited by the investigator had any union connection.

The duplicating department has become part of the printing procurement function because of:

- 1) High cost of printing;
- 2) Limited investment in equipment;
- 3) Adequate supply of available manpower;
- 4) Lack of service and dependability on the part of the printers

and lithographers of the area.

Any analysis of a private printing plant or duplicating department should be considered from these four points (16-5):

1) Economy--can we produce printing in a plant of our own more cheaply than it can be purchased from commercial printers?

2) Service--can we get better service and faster deliveries by doing our own printing--without being over-equipped and over-staffed?

3) Quality--is the printing which we produce comparable to the standards of good commercial printers?

4) Public Relations--is it good public relations to compete with our customers--over 800,000 wage earners in the printing industry?

It was apparent that the duplicating department has removed, to varying degrees, many of the problems connected with general purpose printing procurement secured through the purchasing department. The inventory function was lessened and the stock supply was much less in the company having a duplicating as opposed to those without.

#### Contract Purchasing of Printing

Contract printing involves an agreement whereby the printing company agrees to manufacture and furnish to the customer and the customer agrees to purchase and receive from the printing company, all the customer's requirements for a specified group of printed forms. Such an agreement may have incorporated in it details of terms, conditions, provisions and specifications, some of which are described below.

## Specifications

It is usual under a printing contract agreement for the printer to be supplied by the customer with detailed specifications for each form included in the contract. These specifications might include for each form such items as grade, weight and color of paper stock, size, padding units, punching dimensions, packaging quantities and production quantities. Prices based upon these specifications would be determined by the printer. Specifications for new forms or revision of old forms during the term of the contract would be submitted by the customer.

## Production Quantities and Prices

While it is well known that the price of any form increases or decreases in relation to the quantity produced, it is not usually economical to produce more than one year's supply. It may be unwise to produce more than a six month's supply in the case of large use items where there is only a minor price differential per thousand forms (i.e. 300M versus 600M). Such arrangements force the customer's or the printer's money to be tied up in inventories for long periods of time, they also include the danger of large dollar loss due to sudden obsolescence or revision of the forms. The rule may then provide for printing a year's supply of smaller usage and one-quarter or one-half a year's supply of heavily used forms. This rule reduces the risk of heavy dollar losses in case of obsolescence or revision.

It is usual in contract printing to provide prices to the customer for each form to be included in the contract. In order to do this it is necessary to establish production quantities based upon



past annual usage figures or ordered quantities.

Keeping in mind the economics involved, and by having available past usage figures for each form, "Authorized" or "Limited" stock production quantities may be set and prices determined. "Authorized" stock means that when the produced quantity of a given form (warehoused by the printer) is reduced by customer withdrawals to a certain level (i.e., 10 or 20 per cent) the printer is authorized to reprint the form in the "Authorized" stock quantity. No permission is required from the customer. "Limited" stock does require the customer's permission before reprinting. Once determined, these quantities and prices are incorporated into the specifications which become part of the contract agreement. These prices are usually firm during the length of the contract (a period of from one to five years). In long-term contracts a clause may be included which provides for increases or decreases in prices based upon increases or decreases in material or labor costs.

Prices for new or revised forms to be added during the term of the contract are based upon the same scale used in determining prices for forms included in the contract at the outset, subject to increases or decreases, if any, instituted to cover changes in material and labor costs.

#### Distribution and Warehousing

Contract printing permits a variety of distribution programs, dependent upon the requirements of the customer. In some instances the customer may warehouse all stocks centrally and call upon the printer

to replenish his supply whenever the stock of a given form reaches a danger level. In such cases the printer is responsible for reprinting the form upon the customer's request and having it delivered to the customer's warehouse. The customer redistributes the form to his own using locations under an internal requisition system.

In other instances the customer may want the printer to produce all forms once or twice a year based upon the total quantities wanted by all using locations. The printer would then ship the forms directly to those using locations at the time of production.

Another customer may require the printer to produce, warehouse, inventory control through "Authorized" or "Limited" stock procedure, and distribute to all using locations. Distribution may be on a random requisition basis under which any of the customer's using locations may order a form, in any quantity at any time, directly from the printer. Of the methods mentioned, this system is most expensive.

Another distribution plan provides for a scheduled ordering by all customer using locations several times each year. Under this system, pre-printed requisitions listing all forms are mailed by the printer to all using locations on pre-scheduled dates. The using locations indicate the quantities needed of any of the listed forms and return the requisition to the home office of the customer. Upon receipt of all requisitions from the using locations, the home office will forward them to the printer by a specified date. The printer then produces and fills all requisitions or, if stocks are warehoused, he may remove enough stock from the shelves to fill some or all of the requisitions.

## Billing

Under the contract printing agreement there are two possible means of billing for the printed material:

1) Bill the customer's home office at the end of the production period. This provides the printer with immediate payment for production even though he may be required to warehouse the forms;

2) Bill the customer's home office or each using location as the forms are shipped from the printer's warehouse; this method ties up the printer's capital for longer periods of time and usually requires more paper work, particularly if the printer is required to bill each using location. Further, there can be a problem of having the customer remove obsolete or slow-moving forms, for which the customer is liable, from the printer's shelves.

In addition to a detailed description of any of the above items, the contract printing agreement may include additional specific information on what the printer agrees to furnish in regard to: copy and proofs, quality of workmanship, collection of sales and other local taxes, standard packaging quantities, terms of payment, delivery, and termination of the agreement.

## Reciprocity

"You buy my product and I'll buy yours" is a commonly used, and understood definition (14-32). In reality, reciprocity is a jumbled pattern comprising many shades of meaning, degrees of use, and a wide variety of attitudes (23-41).

The more common form of reciprocity and the one that influences a

considerable amount of the money exchanged in trading, is in direct sales between manufacturing organizations. Whether or not it is put into words (a recent survey showed that only two per cent of American manufacturers have a written policy in regard to reciprocity), it is obvious that reciprocity is not a black-or-white matter (14-32).

In adopting a policy of reciprocity, a company must choose between buying from customers only when they offer quality and service equal to their competitors or buying from customers under all circumstances (14-33). One of the basic premises on which reciprocal purchasing is founded is that any possible additional cost will be offset by a sales advantage.

One of the basic disadvantages of a rigid policy of continuous purchasing from customers, a not uncommon rule in many companies, is that such rigidity carries with it a risk that the company will possibly pay a higher price for its purchased materials or will receive less service or lower quality. Reciprocity will undoubtedly cause the purchasing department to be less selective and more limited in its choice of possible suppliers. Reciprocity might also discourage competition among the various suppliers, and without this competition the purchasing agent is limited in his bargaining and negotiating powers. Other problems created by reciprocity are (22-42):

- 1) A legal danger;
- 2) Creation of false markets;
- 3) Creation of a false sense of security;
- 4) Difficulty in obtaining new customers;

5) Possible inflation of selling costs;

6) A growing hostility--purchasing agents long tolerant of reciprocity are now showing signs of rebelling against it;

7) Burden on executive time;

8) Possible danger to the corporate name.

There are, on the other hand, definite advantages accruable to a company that utilizes reciprocity. The chief advantage lies in a close mutual relationship backed by company policy. "When reciprocity is used as a sales argument, it is largely a matter of pressure; as a purchasing argument, it is a matter of scientific and factual evaluation" (7-514).

The advantages and disadvantages previously cited cover the salient points cited by purchasing managers in regard to the policy of reciprocity. Printing procurement, if it exists, is usually a two-way reciprocal arrangement quite different from the larger three- and four-way reciprocal purchasing agreements which are prevalent in larger commodity purchasing. These arrangements might initiate many deep-rooted problems that can easily lead to serious disadvantages and inefficiencies.

On the basis of this limited investigation the writer is in no position to pass judgment on the worth of reciprocity. It is not good nor evil per se, rather the degree to which the policy is followed is the determining factor. As purchasing has progressed toward a more scientific profession there has been a tendency to eliminate reciprocity as a deterrent to "professional purchasing."

### Evaluating Purchasing Department Efficiency

Purchasing departmental efficiency evaluation is limited because of two basic difficulties (12-315):

1) Management, in many cases, lacks a clear concept of the nature of procurement and what relationship it has with other business functions;

2) The entire procurement function is rarely the responsibility of one department: stores, inspection of purchased materials, and traffic are usually divided among other departments.

There are tangible contributions which accrue to a well-organized, properly administered purchasing department. These points are no less simple to evaluate than those made by other organizational functions. The initial step in any evaluation would require top-management decisions on the following points (12-317):

1) What is the departmental scope and responsibility as viewed by top management?

2) Who is responsible for definite procurement policies regarding such factors as reciprocity, inventory, and the like?

3) Is the procurement official part of top management; does he have a broad understanding of company and business policies?

4) If the purchasing official is not a top executive, is his advice requested and utilized?

5) Is there more than one purchasing department; if so what are the responsibilities and respective functions of these departments?

Any evaluation attempt must immediately scrutinize the purchasing

official: his abilities, basic impressions of vigor, honesty, ability to delegate responsibility, and his understanding of the basic manufacturing processes of the company.

Any study must attempt to evaluate the basic organizational structure and the principles of the purchasing department. Is the department based on sound organizational principles? Is the department functioning as it was intended? Are the lines of responsibility clearly drawn in regard to the nature of the tasks involved and the personnel available (12-318)?

It is not difficult due to oversimplification to err in measuring performance of any purchasing function. One of the more common fallacies is to set a standard of efficiency by expressing departmental operating costs as a percentage of the total purchase expenditures. Another method sometimes attempted is the measurement of the cost per order. In essence a dual job of measurement is required--efficiency in department administration, and efficiency in procurement (7-585). The combined costs of the purchasing function and the materials must be considered before any attempt to evaluate performance can be made.

"Is there a reasonably well-defined procurement policy that is accepted by the president as well as other top executives, such as sales, production, engineering managers" (12-319)? Policies are hard to define and susceptible to change from time to time. None of these factors permits excuses for a department not having something near that "vague" concept called general policy (12-319). Purchasing policies should be written and be familiar to all members of the purchasing

department as well as members of other departments in the organization. Policies must be accepted and followed to become effective. Use of written purchasing policies aids co-operation and co-ordination which are primary prerequisites to departmental efficiency.

There are two reasons for measuring written purchasing policies in some detail (12-319). One is to be able to judge effectively the adequacy of the system. The other is equally important: The experience of some consultants is that there "is no better way of locating clues to departmental problems than by going over the procedures with the greatest care" (12-319). There, if anywhere, will any general weaknesses be disclosed.

The investigation of the small and "rush" order type of procurement can lead to important information. The filing system can be used as a method of procedural evaluation. The ease with which a record can be located, the types of records maintained and the extent to which the records are used can be helpful in any evaluation attempt.

The purchasing manual might lead to other areas of responsibility and departmental functions to be checked. Examine the manual to see if it has regulations appropriate to departmental efficiency or if regulations which might tend to stifle initiative and become inflexible. Any evaluation of the procurement function must be based on an analysis of the work to be done, including the size of the total work load (12-321). The purpose would be to determine the kind of people required to do the work. The qualifications necessary for procurement personnel might be considered as: past purchasing experience, other educational training,



and production knowledge in that particular industry. The in-training program, if there is one, can be built around the manual for effective departmental indoctrination.

What records are maintained by the purchasing department in regard to prices paid? A check can reveal at what market level the prices were charged, below, above, or at the market level. How has the department fared on getting on-time deliveries? Both deliveries and costs are areas that can be checked effectively.

Inventory and its control functions must be considered and viewed with great care. What are the evidences of "dead" stock? Have production or other departments been hampered in their operation by lack of material through the fault of the purchasing department? Are inventory policies and purchasing policies closely integrated?

Another point of significant importance is the relationship between purchasing and other departments. What impression do the other departments have in regard to the efficiency of the purchasing department? Does the purchasing department have the reputation of being capable and alert to all opportunities? Supplier goodwill and co-operation can be considered as another area of evaluation (12-323).

The internal control of the purchasing department can utilize statistics as a means of locating clues rather than using statistics as a measuring device. Statistics pertain more to the perfection of the various elements of the department than to the over-all efficiency of the purchasing department (12-324). The following classes of figures may be helpful:

- 1) Number of orders placed;
- 2) Number of invoices passed for payment;
- 3) Cost of handling purchase orders;
- 4) Cash discount secured;
- 5) Percentage of orders less than \$5;
- 6) Percentage of rush orders;
- 7) Percentage of overdue orders.

Another statistical analysis is a record of "productive" and "non-productive" time spent by individuals in the purchasing department judged against some pre-set standard (12-324).

Printing procurement as a segment of the overall procurement must be considered in the light of overall purchasing department efficiency rather than as a segment divorced from it.

## CHAPTER III

## THE SITUATION

Example Number One--Company A

(Source of Information: Plant Visit and Interview)

This company, a large insurance firm, had its home offices in Philadelphia, Pa., and numerous branches throughout North America. This organization was one of the largest insurance companies in the United States and Canada. Standard forms, those used in the main office and branch offices, were purchased by the central office and distributed on request. Forms indigenous to individual offices were purchased by those offices. Printing procurement was a combination of centralized and decentralized purchasing, although nearly 70 per cent of all forms were purchased through the home office.

Procurement Function

In 1960 this company purchased slightly more than \$2,225,000 worth of printing, of which \$1 million was spent for snap-out and continuous forms (a specialty piece of printing--carbon interleaved forms) used in modern machine accounting and other data processing equipment. This company had been approached several times to purchase its printing on a contract basis. The company had not accepted that method of procurement because of the lack of control over inventory plus an inability under such a system to purchase printing in the immediate area. (Contract purchasing was discussed in Chapter II.) Printing was purchased in the immediate area as much as possible. The Purchasing

agent in charge of printing procurement had served as a printing plant manager before assuming his position. The agent had three assistants. In most cases the company submitted three bids to printing houses which had previously done work for the company. The buyer knew the printing processes, the equipment, and had a well-developed idea of the type of work each printer could do best. The printers that did work for this company were classed according to their abilities and specialties. If a new printer wanted an opportunity to bid, he was permitted to do so after his printing company was checked for credit and business ratings. If the new printer supplied low bid on a small-sized order he was awarded the order. The same system was followed through several smaller orders so that the purchasing agent became familiar with the printer's ability and productive capacities. A small card file was maintained for the express purpose of keeping a ready reference on available printers, their equipment, specialties and salesman in charge of that account.

The company operated a small reproduction department. The department consisted of: five Multilith machines with a maximum sheet size of 10" by 15", a Xerox platemaking system and a variety of bindery equipment. This company, according to a letter received following the interview, decided to study the possibility of setting up a complete printing department in place of the smaller reproduction department. The company requested the investigator's assistance in securing information in regard to the establishment of a complete printing department. The overall benefit of the reproduction was considered to be the service aspect in regard to immediate production. The company printed much of its

classified or confidential material in the reproduction department. The only major problem was maintaining skilled manpower. The company would train an individual in the basic fundamentals of press-work and then the operator would leave for a higher paying job elsewhere. The wage scale was not attractive to retain competent help. The company was endeavoring to increase the per hour rates to alleviate that problem. The reproduction department did a limited amount of straight internal form work and very little of the external work.

The usual reasons for accepting a quotation were price and service. In most cases attempts were made to group forms into economical press sizes and runs. The 17" by 22" layout permitted the most economical run, or four sheets  $8\frac{1}{2}$ " by 11" to be run at one time.

The company did not buy from printing brokers. The reasons given for this rigid policy were lack of control and responsibility of the order.

#### Organizational Structure

The company did buy a limited amount of advertising through an advertising agency. They did not buy any general business printing through an agency. The advertising department in the organization assisted the procurement function in an advisory capacity. Purchasing had sole responsibility for printing procurement. The order for printing was usually initiated in either of two departments: 1) the methods and forms design division in regard to new forms, 2) the inventory control section in regard to reordering. A sample of the printing requisition is reproduced as Figure 9. A re-order form was sent to the

PRINTING REQUISITION NEW WORK				DATE _____				
FORM NO.	QUANTITY	SETS	PADS	P T D	ONE SIDE <input type="checkbox"/> TWO <input type="checkbox"/> H TO H TUMBLE <input type="checkbox"/>	INK COLOR <input type="checkbox"/> BLACK <input type="checkbox"/>	SNAP OUT <input type="checkbox"/> CONTINUOUS NO. PARTS (    )	PROOF WANTED <input type="checkbox"/> YES <input type="checkbox"/> NO
SEND TO			PAPER (COLOR)		FORM SIZE:			
			DELIVERY DATE REQUIRED					
			TITLE OF FORM:					
			REMARKS AND/OR INSTRUCTIONS:					
SUPPLY								
WHSE.								
AUSTIN								
MACON								
MASPO								
NEW YORK								
RICHMOND								
SAN JOSE								
SP'FLD								
TOTAL								
DEPARTMENT TO BE CHARGED:			AUTHORIZED APPROVALS:		DISPOSITION OF OBSOLETE FORM		DESTROY <input type="checkbox"/> RUN OUT <input type="checkbox"/>	
			DATE		DEPARTMENTAL:		DATE	
			PURCHASING:		FORMS CONTROL:		DATE	

Figure 9. A sample of a Printing Requisition used by Company A in regard to new printing forms procurement

purchasing department for replacement forms and the forms analysis division directed to the attention of the purchasing department an approval to purchase the newly created forms. These forms were quite complete and left little to be completed by the purchasing department. There was a constant cost-reduction program in progress throughout the entire organization in regard to general business printing. The use of standard sizes and elimination of second color printing were only two of the several methods used.

#### Inventory Control

Printing was purchased within limits determined by usage. These limits were a minimum of three month's supply to a maximum of twelve month's supply. Many of the forms used for governmental reporting were purchased in limited quantities, usually 500. This policy was followed because of the changes required in the forms used for government reports. The inventory control system utilized a regular inventory card system and an attached description of the form. This permitted an immediate reference to any question that might arise concerning the form itself.

#### Printing Supplier Relations

This company had been dealing with the same printing suppliers for more than ten years in some cases. The amount of business secured by printers from this company was large enough to make each printer attempt to retain his share of this work.

Change orders were used to a limited degree and "rush" orders were uncommon, signs of a good printing procurement system. The

purchasing manager for printing stated that the representatives of the bigger printing companies were men of the highest calibre. Representatives of the smaller printing establishments were considered mere order takers. The representatives of the business forms companies were felt to be the most competent and were said to have a complete wealth of information on the subject of business forms and their designing.

#### Other Considerations

The purchasing agent stated that printing costs were high but in line with other custom-made commodities. The company had never used the services of a graphic arts consultant to evaluate or improve the printing procurement policies of the organization. The company would rather retain that aspect of printing procurement than to assign it to an outside organization devoted exclusively to printing procurement.

#### Summary

Printing procurement was not vested in one man, but in the collective abilities of a group of men cognizant of the printing industry and of printing procurement. Due to the limited wage potential for the press operators in the reproduction department, replacement of the men was a routine practice. This was an example of printing procurement done in an efficient fashion.



Example Number Two--Company B

(Source of Information: Plant Visit and Interview)

The main office of this oil refinery was located in Philadelphia, Pa. This organization was one of the larger refineries on the east coast. Its products were sold from Maine to Louisiana. Standard forms, those used in the main office and in branch offices, were purchased by the central office and distributed on request. Forms indigenous to the individual offices were purchased by the office using such forms. The main office was responsible for approximately 80 per cent of all forms purchased. Again, a combination of centralized and decentralized purchasing used by another large industrial concern.

#### Procurement Function

This company purchased about \$1,500,000 worth of printing yearly. This figure does not include advertising printing. This company purchased about half of all its general printing under a contractual purchasing agreement with a printing supplier in New England. (Contract purchasing was discussed in Chapter II.) The remainder was purchased from a variety of suppliers. Printing was not purchased in the immediate area in many cases. The purchasing agent in charge of printing procurement had no previous connection with the graphic arts prior to assuming the purchasing position. In most cases the company submitted three bids to printers which had previously done work for the company. The buyer knew the printing processes, but had little knowledge of what type of work each printer could do best. The printers that did work for the company were not categorized according to ability or specialty. The

purchasing agent was not eager to deal with any new printing suppliers because of the accepted routine which had developed over the years.

The company operated a small reproduction department as a service function to the company. Forms in short supply could be printed in a very short period of time. This seeming advantage had a turnabout effect to the point where a department or inventory section would allow forms to be completely used up, knowing that the duplicating department could be called and informed of the plight. The reproduction department consisted of two Multilith machines, a Xerox platemaking device and standard bindery equipment. The company trained all workers in the reproduction department. The wage rates were low and turnover of departmental employees was high. The company accepted the problem as a matter of routine. The reproduction department was restricted to the printing of internal forms.

The usual reason for accepting a quotation was price. There was an attempt to gang purchase in order to get economical press sizes and runs. The company bought from brokers of printing. The purchasing agent felt that the broker had a better chance to deliver a job more rapidly than did the regular printing house because the broker could place the order in many plants.

#### Organizational Structure

The company bought a limited amount of advertising through an agency. The advertising department in the company had no connection whatever with purchasing. There was no co-operation between the two departments in regard to printing procurement. The order for printing

came from the department requesting a new or replacement form. The forms department had very little control in regard to the internal forms of the company. There was no attempt at standardization of forms. That company maintained an envelope inventory of more than 60 different types and styles, many of which were custom-made. There was no constant cost-reduction program in progress throughout the organization in regard to general business printing.

#### Inventory Control

Inventory control presented a problem in the combination of inventories caused by the dual system--contract purchasing and internal printing. There was an attempt to maintain the inventory controlled by the company at a maximum of three month's supply; the contract purchasing arrangement permitted amounts in excess of one year's supply. There was no division as to forms stocked under the contract agreement and those stocked through the purchasing department. An inventory control system was maintained through the use of a card file system. A visual check was made twice monthly to check for forms in short supply.

#### Printing Supplier Relations

This company had been dealing with the same printers for more than twelve years. The volume of business was such that it overcame many of the other inconsistencies. Change orders and "rush" orders were used in many instances. The printing companies accepted these conditions in order to secure a goodly portion of the available work. The purchasing agent stated that the representatives of the majority of printing

companies were mere order takers. Representatives of the business forms companies were considered by the purchasing agent to be the best qualified, although the company had made little use of the business form type of printing.

#### Other Considerations

The purchasing agent stated that printing costs were too high in comparison with other purchased commodities. The company used the services of a graphic arts consultant on two separate occasions in an attempt to standardize forms and set up a better method of printing procurement. The recommendations made were not put into practice. The company would rather assign the task of printing procurement to an outside source because of the problems connected with printing procurement.

#### Summary

Printing procurement was not standardized. The purchasing agent had no apparent interest in the printing procurement function. Printing was not considered an essential facet of the company organization.

Example Number Three---Company C

(Source of Information: Plant Visit and Interview)

This company was a large oil company in the eastern part of the United States, whose home offices were located in Philadelphia, Pa. Standard forms, those used in the main office and branch offices, were purchased through the main office. Forms indigenous to a particular office were purchased through that office. The main office purchased about 75 per cent of all forms.

Procurement Function

In 1960 this company purchased slightly more than \$750,000 worth of general purpose printing. No figure was available for the amount of money spent on snap-out and continuous type forms. The company purchased most of its cards, records and other data processing printing through the International Business Machine Corporation on a yearly contract basis. For the remainder of the company's printing requirements, bids were submitted to printers which had dealt with the company previously. A new printer might bid, but generally did not have a chance at the work until the second or third bid was returned. This system allowed the purchasing agent an opportunity to check the references of the printer and compare his bids with those of other printers. If the printer did submit two or three bids, the purchasing agent felt confident that the printer was honestly seeking a segment of the company's printing business. Quality and price were the normal criteria for accepting a bid. This did not preclude the aspect of service which was also considered. Strict quality and price determinants were weighed in the light of

service.

Local printers were selected because of the proximity factor. There was no overlap between the advertising and purchasing departments in regard to printing procurement. The advertising department controlled the advertising or promotional aspect of printing procurement while the purchasing department was responsible for general printing procurement. As a general rule, the purchasing agent would not deal with printing brokers. The reason for this decision was simply that the company wanted to know exactly where the printing was being placed. There was also the aspect of responsibility for any errors that might result. The advertising and purchasing departments worked together on particular problems that required the talents of both to bring about a solution. The purchasing agent had no practical printing experience to rely on. The purchasing department maintained a file of printers and the equipment of each. The purchasing agent rarely visited or inspected any printing organization to determine, first hand, the visible advantages or disadvantages of the company as a possible supplier.

The company operated a small duplicating department. The shop had two Multilith machines with a maximum sheet size of 10" by 15", a Xerox platemaking device and limited bindery facilities. The overall benefit of this department was service, speed and the possibility of printing confidential information within the organization. The company trained a press operator rather than securing a trained pressman. The one big problem faced by the duplicating department was the labor turnover problem mentioned previously. The duplicating department printed

the usual straight internal forms work and did very little external work.

#### Organizational Structure

The purchasing department was solely responsible for general printing procurement. The order for printing was usually started by the department requesting the form, although the forms department also instigated orders for new forms. Before the purchasing department began to put a job out for bids, the forms department checked the form for possible changes: stock, ink, color, or standardization. The forms department then forwarded the order to the purchasing department. The order form was complete in every respect. This had been accomplished through the use of the purchasing manual established by the purchasing department. The forms department was constantly striving for cost reduction in the forms program.

#### Inventory Control

Printing was purchased within a limit prescribed by usage. A limit of one year's supply and a minimum of three month's supply were the overall determinants. The inventory was controlled through a card system which was checked regularly. A visual check was made weekly in the printed materials inventory section. If a form was in low supply the inventory spotter or the card file examiner would so inform the purchasing department.

#### Printing Supplier Relations

This company had been dealing with the same printing suppliers for more than ten years in some cases. From the investigator's

knowledge, the work of this company was of considerable importance to several printers, who of course attempted to maintain this account. The company was noted for its limited use of the "rush" or "change" order forms. Printing salesmen who called on this company were considered to be qualified in most cases.

#### Other Considerations

"Printing costs are no higher than many other commodities," said the purchasing agent. The company had never used the services of a graphic arts consultant in regard to its printing problems. The company would not care to assign the function of printing procurement to any outside purchasing organization.



Example Number Four--Company D

(Source of Information: Plant Visit and Interview)

This firm was the main office of a large drug manufacturing concern. The main office purchased all forms used by the main office and branch offices. Independent branch office forms were secured by the individual offices.

Procurement Function

In 1960 this company purchased slightly more than \$1,500,000 worth of printing. Of this total about one-half was produced in the company printing plant. The company maintained no contractual agreement in regard to printing procurement. Printing in most cases was purchased in the immediate area, although orders were also placed in New York City and Richmond, Va. The purchasing agent in charge of printing procurement had no direct association with printing or the graphic arts before he assumed his position. Depending on the size of the order to be placed, the number of bids sought varied from three to six. The purchasing agent believed that because the firm had prior dealings with the printers who bid, the purchasing department had definite ideas as to the aspects of quality and service. Price, therefore, was the sole determinant for accepting a bid. Printers were selected from a listing maintained by the purchasing department. This list classified printers according to processes, equipment and specialty. The advertising department was separate from the purchasing department without much overlap of functions. The purchasing department never bought general purpose printing from a printing broker. The reason given was definite lack of control

by the purchasing department. Business forms were, at times, purchased through a business forms broker. There was no reciprocity connected with the printing function per se. The purchasing department purchased the paper for all printing jobs, whether printed in the company printing plant or by an outside supplier. The purchasing agent felt that this made possible a definite saving in stock costs.

The company operated a large-scale printing department using both the letterpress and offset processes. A 25" by 38" two-color offset press was the largest press in the department. There was no large composition department in the printing department. Composition was purchased on the outside. There were no union problems, probably because the company wage rates were above union rates for comparable positions. The shop was operated on a two-shift a day basis. A plant superintendent was in charge of the printing operation. There were no particular problems connected with the printing department, according to the plant superintendent.

#### Organizational Structure

The company bought all of its advertising through an agency except for some direct mail advertising designed and produced in the company printing department. The requisition for printing came through forms department to the purchasing department. All printing requisitions, standard or new forms, were routed through the forms department. The requisition was not accompanied by a copy of the form except in the case of new forms. A paste-up or layout was included with any requisition of new forms. The requisition was not as complete as others seen

during this study. Cost reduction programs were in effect at all times. Forms redesign and simplification were constantly maintained. Progress in this direction was evidenced by the increasing number of forms that had been converted to carbon interleaved sets.

#### Inventory Control

This control function was maintained in the inventory control department. A unique system had been developed that practically eliminated the purchasing of obsolete forms. Each form used in the company was listed on a separate fold-over card. A copy of the most recent specifications was included under the fold-over section. If this specification sheet was not found, this form was being redesigned or eliminated from the forms system. A check with the forms department denoted the status of the form at that particular time. Inventory levels were maintained at a maximum level of one year's supply and a minimum of three month's supply. Government forms that were constantly being changed were purchased in limited quantities of one thousand or fewer. Form numbers were changed every time the form was reprinted, the quantity, date, amount, and supplier code were changed, not the actual form number. This was to prevent the new supply from being used before the old had been depleted. The investigator questions the worth of the additional costs involved in re-making plates for each run to achieve such a nebulous result.

#### Other Considerations

The purchasing agent thought printing was relatively high-priced.

The company felt that the printing plant was an asset to the organization from a cost and service standpoint. Business forms salesmen were felt to be qualified in their service to the company. Many company forms have been converted to snap-out or continuous types due to the efforts of the business forms representatives. The purchasing agent felt that the representatives from the smaller printing concerns were thought of as merely order-takers with limited backgrounds.

#### Summary

The responsibility for printing procurement was vested in the abilities and capacities of the purchasing agent. With a very limited background and knowledge of the printing business, it appeared that the fullest measure of control could not be achieved. The purchasing agent specified the process to be used, a decision which should rest with a printer.

Example Number Five--Company E

(Source of Information: Plant Visit and Interview)

This company, a large manufacturer of hats, had its main office and plant in Philadelphia, Pa. There were no standardized forms that were used by other branches of the company. Each company plant or office purchased all forms required by that office.

Procurement Function

In 1960 this company purchased between \$50,000 and \$100,000 worth of printing. This figure represented a combination of both advertising and general purpose printing. Definite figures were not available for the separate divisions. The company did not utilize the contract system of printing procurement. Printing was purchased through printers in the immediate area as much as possible. The purchasing agent had never been associated with printing, and his methods of procurement appeared to be questionable. He considered printing procurement a necessary evil of purchasing.

The company operated one Multilith duplicator that printed a variety of internal forms. This department was not operated on a full-time basis. The quality of work noticed by the investigator was not high. The company requested bids from various printers for all jobs and in some cases dealt with printing brokers. Three requests for bids were generally submitted to a select list of printers who had done work for the company previously. Price was the main consideration for the acceptance of any bid. Quality and service were considered only on bids for advertising or promotional printing.

## Organizational Structure

Advertising and other promotional work to be purchased through an agency was prepared in the company's advertising department. Actual procurement was completed by the purchasing department. The degree of assistance between the two departments was not ascertained.

Re-order forms for most printing were generally verbal notices from the requisitioning department or the stock room. This system was not suited to requisitioning information. There was no forms department and little forms analysis or simplification was attempted. New forms were designed as required by the department requisitioning them. Form numbers were changed on each press run, seemingly a waste.

## Inventory Control

Printing Inventory was maintained at a standard six-month level. A limited card system was maintained in the stock room. A visual check usually located forms shortages. Even the purchasing department felt the system was a poor one.

## Printing Supplier Relations

One of the main points made by the purchasing agent was that printing suppliers did not call on the company regularly. "I don't think they want our business," he said. The purchasing agent had never found time to visit any of the printers who did the printing for the company. Rush and change orders were often used.

## Other Considerations

Printing procurement was vested in one man who had no background

or desire to become acquainted with the nature of printing procurement. There had been attempts to utilize the services of a graphic arts consultant in order to modernize the printing procurement function throughout the entire organization. The newly designed system was installed, but after a two-month period printing procurement reverted back to the inadequate earlier system. Management apparently lacked interest and concern, which seemed to be the reason for this inadequate method of printing procurement.

#### Summary

Printing procurement was not considered important by the purchasing agent or by management. Since there was not much money spent on printing procurement, management was satisfied with the uncertain methods used.

Example Number Six--Company I

(Source of Information: Plant Visit and Interview)

This organization, a large food-processing concern, had its main offices in Camden, N. J., with 14 smaller plants and offices throughout the United States. Standard forms, those used in the main office and branch offices, were purchased by the Camden office and distributed as requested. Forms designed and used by the individual branches were secured through those branches. Both centralized and decentralized methods of procurement were utilized.

Procurement Function

In 1960 this company purchased more than \$250,000 worth of general business printing. No definite breakdown was available to determine the amount spent on snap-out and continuous type forms. The company had been approached on different occasions to arrange a contract method for printing procurement. This method was disregarded by the management of the organization because of the lack of control the company would have in regard to printing procurement. Printing was purchased in the immediate area as much as possible. The purchasing agent in this organization had specialties to which he devoted his energies and abilities. The purchasing agent for printing was also responsible for construction, equipment and supplies. Printing was considered a supply. The purchasing agent had no printing background before he was assigned the position of printing buyer. The company accepted bids from printers that had the equipment and ability to quote effectively on that kind of work. Printers who had done quality work



for the organization in the past were given the opportunity to bid. A file of printers was maintained by the purchasing agent for his convenience in selecting appropriate printing concerns.

The company operated a small duplicating department. Small offset duplicating machines were the basic presses; a Xerox plate-making machine supplied the plates for the presses. Bindery equipment was included in the plant function; perforator, paper drill and plastic binding equipment were included in the duplicating department. The supervisor of the duplicating department had the same problems that faced the majority of other small printing departments, that of suitable manpower. A sample of the company's internal printing work order is reproduced as Figure 10. The quality of work done by the printing department was adequate for the purpose. Only internal forms were printed in the printing department. The duplicating department served the purpose of speed and dependability for company form work.

The company never dealt with printing brokers because it wanted to know where the job was being printed.

#### Organizational Structure

Advertising was purchased through an agency. A limited amount of advertising was designed by the company advertising department and was purchased through the purchasing department. This company utilized the efforts of a department liaison representative and a forms control analyst within the printing procurement function. Forms Control under the supervision of the forms control analyst had become a recognized tool for effective management of all forms used in the operation of the

INTERNAL PRINTING WORK ORDER						Prepare in Triplicate, send Two copies with carbon to printer. Retain Triplicate. Obtain forms control approval when applicable.		DATE		
<input type="checkbox"/> NEW FORM <input type="checkbox"/> REVISED FORM <input type="checkbox"/> RE-ORDER <input type="checkbox"/> ONE TIME USE						DELIVERY DATE				
REQUESTED BY		DEPARTMENT		ACCOUNT NO.	DEPT.	DIV.	S. O.	SUFFIX	CODE NO.	
BOX NO.	PHONE EXT.	FORM NO.		FORM TITLE OR DESCRIPTION						
QUANTITY	SIZE	COLOR OF STOCK		<input type="checkbox"/> SINGLE SHEETS <input type="checkbox"/> PADS <input type="checkbox"/> OTHER-SEE SPECIAL INSTRUCTIONS						
SPECIAL INSTRUCTIONS										
FORMS CONTROL APPROVAL				DATE		DELIVER TO		BOX NO.		
THIS SPACE FOR PRINTING DEPARTMENT USE ONLY										
						LABOR CHARGE				
						DRAWING & VARTYPING				
						OPAQUE & PLATE DEV.				
						XEROX				
						OFFSET				
						ADDRESS				
						CUT				
						COLLATE				
						PAD				
						DRILL				
						AMOUNT #				
						LABOR CHARGE				
						CODE	QUANTITY	PRICE	TOTAL	
						TOTAL MATERIAL CHARGE				
						TOTAL MATERIAL & LABOR				

Figure 10. A sample of the Internal Printing Work Order used by Company F\*

\*This form is filled out by the forms control department and the costing information is supplied by the printing department to determine the charges to be made for the printing service.

business. It involved control, co-ordination, and service for all departments of the company in the design, procurement, storage, use, and replacement of forms and their relationship to company procedures. The department liaison representative worked in conjunction with the forms control analyst. Each department had its own liaison representative, a man familiar with all the procedures of the department and of the forms control program, who assisted in the preparation and processing of forms. In the development of a new form the following steps were taken by the department liaison representative:

- 1) Prepare a rough sketch of the new form;
- 2) Submit a sketch to the department head for approval;
- 3) Forward approved draft to the forms control analyst.

The forms control analyst, following receipt of the above, would review the draft of the new form, and, after he reviewed the procedures involved and determined that the new form was essential, took the following action:

- 1) Suggested improvements in the form;
- 2) Made certain new forms were reviewed and approved by parties involved;
- 3) Assigned a form number to the form;
- 4) Advised the originating department that the form was approved and made certain that all locations affected by the new form received a copy and the procedure for using the new form.

Printer's proofs were required on all forms before they were printed unless this requirement was waived by the forms control analyst,

the department liaison representative, or the department that requested the form. A proof was waived if the form was reordered without change. The forms control analyst, after receiving two proofs from the commercial printer or the company printing department, would:

- 1) Review proofs, if correct, approve by signing proofs;
- 2) Secure approval of the department liaison representative on both copies;
- 3) Retain one copy and file in forms specification number file;
- 4) Return one copy to the printer or company printing plant.
- 5) If sufficient changes were made, it was recommended that a new proof be obtained from the printer and reprocessed as outlined.

The forms control analyst did not become involved with the purchasing of the form unless the new form did not meet the requirements. When this condition arose, he would determine if the company or vendor was at fault by comparing the sample received with approved copy already filed. If the company was at fault, the forms were accepted and used if at all possible. If the vendor was at fault, he would contact the purchasing department to get adjustment. The forms control analyst did make all decisions as to obsolete, inactive, slow moving forms, and all other cases directly connected with the forms system of the company. A sample of one of the company's internal form control forms is reproduced as Figure 11.

#### Inventory Control

The function of the inventory control department was to:

- 1) Control the stock records;

## FORM SPECIFICATION NUMERICAL FILE

Date \_\_\_\_\_

FORM NUMBER		TITLE				
CODE		<input type="checkbox"/> GENERAL FORM <input type="checkbox"/> LOCAL FORM		LOCATIONS		
		DEPARTMENTS USING FORM				
FORM STATUS		<input type="checkbox"/> INTERNAL <input type="checkbox"/> EXTERNAL <input type="checkbox"/> NEW <input type="checkbox"/> REVISED <input type="checkbox"/> REPETITIVE <input type="checkbox"/> NON REPETITIVE <input type="checkbox"/> RE-RUN				
QUANTITY FIRST ORDERED		SHEETS SETS	ANNUAL USAGE	DELIVERY REQUIRED	COST	
FORM SPECIFICATIONS						
PAPER					PRINTING	
SIZE	" WIDE	" HIGH	WEIGHT	COLOR	ON	SIDE(S)
COPY NO.	GRADE					COLOR
1					<input type="checkbox"/> TUMBLE TURN	<input type="checkbox"/> LEAF TURN
2					<input type="checkbox"/> NUMBERED	<input type="checkbox"/> COLOR OF NO.
3					<input type="checkbox"/> SNAP OUT STUB	"WIDE AT
4					<input type="checkbox"/> PADDING	SHEETS PER PAD
5					<input type="checkbox"/> CARBONS	TYPE
6					<input type="checkbox"/> INTERLEAVED	<input type="checkbox"/> UNDER PAD
7					<input type="checkbox"/> PUNCHING	NUMBER HOLES
8					<input type="checkbox"/> CUT <input type="checkbox"/> ROUNDED CORNERS	WHERE
					<input type="checkbox"/> CONTINUOUS	<input type="checkbox"/> FLAT
SPECIAL INSTRUCTIONS						

### SPECIAL INSTRUCTIONS

### ORDER DATA

[illegible]

Figure 11. A sample of the Forms Specification Numerical File form used by Company F\*

\*This form lists the salient points of each individual company form.

- 2) Initiate printed form reorder notice when a "stock form" had reached its reorder point;
- 3) Prepare purchase requisitions for forms;
- 4) Submit a report immediately following the annual physical inventory each year to the forms control analyst listing all forms not requisitioned during that year.

The functions of the storeroom were:

- 1) Warehouse quantities of forms classified as "stock" forms;
- 2) Fill out material requisitions;
- 3) Periodically check low stock items or those which show no activity and advise inventory control.

The overall limit of inventory of printed materials was usually a three month's supply with a maximum limit of a year's supply.

#### Printing Supplier Relations

The organization had required that a printer from time to time practically do the impossible in regard to an immediate order. An order of this type was not a regular occurrence. This company almost had a fetish about the color red used in many of the company's advertising and general printing pieces. This fetish had worked as a line of demarcation between the inferior and superior classes of printers. Rush and change orders were limited in their application, to the satisfaction of the printers. The business forms representatives were considered the best-equipped salesmen interviewed by the company. The company had shifted to the snap-out and continuous forms to a large extent.

### Other Considerations

This organization had never utilized the services of outside graphic arts consultants to revamp or modernize its internal forms structure. The company wanted to retain all segments of printing procurement within the organization rather than to allow a purchasing service to function in that capacity.

### Summary

This company had utilized the forms control function to the utmost and had developed an excellent forms program because of it. This segment, if any, was one that appeared to be lacking in most of the companies interviewed.

Example Number Seven--Company G

(Source of Information: Plant Visit and Interview)

This firm was one of the large public utilities in the city of Philadelphia, Pa. All general purpose printing was secured through the main office. Forms used in small offices other than the main office were secured through the central office. This method of centralized purchasing seemed to meet the needs of the organization.

Procurement Function

In 1960 this utility purchased about \$250,000 worth of general printing. Advertising or promotional printing was not included in this figure. The company did not purchase any printing through contractual agreement. Printing was purchased in the immediate area as much as possible. This organization felt that all purchasing should be done from companies that utilized its services. Reciprocity was considered normal purchasing procedure. The purchasing agent had no background in regard to printing, yet seemed capable of discussing the problems of printing.

The company did not have a printing plant because of the unfavorable impression that might have been created among the printers of the immediate area. The company did have a small Multilith which was used for internal forms that had immediate deadlines and private company business that must remain confidential. The printing endeavors of this company were of minor consequence in regard to the overall amount of printing purchased from outside suppliers.

Bids were generally requested of three printers that previously



had done work for the utility. The purchasing agent maintained a file of available printers and a list of the equipment of each. The buyer directed his bids to printers who were able to give service and quality, and who possessed the ability to do the work. The company did not buy from brokers in most cases, but business forms were purchased through brokers from time to time.

### Organizational Structure

The company maintained an advertising department which had sole responsibility for planning and procuring advertising materials. There was little connection between the advertising department and the purchasing department.

The order for printing was initiated in the department requiring the printed material. The reorder form was sent directly to the purchasing department action. A forms analyst was used to constantly check on the internal working of the forms system. There was little connection between the forms department and the purchasing department. Forms analysis and simplification were directed more towards the view of easing the paper burden created by an over-abundance of printed forms. Any saving derived through this reduction was secondary to the prime goal of more efficient procedures.

### Inventory Control

The inventory was maintained on a four-month basis, in most cases. Some of the printing suppliers supplied a double quantity and retained one-half, acting as a warehouse until the company requisitioned the

material. This was done as an accommodation feature by the printer. The inventory section maintained a record of all printed forms. A visual check and a weekly card check was considered adequate to maintain inventory levels. The purchasing department attempted to gang purchase similar forms--sizes, weights and colors. This method was recommended by a consultant during a visit to the organization.

#### Other Considerations

Printing suppliers were adequately prepared by the companies they represented, asserted the purchasing agent. The business forms salesmen were well prepared and assisted by making studies and recommendations for improvement. The company had changed over to snap-out and continuous type forms in many instances because of the assistance given by the representatives of the business form companies.

#### Summary

There was a definite lack of communication, co-ordination and co-operation among the various departments that had interest in printing procurement--purchasing, advertising, and forms departments. Reciprocity had been a direct purchasing policy and the end result seemed to be devoid of any malfunctions created by such policies.

Example Number Eight--Company H

(Source of Information: Plant Visit and Interview)

This organization, one of the large automobile clubs in the United States, had its main office in Philadelphia, Pa. Printing was purchased through that office only. Very little form work was required for the small offices maintained by the main office.

Procurement Function

In 1960 this service organization purchased more than \$500,000 worth of printing in both advertising and general business types. The company purchased some of the printed materials under a contract agreement. This contractual agreement was of yearly duration in most cases. The type of work bought on contract was maps and other speciality work that could be produced best by a speciality printer. The purchasing agent had no printing experience except that which he had gathered in his present capacity. The company asked for bids on printed materials that were not contracted for or printed in its printing department. In most cases the company requested bids from three printers which had previously produced printed materials for the organization. A new printer had a definite problem when attempting to secure a portion of the company's business. The purchasing agent's theory was that by dealing with established printers, less problems were created. Printers that do not succeed in obtaining the order were mailed a card stating that they were not the successful bidder. No information as to the organization being awarded the order or the prices quoted was included on the post card notice. This bit of public relations was not located by the

investigator in any other purchasing interview. The purchasing department did not maintain any record of available printers or their appropriate equipment.

The company maintained a small duplicating department consisting of Multilith presses, Xerox platemaking devices and assorted bindery equipment. The combination of the duplicating department and the contract agreement for large printing purchases left less than 10 per cent of the total yearly printing expenditure to the outside commercial printers. This company, too, was plagued with the constant problem of manpower. The duplicating section of this company was maintained as a service function to the organization. The quality of the work was on a par with that of many of the small offset-equipped shops in the area. Both internal and external forms and small advertising pieces were produced in this department. This advertising and general business printing combination was not found in any other company investigated.

#### Organizational Structure

The organizational structure of this company was such that the purchasing department was the main department in regard to printing procurement. The advertising department worked within limits arranged by the purchasing department. Essentially, the advertising department did nothing more than the planning and designing of the intended piece. As soon as the advertising department had completed its function, the area of procurement was left to the purchasing department. The firm bought from brokers as often as it purchased from commercial printers. Forms analysis made a "forms check" every six months. The company's

internal structure permitted all triplicate forms to be printed on white, yellow, and pink stock. That system had eliminated individual copy designation from each sheet. Business forms--snap-out forms had made a small inroad into company systems and procedures.

All reordering was done by the purchasing department after notification by either the requisitioning department or inventory control.

Reciprocity was not considered to be a problem in regard to purchasing. Because the firm was a service organization, reciprocity was not considered in the same light as it was previously.

#### Inventory Control

Inventory control was maintained through a unique card system. A separate card listing the specifications for the printed form was inserted between the folded inventory control card. This method was effective in locating exact specification requirements. A missing card denoted that a form was being redesigned or analyzed. This method of built-in control was quite effective. The date on which a job was printed served as the checking date. Six months after the form was printed the balance of the forms were checked. All checking and ordering was based on that six-month cycle. Monthly visual checks were made to locate any potential shortages before the critical period was reached. The company had attempted other methods of inventory control, but this method seemed to be well accepted by the purchasing department and the company.

#### Printing Supplier Relations

The company maintained a policy of dealing with a group of

printers as long as they supplied the price, quality and delivery required by the purchasing department. If one printer fell down on any of the requirements, the purchasing department disregarded that printer as a possible source of supply. Printing costs were felt to be no higher than costs of other custom-made products. Many of the representatives of the smaller printing companies were categorized by the purchasing agent as "order-takers." The business forms representatives appeared to have a complete knowledge of their processes and products.

#### Other Considerations

This business organization had invested money for the services of trained consultants to evaluate the internal organization--forms, procedures and other areas. Recommendations made by the consultant were given more than lip-service as they were in many other companies. Management implemented suggestions or improvements recommended by the consultant.

#### Summary

Printing procurement was vested in one man--the purchasing agent. The normal problems between the purchasing and advertising departments were almost nil. There seemed to have been a strong possibility that the company might have been paying slightly more than it should through its method of printing procurement, but the system appeared to be adequate. The investigator doubted, however, that this system of procurement would function well in companies that lacked the department rapport that was apparent in the organization.

Example Number Nine--Company I

(Source of Information: Plant Visit and Interview)

This large department store was located in Philadelphia, Pa., with four smaller branch stores located in the Philadelphia metropolitan area. Standard forms, those used in all stores, were purchased through the main office. No purchasing was done by the smaller stores.

Procurement Function

In 1960 this organization purchased more than \$100,000 worth of printing. This figure did not include advertising costs. There was no available breakdown for the amount spent on snap-out or continuous forms type printing. Printing was purchased in the immediate area as much as possible. The company attempted to keep its printing in medium-sized shops. It was felt that cost reduction could be secured by not dealing with larger printing companies. This idea was based more on opinion than fact. Suppliers were chosen by past experience. New suppliers were given an opportunity to quote after having been checked by the purchasing agent. Checking was limited to the opinions of other purchasing agents. Generally, three bid requests were sent out from the purchasing department. Depending on the job, the bids varied in number from two to six. The purchasing agent had no graphic arts background and any information or knowledge gathered had been accumulated during his tenure as purchasing agent. He was convinced that offset lithography was the only way in which forms could be reproduced, a decision that should be left to the printer.

The company operated a small offset duplicating department in the



main department store. Two Multilith duplicators were used to print all the material produced in the department. Paper masters were used for most of the internal form work because of short-run characteristics. Pre-sensitized plates were used for the regular long-run printing jobs. The quality of the work was mediocre to poor in the judgment of the investigator. The main problem connected with the printing department was the trained manpower problem that plagued nearly every other small duplicating department studied.

The company did not buy from brokers. This policy resulted from unsatisfactory experiences with printing brokers. Reciprocity was not considered a problem in regard to printing procurement.

#### Organizational Structure

The company bought all advertising and promotional printing through an advertising agency. The company maintained a small advertising department to take care of the requirements that were too small to include in the advertising portfolio. The advertising department advised or assisted in the preparation of small advertising and printing jobs that were sent to the local printers. Any department in the organization could originate a request for forms. In some cases the inventory clerk would visually spot a form that appeared to be in limited supply and inform the purchasing department of the situation. The actual requisition form was limited in its completeness. The purchasing department was required to spend varying amounts of time filling in the additional information. A forms research department maintained control over all forms from a redesign and simplification standpoint.



There was a constant forms standardization policy in effect.

### Inventory Control

Inventory control of printing was vested in one store employee who, among other duties, maintained a visual checking system to spot forms, or other stationery supplies in short quantities. The probable reason for a lack of careful inventory control was that the company operated a duplicating department and could supply forms on immediate notice. This poor inventory control was responsible for work tie-ups in the duplicating department. Partial runs were made to get a supply of a certain form on the shelf. Inventories in general were maintained at the lowest possible level short of complete inadequacy.

### Printing Supplier Relations

This company had been dealing with the same printing suppliers for more than ten years in some cases. Dealing with smaller printers, as they did, permitted a bit more of the "rush order from the big customer" approach. The company used price as the main criterion for selecting vendors. The purchasing agent felt that the business forms representatives were the most competent of the printing suppliers. The problems concerning the salesmen of the smaller printing companies were that they were merely order-takers and had little ability or knowledge of the printing business.

### Other Considerations

"Printing costs are far out of line," said the purchasing agent. Printing is a custom-made product and that was the main point of

difficulty in its procurement. A printing consultant pointed out how much money could be saved on the printing procurement of the organization. However, no consultant had ever been hired to straighten out the problem of printing procurement. The management of the company felt that because of its small printing needs, any savings would be negligible.

Example Number Ten--Company J

(Source of Information: Plant Visit and Interview)

This large financial institution was one of the largest banking chains in the Philadelphia area. All printing was purchased through the main office, none was done by the branch offices. In the forms department more than 2,000 different forms were needed to handle the company's volume of business effectively. About one-half of all forms were purchased from outside suppliers; the remainder were printed in the company printing plant.

Procurement Function

In 1960 the organization purchased slightly more than \$500,000 worth of printing from outside suppliers. There was no immediate breakdown of the amount spent on snap-out and continuous type forms. The company had never considered the possibility of contract purchasing in regard to printing procurement. Printing was purchased in the immediate area as much as possible. Reciprocity was favored in respect to printing procurement. Printers that maintained accounts in the bank were given the majority of bids. The purchasing agent was an officer of the bank--the assistant secretary, one of the lower officials in the financial hierarchy. The purchasing agent had gained his entire knowledge of the graphic arts through his connection with printing procurement and serving as the printing department supervisor. His outlook toward printing procurement was one of necessity, an awareness of the importance of efficient printing procurement. The purchasing agent was cognizant of the different printing processes, their limitations

and strong points. The usual routine was that three bids were requested for each printing job done by an outside supplier. On occasion a job that had been printed by the company printing plant was sent out for bids to check the efficiency of the company printing department. This was meant to be used as a check and not as a method of playing the printing department against an outside printing supplier. The acceptance of a bid was generally determined on a combination of quality and price, in that order.

The company printing department was staffed with well-trained and well-paid printers. Both letterpress and offset were found in the shop. A nearly complete bindery was set up to make the department a self-sustaining unit. The shop was not unionized. There was no manpower problem. The main difficulty was one of location--the eighth floor, and not an ideal location for a printing department. The elevator facilities were poor and permitted only small amounts of stock to be raised at one time. The printing plant kept busy printing a majority of the internal and external forms used by the company. Advertising was not printed by the company plant. The overall quality of the work was good to excellent.

The company did not buy general printing through a printing broker. Business forms were occasionally purchased through a broker. The reason for not purchasing general printing through a broker was uncertainty as to the responsibility of the parties involved.

#### Inventory Control

The inventory control system for more than 2,000 different forms

required the services of a full-time inventory control clerk. A six-month's supply was considered to be the maximum amount carried in stock. One of the reasons for the establishment of the printing department was service. For that reason the majority of forms carried in the inventory were maintained at a two-month level. A card system was used in connection with a weekly inventory check by the inventory control clerk. All printing specifications were filed in the purchasing department by form number. If a low inventory was spotted, an inventory low sheet was filled out by the inventory control clerk and returned to purchasing for action. Rush orders were not advocated by the purchasing agent or the printing department.

#### Printing Supplier Relations

The company had been dealing with the same group of printers for more than eight years. The rapport built up between the parties had simplified the printing procurement function in that each party knew what the other wanted in regard to the printed job. Printing costs were felt to be no higher than the costs of other tailor-made products. Business forms representatives had not been successful in changing over many of the bank's forms to the snap-out variety.

#### Other Considerations

The purchasing agent realized that the costs of printing were high and he was attempting to purchase as economically as possible. Forms and methods engineering assisted in the overall paper development of any new or redesign attempt. The company had never utilized the

services of any outside consultant in regard to its printing procurement problem. The company felt that a superior job of printing procurement could be done if the actual purchasing function remained in the purchasing department.

#### Summary

The investigator felt that this was an adequate system throughout. A majority of the company departments were cognizant of the high costs of printing and efforts were made to keep the cost as low as possible without any impairment of the forms routine.

### CHAPTER III

#### SUMMARY AND CONCLUSIONS

The most notable point uncovered by this study of general business printing procurement systems employed by large- and medium-sized business enterprises was the apparent apathy of top management and purchasing officials to the problems created by printing procurement. This apparent apathy could possibly be traced to the fact that in most cases, general printing procurement was considered to be a non-durable, non-productive commodity; it was also possible that printing procurement was not considered important enough to require a truly economic approach to the subject. Ineffective purchasing was generally glossed over with the remark that printing procurement was too complicated or the amounts of printing purchased were not significant to require more adequate consideration. The fact that purchasing was carried on even so well was surprising considering the various factors that make this area of printing purchasing quite different from the regular routine of procurement.

This investigation brought to light the point that companies which had printing departments or duplicating sections generally did a better job of printing procurement. Most of the duplicating departments were set up as a service function to the organization. Maintaining a printing or duplication section created a sense of awareness in the case of printing procurement; the purchasing official generally was able

to discuss the problems of printing procurement with the printing supplier more adequately. On the surface it appeared that a majority of purchasing agents had little more than a passing knowledge of the printing processes and exhibited little or no desire to become more familiar with the graphic arts.

The printing suppliers must share in the blame for the situation into which printing procurement has slipped. They seldom considered the general business printing of an enterprise in the same light as the more lucrative advertising or promotional requirements. Printers did not attempt to assist the purchasing agent in regard to printing problems. The obvious answer to this problem was partially solved by the business forms representatives who made studies and recommendations, assisted the purchasing department and management with its printing problems and, consequently, captured a large share of the business form printing. Printers were generally willing to sit back and criticize purchasing departments for their lack of interest and knowledge of the trade, forgetting that printing is also a service.

A lack of interest in printing procurement can possibly be traced to a lack of clear cut responsibility for its purchase. True, the purchasing department fulfilled the actual purchasing requirements, yet in many cases, definite authority and responsibility had not been specifically delegated. Further evidence of that point was noted by the fact that printing procurement was not definitely assigned to the purchasing department. In some cases, general business printing was



purchased through the advertising, merchandising or even the sales department. A decision should have been made to give the direct responsibility for printing procurement to a definite department.

The investigator feels that definite responsibility should be given to a man who might be called a printing specialist. Depending on the size of the enterprise involved, this representative could serve as a qualified, responsible leader in printing procurement. A background of commercial printing experience would assist the designee in the fulfillment of his duties. To be effective, any printing specialist must be given definite lines of authority and responsibility. His function would combine with that of purchasing and advertising. In this respect he would follow the printing routine from inception to completion in regard to the planning, purchasing and follow-up. The printing specialist could utilize the talents of all departments: purchasing, advertising, forms analysis, sales and marketing. His capacities would be devoted to all printing: advertising, promotional and general business printing, thus avoiding the problem of assigning departments different sections of printing procurement. With all responsibility vested in one individual it appears that the end result might be far superior to the usual policy of having many uninterested persons involved in the mystery of printing procurement. The forms department could work directly with this person to amend and improve the internal forms situation that has been left to exist through repetition over the years. The company printing specialist could work directly with the

printer as a liaison between the company and the printer. His knowledge of the printing processes, the trade, and other technical information would put him in a position of scrutinizing the services available from different printing suppliers. He might direct purchasing to buy a particular type of work from a certain printer. This arrangement could, it appears, be well received by any forward looking management or purchasing department since the costs of printing are getting higher and the services available from different printers are becoming so diversified. This problem will continue to become more complex with the advent of new printing equipment and other technical advances. The days of, "I buy all my printing from the printer up the street," probably are fast becoming a thing of the past.

The private printing plant or duplicating department has become an accepted service function in many cases. In many instances the private printing department has permitted a definite inventory savings through reduced inventory. Availability and dependability have come to signify the efforts of many private printing endeavors. Management has become aware of the usefulness of such an operation and has taken steps to see that the latest in equipment and techniques are included in this function. One of the basic reasons for many large company printing plants being discontinued was that they were not maintained at the level with equipment in the printing industry in general. The limits of the printing plants are known and in many cases there have been cost analyses applied to discover the type of work that can be

done best and most economically in the company shop. Printing supervisors are capable from a productive and managerial standpoint, in most cases. Purchasing and the private printing plant could achieve a measure of standardization if the following points were observed:

- 1) Orders emanating from the purchasing department should be as complete as possible and a printed sample of the form with changes clearly marked should be attached to the printing order;
- 2) A standardization of sizes, forms, colors, should be attempted as a means of possible economy. Forms numbers, a seemingly insignificant item, should not be changed on each press run, rather when the form to be revised;
- 3) Purchasing departments should make reasonable demand on the printing or duplicating departments and should not use the excuse of proximity to alter the suggested routine.

Printing is, in many cases, left until the last sheet of a form is about to be used before another order for it is written. This can cause rushing of the preparatory steps, jamming the production facilities, with extra costs piling up every step of the way. No person, no method can cope effectively with a demand for shortcutting the successive steps in the production of a printed job.

When a definite policy of printing procurement is achieved, a degree of responsibility and authority is achieved, and it follows that the practice of "fiddling" with the company printing will be materially reduced or eliminated.

In regard to the problems expressed in Chapter II, the following points might be considered as partial answers.

#### Printing as a Management Aid

The sooner that management of any organization realizes the importance of printing to its organization the sooner the problems of printing procurement will be materially decreased. Printing is not considered sufficiently important by a majority of top managers to require consideration.

#### The Theory of Printing Procurement

The information gathered in this study gives credence to the notion that printing procurement should be handled by the purchasing department. Differences of opinion between purchasing and advertising departments might be eliminated by placing an advertising specialist in the purchasing department and placing a purchasing representative in the advertising department.

#### Purchasing Agent and His Function

The investigator found that in this limited research project the prime considerations for accepting bids from printing suppliers were equally divided between cost and quality, with service ranking almost as high.

A purchasing agent who buys printing should make every effort to visit the plants of the printing suppliers. In this way he might get a

fuller appreciation of printing as an industry. He might also become more cognizant of the problems facing the printer; he might also become aware of a few of the many ways in which varying amounts of the customer's money could be saved through proper planning.

The purchasing department should maintain a file of all company forms; an inventory of all printed items; and a list of reliable sources of printing and the equipment and specialty of each supplier.

#### Purchasing Records and Forms

To be effective, any purchasing endeavor in regard to printing must be backed by a suitable forms control department. This department will act as a filtering function to assist purchasing by keeping a close check on company forms. Redesign of existing forms, design of new forms, standardization and elimination of older forms are only a few ways in which a forms control department can materially assist the procurement function in regard to printing forms procurement.

#### Private Printing Plants and Duplicating Departments

The main problem connected with the duplicating departments was a problem of labor turnover created by a low per-hour rate for the press operators. If the rate paid to the press operators upon completion of a suitable training period was raised, the press operator would probably remain since the rate paid by his company and the rate paid by outside printers would be comparable. Companies that maintained a duplicating department or printing plant were, generally, better equipped to discuss

the graphic arts with the investigator.

#### Contract Purchasing of Printing

It appears that contract printing is an attempt to relegate printing procurement to others. Many of the printing procurement problems are eliminated, but only at the expense of apparent higher printing costs.

#### Reciprocity

This segment of purchasing ethics cannot be evaluated or judged with any degree of finality. In this limited study the investigator found an even split concerning the aspects of reciprocity. It appeared that reciprocity was not quite the problem in printing procurement that it is in other types of industrial procurement. The reciprocal agreements that involved printing suppliers did not appear to be as many-sided as they did in larger industrial purchases. There was not the degree of interdependence of the supplier and printer as there might have been in other reciprocal agreements.

#### Other Research Possibilities

Printing Management is a relatively new field for investigation and research. Background material on the graphic arts is limited in a majority of areas. Printing procurement as a function of the graphic arts is hampered by this limited amount of background information. The writer found no books applicable to the entire area of printing procurement. Articles in trade and purchasing magazines tended to be the

only source of suitable material.

As the academic interest in printing management increases, there will be a corresponding broader view of possible areas of investigation in the printing and graphic arts industry. Through research studies and other projects it appears that many more of the problems will be pinpointed and efforts to solve them will be instituted. The possibilities for future research studies are unlimited. The following topics might be considered:

- 1) An attitude study of top management in regard to its feelings concerning printing--its value and worth to the company, problems created or eliminated through the use of printing.
- 2) A study to determine the merit of private printing plants or duplicating departments to a business enterprise. A wage comparison study to determine the discrepancy between the rates paid by the printing trade and those paid by the company printing or duplicating departments.
- 3) An attitude study to determine the amount of graphic arts training attained by printing buyers (those buyers who purchase nothing except printing).

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## APPENDIX

## APPENDIX A

## Example of Form Letter Mailed to Business Enterprises

July 23, 1961

Atlantic Refining Company  
Director of Purchasing  
260 South Broad Street  
Philadelphia, Pa.

Dear Sir:

As a graduate student in Printing Management at South Dakota State College I am writing a thesis on the purchasing methods and policies used by medium and large sized companies in regard to their printing requirements. The majority of this information will come from field trips; I would like to visit your company and talk with you about your system of printing procurement.

Being a native Philadelphian I would be very pleased to be able to use my home town as the subject area for this project. If you could grant me this request I would be only too happy to arrange an interview with you at your convenience during the month of August. The discussion would be brief and general in nature and limited to about 30 minutes duration.

I hope that you will be able to assist me in this study. A survey of this nature could be useful to you and your organization as well as to me.

Kindly address all correspondence to:

Mr. Donald F. Reilly  
243 W. Laveer Street  
Philadelphia 20, Pa.

Thanking you for your interest and cooperation, I am,

Sincerely,

Donald F. Reilly

## APPENDIX B

## Example of Schedule of Questions Used in Each Interview

## SCHEDULE OF QUESTIONS - PRINTING PROCUREMENT METHODS AND SYSTEMS

## 1. Procurement Function

- A. How much general business printing do you purchase (approximately) during a normal year?
- B. Is the printing purchased on a contract basis or from individual suppliers of printing?
  - 1. If printing is purchased on a contract basis, what benefits are gained?
- C. Do you operate your own private printing department? Do you feel that it is an asset to your organization? If so, in what way? Are there any inherent problems inherent in your printing department?
- D. Did you have a Printing Department in the past?
  - 1. How many years was it in operation?
  - 2. What was the reason for its discontinuance?
- E. Do you submit bids, how many are used?
  - 1. How are the companies chosen?
  - 2. What is the basis for accepting a quotation?
    - a. Quality
    - b. Price
    - c. Service
    - d. Other--specify
- F. Do you purchase from printing brokers?
  - 1. What advantages or disadvantages can be secured through this method of procurement?

## 2. Organizational Structure

- A. Do you buy your advertising through an advertising department?
- B. Do you purchase your regular printing through an agency?
- C. Does your organization have an advertising department?
  - 1. What, if any, is the connection between the advertising department and the general printing procurement policies?
- D. Is the purchasing department responsible for the procurement of the general business printing?
  - 1. How is the internal order for general business printing originated? What forms are used?
  - 2. Do you think that this system could be improved?
  - 3. Do you feel that your procurement of printing is a creditable and qualified operation?
- E. Have any cost reduction programs been attempted in regard to printing procurement policies?

## 3. Forms Analysis and Simplification

- A. Does your organization have a forms analysis department?
- B. Who is responsible for the determination of amounts, colors, stocks or other requirements?
- C. Has there been any attempt at forms standardization?

## 4. Inventory Control

- A. What method of inventory control is used in regard to printed material inventories? What forms are used?

## 5. Printing Supplier Relations

- A. How long have you been dealing with your present printing suppliers?
- B. Can you see any way in which the services of the printing suppliers could be improved?
- C. Do you feel that printing salesmen are fully competent and qualified?

1. If not, how could their capabilities be improved?

6. Other considerations

- A. Do you think printing is over-priced?
- B. Has your organization recently used the services of a graphic arts consultant in regard to printing procurement policies?
- C. Do you feel that you would rather assign the chore of printing procurement to an outside organization that would be devoted exclusively to printing procurement?