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ABSTRACT
                    The primary purpose of New Office and Business
Education Learnings System (NOBELS) was the development of an
inventory of 373 educational specifications in behavioral terms that
represent basic tasks performed by 16- to 24-year-old office workers.
In this revision, each of the 373 educational specifications has been
reviewed and revised, incorporating a reclassification and reordering
of task statements, coding of all statements, and a concordance of
verbs and objects. Based on empiric data collected by interviewing
1,232 office employees and their supervisors from four areas of the
country, the specifications were drawn from 4,564 basic tasks and
32,447 steps of task performance. Intended for the teacher and
curriculum developer at the secondary and community college level,
the current phase of NOBELS includes correlative studies of a
"Taxonomy of Office Activities," the "Emergent Office," interaction
critical incidents, office hardware, and a "Talent Inventory," in
addition to the area data reports. Numerous tables present the data.
(AG)

Development of
Task Performance Statements
for a New
Office and Business Education
Learnings System
(NOBELS)

THE CENTER FOR VOCATIONAL
AND TECHNICAL EDUCATION

THE OHIO STATE UNIVERSITY
1900 Kenny Rd., Columbus, Ohio, 43210

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DEVELOPMENT OF TASK PERFORMANCE STATEMENTS FOR A NEW
OFFICE AND BUSINESS EDUCATION LEARNINGS SYSTEM
(NOBELS)

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A FINAL REPORT
ON A PROJECT CONDUCTED UNDER
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U.S. DEPARTMENT OF
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and Development

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PROLOGUE

Some time has passed since the final report of Phase 1 of NOBELS was published. Public pressures for accountability in education, movements toward career education, a strengthening of Federal and state staffing and supporting of career education thrusts, however, continue the necessity for revitalizing office occupation preparation with current and job-related task performances, the major output of this revision of NOBELS.

While all the information about current and relevant office task performance presented here were available in the original report, the revision of the detailed statements, the inclusion of special listings of tasks, the coding of all task statements, and the addition of a concordance of verbs and objects add ease in finding or in cross-referencing specific details needed in curriculum evaluation or modification.

Chapters I, II, and III of the revision remain the same as published in the original report. Chapters IV and V are new.

The reader will find one basic terminology difference in Chapter IV, indeed, in the title of this revised report versus that of the original report: The term "performance goal" used in the original report has been changed to "task performance statements" or "task statements." Performance goals for office preparation programs must develop from the real tasks performed in offices. Yet, it is from the generalized task statements such as presented in this revised report that curriculum committees and practitioners will seek specific examples in their local communities to develop performance goals that build programs of current and local relevance and validity. This one change in terminology, though an important curriculum consideration, does not invalidate the current values of Chapters I, II, and III as originally published and reproduced as a part of this revision.

A minor discrepancy as between the data of the original chapters and the revision needs to be pointed out: the computer coded data reported in Chapters I, II, and III refer to 4548 task sheets versus 4564 utilized in the revised materials of Chapter IV. The discrepancy is purely judgmental in the resorting and hand processing of the original task sheets. In this hindsight review with the hand sorting, some of the separate task sheets were judged to contain more than one task. By the same process of refinement, the original 375 generalized "performance goals" have now been reduced to 373 generalized task statements.

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SUMMARY

The primary purpose of New Office and Business Education Learnings System was the development of an inventory of 373 educational specifications in behavioral terms that represent basic tasks performed by 16-24 year old office workers. In this revision, each of the 373 educational specifications has been reviewed and revised to the extent that such revision was judged to add clarity. The revision incorporates a reclassification and reordering of task statements according to number of task sheets represented in the interview data. Three special listings of task statements have been included as aids to the classroom practitioner. Coding of all statements and a concordance of verbs and objects provide for easier searching and cross-referencing than in the previous edition.

Based on empiric data collected by interview from 1232 office employees and their supervisors from four areas of the United States, the educational specifications were drawn from 4564 basic tasks and 32,447 steps of task performance. Analyses of data are presented as they describe the sample cases and as they suggest clues for office education curriculum renewal.

This revised edition is pointed primarily toward the classroom practitioner and curriculum developer in public secondary and community college education. The detailed task statements provide a checklist of analyzed performance against which current curriculum or media of instruction can be checked. Lists such as that of the 51 High Frequency Performances provide clues toward clustering curriculum content. The clustering of high frequency tasks permits teachers and their students to seek current and local examples of the tasks: their inputs, steps of processing and standards of evaluation applicable to local businesses. Lists such as the medical and banking should encourage practitioners to seek task performance examples from types of businesses in which their students may later find employment.

A consortium of five institutions with contracts through the Center for Research and Leadership Development in Vocational and Technical Education comprised the working groups in data collection. The Board of Governors for Research and Development of Delta Pi Epsilon served as liaison between the consortium and the profession.

In addition to area data reports, correlative studies of a Taxonomy of Office Activities, the Emergent Office, interaction critical incidents and office hardware, and a Talent Inventory are also outputs of the current phase of NOBELS.

Chapter I

BACKGROUND INFORMATION

A. TOTAL PROBLEM OF CURRICULUM RENEWAL FOR OFFICE EDUCATION

New Office and Business Education Learnings System (NOBELS) is a long-range curriculum renewal project in which the current report is of the first phase. Utilizing a system model, NOBELS' overall function is to assess and modify learning programs in which purposes are preparation for office jobs. The bases of modification of office learnings programs are educational specifications or behavioral goals in which successful attainment by students are prerequisite to office employment.

As an analog model, NOBELSystem is conceived as a closed, self-correcting, and thus developing system of curriculum renewal. While the first step in its development is reported as it affects the area of office work preparation, the model is equally applicable to all areas of occupational education.

1. Purpose of the Current Phase of NOBELS

The purpose of the project reported herein was the development of educational specifications to be used as guides in the modification of behavior of learners necessary for office employment. The focus of each specification was behavior needed for office employment.

A principal criterion for developing specifications for office education has been that they be relevant to tasks as performed in current and emerging office jobs.

2. Process and Product of the Current Phase of NOBELS

A systematic inventory of office tasks as performed in current and emerging occupations has been the base for deriving the set of educational specifications reported. The office task data were collected by personal interview from 1253 office workers and their supervisors yielding 1232 usable cases. Basic tasks performed by these workers, 4548 in number, were identified, classified, and analyzed. The further analysis of tasks yielded 32,447 classified verbs that represent steps in task performance. The steps of task performance were classified according to a 108-verb listing developed for NOBELS. The basic task data were reduced to 375 performance goals that are the major output of this report.

The foregoing data are reported in Chapter III of the current volume. The resulting educational performance goals are detailed in Chapter IV.

3. Next Phases of NOBELS

The next phases of NOBELS curriculum development are: (a) the selection from the inventory of educational performance goals those that are relevant to the preparation of students in secondary or community college level institutions; (b) the preparation of learning experiences for target students; (c) the application of the learnings in a classroom; (d) the systematic assessment of the learning results; and (e) the modification of the specifications or their application based on the assessment.

Thus, NOBELS is viewed as a long-range curriculum development program in which the current inventory of educational performance goals is prerequisite.

4. Definition of Terms

"Office and business education learnings" of NOBELS means those organized learnings that are prerequisite to obtaining and holding an office job. The selection of the word "learnings" was a deliberate one, emphasizing the primacy of the individual learner in the system.

The term "system" in NOBELS can be characterized by the requirement of a terminal goal specification expected in such a form that actual attainment can be compared with expected attainment. This comparison admits to analysis and synthesis through feedback circuitry providing a closed loop, self-correcting system.

"Terminal goal specification" as used is synonomous with the terms "performance goal" or "behavioral goal" expected at the end of an educational experience. Expressed explicitly in operational terms, the specification identifies the learner for whom the goal is intended, the behavior to be learned, the conditions or alternatives of performance, and the base for assessment (criterion of success) of actual behavior achieved (Mager, 1961).

By "office occupations" is meant those clusters of occupations defined under U. S. Office of Education (1969) classifications as 14.00 00. The clusters consist of the following major groupings: 01 00, Accounting and Computing Occupations; 02 00, Business Data Processing Systems Occupations; 03 00, Filing, Office Machines and General Office Clerical Occupations; 04 00, Information Communication Occupations; 05 00, Materials Support Occupations, Transportation, Storing, and Recording; 06 00, Personnel, Training, and Related Occupations; 07 00, Stenographic, Secretarial, and Related Occupations; 08 00, Supervisory and Administrative Management Occupations; 09 00, Typing and Related Occupations; and 10 00, Miscellaneous Office Occupations.

The term "basic task" refers to those major performances of an office worker designated by a supervisor or an employee as the central purpose of the job. Our definition of task approaches that of the term "operations" used by some job analysts. "Tasks" requested to be identified by supervisors were "the most difficult, the most time consuming, and tasks requiring the most responsibility on the part of the worker."

B. THE NEED FOR NOBELS

1. The Market for Office Job Preparation

Changing numbers and kinds of clerical and kindred workers needed annually as replacements help determine the market for office job preparation. The annual replacement rate for this kind of worker is 3.5 to 4.5 percent compared with a rate of 3 percent for all workers (U. S. Bureau of Labor Statistics, 1969b, p. 50).

From approximately 10-million clerical and kindred workers in 1960 reported in the labor force, 15-million clerical and kindred workers are projected for 1975 (Table 1). Furthermore, the ratio of clerical and kindred workers to the total labor force is projected to increase by 2 percent in the same period, from 14.7 percent to 16.7 percent. By major industry groupings, most of the 15-year projected increase of 5-million clerical and kindred workers are in government (an increase of 1.9 million); wholesale and retail trade (1.2 million); services (1 million); finance, insurance, and real estate (.4 million); and manufacturing (.3 million).

One-third of an estimated total of 29-million females employed in 1968 were in clerical and kindred occupations. This estimate compares with a ratio of one to fourteen of all employed males (49-million in number) that were so employed (U. S. Bureau of Labor Statistics, 1969a, p. 33).

Furthermore, the increased absorption of nonwhite females in clerical and kindred occupations should be noted. For example, in the year of 1959, 7.5 percent of employed nonwhite females were in clerical and kindred occupations; in 1968, an estimated increase of 244 percent representing 18.3 percent of all employed nonwhite females were in these occupations (U. S. Bureau of Labor Statistics, 1969a, p. 55).

As thus characterized, the market for office job preparation is an increasing market influenced by higher than average replacement and estimated increase in numbers and proportion of the total labor force. The market for office job preparation is influenced by a high proportion of females so employed. The changing market for office job preparation is influenced by projected increases of office workers in government; wholesale and retail trade; services; finance, insurance, and real estate; and manufacturing kinds of businesses. The changing market for office job preparation is a promising one for nonwhite females as the increased absorption of this group in clerical jobs is noted.

2. Current Educational Programs in Office Education

In most comprehensive secondary schools, approximately one-third of all students enroll in one or more office and business education courses. In one recent study of entry occupations, 44 percent of all graduating seniors who sought employment entered office jobs (Cook and Lanham, 1966).

Curriculum for office education in the typical high school has been characterized as an aggregate of courses rather than integrated programs of learning (Lanham and Trytten, 1966, pp. 23, 26, 27). Traditional courses in

TABLE 1

Percent of Clerical and Kindred Workers of Total of All Workers in Selected Industry Groupings
(1960 and Projected 1975) from Bureau of Labor Statistics*

	All Industries		Agriculture		Manufacturing		Utilities		Whsale Retail		Fin. Ins. Real Est.		Services		Government	
	1960	1975	1960	1975	1960	1975	1960	1975	1960	1975	1960	1975	1960	1975	1960	1975
Clerical & Kindred Workers	14.7	16.7	.6	1.0	12.4	12.0	24.2	24.0	14.0	17.1	45.2	44.0	11.8	14.6	42.7	38.5
Stenographers, Typists, Secretaries	3.6	4.4	.2	.3	3.1	3.4	2.9	3.2	2.0	2.3	13.0	13.1	4.9	6.0	8.4	8.6
Office Machine Operators	.6	.8	.01	.01	.8	.5	.8	1.1	.8	1.0	2.8	3.9	.2	.3	1.1	1.2
Other Clerical & Kindred	10.5	11.5	.4	.7	7.9	8.7	20.6	19.6	11.2	13.9	29.7	27.0	6.7	8.3	33.3	28.7
Accounting Clerks	.6	.5	.02	.04	.4	.5	1.0	.8	.8	.8	1.5	1.0	.3	.3	1.2	1.1
Bookkeeping, Hand	1.0	1.0	.1	.01	.5	.4	.4	.3	2.0	2.1	4.9	4.4	.7	.7	.0	.0
Bank Tellers	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	4.5	6.6	.0	.0	.0	.0
Cashiers	.7	1.1	.01	.0	.05	.04	.6	.8	2.6	4.2	1.1	1.3	.4	.4	.2	.2
Mail Carriers	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.4	5.6
Postal Clerks	.4	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.5	6.6
Ship. & Rec. Clerks	.5	.4	.01	.0	1.1	1.1	.2	.2	.7	.6	.04	.05	1.0	1.0	.1	.1
Telephone Operators	.5	.5	.0	.0	.2	.1	5.1	4.7	.2	.2	.5	.5	.3	.4	.3	.3
Clerical & Kindred, NEC	6.4	6.9	.2	.6	5.8	6.5	13.3	12.8	4.9	6.0	17.1	13.2	5.0	6.6	17.6	14.8
All Workers (in millions)	66.7	88.7	5.8	3.9	16.8	19.7	4.0	4.6	11.4	16.1	2.7	3.7	7.4	12.9	8.4	14.2
Est. Number Clerical & Kindred to Total Worker (Ratio x all workers in millions)	9.8	14.8	.03	.04	2.1	2.4	1.0	1.1	1.6	2.8	1.2	1.6	.9	1.9	3.6	5.5
Increase (+) Decrease (-) in Millions (1975-1960)	+5.0		+.01		+.3		+.1		+1.2		+.4		+1.0		+1.9	

*U.S. Bureau of Labor Statistics, 1969b, pp. 19, 39.

this area have been developed, influenced primarily by textbooks in which the authors assume needs of students in terms of office skills and personal traits. The virtue of this traditional approach was that it allowed increments to curriculum; the weakness was that the increments seldom represented fundamental change based on job expected performance.

Even office and business education programs developed under Federal vocational education legislation and its enabling state acts since 1963 point toward an aggregate of courses rather than learning programs. For example, from examination of 36 state plans for business and office education, Haines and Coleman (1966, pp. 121-122) concluded that "the most significant fact found here is that almost every office course can be deemed as vocational in almost half or more of the states with the exception of general business courses." This trend may now be reversed as a result of the 1968 Amendments to the Vocational Education Act of 1963.

C. RELATED RESEARCH

The direction for NOBELS has been influenced more from research and development in other disciplines than from research within office and business education.

The NOBELSystem approach to curriculum renewal was a direct outgrowth of work reported from the armed forces (Christal, 1969) other branches of the Federal government, and curriculum course development reported from armed forces academies (U. S. Naval Academy, 1967).

More directly influential toward a systems base was the work of interdisciplinary consultants retained during the feasibility study. Each consultant possessed unique experiences in systems research and development.

Wilson, director of the Industrial Systems and Research Institute, warned against difficulties of obtaining mathematical precision in an educational system envisioned for Moonshot. Hill (and Kerber, 1967), as a mathematician and educational researcher, considered even a primitive model of curriculum system to be a step then needed to develop educational specifications. Canfield (1967) as dean of instruction had implemented a system-based curriculum at the then new Oakland County (Michigan) Community College. Rummler as director of the Center for Programmed Instruction for Business followed an "operations research" model in analyzing and modifying in-service training programs in business organizations. Morrison (American Institutes for Research, USOE No. 5-0009), then located at the American Institutes for Research, was principal investigator in an occupational curriculum project at Quincy, Massachusetts. Morrison's work preceded but also led into the present Educational Systems for the '70's (ES '70 News, 1968), a network of pilot schools committed to developing a system approach to education following the constructs of behaviorists.

Among behaviorists, the writings of Gagne (1965), Mager (1961), Popham (1967), and Morgan and Bushnell (1967) each influenced direction of NOBELS toward a system approach to curriculum analysis and modification. Among educational system's writings, the work of Fine (1969) and Silvern (1965, 1967) have been influential.

The Bloom (1956), Krathwohl (1956), and Simpson (1966) taxonomies in the areas of the cognitive, affective, and psychomotor domains were studied in the pilot phases of NOBELS. Originally proposed for analysis of tasks according to cognitive, affective, or psychomotor components, we do not see even the most cognitive of office tasks which is not influenced by affective and frequently psychomotor dimensions. Perhaps Simpson (1966) best indicated the problems of analysis of educational goals when she said that there should be yet another domain, an "action pattern domain," which would go beyond but encompass the other three domains. The verb listing developed for NOBELS approaches Simpson's idea.

Tuckman's (1969, 1970b) SCOPE project is one of utilizing behaviorally-stated objectives such as those derived from NOBELS in the development of broad programs of organic learning experiences oriented toward the occupational task.

In the field of business and office education, Perkins (1968) and others had assembled empiric data from the State of Washington, concerning task performances expected of office workers. Preceding Perkins' report, McCloskey (1967) reported on Knowledge and Skills Required for Clusters or Families of Occupations. Also in the series, Perkins and Boyd (1966) developed a model for collecting their sample of office job tasks. The sample design for the State of Washington emphasizing the small business is not representative of the national office worker concentrations in metropolitan areas and in large businesses.

A teacher-made list of 599 tasks was identified by Perkins and these were classified according to the following categories: (1) typing, (2) operating office machines and equipment, (3) taking dictation and transcribing, (4) mailing, (5) filing, (6) telephoning and communicating, (7) performing clerical operations, (8) securing data, (9) using mathematics, (10) performing financial and record keeping operations, (11) performing editorial operations, (12) meeting and working with people, and (13) miscellaneous. A weakness of the Perkins' list is a lack of definition of task. Such processes as planning one's work and such noneducational but important actions as dusting and sweeping the floor were all designated as "tasks." The categories used also appeared to be biased toward present office education curriculum. For example, the classification of operating office machines was influenced, we suspect, by the current course title called "office machines." Early recognition in NOBELS of the weakness of definition and classification did help avoid at least these biases toward current office education curriculum.

Crawford (1969) has developed lists of competencies necessary for employment in distribution jobs. Unlike the Perkins' and NOBELS' projects, lists of competencies were derived from expert opinion rather than more direct data sources such as the worker or his supervisor on the job. Both studies were unique in attempting to identify competencies expected of entry workers as a base for curriculum modification.

That the Crawford and Perkins projects sought relevance for job preparation from current jobs, like the current phase of NOBELS, is commendable. A more substantive problem is transferring the base-data, such as obtained

by Crawford or Perkins, to learning programs that do, in fact, shape behaviors of Learners to match the required competencies.

Among the first U. S. Office of Education Research Branch funded projects in distributive and office education was Opportunities and Requirements for Initial Employment of School Leavers (OREOS). As an interview survey project, representative samples were drawn from Detroit businesses and the public high school graduating class of 1963. From data thus collected, Cook and Lanham (1966) concluded that small companies are not a major source of entry jobs for office and retail workers; the majority of businesses surveyed did not have jobs for inexperienced youth between the ages of 16 and 21. Further, they reported that business jobs demand few if any skills other than typewriting for initial employment.

As a direct outgrowth of the latter finding, senior intensified programs (SIP) were developed and implemented (Lanham and Cook, 1970). As curriculums for students with little if any previous business preparation, separate one-year programs were tested in data processing, distribution, stenography, and clerk-typist job clusters. In SIP, students were placed in a part-time, paid work experience as soon as they could be employed, usually not later than the beginning of the second semester. A follow-up study of SIP students (Brown, 1969) showed that these students as a group did secure jobs equal in number to other business-trained students in school and were rated as highly by employers as traditionally trained business education students, or at least significant differences could not be identified. The in-school time necessary to gain employment in SIP was less than half that of traditional programs.

The block-time approach, which utilized a two- or three-hour period of time to teach the office subjects, also involved a flexible scheduling of learning activities. The objective of the block-time approach was to integrate the learning experiences of the student in a simulated office setting. Four states and Michigan participated in one study (McBeth, 1967)--Arizona, Florida, New Jersey, and Washington. A complete evaluation of the results of this project have yet to be analyzed in terms of curricular implications for the learner.

D. NOBELS ORGANIZATIONAL STRUCTURE

The formation of Delta Pi Epsilon's Board of Governors for Research and Development is described elsewhere (Lanham, 1968). This Board served as a link between business and distributive education profession and the Center for Research and Leadership Development in Vocational and Technical Education at the Ohio State University, the prime contractor of NOBELS. As provided in the proposal, the officers of the Board of Governors served on the Center's Executive Committee for NOBELS. Funding from U. S. Office of Education, Research Branch, was through contract with the Center.

The project director operated under contract with the Center through Wayne State University. Area data collection contracts were located at the University of California at Los Angeles, the University of Georgia at Athens, the State University of New York at Albany, and the University of Minnesota at Minneapolis.

E. OBJECTIVES OF THE CURRENT STUDY

To derive the major product of the current phase of NOBELS the following objectives were identified:

1. Determining a framework for analyzing current and emerging office tasks
2. Isolating trends and concepts from emerging office occupations and practices and converting these to performance tasks
3. Developing a sampling design for collecting data from office work stations
4. Developing a procedure and a training program for data collection
5. Converting field data to performance tasks: primary (terminal), interim, and prevocational
6. Analyzing the data collected
7. Reporting a master list of performance tasks

F. PRODUCTS DERIVED FROM MEETING OBJECTIVES

Products of Phase 1 of NOBELS are listed as reports now published. Those available on microfiche or hardcopy through Educational Research Information Centers' Document Reproduction Service (P.O. Box 0, Bethesda, Maryland 20014) have been identified with their ERIC Document (ED) numbers.

1. Calhoun, Calfrey C. et al. Development of Performance Goals for a New Office and Business Education Learnings System, Final Report, Project 91-E, OEG 8-08414, 1970.

2. Cook, Fred S. et al. Talent Inventory for New Office and Business Education Learnings System, Final Report, Project No. 91-B of OEG 8-08414-3773 (085). Detroit, Michigan: Department of Business and Distributive Education, Wayne State University, 1970.

3. Erickson, Lawrence W. New Office and Business Education Learnings Systems, Final Report, Project No. 91-D, OEG 8-08414. Los Angeles: UCLA Graduate School of Education, 1969.

4. Huffman, Harry et al. A Taxonomy of Office Activities for Business and Office Education. Columbus, Ohio: The Center for Research and Leadership Development and Technical Education, Ohio State University, 1968. ED 021140

5. Huffman, Harry and Dale D. Gust. Business Education for the Emergent Office, Interim Report, 1971. ED 043754

6. Lanham, Frank W. et al. Development of Performance Goals for a New Office and Business Education Learnings System (NOBELS). Final Project Report, 1970. ED 041139

7. Tonne, Herbert A. New Office and Business Education Learning Systems, Final Report, Project 91-G, OEG 8-08414. Albany, N.Y.: Research Foundation of the State of New York, 1969.

8. Price, Ray G. and Charles R. Hopkins. New Office and Business Education Learnings System, Final Report, Project 91-F, OEG 8-08414. Minneapolis: University of Minnesota, 1970.

Chapter Il

THE PROCESS OF DEVELOPING PERFORMANCE STATEMENTS

A. A SYSTEMS OVERVIEW OF NOBEL PROCESS

The model for a system approach to curriculum renewal was described at length in the final report of the feasibility study (Lanham, 1968). At least two purposes cause us to review at this point the analog NOBELSystem model (Chart 1).

The first purpose is to re-orient the reader to the current phase of NOBELS' curriculum development in terms of the overall system approach. The current phase of the project, it will be remembered, relates to the second rectangle of the flow-process model labeled "performance goals." All methods and procedures described here should be evaluated in terms of their yield of operational objectives.

The second purpose is to illustrate further the application of a process system model such as NOBELS. While the schematic was developed primarily as a model to implement total curriculum renewal, its controls have proved equally applicable to the current phase of the process of developing a set of performance goals.

From the start of the current project to the present point, each step of process has been considered to be a tentative one, to be modified as warranted by feedback. We have on file, for example, thirty-five different interview protocols made prior to pilot testing, each one representing modifications resulting from field testing.

The advantage of applying NOBELSystem model has been this: the current output represents the latest process we have been able to devise modified as experience warranted. The disadvantage of modifications in process has been at times an unevenness of data treatment which as the results of analysis are reported will be disclosed.

B. MODIFICATIONS FROM PROPOSAL

Objectives 3-7 relate to sampling design, data collection, performance goal writing, analysis of data, and reporting. The prime responsibility of the project director and his staff at Wayne State University was implementing these objectives, i.e., a process necessary to accomplish a systematic collection and conversion of empiric data from offices to a set of educational performance objectives.

Two modifications of the process from that proposed were made. Each modification was made only as it appeared to strengthen the output. Neither

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┌─────────────────────────┐
│ 1.  DESIGN CRITERIA     │
│                         │
│ General Objectives for: │
│                         │
│   ·.Persons             │
│    .Processes           │
│    .Properties          │
│                         │
│ of the system under     │
│ consideration.          │
└─────────────────────────┘
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┌──────────────────────────────┐
│ 2.   PERFORMANCE GOALS       │
│                              │
│ Operational Objectives for:  │
│                              │
│ Persons, expressed in        │
│ terms of specific skills,    │
│ and role expectations;       │
│ Processes and Properties,    │
│ expressed in terms of        │
│ rules and regulations        │
│ (the normative structure     │
│ under consideration)         │
└──────────────────────────────┘
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FEEDBACK CIRCUITRY

ANALOG SYSTEM MODEL·

FOR NOBEL

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┌─────────────────────────┐
│ 3.   INPUTS (OUTPUTS)   │
│                         │
│ Description of:         │
│                         │
│    .Persons             │
│    .Processes           │
│    .Properties          │
│                         │
│ included in the system  │
│ under consideration to  │
│ arrive at goals.        │
└─────────────────────────┘
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```
┌─────────────────────────┐
│ 4.   OUTPUTS (INPUTS)   │
│                         │
│ Performance Measures    │
│ of:      -              │
│                         │
│    .Persons             │
│    .Processes           │
│    .Properties          │
│                         │
│ included in the system  │
│ under consideration.    │
└─────────────────────────┘
```

modification changed in any significant way the scope of work to be performed:
The two modifications were: (1) change of data collection centers from nine
to four and (2) change in form and format of performance goals to be pro-
duced from those of proposal specifications.

1. Change in Number of Data Collection Centers.

In a judgmental sampling design, the following had been originally pro-
posed for data collection:

> Nine regional subcontracts will be arranged with major universities for
> regional data collection according to the nine regional subdivisions
> used for classifying and reporting U. S. Census data. (Lanham, 1967,
> p. 28).

The unwieldiness of training nine teams of data collectors, indeed,
just insuring some uniformity of data collection, checking, and forwarding.
to a central location were noted early. To meet these anticipated diffi-
culties within the limitation of resources, the decision was made to de-
crease the nine regions to four area centers representing four subdivisions
used for classifying and reporting U. S. Census data. As stated in the pro-
posal, our opinion continues to be:

> We do not believe that geography will be a factor producing significant
> differences in performance goals developed from among the nine regions
> . . . . Even though differences in performance goals as between or among
> regions are found, data collected will not necessarily be irrelevant be-
> cause of (a) The increasing mobility of the work force that necessitates
> a blending of preparation for employment over a wide geographic area,
> (b) The increasing concentration toward urban living (as recognized in
> our sample design) (Ibid.)

The change did have in our opinion the following benefits in improving
the results reported here: (a) training dollar per interview case was de-
creased, (b) travel costs of data collection directors and/or central staff
to meet were decreased, (c) area overhead costs were decreased over that
proposed, and (d) central control problems of obtaining area output were
within the resources available.

2. Change in Form and Format of Performance Goals

Originally proposed were specifications for three levels of performance
goals: primary (terminal), interim, and prevocational. Primary goals were
defined as:

> A primary (terminal) performance goal is difficult to define in any ab-
> solute sense; however, it specifies a behavior critical to successful
> entrance and adaptation to an office job. As the behavior expected at
> the end of a business and office educational program . . . , primary
> goals are abstracted directly from tasks performed in an office. (Ibid.,
> p. 12)

Interim goals were defined in the proposal as:

> . . . significant achievement points leading to the attainment of primary
> goals. To develop interim goals, primary goals will have to. be analyzed
> in terms of their prerequisites and difficulty. An ordering of difficulty
> of primary goals will provide some guidance to later sequencing of learn-
> ing activities. In other words, some less difficult primary goals may
> become interim goals for more difficult-to-achieve primary goals. For
> example, "sorts toll tickets by customer account number," an easy-to-
> achieve performance, may be but one important activity leading to a
> more difficult posting performance goal. Such activities as sorting may
> thus form a set in which various dimensions of sorting, classifying,
> comparing, collating, matching, or sequencing form the base for determin-
> ing interim goals necessary for the later achievement of a more diffi-
> cult primary goal of posting as well as other primary goals (Ibid., p.
> 13).

Prevocational goals were defined in the proposal with the following
three operational definitions:

> (a) A foundation skill or role behavior necessary, in the broadest
> sense, for successful participation in work. For example, the galaxy
> of common data and information business forms (purchase orders, sales
> invoices, money and credit devices, and the like) may require perform-
> ance related to input; handling or processing; and storage, retrieval
> or output of data and information as prerequisite to most office learn-
> ings.

> (b) An occupational task which, because of its expected high motiva-
> tional value, can be used as the vehicle for more general learnings.
> For example, we view the tasks of a reservation clerk in an airline or
> travel agency as providing potentially exciting tasks to be learned by
> some students. These tasks can be used as a vehicle to develop oral
> and written communication, computation, and social roles as they relate
> to customers and associates. These tasks may also contribute economic
> behaviors related to transportation as an industry and an individual's
> potential role therein.

> (c) Because of the wide range of individual differences among learners
> in educational institutions, from disadvantaged to talented, the busi-
> ness and office task provides levels of difficulty in which learnings'
> can be geared to differing individual needs and abilities to learn.
> For example, the pragmatic appeal of. the business transaction developed
> at appropriate levels of reading comprehension could provide a pre-
> vocational goal direction for literacy training of. some disadvantaged
> youth and adults (Ibid., p. 13).

The reported goals contained herein approach the definition of primary
goals that have been analyzed into components or steps of performance. To
the extent that steps or a sequence of steps of a task require learning, the
analyzed steps approach our definition of interim goals. Claims are not
made, however, that the steps of performance or combinations thereof repre-
sent identifiable "interim" or "prevocational" goals as purported to be

extracted from terminal behavior expected of workers embarking on an office job. The reasons for disclaiming the oversimplification of prescription have developed during the course of the investigation:

(a) NOBELSystem model assumes a knowledge of the characteristics of learners both in terms of his needs upon entrance into and through a preparation-for-office-job program, an assumption which demands further testing. What we know about individual differences of students, for example, does not admit to generalization of the prevocational competencies a ghetto youth, say, possesses upon entrance into an office preparation program, let alone the wide range of competencies that different students who can be characterized as "ghetto youth" may bring.

(b) The increased consciousness of business to community socio-economic-political responsibility is changing the expectations of employee performance. This increased business responsiveness to community need has been noted throughout the current phase of NOBELS and we predict must and will increase in the immediate future.

(c) Learning theory as pointed out by Bruner (1968) is not necessarily a guide to instructional strategy and in this instance strategy needed to bring about job competency. Many strategies for instruction based on the current output of NOBELS must be formulated and tested prior to determining interim or prevocational specifications.

For the reasons stated, empiric data collected in the current phase of NOBELS cause us not to assume that tasks of job performance are necessarily equal to what a learner needs to learn or the strategy of instruction needed for learning.

C. CHRONOLOGY OF PROCESS

Completion dates of major events help to define four time periods in the current process of NOBELS: 1. planning and instrumentation, 2. pilot testing, 3. principal data collection, and 4. analysis and reporting results.

1. Planning and Instrumentation (July 1, 1968 to January 1, 1969)

Planning involved rescheduling of some proposed events to correspond to contractual differences in funding extended over two fiscal periods rather than one period proposed. The rescheduling involved changing to four areas for data collection, inserting and planning a pilot data collection and testing period in two geographic areas, and preparing a training program for data collection.

a. Sampling Design

Through the feasibility study, a judgmental sampling design had been determined incorporating factors of data collection to yield office task data in proportion to demographic location of office workers as found in available U. S. Bureau of the Census Current Population Reports (1966) and the Census of Population (1960).

The factors thus considered were stated in the proposal as follows:

a. Data will be collected from office work stations filled by 16-through 24-year olds who have less than a baccalaureate degree. This guideline will insure data appropriate to the population of students most likely to profit from business and office education preparation: dropouts, high school graduates, and community college graduates. Studying workers with a minimum of eight years of experience, the guideline leads to data from a hierarchy of office jobs: those requiring a minimum of skill and role performance through those requiring a technical or even supervisory level of performance.

It could be argued that rather than office jobs held according to age, certain dictionary of occupational titles (DOT's) in office clusters should form the base for data collection. However, 1960 census data indicate that clerical and kindred workers, not elsewhere classified (NEC), represent approximately one-third of all office workers (3,016,387/ 9,617,487) and the NEC group is twice as large as the next highest classification of secretaries (3,016,387/1,492;964).

Such a condition suggests an amorphous grouping of job tasks in many office areas. It is our hunch from what is currently known about office jobs that overlapping of tasks exists among clusters of office DOT's (perhaps, as high as three-fourths to four-fifths). In consequence, examining tasks of jobs actually held by 16- to 24-year olds appears to be more desirable than selecting clusters of DOT's.

b. Job stations held by male workers versus female will be examined in a ratio of approximately one to two. This ratio approximates that found to exist in clerical and kindred occupations in 1960.

c. Approximately two-thirds of the job stations examined will be from service public administration; finance, insurance, and real estate; and manufacturing types of businesses. These areas of the standard industrial classification provide approximately two-thirds of all office occupations. Public administration and finance, insurance, and real estate represent those SIC's in which an increase in the number of workers is expected.

d. Approximately seven-ninths of all field data will be collected from standard metropolitan statistical areas of 100,000 or more population as this ratio corresponds to the proportion of all office workers employed in these areas to the total office employed, and the further urbanization of our population is a distinct trend. Four-fifths of the data will be collected from firms employing 100 or more workers for the same reason ('Lanham, 1967, p. 29).

Item 2, the ratio of male to female cases, was later modified at the end of the pilot data to one male for every four or five females. We think now the one to two ratio as proposed was inserted as a typographical error. Certainly the census data more nearly approximates the one to four ratio. Census data also included a large number of federal government postal clerks, substantially a male population. Since the cases finally collected include only one government male postal clerk in the total sample, the decision to

change to a ratio of one male to four or five females appears to be warranted.
The number of cases to meet the judgmental sampling design was proposed to
be from 1000 to 1200 work stations. Actually, in pilot and principal data
collection 1253 cases were received with 1232 usable cases forming the base
of data on which performance goals were drawn and herein reported.

To rationalize the judgmental sample, our defense is the absence of
resources to draw a more sophisticated sample that would be representative
of the national population of office workers. The degree of error from un-
controlled variables of data collection contained herein would not, of
course, be lessened by the most sophisticated of statistical sample design.

b. Instrumentation

Graduate students of the project director had tested a variety of
office tasks data collection procedures throughout the feasibility study.
As a result, an interview process was derived for the current phase of NOBELS
data collection. The process as stated in the proposal, was described in
terms of data to be collected from one work station as follows:

a. Selecting and soliciting company support and selecting employees
   for study.
b. Collecting normative data about each company
c. Collecting normative data about employees studied
d. Obtaining (with supervisory help) support of employees through in-
   dicating purposes and assuring anonymity and an absence of any
   evaluative data to supervision
e. Distributing job task forms and illustrating (if possible in groups)
   completion of one day's listing of job tasks performed. Each task
   will be listed according to source, what was done, when the task
   was completed, and; as possible, contingencies or variable deci-
   sion points.
f. Collecting of job task sheets, possibly work samples, and inter-
   viewing the employee to complete activities within tasks
g. Interviewing a supervisor for normative role information, collec-
   tion of employee handbooks, directives, and the like (Ibid., p. 30).

To satisfy the foregoing, instruments developed contain the following:

a. Institutional normative data such as location, size of company, SIC,
   and number of employees
b. Office employee normative data such as age, sex, highest year of
   education completed, DOT and/or company job classification
c. Form to collect employee task information
d. Employee and supervisor interview protocols
e. Training program content needed for collecting data and writing
   performance goals.

From the beginning of the funded project, about July 1, 1968, approxi-
mately eighty graduate students tested thirty-five variations of interview
protocols, each modification of which was made to yield more nearly a maxi-
mum of task data within constraints of cost effectiveness.

Fundamental to eliciting the basic tasks performed by a worker in this formative stage was a one-day diary completed by the worker. Such a diary did provide concrete statements of tasks performed which were then analyzed. After the pilot data collection period, however, the task diary was eliminated and basic tasks performed were identified by supervisors and employees. The change, though causing a loss of some nuances of overall job performances, did cut data collection time per interview to equal available funds.

With the exception of the above change, data yielded from the two versions are comparable. The final form (Appendix B) provided information to serve the purposes listed in Chart 2.

Chart 2

Summary of Interview Protocol by Page, Source, and Purpose of Information

Page of Interview Protocol	Information Received from	Purpose of Information Collected
1	Supervisor	Data about company such as SIC, size, SMSA
2	Supervisor	Basic tasks performed by employee with weightings of factors of importance
3	Supervisor	Two task-related and two interaction (social role) critical incidents as observed in subject employee and described
4	Employee	Normative data such as age, sex, job classification, education completed
5	Employee	Same as page 2 except completed by employee
6	Employee	Each basic task identified on pages 2 or 5 was analyzed on a separate page 6 according to steps of performance, alternatives, and criteria of successful completion

c. Social Role Behaviors

In the proposal of NOBELS, a commitment was made to define behaviorally the characteristics, attitudes, and traits of workers in terms of the social context of office work. As proposed, four basic steps were involved:

(1) A decision must be made as to what social roles the various persons are expected to perform. Some of these roles might be that of employee, consumer, civic participant, or literate adult.

(2) These roles are then observed in life situations to determine the essential skills, attitudes, and rules which are necessary for successful performance.

(3) Wherever possible, the skills, attitudes, and rules are quantified (enumerations, scores, physical measurements, and to a limited extent, rankings).

(4) These skills, attitudes, and rules become the foundation for development of social-role performance goals of the educational program and its evaluation design (Ibid., p. 16).

To accomplish the foregoing, a critical incident technique (Flanagan, 1954) was adapted and modified in the final interview protocol in which supervisors were asked to describe four observed happenings as follows:

"Regarding job performance of a basic task, would you cite a specific incident when this employee was particularly effective in performing this task?"

"In the worker's task of (recall from task list), you mention that an error could cause (choose one with great or moderate) consequences. Would you cite an example when this employee's performance was a little less than perfect."

"Since assuming this job, there must have been times when this employee did an outstanding job of working with someone else or in handling a situation with a customer or client either face to face or on the phone. Would you cite an example and tell me in what way this employee handled the situation effectively?"

"Now would you give me an incident when this employee was a bit less than 100 percent effective in his contact with other business people--either in the office or with your business contacts?"

Eliciting critical incidents, especially unsuccessful or negative ones, was reported by interviewers to be a difficult task. Supervisors were frequently reluctant to report incidents that reflected unfavorably on their employees. Further, approximately one-fourth of reported behaviors were generalized such as "He's always pleasant on the telephone" rather than specific incidents such as "Last week, President X remarked how helpful he was in collecting information needed for the board meeting." This difficulty of generalized behaviors being reported probably occurred because of a weakness in training interviewers to probe further for the desired specific incident. Despite weaknesses, critical incidents collected, both task related and interaction, have been classified, and provide an output of the current report. The interaction critical incidents were analyzed by faculty at the University of Georgia under the direction of Calhoun (1970) and our reporting of social role performance goals is from their final and more complete report.

d. Training Program Development

Concurrent with the development of instruments was the development of a training program for area project directors and their interviewers. A consultant in interviewing methodology was retained to help train the central staff and develop that portion of the training program.

In cooperation with Detroit Edison Company personnel, six interviews with supervisors and their employees were videotaped as case materials to be used at a central training session.

A manual of NOBELS background information and process then developed was prepared for each interviewer to be used as content of the training session in the pilot study and later as reference.

2. Pilot Testing, January 1 to May 31, 1969

Two contracts for pilot testing were negotiated with the University of California at Los Angeles and the University of Georgia. A part of the schedule of work at the University of Georgia was in turn completed through the University of Tennessee. Completion of major events in the pilot testing were (a) February 17, 1969, training institute of pilot testing area directors and their interviewers; (b) April 20, 1969, pilot data from a minimum of seventy cases in each location completed and reported (c) May 31, 1969, review and modification of process preparatory to principal data collection.

a. Training Institute

The agenda of the training institute held in Detroit February 14-17, 1969, is appended. E. J. Morrison, research coordinator, The Center for Research and Leadership Development in Vocational and Technical Education, Mrs. Sue Smock, consultant on interviewing techniques, and Bruce Tuckman, Rutgers University, were special consultants complementing the project directors staff in conducting the institute.

Six Detroit Edison Company videotaped interviews were the raw case material used in training. The institute was completed with a live interview conducted by two interviewers with a Detroit Edison Company supervisor and an office employee.

Key people from two institutions other than pilot area institutions that were to be used in principal data collection also attended: State University of New York at Albany and University of Minnesota.

b. Pilot Data Collection

The process for data collection in each of the pilot testing areas follows:

(1) By letter or phone, a company was contacted to explain the project and to secure permission to conduct interviews.

(2) The number of interviews (not more than four in one company) and departments involved was determined and dates set for interview of supervisor.

(3) An interview with the supervisor of the employee was conducted.

(4) The employee performing in the job to be studied was then interviewed. The purpose of NOBELS was explained and participation in the project solicited. An explanation of the daily log was given, the forms left, and a future interview date set.

(5) The interviewer returned on the specified date, picked up the daily log, and coded the activities according to the following scheme of basic, secondary, special, advanced, ancillary, and changing. Task classification definitions adapted from Morrison (1967) follows:

(a) <u>Basic</u>. Tasks which constitute the central purpose or mission of the job. These tasks will be described in detail as to conditions, contingencies, steps, and (as possible) success criteria. These tasks must be mentioned as being most important and/or most time consuming by the employee and/or the supervisor in their respective interviews. Performance goals will be written for these tasks.

(b) <u>Secondary</u>. Tasks which are closely related to, but not a part of, the central purpose of the job--not mentioned as most important or most time consuming by employee or employer. These tasks will be described in detail as to conditions, contingencies, steps, and (as possible) success criteria. Performance goals will be written for these tasks.

(c) <u>Special</u>. Tasks that are rarely performed and/or not closely related to the central purposes of the job. These tasks will be described as to conditions and processes, but performance goals will not be written.

(d) <u>Advanced</u>. Tasks that require specialized training and/or job experience for their performance and which are performed by only the most senior workers. These tasks will be described as to conditions and processes, but performance goals will not be written.

(e) <u>Ancillary</u>. Tasks for which very little education is needed. Dusting, preparing coffee; delivering items, clipping ads, or other tasks of this nature are to be included in this category. These tasks are listed but not described.

(f) <u>Changing</u>. Tasks that are known by the employee or supervisor to be in the process of change because of technology or other conditions. These are tasks which will be changed so drastically that a completely new task will result from the change. These tasks are described briefly, along with the change that will occur. Performance goals will not be written for these tasks.

(6) The interviewer talked with the office employee to determine the basic and secondary task performance sequence in steps, alternatives, and criteria for acceptable performance.

(7) As viewed by the employee, the interviewer reported basic and secondary tasks in performance statement form, and through the regional director forwarded completed interviews to the project director.

(8) Letters of thank you were sent to supervisors and employees who participated.

c. Review and Modification

Throughout the pilot study, interviewers provided feedback about the process. Some of the problems were: (1) the time involved in getting to and from designated population centers; (2) the time and cost involved in two visits to each company, sometimes three due to a worker's absence or inability to keep the daily log by the specified date of the second interview; (3) difficulties encountered in capturing from supervisors critical incidents; (4) delineation of tasks and task steps from the log; (5) basic

task not listed on a particular day's log; and (6) time required to write task statements (from 6 to 12 hours for a single interview).

In response to the foregoing, modifications in instruments and process resulted in "Instructions for Collecting Data and Writing Performance Goals," dated June 1969 (Appendix C). The following guides developed from pilot experiences were also agreed to be followed by all area directors in the principal data collection:

1. Because of absenteeism, have a back-up person selected at a company to be interviewed.
2. Review all cases for adequacy and revision prior to mailing to the central office.
3. Request typewritten reports to be sent to central project director.
4. Use the Taxonomy of Office Activities for Business and Office Education as a source to help standardize terminology.
5. Send to the central office by first-class mail 10 to 25 cases in a package at one time.
6. Select not more than one person in the same job classification within a department.
7. Select not more than seven workers from any one company.
8. Interview not more than two workers in the same job classification from any one company.
9. Urge data collectors to support interview cases with job descriptions, work samples, and forms.
10. Check data collectors' work especially to delete personal names and to insure use of action verbs in task statements and steps.
11. Limit basic tasks to not more than six activities for any one worker.
12. Indicate key steps of the sequence of activities making up the task.

3. Principal Data Collection--June 1, 1969 to October 1, 1969

Within the constraints of the project proposal and agreed upon policies and process, area directors were in complete charge of employing interviewers, scheduling interviews, monitoring completed interview forms, and forwarding completed cases to the central office at Wayne State University.

All interview protocols and training materials were supplied centrally. A research assistant from the project directors staff met in each of four areas to support the training programs in the areas.

In addition to the area monitoring, each case received centrally was checked for completeness and apparent agreement with standards. Clarification by area director was requested for cases deviating from agreed upon policy or process. In the foregoing way, all cases from each of the four areas were received in Detroit prior to October 1.

4. Analysis of Data--to March 31, 1970

Developing classification schemes, coding, and keypunching data, obtaining computer printouts of manipulated data, and preparing summaries of office tasks to develop educational performance goals represent major activities in analyzing data.

a.   Developing Classification Schemes

Coding used for keypunching and its verification is described in Appendix D.   Developing classification schemes for tasks, for steps of tasks, and for critical incidents each provided a set of perplexing problems that will be described.

(1) Classification of Tasks.   Attempts were made to classify statements of tasks by verbs of the Taxonomy (Huffman, Brady, et al., 1968). Verbs of the Taxonomy did not provide an adequate clue to represent tasks.

Gradually developed to the time of coding and keypunching was a business functions scheme in which a manufacturing model was used to describe nine major areas of functions and a total of 99 subfunctions as follows:

Chart 3

Two-Digit Code for Classifying Tasks by
Nine Major Functional Areas

First Two-Digit Code	Functional Area
01 - 19	Accounting and Computing
20 - 29	Data Processing
30 - 39	Personnel
40 - 49	Production
50 - 59	Purchasing
60 - 69	Inventory, Shipping, and Receiving
70 - 79	Sales
80 - 89	Communication, Oral and Written
90 - 99	Other Services

In addition to function within area, tasks according to their result, reason or "why" for being performed were also coded. Added as the third and fourth digit task code was the following major classifications of "why" or results:

Chart 4

Two-Digit Code for Classifying Tasks by
Nine Results of Performance

Second Two-Digit Code	Result Classification
01 - 19	Source Documents
20 - 29	Negotiable Instruments and Investments
30 - 39	Correspondence and Mail
40 - 49	Electronic Data Processing
50 - 59	Files
60 - 79	Reports, Tabulations, and Charts
80 - 89	Inventory (Intransit, Warehouse)
90 - 99	People and Ideas

All tasks were coded then, by a four digit number with the first two digits representing a functional area or "what" and the last two digits, the

"why" or object of the task performed. All such tasks thus coded were reviewed and discrepancies discussed and changed by consensus.

Some difficulties were experienced in reaching agreement on the function code: (1) the manufacturing model of functions did not accommodate client related services of government and other service type industries, e.g., hospitals and financial institutions; (2) certain service functions such as typewriting could be classified under two headings, a function such as "personnel" and "communication, oral or written" heading. By arbitrary definition such as, "All typewriting activities will be classified under "communication, oral or written" such difficulties were resolved--at least through the coding and keypunching stages for computer manipulation.

The second two-digit code, the result or "why" classification proved to be less dependable. The confusion between "what" and "why," the similarity of several "what" and "why" classifications, e.g., data processing as a function and data processing punched cards or printouts as a result as well as the multiplicity of some results that could not be defined under one category. The discrepancy rate as between coders was high, and while these discrepancies were discussed and some agreement reached for coding purposes, we do not now rely on the printed results for any major analysis of the "why" of office task performance.

(2) Classification of Steps of Tasks. A listing of 108 verbs was derived on which to code verbs of steps and alternatives of analyzed tasks. The basic list and their synonyms were developed by one person who did the first coding of all verbs. This coding was checked for consistency by one other person. As reported elsewhere, we now recommend a synonym list of 57 verbs (Lanham, Weber, 1970). This recommendation is based on examination of printouts as reported herein.

(3) Classification of Critical Incidents. Classification of 780 critical incidents collected in the pilot period yielded a classification based on the worker in relation to where the incident occurred in the system. It was not until the principal data collection period that task related and interaction incidents were attempted to be collected. These incidents were coded according to the following: Cognitive skills; Checking skills; Communication skills; Psychomotor skills; Work habits; Attitude, Affective, Within; Social skills or graces; Interpreting system; and Instructing, Creating.

The foregoing scheme was used to code critical incidents for computer printouts. We were dissatisfied with the classification, however, because many of the "task related" incidents as recorded were interaction incidents and vice versa. We were also dissatisfied with the scheme for classifying interaction incidents. For both reasons, incidents were by content physically separated according to task related and interaction and a new interaction classification scheme developed as follows:

I. Worker's Perception of His Role Expectations Within the Formal System
    A. The Internal (Closed) System
        1. Relation to Superiors
        2. Relation to Peers
        3. Relation to Subordinates

B. The External (Open) System
    4. Relation to Customers or Clients
    5. Relation to Sales or Service Personnel
    6. Relation to Others (Visitors, Applicants, Donors)
II. Worker's Perception of Relationships Apart from Role Expectations
  A. The Internal (Closed) System ·
    7. Relation to Superiors
    8. Relation to Peers
    9. Relation to Subordinates
  B. The External (Open) System
    10. Relation to Customers or Clients
    .11. Relation to Sales or Service Personnel
    12. Relation to Others (Visitors, Applicants, Donors)

In addition, six descriptors were derived to classify the type of behavior exemplified by each incident. These descriptors follow:

A. Telephone Communication (Did the incident occur on the telephone?)
B. Information (Was information concerning job content or company policies necessary for successful interaction?)
C. Reaction to Stress (Was the worker able to control self and handle unusual or difficult situations?)
.D. Judgment/Decision-Making (Did the worker have to make a decision or use judgment for successful interaction?)
E. Initiative/Creativity (Did the worker use these attributes in interacting?)
F. Social Sensitivity (Did the worker exhibit willingness to help, tact, courtesy, or social graces in dealing with others?)

In turn, the University of Georgia manipulated the newly separated interaction incidents according to the new scheme. While task related incidents were not reclassified or remanipulated after coding for computer printouts, examples of task related incidents are inserted among functional area of performance goals as presented in Chapter IV.

b. Coding, Keypunching, and Printouts

All coded data and code sheets were double checked. Keypunching and verifying were farmed out to skilled technicians. Data processing was planned and implemented in conjunction with a person familiar with the Wayne State University Computer Center and research data manipulation.

c. Preparing Summaries of Office Tasks

Data reduction caused some classification problems. Our first problem was organizing and reporting tasks as they were recorded. Books of task sheets were first organized according to the major "what" classifications previously described.

Because of this handsorting and synthesis process, we decided to modify further the "what" classification to deal with the classification difficulties previously noted, i.e., (a) the difficulty of dealing with government and other tasks of client related services and (b) the dual classification of such services as typing performed as a personnel function.

(a) Our response to the problem of client related services was twofold.
First, a function of "client related services" was added that would include
such tasks related to securities, insurance, education, and hotel and motel.
Second, because of the difficulty experienced we contemplated the differences
that the type of business makes on office task performance. To determine
the difference, task sheets from two service industries, banking and medi-
cal, have been separated and office performance in each is reported sepa-
rately.

(b) Dual classification of interdepartmental services were also re-
considered. The arbitrary rule followed in coding typewriting tasks, "All
tasks in which typewriting is performed will be classified under typewriting
in 'Communication, oral and written' biased coded data toward present office
education curriculum; i.e., typewriting courses are now classified according
to the tool used rather than the function served. In consequence, wherever
an interdepartmental service (except data processing) could be identified
with a function other than a general services function, it was so reclassi-
fied. In some typing, transcription, filing, mailing, and stenographic
tasks performed in "pools" or service departments, such functional identi-
fication was not possible. In data processing our response was different.
Most data processing and computer operations are performed in a service
department. Further, recognition that major changes in office task per-
formance are primarily the result of computer technology caused us to leave
electronic data processing tasks as a separate set of performances whether
or not they could be classified with some other function.

It is from this reclassification that summaries of tasks as generalized
from our data were made and from these the 375 performance goals in the form
reported in Chapter IV evolved.

D. SUMMARY

No claim is made that the report represents a _final_ set of performance
goals. Following a system model, our process has been developed, modi-
fied, and changed to report performance goals within the scope of our data.
In Chapter III, normative data describing the sample, task data, steps of
performance, and critical incidents are presented. Performance goals
derived from the current phase of NOBELS are presented in Chapter IV fol-
lowed in Chapter V by conclusions and recommendations for next steps in
curriculum renewal.

Chapter III

SUMMARY OF NOBELS DATA

A. AREA DATA COLLECTION

A total of 1253 interview cases were collected as the base for preparing performance goals: 243 in the pilot and 1010 in the principal data collection period. A summary of cases collected is contained in Table 2.

TABLE 2

Summary of Interview Cases by Areas

Data Collection Institution	Pilot	Principal	Total
State University of New York at Albany		252	252
University of California at Los Angeles	75	302	377
University of Georgia	86	252	338
University of Minnesota		204	204
Wayne State University	82		82
TOTALS	243	1010	1253

Of the 1253 cases, 20 pilot and 1 principal collection period cases were not included in the final 1232 cases on which analyses were based. Pilot data are included in analyses when they were parallel to principal data collection. Graduate students in the project director's classes collected data in the pilot period but not in the principal data collection period.

Critical incidents collected in the pilot data are reported separately because the questions in the principal data collection instrument differed somewhat from those of the pilot. A listing of basic tasks and weightings as contained in final interviews were not collected in the pilot period.

Data collectors were typically certified business teachers attached to the area data collection institution as graduate students. Twelve interviewers were used in pilot data collection at the University of California and University of Georgia; 66 in the principal data collection at four participating institutions. Each team of data collectors was supervised by one or two research associates at each institution.

The following statements from area final reports characterize the quality of data collectors used.

> The University of Minnesota was very fortunate in the quality of the people it found available and were willing to participate in the NOBELS project. Each of the persons involved had several years of

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business teaching experience as well as a considerable amount of office work experience (Price and Hopkins, 1970, p. 2).

The data collectors did not miss a scheduled assignment during the entire period of the project. The number of weekly interviews ranged from nine in the first week with only one data collector to sixty-three in the tenth week with eight data collectors (Erickson, p. 5).

In theory, it would be wise to limit the interviewing to a rather small corps of workers with good background, adequate maturity, and complete understanding of the purpose, coupled with genuine professional zeal. Several such interviewers were used; however, their interest tended to flag after they had done a dozen or more interviews . . . . Therefore, a larger number of people were used (Tonne, 1969, p. 5).

In reference to Tonne's quote, 38 interviewers were used in the New York data collection compared with 9 in two areas and 11 in one other area during the principal data collection period.

Each area director was responsible for organizing and implementing data collection within his area. Typical of the planning is that of Calhoun (1970, p. 4) in Georgia for principal data collection.

1) A training session was held by the area project director supported by one central project director's staff. In the training session, revised forms and interview techniques were discussed and practiced.

2) Data control forms and procedures such as lists of responsibilities, itinerary, progress report forms, and sample letters to be used in contacting companies were developed and implemented.

3) Initial contact of a company was made and interviews were arranged by an area supervisor or research associate.

4) Typed interviews were received by the project director, checked, and revised to forward to the central office.

B. CASES COLLECTED COMPARED WITH JUDGMENTAL SAMPLING DESIGN

1. Age of Workers

All data proposed were to be from 16- to 24-year olds. In the pilot data collection period, above 24-year olds were agreed to be acceptable cases provided they were judged to be holding an entry job. Twelve such workers in number, or 1 percent of the total, were included in pilot cases. Strict adherence to the 16-24 year age limits was insisted upon in the principal data collection. Classification of interview cases by age is shown in Table 3.

The arithmetic mean age of the 1232 workers was 21.1 years with the modal years of 20 and 21.

TABLE 3

Interview Cases Classified
by Age of Worker

Age	Number	Percent
16	3	—
17	25	2
18	90	7
19	161	13
20	205	17
21	209	17
22	198	16
23	153	12
24+	188	15
TOTALS	1232	99

To the extent that our sample of cases represents the marketplace for office jobs, the low proportion of 18 years or younger workers indicates that office work does not seem to be a fertile market for less than the high school graduate.

The basic tasks of 1232 workers were classified according to nine functional areas of performance from 4548 detailed basic task sheets (page 6s of the interview protocol). Plotted according to age (Table 4), the mean age of performers of sales and client related services as well as communications--stenography, typewriting, and oral (M of both groups was 20.9 years) was just slightly under the mean age of all workers (M = 21.1 years).

Those tasks classified as other services, principally filing and mailing tasks, provided the lowest mean age of 20.6 years. Mean age of performers of production tasks was highest (21.8 years) followed by purchasing (M = 21.5), electronic data processing (M = 21.4), and personnel (M = 21.3).

Assuming a tendency for simpler tasks to be performed by younger workers, curriculum builders might well consider inclusion of filing and mailing task performances as (1) foundation learnings leading to more complex office task performances and (2) most probable first office task assignments for inexperienced entry workers. The assumption may not hold however. For example, because of previously inadequate secondary school curriculum for preparing students to perform data processing tasks, most training in this area has been on-the-job and would naturally be performed today by office workers with a mean age higher than beginning workers.

To avoid future misunderstanding, the functional classification of accounting and computing might well have been relabeled numerical data handling, other than electronic data processing, or clerical functions performed in an accounting department. The number of tasks collected requiring application of "principles of accounting" as taught in schools or "double entry bookkeeping" as a system of financial transaction analyses was minimal.

Following the rule that all typewriting activities were to be coded as "communication--stenography, typewriting, or oral," this area of service tasks leads all other functions, totaling 1722 in number or 38 percent of

TABLE 4

Functional Classification of 4548 Office Tasks
by Age Groups and by Number of Workers

Function of Task	16-18		19-21		22-24+		Totals	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Accounting and Computing	92	20	504	23	470	24	1066	23
Electronic Data Processing	15	3	121	6	142	7	278	6
Personnel	14	3	91	4	108	6	213	5
Production	0	–	14	1	20	1	34	1
Purchasing	5	1	50	2	60	3	115	3
Shipping and Receiving	11	3	32	1	50	3	93	2
Sales and Client Related	12	3	67	3	54	3	133	3
Communication--Stenography, Typewriting, Oral	183	39	823	38	716	37	1722	38
Other Services (mail, files, etc.)	133	29	446	21	315	16	894	20
TOTALS	465	101	2148	99	1935	99	4548	101

all coded tasks. Compared with the later hand reclassification of task
sheets (as described in Chapter II) in which these kinds of tasks were at-
tached to other than service functions such as sales or personnel, the area
of communication--stenography, typewriting, and oral later accounted for 945
task sheets in number or 20.7 percent of all reclassified tasks.

2. Educational Background

None of the 1232 workers in cases submitted possessed a baccalaureate
degree. To determine this fact, the interviewee responded to two questions:

23. Highest School Grade Completed: K-8   9   10   11   12   13   14   15   16+

24. Bachelor's Degree: Yes   No

The seven workers listed in Table 5 as completing 16 years of education
without holding a baccalaureate degree is not in error. In each of these
cases, interviewers rechecked to insure that the education was of "less than
baccalaureate degree" as specified in the proposal. While the highest grade
completed was not recorded for 19 workers, each interviewer had checked that
the worker did not have a baccalaureate degree.

Even more clearly than the tables on age, Table 5 shows the
present tendency of employers to hire at least high school graduates for of-
fice jobs. Fewer than 4 percent of the 1232 office workers had completed
less than the twelfth grade in school. At the higher grade levels, however,
those beyond the community college level account for approximately 5 percent
of the workers.

3. Job Classification

While job classification was not a factor in the sample design, a modi-
fication of the Administrative Management Society office job clusters was

used to classify 1232 workers. Table 6 shows numbers and percents of workers
in each classification and the mean age of workers in each cluster.

TABLE 5

Highest Grade Completed by 1232 Office Workers

Highest Grade Completed	Number	Percent
Ten	9	0.7
Eleven	33	2.7
Twelve	672	54.5
Thirteen	247	20.1
Fourteen	191	15.5
Fifteen	54	4.4
Sixteen	7	0.5
Grade Not Recorded	19	1.5
TOTALS	1232	99.9

TABLE 6

Number, Percent, and Mean Age of 1232 Office Workers (16-24
Years of Age) by Job Classification Clusters

Job Classification Clusters	Number	Percent	Mean Age
Mail Clerk and Messenger	29	2.3	20.1
File Clerk	41	3.3	20.5
Clerk Typist	171	13.9	20.6
General Clerk	135	11.0	20.9
Telephone Operator and Receptionist	48	3.9	21.1
Stenographer and Secretary	285	23.1	21.1
Office Machine Operator	32	2.6	21.3
Public Contact Operator	77	6.3	21.4
Accounting Clerk	251	20.4	21.4
Material Support	35	2.8	21.7
Data Processing Operator	128	10.4	22.4
TOTALS	1232	100.0	21.1

The findings reported about mean age in terms of classification of tasks
by functions (Table 4) seem to hold for job classification clusters. The
mean age of mail clerks, messengers, file clerks, clerk-typists, and general
clerks were below the mean of all workers (M = 21.1) suggesting the simpler
job tasks to be found in these clusters. That stenographers and secretaries,
as revealed in Table 6, are older than clerk typists would be expected be-
cause of the usual added skill of shorthand required of stenographers as
well as because of the added maturity expected of some high level secretaries
approaching an administrative assistant level of classification. Although
the general clerk cluster was slightly below the mean, further analysis
showed a bimodal distribution according to age with a low and a high mode.
As an observation of the authors, some general clerks would appear to be
assigned a set of simple entry level tasks while others are assigned higher
level performances. Of course, that some low talented individuals continue
performance of nonskillful tasks regardless of age must also be considered.

When the interview cases were grouped according to departmental assignment and job cluster (Table 7) accounting clerk, stenographer-secretary, typist clerk, and the general clerk were represented in each department. Accounting, credit; general, indeterminate; and services were the three departments that had interview cases appearing in each of the eleven job classification clusters.

TABLE 7

1232 Interview Cases Grouped by Job Classification
Clusters and Departmental Assignments

1 - Accounting, Credit	6 - Receiving and Shipping
2 - Data Processing	7 - Sales
3 - Personnel	8 - Services
4 - Production	9 - General or Indeterminate
5 - Purchasing	

| JOB CLASSIFI-CATION CLUSTER | DEPARTMENTS | | | | | | | | | TOTALS | |
	1	2	3	4	5	6	7	8	9	No.	Percent
Stenographer, Secretary	30	3	37	15	8	1	27	52	112	285	23
Accounting Clerk	181	4	4	4	3	1	10	10	34	251	20
Typist Clerk	22	2	18	7	10	1	13	44	54	171	14
General Clerk	21	3	11	7	7	2	12	19	53	135	11
Data Processing Operator	21	87	1	1	0	1	4	3	10	128	10
Public Contact Operator	22	0	6	1	1	0	7	19	21	77	6
Telephone Operator, Receptionist	5	1	7	0	0	1	0	13	21	48	4
File Clerk	5	1	2	0	1	0	5	15	12	41	3
Material Support	5	1	0	1	3	6	5	5	9	35	3
Office Machine Operator	11	3	0	0	0	0	2	11	5	32	3
Mail Clerk, Messenger	3	1	0	0	0	0	0	20	5	29	2
TOTALS	326	106	86	36	33	13	85	211	336	1232	99

The curriculum implications of the foregoing discussion are not clearly delineated. Should the curriculum be based on the assumption of mass education serving a maximum of youth with a single series of learning experiences? If so, preparation for office jobs should include a range of typical job tasks that represent the work performed in many functional departments. This shot gun type blast curriculum arrangement seems to be feasible considering present public school institutional arrangements. Still, office curriculum must provide for the heuristics or the "learning to learn" behaviors that must be available for the beginning worker to gain the breadth and depth of performance in the specific job and specific department in which the beginner later finds himself.

We do not rule out the further development of autoinstructional technology that will permit a zeroing in in-depth on a limited set of a specific department's performances, such as performances in the personnel department. Ideally, the breadth of interdepartmental performances and the interrelatedness of, say, the personnel department's performances to those of each other department and thus the total enterprise may best be learned through in-depth instruction of actions to be performed in the personnel department, as well as every other department. Still curriculum developers of 1970 should probably develop in an ascending spiral of difficulty--from simple to complex--performances expected in a variety of functional departmental business units. To accomplish the foregoing spiral of simple to complex learnings, further study to arrange the current performance goals according to levels of difficulty will be required. In the meantime, professional judgments will need to be used to accomplish the present desired learning sequence, the result in expected learning behaviors then to be classroom tested.

4. Sex and Departments

Table 8 is grouped according to sex of the workers interviewed and the department to which they were attached. By ratio of males, 177 of 1232, is equal to 14 percent of the sample, or a ratio of approximately 1 male to 7 females rather than the proposed 1 to 4 or 1 to 5. Since interviewers were attempting to provide one male case for every two female cases prior to modification of the ratio as described in Chapter II, we are unable to account for the discrepancy.

TABLE 8

1232 Interview Cases Grouped by Sex and
Departments to Which Workers
Were Assigned

DEPARTMENT	MALE		FEMALE	
	No.	Percent	No.	Percent
Accounting, Credit	52	29	274	26
Data Processing	27	15	79	8
Personnel	3	2	83	8
Production	8	5	28	3
Purchasing	3	2	30	3
Receiving and Shipping	4	2	9	1
Sales	11	6	74	7
Services	35	20	176	17
General, Indeterminate	34	19	302	28
TOTALS	177	100	1055	101

5. Standard Industrial Classification

By design, approximately two-thirds of the job stations examined were to be from SICs of service; public administration; finance, insurance, and real estate; and manufacturing types of businesses. In Table 9, the 1232 cases are arranged according to these four SICs plus agriculture, transportation, and wholesale and retail trade types of businesses. Of the 1232

cases, 1007 in number, or 81.7 percent, were accounted for in the designated four SICs, a 15 percent higher bias than proposed.

TABLE 9

SICs of 1232 Interview Cases

SIC	Number	Percent
Service	157	12.7
Public Administration	220	17.9
Finance, Insurance, Real Estate	253	20.5
Manufacturing	377	30.6
Agriculture	28	2.3
Transportation	97	7.9
Wholesale and Retail Trade	100	8.1
TOTALS	1232	100.0

What differences in preparation should the type of business make in a learnings program? Pondering the above question caused us to isolate the basic task sheets from two service type industries: banking and medical. The educational performance goals from these are presented separately in Chapter IV. We are not sure though that curriculum implications are clear. In a town dominated by one industry, the peculiar jargon and processes that attach to the industry could be taught in school. Yet, in large metropolitan areas having many different SIC businesses the potential of formal teaching of all technical jargon is not feasible. Perhaps the most feasible direction without further evidence is to include in learnings programs job tasks representing industries which by census data employ the most office workers, now and in the future. In addition to the four SICs accounting for two-thirds of office workers (service; public administration; finance, insurance, and real estate; and manufacturing) it will be remembered that wholesale and retail trade SIC is expected to increase by 1 million clerical and kindred workers from 1960 to 1975 (Table 1, p. 4).

Again, as in the discussion of job classifications and departmental assignments of workers (Table 7), the "learning to learn" concept would seem to be an office curriculum ingredient that must be included. Office curriculum in public education can not usually anticipate specific department or type of business in which trainees will later obtain employment. Much of the breadth and depth of behaviors necessary for successful job performance will have to be learned on the job. And in this job learning, the heuristics of learning would seem to be necessary because of the unevenness of business operated on-the-job-training programs.

6. Standard Metropolitan Statistical Areas

Geographic size in which businesses were located was proposed as a factor in the judgmental sampling design. A ratio of seven-ninths of all field data were to be collected from SMSAs of 100,000 or more population. Of the 1232 cases, 1109 cases in number, or 90 percent, were from SMSAs of 100,000 or more, again a sample bias toward metropolitan areas. In terms

of the future office, the sample bias is toward the trend of urbanization.
In plotting SMSAs according to departmental affiliations, as we have done in
Table 10, we find little difference in affiliation as between those cases
from SMSAs of over 100,000 and those cases from less than 100,000 geographic
areas.

TABLE 10

1232 Interview Cases Grouped by Department Affiliation in
Large (+100,000) and Small (-100,000) Population Areas

DEPARTMENT	+100,000		-100,000	
	No.	Percent	No.	Percent
Accounting, Credit	287	26	39	32
Data Processing	96	9	10	8
Personnel	74	7	12	10
Production	30	3	6	5
Purchasing	29	3	4	3
Receiving, Shipping	10	1	3	2
Sales	80	7	5	4
Services	197	18	14	11
General, Indeterminate	306	28	30	24
TOTALS	1109	102	123	99

7. Size of Companies

Four-fifths of the cases were proposed from companies employing 100 or
more workers. Of 1232 workers, 1003 cases in number, or 81 percent, repre-
sented the larger companies so defined (Table 11). As plotted according to
departmental affiliations of workers, differences noted are those that would
be expected. Double the percent of workers in small companies than in large
were "general or indeterminant" suggesting a less formal departmental organi-
zation in the small company. Also suggested is the broader classification
of workers toward the "Jack-of-all-trades" kind of office worker in the
smaller companies. That the large companies have double the rate of workers
in data processing and service departments (such as central duplicating or
files) than in small is expected.

8. Adequacy of the Sample Cases

Claims to a statistically drawn sample of cases have not been made.
Discrepancies from the judgmental design have tended toward greater re-
presentation of the large company in the urban setting. That a statisti-
cally drawn sample would have yielded dramatically different results utilizing
our instruments is questionable. At least one area director commented on
the redundancy of the data collected:

A considerable number of the more thoughtful interviewers suggested
that after a few cases, they were not securing essentially new data.
Analysis of the interview forms by the investigator and others who
studied the write ups gives the same impression (Tonne, 1969).

TABLE 11

1232 Interview Cases Grouped by Department Affiliation in Large
(100 plus employees) and Small (less than 100) Companies

DEPARTMENT	NUMBER AND PERCENT OF EMPLOYEES			
	+100		-100	
	No.	Percent	No.	Percent
Accounting, Credit	272	27	54	24
Data Processing	95	10	11	5
Personnel	78	8	8	4
Production	33	3	3	1
Purchasing	27	3	6	3
Receiving and Shipping	12	1	1	-
Sales	69	7	16	7
Services	190	19	21	9
General, Indeterminate	227	23	109	48
TOTALS	1003	101	229	101

Yet, some evidence would indicate that data collected do not repre-
sent a saturation of all potential office tasks performed within a par-
ticular type of business. For example, of 186 basic tasks of hospital and
medical service workers as separated, none represents purchasing, drug dis-
pensing, inventory, or food-handling type tasks. The sample was either too
small or the selection of medical office workers by personnel supervisors
was biased toward office workers performing client related services.

As an opinion, a more serious criticism of data reported can be
leveled at the limitations of the method. Our study of the basic tasks
of office jobs as identified by supervisors and employees does not get at
the depth of performance we might like. Since workers were not observed
but interviewed, information about criteria of successful task performance
as collected is too generalized to be educationally meaningful. We are un-
able to prepare criteria of successful task performance, in other words, from
interviewee's definitions of success.

Some would argue that narrowing the study to a particular job classi-
fication would permit the analysis in depth. Most of those participating
in NOBELS could see a multitude of additional studies to secure different
analyses of office performances. Representative of the view is the follow-
ing from one area director:

In any study of the future, it may be found wise to reduce the
number of cases and study them in much more detail. The usual inter-
view with an employee took around an hour and a half and the time for
write up somewhat longer. It would be difficult to get more time from
supervisors and employees; in fact, the amount of time spent on the job
was probably caused by the awareness of need for limitations of time.
Nevertheless, consideration should be given to devoting more time to
each interview even at the expense of securing fewer interviews.
(Tonne, 1969).

Within the limitations cited, the data represents a first systematic collection of office performances representing the basic tasks of 1232 office workers located in four regions of the country. That other types of study will contribute added perceptions or strengthen the current outputs is to be expected. Yet NOBELS does provide a necessary foundation of substantial data to which others can add.

C. CRITICAL REQUIREMENTS OF OFFICE WORK

1. The Worker in Relation to His System

In the pilot data collection, 780 incidents of employee behavior were captured from supervisors. A useful classification scheme was derived from viewing the employee in relation to the business system in which he operated (Table 12). In each of the major categories, the supervisor was the source of the reported incident; "goodness" or "badness" of the incident was often colored by the specific supervisor's interpretation of a sometimes informal system. An attempt was made in pilot incidents in which coping behavior, defined as performance under stress, was tabulated (45 percent of the total were so classified).

TABLE 12

Pilot Classification of Critical Incidents by Worker Requirements
in Relation to the Business System

	Number	Percent	No. of Coping
Skills and System Requirements			
Cognitive	115	14.7	19
Checking	93	11.9	5
Communication	67	8.6	44
Psychomotor	34	4.4	—
Self and System Demands			
Work Habits	56	7.2	26
Attitudinal, Affective, Within	128	16.4	86
Social Skills or Graces	94	12.1	94
Worker Interprets the System	91	11.7	42
Worker Instructs in, Describes, or Manages the System	46	5.9	24
Worker Modifies, Innovates, Creates, or Changes the System	56	7.2	8
TOTALS	780	100.1	348

"Coping" can take many forms. Examples of critical incidents involving various "coping" situations follows:

Coping with the system--trouble shooting, outside world:
"Lost temper with policyholder and got into an argument. Required that supervisor personally visit customer to regain his goodwill."

"A client was in need of information that wasn't immediately available. She was able to satisfactorily delay him a few days until supervisor was able to compile the needed material."

Coping with the system--noise prevention, outside world.
"Tries to shield him from obnoxious and distasteful buyers. One man thinks from her treatment of him that the employer's attitude was a result of his day rather than the person individually."

"Became impatient and short-tempered with deliveryman who was argumentative regarding which office supplies were to be delivered."

Coping with the system--noise prevention, within system:
"At a rush period in another department, was quite ungracious about helping with the job, even though she receives extra help when her work piles up."

"North Central Report--delayed because teachers did not get their reports in on time. She secured material at the last minute. Completed report and delivered it personally to superintendent."

"She did all the filing in the office for a week because the other girls who also do filing were feeling ill and would rather type than file."

Coping with the system--trouble shooting, within system:
"She 'saved the day' when design calculations were lost in storage (5 year old job). She was able to reconstruct and find them with ease."

"There was a situation where changes had been made in previous travel arrangements for an engineer. All people concerned had not been informed. She was able to straighten the travel situation out without upsetting anyone. This problem had been created by another employee."

The awkwardness of the scheme derived from incidents classifiable in more than one area. Arbitrarily, the scheme was considered hierarchial. For example, that a worker could not find and issue medical documents from a library because he did not possess the technical vocabulary needed was classified as a cognitive skill, the first level of the scheme; that a librarian changed the shelving of pamphlets to make high-frequency called-for materials more readily accessible does exhibit a high level of cognitive skill, but was classified under "Worker modifies, innovates, creates, or changes the system." The scheme used in pilot classification also did not adequately discriminate as between social interaction and task related skill.

2. Task Related Incidents

In the principal data cases, 1738 task related incidents were reported. Four functional areas accounted for over three-fourths of the incidents (Table 13): communication, typing, stenography (35.8 percent); accounting

(26.9 percent); other services (14.0 percent); and electronic data processing (8.7 percent).

TABLE 13

Classification of 1738 Task Related Critical Incidents
Grouped According to Functional Area

| FUNCTIONAL AREA | CRITICAL INCIDENTS | | | | |
	Number Positive	Number Negative	Ratio (P÷N)	Total (P+N)	Percent of Total
Accounting	197	271	.7	468	26.9
Electronic Data Processing	64	88	.7	152	8.7
Personnel	37	40	.9	77	4.4
Production	12	15	.8	27	1.6
Purchasing	18	22	.8	40	2.3
Shipping and Receiving	11	21	.5	32	1.8
Sales	35	41	.9	76	4.4
Communication, Typing, Stenography	263	359	.7	622	35.8
Other Services	98	146	.7	244	14.0
TOTALS	735	1003	.7	1738	99.9

The ratios of positive to negative critical incidents reported in the data were .7 (positive divided by negative) in each of the above areas. The ratio expected was 1.0 since supervisors were asked to provide one positive and one negative incident.

In the categories of the classification of task related critical incidents checking skills were involved in 668 incidents, or 38.4 percent of the 1738 task related incidents. The categories and their percent of occurrence to the total are shown in Table 14.

TABLE 14

Task Related Critical Incidents
by Categories

Category	No.	Percent
Checking	668	38.4
Interpreting System	241	13.9
Other Cognitive	200	11.5
Work Habits	170	9.8
Psychomotor Skills	165	9.5
Affective-Within	129	7.4
Communication Skills	75	4.3
Instructing, Creating	54	3.1
Social Skills	36	2.1

3. "Fundamentals" of Office Education

Primarily from further analysis of task-related critical incidents according to their ratio of positive to negative incidents, but also from

analysis of tasks and their steps, we believe we have formulated a tentative
list of universals, i.e., behaviors that are fundamental to the successful
performance of most office tasks.

In discussing task related critical incidents, the positive/negative
ratio of incidents was mentioned. Interviewers had asked supervisors for
one positive (successful) incident for each negative (less than successful)
incident performed by the subject office worker. The ratio of positive to
negative incidents expected was one to one (1.0). Because of the reluc-
tance of supervisors to provide negative incidents as reported, the ratio,
of positive to negative might have been expected to be higher than one
positive incident for each negative incident elicited. The ratio for each
category of incident actually recorded follows:

TABLE 15

Ratio of Positive to Negative Task- Related Critical Incidents by Categories

Category	Ratio of P/N
Other Cognitive	1.6
Checking Skills	.3
Communication Skills	.4
Psychomotor Skills	1.6
Work Habits	.9
Affective, Within	.8
Social Skills	1.0
Interpreting the System	1.4
Instructing, Creating, Modifying	12.5
RATIO OF TOTAL (N=1738)	.7

The differences in ratios from what was expected, especially checking
(.3); communication (.4); and instructing, creating, and modifying (12.5);
caused us to formulate the following two fundamentals:

Accuracy as a desired generalized behavior of office workers is a func-
tion of checking for potential error and of correcting error.

Inadequate communication skills, both oral and written, are a frequent
source of unsuccessful office performance. Communication skills ade-
quate to instruct others or to modify office actions are sought by
supervisors.

The frequency of tasks related to numerical data combined with the ratio
of communication critical incidents cause us to further propose:

Organizing and classifying of both numerical and verbal data--all sym-
bolic data--are even more necessary behaviors in our emerging electronic
technology than ever before.

While the educational implications of the foregoing fundamentals need further study, we believe it is not too early for every practitioner to increase emphasis of these "fundamentals" in current office education programs.

4. Social Interaction Requirements

In pilot data as well as first printouts of interaction critical incidents, we were dissatisfied with the classification scheme. A new scheme as described in Chapter II resulted. Also, the incidents purportedly included as interaction were frequently task related or vice versa. The critical incidents were each separately recorded on cards, hand sorted according to their interaction components, and reclassified by staff at the University of Georgia (Calhoun, 1970).

In analyzing the distribution of interaction incidents (Table 16) the greatest concentration was found to cover the worker's perception of role expectations within the formal company system in relations with clients.

TABLE 16.

Distribution of 829 Usable Social Interaction Incidents

	Information		Reaction to Stress		Judgment/ Decision Making		Initiative, Creativity		Social Sensitivity		Total	Percent
	+[a]	−	+	−	+	−	+	−	+	−		
I. Formal System												
A. Internal												
1. Superior	19	6	4	21	11	24	13	4	26	24	152	18
2. Peers	30	5	1	6	4	5	6	2	10	20	89	11
3. Subordinates	8	1	0	4	0	3	1	2	4	5	28	3
B. External												
4. Customers	51	12	9	21	22	14	24	3	42	26	224	27
5. Salesmen	5	0	1	0	0	0	2	2	6	3	19	2
6. Others	6	4	4	3	7	4	8	1	15	3	55	7
II. Informal System												
A. Internal												
7. Superiors	1	1	4	3	1	11	7	1	8	8	45	5
8. Peers	4	0	4	13	7	22	9	0	69	45	173	21
9. Subordinates	1	0	1	0	0	0	1	0	1	3	7	1
B. External												
10. Customers	0	0	2	2	2	0	1	0	7	0	14	2
11. Salesmen	0	0	0	0	0	1	0	0	0	1	2	1
12. Others	0	0	3	0	0	7	3	0	7	1	21	2
TOTALS	125	29	33	73	54	91	75	15	195	139	829	
PERCENT	15	3	4	9	6	11	9	2	24	17		100

[a]+designates effective behaviors; − designates ineffective behaviors.

This category contained 224 incidents in number or 27 percent of the total. The second greatest concentration of total incidents was found to cover the worker's perception of relationships apart from role expectations in relations with peers. This category contained 173 in number or 21 percent

of the incidents. Relations with superiors ranked third in total number of incidents with 152 in number or 18 percent of the total. Within the formal system, most of the social interaction incidents occurred with customers and superiors; within the informal system, most of the incidents occurred with peers.

A majority of office social interaction incidents reported involves a worker's use of social sensitivity in dealing with situations involving customers or clients, their superiors, and their peers.

Examples of the specific incidents to follow illustrate kinds of educational interaction goals identified in the University of Georgia study.

Category 1--Relation to Superiors

a. Given a telephone call from a top management official to a supervisor who does not wish to be disturbed, the employee exhibits good judgment (1) identifies the name of the official as of major importance and (2) transfers the call immediately to the supervisor.

b. Given criticism concerning the performance of his work, the employee remains calm and controls emotions by (1) discussing the problem with the supervisor, (2) listening carefully and patiently to comments of supervisor, (3) refraining from taking out his anger on other employees, and (4) correcting any errors that have been made.

Category 2--Relation to Peers

a. Given a situation involving work with her peers in person or over the telephone, the worker exhibits patience, understanding, and tact by (1) using a pleasant voice, (2) explaining step-by-step procedures, (3) working through a few problem-type situations, and (4) correcting errors by further explanation or handling the job herself.

b. Given the responsibility for training another employee, the worker demonstrates ability and willingness to train the worker by (1) communicating knowledge and understanding of the job, (2) exhibiting a positive and enthusiastic attitude, (3) maintaining her own workload while training worker, (4) not imposing own standards of performance on other worker, and (5) being patient with and interested in other people.

Category 3--Relation to Subordinates

a. Given an employee under pressure to get his work out, he keeps office operating smoothly by (1) refraining from giving orders without stating reasons for them and (2) tactfully helping others who are having difficulty.

Category 4--Relation to Customers or Clients

a. Given a client seeking specific information which the worker is not able to deliver immediately, the worker makes a decision based on knowledge of the job and on the client's particular situation. (1) If the worker needs the information immediately, the worker must give him what he thinks

his supervisor would approve and accepts the responsibility as well as the possibility for having made the wrong decision. If the worker does not require the information immediately, the worker tells him when he can have the information for him.

b. Given a customer who expresses discontent with the company's statement of her account (she believes the company has an incorrect balance), the worker patiently, courteously, and tactfully (1) determines that the customer does not understand the company's procedure in processing statements and (2) explains the procedure in such a way that the customer understands and accepts statement amounts.

c. Given a patient who comes in without an appointment, crying and hysterical, demanding to see a particular doctor who is unavailable, the worker patiently, sympathetically, and calmly talks with the customer (1) assuring the customer that she will receive the attention she needs and calming her emotional outbursts and (2) convincing the customer that the doctor she wants to see is not available and suggesting that she see someone else who might help her or that she see the person she wants to see now at a later time.

Category 5--Relation to Sales or Service Personnel

a. Given a request to telephone suppliers to order supplies for the company, the worker demonstrates initiative by (1) obtaining firm delivery date from the supplier and (2) securing all vital information concerning discounts and quantity purchases that will allow the company to save money.

b. Given a telephone inquiry from a vendor who has not received payments from the company (because of a backlog of work), the worker pacifies the vendor by (1) finding the cause of the late payment, (2) offering a truthful explanation to the vendor, and (3) assuring vendor that payment will be made immediately.

Category 6--Relation to Others

a. Given a call requesting confidential information on company employees, the worker resists pressure from the caller by following company policy in divulging information.

b. Given job applicants who are nervous about being processed and tested, the worker puts them at ease by (1) giving them helpful instructions about completing the forms, (2) pointing out problem areas on application blanks or test forms, and (3) exhibiting a friendly and personal interest in each applicant.

Category 7--Relation to Superiors

a. Given a superior who loses his composure in reprimanding or demanding work from the employee, the employee remains calm by (1) displaying no visible reaction to rudeness and (2) listening patiently to what is being said, thereby pacifying the superior.

b. Given procedures for obtaining information to be given to a superior (which procedures do not work smoothly), the employee is creative by suggesting new methods that may be tried to obtain the information.

Category 8--Relation to Peers

a. Given a typed report returned to the typist by reviewer who had proofed it, indicating errors to be corrected, the typist demonstrates the ability to accept constructive criticism by (1) recognizing and accepting fact that the reviewer is responsible for the report, including its accuracy, (2) listening attentively to explanation of errors by reviewer, without making excuses for errors, and (3) making necessary corrections on the report.

b. Given job tasks involving the handling of confidential information regarding employees and company business, the employee exhibits dependability by (1) tactfully refusing to discuss confidential information, both at work and off the job, (2) keeping confidential materials filed in the proper place, and (3) discussing confidential information only with persons authorized by the supervisor.

Category 9--Relation to Subordinates

a. Given a new employee who needs additional instruction and demonstration, the worker uses his knowledge by (1) explaining content of the job to the new worker and (2) describing the relationship of the employee's job to other jobs in the department.

b. Given a new employee, the worker demonstrates courtesy by introducing her to her co-workers and inviting new worker to join her for coffee.

Category 10--Relation to Customers or Clients

a. Given an emergency call, during supervisor's absence, requiring immediate action, the worker remains calm and obtains all necessary information to give caller by consulting sources available.

b. Given a customer who becomes upset and loses control of his emotions, the worker calms the customer by talking quietly with her and offering help in finding a solution to the problem.

Category 11--Relation to Sales or Service Personnel

a. Given a misunderstanding which occurs during communication with repairmen or salesmen, the worker controls the situation by refraining from showing any irritation or by resorting to namecalling.

Category 12--Relation to Others

a. Given an outsider who creates a disturbance on company premises, the worker handles the situation by calling necessary personnel to handle the incident.

b. Given an emergency telephone, call for an employee of the company, the worker demonstrates initiative by obtaining all pertinent information from caller and locating employee as quickly as possible.

c. Given visitors touring the company, the worker builds a good image for the firm by courteously answering questions and offering to help them in any way she can.

D. SUPERVISOR AND EMPLOYEE IDENTIFICATION AND WEIGHTINGS OF BASIC TASKS

1. Functional Areas of Tasks Identified

Supervisors identified 3646 basic tasks in 1009 interview cases analyzed from the principal data collection period (page 2 of interview protocol, Appendix B). Employees identified a slightly larger number of 3763 in a parallel listing (page 5 of interview protocol). It will be remembered that the identification of basic tasks was not requested in the pilot data collection. According to functional areas, basic tasks as classified by function are displayed in Table 17.

TABLE 17

Basic Tasks According to Functional Areas as
Identified by Supervisors and Employees

	SUPERVISOR		EMPLOYEE	
	No.	Percent	No.	Percent
Accounting, Computing	832	22.8	870	23.1
Electronic Data Processing	222	6.1	242	6.4
Personnel	174	4.8	176	4.7
Production	35	1.0	33	.9
Purchasing	94	2.6	93	2.5
Shipping and Receiving	77	2.1	90	2.4
Sales and Client Related	103	2.8	113	3.
Stenographic and Other Communications	1349	37.0	1368	36.3
Other Services (mail, files, etc.)	760	20.8	778	20.7
TOTALS	3646	100.0	3763	100.0

As one would expect, the basic tasks as identified by supervisors and employees are similar. We suspect some of the homogeneity to have been aided by the interviewers who, after talking with supervisors, would attempt to reconcile with the employee the differences reported. At least the exact correspondence of both the tasks listed and their weights of importance as received from some interviewers cause us to think that interviewer suggestions may have influenced the results.

We mention again that "accounting and computing" as a functional area might better have been called "numerical data handling" to avoid misunderstanding that the tasks so classified do, to any great extent, represent educational tasks currently learned in bookkeeping or accounting courses. Principles of accounting and accounting as a system of analysis to be learned may need to be rationalized on other than their necessity in performing tasks so labeled.

2. Weightings of Importance of Basic Tasks

Both supervisors and employers weighed each basic task identified according to these elements of importance as described in the Instructions for Collecting Data and Writing Performance Statements (Appendix E).

Consequences

Question: "How would you evaluate the effect of an employee's error or the employee's failure to perform this task or a portion of it related to company financial loss or effects on people inside or outside your company? Would you say the error would bear:

Answer
Choices:

Great consequences	1
Moderate consequences	2
Little if any consequences	3

Now ask additional basic tasks and A for each task as it is mentioned. When all tasks and all A's are listed, proceed with B, C, D, and E as follows:

Changing

Question: "Of all the tasks listed, do you see any of these tasks changing in the near future?" (Share what you have written on basic tasks with the supervisor to permit him to answer more easily on B-E)

Answer
Choices: Yes_1_   No_2_

If the supervisor says a task is changing, ask "How changing?" and fill in answer at the bottom of page 2. DO NOT PROBE FOR EXISTING TASKS THAT SUPERVISOR SAYS ARE CHANGING. No data for performance statements (page 6) will be written up for old tasks that the supervisor says will shortly cease to exist.

Frequency

Question: "Of all tasks listed, how would you evaluate each as to frequency of performance."

Answer
Choices:

Is this among the tasks most frequently performed?	1
Is this among tasks performed with medium frequency?	2
Is this infrequently performed--once in a long while?	3

Fill in C for all basic task information given. D is asked for all tasks listed after C is completed.

Time Spent

Question: "What percent of this employee's total time does she spend on (state tasks in order given)?"

Answer
Choices: 1%-100%

A quick check by the interviewer after D is completed for all tasks
listed should indicate a percent total at or near 100%. A total more
than 10 percentage points off 100 results in the interviewer asking
the interviewee which item(s) he would like to adjust to come closer
to an actual 100.

Rank Tasks
Question: "Would you now rank the tasks you have mentioned in order
of difficulty?" (It may be necessary to repeat tasks.)
Answer
Choices: Most difficult   1   (This is done
             Next most difficult   2   for 6 or how-
             Next most difficult   3   ever many tasks
             Next most difficult   4   listed.)
             Next most difficult   5
             Next most difficult   6

After completing E, the interviewer now proceeds to page 3 to elicit
specific incidents from the supervisor.

Again, we call attention to the homogeneity of the weightings as between
supervisors and employees. Tables 18 and 19 are comparisons of responses of
consequences of task performance and frequency of performance as between
these two groups of respondents. While slight differences in functional
areas are observed in the direction that one would expect, the nature of
the evidence (opinions) causes us not to place too much reliance on them.
With the exception of changing tasks as identified in the next section, re-
sults of further weightings obtained, i.e., percent of total time spent,
and rank of difficulty are not reported.

TABLE 18

Comparison of Supervisor and Employee Responses
to Consequences of Basic Task Performance

FUNCTION	SUPERVISOR				EMPLOYEE			
	1 Great	2 Avg.	3 Little	M	1 Great	2 Avg.	3 Little	M
Accounting, Computing	392	294	145	1.70	419	288	151	1.69
Electronic Data Processing	106	61	55	1.77	100	73	69	1.87
Personnel	86	48	37	1.71	91	50	35	1.68
Production	19	12	4	1.57	15	12	6	1.73
Purchasing	41	31	22	1.80	41	31	19	1.76
Inventory, Shipping, and Receiving	43	11	21	1.71	42	26	22	1.78
Sales and Client Related	51	36	16	1.66	57	40	15	1.62
Stenography and Other Communication	557	468	324	1.83	543	468	357	1.86
Other Services (mail, files)	279	263	216	1.92	271	249	258	1.98
TOTALS	1574	1224	840	1.80	1579	1237	932	1.83

Nonrespondents - Supervisors = 8   Employees = 15

TABLE 19

Comparisons of Supervisor and Employee Responses
to Frequency of Basic Task Performance

| FUNCTION | SUPERVISOR | | | | EMPLOYEE | | | |
| | 1 | 2 | 3 | | 1 | 2 | 3 | |
	High	Medium	Low	M	High	Medium	Low	M
Accounting, Computing	560	173	99	1.45	553	186	120	1.50
Electronic Data Processing	149	45	28	1.45	151	57	34	1.52
Personnel	103	39	29	1.57	108	45	23	1.57
Production	26	5	4	1.37	24	6	3	1.36
Purchasing	41	31	22	1.80	43	25	25	1.81
Inventory, Shipping, and Receiving	38	24	14	1.68	44	34	12	1.65
Sales and Client Related	69	25	8	1.40	72	31	10	1.45
Stenography and Other Communication	832	342	174	1.51	817	366	185	1.54
Other Services (mail, files)	453	179	126	1.57	458	209	111	1.55
TOTALS	2271	863	504	1.51	2270	959	523	1.55

Nonrespondents – Supervisors = 8·   Employees = 11·

3. Changing Tasks Identified

Of 3646 basic tasks identified by supervisors, 279 in number or 7.7 per-
cent were indicated as changing tasks. Of 3763 basic tasks identified by
employees, 238 in number, or 6.3 percent, were so indicated (Table 20). The
fact that employees were able to identify fewer changes than their supervisors
is not surprising. Employees are once further removed from the point of de-
cision making where changes are planned. If the foregoing reasoning is
sound, we can also question supervisors' complete knowledge of potential
changes to occur since they, too, are frequently removed from the point of
decision making. In other words, we propose that the small percents of
changing tasks identified do not represent adequately the weight of change
that will affect office performances in the forseeable future. Other

TABLE 20

Supervisor and Employee Indicated Changing
Tasks by Functional Areas

| | SUPERVISOR | | EMPLOYEE | |
	No.	Percent	No.	Percent
Accounting, Computing	76	27.2	79	33.3
Electronic Data Processing	19	6.8	13	5.5
Personnel	20	7.2	13	5.5
Production	3	1.1	1	.4
Purchasing	8	2.9	10	4.2
Shipping and Receiving	5	1.8	1	.4
Sales and Client Related	9	3.2	9	3.8
Stenographic and Other Communication	93	33.3	77	32.4
Other Services (mail, files)	46	16.5	35	14.7
TOTALS	279	100.0	238	100.2

opinion on the "emergent" in changing office tasks are those outputs to be expected from Huffman's "Emergent Office Study," currently in pre-paration. A part of NOBELS, as described in Chapter I, prepublication copy of two tables from the forthcoming Huffman report are included as Appendix A.

Table 21 classifies reasons given by 179 supervisors and employees for changing tasks. Approximately three fourths of the reasons are classified under "mechanization" with 80 percent of these further classified as "elec-tronic data processing." The classification of reasons substantially agrees with the University of Georgia's concurrent hardware study (Calhoun, 1970).

TABLE 21

Classification of 179 Causes Given for
Changing Tasks of Employees

CLASSIFICATION	TOTAL	
	No. of Responses	Percent
Mechanization:		
Electronic Data Processing	103	57
Other Equipment	26	15
Shift of Task Responsibility		
(to/from Others)	22	12
Change in Need for Task	14	8
Change in Organizational Structure	14	8
TOTALS	179	100

E. OBJECT OF TASK PERFORMANCE

The 4548 basic tasks collected from 1232 office workers, as described, were coded not only according to a function or to "what" the task related but also according to the object or "why" of the performance. As discussed in Chapter II, the "why" classification had limitations of reliability that caused us not to place too great a dependence on the coded results. Still, with the limitations cited, the tabulations do give some notions about the object or "why" of basic performance (Table 22).

F. ACTION VERBS AND SYNONYMS DESCRIBING STEPS OF TASK PERFORMANCE

Our purpose here is to describe the 108-verbs and synonyms used in classifying steps of basic task performances as described by 1232 workers.

1. Codified Action Verbs and the Taxonomy

The Taxonomy of Office Activities as an output of NOBELS was mentioned earlier (Huffman, Brady, et al., 1968). We attempted to classify steps of task performance by the taxonomy but found the scheme not usable for the following reasons:

TABLE 22

Object or Why of 4548 Basic Tasks

OBJECT OR WHY	Number of Tasks	Percent
Source Documents	1344	29.5
Negotiables and Investments	332	7.3
Correspondence	787	17.3
Electronic Data Processing Outputs	247	5.5
Files	226	5.0
Reports, Charts, and Other Tabulated Material	716	15.7
Inventory	139	3.1
Served People or Generated Ideas	757	16.6
TOTALS	4548	100.0

a. Office activities of 16 to 24 year old workers, NOBELS' target group interviewed, could not be classified in the three taxonomy domains of operating, interacting, and managing. Rather, with the exception of those actions related to social roles, the task verbs cluster around the input, processing, output classification of the single domain of operating.

b. Some verbs were too narrowly defined to describe the range of technical meaning of the words as actually used in offices. For example, the verb "average" was defined "to find the arithmetic mean," an accurate definition of one type of average but a definition which excludes all other meanings for describing centrality of business phenomena. Interestingly enough, the office tasks we studied did not require the use of the verb "average" to describe office actions.

c. Numerous taxonomy verbs, especially in the "interacting domain," were abstractions that were not defined in observable behavior. Thus, "empathize" as a verb is at least once removed in generality from actions that one would accept as evidence of "empathic behavior" in an office worker. While some behaviors collected about office workers in their social roles might be described as "empathic," to do so would have required a value judgment placed on the behavior actually observed.

d. The view of the taxonomy authors that a checklist of verbs could be used in observing task performance in an office did not match the realities of time and resources available for data collection.

e. Strict adherence to taxonomy verbs frequently resulted in awkwardness of expression of office tasks. For example, "types," a common verb used in office communication, had to be expressed as "copies with a typewriter," a somewhat stilted expression. The stilted expression resulted from the attempt to codify under one heading all copying: whether by pencil, duplicator, or typewriter.

The first taxonomy as described, however, was used as an important tool by all data collectors of NOBELS to provide specific verbs that described

office actions observed. Thus, rather than using bland verbs such as "makes," "fixes," or "puts," data collectors selected specific verbs as "types," "keypunches," "files," or "checks."

2. Listings of NOBELS Action Verbs and Synonyms

Based on 244 interview cases from NOBELS pilot data collection, a tentative listing of 108 verbs describing office actions as reported by employees and interviewers was extracted. The need for analysis of verbs was considered to be one of·grouping by synonyms rather than developing a taxonomic hierarchy of generic terms.. The NOBELS action verbs, 108 in number, and synonyms, 118 in number, proved adequate in coding for computer tabulation of all the 32,447 steps contained in 4548 sheets taken from 1232 interviews.

An alphabetic listing of the 108 verbs used to code steps of basic tasks together with the current recommended listing of 57 verbs and their synonyms recommended as a result of our experience are included as Appendix E. A more complete discussion of the NOBELS Action Verbs and Synonyms in relation to the Taxonomy and in terms of the educational implications is available elsewhere (Lanham and Weber, 1970).

3. High-Frequency Verbs of Action Steps

In Table 23, the twenty most frequently used verbs tabulated from steps of basic tasks are displayed. The high frequency of input verbs such as "receives" and "obtains" as well as output verbs such as "delivers" probably results· from the few verbs in these two categories compared with the processing category of task performance.

Tables 24, 25, and 26 display the ten most frequently used verbs in the nine functional areas with Table 24 listing ranks of three functions according to highest frequency; i.e., communication defined as stenography, typewriting, and oral communication; accounting which includes primarily numerical related tasks; and other services which include filing, mailing, and duplicating. Table 25 follows, according to descending order of frequency, with data processing, personnel, and client related services which include sales. Table 26 lists the three lowest frequency of functional tasks by rank in production, receiving and shipping, and purchasing.

That a few verbs, such as "punch" in electronic data processing are. not among the first twenty most·frequently used verbs listed in Table 23 is to be expected. Electronic data processing is still emerging as a functional office area with its own peculiar jargon. That the ten high ranked verbs of each functional area account for so high a ratio of all verbs codified in that area is consistent with the finding in Table 23.

G. TALENT INVENTORY AS A PART OF DIFFUSION

An integral part of NOBELS in all·phases has been the dissemination process. Dissemination to the· point of acceptance and adoption in classrooms is based first on identification of various levels of talent in office. and business education and systematically recording talent information in data banks. During the feasibility study (Lanham, 1968) the beginnings of

a data bank of teacher educators, state supervisors, and city supervisors were collected, coded, and processed. A talent inventory instrument was also field tested, using the above listed decision makers as the test group.

TABLE 23

Twenty Most Frequently Used Verbs Describing
Steps of Basic Task Performance

Rank	Verbs	Total Number	CUMULATIVE Percent of 32,447
1	receive	2933	9.0
2	typewrite	1925	5.9
3	deliver	1923	5.9
4	write	1677	5.2
5	file	1640	5.1
6	place	1504	4.7
7	check	1389	4.3
8	obtain	1345	4.1
9	send	996	3.1
10	record	958	2.9
11	sort	945	2.9
12	insert	788	2.4
13	determine	632	1.9
14	pull	578	1.8
15	inform	547	1.7
16	attach	525	1.6
17	call	520	1.6
18	compute	503	1.6
19	answer	501	1.6
20	locate	485	1.6
TOTALS		22,314	68.8*

*Discrepancy due to rounding

In the current phase of NOBELS, additional refining of the talent inventory instrument and processing procedures was proposed. Additionally, utilization of the instruments to develop a national data bank of talent and testing the national plan in one state defined the scope of work (Cook et al., 1970).

H. SUMMARY

In this chapter, the results of interview data collection from 1232 office workers and their supervisors in four areas of the country have been disclosed. The bias of the cases toward the urban and large company beyond that projected in the proposal and the consequent adequacy of the sample have been discussed. Results of analysis of critical incidents collected in the pilot study and the task related and interaction incidents of the principal data collection have been reported. Samples of social interaction performance goals were given. Samples of task-related incidents are sprinkled in the next chapter among the performance goals to

TABLE 24

Ten Most Frequently Used Verbs Describing Steps of Basic
Task Performance in Communication Services,
Accounting, and Other Services[1]

Communication Services			Accounting			Other Services		
Rank		No.	Rank		No.	Rank		No.
1	typewrite	1139	1	receive	769	1	receive	473
2	receive	1051	2	write	598	2	sort	433
3	deliver	602	3	check	481	3	file	419
4	obtain	589	4	deliver	476	4	deliver	364
5	write	512	5	record	458	5	place	360
6	file	489	6	file	408	6	obtain	225
7	place	464	7	place	379	7	check	186
8	answer	401	8	typewrite	354	8	insert	179
9	check	400	9	send	292	9	attach	150
10	proofread	364	10	obtain	283	10	open	147
TOTALS		6,011			4,498			2,936

[1]Communication includes stenography, typewriting, and oral communi-
cation; Other Services include filing, mailing, and duplicating.

TABLE 25

Ten Most Frequently Used Verbs Describing Steps of Basic
Task Performance in Data Processing, Personnel,
and Client Related Services

Data Processing			Personnel			Client Related Services		
Rank		No.	Rank		No.	Rank		No.
1	receive	176	1	typewrite	139	1	receive	115
2	punch	151	2	receive	136	2	write	96
3	deliver	136	3	deliver	113	3	deliver	76
4	place	112	4	file	97	4	typewrite	56
5	obtain	87	5	write	84	5	file	52
6	check	85	6	check	73	6	place	50
7	remove	71	7	send	60	7	record	49
8	write	70	8	obtain	59	8	check	41
9	record	68	9	record	55	9	send	35
10	insert	59	10	inform	53	10	call	33
TOTALS		1,015			869			603

which they relate. Analyses of basic tasks and their weightings of im-
portance as elicited from supervisors and employees were presented. In re-
lation to the discussion of changing tasks identified, the correlative study
of the emergent office was cited. The tabulation of the "why" or object of
4548 codified tasks were displayed. The action verbs and synonyms growing
out of the taxonomy of office activities were presented. The chapter closes
with a description of the scope of)the talent inventory.

TABLE 26

Ten Most Frequently Used Verbs Describing Steps of Basic
Task Performance in Production, Purchasing,
and Receiving and Shipping

Production			Receiving and Shipping			Purchasing		
Rank		No.	Rank		No.	Rank		No.
1	receive	38	1.	receive	77	1	receive	98
2	write	33	2	check	64	2	write	71
3	deliver	21	3	deliver	61	3	check	64
4	file	17	4	file	39	4	deliver	54
5	check	15	5	typewrite	38	5	send	50
6	typewrite	14	6	call	35	6	file	49
7	place	11	7	write	29	7	place	48
8	obtain	8	8	obtain	27	8	obtain	38
9	send	8	9	place	26	9	typewrite	35
10	duplicate	7	10	send	21	10	record	31
TOTALS		172			417			539

Throughout the chapter, interpretations concerning the meaning of the
data presented as they relate to New Business and Office Education Learnings
System have been posed. Frequently in the form of clues or hunches, these
interpretations must be considered further in Chapter IV in presenting the
performance goals of office occupations as well as in recommendations of
the final chapter.

Chapter IV.

TASK STATEMENTS THAT REPRESENT OFFICE
TASK PERFORMANCE DATA

A. REVISED PRESENTATION OF TASK STATEMENTS

Presenting task statements reduced from interview task sheets is the primary purpose of this chapter.

This edition incorporates the following:

1. Reclassification and reordering of task statements according to the number of individual task sheets represented in the interview data.

2. A compilation of all task statements separate from the detailed presentation of steps for their performance, flowcharts, and supplementary information.

3. A list of task statements encompassing the highest number of individual task sheets.

4. List of task statements drawn from the medical and banking fields.

5. A concordance of verbs and objects of task statements compiled and cross-referenced.

6. Coding and notation system for all task statements and their listings for cross-referencing.

All task statements and their detail as presented have been reviewed and revised from the statements of the previous edition to the extent that such revision was judged to add clarity.

The next section of the chapter, Section B, the Main Classification of Task Statements, prepare you for the separate listings of task statements that follow.

The heart of the chapter is contained in the various listings of statements contained in the final five sections: Section C, High Frequency Task Performances; Section D, Task Statements from Medical and Banking Office Jobs; Section E, Compendium by Code Classification of 373 Task Statements; Section F, Detailed Task Statements; and Section G, Concordance of Verbs and Objects.

B. MAIN CLASSIFICATION OF TASK STATEMENTS

1. Reclassification and Reordering of Task Statements

The basic data for deriving the 373 task statements were 4564 task sheets analyzed by steps of performance (see Appendix B). The discrepancy between 4564 interview task sheets reported in this chapter and the 4548 tasks used in computer coded data reported previously was the result of further hand sorting and analyzing of task sheets, some of which were judged to include more

53

than one task. The further revision of task statements reduced the general-
ized statements by two from the 375 reported in the previous edition.

Many of the task sheets obviously contained the same or similar steps
to arrive at the same performance result. These similar task sheets were
grouped and one generalized statement developed to represent the group.
The number of task sheets so grouped and generalized ranged from one to as
many as 226 separate task sheets. An example of a task statement derived
from 59 separate task sheets follows:

01.01.01 The worker types invoices from such documents as sales
tickets, contracts, and receiving reports. (59 task sheets)

The primary criterion of data reduction to such task statements as the
example was one of fidelity to the tasks performed as reported by inter-
viewers. The revision has served to clarify and simplify the communication
of the tasks.

Twelve main classifications (first level) that deviate somewhat from
those used in the computer coded data presented in the first three chapters
were developed as follows:

01.	NUMERICAL CLERICAL RECORDS	07.	PERSONNEL
02.	INTERNAL SERVICES	08.	SALES
03.	TYPING COMMUNICATION	09.	INVENTORY, SHIPPING, RECEIVING
04.	CLIENT RELATED SERVICES	10.	PURCHASING
05.	ORAL COMMUNICATION	11.	PRODUCTION
06.	ELECTRONIC DATA PROCESSING	12.	MISCELLANEOUS

The ordering of the above classifications and their coding was dictated
by the frequency of task sheets represented; i.e., 01. NUMERICAL CLERICAL
RECORDS represents the class with the highest number of task sheets to 12.
MISCELLANEOUS, the lowest.

Not only have the main classifications been reordered in terms of fre-
quency of task sheets represented, but some classification titles have been
changed (Table 27).

The classification, "01. NUMERICAL CLERICAL RECORDS," substitutes in
this chapter for the previous "1. Accounting" major function. The individual
task sheets analyzed and their consequent generalized statements of task
performance were judged to be more nearly related to clerical tasks of pro-
cessing original documents than to recording transactions inherent in a
system of double-entry bookkeeping.

The two classifications in the present first-level classifications,
"03. TYPING COMMUNICATION" and "05. ORAL COMMUNICATION" were previously
subsumed under "9. Communication." A title change, "02. INTERNAL SERVICES"
was made to delineate such activities as mailroom operations within a busi-
ness from services to clients such as those occurring in a welfare or a
medical office.

TABLE 27

First-Level Classification of Task Statements
and Computer Coded Major Functions

Code	Title of First-Level Classification	Code	Title of Computer-Coded Major Function
01.	NUMERICAL CLERICAL RECORDS	1.	Accounting
02.	INTERNAL SERVICES	10.	Services
03.	TYPING COMMUNICATION	9.	Communication
04.	CLIENT RELATED SERVICES	8.	Client Related Services
05.	ORAL COMMUNICATION	9.	Communication
06.	ELECTRONIC DATA PROCESSING	2.	Electronic Data Processing
07.	PERSONNEL	3.	Personnel
08.	SALES	7.	Sales
09.	INVENTORY, SHIPPING, RECEIVING	6.	Shipping, Receiving, Inventory
10.	PURCHASING	5.	Purchasing
11.	PRODUCTION	4.	Production
12.	MISCELLANEOUS	11.	Miscellaneous (NEC)

2. Distribution of Task Sheets among Main Classifications

Five of the 12 main classifications demanded second-level classification: NUMERICAL CLERICAL RECORDS, INTERNAL SERVICES, CLIENT RELATED SERVICES, ELECTRONIC DATA PROCESSING, and INVENTORY, SHIPPING, RECEIVING. At this point, you may want to inspect Table 28, which lists the first and second levels of the main classifications and their codes, together with the number of task statements and the number of task sheets for each. Note that NUMERI-CAL CLERICAL RECORDS consists of nine second-level classifications.

In the same way the 12 main classifications were ordered by frequency (number of task sheets), so also were the second-level classifications. Therefore, in Table 28, note that the highest frequency performance in the NUMERICAL CLERICAL RECORDS classification is "Accounts Receivable," the second highest frequency, "Accounts Payable," and so on to the lowest frequency, 09. Disbursements. These second-level classifications are also coded in order of frequency which introduces a second set of two-digits as seen in the example below:

    01.   represents NUMERICAL CLERICAL RECORDS (Main Classification)
    01.01.   represents "Accounts Receivable" under NUMERICAL CLERICAL RECORDS

Thus, 01.01 represents the highest frequency performance in the main classi-fication and the highest frequency performance in the second-level classifi-cation.

In Table 28, the first and second levels of the main classification and their codes are presented together with the number of task statements and the number of task sheets. Looking at Table 28 under NUMERICAL CLERICAL RECORDS, you will see that a total of 76 task statements were written from a total of 980 separate task sheets collected in the original statements. Of these, 12 statements were generated under Accounts Receivable subheading of NUMERICAL CLERICAL RECORDS, and these represent a total of 237 separate task sheets.

TABLE 28

First and Second Classification of Task Statements with Number of Task Sheets Included

Code	Classification	Number of Task Statements	Number of Task Sheets
01.	NUMERICAL CLERICAL RECORDS	76	980
01.01.	Accounts Receivable	12	237
01.02.	Accounts Payable	3	149
01.03.	Payroll	13	149
01.04.	Computing and Checking . . . . :	12	110
01.05.	Receipts	8	104
01.06.	Financial Entries	7	88
01.07.	Cost Accounting	7	62
01.08.	Credit	11	54
01.09.	Disbursements	3	27
02.	INTERNAL SERVICES	34	750
02.01.	Mailing	20	307
02.02.	Filing	6	249
02.03.	Non-computational Recording	5	97
02.04.	Duplicating	3	97
03.	TYPING COMMUNICATION	15	644
04.	CLIENT RELATED SERVICES	85	437
04.01.	Insurance	6	113
04.02.	Financial	30	92
04.03.	Education	12	78
04.04.	Securities	8	38
04.05.	Hotel/Motel	9	24
04.06.	Hospital Services	6	24
04.07.	Conferences and Meetings	2	13
04.08.	Welfare and Aid	2	13
04.09.	Repair Services	1	13
04.10.	Library	5	8
04.11.	Miscellaneous Services	4	21
05.	ORAL COMMUNICATION	12	425
06.	ELECTRONIC DATA PROCESSING	35	398
06.01.	Keypunching, Verifying	7	156
06.02.	Related Electronic Data Processing	7	74
06.03.	Computer Operation	10	63
06.04.	Coding	1	45
06.05.	Sorting, Interpreting, Collating, Reproducing, Tabulating	4	32
06.06.	Computer Programming	6	28

TABLE 28--Continued

First and Second Classification of Task Statements
with Number of Task Sheets Included

Code	Classification	Number of Task Statements	Number of Task Sheets
07.	PERSONNEL	27	348
08.	SALES	32	230
09.	INVENTORY, SHIPPING, RECEIVING	25	134
09.01.	Inventory	9	70
09.02.	Shipping	9	43
09.03.	Receiving	7	21
10.	PURCHASING	4	130
11.	PRODUCTION	3	40
12.	MISCELLANEOUS	25	48
	Total Number of Task Statements and Task Sheets . .	373	4564

3. Generalized Task Statement Code Classification

The task statements in each classification have also been arranged in order of their frequency which adds the third set of two-digits to each code. Each separate task statement is accompanied with the number of task sheets it represents. Since the six-digit code is used for identification and cross-referencing in each of the listings of task statements throughout the remainder of this chapter, additional examples and their explanation follow:

01.02.03 represents NUMERICAL CLERICAL RECORDS (Main Classification)

01.02.03 represents the second-level frequency performance under NUMERICAL CLERICAL RECORDS which is "Accounts Payable"

01.02.03 represents the third ranking most frequent performance under "Accounts Payable" in the main classification NUMERICAL CLERICAL RECORDS

04.01.02 represents the main classification CLIENT RELATED SERVICES

04.01.02 represents the highest second-level frequency performance "Insurance" under CLIENT RELATED SERVICES

04.01.02 represents the second ranking frequency performance task in the main classification CLIENT RELATED SERVICES, "Insurance"

06.05.03 represents the main classification (6th ranking) ELECTRONIC DATA PROCESSING

06.05.03 represents the fifth ranking classification of "Coding" under ELECTRONIC DATA PROCESSING

06.05.03 represents the third ranking performance task under "Coding" in the main classification ELECTRONIC DATA PROCESSING

4. Homogeneity of Office Task Statements

Just a casual inspection of the previous table indicates a range of differences as between the numbers of task sheets needed to generate task statements. For example, look at Accounts Receivable and Accounts Payable under NUMERICAL CLERICAL RECORDS. Twelve task statements were generated under the classification, Accounts Receivable, from 237 task sheets for an average of almost 20 task sheets (19.75) per statement. In Accounts Payable, only three statements were generated from 149 task sheets for an average of 50 sheets per statement.

In Table 29, the average number of task sheets required to generate one task statement is displayed. While an average of 43 task sheets could be used to generate one task statement in TYPING COMMUNICATION, only five task sheets could be used per task statement in CLIENT RELATED SERVICES.

TABLE 29

Average Number of Individual Task Sheets Used for Generalized
Task Statements in Main Classifications

Code	Main Classification	(1) Number of Interview Task Sheets	(2) Number of Task Statements	(1) ÷ (2) Average
01.	NUMERICAL CLERICAL RECORDS	980	76	12.9
02.	INTERNAL SERVICES	750	34	22.1
03.	TYPING COMMUNICATION	644	15	42.9
04.	CLIENT RELATED SERVICES	437	85	5.1
05.	ORAL COMMUNICATION	425	12	35.4
06.	ELECTRONIC DATA PROCESSING	398	35	11.4
07.	PERSONNEL	348	27	12.9
08.	SALES	230	32	7.2
09.	INVENTORY, SHIPPING, RECEIVING	134	25	5.4
10.	PURCHASING	130	4	32.5
11.	PRODUCTION	40	3	13.3
12.	MISCELLANEOUS	48	25	1.9
	Totals	4564	373	12.2

C. HIGH FREQUENCY TASK PERFORMANCES

A useful guide in clustering learning experiences for those preparing for office occupations is the frequency of occurrence of office tasks in jobs. Of the 373 task statements reduced from 4564 interview task sheets, the first 51 high frequency task statements account for 2789 separate task sheets or 61.1 percent of the total (Tables 30 and 31). The first five highest ranked tasks (Table 30) each account for from 2.6 percent to 5.0 percent of the total task sheets. Collectively, these five highest ranked tasks account for 795 task sheets or 17.4 percent of the total. Note that the first two relate to typewriting and stenographic tasks; the third and fifth to oral (telephone) communication; and fourth, to files and filing.

The remaining 46 high ranked tasks are presented in ascending rank in Table 31. The first ten highest ranking tasks account for 27 percent of the

TABLE 30

Five Highest Frequency Task
Performances by Rank Order

Rank	Code	Task Statement	Number of Task Sheets	Per-cent	Percent Cumula-tive
1	03.00.01	The worker types correspondence, memos, and other items from form and rough draft required by employer.	226	5.0	
2	03.00.02	The worker types dictation from shorthand.	172	3.8	8.7
3	05.00.01	The worker processes incoming telephone calls.	160	3.5	12.2
4	02.02.01	The worker processes requests for records or files.	120	3.5	14.9
5	05.00.02	The worker answers incoming telephone calls.	117	2.6	17.4
		Totals	795		17.4

total number of task sheets (1226 of 4564). The first 35 highest ranked tasks account for more than half of all task sheets: 51.1 percent (2330 of 4564 task sheets).

TABLE 31

High Frequency Task Performances by Rank Order
(Ranks 6 through 51)

Rank	Code	Task Statement	Number of Task Sheets	Per-cent	Percent Cumula-tive
6	02.01.01	The worker processes departmental incoming mail.	99	2.2	19.6
7	06.01.01	The worker punches cards from source documents such as invoices, orders, time cards, and instructions.	96	2.1	21.7
8	10.00.01	The worker maintains supplies and stock inventory.	94	2.1	23.8
9	01.03.01	The worker prepares payroll.	73	1.6	25.4
10	01.02.01	The worker computes accounts payables from source documents.	69	1.5	26.9
		Subtotal	1226		26.9
11	07.00.01	The worker processes employment applications.	68	1.5	28.4
12	01.01.01	The worker types invoices from such documents as sales tickets, contracts, and receiving reports.	59	1.3	29.6
13	07.00.02	The worker updates personnel files from changes received.	54	1.2	30.8

TABLE 31--Continued

High Frequency Task Performances by Rank Order
(Ranks 6 through 51)

Rank	Code	Task Statement	Number of Task Sheets	Per-cent	Percent Cumulative
14	05.00.03	The worker performs the duties of a receptionist.	50	1.1	31.9
15.5	01.01.02	The worker records accounts receivables from such documents as salesmen's orders, cash receipts, and invoices.	48	1.1	33.0
15.5	04.01.01	The worker types insurance documents.	48	1.1	34.0
17	01.02.02	The worker records accounts payables.	47	1.0	35.1
18.5	02.04.01	The worker prepares duplicated materials.	46	1.0	36.1
18.5	03.00.03	The worker types communications from dictated belt.	46	1.0	37.1
20.5	03.00.04	The worker types reports from rough draft.	45	1.0	38.1
		Subtotal	1737		38.1
20.5	06.04.01	The worker codes forms such as purchase orders, invoices, and applications for Keypunching.	45	1.0	39.0
22	02.02.02	The worker updates files.	43	.9	40.0
24	02.04.02	The worker duplicates file materials.	42	.9	40.9
24	05.00.04	The worker operates a switchboard.	42	.9	41.8
24	06.02.01	The worker checks source documents such as orders, invoices, punched cards, and printouts with computer printouts/listings	42	.9	42.7
27	01.01.03	The worker prepares billings of sales.	41	.9	43.7
27	02.02.03	The worker files materials such as legal, personnel, and purchasing documents.	41	.9	44.6
27	04.01.02	The worker processes insurance inquiries.	41	.9	45.5
29	06.01.02	The worker operates a verifier.	40	.9	46.3
30	03.00.05	The worker types medical letters, forms, articles, and reports.	38	.8	47.2
		Subtotal	2152		47.2
31	07.00.03	The worker arranges orientation of new employees.	37	.8	48.0
32	07.00.04	The worker administers employment tests to applicants.	36	.8	48.8
34	02.02.04	The worker processes materials for filing such as legal, personnel, and real estate document.	35	.8	49.5

TABLE 31--Continued

High Frequency Task Performances by Rank Order
(Ranks 6 through 51)

Rank	Code	Task Statement	Number of Task Sheets	Per-cent	Percent Cumula-tive
34	06.03.01	The worker operates reproducer from punch cards, printed lists, and summary cards.	35	.8	50.3
34	07.00.05	The worker types personnel reports from such documents as personnel lists, appointment cards, and rough drafts.	35	.8	51.1
36.5	01.02.03	The worker prepares payments from documents such as invoices, bills, vouchers.	33	.7	51.8
36.5	01.07.01	The worker compiles unit costs of jobs and sales/production estimates from expense sheets and/or total sales figures.	33	.7	52.5
38	07.00.06	The worker types personnel letters, forms, and cards from documents such as rough draft letters, employment forms, and claim forms.	31	.7	53.2
40	02.03.01	The worker compiles reports and documents from sources such as supply lists, invoices, and outlines.	30	.7	53.8
40	08.00.01	The worker processes sales documents such as charge slips, purchase orders, and warrants.	30	.7	54.5
		Subtotal	2487		54.5
40	10.00.02	The worker types purchasing documents.	30	.7	55.2
43.5	01.04.01	The worker checks the accuracy of source documents such as sales, purchasing, tax reports, and forms.	28	.6	55.8
43.5	01.06.01	The worker records data for financial reports from schedules, license fee forms, and damage claims.	28	.6	56.4
43.5	02.01.02	The worker prepares daily bulk mailings.	28	.6	57.0
43.5	02.03.02	The worker updates records and patient charts from lab reports, case histories, and other information.	28	.6	57.6
47.5	01.01.04	The worker writes delinquent customer.	27	.6	58.2
47.5	01.03.02	The worker records payroll information.	27	.6	58.8
47.5	01.05.01	The worker prepares the bank deposit from cash receipts.	27	.6	59.4
47.5	04.03.01	The worker types educational lists, schedules, letters and reports.	27	.6	60.0
50.5	01.06.02	The worker prepares financial reports.	26	.6	60.5
50.5	04.02.01	The worker processes over-the-counter requests and inquiries.	26	.6	61.1
		Total of 51 Ranks	2789		61.1

D. TASK STATEMENTS FROM MEDICAL AND BANKING OFFICE JOBS

The task statements related to medical office workers and to banking office workers were analyzed separately to assess in part the curriculum import that different Standard Industrial Classifications might have because of differences in job performance requirements.

The numbers of individual task sheets and resulting task statements used are contained in Table 32. The individual task sheets examined were not sufficient in number or scope to represent the range of tasks performed by office workers in medical or banking facilities.

TABLE 32

Task Sheets and Resulting Statements Extracted
from Two Standard Industrial Classifications

SIC	Number of Task Sheets	Number of Goals
Service--Medical	186	24
Finance, Insurance, Real Estate--Banking	286	63

The separate analysis does provide clues to the peculiarity of requirement for <u>successful</u> performance in these two fields. In the area of medical care, successful performance seems to be judged by a pervading attitude of "tender, loving care" of patients and clients. In the area of banking, successful performance is even more stringently judged by "exactness" of checking and accuracy of handling numerical data. The remainder of this section is the special listing of "Service--Medical Task Statements" and "Finance, Insurance, Real Estate--Banking."

MEDICAL TASK STATEMENTS

03.00.05 The worker types medical letters, forms, articles, and reports. (38 task sheets)

02.03.02 The worker updates records and patient charts from lab reports, case histories, and other information. (28 task sheets)

05.00.05 The worker arranges schedules and patients/appointments. (18 task sheets)

01.05.04 The worker records payments for medical services. (16 task sheets)

05.00.06 The worker answers telephone inquiries. (16 task sheets)

01.01.06 The worker completes medical charges for insurance reimbursement. (15 task sheets)

01.03.05 The worker records payroll changes for hospital employees. (12 task sheets)

04.06.01 The worker performs procedures for hospital admission from lists of patients, or medical records. (10 task sheets)

02.01.10 The worker processes incoming hospital mail. (9 task sheets)

01.01.08 The worker prepares statements from patient's accounts and charge slips. (8 task sheets)

04.06.02 The worker arranges hospital discharges. (6 task sheets)

04.06.03 The worker processes patient funds. (4 task sheets)

05.00.08   The worker answers questions regarding patient billing. (3 task sheets)

01.01.11   The worker requests payment from delinquent patients. (2 task sheets)

04.06.04   The worker prepares insurance claims for welfare clients on medicare or medicaid. (2 task sheets)

01.01.12   The worker processes follow-up records of patient's visit. (1 task sheet)

04.06.05   The worker obtains extensions on ID cards. (1 task sheet)

04.06.06   The worker prepares birth certificates from delivery room records. (1 task sheet)

05.00.11. The worker arranges schedules for conference room. (1 task sheet)

05.00.12   The worker arranges doctor/patient conferences. (1 task sheet)

07.00.25   The worker requests student nurses' health examination appointments. (1 task sheet)

07.00.26   The worker updates personnel forms. (1 task sheet)

07.00.27   The worker administers an orientation program for new hospital employees. (1 task sheet)

10.00.04   The worker administers purchase and sale of stamps for hospital and patients. (1 task sheet)

BANKING TASK STATEMENTS

04.02.01   The worker processes over-the-counter requests and inquiries. (26 task sheets)

01.06.03   The worker prepares financial reports. (26 task sheets)

02.04.03   The worker duplicates items for permanent records. (24 task sheets)

01.04.02   The worker verifies totals of cancelled checks, computer tapes, and tellers' balance sheets. (21 task sheets)

03.00.09   The worker types information on forms, cards, or letterheads from dictation, applications, computer listings, and other source documents. (17 task sheets)

01.04.04   The worker performs routine check on such items as deposit slips, adding machine tapes, and advices. (15 task sheets)

03.00.10   The worker types reports/bulletins from rough drafts and lists. (14 task sheets)

01.06.04   The worker records receipts and withdrawals in the ledger. (13 task sheets)

01.04.05   The worker corrects checks, savings and withdrawal slips, balance sheets, and other source documents. (12 task sheets)

01.05.05   The worker records deposits to customer accounts. (12 task sheets)

01.09.01 The worker prepares disbursements from customer accounts. (12 task sheets)

02.01.09 The worker processes incoming mail such as bank forms and checks. (11 task sheets)

01.03.06 The worker punches payroll data. (8 task sheets)

01.04.06 The worker checks computations with proofing machine. (8 task sheets)

01.08.03 The worker processes credit information. (8 task sheets)

04.02.03 The worker processes new accounts, transfers of accounts, and trust accounts for customers. (8 task sheets)

02.02.05 The worker arranges ledger cards for filing or further processing. (6 task sheets)

04.02.04 The worker prepares all stop payments. (5 task sheets)

02.02.06 The worker updates the central index files. (4 task sheets)

04.02.06 The worker processes estate settlements for customers. (3 task sheets)

06.02.03 The worker codes payment cards, checks, and deposit/withdrawal slips for keypunching. (4 task sheets).

04.02.07 The worker prepares applications for vendor's single interest (VSI) insurance coverage. (2 task sheets)

01.04.07 The worker distributes daily cash to tellers in branch banks. (2 task sheets)

01.04.08 The worker sorts coins from the federal reserve bank daily. (2 task sheets)

04.02.08 The worker administers safety deposit boxes. (2 task sheets)

04.02.09 The worker checks claims for transfer, trade, or exchange of securities. (2 task sheets)

04.02.10 The worker compiles broker's daily exchange summary sheets. (2 task sheets)

04.02.11 The worker processes settlement of buy and sell orders. (2 task sheets)

06.02.04 The worker maintains control of input/output work flow between corporate trust department and data processing department. (2 task sheets).

06.02.05 The worker corrects computer rejected debits/credits. (2 task sheets)

04.02.12 The worker issues payment to utility companies for bills paid at bank. (1 task sheet)

01.04.09   The worker verifies installment loan balances. (1 task sheet)

01.04.10   The worker prepares night deposits. (1 task sheet)

01.04.11   The worker performs audit of particular functions in individual departments of the bank. (1 task sheet)

01.04.12   The worker codes transaction tax on tickets. (1 task sheet)

01.05.08   The worker performs bookkeeping duties of a small bank. (1 task sheet)

01.06.05   The worker records loan payment reversing entries. (1 task sheet)

02.01.20   The worker delivers batches of transactions to the vault area. (1 task sheet)

02.03.05   The worker corrects names on loan files, bank records, and insurance policies from deeds of death certificates. (1 task sheet)

04.02.13   The worker issues receipts for securities. (1 task sheet)

04.02.14   The worker checks numbers and amounts of securities. (1 task sheet)

04.02.15   The worker processes stock transactions to be delivered to another broker. (1 task sheet)

04.02.16   The worker processes trading in municipal bonds. (1 task sheet)

04.02.17   The worker processes outgoing cash letters in foreign currency. (1 task sheet)

04.02.18   The worker processes incoming cash letters from foreign correspondent banks. (1 task sheet)

04.02.19   The worker processes assumptions of loans on request for beneficiary statement indicating a prospective buyer. (1 task sheet)

04.02.20   The worker prepares currency for shipping orders. (1 task sheet)

04.02.21   The worker informs customers that payments made by bank to insurance company have been returned. (1 task sheet)

04.02.22   The worker types insurance cancellation letters. (1 task sheet)

04.02.23   The worker verifies insurance coverage and registration of the bank as legal owner of all auto installment loans. (1 task sheet)

04.02.24   The worker prepares customer payroll schedule. (1 task sheet)

04.02.25   The worker checks errors for large corporations. (1 task sheet)

04.02.26   The worker issues savings certificates. (1 task sheet)

04.02.27 The worker processes savings certificates to be redeemed. (1 task sheet)

04.02.28 The worker prepares travelers checks for customers. (1 task sheet)

04.02.29 The worker prepares Christmas Club coupons for customers. (1 task sheet)

04.02.30 The worker obtains permission to grant 30-day credit accounts to potential customers. (1 task sheet)

04.04.06 The worker processes requisitions for savings bonds. (1 task sheet)

04.04.07 The worker processes call bonds listed in a national publication. (1 task sheet)

04.04.08 The worker issues government bonds. (1 task sheet)

06.02.06 The worker prepares batches of checks for data processing. (1 task sheet)

06.02.07 The worker types cash letters for checks drawn on bank but cashed elsewhere. (1 task sheet)

E. COMPENDIUM BY CODE CLASSIFICATION OF 373 TASK STATEMENTS (EXPLANATION)

This separate listing of 373 task statements represents the principal output of NOBELS. The list is arranged by main classification and in descending order of frequency of interview data represented in the statement. Refer to Section B for a detailed explanation of the code used with each task statement and its meaning.

Following the number of task sheets at the end of each task statement in the compendium, the amount of detail to be found in the listing beginning on page 90, is indicated:

1. "detail," which means that the task statement in the next section contains:

   a. Coded statement of the generalized performance task statement followed by the number of task sheets represented.

   b. Flowchart

   c. Detailed listing of each step grouped according to "Acquisition," "Process," and "Disposition"

   d. Supplementary Step(s)

   e. Hardware

   f. Software

   g. Educational Cues

   h. Reported Criteria

2. "semi-detail," which means that the task statement contains less
    than the eight itemized items above. For example, the flowchart
    was not necessary to clearly describe the statements; or only the
    flowchart was necessary; or the steps were not classified according
    to "Acquisition," "Process," and "Disposition."

3. without designation, the simplest form in which the task statement
    itself describes the steps necessary to complete the performance.

For ease of finding, a dictionary-type notation at the left and right
top margin is included. The left margin code number represents the number
of the task statement listed at the top of the page; the right margin code
number, the task statement listed at the bottom of the page. This system
of reference notation is also used in the next section of Detailed Task
Statements.

COMPENDIUM BY CODE CLASSIFICATION
OF 373 TASK STATEMENTS

01. NUMERICAL CLERICAL RECORDS

01.01. Accounts Receivable

01.01.01   The worker types invoices from such documents as sales tickets, contracts, and receiving reports. (59 task sheets, detail)

01.01.02   The worker records accounts receivables from such documents as salesmen's orders, cash receipts, and invoices. (48 task sheets, detail)

01.01.03   The worker prepares billings of sales. (41 task sheets, detail)

01.01.04   The worker writes delinquent customer. (27 task sheets, detail)

01.01.05   The worker verifies customer's account receivable. (18 task sheets, detail)

01.01.06   The worker completes medical charges for insurance reimbursement. (15 task sheets, detail)

01.01.07   The worker completes sales reports. (12 task sheets, detail)

01.01.08   The worker prepares statements from patient's accounts and charge slips. (8 task sheets, detail)

01.01.09   The worker calls delinquent customers. (4 task sheets, semi-detail)

01.01.10   The worker processes changes in status of account. (2 task sheets, semi-detail)

01.01.11   The worker requests payment from delinquent patients. (2 task sheets, semi-detail)

01.01.12   The worker processes follow-up records of patient's visit. (1 task sheet, semi-detail)

01.02. Accounts Payable

01.02.01   The worker computes accounts payables from source documents. (69 task sheets, detail)

01.02.02   The worker records accounts payables. (47 task sheets, detail)

01.02.03   The worker prepares payments from documents such as invoices, bills, and vouchers. (33 task sheets, detail)

01.03. Payroll

01.03.01   The worker prepares payroll. (73 task sheets, detail)

01.03.02 The worker records payroll information. (27 task sheets, detail)

01.03.03 The worker computes payroll changes. (17 task sheets, detail)

01.03.04 The worker compiles payroll reports from payroll sheets, time sheets, job cards, and printouts. (15 task sheets, detail)

01.03.05 The worker punches payroll data. (8 task sheets, semi-detail)

01.03.06 The worker records payroll changes for hospital employees. (2 task sheets, semi-detail)

01.03.07 The worker prepares a dummy payroll. (1 task sheet, semi-detail)

01.03.08 The worker computes salesmen's commission. (1 task sheet, semi-detail)

01.03.09 The worker prepares time cards. (1 task sheet, semi-detail)

01.03.10 The worker updates weekly payroll time cards. (1 task sheet, semi-detail)

01.03.11 The worker maintains records of time spent developing new products from weekly activity tickets. (1 task sheet, semi-detail)

01.03.12 The worker processes status time slips. (1 task sheet, semi-detail)

01.03.13 The worker compiles an employee transfer list from output cards. (1 task sheet, semi-detail)

01.04. Computing and Checking

01.04.01 The worker checks the accuracy of source documents such as sales, purchasing, tax reports, and forms. (28 task sheets, detail)

01.04.02 The worker verifies totals of cancelled checks, computer tapes, and tellers' balance sheets. (21 task sheets, detail)

01.04.03 The worker verifies cash receipts for deposit. (18 task sheets, detail)

01.04.04 The worker performs routine check on such items as deposit slips, adding machine tapes, and advices. (15 task sheets, detail)

01.04.05 The worker corrects checks, savings and withdrawal slips, balance sheets, and other source documents. (12 task sheets, detail)

01.04.06 The worker checks computations with proofing machine. (8 task sheets, detail)

01.04.07 The worker distributes daily cash to tellers in branch banks. (2 task sheets, semi-detail)

01.04.08 The worker sorts coins from the federal reserve bank daily. (2 task sheets, semi-detail)

01.04.09 The worker verifies installment loan balances. (1 task sheet, semi-detail)

01.04.10   The worker prepares night deposits. (1 task sheet, semi-detail)

01.04.11   The worker performs audit of particular functions in individual
           departments of the bank. (1 task sheet, semi-detail)

01.04.12   The worker codes transaction tax on tickets. (1 task sheet)

01.05. Receipts

01.05.01   The worker prepares the bank deposit from cash receipts. (27 task
           sheets, detail)

01.05.02   The worker receives payments over the counter. (20 task sheets,
           detail)

01.05.03   The worker records payments received.   (17 task sheets, detail)

01.05.04   The worker records payments for medical services. (16 task sheets,
           detail)

01.05.05   The worker records deposits to customer accounts. (12 task sheets,
           detail)

01.05.06   The worker prepares reconciliation of bank account. (8 task sheets,
           detail)

01.05.07   The worker processes money for library books and films from check-out
           requests and late and lost book notices. (3 task sheets, semi-detail)

01.05.08   The worker performs bookkeeping duties of a small bank. (1 task sheet,
           semi-detail)

01.06. Financial Entries

01.06.01   The worker records data for financial reports from schedules, license
           fee forms, and damage claims. (28 task sheets, detail)

01.06.02   The worker prepares financial reports. (26 task sheets, detail)

01.06.03   The worker records items such as stocks, bonds, deposit slips, and
           passbooks. (18 task sheets, detail)

01.06.04   The worker records receipts and withdrawals in the ledger. (13 task
           sheets, detail)

01.06.05   The worker records loan payment reversing entries. (1 task sheet,
           semi-detail)

01.06.06   The worker records monies received for or spent from internal accounts.
           (1 task sheet, semi-detail)

01.06.07   The worker adjusts property tax records from transfer forms. (1 task
           sheet, semi-detail)

01.07. Cost Accounting

01.07.01   The worker compiles unit costs of jobs and sales/production estimates
           from expense sheets and/or total sales figures. (33 task sheets, de-
           tail)

01.07.02   The worker prepares bids and cost estimates of products and services.
           (12 task sheets, semi-detail)

01.07.03   The worker compiles variance reports from actual and standard cost
           figures. (7 task sheets, semi-detail)

01.07.04   The worker types cost analysis reports. (4 task sheets, semi-detail)

01.07.05   The worker determines cost estimates by observing production and
           scanning blueprints. (2 task sheets, semi-detail)

01.07.06   The worker compiles relevant statistics and determines improvements
           in methods by submitting cost analysis of proposed changes. (2 task
           sheets)

01.07.07   The worker processes new accrual accounts from current cost analyses
           and additional specifications. (2 task sheets)

01.08. Credit

01.08.01   The worker processes credit applications. (17 task sheets, detail)

01.08.02   The worker verifies customer credit. (8 task sheets, detail)

01.08.03   The worker processes credit information. (8 task sheets, semi-detail)

01.08.04   The worker informs applicant and company department of approved/re-
           jected credit applications. (7 task sheets, detail)

01.08.05   The worker processes credit memorandums. (5 task sheets, detail)

01.08.06   The worker processes credit information request. (3 task sheets, de-
           tail)

01.08.07   The worker answers charge account billing inquiries. (2 task sheets,
           semi-detail)

01.08.08   The worker updates delinquent account lists. (1 task sheet)

01.08.09   The worker determines extension of additional credit. (1 task sheet,
           semi-detail)

01.08.10   The worker compiles delinquent receipts report from a computer print-
           out, amounts of paper sold, and cash receipts. (1 task sheet)

01.08.11   The worker verifies wire request of amount due a customer. (1 task
           sheet)

01.09. Disbursements

01.09.01   The worker prepares disbursements from customer accounts. (12 task
           sheets, semi-detail)

01.09.02   The worker prepares disbursement of funds. (11 task sheets, detail)

01.09.03   The worker prepares disbursement of petty cash funds. (4 task sheets,
           semi-detail)

02.   INTERNAL SERVICES

02.01.   Mailing

02.01.01   The worker processes departmental incoming mail. (99 task sheets, detail)

02.01.02   The worker prepares daily bulk mailings. (28 task sheets, semi-detail)

02.01.03   The worker sorts materials such as invoices, purchase orders, statements, checks, and contracts. (25 task sheets)

02.01.04   The worker processes company outgoing mail. (22 task sheets, semi-detail)

02.01.05   The worker performs mailroom duties. (19 task sheets, semi-detail)

02.01.06   The worker operates an addressing machine. (16 task sheets, semi-detail)

02.01.07   The worker delivers incoming and outgoing mail. (16 task sheets, semi-detail)

02.01.08   The worker delivers materials such as supplies, blueprints, and product samples. (12 task sheets, semi-detail)

02.01.09   The worker processes incoming mail such as bank forms and checks. (11 task sheets, detail)

02.01.10   The worker processes incoming hospital mail. (9 task sheets, detail)

02.01.11   The worker arranges routing of publications. (8 task sheets)

02.01.12   The worker delivers mail/account documents to the post office company branches. (7 task sheets)

02.01.13   The worker processes requests for standard product information. (6 task sheets)

02.01.14   The worker processes departmental outgoing mail. (6 task sheets, semi-detail)

02.01.15   The worker processes certified, special delivery, and registered mail. (6 task sheets, semi-detail)

02.01.16   The worker processes interoffice mail. (6 task sheets)

02.01.17   The worker packages items for mailing. (5 task sheets)

02.01.18   The worker attaches incoming mail to files for processing. (4 task sheets)

02.01.19   The worker checks envelopes for additional contents with scanner. (1 task sheet)

02.01.20   The worker delivers batches of transactions to the vault area. (1 task sheet)

02.02. Filing

02.02.01   The worker processes requests for records or files. (120 task sheets, detail)

02.02.02   The worker updates files. (43 task sheets, semi-detail)

02.02.03   The worker files materials such as legal, personnel, and purchasing documents. (41 task sheets, semi-detail)

02.02.04   The worker processes materials for filing such as legal, personnel, and real estate documents. (35 task sheets, semi-detail)

02.02.05   The worker arranges ledger cards for filing or further processing. (6 task sheets, semi-detail)

02.02.06   The worker updates the central index files. (4 task sheets, semi-detail)

02.03. Non-Computational Recording

02.03.01   The worker compiles reports and documents from sources such as supply lists, invoices, and outlines. (30 task sheets, detail)

02.03.02   The worker updates records and patient charts from lab reports, case histories, and other information. (28 task sheets, detail)

02.03.03   The worker updates records, schedules, and manuals. (19 task sheets, detail)

02.03.04   The worker corrects printouts, forms, and stencils. (19 task sheets, detail)

02.03.05   The worker corrects names on loan files, bank records, and insurance policies from deeds or death certificates. (1 task sheet)

02.04. Duplicating

02.04.01   The worker prepares duplicated materials. (46 task sheets, semi-detail)

02.04.02   The worker duplicates file materials. (42 task sheets, detail)

02.04.03   The worker duplicates items for permanent records. (9 task sheets, detail)

03.   TYPING-COMMUNICATION

03.00.01   The worker types correspondence, memos, and other items from form and rough draft required by employer. (226 task sheets, detail)

03.00.02   The worker types dictation from shorthand. (172 task sheets, detail)

03.00.03   The worker types communications from dictated belt. (46 task sheets, detail)

03.00.04   The worker types reports from rough drafts. (45 task sheets, detail)

03.00.05   The worker types medical letters, forms, articles, and reports. (38 task sheets, detail)

03.00.06 The worker types statistical information from engineering specifica-
           tions, lists of checks, and rate sheets. (25 task sheets, detail)

03.00.07 The worker operates a teletype machine. (19 task sheets, detail)

03.00.08 The worker answers requests by typed letters. (17 task sheets, semi-
           detail)

03.00.09 The worker types information on forms, cards, or letterheads from
           dictation, applications, computer listings, and other source docu-
           ments. (17 task sheets, detail)

03.00.10 The worker types reports/bulletins from rough drafts and lists. (14
           task sheets, detail)

03.00.11 The worker processes rough draft to duplicated material. (13 task
           sheets, detail)

03.00.12 The worker types addresses on labels/envelopes. (8 task sheets, semi-
           detail)

03.00.13 The worker prepares radio commercials from oral instructions. (2 task
           sheets, semi-detail)

03.00.14 The worker prepares translation of incoming/outgoing Spanish mail. (1
           task sheet)

03.00.15 The worker sends telegrams. (1 task sheet, semi-detail)

04.   CLIENT RELATED SERVICES

04.01.   Insurance

04.01.01 The worker types insurance documents. (48 task sheets, detail)

04.01.02 The worker processes insurance inquiries. (41 task sheets, detail)

04.01.03 The worker processes insurance claims. (20 task sheets, detail)

04.01.04 The worker prepares reports of new business activity. (2 task sheets,
           semi-detail)

04.01.05 The worker duplicates claim stickers for insurance policy holders.
           (1 task sheet, semi-detail)

04.01.06 The worker processes auto club membership applications. (1 task sheet,
           semi-detail)

04.02.   Financial

04.02.01 The worker processes over-the-counter requests and inquiries. (26
           task sheets, detail)

04.02.02 The worker processes membership and loan applications in financial
           institutions such as a credit union. (17 task sheets, detail)

04.02.03 The worker processes new accounts, transfers of accounts, and trust
           accounts for customers. (8 task sheets, detail)

04.02.04 The worker prepares all stop payments. (5 task sheets, semi-detail)

04.02.05 The worker checks securities and amounts. (4 task sheets, semi-detail)

04.02.06 The worker processes estate settlements for customers. (3 task sheets, detail)

04.02.07 The worker prepares applications for vendor's single interest (VSI) insurance coverage. (2 task sheets, semi-detail)

04.02.08 The worker administers safety deposit boxes. (2 task sheets, semi-detail)

04.02.09 The worker checks claims for transfer, trade, or exchange of securities. (2 task sheets, semi-detail)

04.02.10 The worker compiles broker's daily exchange summary sheets. (2 task sheets)

04.02.11 The worker processes settlement of buy and sell orders. (2 task sheets, semi-detail)

04.02.12 The worker issues payment to utility companies for bills paid at bank. (1 task sheet, semi-detail)

04.02.13 The worker issues receipts for securities. (1 task sheet)

04.02.14 The worker checks numbers and amounts of securities. (1 task sheet)

04.02.15 The worker processes stock transactions to be delivered to another broker. (1 task sheet, semi-detail)

04.02.16 The worker processes trading in municipal bonds. (1 task sheet, semi-detail)

04.02.17 The worker processes outgoing cash letters in foreign currency. (1 task sheet, semi-detail)

04.02.18 The worker processes incoming cash letters from foreign correspondent banks. (1 task sheet, semi-detail)

04.02.19 The worker processes assumptions of loans on request for beneficiary statement indicating a prospective buyer. (1 task sheet, semi-detail)

04.02.20 The worker prepares currency for shipping orders. (1 task sheet, semi-detail)

04.02.21 The worker informs customers that payments made by bank to insurance company have been returned. (1 task sheet)

04.02.22 The worker types insurance cancellation letters. (1 task sheet, semi-detail)

04.02.23 The worker verifies insurance coverage and registration of the bank as legal owner of all auto installment loans. (1 task sheet, semi-detail)

04.02.24 The worker prepares customer payroll schedule. (1 task sheet, semi-detail)

04.02.25 The worker checks errors for large corporations. (1 task sheet, semi-detail)

04.02.26   The worker issues savings certificates. (1 task sheet, semi-detail)

04.02.27   The worker processes savings certificates to be redeemed. (1 task sheet, semi-detail)

04.02.28   The worker prepares travelers checks for customers. (1 task sheet, semi-detail)

04.02.29   The worker prepares Christmas club coupons for customers. (1 task sheet, semi-detail)

04.02.30   The worker obtains permission to grant 30-day credit accounts to potential customers. (1 task sheet)

04.03.   Education

04.03.01   The worker types educational lists, schedules, letters, and reports. (27 task sheets, detail)

04.03.02   The worker processes requests in person or by telephone. (12 task sheets, detail)

04.03.03   The worker compiles school records. (10 task sheets, detail)

04.03.04   The worker processes applications for new students. (8 task sheets, detail)

04.03.05   The worker assists in student registration. (6 task sheets, detail)

04.03.06   The worker receives activity funds and fees from students. (6 task sheets, semi-detail)

04.03.07   The worker records attendance. (4 task sheets, detail)

04.03.08   The worker checks student workers' typewritten work. (1 task sheet, semi-detail)

04.03.09   The worker processes applications from special learning disability program schools. (1 task sheet, semi-detail)

04.03.10   The worker issues permits to private trade school solicitors. (1 task sheet)

04.03.11   The worker processes requests for lecturers. (1 task sheet, semi-detail)

04.03.12   The worker processes contracts for scholarship expenses of visiting professors. (1 task sheet, semi-detail)

04.04.   Securities

04.04.01   The worker processes stock certificates. (10 task sheets, detail)

04.04.02   The worker prepares stock forms for buying, selling, and transferring stocks. (9 task sheets, detail)

04.04.03   The worker verifies stock documents. (9 task sheets, detail)

04.04.04   The worker answers questions about securities. (6 task sheets, detail)

04.04.05   The worker sends wires to branch stock offices regarding time exten-
           sions of payments. (1 task sheet)

04.04.06   The worker processes requisitions for savings bonds. (1 task sheet,
           semi-detail)

04.04.07   The worker processes call bonds listed in a national publication. (1
           task sheet, semi-detail)

04.04.08   The worker issues government bonds. (1 task sheet, semi-detail)

04.05. Hotel/Motel

04.05.01   The worker arranges check-in of guests. (5 task sheets, semi-detail)

04.05.02   The worker records guest charges on room folios. (4 task sheets, semi-
           detail)

04.05.03   The worker processes incoming mail/messages. (4 task sheets, semi-
           detail)

04.05.04   The worker arranges check-out of guests. (3 task sheets, semi-detail)

04.05.05   The worker discusses complaints with guests and employees. (2 task
           sheets, semi-detail)

04.05.06   The worker arranges room reservations. (2 task sheets, detail)

04.05.07   The worker determines vacancies and percent of occupancy. (2 task
           sheets, semi-detail)

04.05.08   The worker types a function sheet from activities booked. (1 task
           sheet, semi-detail)

04.05.09   The worker updates hotel/motel mail rack. (1 task sheet)

04.06. Hospital Services

04.06.01   The worker performs procedures for hospital admission from lists of
           patients, or medical records. (10 task sheets, detail)

04.06.02   The worker arranges hospital discharges. (6 task sheets, detail)

04.06.03   The worker processes patient funds. (4 task sheets, semi-detail)

04.06.04   The worker prepares insurance claims for welfare clients on medicare
           or medicaid. (2 task sheets, semi-detail)

04.06.05   The worker obtains extensions on ID cards. (1 task sheet, semi-detail)

04.06.06   The worker prepares birth certificates from delivery room records. (1
           task sheet, semi-detail)

04.07. Conferences and Meetings

04.07.01   The worker arranges conferences and meetings. (11 task sheets, detail)

04.07.02   The worker processes registration for conference participants. (2
           task sheets, semi-detail)

04.08. Welfare and Aid

04.08.01   The worker processes welfare assistance claims. (8 task sheets, de-
           tail)

04.08.02   The worker processes applications for welfare assistance. (5 task
           sheets, detail)

04.09. Repair Service

04.09.01   The worker types service orders and reports. (13 task sheets, detail)

04.10. Library

04.10.01   The worker processes check out/in of library materials. (3 task
           sheets, detail)

04.10.02   The worker obtains library books from call slips. (2 task sheets,
           semi-detail)

04.10.03   The worker types library index cards. (1 task sheet, semi-detail)

04.10.04   The worker assists library users in obtaining materials/books. (1
           task sheet, detail)

04.10.05   The worker types letters requesting inter-library loans. (1 task
           sheet, semi-detail)

04.11. Miscellaneous Services

04.11.01   The worker records items such as traffic tickets, activity reports,
           and press clippings. (10 task sheets, detail)

04.11.02   The worker answers miscellaneous over-the-counter or telephone requests.
           (8 task sheets, detail)

04.11.03   The worker processes ticket sales. (2 task sheets, semi-detail)

04.11.04   The worker prepares revised city telephone directory. (1 task sheet,
           semi-detail)

05.   ORAL COMMUNICATION

05.00.01   The worker processes incoming telephone calls. (160 task sheets, semi-
           detail)

05.00.02   The worker answers incoming telephone calls. (117 task sheets, detail)

05.00.03   The worker performs the duties of a receptionist. (50 task sheets,
           detail)

05.00.04   The worker operates a switchboard. (42 task sheets, detail)

05.00.05   The worker arranges schedules and patients' appointments. (18 task
           sheets, detail)

05.00.06   The worker answers telephone inquiries. (16 task sheets, detail)

05.00.07   The worker places local and long distance telephone calls. (14 task
           sheets, detail)

05.00.08   The worker answers questions regarding patient billing. (3 task
           sheets, detail)

05.00.09   The worker operates a paging system. (2 task sheets, semi-detail)

05.00.10   The worker requests repairs or maintenance of guest's room. (1 task
           sheet, semi-detail)

05.00.11   The worker arranges schedules for conference room. (1 task sheet)

05.00.12   The worker arranges doctor/patient conferences. (1 task sheet, semi-
           detail)

06. ELECTRONIC DATA PROCESSING

06.01. Keypunching, Verifying

06.01.01   The worker punches cards from source documents such as invoices, orders,
           time cards, and instructions. (96 task sheets, detail)

06.01.02   The worker operates a verifier. (40 task sheets, detail)

06.01.03   The worker operates a keytape machine punching magnetic tape. (8 task
           sheets)

06.01.04   The worker punches corrections in cards. (7 task sheets)

06.01.05   The worker operates optical scanner for payroll printout. (2 task
           sheets)

06.01.06   The worker performs quality control checks on the optical-font print-
           ing adding machine operator's tape production. (2 task sheets)

06.01.07   The worker punches cards coded for school withdrawal. (1 task sheet)

06.02. Related Electronic Data Processing

06.02.01   The worker checks source documents such as orders, invoices, punched
           cards, and printouts with computer printouts/listings. (42 task
           sheets, semi-detail)

06.02.02   The worker performs electronic data processing tasks from such items
           as computer printouts, file", accounting forms, manuals, maps, and
           instructions. (22 task sheets, detail)

06.02.03   The worker codes payment cards, checks, and deposit/withdrawal slips
           for keypunching. (4 task sheets, semi-detail)

06.02.04   The worker maintains control of input/output work flow between cor-
           porate trust department and data processing department. (2 task
           sheets, semi-detail)

06.02.05   The worker corrects computer rejected debits/credits. (2 task sheets,
           semi-detail)

06.02.06   The worker prepares batches of checks for data processing. (1 task
           sheet, semi-detail)

06.02.07   The worker types cash letters for checks drawn on bank but cashed
           elsewhere. (1 task sheet, semi-detail)

06.03. Computer Operation

06.03.01   The worker operates reproducer from punched cards, printed lists, and
           summary cards. (35 task sheets, semi-detail)

06.03.02   The worker operates (decollates, bursts, binds) computer output. (6
           task sheets, semi-detail)

06.03.03   The worker places magnetic tapes on a computer tape drive. (4 task
           sheets, semi-detail)

06.03.04   The worker prepares weekly payroll from payroll tapes. (4 task sheets,
           semi-detail)

06.03.05   The worker verifies manually prepared totals with computer detailed
           totals. (4 task sheets)

06.03.06   The worker operates electronic computer and peripheral equipment. (3
           task sheets, semi-detail)

06.03.07   The worker sorts batches of checks. (2 task sheets, semi-detail)

06.03.08   The worker prepares punched cards for computer run. (2 task sheets)

06.03.09   The worker determines computer malfunction by running diagnostics. (2
           task sheets)

06.03.10   The worker determines accuracy of data speed machine sending installa-
           tion. (1 task sheet)

06.04. Coding

06.04.01   The worker codes forms such as purchase orders, invoices, and applica-
           tions for keypunching. (45 task sheets, semi-detail).

06.05. Sorting, Interpreting, Collating, Reproducing, and Tabulating

06.05.01   The worker operates unit record equipment such as the sorter, re-
           producer, collator, and interpreter. (22 task sheets, semi-detail)

06.05.02   The worker codes forms such as account statements, production figures,
           inventory listings, punched cards, wired or unwired boards for key-
           punching. (5 task sheets)

06.05.03   The worker operates optical scanning equipment to convert printed data
           to punched data. (4 task sheets)

06.05.04   The worker adjusts errors on computer input tape. (1 task sheet)

06.06. Computer Programming

06.06.01   The worker writes computer programs. (18 task sheets, detail)

06.06.02   The worker checks computer programs. (4 task sheets, semi-detail)

06.06.03   The worker writes computer program in final form. (3 task sheets, semi-detail)

06.06.04   The worker adjusts present computer programs. (1 task sheet, semi-detail)

06.06.05   The worker punches prescribed program changes for new computer. (1 task sheet, semi-detail)

06.06.06   The worker arranges a time schedule for a new computer program. (1 task sheet, semi-detail)

07. PERSONNEL

07.00.01   The worker processes employment applications. (68 task sheets, detail)

07.00.02   The worker updates personnel files from changes received. (54 task sheets, detail)

07.00.03   The worker arranges orientation of new employees. (37 task sheets, detail)

07.00.04   The worker administers employment tests to applicants. (36 task sheets, semi-detail)

07.00.05   The worker types personnel reports from such documents as personnel lists, appointment cards, and rough drafts. (35 task sheets, detail)

07.00.06   The worker types personnel letters, forms, and cards from documents such as rough draft letters, employment forms, and claim forms. (25 task sheets, detail)

07.00.07   The worker compiles payroll information from absentee reports, union cards, and requests for leave. (23 task sheets, detail)

07.00.08   The worker compiles new employee personnel data from employment forms, questionnaire work sheets, and applications. (21 task sheets, detail)

07.00.09   The worker arranges travel. (18 task sheets, detail)

07.00.10   The worker processes travel vouchers. (10 task sheets, detail)

07.00.11   The worker arranges transportation from city car pool. (2 task sheets, semi-detail)

07.00.12   The worker processes merit award papers and pins. (2 task sheets)

07.00.13   The worker assists in labor grievances. (2 task sheets)

07.00.14   The worker issues working papers to students. (2 task sheets)

07.00.15   The worker issues parking permits. (1 task sheet)

07.00.16   The worker issues employee pass cards. (1 task sheet)

07.00.17   The worker issues student work permits. (1 task sheet)

07.00.18   The worker issues social security cards. (1 task sheet)

07.00.19   The worker administers driver tests. (1 task sheet)

07.00.20 The worker arranges annual awards meetings. (1 task sheet)

07.00.21 The worker issues entertainment tickets. (1 task sheet)

07.00.22 The worker discusses labor contract provisions. (1 task sheet)

07.00.23 The worker assists in union/management meetings. (1 task sheet)

07.00.24 The worker administers highway safety program for salesmen. (1 task sheet)

07.00.25 The worker requests student nurses' health examination appointments. (1 task sheet, semi-detail)

07.00.26 The worker updates personnel forms. (1 task sheet, semi-detail)

07.00.27 The worker administers an orientation program for new hospital employees. (1 task sheet, semi-detail)

08.   SALES

08.00.01 The worker processes sales documents such as charge slips, purchase orders, warrants. (30 task sheets, detail)

08.00.02 The worker processes requests by telephone and over the counter. (25 task sheets, detail)

08.00.03 The worker types correspondence from dictation, incoming mail, and other source documents. (24 task sheets, detail)

08.00.04 The worker types sales items from rough drafts, proposals, lists, and other source documents. (19 task sheets, detail)

08.00.05 The worker types orders, memos, and invoices. (16 task sheets, semi-detail)

08.00.06 The worker arranges layouts for classified ads. (14 task sheets, semi-detail)

08.00.07 The worker answers customer complaints. (13 task sheets, detail)

08.00.08 The worker processes classified ads and ad complaints. (12 task sheets, detail)

08.00.09 The worker processes customer orders. (10 task sheets, detail)

08.00.10 The worker records orders, printouts, and changes. (9 task sheets, semi-detail)

08.00.11 The worker updates manuals, catalogs, price lists, and customer accounts. (9 task sheets, semi-detail)

08.00.12 The worker composes memos, responses, and TV commercials. (8 task sheets, semi-detail)

08.00.13 The worker prepares price quotations for customers and salesmen. (8 task sheets, detail)

08.00.14 The worker requests new or extended advertising orders. (7 task sheets, semi-detail)

08.00.15 The worker arranges schedules for TV/radio commercials. (5 task
          sheets, semi-detail)

08.00.16 The worker mails product information and advertising materials to
          customers, prospective customers. (4 task sheets, semi-detail)

08.00.17 The worker processes supply requisitions for company salesmen. (2
          task sheets, detail)

08.00.18 The worker prepares new customer plates on graphotype machine. (1
          task sheet, semi-detail)

08.00.19 The worker records machine moves from installation transmittals. (1
          task sheet)

08.00.20 The worker checks unfilled and back orders. (1 task sheet)

08.00.21 The worker completes forms for installation of business equipment
          delivered. (1 task sheet)

08.00.22 The worker arranges travel for employees' speaking engagements. (1
          task sheet)

08.00.23 The worker operates microfilmer on all detail tickets, charge slips,
          and returned merchandise. (1 task sheet)

08.00.24 The worker files advertisements from clipping agency. (1 task sheet)

08.00.25 The worker prepares dummy for new books to be published. (1 task
          sheet, semi-detail)

08.00.26 The worker assists committees in public relations activities. (1 task
          sheet, semi-detail)

08.00.27 The worker processes lay-away tickets and merchandise. (1 task sheet)

08.00.28 The worker calls businesses for report of company's goods sold or
          monies collected. (1 task sheet)

08.00.29 The worker arranges for a commercial photographer to take pictures of
          equipment manufactured. (1 task sheet)

08.00.30 The worker arranges sample display for salesmen or customers. (1 task
          sheet)

08.00.31 The worker informs customer or insurance coverage. (1 task sheet)

08.00.32 The worker arranges sales plan for department store yearly sales. (1
          task sheet)

09. INVENTORY, SHIPPING, RECEIVING

09.01. Inventory

09.01.01 The worker processes orders from inventory. (24 task sheets, detail)

09.01.02 The worker updates inventory records from office supply inventory
          documents. (24 task sheets, detail)

09.01.03   The worker records finished-goods inventory from production and shipping data. (8 task sheets, semi-detail)

09.01.04   The worker completes physical inventory. (6 task sheets, semi-detail)

09.01.05   The worker maintains inventory records on stock sent to production. (4 task sheets)

09.01.06   The worker compiles revised inventory descriptions periodically. (1 task sheet)

09.01.07   The worker proofreads semi-automated stock reports for keypunching. (1 task sheet)

09.01.08   The worker transfers stock from warehouse supplies to substore. (1 task sheet)

09.01.09   The worker prepares inventory report for salesmen. (1 task sheet)

09.02. Shipping

09.02.01   The worker types shipping manifest/bills of lading, and waybills. (9 task sheets)

09.02.02   The worker arranges delivery routes. (7 task sheets, detail).

09.03.03   The worker processes shipping and billing forms on completed jobs. (6 task sheets, detail)

09.03.04   The worker verifies contents of outbound shipments. (6 task sheets, detail)

09.03.05   The worker checks undelivered shipments. (5 task sheets, detail)

09.03.06   The worker sends letter/teletype to customer regarding merchandise shipment. (3 task sheets)

09.03.07   The worker distributes shipment listings. (3 task sheets)

09.02.08   The worker records shipments. (3 task sheets)

09.02.09   The worker completes shipping reports. (1 task sheet)

09.03. Receiving

09.03.01   The worker records inbound shipments. (9 task sheets, detail)

09.03.02   The worker arranges expediting of inbound shipments. (4 task sheets, semi-detail)

09.03.03   The worker issues a claim or an adjustment against the carrier/supplier for damaged/short/overshipments. (3 task sheets)

09.03.04   The worker processes damage claims. (2 task sheets)

09.03.05   The worker processes freight bills for payment. (1 task sheet)

09.03.06   The worker arranges return of leased machinery. (1 task sheet)

09.03.07   The library worker determines disposition of incoming books. (1 task sheet, semi-detail)

10.   PURCHASING

10.00.01   The worker maintains supplies and stock inventory. (94 task sheets, detail)

10.00.02   The worker types purchasing documents. (30 task sheets, detail)

10.00.03   The worker arranges expediting of purchase shipments. (5 task sheets, semi-detail)

10.00.04   The worker administers purchase and sale of stamps for hospital and patients. (1 task sheet)

11.   PRODUCTION

11.00.01   The worker processes schedules and adjustment of scheduled production orders. (23 task sheets, detail)

11.00.02   The worker types production reports. (16 task sheets, detail)

11.00.03   The worker discusses production problems with potential customers. (1 task sheet, semi-detail)

12.   MISCELLANEOUS

12.00.01   The worker completes minor repairs and maintenance of duplicating machines. (6 task sheets)

12.00.02   The worker operates collator. (4 task sheets)

12.00.03   The worker completes binding and padding of printed forms. (3 task sheets)

12.00.04   The worker arranges for supply and movement of equipment requested. (3 task sheets)

12.00.05   The worker performs time and motion studies. (3 task sheets)

12.00.06   The worker arranges.graphic display of test results. (3 task sheets)

12.00.07   The worker completes tests and reports of company products. (3 task sheets)

12.00.08   The worker arranges reception room and coffee serving for employees and guests. (3 task sheets)

12.00.09   The worker delivers vouchers or other special documents. (2 task sheets)

12.00.10   The worker processes delinquent auto loan collections. (2 task sheets)

12.00.11   The worker prepares drawings of buildings or rocket engines. (2 task sheets)

12.00.12   The worker determines process for new product. (1 task sheet)

12.00.13   The worker discusses handling of franchise contracts. (1 task sheet)

12.00.14   The worker packages financial records for permanent storage. (1 task sheet)

12.00.15   The worker calls doctors, hospitals, police, fire department, and in-
           surance carrier in emergencies. (1 task sheet)

12.00.16   The worker operates lost and found department. (1 task sheet)

12.00.17   The worker prepares bill of materials from blueprints. (1 task sheet)

12.00.18   The worker arranges format of computer output sheets. (1 task sheet)

12.00.19   The worker assists technicians such as electricians, plumbers, and
           painters. (1 task sheet)

12.00.20   The worker operates a tag machine for pricing merchandise. (1 task
           sheet)

12.00.21   The worker operates gift wrapping service for customers. (1 task
           sheet)

12.00.22   The worker checks phonograph records. (1 task sheet)

12.00.23   The worker codes meter readings for utility billings. (1 task sheet)

12.00.24   The worker assists in wind tunnel tests. (1 task sheet)

12.00.25   The worker processes labels by dating, sorting, and filing. (1 task
           sheet)

F. DETAILED TASK STATEMENTS (EXPLANATION)

Some task statements are more detailed than others usually because they represent a larger number of individual task sheets from the interview data. The steps of performance in these detailed summaries are arranged in three major divisions (1) acquisition, i.e., the source or sources of or materials on which the task is to be performed; (2) process, i.e., the sequence of actions taken by the worker to perform the task; and (3) disposition, i.e., what the worker does with the product or output generated.

Detailed summary performance tasks also include:

(1) A listing of "hardware," i.e., materials of wood, metal, or harder consistency like machines used.

(2) A listing of software, i.e., the programs, policy manuals, catalogues, or references used.

(3) Educational cues, i.e., the suggestions of the task writers (all classroom practitioners) of implied instructional key elements for teaching.

(4) Supplementary steps, i.e., alternatives of performance or steps performed by a few workers.

(5) Reported criteria, i.e., requirements of successful performance as quoted directly from the task sheets.

Other tasks usually based on less frequent occurrence are presented with less detail than the foregoing. In these less detailed presentations, steps were given beginning with an underlined action verb and they are not subsumed under major categories of acquisition, process, and disposition.

Examples of task related critical incidents are sprinkled throughout the presentation of task statements. These instances elicited from supervisors, it will be remembered, characterize successful or less than successful worker task performance. As space permitted, the examples are cited after most major areas of tasks or with statements of specific performance tasks.

As an aid to reading the performance tasks, you should be aware of certain conventions in abbreviations and special words used in flowcharts as follows: PO (purchase order), A/R (accounts receivable), A/P (accounts payable), B/L (bill of lading)--used in other performance task features: TV (television), ID (identification), wpm (words per minute), VA (Veterans Administration), FHA (Federal Housing Administration), COD (cash on delivery), IRS (Internal Revenue Service), MTST (Magnetic Tape Selectric Typewriter), TWX (Exchange Teletypewriter); cash receipts (cash and/or checks). Also, the name of department in unquoted materials is capitalized and the word department is not used; i.e., Payroll, Accounting, Keypunching.

As an aid to meaning, certain punctuation has been used in performance tasks for visual representation as follows:

Diagonal (/) - indicates different task sheets as sources or the same task sheet as alternatives

Comma   (,) - means "and"

Semicolon (;) - indicates material extracted from different task sheets

1. Form and Format Used to Present Performance Tasks

Many judgmental decisions were made during the process of sorting and resorting task sheets to develop performance tasks. One early decision was made that clarity was improved by visualizing similar task steps through flowcharting. In the presentation to follow, a flowchart of a performance task is included when the process of steps involves more than a straightline or sequential flow without alternative steps or decision points. Varying sizes of the following symbols are used to accommodate layout:
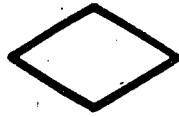
Decision   Start, End,   Acquisition,   Process
                        Continuation   Disposition
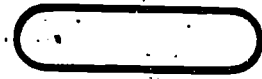
In some flowcharted performance tasks, it was found unnecessary to repeat the graphic presentation by including printed steps of flow. Wherever clarity was judged to be improved, however, both the flowchart and the listing of steps represented in the performance are given.

Chart 5

Index to Main Classifications
NOBELS Task Statements Code

CODING AND REFERENCE NOTATIONS

Each task statement as explained (section B this chapter) contains a six-digit code as follows:

01.01.01   The worker types invoices from such documents as sales tickets, contracts, and receiving reports. (59 task sheets, detail)

The first two digits at the left, "01." refer to the main classification of NUMERICAL CLERICAL RECORDS. The middle two digits, ".01" represent "Accounts Receivable," the first subdivision of NUMERICAL CLERICAL RECORDS. The right two digits ".01" represent the first task statement generalized from the highest number of interview task sheets in that classification; in this instance, 59 interview task statements.

For ease of finding, a dictionary-type code notation at the left and right top margin is included. The left margin code number represents the code of the task statement listed at the top of the page; the right margin code number, the task statement listed at the bottom of the page.

01. NUMERICAL CLERICAL RECORDS.

01.01. Accounts Receivable

01.01.01 THE WORKER TYPES INVOICES FROM SUCH DOCUMENTS AS SALES TICKETS, CON-
TRACTS, AND RECEIVING REPORTS. (59 task sheets)
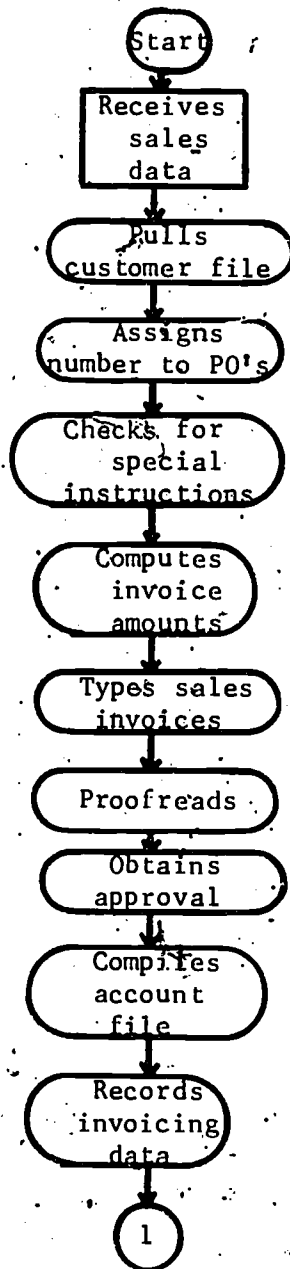
ACQUISITION

RECEIVES
shipment, request forms/meter reading cards/
sales tickets/catalog, purchase orders/spe-
cial accounts/repair papers/contracts/change
slips/invoices/listings of accounts due/re-
quest for information/ledger sheets/manifest/
bills of lading/receiving reports

PROCESS

PULLS
account ledger card/inventory book

CODES
special accounts

ASSIGNS
number to purchase orders

CHECKS
file/for special marking/instructions/correct
billing date/price chart/cancelled check if
customer claims payment/cost/amounts/receiving
reports if material is in inventory book

COMPUTES
charges for ads/commissions/discount date/
amounts for invoice/costs for repair

TYPES
statements/invoices/unclaimed statements/
account due forms/shipping information/charges
on account ledger card/revenue amounts on form

PROOFREADS

OBTAINS
invoice approval from supervisor

SORTS
according to contract, non-contract custo-
mers/shipping manifests

Flowchart (left column):
Start → Receives sales data → Pulls customer file → Assigns number to PO's → Checks for special instructions → Computes invoice amounts → Types sales invoices → Proofreads → Obtains approval → Compiles account file → Records invoicing data → 1

90

①

Duplicate? —Yes→ (Duplicates)

No

Delivers invoices to DP, Acctg.

Mails invoice statement ← → Files invoice copies

End
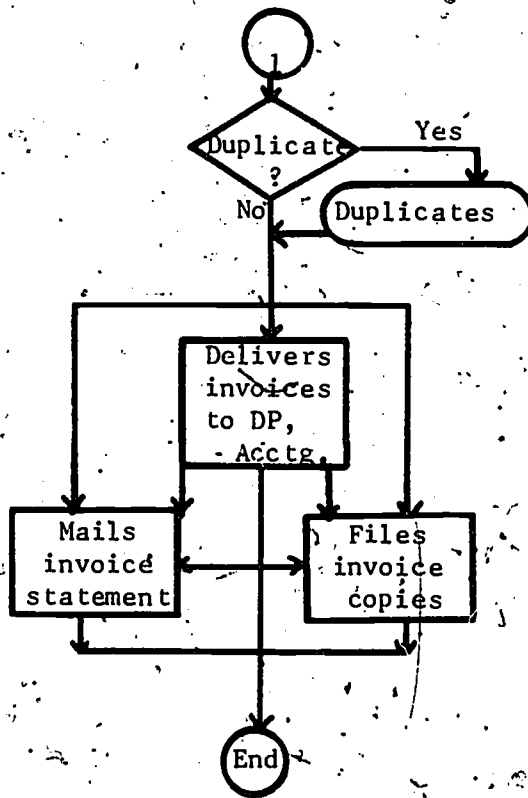
COMPILES
customer file/bills of lading/invoices/ statement

RECORDS
mailing of repaired item in inventory book/ initials/unclaimed statement/whether material is in inventory/numbers of meter cards

DUPLICATES
purchase orders/contracts/requisitions

DISPOSITION

DELIVERS
lists of closed purchase orders to Data Processing/meter cards to Keypunching/materials to filer, Accounting, Bookkeeping for refunds

MAILS
invoices daily/statements at end of month

FILES
customer folder/final order form by number/ invoice copy/accounts ledger card/meter cards/ punched cards

SUPPLEMENTARY STEP: Photocopies bills for customers on request

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Code book	Typing
Hand stamp	Price charts	Accuracy
Addressograph machine	Invoices	Coding
Duplicator	Bills of lading	Computational skills
		Checking
		Filing

REPORTED CRITERIA: "Types bill correctly; Typing minimum 40-50 wpm; Accuracy in math; Flexibility demanded to perform unfamiliar tasks without panic; 100 percent accuracy required; Books balance; Typing must be correct--no abbreviations, addresses must be correct--no misspellings, double check all amounts; Correct invoice reaches correct customer destination; Mistakes are costly and annoying to customers;   Accuracy of detail; Customer must be pleased."

01.01.02   THE WORKER RECORDS ACCOUNTS RECEIVABLES FROM SUCH DOCUMENTS
           AS SALESMEN'S ORDERS, CASH RECEIPTS, AND INVOICES.   (48 task sheets)

ACQUISITION

RECEIVES
transfer of customer account to another branch store/account applicant/cards noting repairs completed/accounts receivable cards/auto rental agreement/ salesmen's report/sales, rental invoice/cash receipts/application for service/ punched cards/service tickets/carrier name/ledger card/invoices/credit memos/ charge tickets.

PROCESS

PULLS

corresponding order/customer ledger account, statement/invoices

SORTS

orders/cards/invoices/service, cash, charge tickets/sales sheets

CODES

checks/forms/by number of days merchandise was in transit

CHECKS

accuracy of all figures by running tape/cards/extensions on tickets/all information for correctness/total with daily sales report

STAMPS

date, initials on customer order, invoice/check with endorsement

RECORDS

amounts of item sold/customer data/date, quantity, shipping data on contract/ all shipments/amounts due on repair/extensions/sales/information on profit and loss statement/serial numbers/codes/date, number of invoice/type of purchase/ new balances/completed repairs/amounts received/applicant information/total number, types of documents received/date of payment

COMPUTES

totals/number of items shipped

TYPES

customer account ledger card/carrier data/list of unshipped orders/maintenance form from customer orders/list of payments for clients/list of checks/receipts

POSTS

service tickets/new balances/cash receipts/invoices/daily orders, shipments/ sales rental fee/data from detail sheets/payments

DISPOSITION

DELIVERS

transmittal sheet to Data Processing/account transfer to Bookkeeping/money to box/report forms/repair cards to Billing

FILES

order, accounts receivable cards/service tickets/ledger sheet/posted invoices/ credit memos/completed customer orders/journal sheet/application for investigation later.

MAILS

invoices/credit memos/statements/receipt to customer

SUPPLEMENTARY STEP: Photocopies meter cards

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Account code books	Typing
Adding machine (10-key)	Ledger cards	Duplicating
Duplicator	Invoices	Computational skills
Bookkeeping/posting/	Sales reports	Accuracy
billing machines	Correction tickets	Checking
Hand stamp	Tax forms	Coding
Calculator	Sales receipts	Filing

REPORTED CRITERIA: "All figures are correctly recorded; Totals balance; Average typing ability of approximately 40 wpm; Legible handwriting; Bookkeeping machine time is at a premium so speed is essential; Ability to operate an accounting machine accurately and quickly; Must post accurately; Accuracy is more important than speed; Every computation double checked for accuracy; Knowledge of operation of bookkeeping; Attention to detail."

01.01.03. THE WORKER PREPARES BILLINGS OF SALES. (41 task sheets)
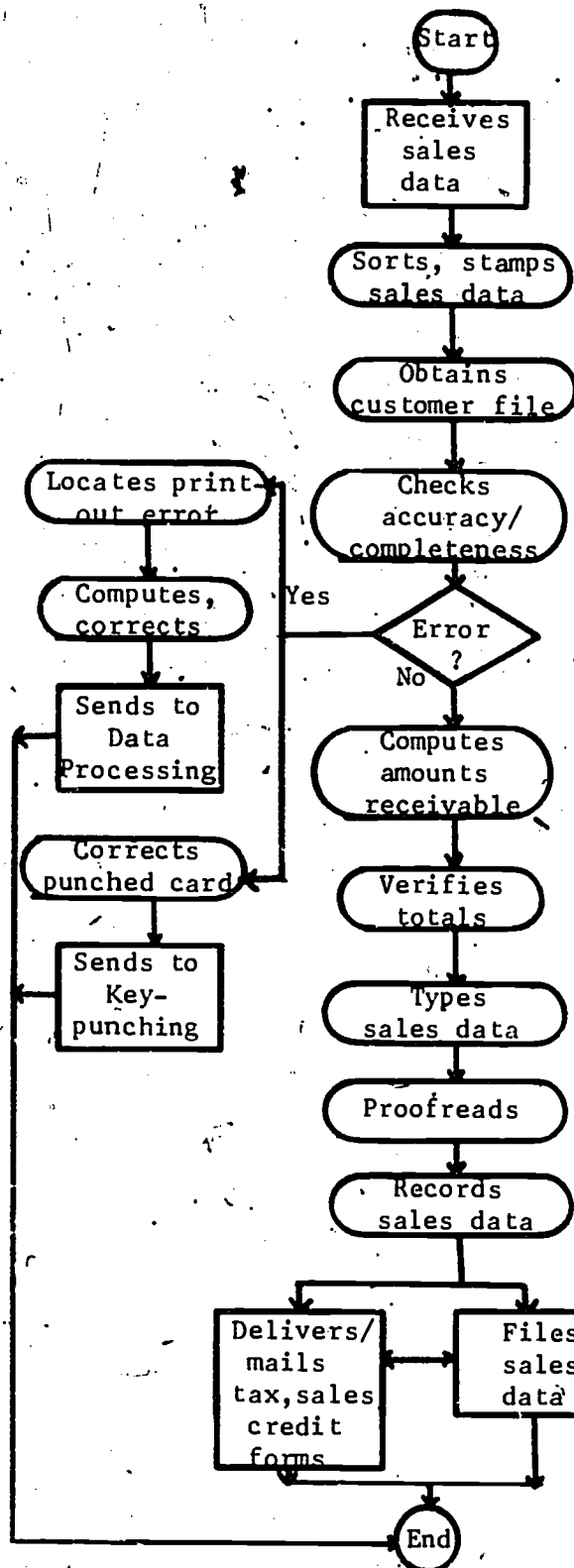
ACQUISITION

RECEIVES

weekly sales/price agreement number/re-
mittance slips/contracts/chain store
slips/invoices/computer sheets/requisi-
tions/ledgers/sales work, daily settle-
ment sheets/sales records/disbursements/
partial shipment tickets/tax forms/call
tickets/order cards

PROCESS

SORTS

requisitions, cards by route, alphabet,
number, date, type telephone call

STAMPS

date, number, paid, charge, amount on
order

OBTAINS

customer file

CHECKS

for accuracy/due date/order numbers/
addresses/codes/lists for completeness/
expiration data/prices

COMPUTES

sales ticket amounts/total deposits/col-
lections/price differences/discount,
sales tax/number minutes on call ticket/
percentages of discount/extensions/profit/
weights/charges

VERIFIES

totals/salesmen's territories

TYPES

invoices/account numbers/manifest/amount
on wholesale form/profit sheet/sales or-
der forms/report of accounts receivable

PROOFREADS

RECORDS

totals on cash report form/cash, charge
sales/customers' balance/taxes/payments/
discount/expiration date/code number

DISPOSITION

FILES

order to stop ad/sales ticket/manifest/
tax form/wholesale form

MAILS

tax form to state

DELIVERS

computer, summary sheet/call, partial
shipment tickets/credit forms to super-
visor

SUPPLEMENTARY STEPS: Batches call tickets; Duplicates statements.

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Adding machine (10-key)	Accounts receivable	Computational skills
Bookkeeping machine	documents	Accuracy
Calculator	Adding machine tapes	Typing
	Sales tickets	Filing
	Code book	
	Weight, measurement tables	
	Books, magazines	

REPORTED CRITERIA: "A general knowledge of bookkeeping and accounting termin-
ology is most helpful in early adaptation to nature of the position; Minimum
bookkeeping ability; Absolute accuracy required; Simple math ability; Must under-
stand rules and regulations for each state (rates), concentration using figures;
Legible handwriting; Reading and using weight and measurement tables."

01.01.04   THE WORKER WRITES DELINQUENT CUSTOMER.   (27 task sheets)

ACQUISITION

RECEIVES
   past due notices/invoices/statements/part-payment, overdue accounts/payments/
   oral instructions/cancelled checks/bad check information/collection record/
   collection, non-payment, cut-off-service, ledger cards

PROCESS

PULLS
   overdue loan cards/delinquent records
COMPARES
   matched lists with cards
SORTS
   collection cards/unpaid ads
CHECKS
   notices with register book/work order with invoice/invoice for due date/payment
   overdue/daily for payments/address/collection code/history card/credit report
COMPILES
   list of past due accounts
WRITES
   amount past due/meter number on service copy/list of delinquents/new address
   on bill
CALLS
   delinquent customer to request payment
COMPUTES
   final date due/collection sheet totals
TYPES
   information from notice on non-payment card/composed, form letters for collec-
   tion/overdue notices/list of those not reached by telephone
DUPLICATES
   death certificate/past due invoices/overdue loan cards/contract, auto title of
   bankrupt customer
STAMPS
   date, company name on due notices
RECORDS
   balance due on form/new deadline date/telephone notice/sending of notice/amount,
   date paid

OBTAINS
  notarization of bankruptcy forms

DISPOSITION

FILES
  notices/work orders/letter/payment reminders/loan cards, forms
MAILS
  death certificate to insurance company for loan collection/non-payment card/
  invoice to customer/collection sheets/letters/returned check to maker
DELIVERS
  list of names, payments to Bookkeeping/notarized forms to lawyer/past due
  statement to supervisor/statement stubs to Cashier/unmatched cards to Data
  Processing

SUPPLEMENTARY STEP: Arranges to extend due date for customer.

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Account cards	Statistical Typing
Adding machine (10-key)	Envelopes	Accuracy
Duplicator	Register book	Filing (numeric,
Hand stamp	Work orders	alphabetic)
Files	Loan cards, forms	Checking
	Service notices	Communication skills

REPORTED CRITERIA: "Use tact; Accept criticism for company; Distinguish between
valid excuse and made-up excuse for not paying account; Accurate matching and
records; Exercise ingenuity locating customers and tact to avoid antagonizing
customers; Common sense and logic; Make judgments."

01.01.05 THE WORKER VERIFIES CUSTOMER'S ACCOUNT RECEIVABLE. (18 task sheets)

ACQUISITION

RECEIVES
  billing invoices/punched cards/bills of lading/telephone requests for quoted
  price/loan card/work orders

PROCESS

PULLS
  shipping tickets with bills of lading attached/original invoice/file of ex-
  ternally discovered errors/service contracts
CHECKS
  printout sheets/card information/accruals/shipping data/work order against
  service contract amounts/prices/files for amount paid/to identify checks re-
  ceived/tickets for defects/shipping tickets against billing invoice for ac-
  curacy/bills of lading with original invoice/statements with invoice/for error
SORTS
  invoices/bills of lading/shipping tickets
COMPARES
  billing statement with original invoice/customer information/metal tag with
  statement if amount is excessive
RECORDS
  total figures from purchase orders/work done/notes on items not included in
  contract

DISPOSITION

FILES
  invoice/shipping tickets/billing statement/posted loan sheet
MAILS
  invoice to customer
DELIVERS
  punched cards, invoices to Data Processing/invoice to Marketing/statements to
  supervisor/all information caller gives regarding account to Service
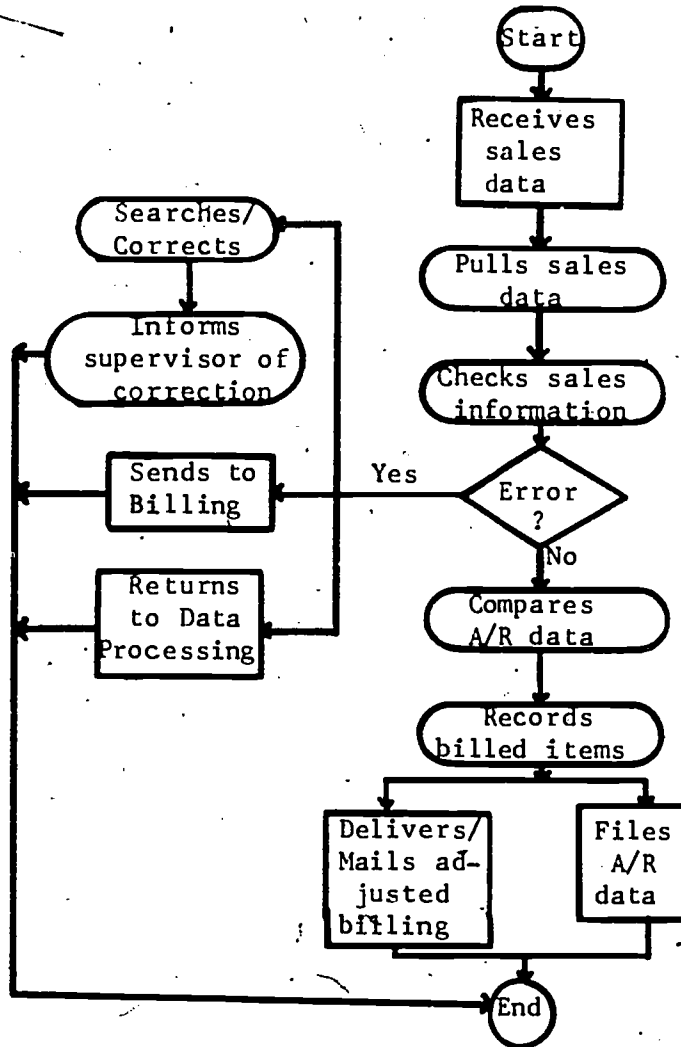
HARDWARE

Files
Metal tags

SOFTWARE

Account cards
Procedures manual
Invoices, bills of lading
Shipping tickets
Punched cards

EDUCATIONAL CUES

Checking
Accuracy
Filing
Follow-through on pricing policy

REPORTED CRITERIA: "All customers
receive invoice showing correct
amount owing; Accurate quotation on
price of item; Billing must be proces-
sed by a certain date, therefore, there
is time pressure; Accurate charges must
be assessed; Follow procedures manual."

01.01.06   THE WORKER COMPLETES MEDICAL CHARGES FOR INSURANCE REIMBURSEMENT. (15
           task sheets)

ACQUISITION

RECEIVES
  insurance, billing forms/dismissed patient accounts/Medicare verification/
  accounts receivable cards

PROCESS

PULLS
  patient's chart, file, account, ledger card

WRITES
  room number on punched card
SORTS
  punched cards/forms for mailing/ledger, account cards
STAMPS
  chart requesting information
CHECKS
  charts for completion/billing information/patient account for hospital charges,
  eligibility for Medicaid, Medicare/diagnosis name/previous insurance form/lab
  work/previous hospitalization/amounts due
COMPUTES
  extensions/discounts/deductions/total reimbursements/charges
TYPES
  record of charges, medical data on Medicare form/non-medical information on
  insurance form/insurance information on ledger card/medical diagnosis/late
  charges/room rate/reimbursement form
WRITES
  date claim form sent/"completed" on punched card/insurance information on
  patient folder/charges on work sheet/Medicare information on auditor's log
VERIFIES
  doctor's signature/signature of patient on insurance release/bill totals/amounts
  listed
RECORDS
  patient name/chart number/doctor/type of form/to whom form sent/Medicare form
  information--date statement sent, to whom sent, medical services, charges/Medi-
  care payment
ATTACHES
  overdue notice to statement
OBTAINS
  patient, doctor's signature on Medicare form

DISPOSITION

SENDS
  completed insurance forms to Reimbursement/overdue bill to credit manager
FILES
  patient folders/Medicare forms, folders
MAILS
  insurance forms/forms to Medicare/statements
DELIVERS
  punched cards to Data Processing/insurance form to doctor/check, adding machine
  tapes to Cashier

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Patient accounts	Accuracy
Files	Punched cards	Checking
Adding machine (10-key)	Medicare book	Typing
		Filing
		Computational skills

REPORTED CRITERIA: "Book must be current and complete; Moderate level of reading
skill, interpreting forms; Check typing and amounts carefully; Computation must
be correct; General knowledge of Medicare, Medicaid restrictions; No complaints;
Must know coding, names of medical treatments; Correct diagnosis name."

01.01.07 THE WORKER COMPLETES SALES REPORTS. (12 task sheets)

ACQUISITION

RECEIVES
  adding machine tapes/reports from salesmen, departments, stores/sales slips/
  recap sheets/computer printouts

PROCESS

PULLS
  collection sheets/summary report form of sales/reports
COMPILES
  . sales slips .
SORTS
  data on collections
CHECKS
  ledger card/total sales orders/invoices with tax certificates/computations
COMPUTES
  balances/extensions/averages/percentages
RECORDS
  amounts owed/quantities shipped/actual departmental expenditures
TYPES
  letter requesting tax certificate/tax forms/summary, recap, comparison recap
  sheets/sales orders/budget reports
PROOFREADS

TOTALS
  all balances/percentages
DUPLICATES
  daily, weekly sales report

DISPOSITION

FILES
  invoices/transmittal, recap sheets/reports
DELIVERS
  recap sheet to Data Processing/collection sheets to supervisor/original sales
  orders/sales report/recap sheet to Payroll
DISTRIBUTES
  sales report/recap sheets
MAILS
  collection sheets to salesmen/cover letter with tax forms/sales reports

SUPPLEMENTARY STEP: Microfilms sales slips

REPORTED CRITERIA: "Accurate picture of current status of sales compared to pre-
vious year; Use judgment deciding whether an item is income or reduction in ex-
pense; Tax commissioner receives report on time; All totals balance."

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Adding machine (10-key)	Sales orders, slips	Accuracy
Typewriter	Collection, recap sheets	Checking (numerical)
Calculator	Tax certificates	Computational skills
Duplicator	Sales, budget reports	Filing
Files	Invoices	Typing

01.01.08   THE WORKER PREPARES STATEMENTS FROM PATIENT'S ACCOUNTS AND CHARGE
            SLIPS.   (8 task sheets)

ACQUISITION

RECEIVES
  billing statements from Data Processing/patient accounts from Cashier/charge
  slips
PULLS
  patient record, chart, ledger card

PROCESS

SORTS
  bill punched cards/mail for mailing
CHECKS
  ledger card with billing statement/special services performed/insurance coverage/
  if bill is paid/charge slips
VERIFIES
  insurance coverage
COMPUTES
  insurance coverage
TYPES
  amount owed on statement/collection forms/patient's bill/record card--patient's
  name, date of appointment, reason for visit, charge, new balance
WRITES
  receipt for paid services
ATTACHES
  form letter to billing statement
STAMPS
  letters with postage meter

DISPOSITION

FILES
  patient record, statements
MAILS
  letters/statements
DELIVERS
  form letter, billing statement to supervisor/ledger cards, charge slips,
  receipts to Accounting

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Billing statements	Typing
Files	Patient account	Filing
Postage machine	Charge slips	Accuracy
	Receipt	Concentration
	Form letters	Computational skills

REPORTED CRITERIA: "Current record is kept for each patient so he will receive
a correct monthly statement of his bill from the doctor; Knowledge of various
types of hospitalization policies and coverages; Legible handwriting; Proofread-
ing; If no ticket is written through oversight, there is no charge to patient
because there is no record of visit."

01.01.09. THE WORKER CALLS DELINQUENT CUSTOMERS.   (4 task sheets)

Receives list of overdue accounts
Pulls customer file

Calls customer
Requests promise to pay
Informs customer of importance of good credit rating
Records call information, date made
Determines success, failure of call
Files customer account
Delivers account to collection agency if unsuccessful on call

01.01.10 THE WORKER PROCESSES CHANGES IN STATUS OF ACCOUNT.
          (2 task sheets)

Receives call/notice that account status has changed
Checks records to see if service is off/status of account
Completes turn-off order if dwelling unoccupied
Sends collection records, code order to supplier
Receives notices from supplier
Computes bill for estate settlement
Types new bill for new owner of estate

01.01.11 THE WORKER REQUESTS PAYMENT FROM DELINQUENT PATIENTS.
          (2 task sheets)

Receives patient accounts
Checks leads to ex-patient's whereabouts by telephone or letters
Locates addresses of ex-patients
Informs ex-patient of responsibility to pay or legal measures to be taken
Requests immediate payment
Types delinquent accounts list
Types form letters to patient, his employer
Pulls overdue accounts after six months
Batches overdue accounts for referral to credit bureau or lawyer
Delivers overdue accounts to supervisor for review

01.01.12 THE WORKER PROCESSES FOLLOW-UP RECORDS OF PATIENT'S VISIT. (1 task
          sheet)

Obtains patient chart/therapy reports
Types therapy sheet information
Proofreads
Stamps doctor's signature
Files therapy sheet
Sends therapy sheet to state mental hospital, health department
Obtains fee card record
Records patient's name, date, number, amount of time with doctor
Types patient's name, date, hospital number, code for fee on fee card
Sends fee card to Data Processing
Writes information on patient's statistical card
Files statistical card, patient's chart

ACCOUNTS RECEIVABLE CRITICAL INCIDENTS

"Worker makes an occasional error of sending the incorrect number of copies of
bills to customers who are billed in an irregular way. The customer does not
receive enough or receives too many copies of the bill."

ACCOUNTS RECEIVABLE CRITICAL INCIDENTS (CONTINUED)

"Initially the worker did not use decimals well. Consequently, the worker recorded an invoice incorrectly which cost the company a considerable amount of money."

"The office changed billing machines, and one girl was chosen to learn the machine first. It took less than an hour for her to learn it instead of the full day the trainer expected."

"Once a customer sent in a check payable to the local telephone company along with his check to us. The employee did not check the name of the company the check was made out to and posted the check with the customer's account number with us. We tried to deposit the check in our account with the rest of the checks. The employee did not anticipate the fact that a customer might make a mistake and send us a wrong check. Now she checks the payee name on all checks before we send them to the bank."

"Yesterday we received a call from an irate salesman who had talked to an irate customer. Customer owed $25,000 and had not paid for a year. He had been mis-billed consistently on a pricing plan and demanded a personal visit with copies of all invoices so he could pay and clear the debt. The worker put together the entire file, reconstructed events, and discovered that five credits had been issued in error. To offset these credits, debits had then been issued; and the customer interpreted the debits as new billings. She wrote a letter to the customer explaining the situation. The bill was paid."

"Before loading can be started by the Shipping Department, the worker must compute cubic weight, measurements, and carton count on the invoice and bill of lading. After the worker had been there for only a few months, a large order was received with a "rush" sticker. The worker realized it would take a long time to figure the necessary calculations so suggested making a photocopy of the invoice to be sent to the Shipping Department to enable them to start assembling the cartons. This procedure was so effective for both the packers and the worker, this photo-copy of rush orders has been made policy."

01.02. NUMERICAL CLERICAL RECORDS

01.02. Accounts Payable

01.02.01   THE WORKER COMPUTES ACCOUNTS PAYABLES FROM SOURCE DOCUMENTS. (69 task sheets)
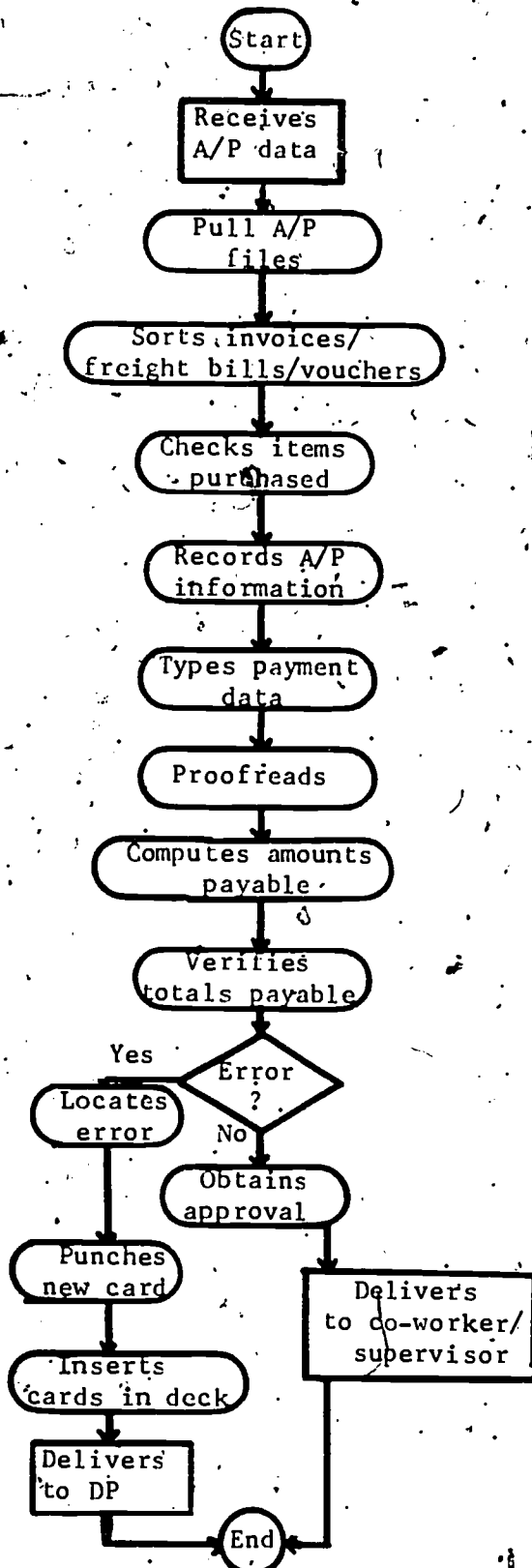
ACQUISITION

RECEIVES
   computer listing of accounts payable/purchase orders/invoices/punched, requisition cards/ statements/purchase tickets/tickets on accounts payable from branch stores/computer time use report

PROCESS

PULLS
   lags in machine operating time/invoices/accounts payable ledger sheets
SORTS
   invoices/freight bills/vouchers (over $1,000, under $1,000)
CHECKS
   items that correspond/prices/retail figures/ costs/invoice amounts/errors
RECORDS
   information on make-up sheets/date received/ vendor number/discounts/delivery carrier/date due/terms/information on transmittal sheet
STAMPS
   date, "OK" on invoices
ATTACHES
   purchase order, receiving slip, invoice/blank check to each bill/list to check request
TYPES
   authorization slip to pay/check request/ schedule of payments/credit memo/purchase orders
PROOFREADS

COMPUTES
   discounts/extensions/net amount due
VERIFIES
   totals payable
PUNCHES
   new card when error is found
OBTAINS
   initials, approval, signature on invoices

DISPOSITION

DELIVERS
   punched cards, vouchers to Data Processing/ accounts payable data to co-worker, supervisor

SUPPLEMENTARY STEP: Photocopies transmittal sheet and bill.

Flowchart (left column):

Start → Receives A/P data → Pull A/P files → Sorts invoices/ freight bills/vouchers → Checks items purchased → Records A/P information → Types payment data → Proofreads → Computes amounts payable → Verifies totals payable → Error?
- Yes → Locates error → Punches new card → Inserts cards in deck → Delivers to DP → End
- No → Obtains approval → Delivers to co-worker/ supervisor → End

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Catalog	Computational skills
Adding machine (10-key)	Accounts payable	Accuracy
Calculator	documents	Checking
Hand stamp	Code book	Typing
		Filing

REPORTED CRITERIA: "Must be exact and accurate; Aptitude with figures is essential; Must have the ability to reason well and be good in math; Knowledgeable in filing procedures; Correct typing of prices and shipping destination; Good handwriting; High accuracy in transferring figures; Work under pressure; Decimal placement very important; Some knowledge of bookkeeping; Check numbers carefully; Understand percents and discounts; Add, subtract, multiply, and divide easily; Should take pride in work done; Ability to withstand monotonous repetitive work."

01:02.02 THE WORKER RECORDS ACCOUNTS PAYABLES. (47 task sheets)

ACQUISITION

RECEIVES
   packing slips/copies of all checks typed, signed/requisitions/bills/invoices/ purchase orders/punched cards from Data Processing

PROCESS

PULLS
   accounts payable ledger/invoices
CHECKS
   all payment totals/receiving reports/purchase orders
TYPES
   letters/envelopes
RECORDS
   totals on summary sheet/invoice dates, numbers, amounts, price changes, costs on card/rental of equipment/amounts with bookkeeping machine
STAMPS
   date on requisitions, bills
CODES
   requisitions/bills
PUNCHES
   amounts on checks, requisitions, bills--using perforating machine
COMPUTES
   payment totals/discounts/extensions
ATTACHES
   invoice to purchase order/packing slip to invoice

DISPOSITION

FILES
   requisitions/bills/invoices/ledger sheets
SENDS
   invoice to recipient
DISTRIBUTES
   materials to designated persons

SUPPLEMENTARY STEP: Obtains supervisor's signature on checked invoices.

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Perforating machine	Code book	Accuracy
Adding machine (10-key)	Envelopes	Coding
Bookkeeping machine	Requisitions, bills	Computational skills
Typewriter	Price lists	Checking
Hand stamp	Cards	Filing
Files	Invoices	Typing
Calculator		

REPORTED CRITERIA: "Balances daily; Some bookkeeping knowledge; Corrects all
errors; Completes work same day as received; Uses care in matching and filing;
Technical vocabulary; Efficiency and promptness; Keeps work up to date."

01.02.03   THE WORKER PREPARES PAYMENTS FROM DOCUMENTS SUCH AS INVOICES, BILLS,
           AND VOUCHERS. (33 task sheets)

ACQUISITION

RECEIVES
  invoices/freight bills/vouchers/refund slips/factory orders/letters/delivery
  receipts
OBTAINS
  account numbers/statements/invoices/numbered checks/requisitions/vendor
  activity ledger/stock record book/check request for purchase order

PROCESS

SORTS
  purchase orders
CHECKS
  information on accounts payable source documents/checks for due date/appropri-
  ation ledger to see if sufficient funds are available/vendor number/items,
  prices on purchase orders, invoices/totals on all checks
RECORDS
  amount, bank on vouchers, check register sheets/amount to be billed on check/
  account numbers/codes
STAMPS
  check number on voucher/voucher for distribution
WRITES
  "Void" on check
TYPES
  checks /check stubs/disbursement reports/envelopes/check request forms
TOTALS
  all checks written/check requests
ATTACHES
  check to statement/original order to file copy/check request form to letter

DISPOSITION

MAILS
  checks
DELIVERS
  accounts payable data to Bookkeeping, Accounting, Travel
FILES
  checks/purchase orders/purchasing data

SUPPLEMENTARY STEP: Photocopies distribution report.

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Checks	Accuracy
Check proof machine	Accounts payable	Statistical typing
Stamp	documents	Coding
	Check stubs	Proofreading
		Checking

REPORTED CRITERIA: "Accurate payment of bills; Checks typed with no errors;
Accurate reading ability is essential; Knowledge of codes for each bank with
which the company has accounts; Extreme care in checking details."

ACCOUNTS PAYABLE CRITICAL INCIDENTS:

"The job the employee filled had been vacant for over a month. She was able to
check a pile of invoices against the accounts payable ledger quickly and accu-
rately. A bottleneck was alleviated and work began to flow once again."

"In the job of Accounts Payable Clerk she requires close supervision. Recently
it was discovered that she had put some problem files in the bottom of her work
tub. Some of these dated back a year so they were among the first ones she re-
ceived when she started the job. She apparently did not know what to do with
the particular discrepancy and did not want anyone to know that she did not
understand the work."

"The worker misplaced a payment voucher. Upon inquiry from the vendor whether
or not the company had paid, the error was brought out. This caused the company
to lose a discount."

"Last month the employee noticed an accounts payable check which had not yet
been mailed. Her prompt attention to this matter saved the company eight hundred
dollars."

01.   NUMERICAL CLERICAL RECORDS

01.03.   <u>Payroll</u>

01.03.01   THE WORKER PREPARES PAYROLL.   (73 task sheets)
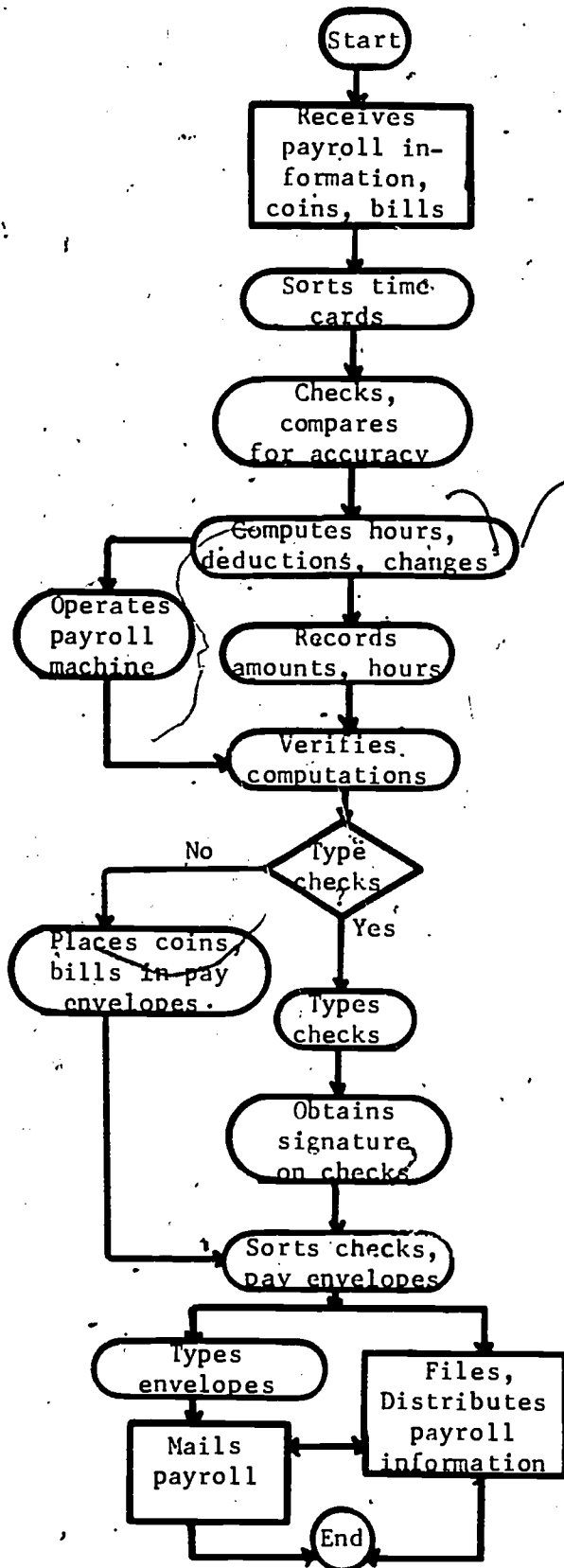
ACQUISITION

RECEIVES
  time cards/weekly payroll registers/payroll
  information sheets
OBTAINS
  labor report sheets

PROCESS

SORTS
  time cards by job category, shift, depart-
  ment/checks
RECORDS
  amounts, hours for each employee on labor
  report sheets, record card
WRITES
  date on adding machine tape
STAMPS
  materials with date of pay period end/
  numbers on blank time cards
CHECKS
  information for accuracy/manuals to compute
  deductions
COMPUTES
  hours worked, deductions, changes--taxes,
  sick leave, bonds, loan payments, holidays,
  vacation, incentive pay, etc./individual
  rates for special piecework
RUNS TAPE
  on all computations
OPERATES
  machines--payroll, addressograph, check
  writing, check protector, check master,
  signature
CODES
  employee's hours by department
PUNCHES
  tape on tape input machine for computer
VERIFIES
  computations
TYPES
  checks/time sheets/payroll listings/envelopes
RECEIVES
  coins, bills for pay envelopes.
OBTAINS
  signature on checks
PLACES
  coins, bills in pay envelopes

DISPOSITION

MAILS
  checks to employees

DISTRIBUTES
   payroll checks, pay envelopes to employees
FILES
   payroll information
PULLS
   checks for special handling

SUPPLEMENTARY STEPS: Delivers checks to bindery for cutting apart; Locates
missing checks; Duplicates time sheets, payroll listings, labor reports.

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Payroll machine	Time cards, checks	Coding system
Typewriter	Payroll registers	Accuracy
Coins	Manuals on taxes	Computational skills
Addressograph machine	Punched tape	Checking
Adding machine (10-key)	Labor report sheets	Tax laws
Check writing machine	Pay envelopes	Company policy
Check protector machine	Time sheets	
Hand stamp	Bills (money)	
Check master machine		
Signature machine		

REPORTED CRITERIA: "Honesty; Trustworthy; Convert hours into figures; Work
under pressure."

01.03.02   THE WORKER RECORDS PAYROLL INFORMATION.   (27 task sheets)
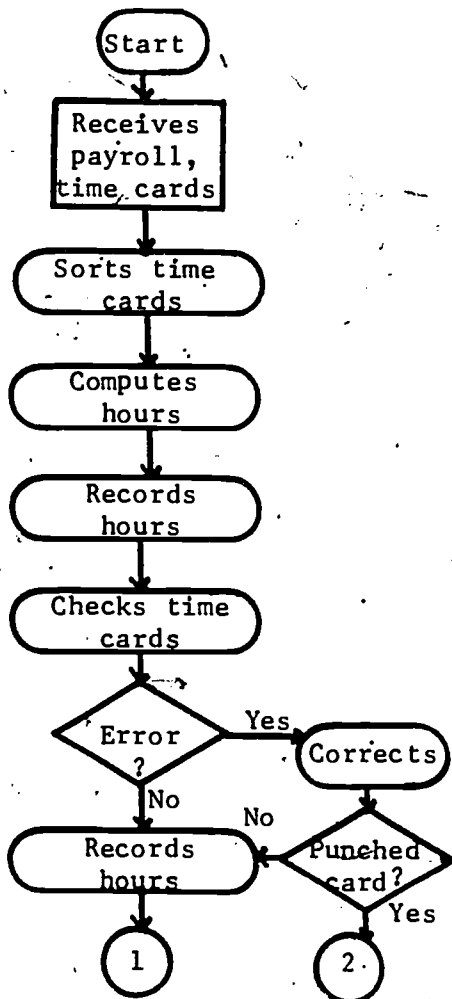
ACQUISITION
RECEIVES
   payroll, time cards from employees

PROCESS
SORTS
   time cards
COMPUTES
   hours for each craft/total time at end
   of month
RECORDS
   hours worked, code number for each
   employee/hours/amounts
STAMPS
   date on card
CHECKS
   completion of cards/printouts against
   time cards/for signature of employer and
   temporary worker/for correctness of error/
   for balanced totals of time cards
CORRECTS
   errors missed in audit
RECEIVES
   cards from Keypunching/printouts from
   Data Processing
OBTAINS
   signatures of employee, supervisor

Flowchart: Start → Receives payroll, time cards → Sorts time cards → Computes hours → Records hours → Checks time cards → Error? — Yes → Corrects; No → Records hours → 1. Corrects → Punched card? — No → Records hours; Yes → 2.

```
  (1)        (2)
   │          │
   ▼          ▼
┌─────────┐ ┌──────────┐
│ Totals  │ │  Sends   │
│ hours   │ │ to Data  │
└─────────┘ │Processing│
   │        └──────────┘
   ▼            │
┌─────────┐     │
│ Obtains │     │
│signature│     │
└─────────┘     │
   │            │
   ▼            │
┌─────────┐     │
│Delivers │     │
│to Key-  │     │
│punching │     │
└─────────┘     │
   │            │
   ▼            │
┌─────────┐     │
│Receives │     │
│ cards/  │     │
│printouts│     │
└─────────┘     │
   │            │
   ▼            │
┌─────────┐     │
│ Checks, │     │
│sorts cards│   │
└─────────┘     │
   │    │       │
   ▼    ▼       │
┌──────┐┌──────┐│
│Mails/││Files ││
│Delivers││print-││
│time cards││outs││
└──────┘└──────┘│
     │  │       │
     ▼  ▼       │
    (End)◄──────┘
```

DISPOSITION

DELIVERS
    cards, to Keypunching, Data Processing/
    File clerks/batches of cards to plants/
    corrected cards back to Data Processing
DISTRIBUTES
    cards to clerk handling that unit
MAILS
    cards
FILES
    printouts

SUPPLEMENTARY STEPS: Binds cards by depart-
ment with rubberband; Completes supervisor's
and her own time sheets; Notes whether job
will continue or worker is available for
another job; Batches time sheets; Delivers
new time sheets to each employee.

REPORTED CRITERIA: "Ability to work under
pressure; Proofreading; Knowledge of cri-
teria for sorting batches for computer;
Accuracy in dealing with numbers."

HARDWARE   SOFTWARE

Adding machine (10-key)   Payroll, time cards
Hand Stamp   Ledger cards
                            Printouts

EDUCATIONAL CUES

Batching
Coding.
Accuracy

01.03.03   THE WORKER COMPUTES PAYROLL CHANGES.   (17 task sheets)

```
    (Start)
      │
      ▼
┌───────────┐
│ Receives  │
│ salary    │
│ changes   │
└───────────┘
      │
      ▼
┌───────────┐
│Pulls records│
└───────────┘
      │
      ▼
┌───────────┐
│Checks records│
└───────────┘
      │
      ▼
┌───────────┐
│ Computes  │
│ changes   │
└───────────┘
      │
      ▼
┌───────────┐  ┌──────────┐
│Checks adding│→│  Sends   │
│machine tapes│ │tape,checks│
└───────────┘  │ to Acctg.│
      │        └──────────┘
      ▼            │
     (1)          (2)
```
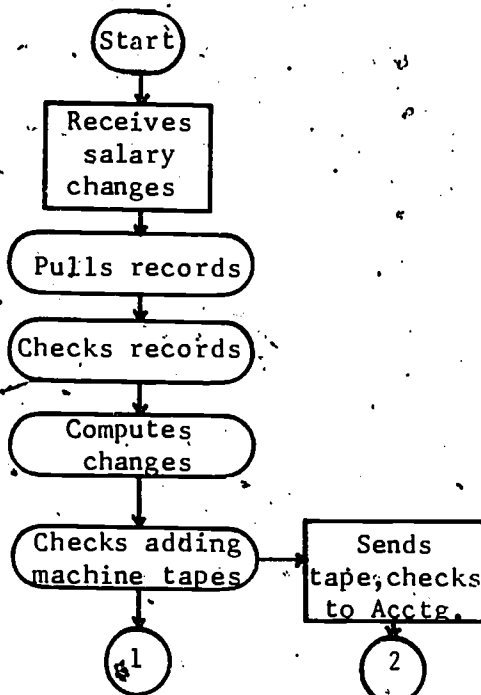
ACQUISITION

RECEIVES
    salary changes
PULLS
    records

PROCESS

CHECKS
    records/adding machine tapes/sick leave
    remaining/listing to locate employees
    due salary increases/salary and policy
    manual/union contract for amount of in-
    crease/time against payroll card
COMPUTES
    base disability amount to daily rate/
    changes on adding machine
TOTALS
    days absent
TYPES
    changes on forms

```
  (1)          (2)

Types changes

Records
changes

Obtains
supervisor's
signature

Mails          Files
contract/      payroll
report         cards,
               reports

        End
```
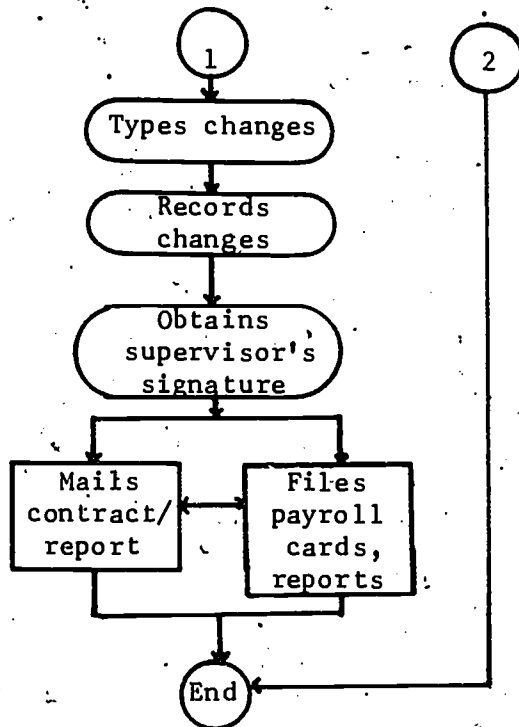
RECORDS
    salary changes/days absent
CODES
    salary adjustment
OBTAINS
    supervisor's signature, approval of
    changes/verification of code sheet

DISPOSITION

SENDS
    adding machine tapes, changes to
    Accounting
MAILS
    payroll changes to company office
FILES
    cards/reports/doctor's excuse

SUPPLEMENTARY STEPS: Compiles worksheet
with employee's name and data; Photocopies
overtime sheets

REPORTED CRITERIA: "Demonstrates ability
to compute loss of time into money; Inter-
pret union policy; Follow directions; Code"

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Salary, policy manuals	Statistical typing
Adding machine (10-key)	Union contracts	Accuracy
Files	Time reports, worksheet	Salary, policy manuals
	Payroll cards	Proofreading
	Code, overtime sheets	Filing
	Doctor's excuse	Coding

PAYROLL CRITICAL INCIDENTS

"Once or twice her monthly tally of time sheets did not balance. This caused a
great deal of recalculation and took time away from the Attendance Clerk who
needed to search for errors along with her. This incident was probably the
result of a posting error made because of tedium while posting figures for many
hours."

"On occasion, errors in pay rate have caused differences between computer and
worker records. Recently in setting up the computer, Accounting found that an
error had been recorded by the worker on the pay rate sheet. She had to
straighten out the error which occurred because she had not checked her pay
rate change records carefully."

"An error in payroll rates can upset other employees and entire payroll amounts.
Once when this employee was upset about a personal problem, he made such an
error. In order to correct the error, much time was involved in discussions
with foremen, computer staff, etc. These instances are rare and the employee
was even more upset by his error."

"One time she sorted the time cards by the wrong department and one person did
not get his check in time."

01.03.04   THE WORKER COMPILES PAYROLL REPORTS FROM PAYROLL SHEETS,
            TIME SHEETS, JOB CARDS, AND PRINTOUTS. (15 task sheets)
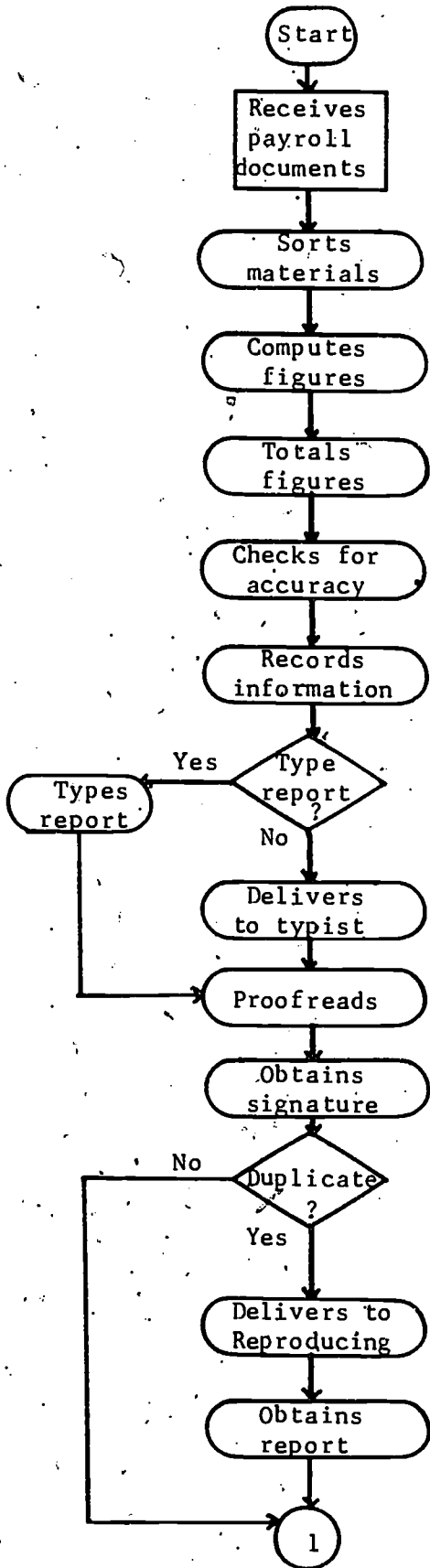
ACQUISITION

RECEIVES
  payroll, time sheets/job cards/print-
  outs for preparation of reports

PROCESS

SORTS
  materials received
COMPUTES
  all figures/net profit and loss/salary
  extensions
TOTALS
  weekly, monthly figures
CHECKS
  all figures for accuracy/manuals for
  information/forms for errors
VERIFIES
  all totals
PROOFREADS

RECORDS
  information on form for report, summary/
  absences/employee time spent per activity
  by assigned code/differences on payroll
  analysis form
WRITES
  reasons for differences
DELIVERS
  to typist for typing/to Reproduction for
  duplicating
TYPES
  form listing employees on no-leave-left
  list/job cards/time, overtime, payroll
  sheets
OBTAINS
  signature of supervisor/reproductions
  of report

DISPOSITION

MAILS
  payroll report
FILES
  payroll report
DISTRIBUTES
  payroll report

SUPPLEMENTARY STEP: Determines amount of
difference between payroll budgeted and
paid.

REPORTED CRITERIA: "Coping with employees'
errors in ladylike manner; Time pressures."

Start → Receives payroll documents → Sorts materials → Computes figures → Totals figures → Checks for accuracy → Records information → Type report? — Yes → Types report → Proofreads; No → Delivers to typist → Proofreads → Obtains signature → Duplicate? — No; Yes → Delivers to Reproducing → Obtains report → 1

```
        ┌───┐
        │ 1 │
        └───┘
   ┌───────┼────────┐
   ▼       ▼        ▼
┌──────┐ ┌──────┐ ┌──────┐
│Distri-│◄►│Files │◄►│Mails │
│butes │ │report│ │report│
│report│ │      │ │      │
└──────┘ └──────┘ └──────┘
   └───────┼────────┘
        ┌─────┐
        │ End │
        └─────┘
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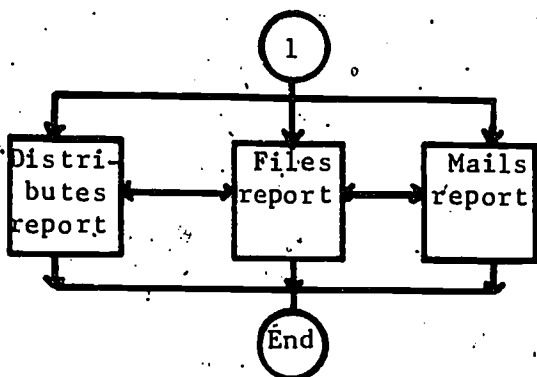
HARDWARE

Typewriter
Electronic calculator
Adding machine (10-key)

SOFTWARE	EDUCATIONAL CUES
Manuals on rates	Typing
Report forms	Coding
Time sheets	Computational skills
Payroll sheets	Accuracy
Job cards	Proofreading
Printouts	Checking

01.03.05   THE WORKER PUNCHES PAYROLL DATA. (8 task sheets)

<u>Obtains</u> data sheets/pre-punched, program control cards
<u>Arranges</u> cards by code number
<u>Punches</u> account number, amount on cards
<u>Verifies</u> cards
<u>Delivers</u> cards to Accounting

01.03.06   THE WORKER RECORDS PAYROLL CHANGES FOR HOSPITAL EMPLOYEES. (2 task sheets)

<u>Receives</u> list of salary increases/master salary schedule
<u>Checks</u> for salary changes/correct job classification
<u>Pulls</u> employee personnel file
<u>Records</u> salary change on personnel records/revision date on master salary schedule
<u>Completes</u> salary form for changes
<u>Places</u> salary form in interoffice mail
<u>Attaches</u> increase memo to salary schedule for change verification
<u>Files</u> salary schedule

01.03.07   THE WORKER PREPARES A DUMMY PAYROLL. (1 task sheet)

<u>Operates</u> addressograph machine to print dummy payroll sheet.
<u>Writes</u> changes on dummy sheet
<u>Refers</u> to vacation schedule
<u>Draws</u> circle around name of employee on vacation
<u>Delivers</u> corrected dummy payroll to another employee

01.03.08   THE WORKER COMPUTES SALESMEN'S COMMISSION. (1 task sheet)

<u>Receives</u> short, over slips
<u>Sorts</u> slips by driver, salesman
<u>Totals</u> with 10-key adding machine
<u>Computes</u> commission earned by hand or bookkeeping machine
<u>Checks</u> computations
<u>Records</u> drivers' names, commissions on payroll sheet
<u>Types</u> summary sheet
<u>Photocopies</u> payroll, summary sheets
<u>Delivers</u> payroll sheet to another worker
<u>Files</u> payroll, summary sheets
<u>Mails</u> summary sheet to distributor

01.03.09   THE WORKER PREPARES TIME CARDS.   (1 task sheet)

<u>Receives</u> time cards from Personnel
<u>Runs</u> time cards <u>through</u> addressograph machine
<u>Compares</u> time cards with list making sure there is a card for each employee
<u>Stamps</u> date on time card
<u>Places</u> card in rack by time clock

01.03.10   THE WORKER UPDATES WEEKLY PAYROLL TIME CARDS.   (1 task sheet)

<u>Stamps</u> time card, using ID plate
<u>Writes</u> week ending date on time card
<u>Files</u> payroll time cards alphabetically
<u>Removes</u> previous week's employee payroll time card from files
<u>Delivers</u> payroll time cards to another worker

01.03.11   THE WORKER MAINTAINS RECORDS OF TIME SPENT DEVELOPING NEW PRODUCTS
           FROM WEEKLY ACTIVITY TICKETS.   (1 task sheet)

<u>Receives</u> weekly activity tickets
<u>Checks</u> for errors
<u>Delivers</u> to Keypunching
<u>Records</u> time spent on new product project
<u>Files</u> computer listing

01.03.12   THE WORKER PROCESSES STATUS TIME SLIPS.   (1 task sheet)

<u>Receives</u> oral information
<u>Types</u> employee data
<u>Mails</u> time slip to board for certification
<u>Checks</u> returned time slips for verification.
<u>Files</u> certified time slip

01.03.13   THE WORKER COMPILES AN EMPLOYEE TRANSFER LIST FROM OUTPUT CARDS.   (1
           task sheet)

<u>Receives</u> output cards
<u>Punches</u> job, department, code numbers on output cards
<u>Sorts</u> (keysorts) cards
<u>Removes</u> cards of transferred employees
<u>Compiles</u> transfer list from output cards
<u>Delivers</u> transfer list to another worker

<u>PAYROLL CRITICAL INCIDENTS</u>

"The labor job classification deals with eight digit number; each digit standing
for a different part of the job. The worker must be familiar with the entire
job to know what all the digits mean. He once wrote the wrong classification on
a batch of time cards because he did not understand the job."

"One of the employees who had been injured returned to work and was still re-
ceiving workman's compensation checks. The worker forgot to notify the compen-
sation attorney that the man had returned to work."

PAYROLL CRITICAL INCIDENTS (Continued)

"Last week the worker misplaced a packet of time cards from the Billing and Cable Department. After searching through all the cards for three days, he found the cards in the bin for cards that had already been paid. This carelessness caused the worker to have to ignore his normal duties to find the misplaced cards."

"A worker did not turn in his weekly payroll time card. Our worker assumed that the worker was no longer with the company; therefore, she didn't follow up to locate the missing time card."

"In her willingness to be helpful, she didn't stop to think what she was really doing or the consequences for doing it when she gave payroll information to people she wasn't supposed to during our negotiations with the union."

"A special investigator requested that someone be assigned to help him in checking payroll books that date back as far as five years. The worker received a commendation from him for being so helpful and cooperative."

01.   NUMERICAL CLERICAL RECORDS

01.04.   Computing and Checking

01.04.01   THE WORKER CHECKS THE ACCURACY OF SOURCE DOCUMENTS.SUCH AS SALES,
PURCHASING, TAX REPORTS, AND.FORMS.   (28 task sheets)
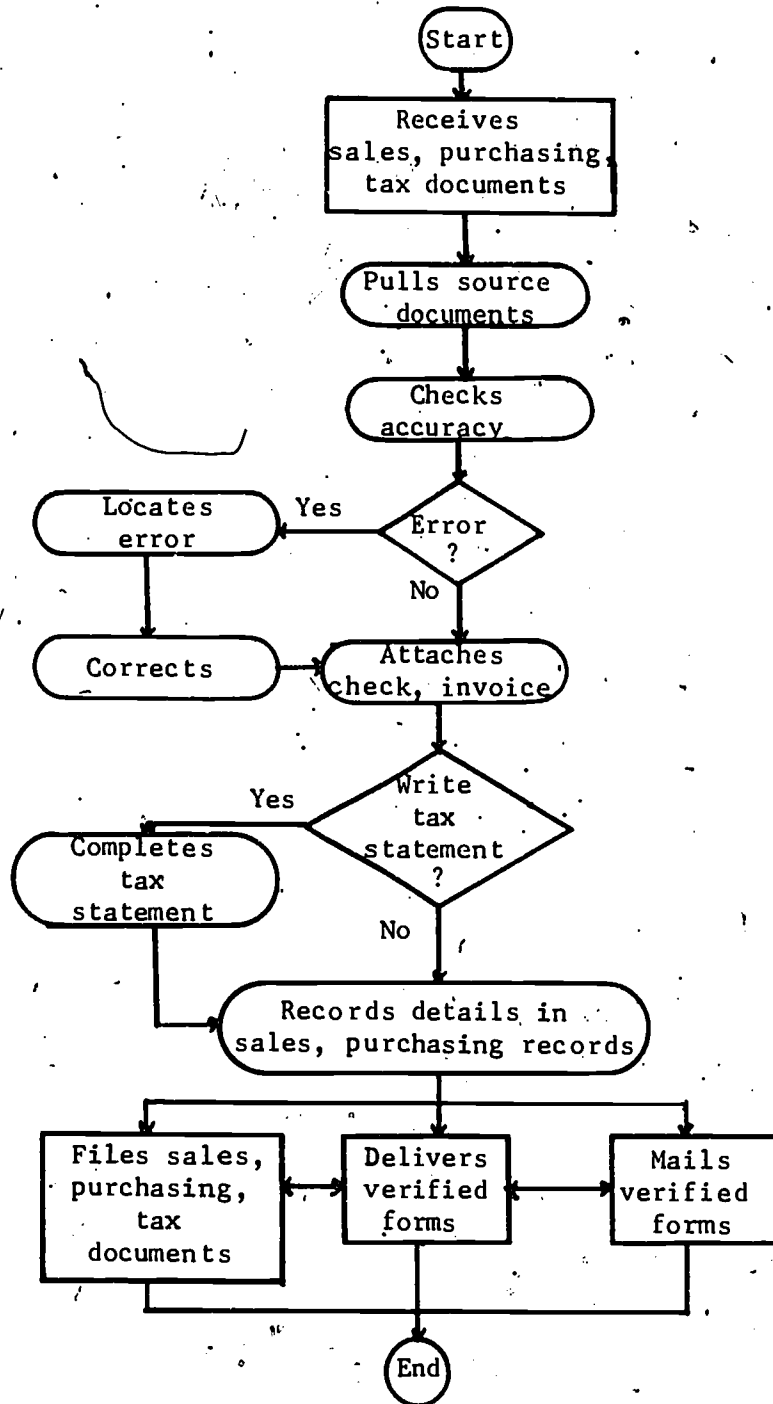
HARDWARE

Calculator
Adding machine (10-key)
Listing adding machine
Files

SOFTWARE

Statistical tables
Tax statements
Sales tickets
Daily sales reports
Hotel guest folios
Computer printouts
Invoices, vouchers
Ledger cards, job orders
Bills of lading, manifests
Checks, credit memos
Telephone bills
Log of long distance calls

EDUCATIONAL CUES

Location and correction of errors
Computational skills
Filing

REPORTED CRITERIA: "Posts 80-90
listing pages per day; Handles
150 tax statements per month."

Flowchart:

Start →
Receives sales, purchasing, tax documents →
Pulls source documents →
Checks accuracy →
Error? — Yes → Locates error → Corrects → Attaches check, invoice
Error? — No → Attaches check, invoice →
Write tax statement? — Yes → Completes tax statement →
Write tax statement? — No → Records details in sales, purchasing records
Records details in sales, purchasing records →
Files sales, purchasing, tax documents / Delivers verified forms / Mails verified forms →
End

COMPUTING AND CHECKING CRITICAL INCIDENT

"While verifying checks written to vendors, the worker found a mistake on a
check written for $3,000 instead of the correct amount of $30.   She issued a
new check and sent the necessary papers to Data Processing with instructions."

01.04.02 THE WORKER VERIFIES TOTALS OF CANCELLED CHECKS, COMPUTER TAPES, AND
          TELLERS' BALANCE SHEETS. (21 task sheets)

Start

Receives
deposit slips/
checks/tapes

Computes check totals/
debits/credits/service
charges/percentages

Writes
credit tickets/
deposit slips

Totals money in
cash drawer/sales
charge tickets

Photographs
checks
?

Yes

Photographs
checks

No

Totals balance sheet/
debits/credits/deposit
slips/cash paid/sales

Records total checks/
deposit amounts/data/
on recap sheet

Totals entry tickets/
proof sheets/ledger

1
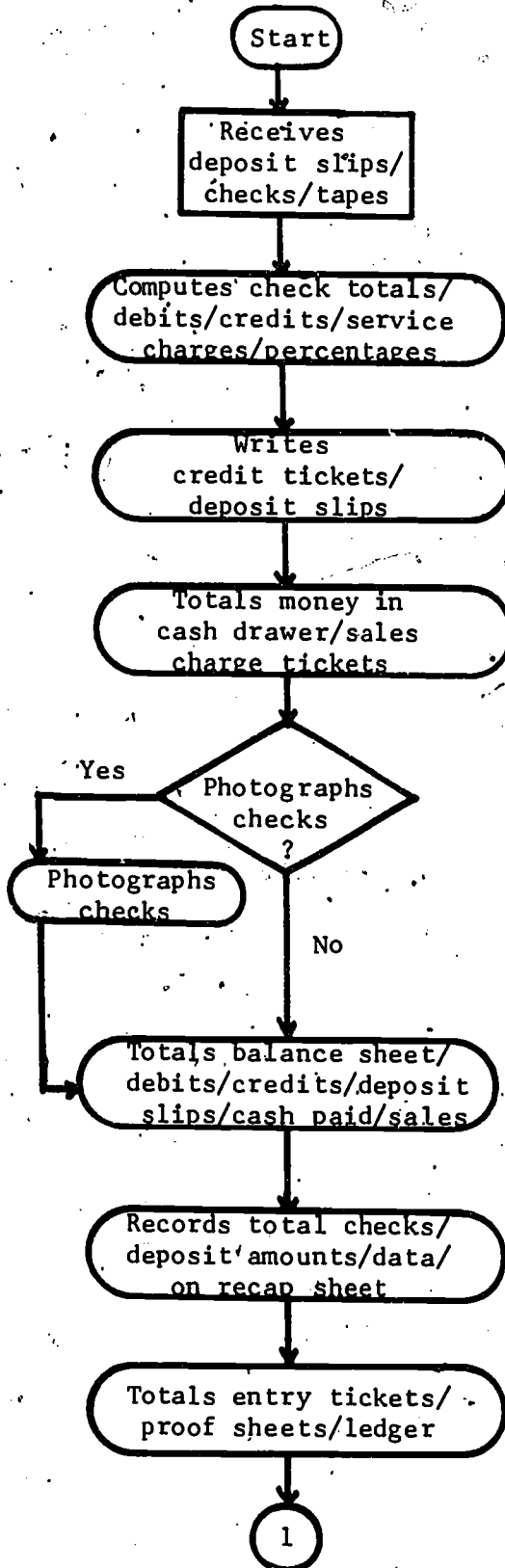
ACQUISITION

RECEIVES
  cancelled batches of checks/adding, coding,
  computer machine tapes/tellers balance
  sheets/deposit slips/debit, credit, computer
  rejected charge tickets/bank statements
OBTAINS
  deposit tickets/statistical data/all
  checks completely, partially cashed

PROCESS

COMPUTES
  totals, computer rejected checks/debits/
  credits/percentages/deposit slip, cancel-
  led check totals/new cash balances/sales
  charge tickets/service charges
WRITES
  bank balance form/charge totals/credit
  tickets
PHOTOGRAPHS
  checks
TOTALS
  money in cash drawer/balance sheet/debits/
  credits/deposit slips/cash paid/sales
  from charge, entry tickets/proof sheets/
  ledger/sales charge tickets
RECORDS
  deposit amount, current bank balance on
  summary sheet/cash on tellers' report form/
  total coins on coin sheet/total computer
  rejected checks/checks drawn on summary
  sheet/data on graph/deposit slip totals on
  master sheet/totals on recap sheet/denomin-
  ation of cash on balance sheet
VERIFIES
  bank statement totals/adding machine tapes
CHECKS
  totals/tapes/new cash balances/tellers'
  sheets
CALLS
  bank for lock-box figure (for checks sent
  to another bank direct)
TYPES
  entry, credit tickets
BATCHES
  checks with list of checks/sales charge
  tickets
PACKAGES
  checks

```
        ( 1 )
          │
┌───────────────────────┐
│ Verifies bank statement│
│ totals/adding machine  │
│        tapes           │
└───────────────────────┘
          │
┌───────────────────────┐
│  Checks totals/tapes   │
│  new cash balance/     │
│   tellers sheets       │
└───────────────────────┘
          │
┌───────────────────────┐
│     Calls bank         │
└───────────────────────┘
          │
┌───────────────────────┐
│   Types entry          │
│     tickets            │
└───────────────────────┘
          │
┌───────────────────────┐
│   Batches checks/      │
│  sales charge tickets  │
└───────────────────────┘
          │
┌───────────────────────┐
│   Packages checks      │
└───────────────────────┘
          │
   ┌──────┴──────┐
┌──────────┐  ┌──────────┐
│Mails checks/│ │Files summary│
│Delivers/    │ │sheets/bank  │
│Places cash  │ │statements   │
│in box       │ │             │
└──────────┘  └──────────┘
   └──────┬──────┘
        ( End )
```
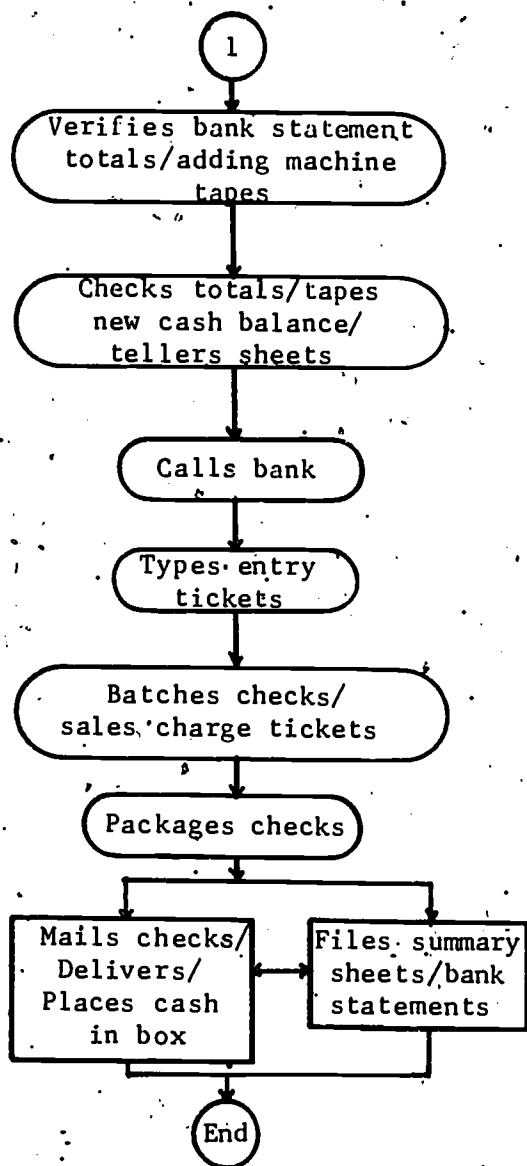
DISPOSITION

MAILS
   cancelled checks to branch/correspondent
   banks
FILES
   summary sheet/bank statements
DELIVERS
   master sheet of debits, credits to supervisor/
   graphs to supervisor/teller reports to head
   teller/sales charge slips to Data Processing
PLACES
   cash in box

HARDWARE	SOFTWARE
Adding machine	Bank statements
Telephone	Cancelled checks
Typewriter	Deposit, debit, credit
Calculator	slips
	Computer, adding machine
	tapes

EDUCATIONAL CUES

Accuracy
Checking
Concentration
Computational skills

REPORTED CRITERIA: "Must be accurate; A good
knowledge of bookkeeping would be helpful but
not necessary; Relatively good in math, check-
ing, proofreading; Cash must be balanced before
worker leaves for day; Must work effectively
with numbers, balance control sheets; All cash
correctly totaled; Knowledge of debit, credit
entries."

COMPUTING AND CHECKING CRITICAL INCIDENTS

"A memo did not contain the department name; both the employee and supervisor
were unable to read the source. The employee could have checked with each
merchandiser but this would have been a waste of time. Instead, the employee
went to the central file and checked through each merchandiser's book until
she found the necessary information."

"Late at night after the supervisor had gone home, the worker discovered an
error he did not know how to correct. Because he understood the consequences
of leaving the error, he contacted the supervisor at home for assistance."

"The worker was $5,000 out of balance. He could not find the error so he
clocked out and went home. The next day was an absolute waste."

"A check had the wrong vendor number on it and was sent to the wrong person.
That person cashed it and placed it in a savings account. We are still trying
to get the money back. The worker did not match the name on the check with
the name of the vendor."

01.04.03   THE WORKER VERIFIES CASH RECEIPTS FOR DEPOSIT.   (18 task sheets)

```
        ┌─────────┐
        │  Start  │
        └────┬────┘
     ┌───────┴───────┐
     │   Receives    │
     │ records/cash  │
     │   receipts    │
     └───────┬───────┘
    ╭────────┴────────╮
    │ Totals cash     │
    │ receipts/       │
    │ money orders    │
    ╰────────┬────────╯
    ╭────────┴────────╮
    │ Verifies totals │
    │ with cash       │
    │ register tapes  │
    ╰────────┬────────╯
    ╭────────┴────────╮
    │ Records payment │
    │   received      │
    ╰────────┬────────╯
    ╭────────┴────────╮
    │ Compares        │
    │ printout        │
    │ listing with    │
    │ journal/ledger  │
    ╰────────┬────────╯
         ◇──┴──◇  Yes  ╭──────────────╮
         │ Error├──────│ Locates error│
         │   ?  │      │ by checking  │
         ◇──┬──◇      │ files,       │
            │No        │ figures,     │
            │          │ microfiche   │
            │          ╰──────┬───────╯
    ╭───────┴──────╮   ╭──────┴───────╮
    │ Writes bank  │◄──│   Writes     │
    │ deposit slip │   │  adjusting   │
    ╰───┬──────┬───╯   │   entry      │
        │      │       ╰──────────────╯
  ┌─────┴──┐ ┌─┴────────┐
  │Delivers│ │ Files    │
  │deposit/│◄►│ printouts│
  │deposit │ │ deposit  │
  │ slip   │ │ slip/data│
  └────┬───┘ └────┬─────┘
       └────┬─────┘
        ┌───┴───┐
        │  End  │
        └───────┘
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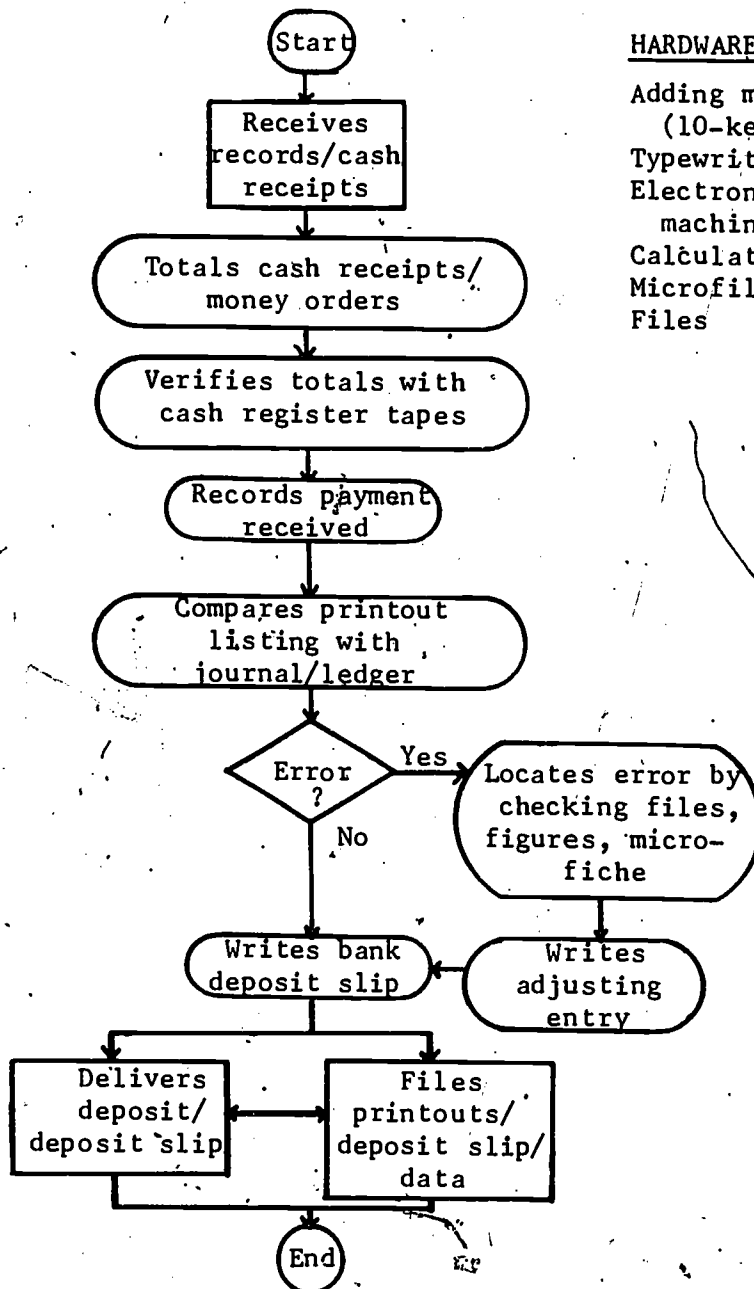
HARDWARE

Adding machines
  (10-key, full key)
Typewriter
Electronic accounting
  machine
Calculator
Microfilm viewer
Files

SOFTWARE

Journals/ledgers
Computer printouts
Control, contract
  sheets
Trial balances
Cash receipts
Money orders, vouchers
Bank deposit slips

EDUCATIONAL CUES

Location, correction
  of errors
Typing
Computational skills
Filing

REPORTED CRITERIA: "Correctly
adjusted cash receipts figures
required daily by noon; Late or
inaccurate performance results
in overtime pay for Data Proces-
sing; All items must check and
balance at end of day."

01.04.04   THE WORKER PERFORMS ROUTINE CHECK ON SUCH ITEMS AS DEPOSIT SLIPS,
ADDING MACHINE TAPES, AND ADVICES.   (15 task sheets)

ACQUISITION

RECEIVES
   checks/cash tickets/adding machine tapes/paid-in-full ledger/new account
   computer printed stickers/change of address, deposit slips/loan payment books/
   additional deposit sheets/request for verification of receipt for debit, credit
   amounts from other banks/advices/oral information stating withdrawal, deposit
   from supervisor

PROGESS

PULLS
  customer ledger card/supporting documents on receipt of debits, credits from
  other banks
TOTALS
  checks
CHECKS
  checks for errors, missing information, current date/checks drawn over $500/
  stop-payment accounts/bill register with customer account/deposit amount/past
  payments, payment record/reversing entries/advices/check amounts with adding
  machine tapes/name, sticker data with change of address slips/date, monthly
  amount of loan payment/accuracy of late charges/codes on loan payment book/
  account numbers
COMPUTES
  all check totals/deposit required
SORTS
  checks in error/change of address slips
CALLS
  customer for approval of unauthorized signatures
WRITES
  charges to drawee bank on advice/deposit, withdrawal on trust account/approval
  on correct checks/"okayed by phone" on checks approved/deposit slip for checks
  not properly endorsed
STAMPS
  "not approved" on unapproved checks
ATTACHES
  deposit slip to unapproved check/new account stickers to new cards/change-of-
  address sticker to old card
RECORDS
  rating/dates paid/new deposits

DISPOSITION

FILES
  reviewed checks/deposit slips/customer ledger card
MAILS
  loan payment book to customer/supporting document for debit, credit from other
  banks/advices to endorsing bank
DELIVERS
  unauthorized signature checks, forgeries to supervisor/payment forms on addi-
  tional deposits/deposit, withdrawal on trust account to Keypunching

REPORTED CRITERIA: "Accuracy in filing is a must; Fast skim reading important;
Familiarity with bank filing and procedures."

01.04.05   THE WORKER CORRECTS CHECKS, SAVINGS AND WITHDRAWAL SLIPS, BALANCE
           SHEETS, AND OTHER SOURCE DOCUMENTS.   (12 task sheets)

ACQUISITION

RECEIVES
  computerized transaction journal/checks paid/savings, withdrawal slips/hold
  check cards/computer listings of savings, withdrawal slips/out-of-state
  check endorsements/lists of checks on customer accounts/checks, balance
  sheets with incorrect numbers/exception list on check writing errors/mail
  deposits/deposit correction tickets/unidentified, incomplete, cancelled checks

PROCESS

PULLS
  customer card
SORTS
  savings, withdrawal slips
CHECKS
. hold cards/stop payments/checks for date, signature, endorsement/savings,
  withdrawal slips with computer listing/out-of-state checks/customer number/
  check number/check, payment amount/deposit amount received/deposit slip/name
  on unidentified check/customer name, address/checks for missing information/
  cancelled checks for errors
STAMPS
 ' deposit slip/check (if no signature)/endorsement on cancelled checks
. PHOTOCOPIES
  deposit correction tickets
MICROFILMS
  incomplete checks
RECORDS
  hold cards/stop payments/removal of stop payments/weekly listing of checks
  issued by customer
WRITES
  standard reversal forms for incorrectly cashed checks/substitution slip for
  correction/credit, debit slip to correct error/new cards for stop payments/
  total savings, withdrawals/return item form to out-of-town state bank to which
  check belongs/correct number on check/accout number on unidentified check
TYPES
  .reverse entry form for out-of-state missent checks/bank-owes, customer-owes
  letter on incorrectly cashed check
TOTALS
  control register of all checks processed/amounts of checks misnumbered/debit,
  credit of deposit corrections

DISPOSITION

FILES
  hold, stop cards/savings, withdrawal slips/savings, withdrawal computer listing/
  deposit corrections/completed checks
DELIVERS
 ' unidentified checks to check clerk/questionable checks to supervisor/savings,
  withdrawal paper to Posting/correctly numbered checks to Proofing/deposit
  slip, check to teller
MAILS
  return item form/out-of-state check

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Adding machine (10-key)	Hold cards	Computational skills
Typewriter	Checks	Typing, Filing
Files	Computer listings	Checking, Accuracy

REPORTED CRITERIA: "A great need for alertness; Accurate examination; Typing
speed secondary to accuracy; Should be able to understand debit and credit;
Must check savings, withdrawal slips with computer listing daily."

01.04.06   THE WORKER CHECKS COMPUTATIONS WITH PROOFING MACHINE.   (8 task sheets).

Start

Receives deposit,
withdrawal slips/
cash receipts/
checks

Sorts checks payable
to cash/personal from
business checks

Photographs? —Yes→ Photographs
checks pay-
able to cash

No ↓

Punches check
amounts/codes

Punches
deposit slips

Totals/Verifies
entries/debit,
credit counters

Writes machine
number, date
on tape

Batches checks
with machine tapes

Types recap
totals on
consolidation form

Places checks/
deposit slips in
pick-up box

End

HARDWARE

Proofing machine
Camera

SOFTWARE

Deposit, withdrawal slips
Checks
Cash receipts

EDUCATIONAL CUES

Checking
Average knowledge of bank terminology
Accuracy
Speed

REPORTED CRITERIA: "Must balance accu-
rately; Poor performance is costly to
bank for salaries of other workers who
locate errors; A good day's output is
10,000 checks and deposits entered on
proofing machine; Thoroughness in read-
ing all checks and deposits from docu-
ments; not relying on memory."

COMPUTING AND CHECKING CRITICAL INCIDENTS:

"The worker entered a $30,000 item on
machine as credit instead of debit and
kept overlooking this in reconciling."

"The worker has a tendency to punch
the same figure that is on the check
for the figure that is on the deposit
slip. If they do not agree, this throws
our balance off."

"In balancing checks, the total is
carried forward until worker is finished.
The worker picked up incorrect total
once because she looked at the wrong
tape, and had to re-proof a batch of
checks."

01.04.07   THE WORKER DISTRIBUTES DAILY CASH TO TELLERS IN BRANCH BANKS. (2
            task sheets)

Computes needed cash (estimate)
Obtains needed cash from vault
Receives request for additional cash from teller
Verifies requests
Totals cash
Delivers cash to teller
Writes signature on form recording exchange
Delivers forms to teller

01.04.08   THE WORKER SORTS COINS FROM THE FEDERAL RESERVE BANK DAILY. (2 task
            sheets)

Obtains currency from vault
Writes signature for number of bags, amount received
Places coins in coin-counter machine
Checks for bent, foreign, counterfeit, old coins, bills
Removes bad coins
Issues new coins
Sorts bills (fit, unfit)
Records coin, bill count
Places coins in bag
Packages bills
Stamps packages of bills
Totals bad coins
Delivers bad coins to supervisor/finished bags to vault

01.04.09   THE WORKER VERIFIES INSTALLMENT LOAN BALANCES. (1 task sheet)

Receives account cards
Sorts loan cards by due date
Computes balances on each card
Verifies totals
Obtains approval of supervisor
Files report with abstract

01.04.10   THE WORKER PREPARES NIGHT DEPOSITS. (1 task sheet)

Receives night deposit
Records number of deposit bags, envelopes
Totals currency/coin
Checks deposit slip amounts/endorsement on checks
Runs deposit, receipt slip through receipt machine
Mails receipt slip to customer
Records cash addition in teller machine

01.04.11   THE WORKER PERFORMS AUDIT OF PARTICULAR FUNCTIONS IN INDIVIDUAL
            DEPARTMENTS OF THE BANK. (1 task sheet)

Receives audit assignment
Determines order of dates for audits
Arranges audit assistance

<u>Checks</u> previous audits/audit directions
<u>Obtains</u> financial records
<u>Checks</u> procedures for maintaining financial records being audited
<u>Totals</u> financial records
<u>Checks</u> balances with ledger, computations
<u>Locates</u> most recent date financial records in balance
<u>Composes</u> verifications to bank personnel on exceptions noted
<u>Writes</u> audit report
<u>Delivers</u> audit report to Auditing

01.04.12   THE WORKER CODES TRANSACTION TAX ON TICKETS.   (1 task sheet)

<u>COMPUTING AND CHECKING CRITICAL INCIDENTS</u>

"The worker discovered an embezzlement in one department because he was very
persistent in questioning individual involved. He knew the answers were not
correct."

"The worker failed to get facts straight from interviewee. He made his audit
report based on erroneous information."

01.   NUMERICAL CLERICAL RECORDS

01.05.   Receipts

01.05.01   THE WORKER PREPARES THE BANK DEPOSIT FROM CASH RECEIPTS.   (27 task sheets)
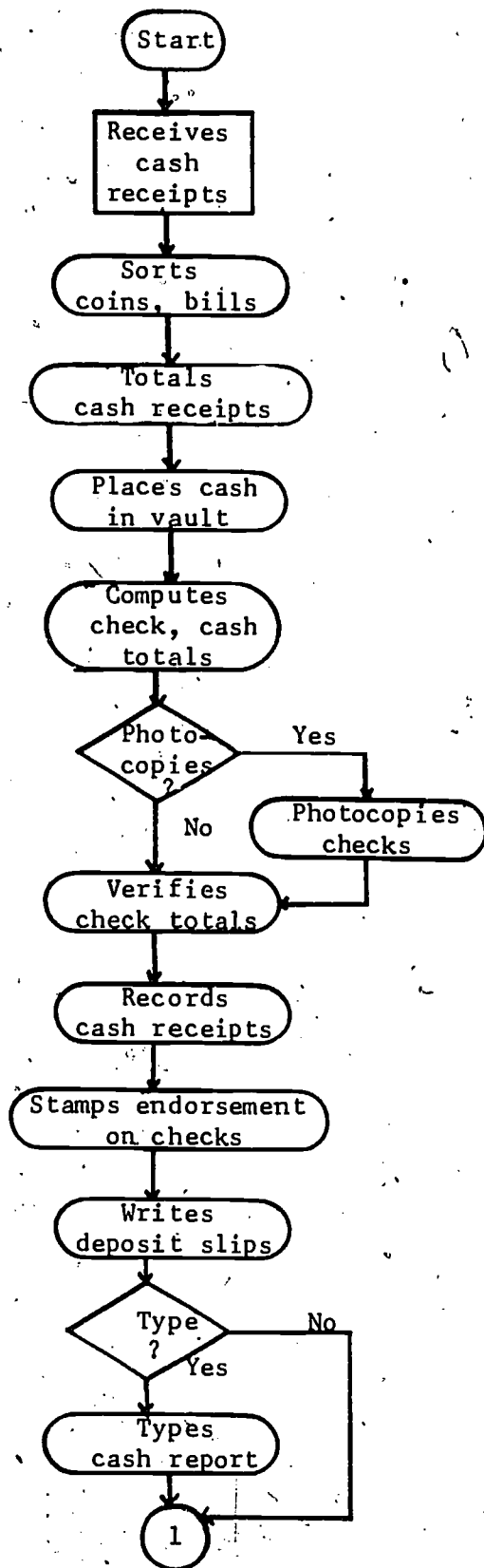
ACQUISITION

RECEIVES
    cash/checks/employee deposit slips/money
    sheets

PROCESS

SORTS
    coins on coin machine/checks alpha-
    betically/bills

PACKAGES
    coins

TOTALS
    cash receipts

COMPUTES
    cash for following day

PHOTOCOPIES
    checks

CHECKS
    checks are properly signed, endorsed/
    bank reconciliation

VERIFIES
    check totals with cash receipts journal/
    total paid invoices

PULLS
    unpaid invoices

RECORDS
    cash, checks in cash receipts journal,
    cash record book

WRITES
    deposit slip/cash total on bank bag
    slip

STAMPS
    checks with endorsement/date payment
    received on invoices

TYPES
    cash, checks received on cash report

COMPUTES
    column totals in cash receipts journal/
    total checks/invoices paid

DISPOSITION

DELIVERS
    deposit to bank, co-worker

PLACES
    deposit in bank bag for pick-up/money for
    next day in vault cash drawer

MAILS
    deposit, deposit slip to bank

FILES
    deposit slip

Flowchart:

Start → Receives cash receipts → Sorts coins, bills → Totals cash receipts → Places cash in vault → Computes check, cash totals → Photocopies? — Yes → Photocopies checks; No → Verifies check totals → Records cash receipts → Stamps endorsement on checks → Writes deposit slips → Type? — No / Yes → Types cash report → 1

```
        ( 1 )
   ┌──────┬──────┬──────┐
   │Mails │Files │Delivers│
   │deposit│deposit│deposit│
   │slip to│slip  │slip to│
   │bank  │      │bank   │
   └──────┴──────┴──────┘
         (End)
```

HARDWARE

Coins
Adding machine
Coin machine
Coin wrapping machine
Typewriter
Calculator
Photocopy machine
Endorsement stamp

SOFTWARE

Checks, bills
Deposit slips
Invoices
Cash receipts
　journal
Bank money bag

REPORTED CRITERIA:　"Figures must be accurate; Accuracy in use of 10-key adding machine; Honest; Work must be completed at specific time each day."

EDUCATIONAL CUES

Computational skills
Typing
Accuracy in handling money

01.05.02　THE WORKER RECEIVES PAYMENTS OVER THE COUNTER.　(20 task sheets)

```
        (Start)
          │
   ┌──────────────┐
   │ Receives     │
   │ customers    │
   └──────────────┘
          │
   ┌──────────────┐
   │ Receives.    │
   │ payments,    │
   │ payment      │
   │ records      │
   └──────────────┘
          │
   ( Pulls customer )
   (   record      )
          │
   ( Checks due dates, bill )
   (  amounts, customer     )
   (     complaints         )
          │
   ( Computes bill amount/ )
   (   interest/change     )
          │
   ( Records, Stamps       )
   ( payment information   )
          │
   ( Delivers merchandise/ )
   ( change/receipt to     )
   (    customer           )
          │
   ( Checks daily cash )
   (   receipts        )
          │
   ┌──────┬──────────┬──────┐
   │Files │Places    │Mails │
   │receipts│money in│payment│
   │      │drawer/  │to     │
   │      │safe     │office │
   └──────┴──────────┴──────┘
         (End)
```
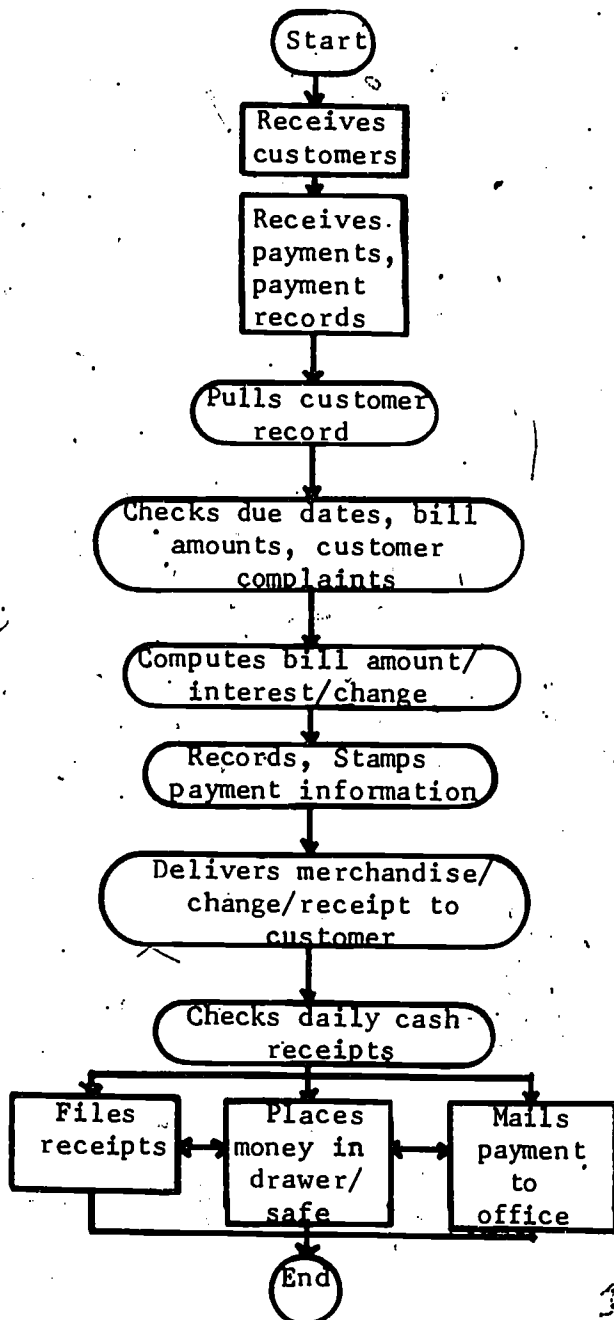
ACQUISITION

RECEIVES
　customers
PULLS
　customer record card/office bill
RECEIVES
　payments/change bag/COD sales slips/
　coupon payment, loan books/charge plate/
　lay-away tickets/ads/classified ad,
　utility bills

PROCESS

CHECKS
　bill amount with due date, amount re-
　ceived/previous bill computations/
　customer bill complaints
COMPUTES
　gross amount of bill/interest due for
　net amount

TOTALS
　change drawer/payment received/customer
　change twice to self, once to customer
OPERATES
　cash register/charge plate validation
　machine
RECORDS
　payment information on customer record,
　company record, punched card
STAMPS
　bill "paid"/customer premium book
WRITES
　customer receipt

DISPOSITION

FILES
　record card/receipt

DELIVERS
   lay-away merchandise, receipt, change to customer/record book/change bag
   to safe
PLACES
   money in drawer, locked box, cash register
MAILS
   payment to home office

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Cash register	Customer record books	Accuracy handling money
Calculator	Company record books	Computational skills
Adding machine	Cash receipts	Courtesy dealing with
Typewriter	Merchandise (lay-away)	customers
Posting machine		Filing
Charge plate validation		Typing
machine		

REPORTED CRITERIA: "Worker must account for any shortages; Essential that customer be greeted immediately; Averages 30 lay-away transactions daily."

01.05.03   THE WORKER RECORDS PAYMENTS RECEIVED.   (17 task sheets)
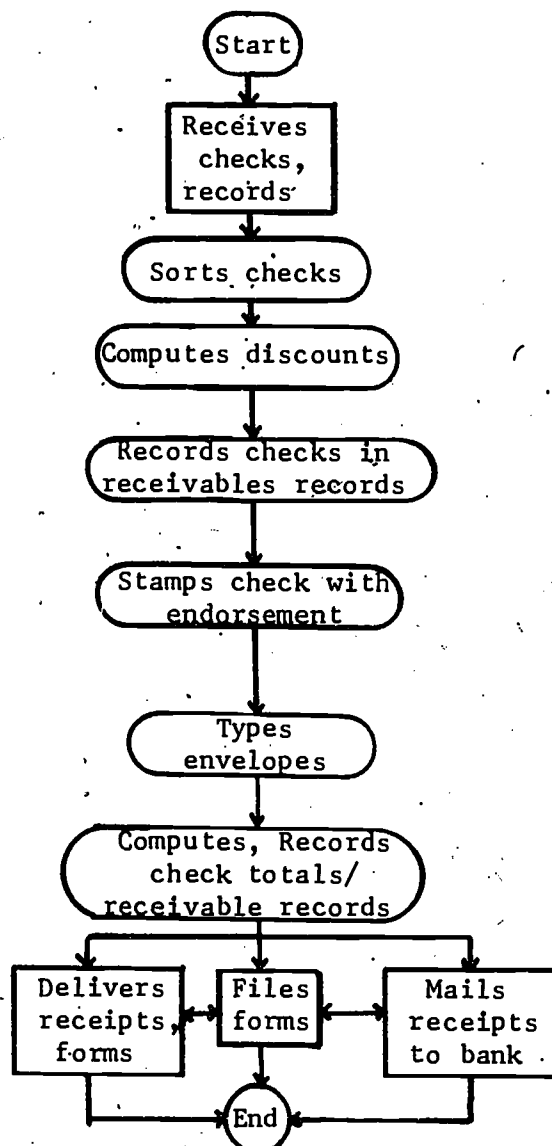
ACQUISITION
RECEIVES
   cash receipts, records/punched account
   cards/cash receipts printout/overpayments/
   past-due payments
PROCESS
SORTS
   checks alphabetically, by method of pay-
   ment/punched cards into bad, good accounts
COMPUTES
   total checks/discount amounts
RECORDS
   checks in cash receipts journal/cash
   slips/sales invoice cards/journal page
   number on check/customer file card/cash
   receipts on cash voucher form/COD checks
   on sales invoice cards/overpayment as
   customer credit
STAMPS
   checks with company stamp
TYPES
   envelopes
COMPUTES
   balance of journal pages/number of sales
   invoice cards processed/number of checks/
   credit slip totals for each salesman
DISPOSITION
FILES
   vouchers/cash receipts-forms/A/R ledger
MAILS
   deposits to bank

DELIVERS
  cash slips, checks, credit slips, adding machine tape to Bookkeeping, Keypunch-
  ing, co-worker

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Mechanical letter opener	Checks,	Computational skills
Adding machine	Receivables journals,	Good penmanship
Typewriter	ledgers	Filing
Register	Receivables forms,	Typing
Accounting machine	envelopes	
Company name stamp		

REPORTED CRITERIA: "60 entries an hour; Handles 5000 payments a month."

01.05.04 THE WORKER RECORDS PAYMENTS FOR MEDICAL SERVICES.   (16 task sheets)
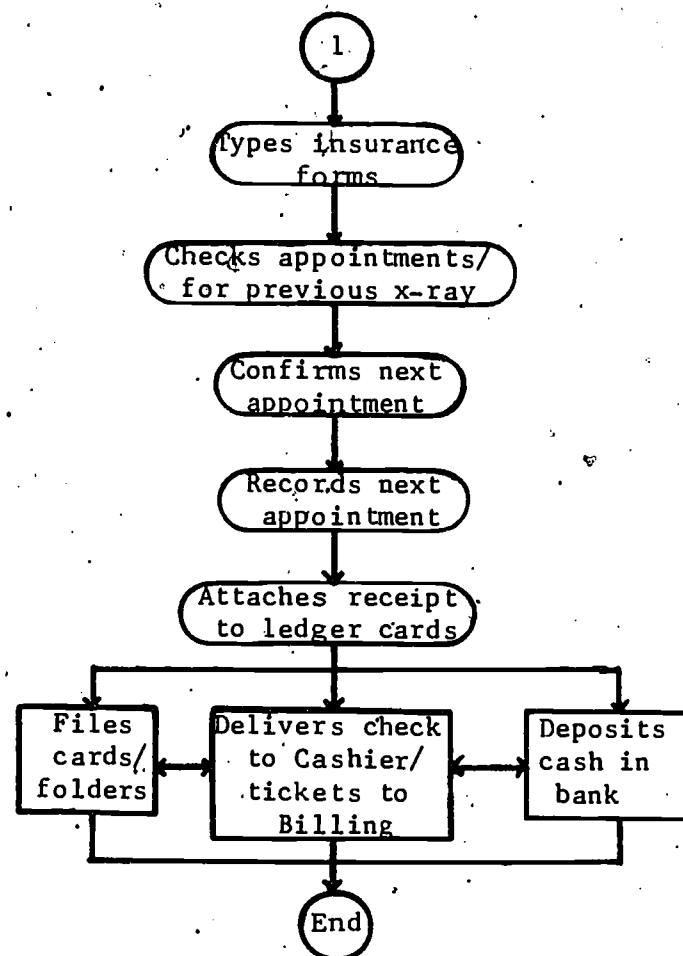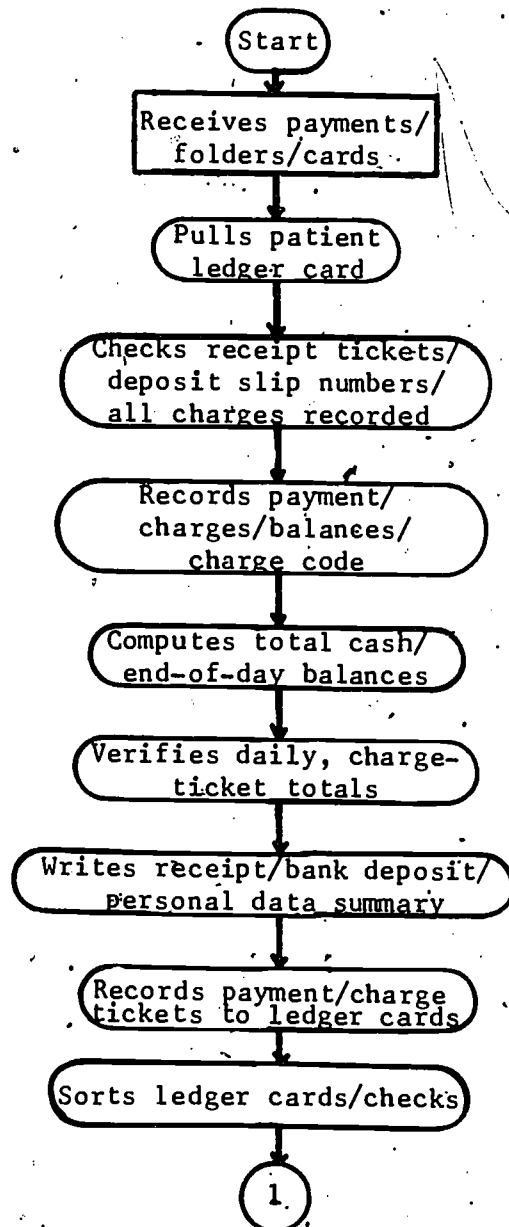
SUPPLEMENTARY STEP: Calls out-patient
department to report payments

REPORTED CRITERIA: "Accuracy; Each payment
properly recorded; Communicate effectively
with people; Proficiency in mathematics;
Skill in detecting errors in posting; Common
sense."

HARDWARE

Posting machine
Adding machine (10-key)
Telephone
Typewriter
Files

SOFTWARE

Patient files
Ledger cards
Deposit slips
· Receipt tickets
Appointment book
Adding machine tapes

EDUCATIONAL CUES

Accuracy
Checking
Typing
Filing
Communication skills
Computational skills

01.05.05   THE WORKER RECORDS DEPOSITS TO CUSTOMER ACCOUNTS.   (12 task sheets.)
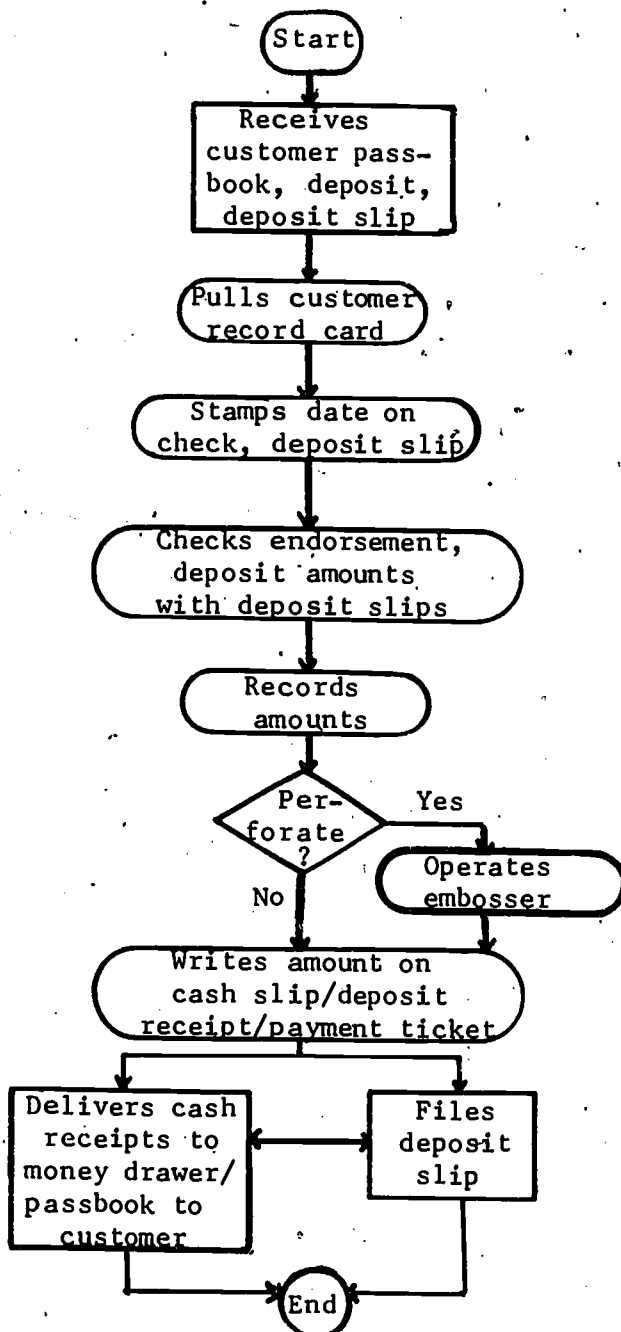
HARDWARE

Adding machine (10-key)
Stamp
Posting machine
Tellers machine
Check embossing machine
Files

SOFTWARE

Passbooks
Deposit checks, slips
Negotiable instruments
Customer records

EDUCATIONAL CUES

Accuracy
Checking
Filing

Note: Hardware, Software, Educational Cues and Reported Criteria refer to 01.05.05 and 01.09.01.

REPORTED CRITERIA: "Accuracy in counting cash is a must; Adherence to rules concerning security; Careful checking for forgeries; Count cash quickly and accurately; All deposits or withdrawals properly recorded and correct change given in order to balance at end of day; Remain alert; Losses suffered by bank for errors are noted on teller sheets."

SUPPLEMENTARY STEP: Obtains cash box from vault.

01.05.06   THE WORKER PREPARES RECONCILIATION OF BANK ACCOUNT.   (8 task sheets)

```
        ( Start )

       ┌──────────┐
       │ Receives │
       │   bank   │
       │ statement│
       └──────────┘

       (  Totals  )
       (  checks  )

       ( Verifies totals )

          ╱ Error ╲  Yes
          ╲   ?   ╱ ────────┐
            No              │
             │          ( Locates )
             │          (  error  )
             │               │
             │          ( Corrects )
             │          (  error   )
       ( Sorts checks )      │
       (  by type    )◄──────┘

       ( Checks previous  )
       ( month's statements )

          ╱ Checks ╲  No
          ╲ cleared ╱ ──────────┐
          ╲   ?   ╱              │
            Yes            ( Records )
             │             ( uncleared )
             │             ( checks  )
       ( Records out-  )  ( Checks void )
       ( standing checks) ( check file  )
             │               │
       ( Totals out-  )  ( Checks stop  )
       ( standing checks) ( payment file )

       ┌────────────────────┐
       │ Checks bank balance │
       │ with bank account   │
       └────────────────────┘

       ┌──────────┐
       │Files check│
       │stubs/bank │
       │statements │
       └──────────┘

          ( End )
```
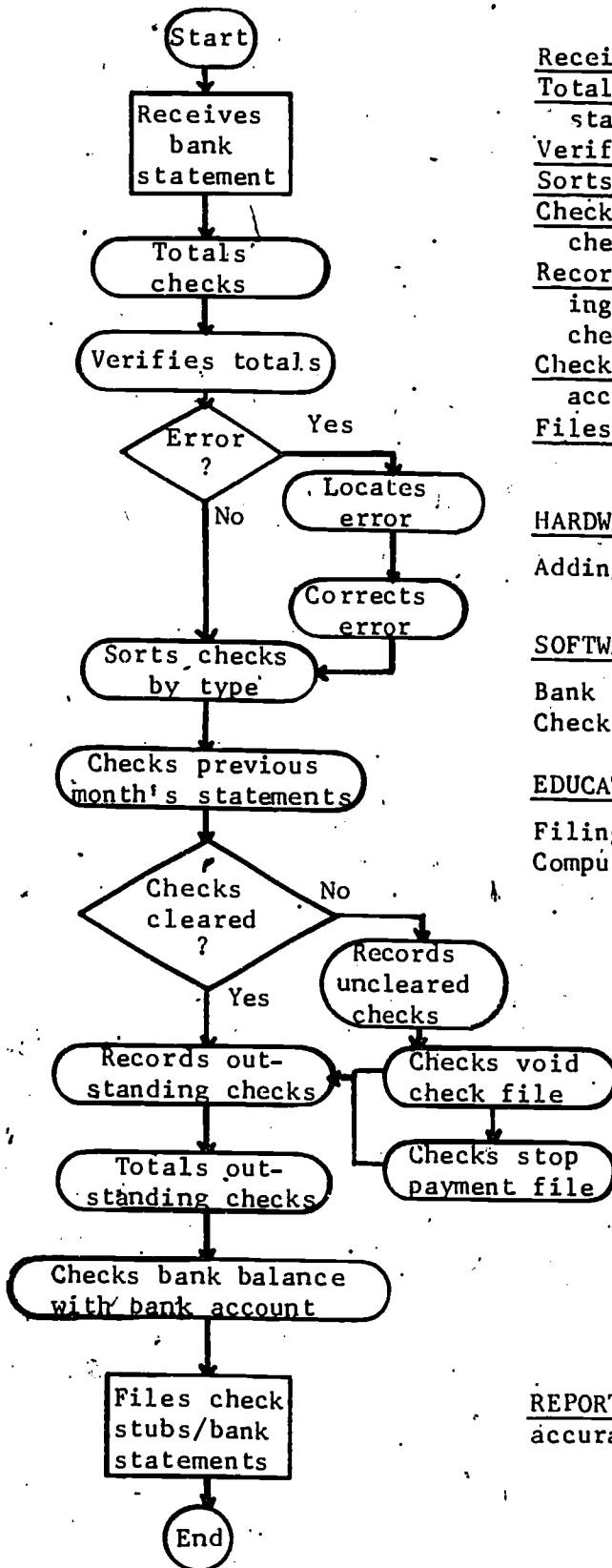
Receives bank statements
Totals checks listed/check register/out-
   standing checks
Verifies totals with bank's total
Sorts checks by type
Checks previous month's statement/for
   checks cleared
Records checks not cleared bank/outstand-
   ing checks by check number, date of
   check, amount
Checks bank balance with bank
   account
Files check stubs/bank statements

HARDWARE

Adding machine (10-key)

SOFTWARE

Bank reconciliation statements
Checks

EDUCATIONAL CUES

Filing
Computational skills

REPORTED CRITERIA: "Efficiency and
accuracy are critical."

01.05.07   THE WORKER PROCESSES MONEY FOR LIBRARY BOOKS AND FILMS FROM CHECK-OUT
           REQUESTS AND LATE AND LOST BOOK NOTICES. (3 task sheets)

Receives price slips for lost books/film check-out request
Compares price slips with charge cards
Computes fine for library book
Types replacement cost bill/film booking slip
Sends bill with form letter to student/bill copy to cashier
Files bill copy/charge card/price slip
Types dummy charge card for book loss to library patrons
Files dummy charge card in missing book file
Receives fines/insurance money for film
Places bill in paid box/film on shelf
Checks   cash register weekly
Delivers money to cashier
Receives receipt for money

REPORTED CRITERIA: "Checks out 35 films a day; Must be effective in dealing
with irate people."

01.05.08   THE WORKER PERFORMS BOOKKEEPING DUTIES OF A SMALL BANK. (1 task sheet)

Receives payments
Computes interest/principal
Records payments
Types debit, credit entry letters/computation tickets
Totals daily work
Sends daily work to Data Processing/bills, past-due notices to customer
Maintains files
Arranges closing of customer paid loans

RECEIPTS CRITICAL INCIDENTS

"The worker added up a customer's classified ad bill, rang the amount up on the
cash register, and handed over a receipt--neglecting to receive payment from the
customer. The following day the worker realized a shortage in cash funds and
had to determine the error."

"The worker once couldn't balance her cash receipts at the end of the day and
had to write that she was $15 short on the tape. After we received the bank
deposit slip from the bank the next day, we found she had counted $10 worth of
quarters but had recorded it on the tape as $25 because she was thinking of the
number 25 pertaining to quarters."

"While checking all personal and business checks the bank had received that
day, the worker found a check without a signature. The check was written out
for a very large sum. Not even the teller who took in the check caught the
signature omission."

01. NUMERICAL CLERICAL RECORDS

01.06. Financial Entries

01.06.01 THE WORKER RECORDS DATA FOR FINANCIAL REPORTS FROM SCHEDULES, LICENSE
FEE FORMS, AND DAMAGE CLAIMS. (28 task sheets)

Start

Receives financial source documents

Pulls punched cards

Sorts financial forms

Checks, Compares financial cards, forms

Computes averages/ advances/taxes

Checks computations

Records changes

Operate machine ?
Yes — Operates bookkeeping machine
No

Verifies computations → Obtains approval

Types financial reports

Types envelopes

Mails, Delivers financial reports   Files financial reports

End
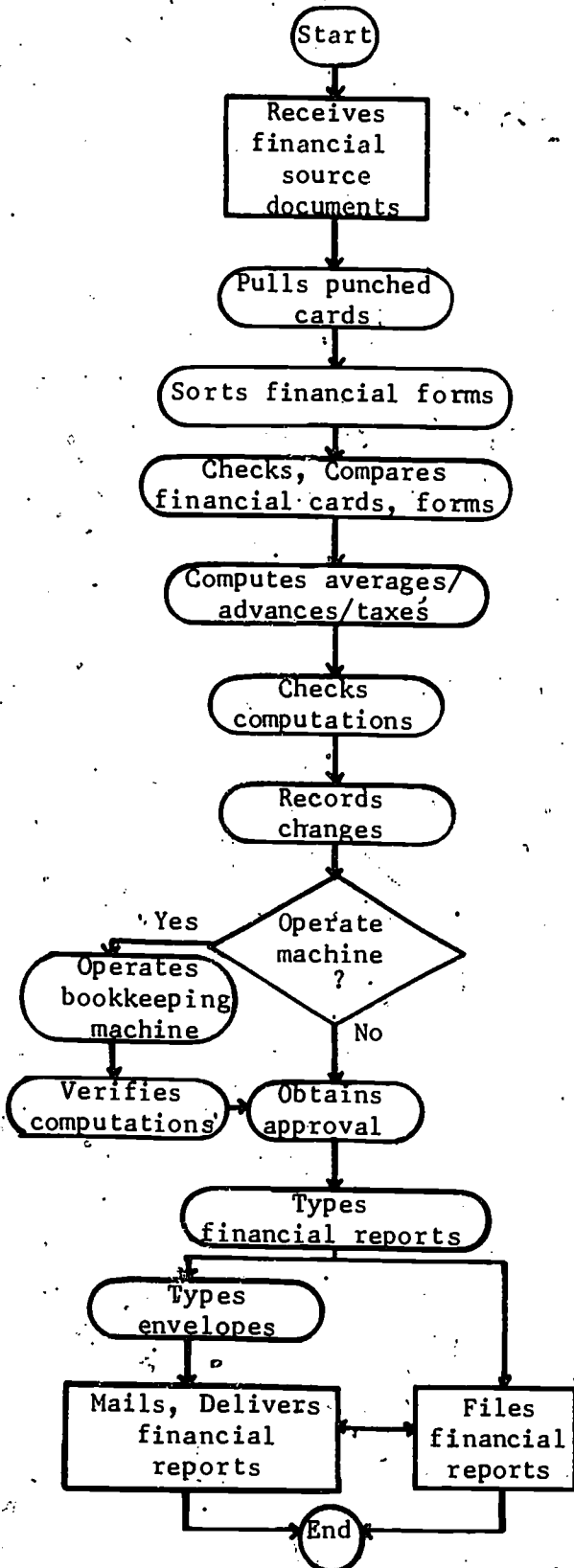
ACQUISITION

RECEIVES
appropriation, depreciation schedules/
license fee, shortage forms/damage claims/
corrections/punched cards/field company
general ledger/trial balance printout/tax
receipts/tapes/payments from borrowers/
loans from banks/cancellation forms
PULLS
cards

PROCESS

SORTS
financial forms
DETERMINES
time, amount limit on accounts
CHECKS
financial cards, forms/arrears/amounts
advanced/assets/liabilities/paid items/
card totals with total receipts
COMPUTES
percentages/weekly averages/advances/
taxes/number of financial cards, forms
TOTALS
accounts at end of month/punched card
amounts/control sheet
CHECKS
all computations
RECORDS
account changes in appropriations
ledgers/transfers of balances/quantities/
part numbers/amounts advanced/list for
income tax report/monthly collections/
corrections/changes
STAMPS
date paid/receipt
OPERATES
bookkeeping machine
VERIFIES
bookkeeping machine figures
OBTAINS
signatures, approval of calculator opera-
tor, supervisor
TYPES
reports/invoices/numbers, data on forms/
envelopes

DISPOSITION

SENDS
  report for checking/punched cards to Data Processing
MAILS
  financial statements
FILES
  reports/punched cards by lot, block number/tax receipts by data

SUPPLEMENTARY STEPS: Compiles trial balance monthly, yearly; Compiles construction estimate.

HARDWARE

Adding machine (10-key)
Bookkeeping machine
Calculator
Typewriter

SOFTWARE

Forms, cards
Receipts
Financial schedules
License fee forms
Damage claims

EDUCATIONAL CUES

Care in copying figures
Concentration
Neatness, checking
Computational skills
Accuracy on percentages
Statistical typing

REPORTED CRITERIA: "Be persistent in looking for
errors; Attention to detail; Write legibly."

01.06.02   THE WORKER PREPARES FINANCIAL REPORTS.   (26 task sheets)

ACQUISITION

RECEIVES
  adding machine tapes/invoices/report of orders/printout of supplies/revenue,
  inventory adjustment sheet/credit requisitions/out-of-state sales tax/hand-
  written financial report/financial, man hour reports/statements

PROCESS

CHECKS
  financial documents for completeness/every fiftieth freight bill number/adver-
  tisements/figures
PROOFREADS

CALLS
  shipping clerk for shipment information
COMPILES
  worksheet
ARRANGES
  new design report table
PULLS
  previous month's report/budget
COMPUTES
  debit, credit totals/percentages of past due, excessive credit reports
RECORDS
  bill number/weight/amounts owing/paid amounts
WRITES
  deposit slip
RECEIVES
  random selection audit
OBTAINS
  signature, approval of supervisor
TYPES
  financial, profit and loss statements/reports/address labels/envelopes
DUPLICATES
  financial reports/statements

DISPOSITION

DELIVERS
  worksheet/envelopes/financial report to supervisor at end of month
DISTRIBUTES
  accounting, profit and loss statements/freight charge, financial reports
FILES
  reports/financial documents/forms
MAILS
  financial reports

SUPPLEMENTARY STEP: Binds report according to month of year

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Adding machine (10-key)	Credit, tax forms	Checking
Typewriter	Adding machine tapes	Statistical typing
Rotary calculator	Deposit slips	Accuracy
Duplicator	Financial reports, worksheets	Proofreading
	Invoices	
	Adjustment sheets	

REPORTED CRITERIA: "Should have ability to type a financial statement in about
one hour; Work under pressure; Great deal of concentration, neatness, and legi-
bility of handwriting; Must have accounting knowledge and experience; Able to
evaluate profit and loss statements."

01.06.03 THE WORKER RECORDS ITEMS SUCH AS STOCKS, BONDS, DEPOSIT SLIPS, AND
           PASSBOOKS. (18 task sheets)

ACQUISITION

RECEIVES
  stocks/bonds/deposit slips/passbooks/conversion sheets/money/sale of securities
  record/deposits from tellers/overdrawn statements/loan history cards/transfers/
  checks to be issued/levy/attachment/overdraft, daily reports/batch of stubs
  from transactions

PROCESS

CHECKS
  endorsement/tapes with securities
STAMPS
  checks/levy, attachment with teller number; date
WRITES
  exchange charges on deposit slip/customer name, overdraft amount in log
RECORDS
  amount of note
RUNS TAPE
  on stocks, bonds/insurance premium/interest/principle/holdover listings
SORTS
  cash
CHECKS
  record sheets for levy or attachment information
PULLS
  overdraft check for checks on overdraft report
RECORDS
  teller report totals/deposits/recap sheet totals/breakdown figures from loan
  history/transfers/checks to be issued/check,savings deposit/check amount/

RECORDS (Continued)

levy, attachment information/account name, number, machine number, reference
number, date of stub, amount on holdover form/charges for out-of-town checks

TYPES

form letters to marshalls, IRS, customer regarding levy, attachment/check re-
turn notice/report information

PROOFREADS

TOTALS

savings deposit checks/deposit slips/daily overdraft/cash

VERIFIES

totals/control sheets

OBTAINS

teller's stamp on deposit slip/signatures on overdraft

PACKAGES

deposit slips

DISPOSITION

MAILS

levy, attachment letters

PLACES

money in cash drawer

DELIVERS

passbook to customer/journal sheet to Posting/teller's report to head teller/
deposit slips to Proofing/return notices, checks to Cashier

FILES

deposit slips/reports

HARDWARE	EDUCATIONAL CUES	SOFTWARE
Adding machine	Accuracy	Stocks, bonds
Bookkeeping machine	Alertness	Deposit slips
Files	Checking	Passbooks
Typewriter	Computational skills	Conversion sheets
	Typing	Cash, checks
	Filing	Levy, attachment

REPORTED CRITERIA: "Care in
entering figures; Must be ef-
ficient; Polite to customers;
Accuracy in data transferring."

Batches of stubs
Daily reports
Loan history cards
Overdrawn statements

01.06.04   THE WORKER RECORDS RECEIPTS AND WITHDRAWALS IN THE LEDGER.   (13 task
           sheets)

ACQUISITION

RECEIVES

payments from teller/loan payment sheets/loan, deposit slips/journals/batches
of checks/checkbooks/loan payment books/deposits .

PROCESS

SORTS

payment coupons by type/new, old loans alphabetically/withdrawal slips numeri-
cally

CHECKS

account numbers, name/previous balances

TOTALS

groups of payments/deposit tickets/withdrawal slips

PULLS
  account, ledger cards/loan payment, statement sheets
RECORDS
  coupon totals with bookkeeping machine/withdrawals/deposits/loan payments/
  correcting entries/mortgage, installment loan payments on monthly payment
  sheets/loan payments in loan payment books/interest due on accrual sheet/
  recap sheet totals/amounts, bank of checks
COMPUTES
  daily payments received/posting machine, ledger totals
VERIFIES
  ledger totals/posting machine totals/total group payments
DUPLICATES
  checks/deposit slips

                          DISPOSITION
FILES
  account, ledger cards/loan payment sheets/checks/journals/bookkeeping machine
  master tapes
SENDS
  closed account ledgers to Filing/checks, tapes to another worker
DELIVERS
  loan payment book to customer/deposit slip to another worker.

SUPPLEMENTARY STEP: Operates cancelling machine on checks paid.

HARDWARE   SOFTWARE   EDUCATIONAL CUES

Calculator   Payments   Checking
Bookkeeping machine   Loan payment sheets   Accuracy
Duplicator   Loan, deposit slips   Filing
Files   Journals

REPORTED CRITERIA: "Work must be done daily; Great deal of concentration and
accuracy required; Good legible handwriting; Perseverence in seeking solution
to errors and analytical mind to guess where errors might occur; Ability to scan
numbers quickly and accurately; High degree of prolonged alertness; General know-
ledge of work performed; Work must balance before leaving for lunch or end of day."

01.06.05   THE WORKER RECORDS LOAN PAYMENT REVERSING ENTRIES. (1 task sheet)

Receives returned checks/charge slips with reason check bounced
Checks check amount
Locates customer loan number
Writes customer loan number on bad check
Records loan number
Checks posting list for loan payment information
Writes breakdown of loan payment (interest, principle)
Types list of returned checks
Checks breakdown totals
Delivers loan information cards, list to supervisor/checks, lists to Loan Service

01.06.06   THE WORKER RECORDS MONIES RECEIVED FOR OR SPENT FROM INTERNAL
            ACCOUNTS. (1 task sheet)

<u>Records</u> all money received
<u>Places</u> money in safe
<u>Writes</u> all checks requested
<u>Records</u> checks written on accounts
<u>Writes</u> receipts weekly
<u>Totals</u> cash twice weekly
<u>Delivers</u> money to bank twice weekly
<u>Checks</u> ledger monthly
<u>Records</u> account balances monthly

01.06.07   THE WORKER ADJUSTS PROPERTY TAX RECORDS FROM TRANSFER FORMS. (1 task
            sheet)

<u>Receives</u> transfer forms
<u>Records</u> new owner's name, address change, date deed filed on tax roll
<u>Pulls</u> cards
<u>Records</u> data on new owner
<u>Removes</u> name, address of old owner
<u>Files</u> card alphabetically
<u>Obtains</u> signature of property assessor
<u>Completes</u> form
<u>Delivers</u> form to Data Processing
<u>Files</u> transfer form by lot, block

FINANCIAL ENTRIES CRITICAL INCIDENTS

"The worker sometimes posts the incorrect account numbers because of the general
rush and lack of concentration."

"The worker neglected to post entries of a previous date and proceeded with
posting of current transactions. Balances were not checked or she could have
caught the error."

"The worker paid a check because she carelessly overlooked a stop-payment card.
Consequently, the bank acquired an old, crippled horse. The writer of the check
had learned of the horse's condition and tried to stop payment. The horse now
resides in a rented pasture."

"The supervisor conducted a study, unknown to the girls in his department, of
the transactions the girls were posting on posting machines. This worker ranked
second. Her accuracy was unusually high. If the worker does not know or under-
stand something, she will ask the supervisor."

"We exchange money with the bank in the form of loans for short periods of time.
The worker failed to post some very important information and we were forced to
borrow $100,000 more than we should have. The error was caught but we still had
to pay some interest on the money that was credited to our account by the bank."

"A former employee could not trace errors, balance accounts, or follow through.
He had a good school background, but lacked imagination on why a shortage had
occurred or figures would not balance. Lacked ability to be aware of possibilities
of errors. He did not recognize the type of mistake that caused errors. The
company fired him because of too many mistakes."

01. NUMERICAL CLERICAL RECORDS

01.07. Cost Accounting

01.07.01 THE WORKER COMPILES UNIT COSTS OF JOBS AND SALES/PRODUCTION ESTIMATES
FROM EXPENSE SHEETS AND/OR TOTAL SALES FIGURES. (33 task sheets)

Flowchart (left column):

Start → Receives expense sheets, sales figures → Sorts job cards/orders/reports → Compares figures → Records cost figures → Checks for errors, duplications → Error? — Yes → Corrects; No → Computes itemized, total costs → Records itemized costs → Type report? — Yes → Types cost report; No → Duplicates report → Sends vouchers; work orders to DP/Acctg. / Files job orders, payroll sheets / Mails report to home office → End
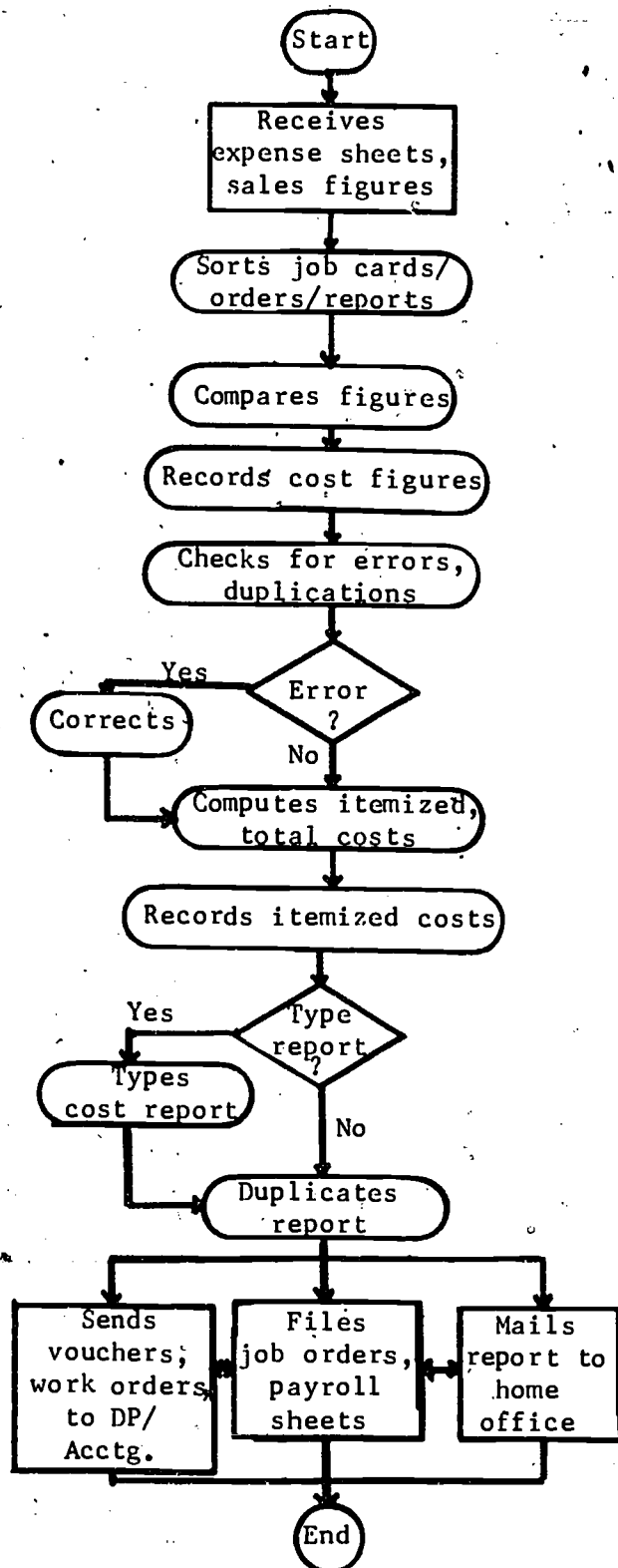
ACQUISITION

RECEIVES

(Administrative Costs) management expense reports/(Electronic Data Processing Costs) list of customers time use of computer/ total monthly sales sheet/(Depletion Costs) asset distribution sheet/(Production Costs) job completed, daily inspection, laboratory, assembly reports/work order cards/ workers' names/materials used/suppliers bills/production, labor cost computations/ open orders (parts not shipped)

PROCESS

SORTS

inspection reports, job cards by function, worker, job, department/job orders by unit numbers

COMPARES

job sheet labor and time card labor totals/ sales figures from company branches

RECORDS

gas, postage used daily by department/production costs/allocation of management costs to departments by set percentages/ name, code, job number, time spent on cost sheet/gain or loss

CHECKS

projected, last year's expenditures/for errors, entry duplication

COMPILES

postage, gas, telephone billing records/ job cost sheets from suppliers' bills

COMPUTES

quantities of raw material to order from previous orders/itemized production costs by total cost of production/computer time into dollar amounts/cost of materials/ labor cost (total, each worker)/unit cost/ previous and present week's labor totals

TOTALS

postage used, telephone charges by each, all departments/all expenses/year-to-date expenses

WRITES

computer time dollar amounts/component parts list of product as computer input/actual use in production and estimated time

TYPES
  computer time service voucher/monthly report/cost figures on daily report,
  job cost card
DUPLICATES
  cost analysis report

                              DISPOSITION
SENDS
  computer time service vouchers to Accounting/work order breakdown to Data
  Processing/invoices to Billing
FILES
  job orders numerically/requisitions, payroll sheets, supply forms, invoices
MAILS
  original report to home office monthly

SUPPLEMENTARY STEP: Files extra copy of job order when accident involved

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Adding machine	Ledgers	Computational skills
Calculator (rotary, key-driven)	Cost sheets	Analyzing cost data
	Payroll sheets	Checking for duplication
Typewriter	Job analysis sheets	Statistical typing
Electrostatic copier		
Duplicator		

REPORTED CRITERIA: "Finance Department will question worker if records are un-
clear; Accurate with figures; Knowledge of cost accounting; Accurate in trans-
ferring numbers."

01.07.02   THE WORKER PREPARES BIDS AND COST ESTIMATES OF PRODUCTS AND SERVICES.
           (12 task sheets)

Receives request for estimate on TV spot advertising/job cost estimates/engineer's
  change-product notices/list of parts needed for production/blueprints
Determines changes occurring in product/hidden, labor standard costs
Checks cost guidebooks/engineer's specifications
Computes estimates, standard-cost breakdowns
Types statistical cost breakdowns
Receives bids/estimate/contract to be negotiated
Records approval, disapproval of contract figures
Sends final noted contract figures to company offices, supervisor, Data Processing/
  computations to engineers, client, chief engineer, estimator
Files bids/estimates/contracts

REPORTED CRITERIA: "Two day maximum in processing bids; Great accuracy and memory
required; Awareness of each part in total construction picture; Errors could
cause great company financial loss."

01.07.03   THE WORKER COMPILES VARIANCE REPORTS FROM ACTUAL AND STANDARD COST
           FIGURES. (7 task sheets)

Obtains last month's variance report
Receives accounting inventory sheets/printouts of cost changes/trial balance
Records present figures (variable, fixed overhead; direct, indirect labor;
  packaging)/computed variances by department into spending, capacity, efficiency

Computes current, year-to-date variances
Checks all entries
Delivers variance sheets to another worker, Duplicating, supervisor, company
  office.

01.07.04 THE WORKER TYPES COST ANALYSIS REPORTS. (4 task sheets)

Receives cost analysis
Determines best columnar arrangement for cost report
Computes totals
Verifies totals
Types cost tables/ explanations of actual, estimated cost differences
Delivers report to Duplicating, Cost Analysis, Accounting

01.07.05 THE WORKER DETERMINES COST ESTIMATES BY OBSERVING PRODUCTION AND
          SCANNING BLUEPRINTS. (2 task sheets)

Obtains incomplete job cost sheets/machinery blueprints/purchase order forms/
  cost information by observing men working
Discusses job production with supervisors
Writes job cost information
Checks machinery blueprints
Computes machinery total cost by each part
Delivers job cost information, machinery cost analysis to supervisor
Files copy

01.07.06 THE WORKER COMPILES RELEVANT STATISTICS AND DETERMINES IMPROVEMENTS
          IN METHODS BY SUBMITTING COST ANALYSIS OF PROPOSED CHANGES. (2 task
          sheets)

01.07.07 THE WORKER PROCESSES NEW ACCRUAL ACCOUNTS FROM CURRENT COST ANALYSES
          AND ADDITIONAL SPECIFICATIONS. (2 task sheets)

COST ACCOUNTING CRITICAL INCIDENTS

"The worker and another person made a cost study. She was able to direct and
assist the person in developing details of costs, locations, and descriptions of
inventory items so an excellent report was produced. The worker is very capable
in reconciling discrepancies discovered because of persistence needed to complete
study."

"The worker overlooked a credit and listed a wrong amount on the standard pro-
duction cost sheet. This error indicated a manufacturing loss of $30,000 that
no one could account for. Consequently, the supervisor had to search until he
found the worker's error."

01. NUMERICAL CLERICAL RECORDS

01.08. <u>Credit</u>

01.08.01 THE WORKER PROCESSES CREDIT APPLICATIONS. (17 task sheets)
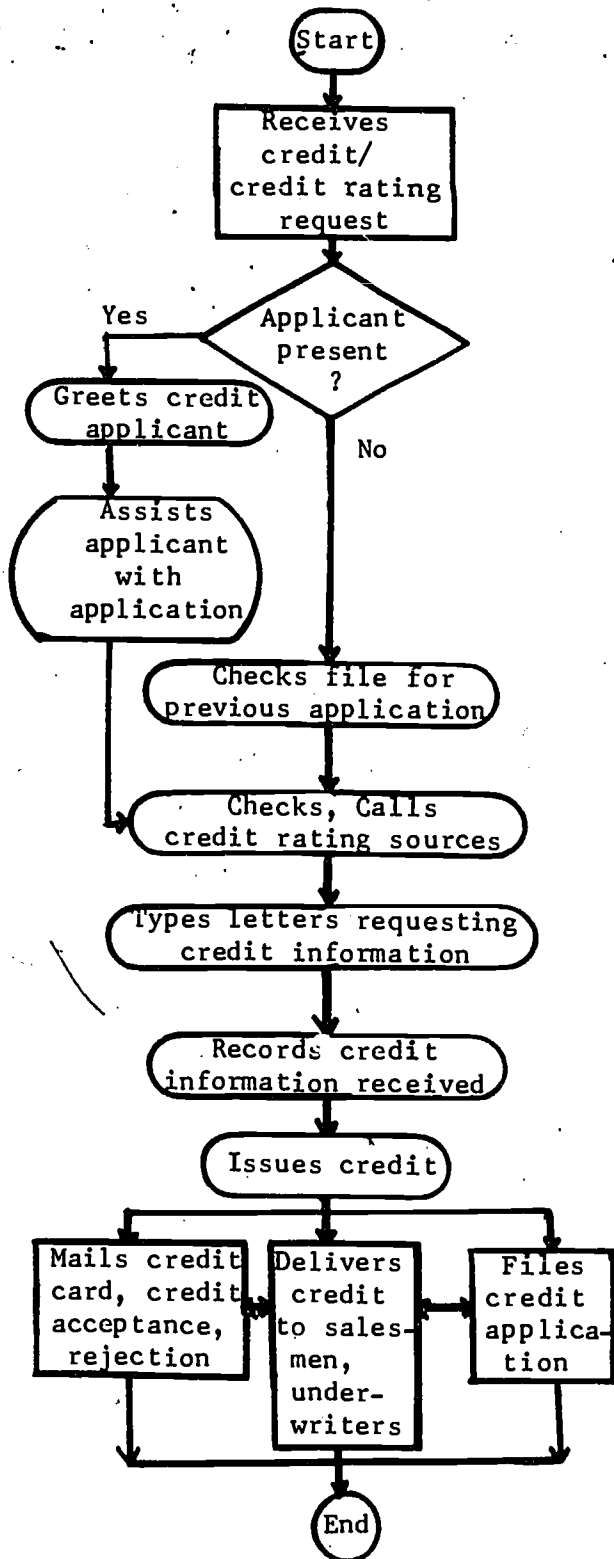
ACQUISITION

RECEIVES
  customer credit, approved, loan applica-
  tion/request to check credit rating/
  credit applicant
OBTAINS
  name, address of applicant

PROCESS

DETERMINES
  cause of application error
CHECKS
  file for previous application/application
  completeness/credit rating in credit book/
  applicant's employment
CALLS
  credit bureaus/companies with whom appli-
  cant does business/detective agency to
  check client/references/company employing
  applicant/applicant to notify of approved
  application
TYPES
  form letters requesting credit informa-
  tion, references/credit cards/credit
  approved, rejected letter to applicant/
  customer's name on file folder tab
RECORDS
  acceptance, rejection of credit
WRITES
  credit rating data on credit check form/
  note of credit checked/credit amount ap-
  proved on customer record
OBTAINS
  signature of credit manager
INFORMS
  applicant of company credit policies
ASSISTS
  applicants in completion of credit form
DISCUSSES
  rejected application errors with clerk/
  credit request with supervisor

DISPOSITION

MAILS
  credit cards to customers, main office for
  final approval/form letters requesting in-
  formation to credit bureaus, banks, busi-
  ness associates/approved credit letter to
  customer

DELIVERS
    application to potential customers/completed credit checks to salesmen, under-
    writers
FILES
    approved customer credit application/master address label

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Telephone	Credit rating books	Checking references
Typewriter	Applications	Appraising credit potential
Switchboard	Letters	Typing
Files		Communication skills
		Filing

REPORTED CRITERIA: "Careful when extending credit
to customers; Makes sure all credit information on customer is accurate; Should
never fail to find a card that is on file; Complete knowledge of credit card
issuing criteria required; Accuracy is of prime importance."

01.08.02 THE WORKER VERIFIES CUSTOMER CREDIT. (8 task sheets)

HARDWARE

Telephone
Files
Switchboard credit verifier

SOFTWARE

Credit files

EDUCATIONAL CUES

Credit checking promtness
Filing

REPORTED CRITERIA: "Accuracy in
transmitting information; Accuracy
is important to prevent customer
from overcharging; Prompt in
locating customer account card in
file to avoid delay at
sales counter."
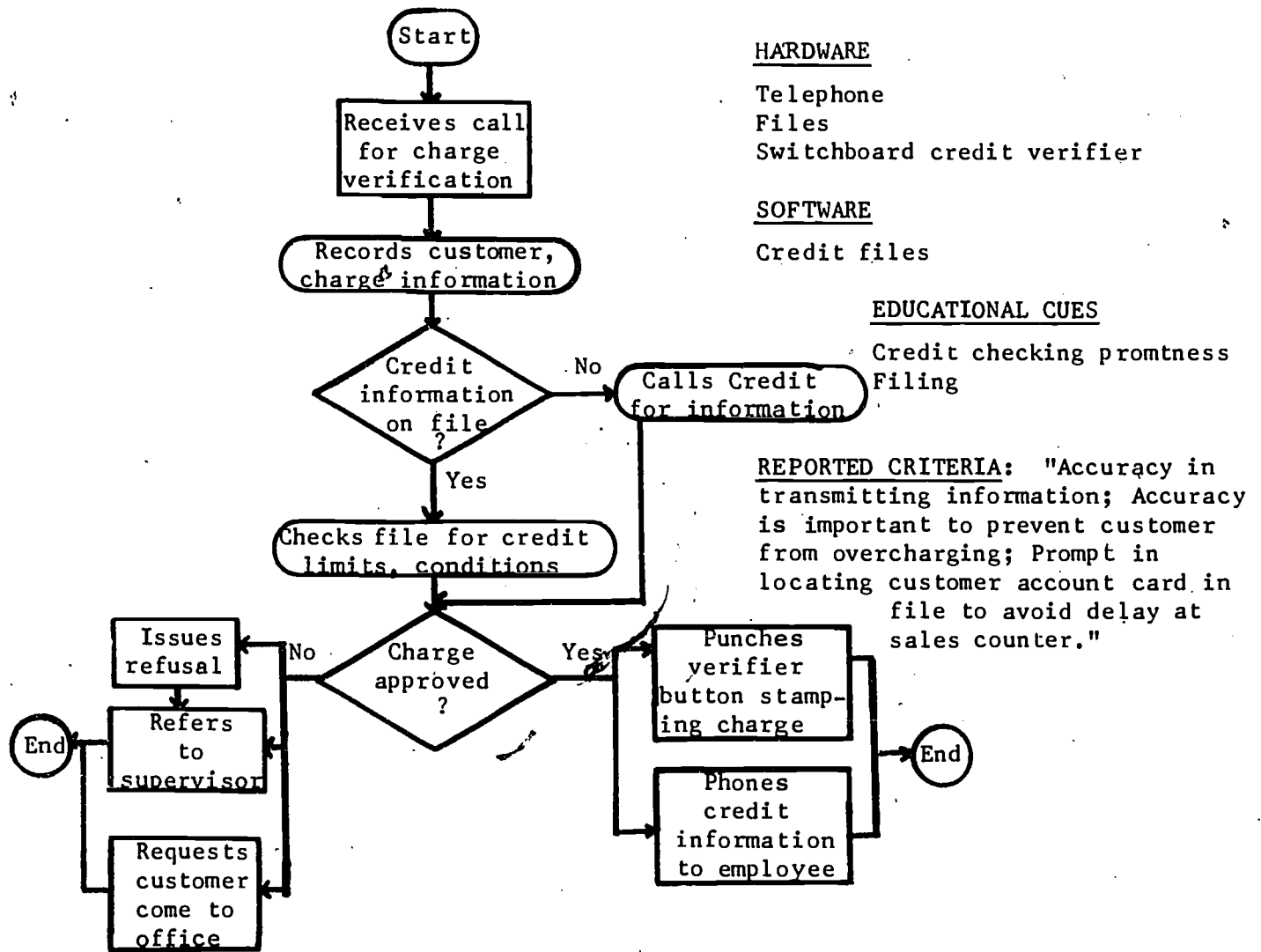
CREDIT CRITICAL INCIDENT

"The worker incorrectly approved a charge sale as the customer should not have
been given this high a credit."

01.08.03   THE WORKER PROCESSES CREDIT INFORMATION. (8 task sheets)

Receives credit request/credit applications
Calls other department for customer account information/credit bureau
Obtains customer file/credit information form
Records credit information/requesters' names
Types credit information form
Proofreads
Attaches inquiry form to folder
Delivers credit information to requester
Sends application to Credit

HARDWARE	SOFTWARE
Typewriter	Applications
Telephone	File folders
	Credit informa-
EDUCATIONAL CUES	tion form
Accuracy, Typing	Inquiry form
Communication, Checking	

01.08.04   THE WORKER INFORMS APPLICANT AND COMPANY DEPARTMENT OF APPROVED/
           REJECTED CREDIT APPLICATIONS. (7 task sheets)

HARDWARE

   Adding machine (10-key)
   Typewriter
   Files

SOFTWARE

   Credit rejection/approved letters
   Credit card forms

EDUCATIONAL CUES

   Typing
   Computational skills
   Recording
   Filing
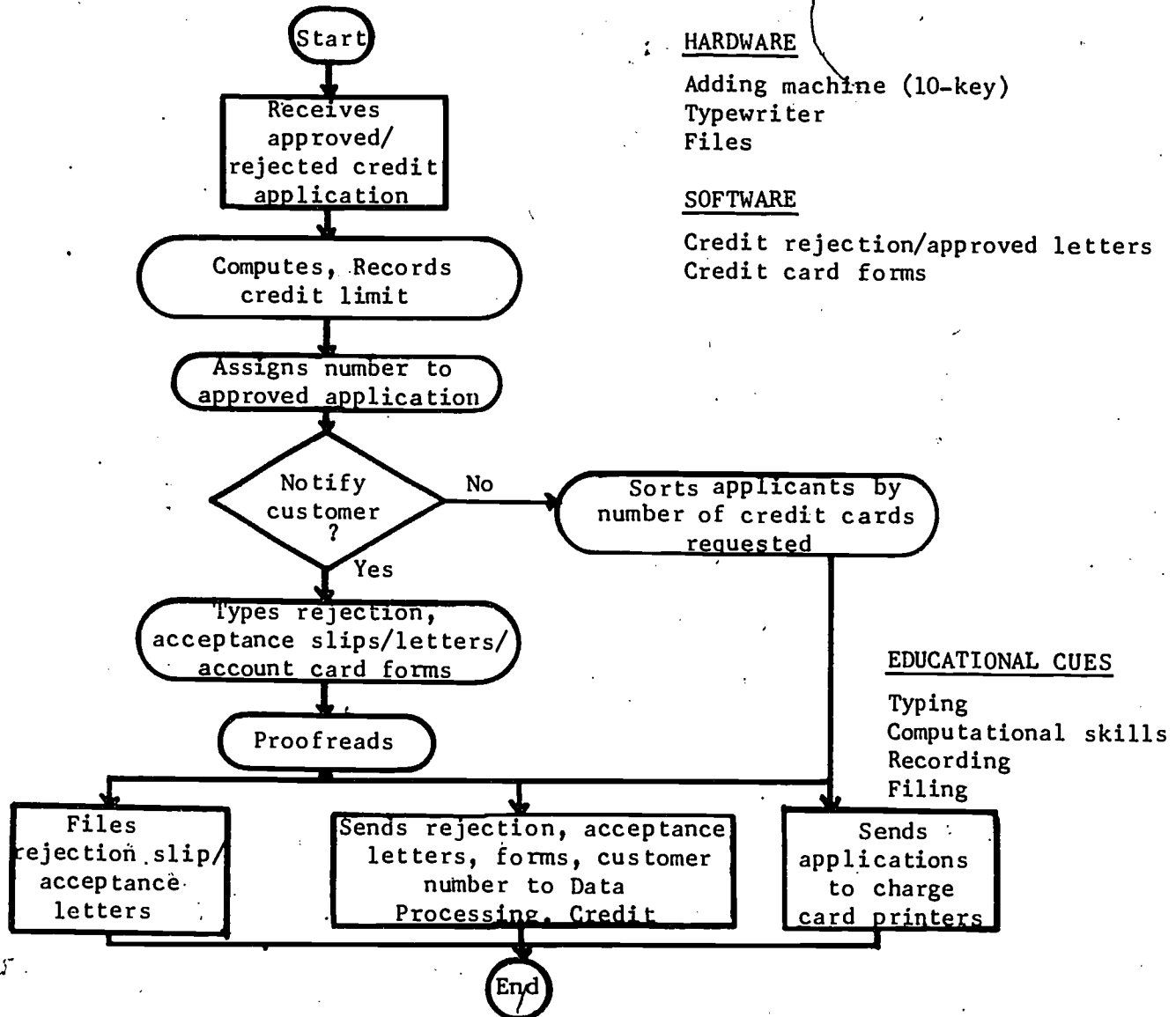
REPORTED CRITERIA: "Notifications must be handled on daily basis; Letters sent
contain no errors."

01.08.05   THE WORKER PROCESSES CREDIT MEMORANDUMS.   (5 task sheets)

SUPPLEMENTARY STEP:

Adjusts old credit memos
and old invoices.
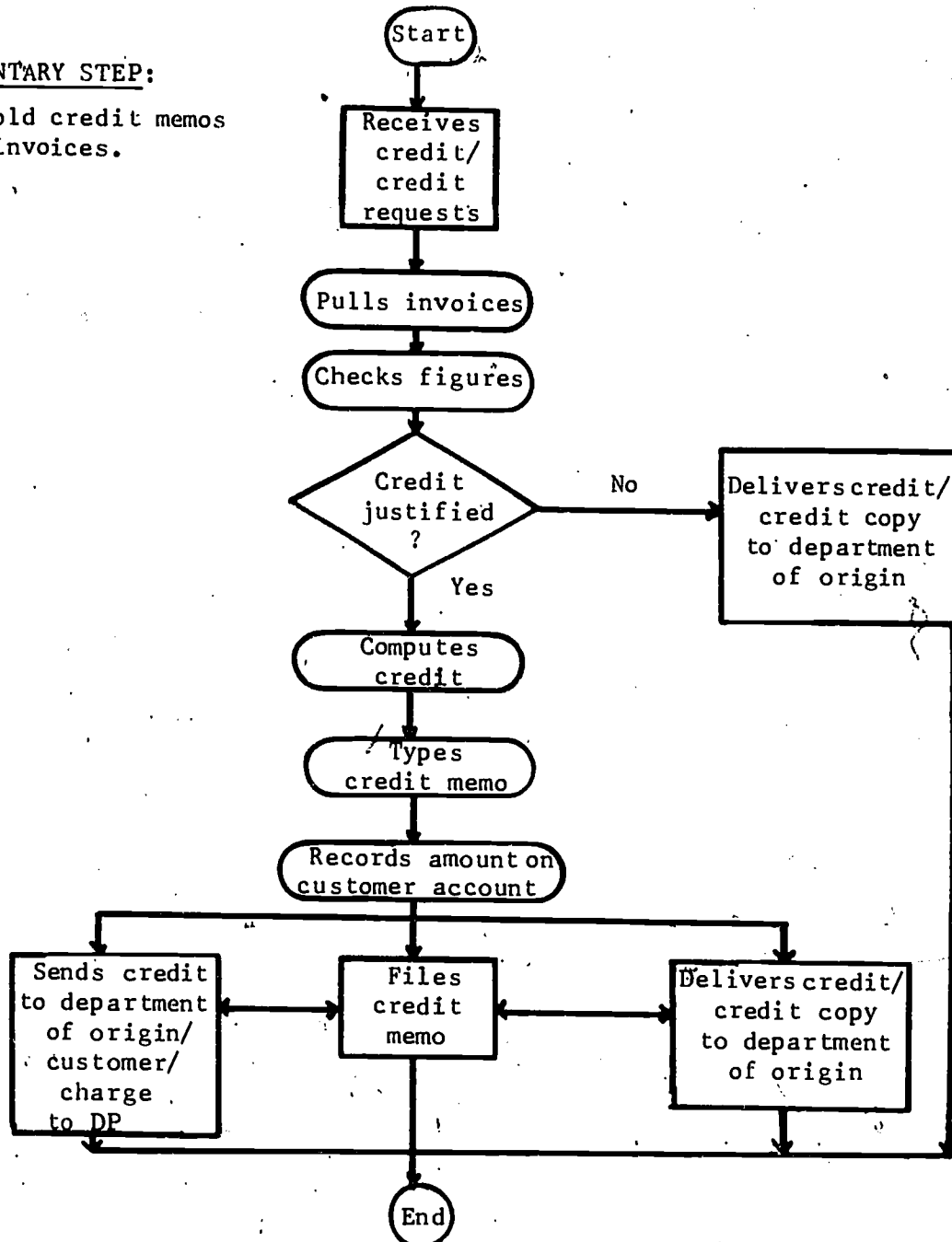
CREDIT CRITICAL INCIDENT

"The employee misinterpreted a customer's credit rating and an account was lost
due to this error."

"The worker did not note complete name of client applying for credit. In check-
ing his credit rating, she was given the information on another person. The
client's loan was turned down due to the error. The client subsequently went
to another bank, never having been refused credit before."

01.08.06   THE WORKER PROCESSES CREDIT INFORMATION REQUEST.   (3 task sheets)

```
        ┌─────────┐
        │  Start  │
        └────┬────┘
             │
   ┌─────────▼────────┐
   │  Receives call,  │
   │  forms request-  │
   │  ing credit      │
   │  information     │
   └─────────┬────────┘
             │
     ┌───────▼───────┐
     │  Pulls credit │
     │     file      │
     └───────┬───────┘
             │
    ┌────────▼────────┐
    │ Calls Credit for│
    │ account history │
    └────────┬────────┘
             │
    ┌────────▼────────┐
    │Records information│
    └────────┬────────┘
             │
         ┌───▼───┐
         │ Good  │        No
         │credit ├──────────┐
         │rating │          │
         │  ?    │          │
         └───┬───┘          │
             │ Yes          │
   ┌─────────▼────────┐     │
   │ Calls inquirer,  │     │
   │ Informs inquirer │     │
   └──────────────────┘     │
```

HARDWARE

Telephone
Wheel index file
File

SOFTWARE

Credit information
forms

EDUCATIONAL CUES

Checking
Interpreting credit account data
Filing

REPORTED CRITERIA: "Completes approxi-
mately 10 credit ratings per day;   .
Great discretion is required in giving
out information without account holder's
signature;   Accuracy and tact in handl-
ing confidential information."

```
┌──────────────┐   ┌──────────────┐   ┌──────────────┐
│Mails credit  │   │Files credit  │   │  Delivers    │
│information    │──▶│information    │◀─▶│request,credit│
└──────┬───────┘   └──────┬───────┘   │ information   │
       │                  │           │ to Supervisor │
       │              ┌───▼───┐       └──────┬───────┘
       └─────────────▶│  End  │◀─────────────┘
                      └───────┘
```

01.08.07   THE WORKER ANSWERS CHARGE ACCOUNT BILLING INQUIRIES.   (2 task
           sheets)

Receives charge billing call
Informs customer of breakdown on outstanding balance
Calls branch if customer has additional questions/customer when account ques-
   tioned/error is solved
Records disposition of call

01.08.08   THE WORKER UPDATES DELINQUENT ACCOUNT LISTS.   (1 task sheet)

01.08.09   THE WORKER DETERMINES EXTENSION OF ADDITIONAL CREDIT.   (1 task sheet)

<u>Receives</u> order in amount higher than customer's credit limit
<u>Determines</u> if account must be paid before additional credit given/extension of
   credit/credit references
<u>Checks</u> past payment history/current credit book rating
<u>Writes</u> for confidential information
<u>Informs</u> branch office to release, hold, return order
<u>Sends</u> letter to customer extending, refusing credit

01.08.10   THE WORKER COMPILES DELINQUENT RECEIPTS REPORT FROM A COMPUTER PRINT-
           OUT, AMOUNTS OF PAPER SOLD, AND CASH RECEIPTS.   (1 task sheet)

01.08.11   THE WORKER VERIFIES WIRE REQUEST OF AMOUNT DUE A CUSTOMER.   (1 task
           sheet)

01. NUMERICAL CLERICAL RECORDS

01.09. Disbursements ·

01.09.01.   THE WORKER PREPARES DISBURSEMENTS FROM CUSTOMER ACCOUNTS. (12 task
            sheets)

Receives passbook, check, foreign money
Checks endorsements/bank on which drawn/savings account/identification
Determines if check is good
Stamps date on negotiable instrument ,
Totals cash for checks, negotiable instruments
Records withdrawal
Delivers cash to customer
Files check/withdrawal slips/negotiable instruments

SUPPLEMENTARY STEP: Informs customer, supervisor if check is invalid.

01.09.02   THE WORKER PREPARES DISBURSEMENT OF FUNDS. (11 task sheets)

ACQUISITION

RECEIVES
   check requisition/driver request for expenses/scholarship checks/warrants/
   checks/cash/money bags/cash drawers/patient/employee
PULLS
   file of insurance check recipient

PROCESS

RECORDS
   amount desired/amounts paid out/payment approval/check numbers, dates in
   check register/names of cash drawer, money bag recipients
OPERATES
   check signing machine
REQUESTS
   approval of funds/blank check from Accounting/signature of supervisor on
   checks
CHECKS
   account card signature/balance in requesting department account/number of
   checks processes on check signing machine/dates of employee disability/cash
   drawer, money bag contents
COMPUTES
   totals of monthly disbursements
COMPILES
   disbursements worksheet daily

DISPOSITION

DELIVERS
   check to driver; scholarship holder/funds, cash drawers, money bags to employees
MAILS
   insurance checks to recipients/check requests to main office/checks for buying
   stock
SENDS
   money to driver by wire
FILES
   tuition refund form/insurance statement/check requisition

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Adding machine	Requisitions for funds	Recording, checking
Typewriter	Cash, checks	skills
Check signing machine	Money bags	Typing
Telautograph machine	Insurance forms	Filing
Cash drawers	Disbursement records	Computational skills

REPORTED CRITERIA: "Checks must be typed accurately; Time pressure."

01.09.03 THE WORKER PREPARES DISBURSEMENT OF PETTY CASH FUNDS.   (4 task sheets)

Receives request for funds/petty cash box
Records amount disbursed on form/petty cash on form
Writes request slip for petty cash/checks
Checks to insure petty cash bag contains specified amount
Requests approval of disbursement of funds on telautograph machine
Delivers checks, cash to requester
Files petty cash form
Totals cash at end of day/cash with disbursement
  vouchers
Types check for petty cash reimbursement
Mails check to main company office

DISBURSEMENTS CRITICAL INCIDENT

"We had an exceptionally large volume of cash disbursements recently and I
did not have to void one check for her. She is a person that pays attention
to the details of her job."

02. INTERNAL SERVICES

02.01. Mailing

02.01.01 THE WORKER PROCESSES DEPARTMENTAL INCOMING MAIL. (99 task sheets)
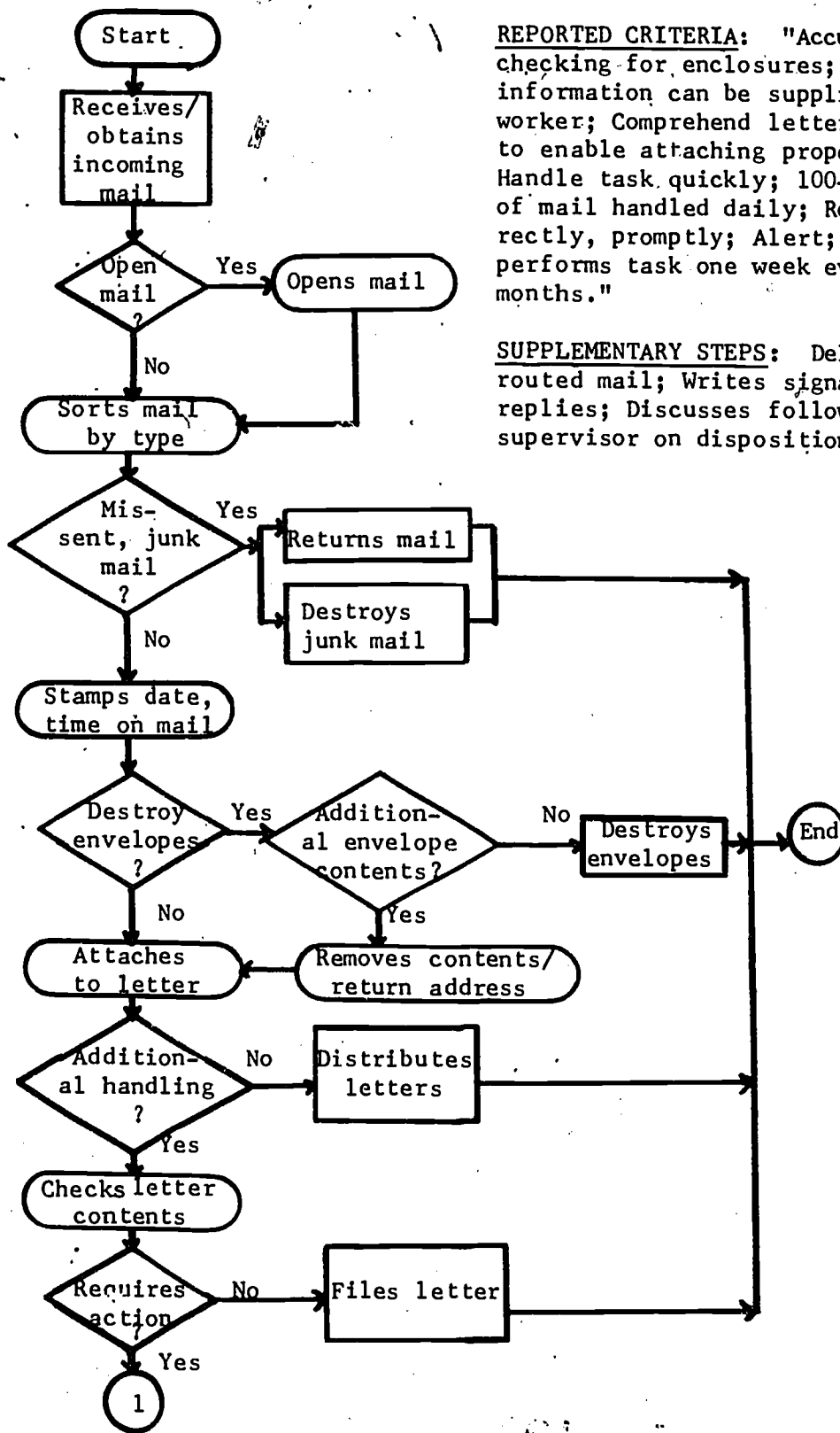
REPORTED CRITERIA: "Accuracy in checking for enclosures; Decides if information can be supplied by worker; Comprehend letter content to enable attaching proper files; Handle task quickly; 100-150 pieces of mail handled daily; Route correctly, promptly; Alert; Each worker performs task one week every two months."

SUPPLEMENTARY STEPS: Delivers re-routed mail; Writes signatures on replies; Discusses follow up with supervisor on disposition of letter.
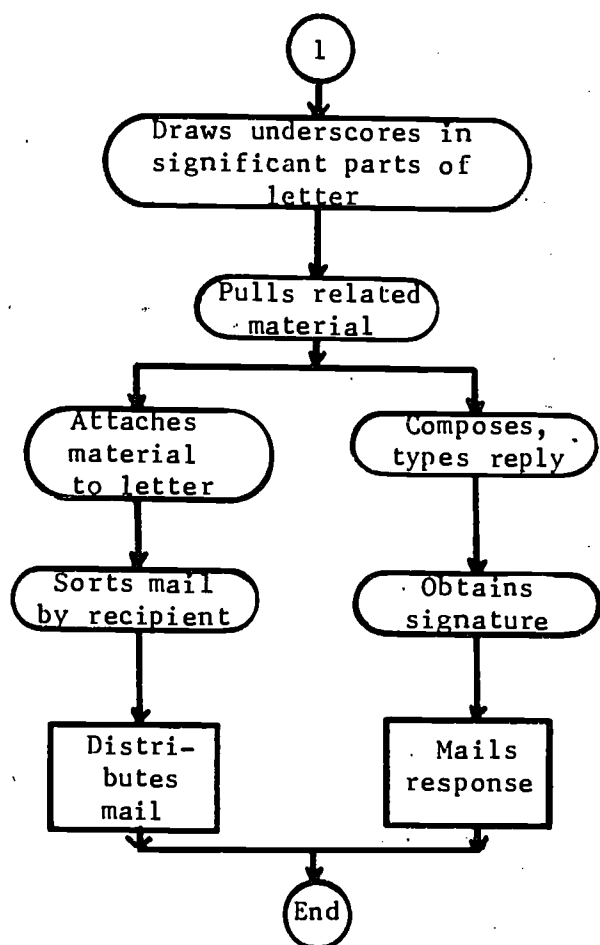
Note: Hardware, Software, Educational Cues
below refer to entire area of Mailing.

```
            ( 1 )
              |
              v
  _____
 / Draws underscores in    \
 \ significant parts of     /
  \      letter            /
   ------------------------
              |
              v
    _____
   / Pulls related  \
   \  material       /
    ----------------
       |         |
       v         v
  _____    _____
 / Attaches \  / Composes, \
 | material |  | types reply |
 \ to letter/  \            /
  ---------     ----------
     |              |
     v              v
  _____    _____
 / Sorts mail\ / Obtains  \
 \ by recipient/ \ signature /
  ----------     ---------
     |              |
     v              v
  _____    _____
 | Distri- |  | Mails    |
 | butes   |  | response |
 | mail    |  |          |
  ---------     ---------
       |         |
       +----+----+
            |
            v
         ( End )
```

HARDWARE

Car
Addressing machine
Addressing machine plates
Collator
Typewriter
Graphotype machine
Folding machine
Envelope sealer
Mail cart
Mail rack
Stuffing machine
Postage meter
Scales
Letter opener (electric, manual)
Date/time stamp
Photocopy machine

SOFTWARE

Envelopes
Shipping tickets
Mailing lists
Bulletins
Mass mailing materials
String
Incoming/outgoing mail

EDUCATIONAL CUES

Composition of letters
Typing
Checking
Accuracy
Routing letters

02.01.02   THE WORKER PREPARES DAILY BULK MAILINGS.   (28 task sheets)

Receives materials/mailing instructions
Determines size, type envelopes

Prepares material for mailing
Operates postage meter/addressing machine
Sorts local, outstate mail
Batches mail
Records total postage, pieces sent
Informs departments of mailing costs, quantity, time sent

SUPPLEMENTARY STEPS: Collects salesmen letters from workers; Types envelopes;
Locates zip code and adds to address.

02.01.03   THE WORKER SORTS MATERIALS SUCH AS INVOICES, PURCHASE ORDERS, STATE-
MENTS, CHECKS, AND CONTRACTS.   (25 task sheets)

02.01.04   THE WORKER PROCESSES COMPANY OUTGOING MAIL.   (22 task sheets)

<u>Receives</u> company outgoing mail
<u>Sorts</u> outgoing mail by categories: local-first class, out-of-town first class,
   special mail, airmail, foreign mail, mail requiring more postage
<u>Operates</u> postage meter
<u>Arranges</u> metered mail into bundles
<u>Sorts</u> tied, metered mail, airmail, foreign mail for mail bag

<u>SUPPLEMENTARY STEP</u>:   Records departmental postage billing

02.01.05   THE WORKER PERFORMS MAILROOM DUTIES.   (19 task sheets)

· <u>Obtains</u> mail twice daily from post office
<u>Receives</u> mail in Mail Room
<u>Sorts</u> mail by individual, company in pigeonholes, bins, slots
<u>Operates</u> mail opener
<u>Removes</u> envelope contents
<u>Checks</u> contents for distribution
<u>Delivers</u> mail to readers who determine distribution

02.01.06   THE WORKER OPERATES AN ADDRESSING MACHINE.   (16 task sheets)

<u>Receives</u> bulletins/metal addressing plates/instructions
<u>Sorts</u> mail for address changes/address change requests
<u>Checks</u> revised listing
<u>Types</u> new plates, cards for mailing list additions
<u>Removes</u> information on plates to be changed
<u>Operates</u> addressing machine
<u>Returns</u> metal addressing plates to cabinet
<u>Sorts</u> mail: local, outstate, international
<u>Delivers</u> one-page bulletins to outgoing mail/several-page bulletins to
   Collating/labeled boxes of addressed envelopes to requesting department/
   addressed envelopes to workers for stuffing

<u>SUPPLEMENTARY STEPS</u>:   Collates multiple-page addressed bulletins; Types rolls
of labels; Types new index card; Files new index card; Runs publication through
folding machine.

<u>REPORTED CRITERIA</u>:   "Must include all necessary people in mailing; Able to
establish priorities; Make minor addressing machine repairs."

02.01.07   THE WORKER DELIVERS INCOMING AND OUTGOING MAIL.   (16 task sheets)

<u>Obtains</u> mail cart, telegrams, packages, mail
<u>Arranges</u> mail in cart by delivery route stops
<u>Punches</u> time card at beginning of mail run
<u>Delivers</u> cart contents to building departments
<u>Obtains</u> outgoing mail from departments while delivering mail
<u>Arranges</u> outgoing mail on cart by department
<u>Delivers</u> outgoing mail to Mailing
<u>Punches</u> time card at end of mail run

<u>SUPPLEMENTARY STEP</u>:   Obtains, delivers inter-company mail

02.01.08 THE WORKER DELIVERS MATERIALS SUCH AS SUPPLIES, BLUEPRINTS, AND
          PRODUCT SAMPLES. (12 task sheets)

Receives instructions/duplicated copies/typed materials/blueprints/schedules/
   product samples
Writes pick-up, delivery, packaging instructions
Determines travel route
Delivers materials
Returns vehicle to parking space

SUPPLEMENTARY STEPS: Records mileage for reimbursement; Calls supervisor to
inform shipment not ready or incorrect; Sends schedules to other departments

REPORTED CRITERIA: "Must have chauffeur's license, geographic knowledge of
locality, promptness; Must know metropolitan area."

02.01.09 THE WORKER PROCESSES INCOMING MAIL SUCH AS BANK FORMS AND CHECKS.
          (11 task sheets)

ACQUISITION

RECEIVES
   computer printout/mail/statements/checks/deposit slips/request for new checks/
   name, address forms

PROCESS

SORTS
   mail by savings, checking deposit, withdrawals, transfers, personal from
   business mail
OPERATES
   automatic letter opener
PULLS
   notices addressed to deceased persons/repossessed loans/bankruptcy paid
   notices/customer file/checks/correspondence
CHECKS
   checks with statement received/for damaged checks
OPERATES
   proof machine on checks, deposit slips
WRITES
   request for substitute document to microfilm missing checks/reorder form for
   checks/number of check copies requested
RECORDS
   requests received
TYPES
   addresses on envelopes, name, and address forms

DISPOSITION

MAILS
   check reorder form to printer/correspondence, notices, copy of checks, state-
   ments to customers/deposit receipts, passbooks to customers
DELIVERS
   mail for sorting/checks to Sorting/address forms to supervisor
DISTRIBUTES
   mail to departments

REPORTED CRITERIA: "Speed is paramount with accuracy a close second; Able to
work under time pressure; Able to determine which checks are damaged enough to
warrant making substitute documents."

02.01.10   THE WORKER PROCESSES INCOMING HOSPITAL MAIL.   (9 task sheets)

```
        ┌─────────┐
        │  Start  │
        └─────────┘
             │
        ┌─────────┐
        │ Receives│
        │ mail/re-│
        │turned bills│
        └─────────┘
             │
        ╭─────────╮
        │Stamps date│
        │ on mail │
        ╰─────────╯
             │
        ╭─────────╮
        │ Operates│
        │letter opener│
        ╰─────────╯
             │
        ╭─────────╮
        │  Sorts  │
        │checks, mail│
        ╰─────────╯
             │
        ╭─────────╮
        │Packages mail│
        │ by office│
        ╰─────────╯
             │
        ╭─────────╮
        │Pulls patient│
        │  file   │
        ╰─────────╯
             │
        ╭──────────────╮
        │Checks returned bill│
        │address/forwarding│
        │address of patient│
        ╰──────────────╯
             │
        ╭──────────────╮
        │Types returned│
        │bill, envelope,│
        │ new address │
        ╰──────────────╯
             │
           ╱─────╲      Yes    ╭──────────────╮
          ╱Duplicate╲─────────│Duplicates letters│
          ╲    ?    ╱          │supervisor wishes│
           ╲─────╱             │ passed on   │
             │                 ╰──────────────╯
             │ No                   │
        ╭──────────────╮            │
        │Writes "return to│◄────────┘
        │ sender" if no │
        │forwarding address│
        ╰──────────────╯
```
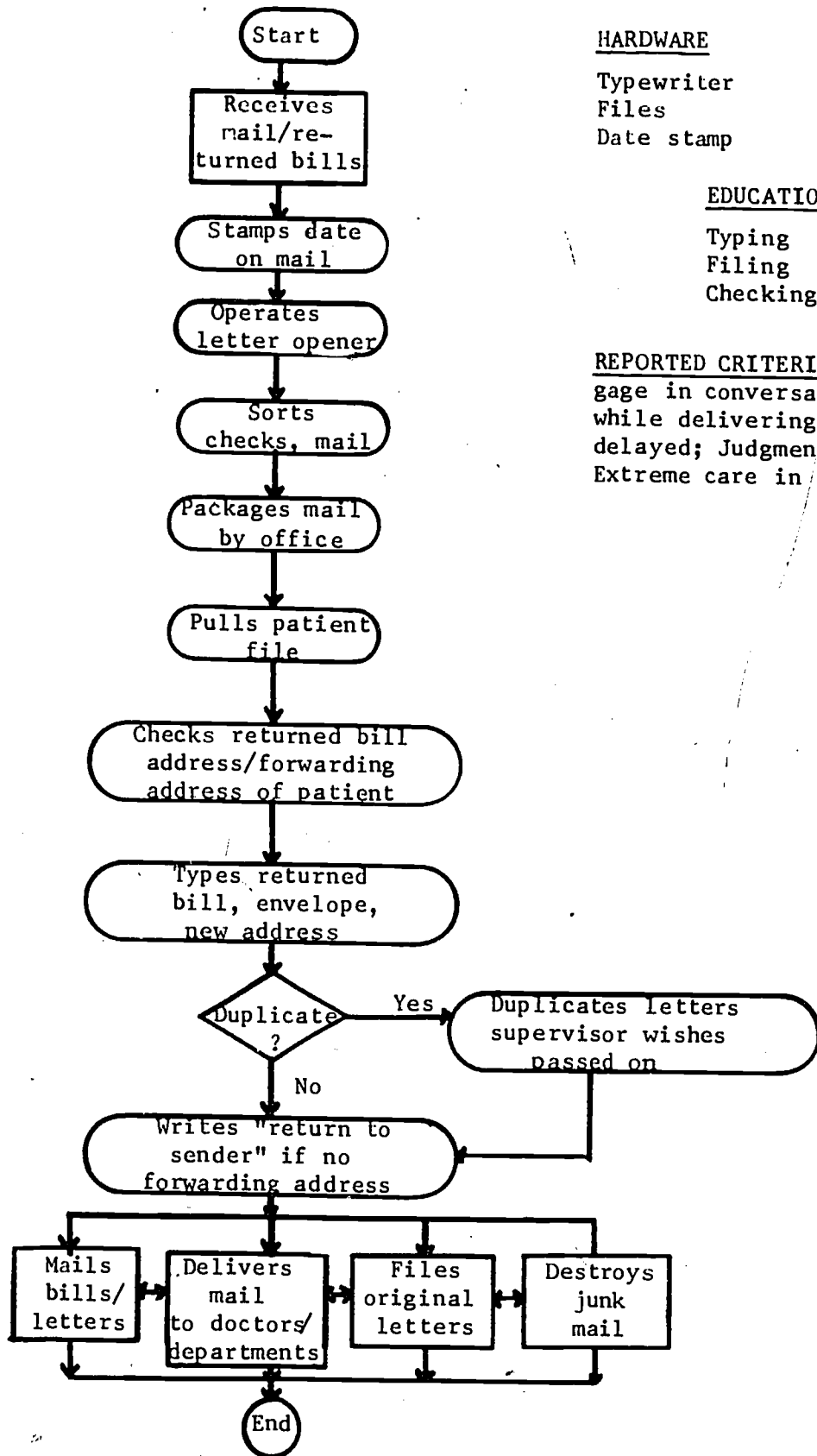
HARDWARE

Typewriter
Files
Date stamp

SOFTWARE

Mail
Checks
Patient's files

EDUCATIONAL CUES

Typing
Filing
Checking

REPORTED CRITERIA: "It is easy to en-
gage in conversation with other employees
while delivering mail; mail must not be
delayed; Judgment as to whom mail goes;
Extreme care in sorting."

```
┌───────┐  ┌─────────┐  ┌────────┐  ┌────────┐
│ Mails │  │Delivers │  │ Files  │  │Destroys│
│bills/ │◄►│  mail   │◄►│original│◄►│  junk  │
│letters│  │to doctors/│ │letters │  │  mail  │
│       │  │departments│ │        │  │        │
└───────┘  └─────────┘  └────────┘  └────────┘
                 │
             ┌───────┐
             │  End  │
             └───────┘
```

02.01.11   THE WORKER ARRANGES ROUTING OF PUBLICATIONS. (8 task sheets)

02.01.12   THE WORKER DELIVERS MAIL/ACCOUNT DOCUMENTS TO THE POST OFFICE COMPANY
           BRANCHES. (7 task sheets)

02.01.13   THE WORKER PROCESSES REQUESTS FOR STANDARD PRODUCT INFORMATION. (6
           task sheets)

02.01.14   THE WORKER PROCESSES DEPARTMENTAL OUTGOING MAIL. (6 task sheets)

Receives outgoing mail
Obtains necessary enclosures
Sorts copies of statements/documents/mail by local, outstate
Checks accuracy of statement with original
Obtains photocopies of letter, accompanying documents if necessary
Files original letter received/copy of response/memo in suspense, pending file
Types envelopes
Obtains outgoing mail from departments
Delivers mail to Mailing
Mails weighed and stamped letters, packages

02.01.15   THE WORKER PROCESSES CERTIFIED, SPECIAL DELIVERY, AND REGISTERED MAIL.
           (6 task sheets)

Receives special mail
Checks "special mail" book for postman's listing of mail pieces
Writes receipt of mail acknowledgement
Stamps time, date received
Writes exact building location on mail/name of person notified on envelope
Records certified, registered mail numbers
Calls departments to send employee to pick up letter
Delivers personally letters not picked up (twice daily)
Records signature of person accepting letter.

02.01.16   THE WORKER PROCESSES INTEROFFICE MAIL. (6 task sheets)

02.01.17   THE WORKER PACKAGES ITEMS FOR MAILING. (5 task sheets)

02.01.18   THE WORKER ATTACHES INCOMING MAIL TO FILES FOR PROCESSING. (4 task
           sheets)

02.01.19   THE WORKER CHECKS ENVELOPES FOR ADDITIONAL CONTENTS WITH SCANNER.
           (1 task sheet)

02.01.20   THE WORKER DELIVERS BATCHES OF TRANSACTIONS TO THE VAULT AREA. (1
           task sheet)

MAILING CRITICAL INCIDENTS

"The worker forgot to check an envelope carefully and a check was thrown out.
It took the worker three days to go through trash-paper bags to find it."

MAILING CRITICAL INCIDENTS (CONTINUED)

"Worker does very well reading and sorting mail that is not addressed to any-one in particular. She is very careful, and in one case questioned a letter of complaint from a customer and made certain it went to the right department. Had she been less alert, she might have caused embarrassment to the department."

"A worker was making her last mail delivery and pickup for the day. A secre-tary in one of the departments asked the worker to wait a few minutes while she finished typing the signature lines of a first-class letter. The worker told the secretary if she wanted the letter to go that day, she would have to bring it down to the mail room herself. The secretary did bring down the letter and told the supervisor what happened. This situation caused friction between the two workers."

"A messenger left a bag of police mail containing evidence and other confiden-tial material in the parking lot behind the police station and drove off. An alert citizen spotted the bag and notified the police who retrieved it and re-called the driver."

"The worker once ran 10-15 envelopes through the metering machine on the wrong side. It was a 15,000 piece mailing job and she was quite rushed."

"At least once a week the worker is late getting a mail run in. We get tele-phone calls from other offices asking where the mail is. Upon checking worker may be found visiting in the hall."

"On her first day at work, the worker sketched an office map and entered the name of the occupant of each office so she could be effective in the performance of her job as mail girl."

"Because of lack of coordination between machine maker, postal regulation changes, and servicing of meter machine resulting in gross errors, the worker must untie, re-meter, re-bundle, re-sack, fill out new postal forms, and deliver back to the post office a huge mailing of a magazine. Worker is doing this most effectively, quickly, and without complaint."

"In making deliveries, the worker gave the wrong package to a company executive. The executive rather than getting a projector and film for an important sales conference in New York, actually received a box of printed materials having nothing to do with the sales meeting. The projector and film ended up on the West coast. The error was not discovered until the package was opened in New York."

"The worker quite frequently gets careless and opens personal mail she should not open. One of the office staff became quite angry because this error was made a second time with his personal mail."

"In processing monthly invoices, worker did not check the date on the stamp. The supervisor had to return at midnight and feed the invoices one by one into the postage meter to put the correct date in the middle of the envelope where the post office would recognize the date correction."

"When the worker was preparing the mailing label forms, he mistakenly tore off the wrong part of the form to be used as the label. The person who had ordered the package sent to another, ended up receiving it."

02.   INTERNAL SERVICES

02.02.   Filing

02.02.01   THE WORKER PROCESSES REQUESTS FOR RECORDS OR FILES.   (120 task sheets)

Note: The following refer to the entire area of filing:

HARDWARE

Files
Sorotgraph
Microfilm viewer, printer
Photocopy machine
Hand stamp
Typewriter
Adding machine (10-key)

SOFTWARE

Computer printouts
Microfilm
Punched cards
Legal, real estate documents
Maps
Blueprints
Tests
Personnel records
Correspondence
Liquid process masters
Magnetic, TWX message tapes
Reports/books
Pamphlets/bulletins
Phonograph records
Newspaper items
Statements
Invoices
Requisitions
Purchase orders

EDUCATIONAL CUES

Updating procedures
Typing
Filing (alphabetically, numerically,
   geographically, chronologically,
   subject)
Quick, accurate scanning for informa-
   tion
Follow written/oral instructions
Read punched cards
Coding/cross referencing
Dewey Decimal System/tickler file
Matching correlating documents not
   exactly identical

Flowchart:

Start →
Receives request for file/data →
Sorts requests on Sortograph →
Pulls folders/information/microfiche →
Records data ? — Yes → Records data
   No ↓
Duplicate ? — Yes → Duplicates data
   No ↓
Types dispatch tickets/out cards →
Mails/Delivers copy to requester / Files folders →
End

SUPPLEMENTARY STEP: Calls company
to request new invoice if invoice
cannot be found in file.

02.02.02   THE WORKER UPDATES FILES.   (43 task sheets)

<u>Checks</u> daily auditing list for changes to be made/other designated sources
<u>Pulls</u> records
<u>Records</u> updated information
<u>Files</u> records
<u>Pulls</u> inactive folders
<u>Files</u> inactive folders in inactive file
<u>Destroys</u> inactive folders
<u>Types</u> new label, folder/list of address changes
<u>Files</u> new, updated files

02.02.03   THE WORKER FILES MATERIALS SUCH AS LEGAL, PERSONNEL, AND PURCHASING
           DOCUMENTS.   (41 task sheets)

<u>Stamps</u> source documents "paid" or department name
<u>Sorts</u> materials alphabetically, numerically, geographically, chronologically,
  by subject
<u>Pulls</u> related documents
<u>Compares</u> documents
<u>Files</u> materials

02.02.04   THE WORKER PROCESSES MATERIALS FOR FILING SUCH AS LEGAL, PERSONNEL,
           AND REAL ESTATE DOCUMENTS.   (35 task sheets)

<u>Receives</u> legal, personnel, real estate documents
<u>Stamps</u> source documents with "paid" or department name
<u>Sorts</u> materials by vendor, job numbers, customer name, destination, by copy
<u>Pulls</u> related documents
<u>Compares</u> documents with pulled related documents
<u>Checks</u> accuracy of documents
<u>Mails</u> documents
<u>Codes</u> materials for filing
<u>Arranges</u> cross references
<u>Files</u> materials alphabetically, numerically, geographically, chronologically,
  by subject
<u>Types</u> tab/folder
<u>Records</u> location of item/information in suspense file

REPORTED CRITERIA: "Files 100-175 books per day; Files 300 source documents per
day; Checking ranges from no check other than self-check to all pieces of work
checked by someone else; Absolute accuracy more important than speed; Neat and
organized; Filing not allowed to accumulate; Patience; Slight typing skills--up
to 50 wpm; Asks for help if unsure where to file materials; Good memory."

02.02.05   THE WORKER ARRANGES LEDGER CARDS FOR FILING OR FURTHER PROCESSING.
           (6 task sheets)

<u>Receives</u> account forms/checks
<u>Checks</u> checks for completeness
<u>Sorts</u> debits/credits/account forms into closed, new accounts, according to type
  of account, to office, to company by individual customer/closed accounts/
  checks by company branches/payroll checks by machine
<u>Removes</u> incomplete checks

Obtains substitute documents for damaged checks
Packages checks
Delivers checks
Files damaged checks

02.02.06 THE WORKER UPDATES THE CENTRAL INDEX FILES. (4 task sheets)

Receives change of address forms/new accounts information/deletion list
Pulls customer central information, signature cards
Draws line through old address
Writes new address
Types list of changes/change-of-address forms, mailing labels for new accounts
Attaches label to folder
Stamps date on cards deleted from files
Files deleted cards in inactive file
Sends change-of-address forms to Loan, Accounting

FILING CRITICAL INCIDENTS

"The worker filed a sales slip for a difficult surname correctly and made several cross reference slips to insure correct location of the sales slip."

"Auditor found invoices misfiled. The worker filed invoices in paid files that should have been filed in unpaid file."

"Supervisor had a fuzzy idea that a current problem had been encountered before and briefed the secretary on the situation. She went to the files and pulled correspondence relating to a similar case although it was dated before the time of her employment with the company. She had taken his advice and read filed materials in her spare time."

"The worker located some materials in the library that no one else could find because she is familiar with the library."

"One of the business office people asked her to pull a file of correspondence on a project that was being funded by the Federal government. She knew exactly what he wanted and where to look for it. She doesn't just file, but makes a point of knowing what she files as well as something about it."

"One day the supervisor was unable to locate a folder in the files of the department. All folders are filed by number and after three months are sent from the department to Central File where they are stored for 10 years. The worker realized what the supervisor was looking for and quickly went to the Central File to check out the specific file the supervisor needed. She returned shortly with the information he needed."

02. INTERNAL SERVICES

02.03. Non-Computational Recording

02.03.01 THE WORKER COMPILES REPORTS AND DOCUMENTS FROM SOURCES SUCH AS
SUPPLY LISTS, INVOICES, AND OUTLINES. (30 task sheets)

```
        (Start)
           │
           ▼
    ┌─────────────┐
    │  Receives   │
    │   report    │
    │    data     │
    └─────────────┘
           │
           ▼
    ( Pulls        )
    ( report data  )
           │
           ▼
    ( Checks reports/ )
    ( details/sources )
           │
           ▼
    ( Determines        )
    ( action/solutions  )
           │
           ▼
    ( Compiles  )
    ( report    )
           │
           ▼
    ( Writes re-     )
    ( ports/articles )
           │
           ▼
    ( Records        )
    ( names/numbers  )
           │
           ▼
    ( Types reports/ )
    ( articles       )
           │
           ▼
    ( Proofreads )
           │
           ▼
       ◇ Error ? ◇ ──Yes──► ( Draws circles )
           │                 ( around ac-    )
          No                 ( count number/ )
           │                 ( error         )
           ▼                        │
    ( Obtains  )                    ▼
    ( approval )            ┌──────────────┐
           │               │   Returns    │
           ▼               │     to       │
    ( Arranges  )          │   sender     │
    ( paste-up  )          └──────────────┘
           │                      │
           ▼                      ▼
          (1)                   (End)
```
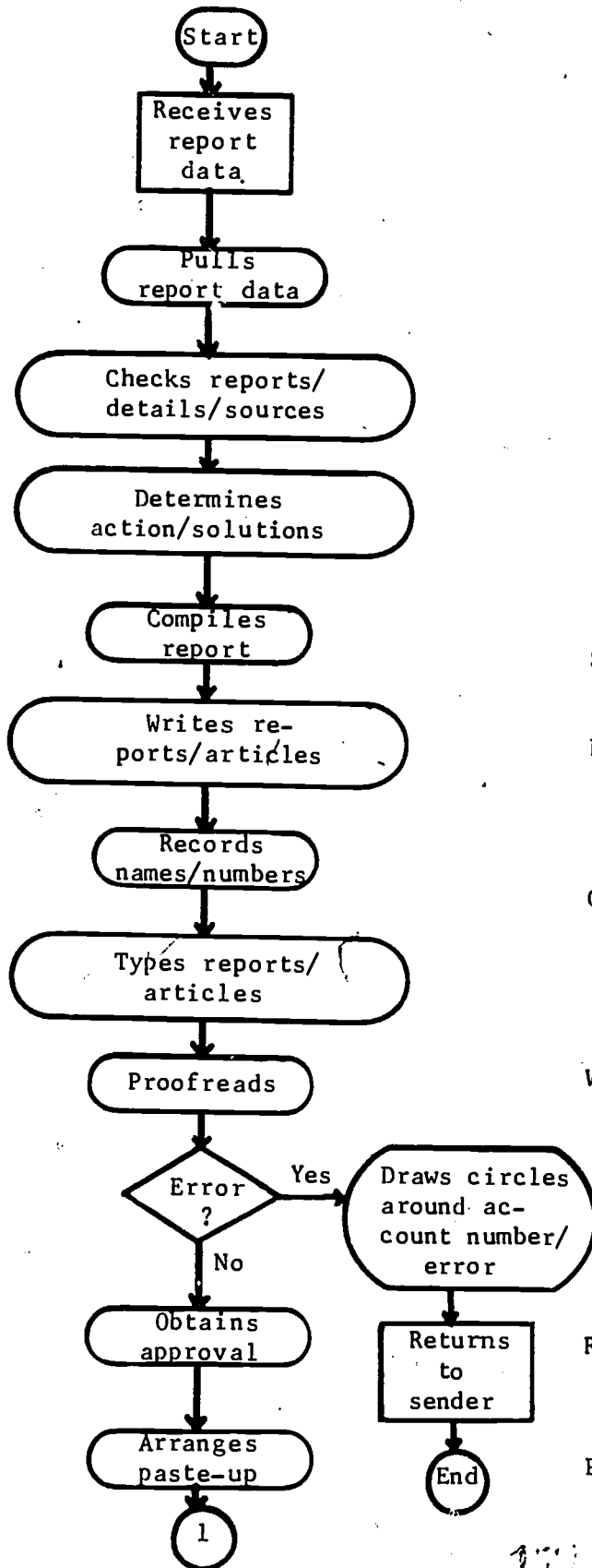
ACQUISITION

RECEIVES
> dictated outline/reports from
> managers/newspapers/invoices/
> assignments/magazines/directory
> errors, supply lists/corrected
> directory book/completed delivery
> copies/uncollated survey report

PULLS
> account/account number for social
> events/pre-printed labels/descrip-
> tion of labels

PROCESS

CHECKS
> sources of data/library/account
> number, name of customer/old
> forms/balance sheet/wedding dates/
> work sheet on property title/details
> of information/report for complete-
> ness

STAMPS
> date on newspaper/invoice with
> employee's number/car papers

DETERMINES
> extent of owned property/items of
> interest/design, development of new
> forms/course of action to take/al-
> ternative solutions

COMPILES
> information for coming weddings/forms/
> reports/facts/materials at library/
> books which might contain needed in-
> formation/new service orders/monthly
> report

WRITES
> narrative about wedding/statement on
> assessment of property title limita-
> tions/rough draft of summary report/
> invoice numbers/recommendations/in-
> formation received/articles for even-
> ing edition of newspaper/draft of
> periodic report/reasons for differ-
> ences in debit and credit

RECORDS
> information on cards/date at top of
> picture/case name, number in control
> book/account number on card/changes

PLACES
> ad on bulletin board
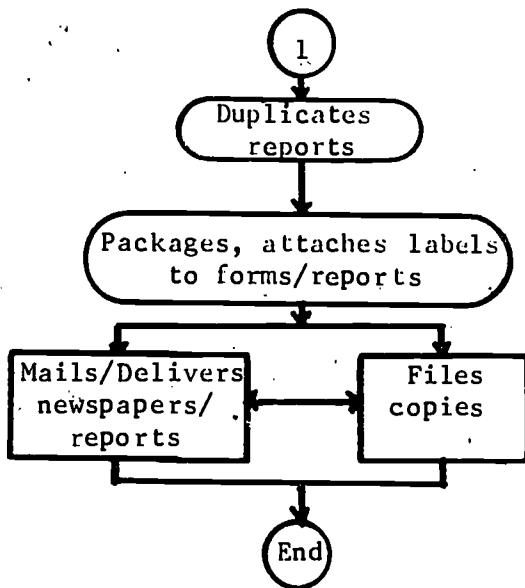
```
                    ┌───┐
                    │ 1 │
                    └─┬─┘
                      ▼
              ╭───────────────╮
              │  Duplicates   │
              │    reports    │
              ╰───────┬───────╯
                      ▼
          ╭───────────────────────╮
          │ Packages, attaches labels │
          │   to forms/reports    │
          ╰───────────┬───────────╯
              ┌────────┴────────┐
              ▼                 ▼
    ┌──────────────────┐  ┌──────────┐
    │ Mails/Delivers   │  │  Files   │
    │   newspapers/    │◄─┤  copies  │
    │    reports       │─►│          │
    └────────┬─────────┘  └────┬─────┘
             └────────┬────────┘
                      ▼
                   ╭──────╮
                   │ End  │
                   ╰──────╯
```

HARDWARE	SOFTWARE
Typewriter	Newspapers
Handstamp	Magazines
Telephone	Coding books
Bulletin board	Reports
Stapler	Lists
Paper drill	Acetate binders
Duplicator	

EDUCATIONAL CUES

Checking
Typing
Filing
Communication skills
Duplicating
Coding

SORTS
  cards numerically, by project number
TYPES
  final report copy/articles/stock infor-
  mation/quotations, exchange rates/name,
  date of magazine, newspaper
PROOFREADS

OBTAINS
  approval
ARRANGES
  pictures/copy/paste-up articles/wedding
  pictures/social events/page of ads
DUPLICATES
  calculation sheet for Accounting/final
  copy
PACKAGES
  forms/reports
ATTACHES
  labels to forms/reports

DISPOSITION

MAILS
  forms to customer
FILES
  summary report/materials/newspapers/
  clipped articles
DELIVERS
  recommendation for new forms to supervi-
  sor/rough draft to typist/exception report
  to employer
DISTRIBUTES
  newspaper throughout departments
PLACES
  package in distribution area

SUPPLEMENTARY STEP: Collates, punches,
binds duplicated report

REPORTED CRITERIA: "Time very important; Good command of English; Attention to
detail; Accuracy in spelling, checking addresses; Property law knowledge; High
level of judgment; Reports are neat and accurate; Ability to read financial sec-
tion; 65 wpm typing, file rapidly, accurately; Time pressure; Moderate know-
ledge of forms design; Must be kept up-to-date; Finger dexterity and speed."

02.03.02 THE WORKER UPDATES RECORDS AND PATIENT CHARTS FROM LAB REPORTS, CASE
        HISTORIES, AND OTHER INFORMATION. (28 task sheets)

ACQUISITION

RECEIVES
  lab reports/nurse's listing of patient name, room number, temperatures, pulse,
  blood pressure/list of patients/oral request for records/records/gain, loss
  (admitted/discharged) sheets/X-ray authorization/voucher forms/case histories/
  in-coming correspondence/patient ledger cards/charge, receipt tickets

PROCESS

SORTS
  lab reports/records for filing, for other departments/all papers in patient's
  file/charts alphabetically/doctors orders/ledger cards/charge, receipt tickets
PULLS
  requested patient record/patient, discharge patient chart/ledger card for
  charge, receipt tickets
OBTAINS
  prescribed medicine
CHECKS
  test results/chart for omission, patient status/patient chart numbers/files
  for missing records/master file for patient card/chart rack
WRITES
  patient number on X-ray authorization form/notation on "out" card with name
  of person requesting, date record removed/new divider labels
ATTACHES
  routing slip to record/correspondence to patient's ledger cards/lab report to
  lab sheet/master card to X-ray authorization, voucher form/label to authori-
  zation form, voucher, master card
TYPES
  label: patient's name, age, number, doctor, date/oral instructions on order
  form/dictated information on charts/discharge summary on chart
PROOFREADS

RECORDS
  patient data, record pulled/completed order/lab report information/surgeries
CALLS
  borrowers to locate missing record

DISPOSITION

PLACES
  lab sheet, report in patient's folder/patient record in doctor's folder
FILES
  health chart folder/records/report in patient's chart folder/patient chart/
  results of tests/patient's ledger cards/case histories
SENDS
  doctor's folders to doctors/located record to requester
DELIVERS
  labelled X-ray authorization form, voucher, master card to X-ray technician/
  orders to nurses/medicine to patient/chart to receptionist/ledger cards,
  charge, receipt tickets to Posting

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Files	Laboratory reports	Filing
Typewriter	Patient's charts,	Typing
Telephone	records	Communication skills
	Notebook	Checking
		Accuracy

REPORTED CRITERIA: "No missing statistics, high degree of care transferring
numbers accurately; Ability to move quickly in emergency cases; Accuracy in filing;
Good working knowledge of work done in other departments; Perseverance in search-
ing; No complaints; Must be able to read doctor's writing; Knowledge of coded
names of tests; Must proofread well; Degree of knowledge of medical terminology;
Good knowledge of English and spelling; Accuracy, attention to small details."

02.03.03   THE WORKER UPDATES RECORDS, SCHEDULES, AND MANUALS.   (19 task sheets)
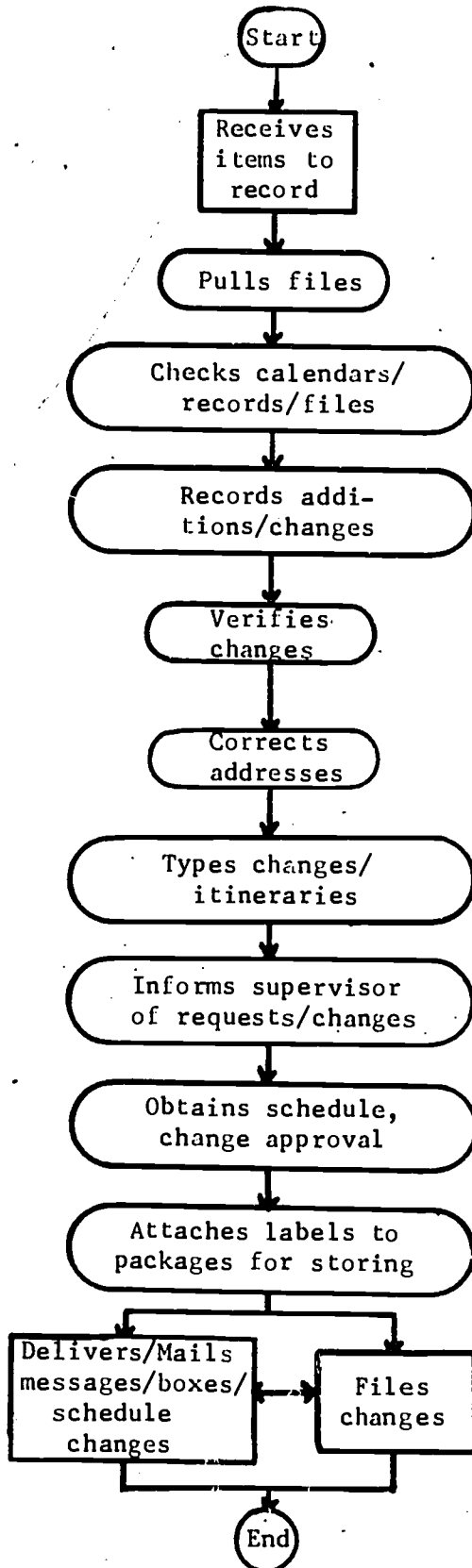
ACQUISITION

RECEIVES

new catalog pages/property records/lists
of cities, programs (TV)/telephone call/
airline schedules/manpower project amend-
ment, change of procedures forms/manuals

PULLS

change of address files .

PROCESS

CHECKS

daily calendar/log for unanswered entries,
for manuals checked out/new catalog pages
with old/to retrieve missing manuals/re-
cords for storage

COMPARES

part numbers to drawings

RECORDS

changes in master catalog/title of pro-
perty codes/list of cities, programs on
summary sheet/referrals (client) weekly,
monthly/date of mailings, payments/sub-
ject/addressee/writer/date of contract/
page numbers/part numbers/account num-
bers/address changes/manpower project
amendment information/card numbers being
stored/dates/procedure, schedule changes/
live, delayed broadcast program/times
taking dictation/number of pages

VERIFIES

changes

CORRECTS

addresses

TYPES

reminder of appointments/list of programs,
cities carrying programs/salesman's itiner-
ary/drawings of machine parts/change of
address forms/procedure changes

INFORMS

supervisor of unanswered requests, new
procedures, appointments

OBTAINS

approval of schedules, changes

ATTACHES

labels to packages for storing

DISPOSITION

DELIVERS

storage boxes to Data Control/program
listings/messages/schedule to lawyers/
airline schedule, change of address to
Data Processing/reminders to employer

Flowchart (top to bottom):

Start → Receives items to record → Pulls files → Checks calendars/records/files → Records addi-tions/changes → Verifies changes → Corrects addresses → Types changes/itineraries → Informs supervisor of requests/changes → Obtains schedule, change approval → Attaches labels to packages for storing → Delivers/Mails messages/boxes/schedule changes / Files changes → End

HARDWARE	SOFTWARE
Typewriter	Calendar
Files	Maps
Storage boxes	Master catalog
	Code book/log book
	Company procedures
	manuals

EDUCATIONAL CUES

Checking	Accuracy
Typing	Filing
Coding	Proofreading

FILES
   old catalog pages/summary, log sheets/
   salesmen's itinerary/change-of-address/
   project amendment form
MAILS
   summary list of programs to client

SUPPLEMENTARY STEP: Places new page in
master catalog

REPORTED CRITERIA: "Proficient reading,
understanding maps, careful proofreading,
interpret information correctly; Type 50 wpm,
especially numbers; Accuracy necessary to
maintain accounts in current condition."

02.03.04   THE WORKER CORRECTS PRINTOUTS, FORMS, AND STENCILS.   (19 task
           sheets)

REPORTED CRITERIA: "Must
know state laws and city
ordinances regarding pro-
perty conveyance; Galley
proofs must be correct;
Must concentrate to pick
out errors, edits minutes;
Basic knowledge of spel-
ling and grammar; Check
dictionary; Some analy-
tical ability, common
sense required; Must
know how to read maps,
attention to detail."

Start
↓
Receives
items to
check
↓
Sorts
materials
↓
Checks changes,
format, for error
↓
Proofreads
↓
Compiles forms,
instructions
↓
1
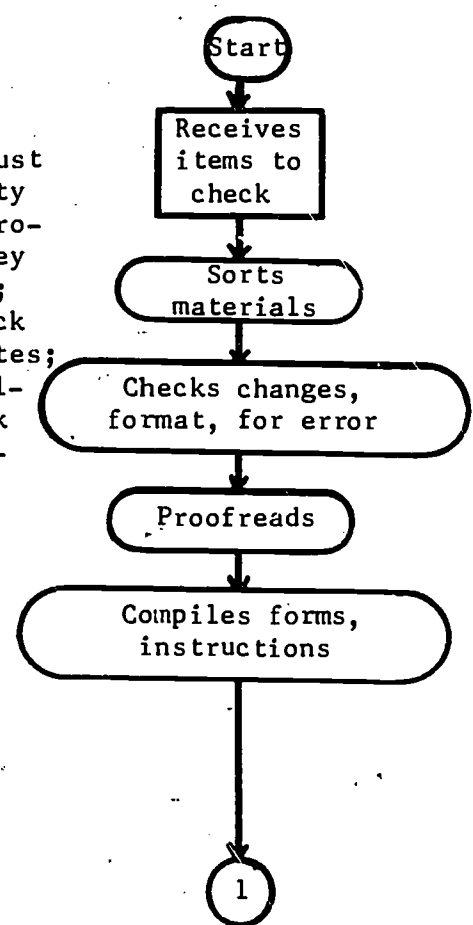
HARDWARE

Typewriter
Date stamp

SOFTWARE

Code book
Master catalog
Maps
Stencils

EDUCATIONAL CUES

Coding
Checking
Typing

SUPPLEMENTARY STEP:

Operates MTST

```
                        ( 1 )
                          |
                          v
                    < Error ? > ────No──────────────────────────┐
                          |                                      |
                         Yes                                     |
          ┌───────────────┼──────────────────┬──────────────┐   |
          v               |                  v              v    |
    ( Types          |            ( Draws circles    ( Writes "Void"
      correction )   |              around error )      on card )
          |          |                  |                  |
          v          |                  v                  v
    ( Writes correc- |            ( Corrects        ( Issue new
      tion card )    |              error )            card )
          |          |                  |                  |
          v          v                  └────────┬─────────┘    |
    ┌─────────┐  ┌─────────┐                     v               |
    │ Sends   │  │ Returns │             ( Record findings )◄────┘
    │ to DP   │  │to writer/│                    |
    └─────────┘  │ typist  │                     v
          |      └─────────┘             ( Stamps
          └────────┬──────┘                date/initials )
                   v                    ┌──────────┴──────────┐
                ( End )                 v                     v
                                  ┌──────────┐          ┌──────────┐
                                  │ Mails    │          │ Delivers │
                                  │ donation │          │ forms/   │
                                  │ materials│          │ stencils │
                                  └──────────┘          └──────────┘
                                       └──────────┬──────────┘
                                                  v
                                               ( End )
```
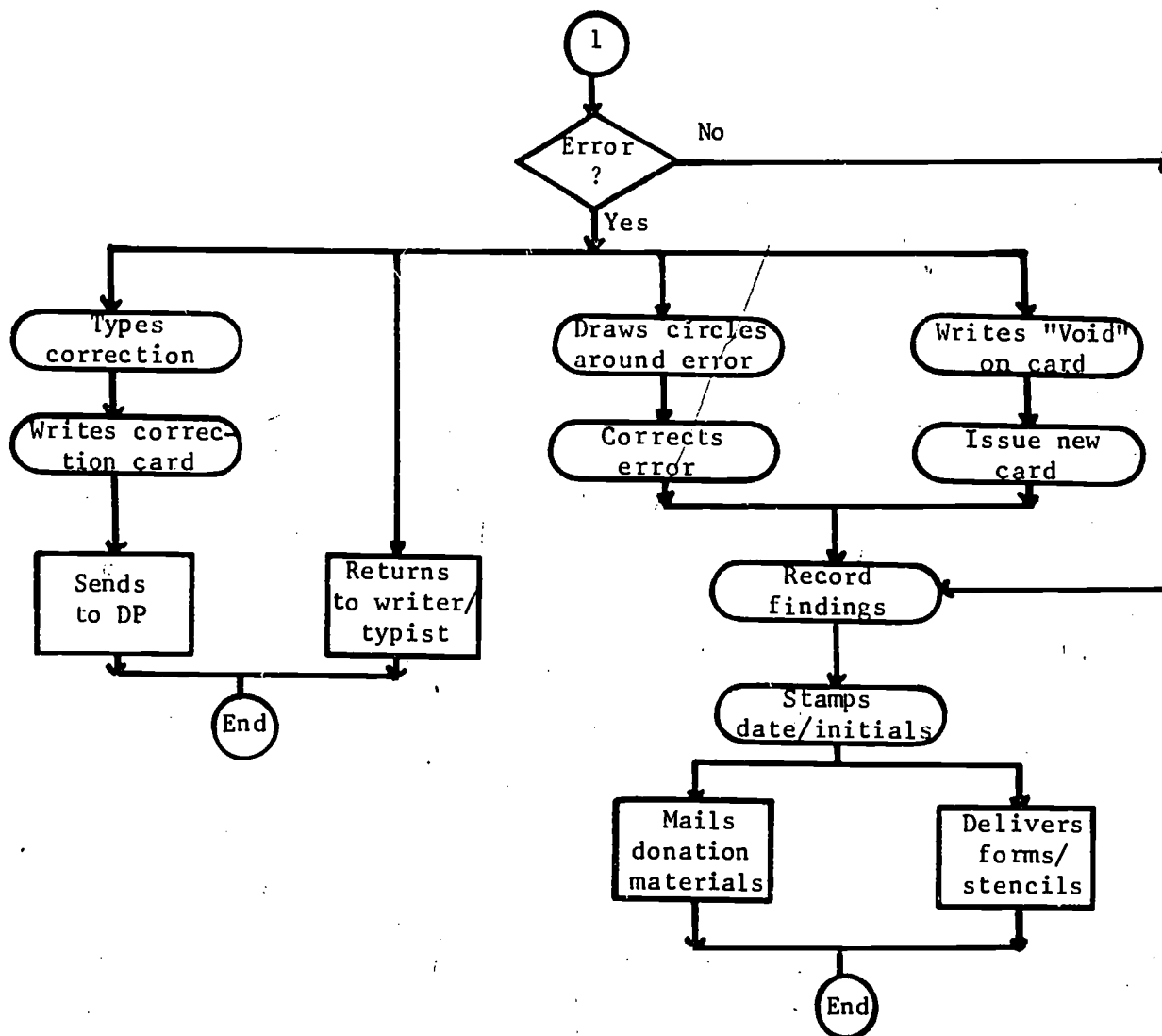
ACQUISITION

RECEIVES
  title transfers/items for research/printouts on errors, donations/galley proofs
  on telephone directory/change sheets/stencil of city council minutes/catalog
  sheet, changes/materials for publication/miscoded forms

PROCESS

SORTS
  materials/telephone directory change slips
CHECKS
  title transfers/transactions/paid bill files/galley proofs/figures in catalog/
  format for enclosures/catalog sheets, changes/materials for publication errors,
  grammar, spelling/printouts
PROOFREADS

COMPILES
  instruction forms for correction of errors
ATTACHES
  coded data to catalog sheets
RECORDS
  title transfer information/findings in report/symbol to indicate corrections
STAMPS
  galley proofs with date, initials

DISPOSITION

MAILS
  donation materials
DELIVERS
  checked forms to department/errors, stencil to typist/correct correspondence
  to employer

02.03.05   THE WORKER CORRECTS NAMES ON LOAN FILES, BANK RECORDS, AND INSURANCE
           POLICIES FROM DEEDS OR DEATH CERTIFICATES. (1 task sheet)

NON-COMPUTATIONAL RECORDING CRITICAL INCIDENTS

"While verifying checks written to vendors, worker found a mistake on a check
written for $3,000 instead of $30 (the correct amount). She issued a new
check and sent the necessary papers to Data Processing with instructions."

"A memo did not contain the department name; both the employee and/supervisor
were unable to read the source. The employee could have checked with each
merchandiser but this would have been a waste of time. Instead, the employee
went to the central file and checked through each merchandiser's book until she
found the necessary information."

"A check had the wrong vendor number on it and was sent to the wrong person.
That person cashed it and placed it in a savings account. We are still trying
to get the money back. Worker did not match the name of the check with the
name of the vendor."

02.04.03   THE WORKER DUPLICATES ITEMS FOR PERMANENT RECORDS.   (9 task
           sheets)

ACQUISITION

RECEIVES

cancelled checks/advices/request for advice/ledger, summary, recap, book-
keeping report sheets/accounts listing/deposits

PROCESS

PULLS

advices

CHECKS

photocopy machine for proper date, microfilm, date setting

OPERATES

microfilmer on cancelled checks/ledger, summary, recap sheets/bookkeeping
reports/all checks/deposits

ARRANGES

reports

RECORDS

information on advices over $1,000/count on microfilmer/dates of filming,
duplicating

STAMPS

"paid" on checks from this bank

DISPOSITION

DELIVERS

originals to Accounting/copies to Error and Correcting

DISTRIBUTES

bookkeeping reports to departments

FILES

cancelled checks/copy of microfilmed materials

REPORTED CRITERIA: "Must remain alert while filming checks; If not careful,
could cause a microfilm jam; All documents must be microfilmed; Checks must
not stick together as there would be no way to correct error."

DUPLICATING CRITICAL INCIDENTS

"We received a rush spirit duplicating job from another department. They told
her they wanted it by the next day if possible. She got the job done and back
to them the same day she received it."

"During finals the employee placed a stencil backwards on the mimeograph which
caused the final exam to be rescheduled at the inconvenience of the instructor
and students."

03.   TYPING COMMUNICATION

03.00.01   THE WORKER TYPES CORRESPONDENCE, MEMOS, AND OTHER ITEMS FROM FORM AND ROUGH DRAFT REQUIRED BY EMPLOYER.   (226 task sheets)

Flowchart (left column):

Start → Receives rough draft/form letters → Checks information to be sent → Types letters/cards/memos → Proofreads, corrects → Obtain approval? — No → Types → Obtains signature; Yes → Obtains signature → Duplicate? — No → Sends to Printer; Yes → Duplicates typed material → Arranges duplicated material → Types envelopes → Mails, Delivers, Files copies → End

Right column:
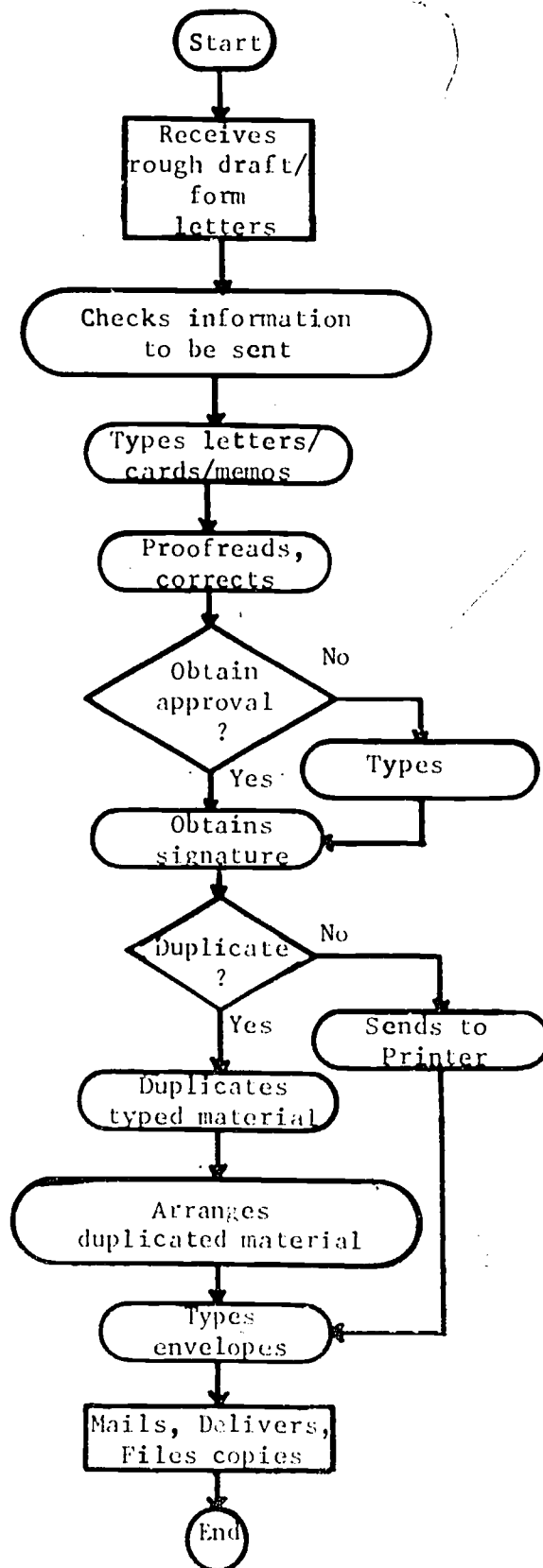
CORRESPONDENCE AND MEMOS (130 task sheets)

RECEIVES
  rough draft of letters/memos

SUPPLEMENTARY STEP: Stamp "restricted data."

OTHER ITEMS REQUIRED BY EMPLOYER (96 task sheets)

FORM LETTERS (15 task sheets)

RECEIVES
  customer files/application forms/names of applicants

FORMS (32 task sheets)

RECEIVES
  debit, credit, multilith forms/field change order/job procedures/appropriations/job bid, security log, claims, data card, telegram, service forms

SUPPLEMENTARY STEPS: Types certificates; Determines form design; Places job openings on bulletin board
CARDS (11 task sheets)

RECEIVES
  new records, albums to catalog/special order sheet/list of names
TYPES
  bibliography card, artist name, album title with number/special order information/names, addresses of prospective clients/ID card/admission cards/name, address, account number, balance of account/status cards

SUPPLEMENTARY STEPS: Checks items posted; Assigns numbers to some items

MISCELLANEOUS DOCUMENTS (38 task sheets)

RECEIVES
  legal documents/meeting minutes/manuscripts/abstract/contracts/programs/log sheet for announcers/catalog sheets/bus schedules, changes/weekly master calendar of trials/work schedules,

REPORTED CRITERIA: "Typing 70 wpm; Knowledge of word division; Typing on lines; Accurate record of meetings; Ability to produce flawless work; Technical terminology; Work under pressure; Good sense about readability of material and good judgment in set up; Able to withstand monotony"

RECEIVES (CONTINUED)
   list of names/news releases/invitations/ sermons/bulletins/proposals/resolutions for city council/meeting papers/badges for convention attendees

SUPPLEMENTARY STEPS: Types commercial tape number on log sheet; Calls witnesses to appear on trial; Types badges; Inserts badges in plastic frame

(Except for the listed differences, the number 2 flowchart may be followed for all other steps.)

03.00.02   THE WORKER TYPES DICTATION FROM SHORTHAND.   (172 task sheets)
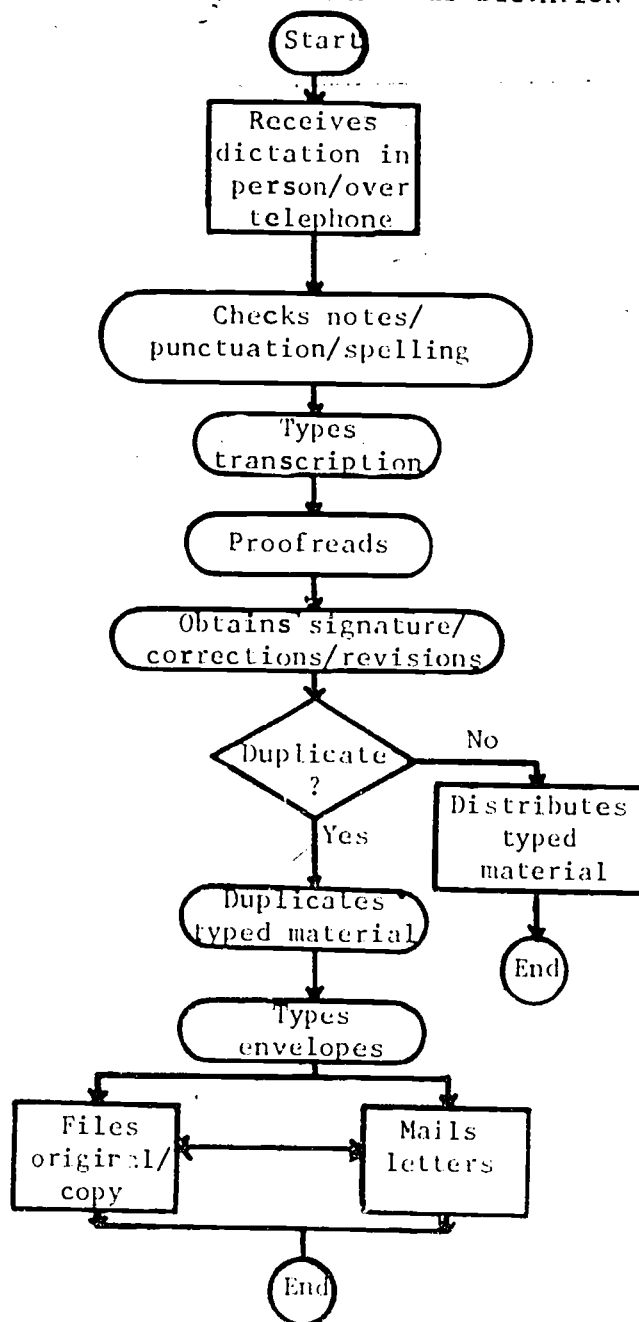
HARDWARE	EDUCATIONAL CUES
Typewriter	Typing
Duplicator	Shorthand
	Accuracy
SOFTWARE	Proofreading
	Checking
Note pad	Filing
Dictionary	Transcription
Transcribed	
materials:	
Letters	
Manuscripts	
Charts (from standard format)	
Contracts	
Reports	
Minutes of meetings	
Memos	
Legal documents	
Envelopes	

REPORTED CRITERIA: "Good English background; Letter format; A mailable letter that will make a good impression; No erasures permitted on letters going outside company; Worker must type letter perfectly; Some legal terms; Work under pressure; Perfect spelling, punctuation; A high degree of integrity is expected because this work is highly confidential; Great accuracy necessary--no erasing permitted; If letter is signed, it is considered mailable."

SUPPLEMENTARY STEPS: Attaches routing slip for internal reports; Locates addresses in file; Maintains card index of addresses, subject matter, data sent; Punches holes; Collates papers; Writes signature of dictator on letters

03.00.03   THE WORKER TYPES COMMUNICATIONS FROM DICTATED BELT.   (46 task sheets)

```
        ( Start )
            |
            v
     +--------------+
     |   Receives   |
     |   dictated   |
     |     belt     |
     +--------------+
            |
            v
     ( Places belt )
     ( on transcriber )
            |
            v
     ( Checks special )
     ( instructions )
            |
            v
     (    Types    )
     ( transcription )
            |
            v
     (  Proofreads  )
            |
            v
     (    Types    )
     (  envelopes  )
            |
            v
     ( Removes belt )
            |
            v
     (  Attaches    )
     ( copy to belt )
            |
            v
     (  Obtains    )
     ( signature )
        |       |
        |       v
        |   ( Codes copy )
        |   ( for filing )
        v       |
  +--------+  +--------+
  | Mails  |  | Files  |
  | letters|  |  copy  |
  +--------+  +--------+
        |       |
        v       v
        ( End )
```
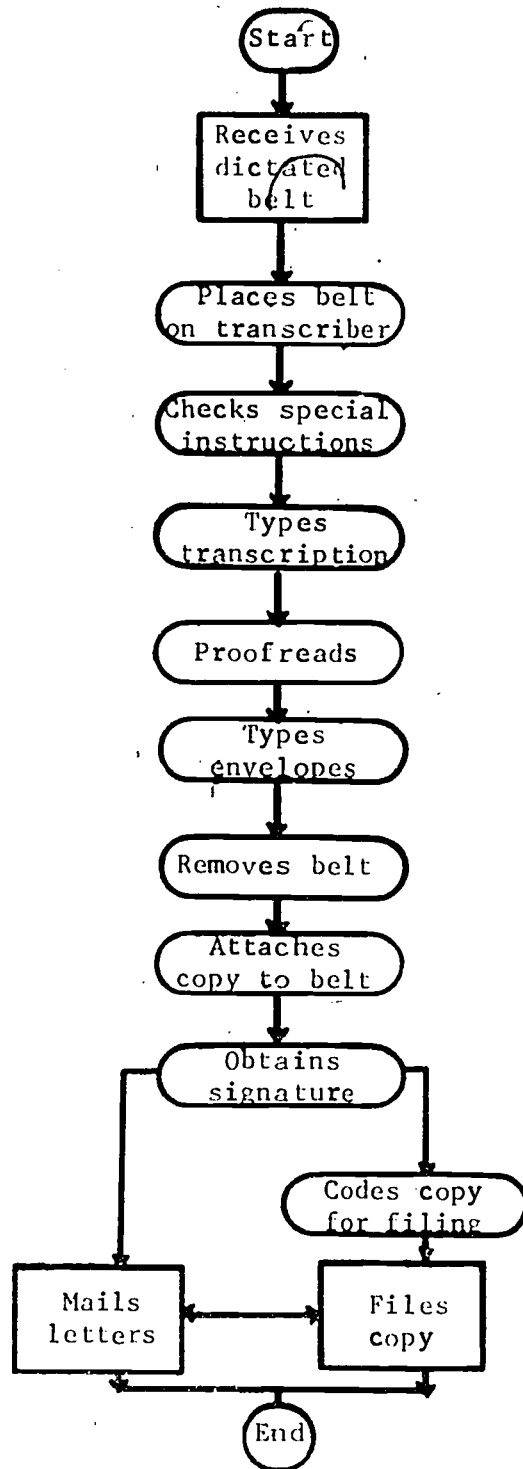
HARDWARE

Dictating machine
Typewriter

SOFTWARE

Dictated belt
Envelopes

EDUCATIONAL CUES

Typing
Shorthand
Transcription
Accuracy
Neatness
Proofreading

REPORTED CRITERIA: "Retype letter
if many corrections; Transcribe 20
minutes of dictation in 40 minutes;
Correct punctuation and spelling;
Attractive appearance of letter;
Follow directions; Typed same day
dictated; Type 70-80 wpm and tran-
scribe at 40 wpm."

TYPING COMMUNICATION CRITICAL
INCIDENTS

"I dictated a quotation specifying
one price and the stenographer trans-
posed the figure. Neither of us
caught the error before it was mailed.
As the quoted price was less than the
original figure, the company had to
sell the paper for less than was in-
tended."

"Sometimes when taking dictation,
the employee leaves out words which
distort the entire meaning of a
sentence. For example, "Relative our
layout" instead of "Relative to our
standard layout."

"Once I did not have time to dictate
a rather important reply to an in-
quiry. I handed my memo concerning
the inquiry to the worker, gave her
a few brief oral instructions, and
she did a beautiful job of composing
the letter herself."

03.00.04   THE WORKER TYPES REPORTS FROM ROUGH DRAFTS.   (45 task sheets)

Flowchart (left column):

Start → Receives rough draft → Obtains file of report material → Checks draft for corrections → Obtains draft approval → Types report → Proofreads → Corrects errors → Records typed report in log → Duplicate?

- No → Delivers to Duplicating → Sends to Printer → Types envelopes
- Yes → Duplicates report → Arranges report in final form → Types envelopes → Mails/Files/Distributes report → End
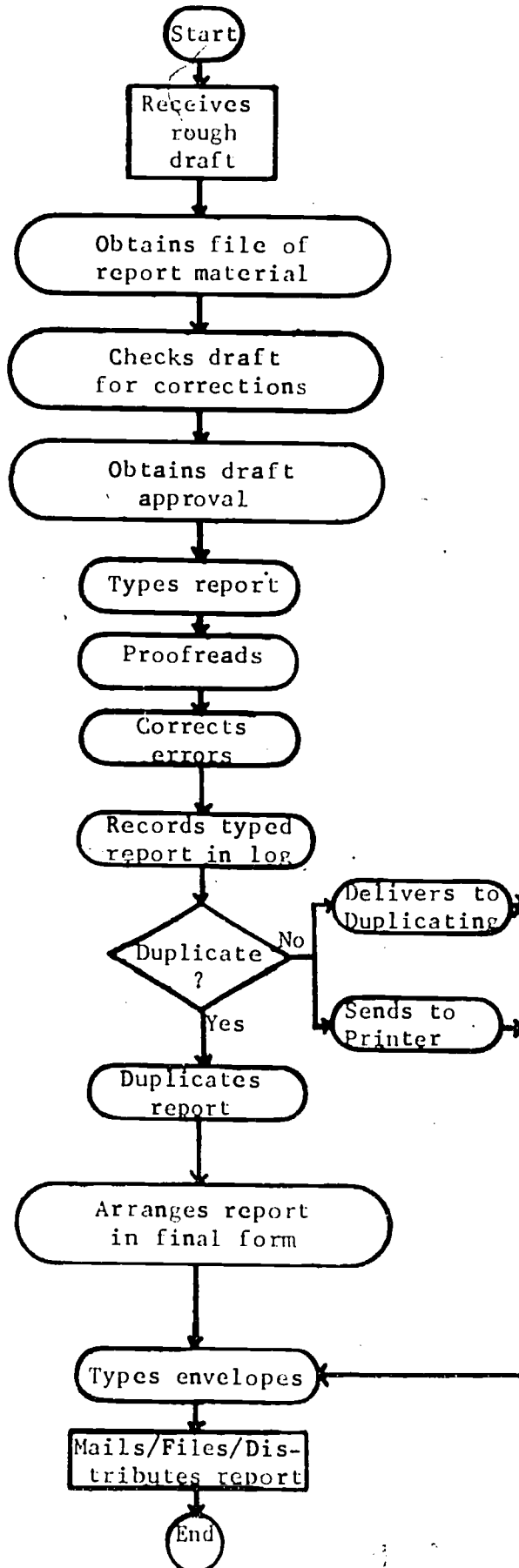
HARDWARE

Typewriter
Stapler
Staples
Files

EDUCATIONAL CUES

Checking
Filing
Proofreading
Accuracy
Neatness
Typing

SOFTWARE

Envelopes
Reports:
  Project plan
  Scientific
  Maintenance
  State tax
  Contract
  Installation
  Preliminary
  Progress
  Annual

REPORTED CRITERIA: "Able to decipher handwriting of various persons; Work under pressure; Collate rapidly; Meet deadlines; No errors; 70 to 80 wpm typing; High degree of accuracy."

TYPING COMMUNICATION CRITICAL INCIDENTS

"Worker did an excellent job on one report. It was very neat and accurate throughout. In fact, Washington, D.C. (where reports are sent) sent a note of praise on the report."

"On several occasions a worker typed a report showing taxes on a property had been paid when they had not. In several cases the escrow company caught the error, which is embarrassing and could have lost a customer. Several times no one caught the error before completion of the transfer which resulted in the company having to pay the taxes and then sue the seller in order to recover them."

03.00.05   THE WORKER TYPES MEDICAL LETTERS, FORMS, ARTICLES, AND REPORTS.
            (38 task sheets)

ACQUISITION

RECEIVES

oral instructions to write letter to patient/master appointment schedule/
estimate book/patient folders/ledger cards/diagnosis/death notice/dictated
belt/status form changes/articles for weekly bulletin/forms, reports for
duplication/handwritten copy of letter/daily reports/discharged patients'
cards/statistical tables from schools, clinics, other hospitals/admission
sheet/daily census report/statistical report of number of·patients in
hospital/printouts/request for reprint of doctor's article/ledger sheets of
out-patients

OBTAINS

doctors' duty list for weekly hospital bulletin/patient address

PROCESS

PULLS

patient's ledger card/Medicare record/address cards of discharged, transferred
patients

WRITES

· instructions/patient's address/date on charts/cancer treatment (radium, co-
balt)

CORRECTS

rough drafts, revises (if necessary)

COMPOSES

letter to patient

COMPUTES

number of males, females in medicine, surgery, obstetrics, pediatrics, new-
born/number discharged, admitted patients for month/all amounts on statisti-
cal tables/number premature, Caesarean births

TYPES

letters/appointment, deceased, patient's cards/appointment schedule/new
estimate book/statement, cost of medical treatment/dictated treatment records/
new status form/balance sheet/medical, physician's, history, surgery, dis-
charged summary, consultation, admission, one-day patient, daily movement
reports/dummy copy of doctors' duty list/notices from Personnel, Administra-
tion offices/stencil .of weekly bulletin forms, reports/dictated materials/
memos/form letters regarding billing/alphabetical listing of discharged
patients/cancer registry/article for bulletin/drug recap

PROOFREADS

CODES

status cards/cancer registry according to location of cancer

CHECKS

schedule for changes/card file/name spelling/medications/for enclosures/for
computational errors/weight record book for premature babies/discharge sheet

DUPLICATES

forms/reports/bulletins/discharged patient list

RECORDS

cancer information/number premature, Caesarean births on census form/number
discharges

OBTAINS

signature of doctor on report/approval of reports from doctor

ATTACHES

appointment card to letter/deceased card to ledger card/dummy list to paste-
up/signed original reports to patients' charts

WRITES
   doctor's name on letter/number minutes required to transcribe/name, date,
   drug, price on ledger sheet

                              DISPOSITION
DELIVERS
   information to Hospital Administration
SENDS
   cancer registry to State Department of Health/statistical reports to senior
   clerk for checking/census form to supervisor/original operative reports to
   Medical Records, copy to surgeon/copy of all reports to doctor/duplicated
   forms, reports to requesting departments
MAILS
   statement to probate court by hearing date/status form copies to Mental
   Health Service/doctor's articles/form letter to probate court requesting
   date for filing claims against estate/letters/estimate book copies to
   various departments/medical statement/form letter to administrator, executor
   of estate requesting payment
DISTRIBUTES
   master appointment schedule to doctors, nurses, lab, receptionist/memos to
   staff/discharged patient list
FILES
   copy of all reports/discharged patient list/patient's folder, ledger card/
   deceased patient card/operative report
PLACES
   printouts in binder book

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Patient's files	Checking
Adding machine (10-key)	Medical documents	Typing
Files	Coding manuals	Proofreading
	Stencils	Accuracy
		Filing
		Computational skills

REPORTED CRITERIA: "Ability to check own work and that of others; Correct
coding of status; Medical terminology essential; Proofreading very important;
Ability to compose a letter given brief description of content; Deadlines for
reporting medical information met; All wording correct; Willingness to work
overtime to complete work; Accounting for all drugs used."

TYPING COMMUNICATION CRITICAL INCIDENTS

"One worker could not handle the pressure. A research proposal had to be in to
meet a deadline, and she went to pieces over it. We had to hire another worker
to complete it."

"The worker received a telephone request for five charts (records) from a nurse
on the staff at a time when the worker was rushed. In her haste to complete
her work and leave for an afternoon off, she neglected to make a record of the
request. After she had left for the day, the nurse called to find out why the
records had not been sent down."

"Not too long ago the worker did not see to it that a particular message was
delivered to an attorney. The information in the message was pertinent to an
upcoming trial. The result was a delay in the relaying of important informa-
tion to the attorney's client."

03.00.06   THE WORKER TYPES STATISTICAL INFORMATION FROM ENGINEERING SPECIFICA-
            TIONS, LISTS OF CHECKS, AND RATE SHEETS.   (25 task sheets)

```
                    ┌─────────┐
                    │  Start  │
                    └─────────┘
                         │
                  ┌──────────────┐
                  │  Receives    │
                  │ statistical  │
                  │ documents    │
                  └──────────────┘
                         │
              ╭────────────────────╮
              │ Checks numeri-     │
              │ cal accuracy       │
              ╰────────────────────╯
                         │
              ╭────────────────────╮
              │ Types statistical, │
              │ financial documents│
              ╰────────────────────╯
                         │
                ╭─────────────────╮
                │   Proofreads    │
                ╰─────────────────╯
                         │
                ╭─────────────────╮
                │    Corrects     │
                │     errors      │
                ╰─────────────────╯
                         │
              ╭────────────────────╮
              │ Obtains signa-     │
              │ ture, approval     │
              ╰────────────────────╯
                         │
                     ◇─────────◇
                     │Duplicate│───── No ──┐
                     │    ?    │           │
                     ◇─────────◇           │
                         │                 │
                        Yes                │
                ╭─────────────────╮        │
                │   Duplicates    │        │
                │   documents     │        │
                ╰─────────────────╯        │
                         │                 │
                ╭─────────────────╮        │
                │   Compiles      │        │
                │   materials     │        │
                ╰─────────────────╯        │
                         │                 │
                ╭─────────────────╮   ╭─────────────╮
                │    Punches      │   │   Types     │
                │    holes        │   │  envelopes  │
                ╰─────────────────╯   ╰─────────────╯
```

┌──────────┐   ┌────────────┐   ┌──────────┐
│ Files   │   │ Distributes│   │ Mails   │
│originals/│   │ typed   │   │ typed   │
│ copies   │   │ materials │   │ material │
└──────────┘   └────────────┘   └──────────┘

```
                    ┌─────────┐
                    │   End   │
                    └─────────┘
```
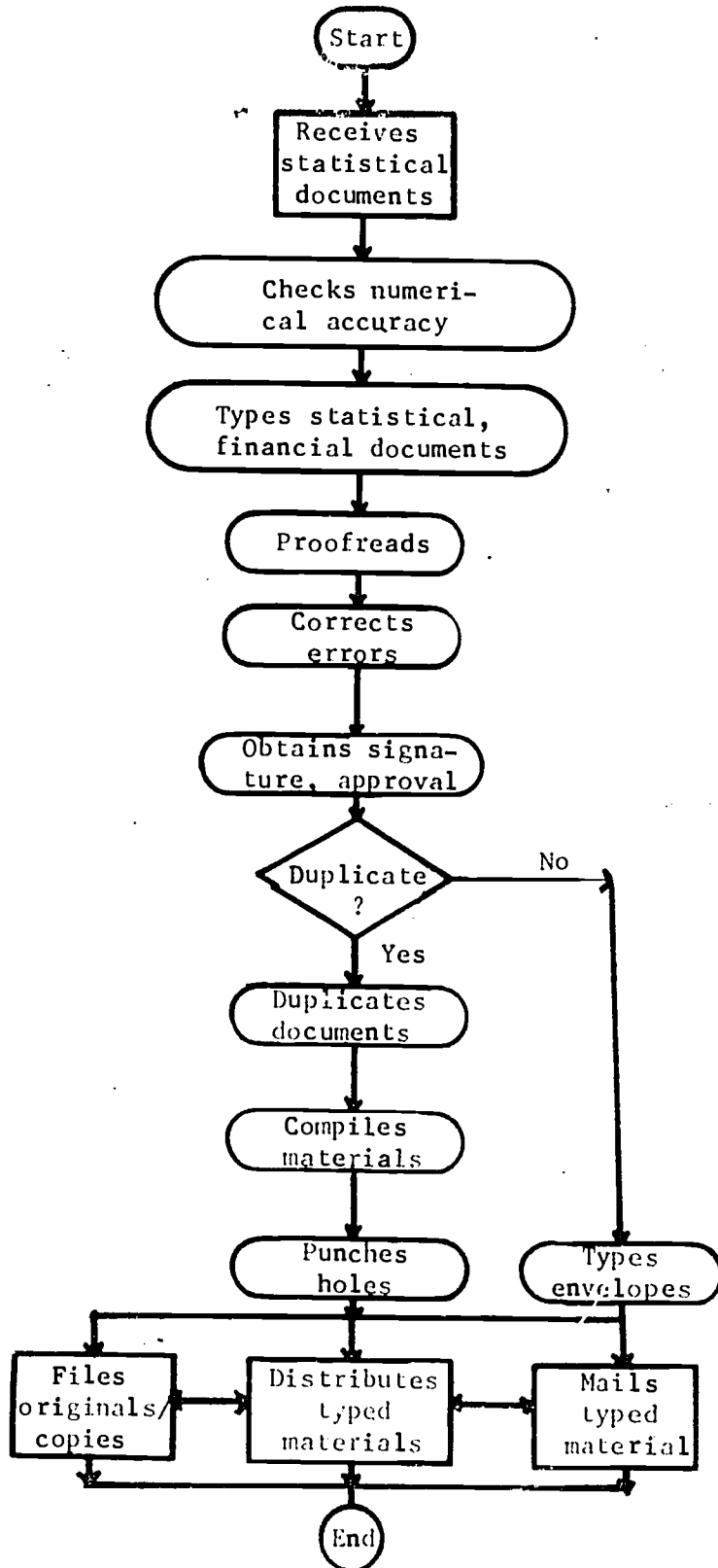
HARDWARE

Typewriter
Duplicator (Offset, stencil,
    fluid process, photocopy)
Adding machine (10-key)
Stapler
Staples
Hole punch

SOFTWARE

List of checks
Receipts, payments on ledger
    sheets
Financial statements, reports
Rate sheets
Engineering specifications
Statistical reports
Budgets
Ledger summary
Charts
Graphs
Tables

EDUCATIONAL CUES

Proofreading
Statistical typing
Checking
Accuracy
Filing

SUPPLEMENTARY STEP: Prepares
transparencies

REPORTED CRITERIA: "Correct data
on financial standing of company
transmitted to officers of com-
pany; Spelling, grammar, techni-
cal grammar important; Pay atten-
tion to detail; Able to read
difficult handwriting; Meet a
deadline."

03.00.07   THE WORKER OPERATES A TELETYPE MACHINE.   (19 task sheets)

Left flowchart:

- Start
- Receives handwritten messages
- Sorts messages by destination
- Checks message
- Verifies, Types message unless legible
- Corrects errors by stopping machine, pulling tape to slip by errors
- Removes punched tape, inserts tape into teletype machine
- Sends tele-type message
- Receives two copies
- Records time spent handling message
- Delivers message, copy to requestor / Files message copy
- End

Right flowchart:

- Start
- Receives message on teletype
- Removes message
- Answer inquiry ?
  - Yes → Sends teletype
  - No → Files copy
- Delivers message to recipient
- End

SUPPLEMENTARY STEPS: Files dated carbon of tapes; Refers to Telex directory for correct way to send message; Assigns number and stamps on message; Checks roll of paper on teletype machine

HARDWARE

Teletype machine
Sequential stamping machine

SOFTWARE

Punched tape
Telex directory

EDUCATIONAL CUES

Accuracy
Typing
Filing

03.00.08   THE WORKER ANSWERS REQUESTS BY TYPED LETTERS.   (17 task sheets)

<u>Receives</u> letters/oral request
<u>Checks</u> letters
<u>Locates</u> necessary information
<u>Determines</u> type of reply
<u>Composes</u> rough draft reply
<u>Types</u> reply/carbons/envelopes
<u>Proofreads</u>
<u>Obtains</u> signature
<u>Places</u> letters in envelopes
<u>Files</u> letter
<u>Mails</u> letter

<u>HARDWARE</u>

Typewriter
Signature stamp
Files

<u>SOFTWARE</u>

Envelopes (blank,
  window)
Letterhead paper
Incoming mail

<u>EDUCATIONAL CUES</u>

Proofreading
Typing
Neatness
Accuracy
Filing

<u>REPORTED CRITERIA:</u>   "Necessary information is sent as requested; Signature
indicates approval or acceptance; Adhere to time schedule."

03.00.09   THE WORKER TYPES INFORMATION ON FORMS, CARDS, OR LETTERHEADS FROM
           DICTATION, APPLICATIONS, COMPUTER LISTINGS, AND OTHER SOURCE DOCU-
           MENTS.   (17 task sheets)

ACQUISITION

RECEIVES

  request form from coders/dictation/mortgage application, credit files/mortgage
  information/list of newly married depositors/overdraft journal/insufficient
  funds, overdraft checks, computer listings/new account information, signature
  cards/ledger cards, forms/new loans/signed loan note/request to follow-up
  past-due customer accounts

PROCESS

CHECKS
  information received/overdrafts
EXPLAINS
  types of accounts
DETERMINES
  type of account which suits customer needs best
COMPUTES
  overdraft charges/total overdrafts/advice totals
TYPES
  signature card/passbook/deposit slip/form, dictated letter/commitment form on
  mortgage/form letter to newly married depositors/overdraft form/check-return
  notices/analysis, index cards with customer data/code number, check amount for
  branch bank/security loan form for new loan/details of new loan on form/loan
  payment sheet/loan note ticklers for file/account of reason for overdue account
PROOFREADS

OBTAINS
  customer signature on signature card/deposit/signature on letters

TOTALS
  money for deposit
WRITES
  credit ticket form/insufficient funds total on computer listing/check,
  vouchers for loan
COMPILES
  folder for new accounts

DISPOSITION

DELIVERS
  ledger cards, ledger forms, advices, adding machine tapes to supervisor/credit
  ticket form to general ledger clerk/adding machine tape of overdraft charges
  to proof-machine operator/check return notice to assistant cashier/deposit,
  deposit slip to Posting/ passbook to customer/mortgage, credit files to real
  estate officer
DISTRIBUTES
  commitment to attorney, realtor, auditor
MAILS
  form, dictated, marriage letters/overdraft form, check-return notice, overdue-
  account letter to customer/security loan form to county clerk
FILES
  copy of form, dictated letter/copy of commitment, loan detail sheet/loan
  ticklers

SUPPLEMENTARY STEP: Calls customer to remind of past-due account

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Transcribing machine	Forms	Shorthand
Typewriter	Checks	Typing
Adding machine	Cards	Technical vocabulary
Files	Computer listings.	Checking
	Passbooks	Filing
	Adding machine tapes	Computational skills

REPORTED CRITERIA: "Correct punctuation, grammar necessary; Average typing
ability; Good knowledge of savings, loan institutions; Ability to handle
customers tactfully, patiently."

03.00.10   THE WORKER TYPES REPORTS/BULLETINS FROM ROUGH DRAFTS AND LISTS.   (14
           task sheets)
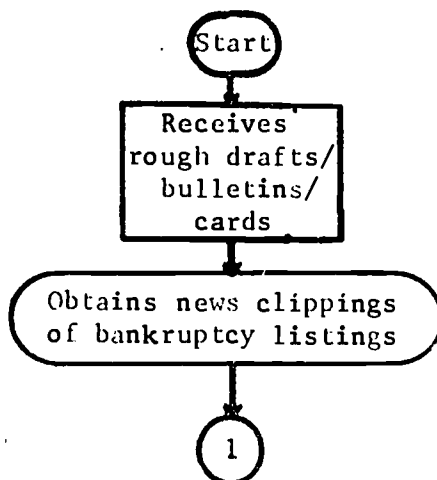
ACQUISITION

RECEIVES
  report information/rough drafts/new
  checks, savings accounts listing/dealers
  payment reports/solicitation cards/
  bulletins
OBTAINS
  clippings of bankruptcy listings from
  newspaper

PROCESS

PULLS
  previous month's report/loan ledger sheets
CHECKS
  material, format/totals/report for
  accuracy

```
        (1)
         │
         ▼
┌─────────────────────┐
│ Pulls previous      │
│ month's report/loan │
│ ledger sheet        │
└─────────────────────┘
         │
         ▼
┌─────────────────────┐
│ Checks material/    │
│ format/totals/      │
│ report for accuracy │
└─────────────────────┘
         │
         ▼
┌─────────────────────┐
│ Computes interest/  │
│ deposit ticket      │
│ totals/number/      │
│ percent calls made  │
└─────────────────────┘
         │
         ▼
┌─────────────────────┐
│ Writes bankruptcy   │
│ names/unpaid        │
│ balances on report  │
└─────────────────────┘
         │
         ▼
┌─────────────────────┐
│ Records unpaid      │
│ totals on records/  │
│ solicitation        │
│ information on cards │
└─────────────────────┘
         │
         ▼
┌─────────────────────┐
│ Types reports/      │
│ bulletins/lists     │
└─────────────────────┘
         │
         ▼
┌─────────────────────┐
│ Proofreads          │
└─────────────────────┘
         │
         ▼
┌─────────────────────┐
│ Obtains approval    │
└─────────────────────┘
         │
         ▼
┌─────────────────────┐
│ Duplicates          │
│ reports/bulletin    │
└─────────────────────┘
         │
  ┌──────┼──────┐
  ▼      ▼      ▼
┌───────┐┌───────┐┌───────┐
│Delivers││ Mails ││ Files │
│reports ││bulletins││cards │
└───────┘└───────┘└───────┘
         │
         ▼
       (End)
```

COMPUTES
   interest/deposit ticket totals/number
   of calls made weekly for solicitation
   report/percent of calls made
WRITES
   unpaid balances on report/bankruptcy
   names in bankruptcy book
RECORDS
   unpaid totals on installment loan
   records/information on solicitation
   cards
TYPES
   report/check, savings account report/
   entry tickets crediting dealers trust
   account for amounts due/entry tickets
   to pay dealer excess due/bulletins/new
   accounts on bulletin/bankruptcy list
PROOFREADS

OBTAINS
   approval of bulletins
DUPLICATES
   report/solicitation report/bulletins
COMPILES
   reports/bulletins
CALLS
   messenger for pick up of report/dealer
   to request check when trust funds are
   insufficient to pay amounts due.

DISPOSITION

DELIVERS
   report to bookkeeper, employees, author/
   new check, savings account list to bank
   president
MAILS
   new checking, savings account lists to
   branch offices/other personnel
FILES
   solicitation cards

HARDWARE	EDUCATIONAL CUES
Adding machine (10-key)	Accuracy
Typewriter	Typing
Duplicator	Filing
Telephone	Checking
Files	Technical language

CRITICAL INCIDENT: "The supervisor
was late due to a snow storm, and
worker took control of the office,
delegated work to other girls; and
by the time the supervisor arrived,
the daily bulletin was complete."

REPORTED CRITERIA: "Speed is more
important than accuracy in preparing a
report draft for final copy."

03.00.11   THE WORKER PROCESSES ROUGH DRAFT TO DUPLICATED MATERIAL.   (13 task sheets)

```
         ┌───────┐
         │ Start │
         └───┬───┘
             ▼
        ┌─────────┐
        │ Receives│
        │  rough  │
        │  draft  │
        └────┬────┘
             ▼
        ╭─────────╮
        │ Arranges│
        │  format │
        ╰────┬────╯
             ▼
        ╭──────────╮
        │Checks draft│
        │ for accuracy│
        ╰────┬─────╯
             ▼
     ╭────────────────────╮
     │ Types liquid process/│
     │ offset/stencil masters│
     ╰─────────┬──────────╯
               ▼
        ╭───────────╮
        │ Proofreads│
        ╰─────┬─────╯
              ▼
        ╭──────────────╮
        │Obtains signa-│
        │ture/approval │
        ╰──────┬───────╯
               ▼
          ◇─────────◇      No    ╭────────────╮
          │Duplicate?│─────────→ │ Delivers to│
          ◇────┬────◇           │ Duplicating│
               │ Yes            ╰──────┬─────╯
               ▼                       ▼
        ╭───────────╮          ╭──────────────╮
        │ Duplicates│          │ Receives from│
        │  material │          │ Duplicating  │
        ╰─────┬─────╯          ╰──────┬───────╯
              ▼                       │
        ╭───────────╮                 │
        │ Compiles  │◄────────────────┘
        │ materials │
        ╰─────┬─────╯
      ┌───────┴────────┐
      ▼                ▼
 ┌──────────┐   ┌──────────────┐
 │Files copies│  │ Mails/Deli-  │
 │ original  │   │ vers dupli-  │
 │  drafts   │   │cated material│
 └────┬─────┘   └──────┬───────┘
      └───────┬────────┘
              ▼
           ┌─────┐
           │ End │
           └─────┘
```
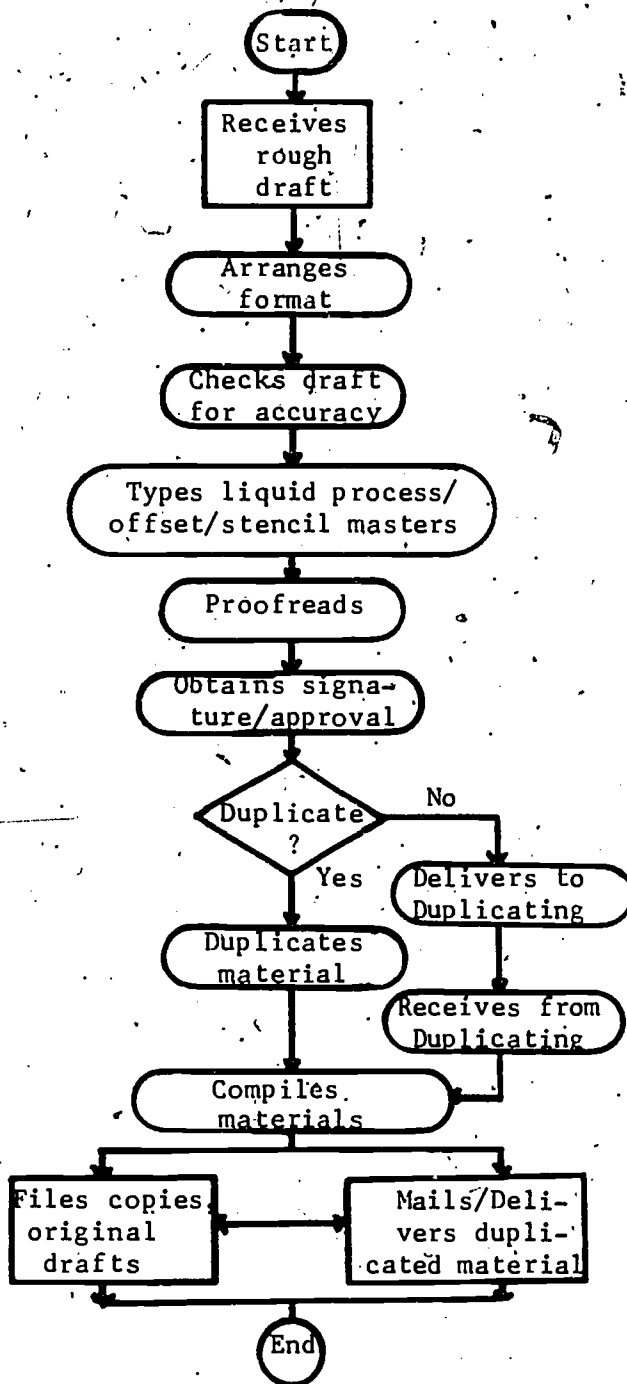
HARDWARE

Typewriter
Staples
Stapler
Offset
Fluid process duplicator
Stencil duplicator
Photocopy machine
Xerography machine

SOFTWARE

Carbon ribbon
Masters copy
Erasers
Correcting ink/paint

EDUCATIONAL CUES

Checking
Accuracy
Typing
Proofreading
Correct spelling, grammar, punctuation

REPORTED CRITERIA: "Cope with a time limit; Correct spelling; A high degree of patience; Good command of English."

CRITICAL INCIDENT: "Years ago the company charter was amended. Secretary typed the company name with an ampersand rather than "And." Several states in which the company operates noticed the discrepancy; much time was spent explaining. She did not understand the legal implications of such an error, so did not look for such errors when she proofread."

03.00.12   THE WORKER TYPES ADDRESSES ON LABELS /ENVELOPES.   (8 task sheets)

Receives addresses
Checks spelling, addresses for accuracy
Types addresses
Attaches label to envelopes
Records sending of materials
Sorts envelopes by zip code
Arranges envelopes
Mails/Delivers envelopes

REPORTED CRITERIA: "Time pressures; Work to be completed immediately; Speed not important; Double space three-line address and single space four-line address."

03.00.13 THE WORKER PREPARES RADIO COMMERCIALS FROM ORAL INSTRUCTIONS. (2 task sheets)

Receives instructions to write radio commercial copy
Obtains client's files to determine type of copy desired
Determines type of ad
Writes rough draft in longhand
Checks copy.
Totals words to check time it takes to read
Writes copy again when necessary
Types final draft of radio commercial, approved commercial copy
Obtains approval of salesman
Distributes copies

03.00.14 THE WORKER PREPARES TRANSLATION OF INCOMING/OUTGOING SPANISH MAIL. (1 task sheet)

03.00.15 THE WORKER SENDS TELEGRAMS. (1 task sheet)

Receives telegram message from supervisor
Pulls proper shipping order
Writes shipping date, route, bill of lading number on multi-copy telegram blank
Files shipping order
Sorts copies of telegram
Places original of telegram on cylinder
Operates machine
Removes telegram from cylinder
Files copy of telegram by recipient's name
Delivers copy of telegram to Accounting

TYPING COMMUNICATION CRITICAL INCIDENTS

"One Friday evening a resident suddenly remembered a report that had to be in the next day. He rushed to the hospital, found the worker sitting at her desk typing the report. She also had remembered the report that evening and did not want the doctor to get in trouble for not having the report in. She felt it was up to her to see that it was done."

"On birth certificates there is legal information required from the doctor which the worker is assigned to obtain. She has failed to get information regarding abnormal births because she does not feel this information is important."

"When a doctor is behind on his dictation of surgical reports, the worker calls him and tactfully reminds him. The doctor mentioned that he appreciated the manner in which the worker reminded him of his dictation backlog and feels she is interested in helping him with a responsibility in which he tends to lag."

04. CLIENT RELATED SERVICES

04.01. <u>Insurance</u>

04.01.01 THE WORKER TYPES INSURANCE DOCUMENTS. (48 task sheets)

ACQUISITION
RECEIVES
   policy illustrations form/request from agent for policy program/request for
   binder/policy/renewal cards/work sheets/applications/contracts/request for
   change/transfer of policy/mailing kit of insurance materials/dictated belt/
   rough draft of policy/quote request/payment cards/change orders/cancellation
   notices

PROCESS
PULLS
   insured, applicant folder/pending folder/contracts/expiration, accounting
   cards/coupon
SORTS
   policies/expiration cards
CHECKS
   policy/appraisal description/policy work sheet for completeness/instructions/
   coding, classifications on policy/state, city codes for fire departments/expira-
   tion cards/loans against policies
ASSIGNS
   policy, chart numbers
DETERMINES
   premium/type of endorsements/changes/protection district, agent of transfer
   assigned
RECEIVES
   money from customer
COMPILES
   customer file
STAMPS
   policy forms/transfers
COMPUTES
   premium/totals/insurance costs/premium changes
ADJUSTS
   payment schedule
WRITES
   paid receipts/loan change orders/applications/premiums/code numbers/endorse-
   ments
TYPES
   illustration, agents' form/policy program, corrections/synopsis of benefits/
   insurance binder/dictated policy information/invoice/endorsement/new payment
   schedule/beneficiary change/reinstatement form letters
OBTAINS
   approval, signature on policy
PROOFREADS

ARRANGES
   illustration form, cover letter, agents' form, explanation sheets in binder
ATTACHES
   work sheet to policy
RECORDS
   accumulated data/binder, policy, chart numbers/premium changes

                            DISPOSITION
FILES
   binder/old, new policies/invoice/endorsements/renewal cards/work, ledger sheet/
   contracts/reinstatement form letters
DESTROYS
   all materials over five years old
DELIVERS
   synopsis forms, information cards to agent/binder, receipt, policy to super-
   visor, reviewer/policy, endorsements to underwriter
SENDS
   program to agent/policy to Rating/loan change order to supervisor, Accounting/
   change to Addressing/ledger sheet to home office
MAILS
   program to home office/binders to main company/policies, payment card, invoice,
   endorsements, pay schedules, contract to home office/transfer policy/kit
   letters one at a time until gone/reinstatement form letter

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Rate manuals, charts	Computational skills
Calculating machine	Binder book	Typing, statistical
Dictating machine	Dictation belt	Neatness
Files	Insurance policy forms	Filing
	Insurance payment cards	Checking
	Insurance policy endorse-	Coding
	ment forms	Accuracy
	Renewal cards	Insurance
	Ledger sheets	terminology

REPORTED CRITERIA: "Knowledge and understanding of insurance plans, attention
to detail in calculations; Speedy and accurate typing; Use rate books; Completely
accurate transcript expected, perfect copy; Speed and accuracy with no erasures
permitted; Careful attention; Knowledge of insurance terms."

04.01.02   THE WORKER PROCESSES INSURANCE INQUIRIES. (41 task sheets)
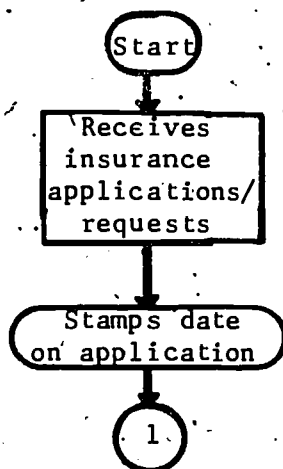
                                        ACQUISITION
                            RECEIVES
                               ledger, record, status cards/health plan
                               application/policyholder's file/applica-
                               tions/requests for policy/inquiry/corres-
                               pondence/dictated letter/copy of claims

                                        PROCESS
                            STAMPS
                               date on application/letter indicating
                               answered
                            PULLS
                               agent's file/requested materials

Flowchart (left column):

```
        ( 1 )
          │
    ┌─────▼─────┐
   (  Pulls files )
    └─────┬─────┘
          │
    ┌─────▼─────┐
   ( Sorts cards, )
   ( applications )
    └─────┬─────┘
          │
   ┌──────▼──────┐
  ( Checks insurance cards, )
  ( dates, files, letters   )
   └──────┬──────┘
          │
   ┌──────▼──────┐
  ( Determines amounts )
  (  payable, loss,    )
  (   underwriter      )
   └──────┬──────┘
          │
   ┌──────▼──────┐
  ( Computes premium, )
  ( policy cash value )
   └──────┬──────┘
          │
   ┌──────▼──────┐
  ( Records amounts, )
  ( dates, requests  )
   └──────┬──────┘
          │
      ◇ Duplicate ? ◇──Yes──┐
          │No               │
          │            ( Duplicates )
          │            ( applications )
   ┌──────▼──────┐          │
  ( Writes initials/ )◄─────┘
  ( insurance forms  )
   └──────┬──────┘
          │
      ◇ Type ? ◇──No──┐
          │Yes        │
          │       ( Delivers )
          │       ( to typist )
   ┌──────▼──────┐    │
  ( Types insurance forms, )
  ( letters, proposals,    )
  ( accident reports       )
   └──────┬──────┘
          │
   ┌──────▼──────┐
  ( Obtains )◄────────┘
  ( signature )
   └──────┬──────┘
          │
   ┌──────▼──────┐
  ( Instructs managers to )
  ( return incorrect policy )
   └──────┬──────┘
          │
   ┌──────▼──────┐
  ( Compiles insurance )
  ( folder, policy kit, )
  (      tables         )
   └──────┬──────┘
          │
        ( 1 )
```

Right column:

SORTS
  ledger, record cards/applications/correspondence
CHECKS
  balance ledger cards/registration file
  for previous, present membership health
  plan/status, code/letter for requested
  information/termination date/manuals
  for answers/applications for completeness/for rejects
DETERMINES
  amount to be paid/underwriter/number of
  years, type of policy/policy number/loss
  amount
COMPUTES
  premiums/cash value of policy
RECORDS
  applicant data/allowable amount to be
  paid on suspense voucher/amount to be
  refunded/request for information/policy
  number/account name/loss figures
DUPLICATES
  applications
WRITES
  initials on suspense voucher, follow-up
  slip/file cards on applicant
TYPES
  receipt of application letter/check
  requisition/letter request for additional payment/request responses/proposals/standard cover letter/accident
  reports/non-renewal form letter/dictated
  correspondence/ID card
OBTAINS
  signatures on letter, back of application
INSTRUCTS
  district manager to return incorrect
  policy
COMPILES
  folders/binder/policy explanation/proposal form/policy file/tables

                    DISPOSITION
DELIVERS
  file to supervisor/status cards to agent/
  letters of response/index card to writer
MAILS
  letter to applicant/responses/accident
  report/non-renewal letters/ID cards
FILES
  ledger, record, status cards/suspense
  voucher/letters/application
SENDS
  application to Filing, Medical Section/
  suspense vouchers to Cashier/application
  to underwriter
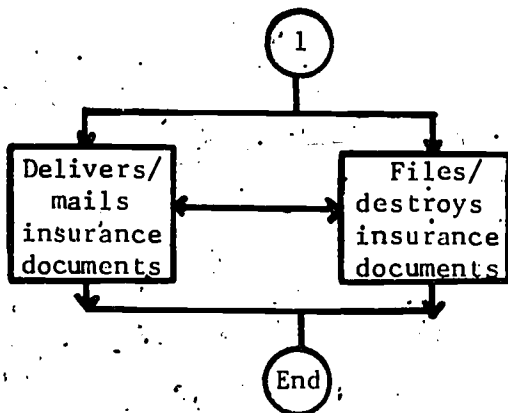
DESTROYS
old status card

HARDWARE	SOFTWARE
Files	Ledger cards
Typewriter	Record book
Dictating machine	Suspense voucher
	Follow-up slip
EDUCATIONAL CUES	Application
	Record cards
Filing	Status cards
Typing	Rate book
Checking	Dictating belt
Computational	Index cards
skills	
Color coding	
Insurance terminology	

REPORTED CRITERIA: "Know where every application is; Clear desk by end of day; Compose mailable letter at typewriter; Familiar with company policy; Insurance terminology; Alertness and attention to detail; Good at second guessing people."

04.01.03 THE WORKER PROCESSES INSURANCE CLAIMS. (20 task sheets)

ACQUISITION

RECEIVES
telephone calls about accidents/claim cards, correspondence/approved hospital list/claim jacket/requests for check certification

PROCESS

PULLS
beneficiary's folder
SORTS
claims alphabetically
LOCATES
claim card by color code/files
CHECKS
claim billing/contract/treatment date/doctor's sheet/forms completed/signature on claim cards/logs for following day's schedule/claim/correspondence/ approved hospital list/benefits
COMPUTES
maximum benefits payable under group contract/amount of claim
DETERMINES
claim follow-up/benefits not payable/claimant eligibility/recipient of check/ acceptance, rejection of claim
WRITES
new claim information on accident, loss form/check order form
TYPES
claims processing form, coding

DISPOSITION

FILES
accident/loss form/claims processing form/claims in pending file/claims jacket/ request for check certification
DELIVERS
folder to supervisor/claim cards to interviewer/statement of claims and hospital form to claimant/instructions to typist for refusal letter/claim/claimant form to manager

MAILS
·claim check

SUPPLEMENTARY STEPS: Codes (color) claim jacket; Date stamps mail

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Telephone	Accident or loss form	Communication skills
Files	Claim cards	Filing, alphabetically
Typewriter	Check order forms	Accuracy
	Claims forms	Checking
	Checks	Typing
		Computational skills
		Insurance terminology

REPORTED CRITERIA: "Good command of color coding; Read and interpret logs; Accuracy important; Excellent reading ability with legal documents; Some general knowledge of insurance."

04.01.04   THE WORKER PREPARES REPORTS OF NEW BUSINESS ACTIVITY. (2 task sheets)

Obtains computer printout
Checks deletions, declinations, corrections
Sends copies of deletions to Order Accounting
Codes information for Keypunching
Obtains material for report from Order Accounting
Receives reports daily
Computes percentages
Writes report
Checks totals
Delivers to supervisor for approval, secretary to type

04.01.05   THE WORKER DUPLICATES CLAIM STICKERS FOR INSURANCE POLICY HOLDERS. (1 task sheet)

Receives claims forms
Stamps date on claims
Sorts claims alphabetically
Pulls claimant's data, claim card
Photocopies claim sticker
Writes claimant's name, number, date on new claim card
Files claim, data card
Attaches new claim card, claim sticker to form received
Sorts claims
Distributes claims to other workers
Files claims

04.01.06   THE WORKER PROCESSES AUTO CLUB MEMBERSHIP APPLICATIONS. (1 task sheet)

Receives request for membership application
Delivers applications
Assigns next membership number
Types membership, insurance card
Issues new member bumper sticker, reward sticker, booklet on services available, welcome letter from club
Receives membership dues check
Files membership application numerically

04. CLIENT-RELATED SERVICES

04.02. Financial

04.02.01   THE WORKER PROCESSES OVER-THE-COUNTER REQUESTS AND INQUIRIES.   (26 task sheets)

Flowchart:
- Start
- Receives customers/telephone inquiries/checks
- Obtains caller's name, account number, insurance policies
- Checks records for information
- Discusses bank policies, charges
- Obtains microfilm of requested information
- Can answer? — No → Transfers call → End; Yes ↓
- Answers questions regarding customer accounts
- Calls branch bank to check on missing information/customer
- Requests customer send another check/come in to bank
- (1)
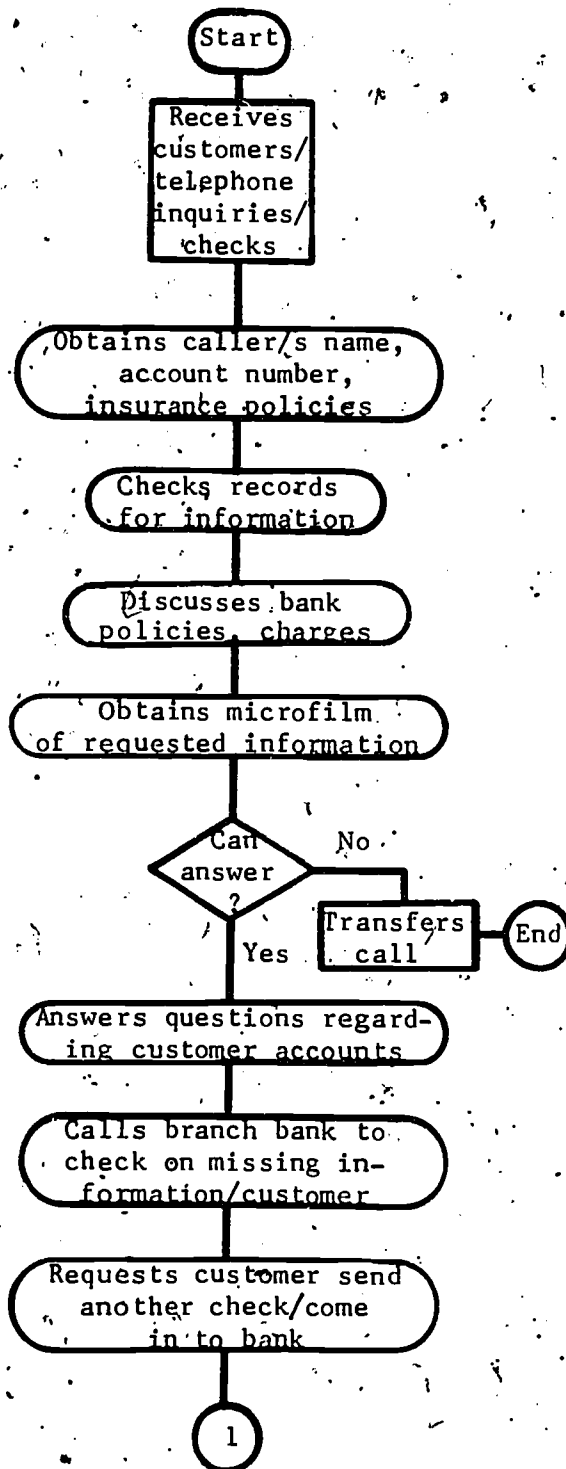
ACQUISITION

RECEIVES
 telephone request, inquiry/call from loan officer/returned checks
OBTAINS
 caller's name, account number/date, amount of last deposit/insurance policies/customer balance

PROCESS

PULLS
 customer ledger card, cancelled checks
CHECKS
 records for information
DISCUSSES
 bank policy/charges
OBTAINS
 microfilm of requested information
ANSWERS
 questions on customer's account
CALLS
 branch bank to check on missing information/customer whose check was returned/other departments in bank regarding problems
REQUESTS
 customer send another check; come in to bank

DISPOSITION

DELIVERS
 requested information/debit sheet on loans to Accounting/messages
FILES
 customer ledger card, cancelled checks/letters missing enclosures
MAILS
 microfilm of information to requester

HARDWARE

Telephone
Files
Microfilmer

EDUCATIONAL CUES

Coding, filing
Courtesy
Promptness
Communication skills
Alertness
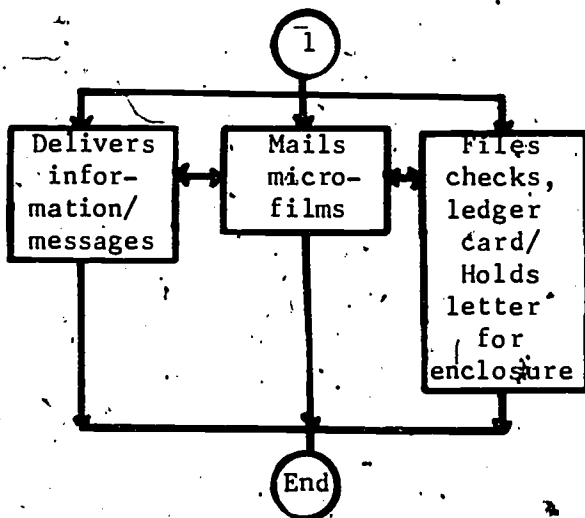
Insurance policies
Customer ledger cards
Cancelled checks

REPORTED CRITERIA: "Must be able to
operate motorized files; 100 per cent
accuracy in information delivered;
Knowledge of coding; Pressure not to
keep customer waiting; Familiar with
bank policy, insurance information;
Great deal of discretion required in
how much information to give customer;
High degree of decision making;
Ability to cope with many different
situations."

04.02.02. THE WORKER PROCESSES MEMBERSHIP AND LOAN APPLICATIONS IN FINANCIAL
          INSTITUTIONS SUCH AS A CREDIT UNION. (17 task sheets)

ACQUISITION

RECEIVES
    completed membership card/fee/contract, application form/loan request/home
    loan application/approval of loan payment from manager/check for customer
    loan from cashier/loan customer/notes/chattel mortgages

PROCESS

WRITES
    account number on membership card/numbers on loan case, related papers
CHECKS
    loan applications/savings balance/computations/documents for accuracy
COMPUTES
    old, new loan principal/total principal, interest/number of months desired
    for repayment/net worth of applicant/monthly mortgage payments
DUPLICATES
    home loan application
PULLS
    ledger card
TYPES
    loan contract/application/final loan documents/savings, withdrawal check/forms
REQUESTS
    return of client/house appraisal/customer complete application
VERIFIES
    employment/credit
OBTAINS
    signature on check/credit approval on loan/coupon payment book
RECORDS
    membership fee, name in journal,/ledger/old loan balance on new loan applica-
    tion/application amount
INFORMS
    client of amount he can borrow on signature only/customer of monthly payments

DISPOSITION

MAILS
    loan papers to buyer for signature

FILES
   loan application/check/mortgage application for additional data
DELIVERS
   membership cards, fee to membership chairman/loan contract to customer, to
   insurance company carrying mortgage/completed application form to manager/
   added loan application to credit committee/house loan application form to
   FHA or VA/credit application to Cashier/check to customer

REPORTED CRITERIA: "Fees are properly posted; Complete accuracy."

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Membership card/payment book	Typing
Files	Cash/chattel mortgage	Accuracy
Adding machine (10-key)	Share/loan ledger card	Computational skills
	Contract/note	Filing
	Application form	Checking
	Interest chart	Communication skills

04.02.03 THE WORKER PROCESSES NEW ACCOUNTS, TRANSFERS OF ACCOUNTS, AND TRUST
        ACCOUNTS FOR CUSTOMERS. (8 task sheets)

ACQUISITION

RECEIVES
   request for checking, savings, business, personal, authorization for transfer
   of, trust accounts

PROCESS

DISCUSSES
   checking accounts/bank services/service charges
CHECKS
   trust account information/transfer card for completeness
PULLS
   old, new signature cards
STAMPS
   old, new signature cards
TYPES
   signature, ID, ledger cards/new account deposit slip/new account report/
   savings passbook/record changes for Data Processing
OBTAINS
   customer signature/personal data/supervisor's approval of new transfer card
ASSIGNS
   account number
WRITES
   check order for personalized checks/ID card/transfer information on Data
   Processing change sheet
RECEIVES
   deposit from customer
COMPILES
   deposit book
VERIFIES
   account number
COMPUTES
   savings account totals
RECORDS
   account number/new accounts totals

DISPOSITION

FILES
  old signature card in closed file/new signature card in open file
MAILS
  check order
DELIVERS
  signature card, deposit slip to Bookkeeping/ID card, receipt, temporary
  checks, deposit book to customer/source documents to Data Processing/
  trust account form, computer change sheet to Keypunching/deposit slip,
  ledger card, passbook to Posting/money to teller/signature cards to
  Savings

SUPPLEMENTARY STEP: Codes source documents for Data Processing; Codes
trust account information.

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Check order	Typing
Files	Signature cards	Filing
Rubber stamp	Deposit slips	Accuracy
	Cash receipts	Communication skills
	ID cards	Computational skills
	Payment books	Checking
	Ledger cards	
	Trust account forms	
	Transfer cards	

REPORTED CRITERIA: "Accuracy in processing of information; Familiar with
types of accounts; High level experience needed; Accuracy; Able to organize
work efficiently; Must establish priorities; Proficient in typing, adding
machine calculation, arithmetic skills."

04.02.04   THE WORKER PREPARES ALL STOP PAYMENTS.   (5 task sheets)

Receives call from customer/stop-payment form
Writes check number, amount, payee on stop-payment card/customer name, account
  number, date on debit reversal form
Inquires if duplicate check will be written
Requests customer write letter confirming order
Records day, time of report
Types stop-payment/issue reversal form
Duplicates stop-payment form
Checks check register
Stamps confirmation on stop order
Files stop-payment card
Delivers stop-payment check, debit reversal form to supervisor/stop-payment
  form to bank tellers

04.02.05   THE WORKER CHECKS SECURITIES AND AMOUNTS.   (4 task sheets)

Receives securities/forms/adding machine tapes/printouts of previous day's
  transactions/comparisons
Obtains original issue book
Runs tape on security amounts
Checks tape totals/printouts for errors/forms for completion, corrections/
  transactions
Types list of accounts in error
Writes initials on tapes/forms
Stamps comparisons "okay" if correct
Distributes forms
Delivers tapes listing securities, comparisons to another worker
Files printout

04.02.06   THE WORKER PROCESSES ESTATE SETTLEMENTS FOR CUSTOMERS.   (3 task
           sheets)

                          ACQUISITION
RECEIVES
  request
OBTAINS
  file, description of deceased's real property/list of furniture, household
  goods, wearing apparel/death-date value of securities
                            PROCESS
SORTS
  estate inventory into real estate, furniture, household goods, wearing ap-
  parel, securities, miscellaneous
WRITES
  market value of securities (at date of death) on stock, bond value work
  sheet/schedule of net income/requisitions for checks to be written
COMPUTES
  accrued interest on bonds/estate disbursements
RECORDS
  accrued interest, stock or bond values on inventory work sheet/description
  of estate on inventory work sheet/totals
DETERMINES
  plan of distribution

CHECKS
   income taxes
RECEIVES
   typewritten checks
OBTAINS
   approval of supervisor on schedule

DISPOSITION

DELIVERS
   cash statement, inventory work sheet, checks to estate administrator

SOFTWARE	EDUCATIONAL CUES	REPORTED CRITERIA: "Mathematical ability,
Customer file	Checking	legal terminology; Accuracy is a must in
Securities	Accuracy	estate settlement procedures and full
Ledger		knowledge is necessary."

04.02.07   THE WORKER PREPARES APPLICATIONS FOR VENDOR'S SINGLE INTEREST (VSI)
           INSURANCE COVERAGE. (2 task sheets)

Obtains customer file
Locates correspondence for evidence of VSI insurance coverage:
Obtains officer's approval for VSI coverage
Types insurance information on VSI form
Proofreads
Mails letter
Files copy of letter
Receives policies, invoices for coverage
Checks amount of premium
Types customer personal data, premium amount on correction sheet forms
Proofreads
Attaches copy of correction sheet to customer insurance card
Delivers correction sheet, slips to supervisor
Files policies, invoices

04.02.08   THE WORKER ADMINISTERS SAFETY DEPOSIT BOXES. (2 task sheets)

Receives customer request to rent safe deposit box/payment
Completes safe deposit box forms, cards with customer data
Writes cash receipt form for payment/check account debit
Delivers envelope of box/keys to customer
Requests customer sign name on envelope
Instructs safety deposit box procedures
Records transaction
Files copy of signature card/entrance card
Receives customer visit to safe deposit box
Obtains box number
Pulls signature card
Stamps date, time on internal card with time-punch machine
Obtains customer signature on entrance card
Compares signatures
Obtains master guard key
Assists in opening/closing boxes
Delivers box to customer

Locks box with master guard key
Stamps date, time of leaving on entrance card
Files entrance, signature cards

04.02.09 THE WORKER CHECKS CLAIMS FOR TRANSFER, TRADE, OR EXCHANGE OF
           SECURITIES. (2 task sheets)

Receives claim forms/memo indicating exchange
Checks number of shares of stock/memo information/all balances computed
Codes claim information
Computes dividend
Completes forms
Delivers forms to supervisor

04.02.10 THE WORKER COMPILES BROKER'S DAILY EXCHANGE SUMMARY SHEETS. (2
           task sheets)

04.02.11 THE WORKER PROCESSES SETTLEMENT OF BUY AND SELL ORDERS. (2 task
           sheets)

Receives buy, sell orders
Verifies description of securities for goods delivery form
Completes instructions
Sends instructions, cash, check to broker
Completes credit, delivery instructions
Sends instructions to another bank
Records debit for bank branch/debit, credit entries
Types advice/confirmation forms
Photocopies advice copies
Sends advices to trust branches, Data Processing/confirmation forms
Delivers stock by messenger, registered mail, armored transport

04.02.12 THE WORKER ISSUES PAYMENT TO UTILITY COMPANIES FOR BILLS PAID AT
           BANK. (1 task sheet)

Receives receipts for utility bills from tellers
Sorts receipts by company name
Totals receipts
Types bank money order for utility company
Mails money order to utility company

04.02.13 THE WORKER ISSUES RECEIPTS FOR SECURITIES. (1 task sheet)

04.02.14 THE WORKER CHECKS NUMBERS AND AMOUNTS OF SECURITIES. (1 task
           sheet)

04.02.15 THE WORKER PROCESSES STOCK TRANSACTIONS TO BE DELIVERED TO ANOTHER
           BROKER. (1 task sheet)

Receives stock
Verifies stocks
Assigns number to stock

Calls broker
Informs broker of names of stock/pertinent data
Verifies authorizations, checks
Delivers stock to messenger
Receives receipt
Records transactions
Types collection letter
Mails collection letter to correspondent bank

04.02.16 THE WORKER PROCESSES TRADING IN MUNICIPAL BONDS. (1 task sheet)

Receives invoices
Checks invoices computations
Types forms from invoice
Distributes forms to Operations, trust auditor
Files form
Receives trust officer's check from Operations/security from Collections
Delivers check to Collection/securities to co-worker
Files forms

04.02.17 THE WORKER PROCESSES OUTGOING CASH LETTERS IN FOREIGN CURRENCY. (1
          task sheet)

Receives cash letters
Verifies checks/currency exchange rates
Types deposit tickets
Runs tape for credit, debit entries
Types total on credit, debit entry letters
Sends debit, credit deposit tickets to Data Processing
Packages checks for currency
Verifies foreign, local currency amounts
Records foreign, local currency amounts/conversion rate
Writes signature on all checks
Operates camera to photograph checks
Mails checks, cash letter to correspondent banks
Files cash letter
Sends batch sheet to Bookkeeping

04.02.18 THE WORKER PROCESSES INCOMING CASH LETTERS FROM FOREIGN CORRESPONDENT
          BANKS. (1 task sheet)

Receives cash letters
Sorts cash letters
Pulls ledger sheets
Records correspondent bank's reference number/amount
Verifies total
Operates microfilmer on letters/checks
Attaches tapes to checks/duplicate to letters
Types deposit ticket for remittance letters
Sorts credit tickets
Sends credit tickets to correspondent bank
Files credit ticket
Records totals on credit entry letter

Sends debit portion of letters to foreign bank bookkeeper
Types debit entry letter for amount of checks
Sends credit portion of letters to Transit
Runs tape debit, credit letters
Sends entry letters to Bookkeeping

04.02.19   THE WORKER PROCESSES ASSUMPTIONS OF LOANS ON REQUEST FOR BENE-
           FICIARY STATEMENT INDICATING A PROSPECTIVE BUYER. (1 task sheet)

Receives request for beneficiary statement
Types beneficiary statement/approval letter
Obtains approval of statement/completion of forms/loan committee approval
Receives closing papers from Escrow
Records   payments/loan fees/fire insurance data
Sends completed loan file to Loan Accounting

04.02.20   THE WORKER PREPARES CURRENCY FOR SHIPPING ORDERS. (1 task sheet)

Receives request/requisition for currency
Writes information on payroll slip form
Totals amounts
Obtains currency from vault
Runs tape on currency amount
Attaches tape to payroll slip
Files payroll slip
Places currency in bag by name of company

04.02.21   THE WORKER INFORMS CUSTOMERS THAT PAYMENTS MADE BY BANK TO INSURANCE
           COMPANY HAVE BEEN RETURNED. (1 task sheet)

04.02.22   THE WORKER TYPES INSURANCE CANCELLATION LETTERS. (1 task sheet)

Obtains cancellation notices
Writes insurance cost on customer insurance card
Types form letter on cancellation
Obtains signature of supervisor
Mails letter

04.02.23   THE WORKER VERIFIES INSURANCE COVERAGE AND REGISTRATION OF THE BANK
           AS LEGAL OWNER OF ALL AUTO INSTALLMENT LOANS. (1 task sheet)

Receives policies
Verifies for correct auto, loss payable clause
Informs employer when evidence of coverage is not received
Calls insurance agent to verify coverage
Types auto registration, transfer forms
Mails registration, transfer forms to Department of Motor Vehicles
Receives registration
Verifies registration
Files policy, registration

04.02.24 THE WORKER PREPARES CUSTOMER PAYROLL SCHEDULE. (1 task sheet)

Receives tentative schedule for payroll
Compiles yearly schedule of due dates, preparation dates, other pertinent
  information
Types payroll schedule
Duplicates payroll schedule
Obtains approval of payroll schedule by customer
Sends payroll schedule to Payroll Operations
Types payroll schedule with any changes noted, approved
Duplicates revised payroll schedule
Delivers copy of revised schedule to customer, Payroll Operations

04.02.25 THE WORKER CHECKS ERRORS, FOR LARGE CORPORATIONS. (1 task sheet)

Receives request to trace errors from large corporation
Pulls records applicable to error/ microfilms of checks
Checks records with microfilms
Determines where loss of money occurred
Types letter of explanation when error is found
Delivers letter to typist

04.02.26 THE WORKER ISSUES SAVINGS CERTIFICATES. (1 task sheet)

Receives request for a savings certificate
Pulls signature card
Obtains officer's signature
Receives money for certificate
Delivers original of certificate to customer
Records account number on two copies of certificate/option, source of funds,
  owner of social security number
Stamps bank number on certificate
Records double-entry credit to show account credited for money
Files copy of savings certificate

04.02.27 THE WORKER PROCESSES SAVINGS CERTIFICATES TO BE REDEEMED. (1 task
            sheet)
Receives request to redeem savings certificate
Verifies savings certificate
Obtains customer signature on certificate
Records debit to accounts
Computes interest accumulated
Delivers cash, deposit to customer
Pulls bank copy of certificate
Stamps certificate with date redeemed, amount of certificate, interest paid,
  totals
Files redeemed certificate
Mails copy of certificate with debits to state capitol

04.02.28 THE WORKER PREPARES TRAVELERS CHECKS FOR CUSTOMERS. (1 task sheet)

<u>Receives</u> customer application for travelers checks
<u>Verifies</u> application for signature and number
<u>Obtains</u> money
<u>Verifies</u> amount of money
<u>Delivers</u> travelers checks to customer
<u>Obtains</u> cashiers check for amount owed company
<u>Mails</u> check to company
<u>Records</u> credit to bank for profit/sale of travelers checks
<u>Files</u> copy of sale

04.02.29 THE WORKER PREPARES CHRISTMAS CLUB COUPONS FOR CUSTOMERS. (1 task
          sheet)

<u>Obtains</u> Christmas club coupons
<u>Checks</u> totals
<u>Sorts</u> coupons by dollar value, numerically
<u>Writes</u> customer account number, coupon number on adding machine tape/number
  of coupons
<u>Totals</u> coupons
<u>Delivers</u> coupons, adding machine tapes to next employee

04.02.30 THE WORKER OBTAINS PERMISSION TO GRANT 30-DAY CREDIT ACCOUNTS TO
          POTENTIAL CUSTOMERS. (1 task sheet)

FINANCIAL CRITICAL INCIDENTS

"Worker paid a check because she carelessly over-looked a stop-payment card.
Consequently, the bank acquired an old, crippled horse. The writer of the check
had learned of the horse's condition and tried to stop payment. The horse now
resides in a rented pasture."

"Worker was sent to repossess an auto. He recovered the auto from the gentle-
man who asked him what he would do if he did not give up the car. The worker
correctly replied that he would have to get the sheriff to repossess the car.
Consequently, the man willingly gave the worker the car."

"She paid out $1,500 in funds on a forgery. If she had asked the customer to
sign his name once again in front of her on the slip, the forger might have
become nervous."

"In checking credit rating for a customer who was requesting a loan, the
clearinghouse said the rating was "probable" (not enough information). The
worker realized this meant that information on the client was not sufficient.
If this lack of information had gone by her, the client may have been turned
down for the loan or given a loan on the basis of insufficient information."

"Worker gathered loan information that meant the difference in the person
qualifying for the FHA loan. She wants to be sure that the package is more
than complete and that it makes a good case for the person seeking the loan."

04. CLIENT RELATED SERVICES

04.03. <u>Education</u>

04.03.01 THE WORKER TYPES EDUCATIONAL LISTS, SCHEDULES, LETTERS, AND REPORTS.
(27 task sheets)

ACQUISITION

RECEIVES
weekly schedule/student enrollment, eligibility lists/request for driver
training verification, transcript, accident report/rough draft of schedule,
letter, course outlines/curriculum guide/syllabi/observation, evaluation of
faculty/news articles/phographic plates of news/printed newsletter/applica-
tion for certifying information/tests/accident claim forms/claim check
OBTAINS
driver training file/student transcript/information from accident victim

PROCESS

CHECKS
lists/schedules/sports eligibility/curriculum guide format/files for pre-
vious alumnus correspondence/syllabi/observation, evaluation sheets/certifi-
cation application/semester units/rough draft of test
DISCUSSES
scholarship with donor alumnus
WRITES
weekly schedule/course description/shorthand reply to request
ARRANGES
newspaper layout
TYPES
acceptance, rejection, alternate letters/data for student roster/new student
data sheet/student code card/student statistical, accident, summary reports/
student enrollment, sports eligibility, driver training certificate lists/
weekly schedule/driver training verification/letters/course outlines/curricu-
lum guides/syllabi/observation, evaluation of faculty/rough draft, final news
articles/tests/claim forms
PROOFREADS
DUPLICATES
weekly schedule/sports eligibility lists/curriculum guide/transcript/program/
course outline/tests
OBTAINS
signature on letters/transcripts/approval of syllabi, program, observation,
evaluation of faculty, test, of doctor, nurse on accident report/signature
on certification verification
COMPILES
student file
RECORDS
athlete names by sport/doctor's charges/claim check amounts
PULLS
driver's training certificates, student lists

DISPOSITION

SENDS

  graduate students memo to department chairman/back money received with
  transcripts requests/syllabi to Duplicating/observation, evaluation to Dean/
  news articles for editing

DELIVERS

  list of class enrollees to Special Services/final schedule to Dean/drivers
  training verification, certificate verification to student/finished letter
  copies to supervisor/duplicated course outline to professor/layout to Printer/
  photographic plates to Printing

FILES

  letters/sports eligibility list/curriculum guide/course program/newsletter/
  certificate verification/accident report

MAILS

  letters/sports eligibility, driver training certificate lists/transcripts/
  course program/claim, accident form/claim check

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Code card	Typing (statistical, straight
Duplicator	Enrollment lists	copy)
Files	Weekly, class	Accuracy
	schedules	Checking
	Reports	Proofreading
	Checks	Filing

REPORTED CRITERIA: "Work under pressure; Tact handling faculty members; Must
be trustworthy, keep materials confidential; Minimum shorthand ability; Be
familiar with supervisor's abbreviations; Letters must be well arranged; Neat
and centered duplicated materials; Must exercise judgment and discretion to
avoid friction or possible prosecution; Average typing ability; Must have ability
to discover errors in work handed to her; Artistic in layout of news; Words
divided properly; Do not end paragraph with one word on a line."

04.03.02 · THE WORKER PROCESSES REQUESTS IN PERSON OR BY TELEPHONE. (12 task
   sheets)

```
   ( Start )
       |
       v
  +-----------+
  | Receives  |
  |information|
  |request/mail/
  |applications|
  +-----------+
       |
       v
 ( Sorts mail )
       |
       v
(Inquires nature
   of call )
       |
       v
( Checks dates,
 application, records,
   if new applicant )
       |
       v
      (1)
```
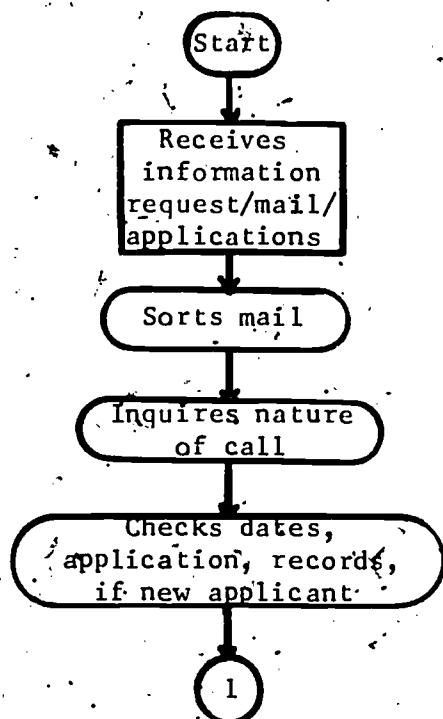
ACQUISITION

RECEIVES

  telephone, caller request/application for
  matriculation/mail

PROCESS

SORTS

  mail

CHECKS

  counselors' calendar/matriculation appli-
  cation/student health record

INFORMS

  students of procedure to follow

REFERS

  call

ARRANGES

  guidance appointments/doctor, nurse
  appointment

OBTAINS

  educational materials/requested forms

```
        ( 1 )
          |
          v
      / Answer \  No
     <    ?     >------> +-------+
      \        /         | Refers|
          | Yes          |  call |------+
          v              +-------+      |
  +------------------+                  |
  (  Informs of      )                  |
  (  procedure       )                  |
  +------------------+                  |
          |                             |
          v                             |
  +------------------+                  |
  (  Arranges        )                  |
  (  appointments    )                  |
  +------------------+                  |
          |                             |
          v                             |
  +------------------+                  |
  (  Obtains requested)                 |
  (  educational materials)             |
  +------------------+                  |
          |                             |
          v                             |
  +------------------+                  |
  (  Records messages,)                 |
  (  appointment, visit,)               |
  (  personal data   )                  |
  +------------------+                  |
    |        |        |                 |
    v        v        v                 |
+--------+ +------+ +---------+         |
| Sends  | |Files | |Delivers |         |
| student| |student| |appointment|       |
| to pro-| |card  | |card to  |         |
| per of-| |      | |student  |<--------+
| fice   | |      | |         |
+--------+ +------+ +---------+
    |        |        |
    +--------+--------+
          |
          v
        (End)
```
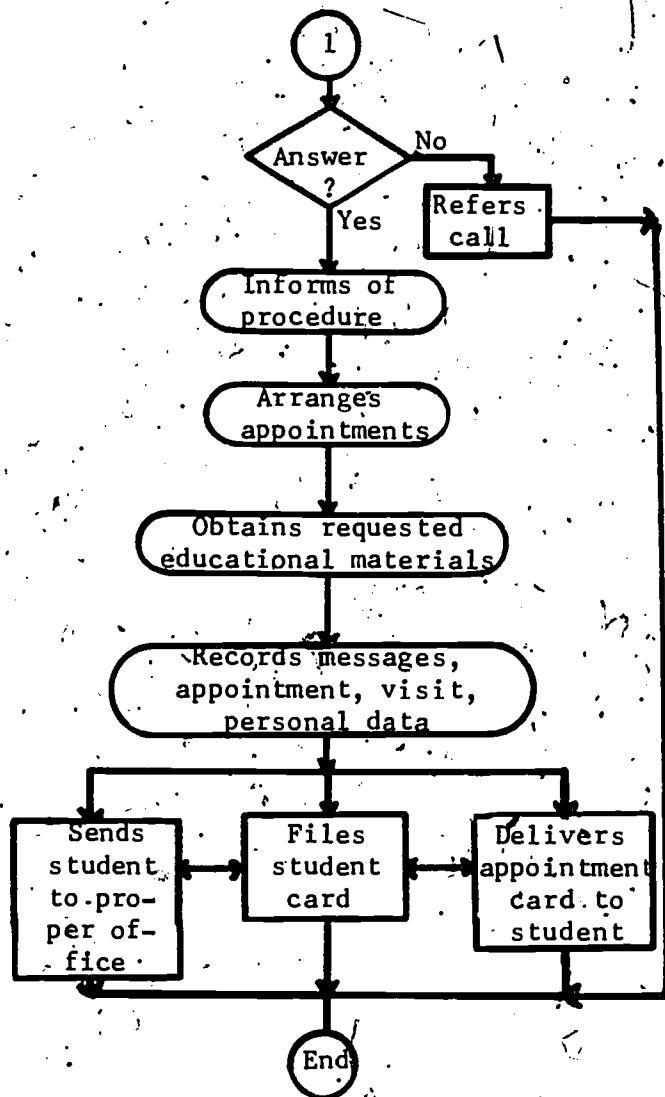
RECORDS
   nature of student visit/messages/
   announcements/name, birthdate, col-
   lege, semester in counselors appoint-
   ment book
WRITES
   appointment card

DISPOSITION

FILES
   student health card
SENDS
   caller to counselor, proper office
DELIVERS
   appointment card, application to
   student/matriculation application to
   Admissions/student health card to
   doctor, nurse

SUPPLEMENTARY STEP: Posts health
notices on bulletin board.

HARDWARE   SOFTWARE

Telephone   Mail
Files   Applications
                        Student cards
EDUCATIONAL CUES

Communication skills
Filing

REPORTED CRITERIA: "Pleasing person-
ality and a good speaking voice; Good
telephone manners are necessary; Has
to be familiar with overall operation
of school; Tact; Friendliness; Help-
fulness."

04.03.03   THE WORKER COMPILES SCHOOL RECORDS.   (10 task sheets)

ACQUISITION

RECEIVES
   student teaching records/employment form/request for payment from grants
   budget/grade report/substitutes list/student transcripts/instructions/
   teacher absences

PROCESS

PULLS-
   approved grants register sheet/visiting professor housing list
SORTS
   teaching placement by teaching fields/requisition for grants/grade reports/
   transcripts
CHECKS
   biography of employee/requisitions for authorization, time limit/student
   folder
CALLS
   persons on housing list

RECORDS
  student teacher placement/teaching assignments
TYPES
  employment forms/new housing list/duplicating order/registration schedule
PROOFREADS
.COMPILES
  employee folder/permanent record
WRITES
  initials approving payment/substitute schedules/list of available graduate
  students
ASSIGNS
  graduate students to registration duties
INFORMS
  graduate students of work assignments

                              DISPOSITION
SENDS
  grade reports/requests about graduate students
MAILS
  student teacher placement list/grade reports/housing lists
FILES
  student teacher placement, housing lists/grade reports
DELIVERS
  employment forms/requisitions/duplicating orders/registration schedules

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Student records	Proofreading
Files	Student, housing lists	Checking
	Teaching schedules	Accuracy
		Typing
		Filing

REPORTED CRITERIA: "Accurate evaluation of all requests for payment from
grants budget; Thoroughness."

04.03.04 THE WORKER PROCESSES APPLICATIONS FOR NEW STUDENTS.   (8 task sheets)

                              ACQUISITION
RECEIVES
  application/check/pre-registration cards
                              PROCESS
REQUESTS
  applicant to complete application
SORTS
  pre-registration cards by department
CHECKS
  application
COMPILES
  new student file
REQUESTS
  transcripts
ASSISTS
  students in selecting schedule/student with information
TYPES
  student records information/rejection form letter

ATTACHES
    check to application
RECORDS
    sending of rejection letter/name on rejection list/grades

                                DISPOSITION
SENDS
    student to counselor
DELIVERS
    application to typist/student file to Counseling/pre-registration cards to
    Mailing for department mail boxes
SENDS
    catalog, forms to inquirer/student information, check to Cashier
FILES
    student record
MAILS
    rejection form letter

HARDWARE   SOFTWARE   EDUCATIONAL CUES

Typewriter   Applications   Accuracy
Files   Registration cards   Typing
                            Checks   Filing
                            Student records   Checking

REPORTED CRITERIA: "Pleasant, outgoing personality; Good appearance."

04.03.05 THE WORKER ASSISTS IN STUDENT REGISTRATION. (6 task sheets)

                                ACQUISITION
RECEIVES
    student registration, pre-registration cards/class tickets/request to regis-
    ter/entering students, requested class lists/transfer student records
                                PROCESS
CHECKS
    registration, pre-registration cards/class tickets for physical education
    requirement/requested classes
CODES
    transfer student records
ARRANGES
    students' schedules/interviews
TYPES
    class schedule
WRITES
    initials on class tickets/student data on registration form/total number of
    transferred hours
STAMPS
    ID card
INFORMS
    counselor of interview time
CALLS
    department to see if requested class is open

DISPOSITION

DELIVERS
  information to student
DISTRIBUTES
  class schedules to Data Processing, main office
FILES
  enrollment materials/registration form/pre-registration card/schedule of
  classes/transfer papers

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Files	Registration cards	Filing
Typewriter	Class tickets	Typing
Stamp	ID, Pre-registration cards.	Accuracy
	Class schedules	Checking

REPORTED CRITERIA: "Knowledge of all courses required; Obtain and record all
information accurately."

04.03.06   THE WORKER RECEIVES ACTIVITY FUNDS AND FEES FROM STUDENTS.   (6 task
           sheets)

<u>Receives</u> cash box from student sellers/fee for ID card/checks/enrollment cash
  for fee
<u>Checks</u> list of fees owed/certification number of supervising teacher/number of
  tickets sold/bus fare slips sold/cash
<u>Computes</u> supervising teacher's pay/total supervising teacher pay for city
  school system
<u>Verifies</u> cash against items sold
<u>Types</u> check information on notification forms/fee receipt/list of supervisors/
  amount of pay for each system
<u>Mails</u> notification forms to students/list of supervising teachers to State
  Department of Education
<u>Delivers</u> cash box, contents to school office/ID card, receipt to student/fees
  to Cashier
<u>Files</u> checks

04.03.07 THE WORKER RECORDS ATTENDANCE.   (4 task sheets)

ACQUISITION

RECEIVES
  tardy student/attendance card for absent students/monthly attendance reports
  for county/telephone message about absentee teachers/parent approval for ill
  students to go home

PROCESS

SORTS
  attendance cards
OBTAINS
  reason for tardiness
COMPUTES
  totals on monthly attendance report
CHECKS
  totals on monthly attendance report/files for teacher replacement
DETERMINES
  validity of tardy excuse
CALLS
  absent student's home

WRITES
  student's name, excuse, arrival time on record sheet/tardy pass/absence
  reason on attendance card/corrections, totals on monthly attendance report/
  withdrawal card for each withdrawal listed/substitutes payroll information/
  excused absence for ill students
TYPES
  master absence list/state attendance reports/school board attendance summary
  report
OBTAINS
  signature of superintendent on state report form
DUPLICATES
  master absence list.

DISPOSITION

FILES.
  withdrawal cards/state report form copy
DELIVERS
  tardy pass to student/attendance cards to homeroom teacher/monthly attendance
  reports, summary of attendance to supervisor/teacher, absentee, substitute
  data to Payroll

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	State attendance report	Computational skills
Adding machine (10-key)	forms	Typing
Files	Withdrawal cards	Filing
Telephone	Tardy pass	Accuracy
	Absentee report	Checking.
		Communication skills

REPORTED CRITERIA: "All homes must be contacted and
a reason recorded for absences."

04.03.08 THE WORKER CHECKS STUDENT WORKERS' TYPEWRITTEN WORK. (1 task sheet)

Receives student work
Checks typing
Discusses mistakes/violations/rules
Instructs students
Checks final work
Obtains supervisor's approval
Files records
Mails materials

04.03.09 THE WORKER PROCESSES APPLICATIONS FROM SPECIAL LEARNING DISABILITY
          PROGRAM SCHOOLS. (1 task sheet)

Obtains personnel lists of teachers of Special Learning Disability (SLD) programs
  from SLD programs book
Sends application forms to schools
Receives completed applications
Records receipt of applications
Sorts applications by teacher certificate number
Pulls teacher teaching certificate
Writes type of certificate, expiration date on application
Files teacher certificate
Checks application circling questionable items

Obtains approval of application from supervisor
Places original copy in SLD book
Files class list of students enrolled in SLD program
Mails copy of list to school district

04.03.10   THE WORKER ISSUES PERMITS TO PRIVATE TRADE SCHOOL SOLICITORS.   (1
           task sheet)

04.03.11   THE WORKER PROCESSES REQUESTS FOR LECTURERS.   (1 task sheet)

Receives requests for lecturers
Records request/ institution/ speaker requested/ suggested dates
Obtains signature of supervisor
Types form to requested speaker
Mails form to speaker
Receives form from speaker with preferred dates
Checks logbook for any other lecturer from this university at same university
  on that date
Types form letter response
Proofreads
Obtains signature of supervisor
Mails letter
Receives letter from requesting university confirming date
Records confirming date
Files all materials

04.03.12   THE WORKER PROCESSES CONTRACTS FOR SCHOLARSHIP EXPENSES OF VISITING
           PROFESSORS.   (1 task sheet)

Receives study request
Stamps date on professor's request
Pulls professor's file
Arranges motel accommodations/appointments
Records arrangements on application/contract number
Types contract/pass/travel card
Files contract/pass/travel card/form letter
Types travel authorization form letter
Obtains supervisor's signature

EDUCATION CRITICAL INCIDENTS

"In preparation for the annual education conference, the worker prepared for
it herself without receiving any instructions to do so. She keeps a list of
the things needed and used from previous years and uses her initiative to do
the planning she knows has to be done."

"The worker typed a manuscript and caught an error in a quotation. This manu-
script was being prepared in final form and was to be circulated as teacher
resource information."

"The worker does an excellent job of working under pressure. With a deadline
to meet for curriculum materials, she designed an excellent format for the copy
and finished it by the deadline."

04. CLIENT RELATED SERVICES

04.04. <u>Securities</u>

04.04.01 THE WORKER PROCESSES STOCK CERTIFICATES. (10 task sheets)

ACQUISITION

RECEIVES
  checks/salesman's payout request/stock papers/confirmation/commission,
  status, stock dividend sheets/receipts/status reports/stock, correspondence
  documents/batch tickets

PROCESS

PULLS
  customer account card/stock certificate
SORTS
  confirmations--bought, sold/stock confirmation sheets by broker/receipts
  numerically/batch tickets
STAMPS
  time on documents received/check with endorsements/payout request "paid"
CHECKS
  overlooked payout requests/transaction/amount of commission/name on stock
DETERMINES
  dividend's payees
COMPUTES
  amount due for order/totals of customer account/totals of batch tickets
RECORDS
  stocks delivered/dividends/stock inventories/receipts/cash/securities
TYPES
  receipts/checks
WRITES
  receipt for completed stock transaction/requests for signature on checks
ATTACHES
  adding machine tapes to batch ticket/batch ticket to bundle of tickets

DISPOSITION

FILES
  check copy/stock transaction papers/checks/stock confirmation, commission sheets
DELIVERS
  stock transaction papers to Credit, Accounting/batched tickets to Auditing
DISTRIBUTES
  receipts to broker, customer, New York office
MAILS
  checks/stocks/receipts

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Checks, receipts	Typing, Filing
Adding machine	Customer account card	Computational skills
Endorsement stamp	Payout requests	Checking
Checkwriter	Stock, account books	Filing
Files	Commission, status sheets	Accuracy
	Batch tickets	Securities terminology

2.8

REPORTED CRITERIA: "Should type 55 wpm with high degree of accuracy; Needs to know money, banking jargon, and wire abbreviations."

04.04.02   THE WORKER PREPARES STOCK FORMS FOR BUYING, SELLING, AND TRANSFERRING STOCKS. (9 task sheets)

Start

Receives stock order

Checks stock information

Pulls stock transfer forms

Completes transfer slip

Calls broker

Types stock forms

Sends wire

Writes transmittal dates

Arranges new stock certificate

Obtains stock certificate signature

Records stock data

Sends/delivers stock forms

Files stock forms

End

ACQUISITION
RECEIVES
customer information/stock ownership, certificate/customer order/written instructions from client/computer sheets

PROCESS
CHECKS
stock certificate for signature/customer order for missing information/computer sheets for entries indicating stock delivered out
PULLS
request for transfer forms
COMPLETES
transfer slip
CALLS
broker regarding account
TYPES
customer information on account application/agent, stock name, number shares, stock certificate number on stock ownership form/customer name, name of new owner on stock certificate/stock certificate for transfer of ownership
SENDS
teletype order/wire to salesman to cancel open orders
WRITES
transmittal date on request for transfer form
ATTACHES
stock ownership to stock certificate/stock certificate to transfer/transfer slip to status report
OBTAINS
signature on stock certificate
RECORDS
list of names/quantities of security

DISPOSITION
SENDS
status report, notice of transfer to New York
DELIVERS
account application to manager
PLACES
stock certificate in box/customer order on conveyor belt

HARDWARE

Typewriter
Teletype
Conveyor belt
Telephone
Files

SOFTWARE

Account application
Stock certificates
Computer sheets
Stock status reports
Stock transfer forms

EDUCATIONAL CUES

Typing
Filing
Communication skills
Accuracy
Checking

FILES

stock certificate/transfer/request for
transfer

SUPPLEMENTARY STEP: Duplicates letter,
stock write-up

REPORTED CRITERIA: "Should
have some knowledge of stock
market, how stock is traded,
stock terminology; Must
have sharp eye for numbers
and not transpose."

04.04.03   THE WORKER VERIFIES STOCK DOCUMENTS.   (9 task sheets)

Start

Receives
stock
documents

Stamps time
received

Distributes stock
list to workers

Checks
stock data

Verifies
stock data

Attaches
ticket

Sends wire for
new limit request

Writes transfer/open
order instructions

Types list
of brokers

Informs caller
regarding stock

1
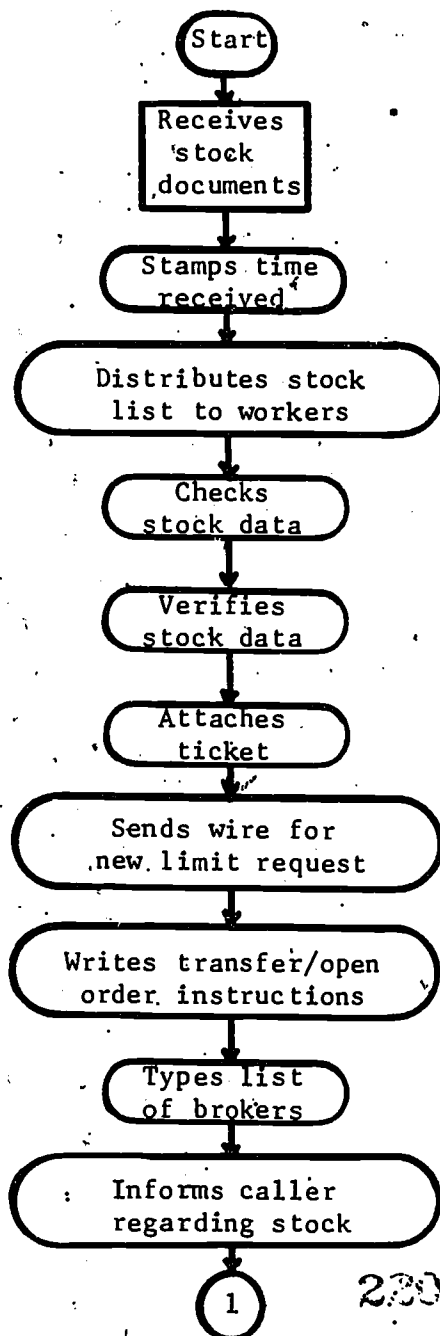
ACQUISITION
RECEIVES
customer call/list of brokers, 100 most
frequently requested stocks/order on con-
veyor belt/original ticket/report wire
showing transaction/dividend notices/
mail/signed instructions from salesmen

PROCESS
STAMPS
time on report, mail
DISTRIBUTES
100 most frequently requested stocks
among three workers
CHECKS
information on ticket, report/open orders
to locate orders affected by dividend/
corrections on orders/stock data/mail
with records/account payment/stock being
held
VERIFIES
account accuracy with filed data
ATTACHES
report to original ticket
SENDS
wire request for new limit on order
WRITES
transfer instructions to broker/transfer
quote to master list/broker number on
confirmation/open order notices to sales-
man
TYPES
list of brokers who have not received
confirmations
INFORMS
caller if stock is being held
CALLS
salesman to give special information/each
broker handling stock requesting quotes

```
        ( 1 )

   Calls salesman, broker
    regarding stock

      Records
    stock quotes

  Mails, places,        Files
    delivers            stock
  orders/stock/         tickets/
    reports             report

       ( End )
```
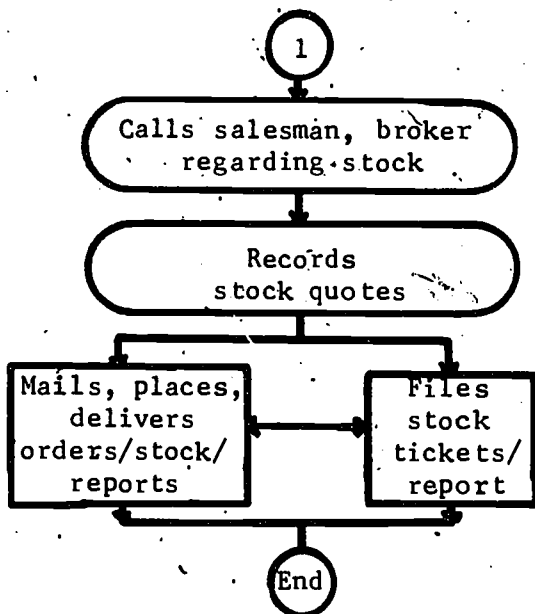
EDUCATIONAL CUES

Typing
Communication skills
Filing
Accuracy

RECORDS
   stock quote

DISPOSITION
SENDS
   new orders by wire
MAILS
   stocks
FILES
   original ticket/original, stapled re-
   port
DELIVERS
   report to salesman/open order notice
   to Addressing/list of brokers to
   supervisor

HARDWARE	SOFTWARE
Conveyor belt	Stock order
Typewriter	List of brokers
Telephone	Wires
Files	Dividend notices
	Stock tickets

REPORTED CRITERIA: "Salesmen are updated on orders; Quote sheets are updated daily."

04.04.04   THE WORKER ANSWERS QUESTIONS ABOUT SECURITIES. (6 task sheets)

ACQUISITION
RECEIVES
   request for quotation, missing transfer information/complaint letters/calls
   on dividends not received by brokers
OBTAINS
   transfer information/bid/ask price

PROCESS
RECORDS
   customer complaint/request
CHECKS
   dividend information/daily quote sheet/stock summary
INFORMS
   broker, caller of stock quotation, if dividend processed/price
TYPES
   stock transfer information/customer data card/complaint report, summary/tab
   for complaint folder/customer transaction information
PROOFREADS
ISSUES
   instructions for checks if dividend not processed
DUPLICATES
   customer complaint letter
COMPILES
   customer complaint folder

CALLS
  brokers about dividends not received, for quotes
RECORDS
  receipt, non-receipt of dividend

DISPOSITION

FILES
  customer data card, complaint
MAILS
  answered inquiry
SENDS
  unlisted quote to New York/customer complaint file to Complaints

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Telephone	Stock quotation chart	Communication skills
Typewriter	Stock summary	Typing
Files	Complaint register	Filing
	Complaint summary sheet	Accuracy

REPORTED CRITERIA: "Double check to make sure check was not previously sent;
Some technical knowledge of brokerage business."

04.04.05   THE WORKER SENDS WIRES TO BRANCH STOCK OFFICES REGARDING TIME
          EXTENSIONS OF PAYMENTS. (1 task sheet)

04.04.06   THE WORKER PROCESSES REQUISITIONS FOR SAVINGS BONDS. (1 task sheet)

Obtains unissued savings bonds
Writes signature for amount of bonds obtained
Receives requisition, shipping sheet
Locates on requisition the number, denomination of bonds requested
Records on requisition the requisition number, denomination, serial number of
  bonds shipped
Verifies accuracy of requisition with bonds
Packages weighed requisitions, bonds
Places packages in vault

04.04.07   THE WORKER PROCESSES CALL BONDS LISTED IN A NATIONAL PUBLICATION.
        (1 task sheet)

Receives national publications/call bonds
Compares bonds listed in publication with bonds bank owns
Writes list of security numbers of bonds bank owns listed in publication
Sorts bonds
Composes letter of bond description
Types letter of bond description
Proofreads
Mails letter registered mail
Types two sales tickets
Delivers original sales tickets, money,to Operations
Attaches letter to sales ticket
Files letter/sales ticket/national publication

04.04.08. THE WORKER ISSUES GOVERNMENT BONDS. (1 task sheet)

<u>Receives</u> request to purchase Government bond
<u>Types</u> bonds/report on purchase
<u>Stamps</u> bond copies with bank number, name
<u>Delivers</u> original bond to customer
<u>Records</u> sales in folder/credit to bank's account for money
<u>Mails</u> report to state capitol.
<u>Files</u> copy of bond

SECURITIES CRITICAL INCIDENTS

"Another department had an incorrect description of a bond. They could not locate the right records for this security and this employee was asked to help. Although this was not part of his job, he was glad to assist. He was effective because he was able to make the comparison that the other employee could not make."

"We listed an incorrect broker number on a confirmation. By the time the error was discovered many records were made incorrectly. It is an additional job to check back all the records and make the correction. This could be avoided if an employee is more conscientious and realizes the consequence of such an error."

"We sold some securities for a company and the worker forgot to debit their account. If I hadn't caught it, the account would have shown no balance and we would not have invested the money in any other securities for them."

"A customer had not paid for securities within seven days. This employee failed to apply to the New York Stock Exchange for an extension of time. As a result the account was put in "violation status." This could subject the firm to criticism by the exchange. This was due to failure to follow-up the account."

04. CLIENT RELATED. SERVICES

04.05. Hotel/Motel

04.05.01 THE WORKER ARRANGES CHECK-IN OF GUESTS. (5 task sheets)

Receives guests requesting rooms
Pulls reservation slip
Checks vacancies/reservation cards
Requests guest complete registration card, room folio
Records dates of stay on registration card/data on check-in slip
Assigns room number
Calls bellman
Types room folio
Distributes guest invoice to Cashier, telephone operator, room slot
Files reservation card/check-in slip/room folio

REPORTED CRITERIA: "Should not keep guests waiting; Treat all guests alike
regardless of station in life; Careful not to overbook; Try to satisfy guests
at all times."

04.05.02 THE WORKER RECORDS GUEST CHARGES ON ROOM FOLIOS. (4 task sheets)

Receives telephone charges/cleaned laundry/laundry, restaurant tickets
Pulls room folio
Checks all room charges
Records telephone, laundry, restaurant charges
Totals all charges at end of day
Batches tickets/adding machine tapes
Files room folio
Places telephone, laundry, restaurant tickets in box/cleaned laundry on shelf
Delivers batched tickets to manager

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Posting machine	Laundry	Computational skills
Adding machine (10-key)	Laundry, restaurant tickets	Courtesy
	Telephone charges	

REPORTED CRITERIA: "Accuracy important to avoid error; Totals must balance."

04.05.03 THE WORKER PROCESSES INCOMING MAIL/MESSAGES. (4 task sheets)

Receives incoming mail/messages/packages
Sorts guest mail/hotel, motel mail
Stamps time on all mail, messages
Sorts guest mail alphabetically
Writes room number on envelopes
Arranges guest mail by room number
Records messages/package delivery

Places guest mail in key boxes by room number
Calls guest
Informs guest of item delivered

REPORTED CRITERIA: "Sort mail as quickly as possible."

04.05.04   THE WORKER ARRANGES CHECK-OUT OF GUEST. (3 task sheets)

Receives guests
Requests room number
Pulls room folio/check-in slips/statement
Checks statement for unrecorded charges
Records any charges not yet included
Receives cash/check
Stamps "paid" on statement
Records items
Delivers folio to guest/check-in slip to switchboard operator
Places tag on room box/payment in cash register
Requests that room be cleaned
Records room number on check-out form for maid/guest name, room number in log
Writes "out" on paid invoice
Files room folio for audit

SUPPLEMENTARY STEP: Receives paid hotel bill to deliver to switchboard operator

04.05.05   THE WORKER DISCUSSES COMPLAINTS WITH GUESTS AND EMPLOYEES. (2 task
           sheets)

Receives complaint
Records complaint information
Refers to manuals, files
Discusses complaints
Issues apology
Adjusts or
Refers   guest to Assistant Manager

04.05.06   THE WORKER ARRANGES ROOM RESERVATIONS. (2 task sheets)
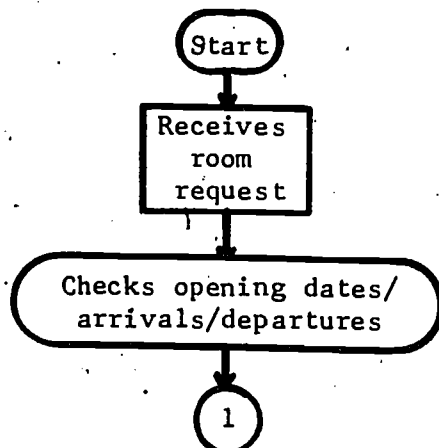
(Start)	ACQUISITION
	RECEIVES
Receives room request	request for rooms, reservations
	PROCESS
	CHECKS
Checks opening dates/ arrivals/departures	dates for openings, arrivals, departures/ room type/rate/names, address if guaran- teed reservation/reservations
	ARRANGES
1	reservations/other accommodations
	TYPES
	confirmation form

```
                    ( 1 )
                      │
                 ╱────────╲     No
                ╱ Arrange  ╲──────────┐
                ╲    ?     ╱           │
                 ╲────────╱            ▼
                   │ Yes      ┌──────────────────┐
                   │          │ Arrange other    │
                   ▼          │ accommodations   │
            ╭──────────────╮  └──────────────────┘
            │    Types     │
            │ confirmation │
            ╰──────────────╯
                   │
                   ▼
            ╭──────────────╮
            │   Records    │
            │ reservation  │
            ╰──────────────╯
                   │
                   ▼
            ╭──────────────╮
            │   Informs    │
            │ Housekeeping │
            ╰──────────────╯
              │          │
     ┌────────▼───┐   ┌──▼────────┐
     │ Delivers   │   │  Mails    │
     │ employees  │◄─►│  room     │
     │ room       │   │ confir-   │
     │assignments │   │ mation    │
     └────────────┘   └───────────┘
              │          │
              ▼          ▼
                 ( End )
```
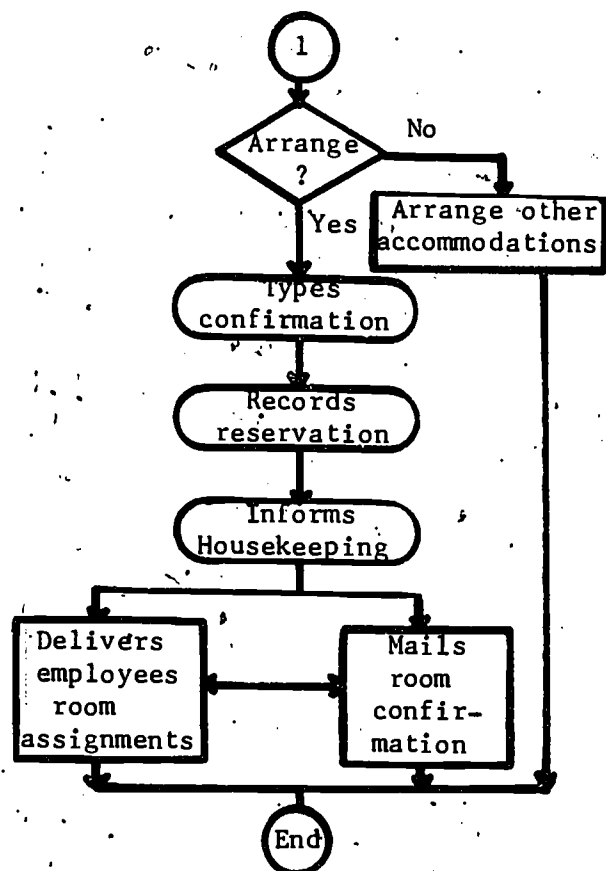
RECORDS
    suites ten days in advance
INFORMS
    Housekeeping, Room Service of arrival
    dates

DISPOSITION

MAILS
    reservation confirmation
DELIVERS
    room assignments to employees

HARDWARE

Typewriter

EDUCATIONAL CUES

Typing
Communication skills

SOFTWARE

Reservation slips.
Room assignment
slips

04.05.07   THE WORKER DETERMINES VACANCIES AND PERCENT OF OCCUPANCY.   (2 task
          sheets)

Checks reservations/vacancies
Determines number of check-outs, adds vacancies, subtracts reservations/number
   of reservations hotel can accept
Informs staff to close off/leave open for reservations

04.05.08   THE WORKER TYPES A FUNCTION SHEET FROM ACTIVITIES BOOKED.   (1 task
          sheet) .

Receives bookings/number of rooms occupied/type of function--food or meeting/
   time/number of persons .
Types function information on master /
Duplicates function sheet
Places function sheets in boxes of guests
Destroys copies of function sheet after three days

04.05.09 THE WORKER UPDATES HOTEL/MOTEL MAIL RACK.   (1 task sheet)

HOTEL/MOTEL CRITICAL INCIDENT

"The worker wrote down the number of the guest's room instead of the amount of
the bill for phone calls. The guest questioned this amount and the employee
had to write in an adjustment on the bill in pen and then make a credit on the
bookkeeping machine."

04. CLIENT RELATED SERVICES

04.06. Hospital Services

04.06.01 THE WORKER PERFORMS PROCEDURES FOR HOSPITAL ADMISSION FROM LISTS OF
PATIENTS, OR MEDICAL RECORDS. (10 task sheets)

ACQUISITION

RECEIVES
list of patients to be admitted/call that patient will arrive for admitting/
medical chart/registration forms, cards .
OBTAINS
insurance information, records from patient

PROCESS

CHECKS
bed availability/ID number/chart for completion/personal data/service re-
quired, list of doctors to determine floor to which patient should be
assigned
COMPILES
patient folder
CALLS
Central Admitting for patient diagnosis
STAMPS
date on admitting papers
WRITES
payment arrangement on account card/registration form/room rate, number on
room card/surgeon name on record/note to nurse, doctor that patient is arriv-
ing, diagnosis/personal data--marital status, religion, birthdate
DISCUSSES
hospitalization/room accommodations/payment of bill before discharge
OBTAINS
statement from patient if he can pay/signature of patient on insurance forms,
agreement forms/patient personal data
ASSIGNS
number to patient
RECORDS
room number in log/date on agreement form/method of payment
TYPES
card listing patient name, hospital number
CALLS
nurse/orderly to take patient to room

DISPOSITION

FILES
patient card, chart
DELIVERS
file to doctor/registration, account cards to control clerk
SENDS
patients to room

SUPPLEMENTARY STEPS: Photographs patient on admittance; Places tag on room card rack indicating room assignment; Requests deposit if patient has no insurance

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Hospital registration forms	Typing
Files	Medical chart	Filing
Telephone	List of patients	Communication skills
Date stamp		Checking

REPORTED CRITERIA: "Doctor and nurse notified immediately with available information on admitting patient; Clearly and correctly communicated messages; Must be organized and work quickly; Speed more important than accuracy; Able to obtain correct information especially when emergency; Must have calming effect on patients as most are nervous or ill; Knowledge of hospital policy."

04.06.02 THE WORKER ARRANGES HOSPITAL DISCHARGES. (6 task sheets)

ACQUISITION
RECEIVES
  statistical report of hospital patient/doctor's oral instructions for discharge/dismissal slips/daily medical charts of patients to be discharged
OBTAINS
  copy of discharge progress form/patient folder/payment/summary report/address cards/case histories

PROCESS
STAMPS
  date on medical charts
CHECKS
  doctor's summary of patient care/completion of chart/chart coding/case history/ward number
COMPUTES
  amount due
TYPES
  discharge report form letter/discharge or transfer summaries
PROOFREADS
WRITES
  doctor's signature on discharge form letter/clearance slip for patient's personal belongings/receipt for payment
OBTAINS
  discharge signatures for discharge/forwarding address of patients
RECORDS
  date of completion, destination

DISPOSITION
DELIVERS
  dismissal slip to floor nurse/charts for filing
SENDS
  copy of discharge form letter to referring physician, Medical Records, Accounting/chart to Coding
FILES
  copy of patient correspondence in folder/medical record in inactive file
PLACES
  check in drawer

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Adding machine (10-key)	Medical records/charts	Accuracy
Typewriter	Receipts	Checking
Files	Cash	Typing
Date stamp	Checks	Filing
		Computational skills

REPORTED CRITERIA: "Knowledge of medical terminology essential; Accuracy."

04.06.03 THE WORKER PROCESSES PATIENT FUNDS. (4 task sheets)

Receives patient account cards/request of withdrawal of funds form/telephone
  inquiry
Adjusts posting machine for withdrawals
Pulls color coded account cards
Checks account card for social security number, sufficient funds, amount
  restricted
Writes payment authorization
Records amounts on posting machine
Stamps approval on payment request
Delivers requests to Cashier/account information to caller
Returns card to file

04.06.04 THE WORKER PREPARES INSURANCE CLAIMS FOR WELFARE CLIENTS ON MEDICARE
          OR MEDICAID. (2 task sheets)

Receives final bills/insurance form
Calls patient
Requests card for service/social worker name/certification letter for author-
  ized service
Calls social worker
Inquires if hospitalization is or will be approved
Informs social worker when patient is in hospital
Receives card authorizing service
Sends form to Billing/county supervisor

04.06.05 THE WORKER OBTAINS EXTENSIONS ON ID CARDS. (1 task sheet)

Receives list of day's admissions
Checks if patient is still in hospital on seventh day
Calls Cashier for notice of discharge/hospital floor for report on condition
  of patient, doctor's orders/medical consultant to inform him name of patient,
  admission date, number, diagnosis, doctor's name, address, telephone/doctor
  for possible discharge date/patient advising him to contact medical con-
  sultant/admitting doctor to justify continuation of hospitalization
Checks further extensions required with doctor

04.06.06 THE WORKER PREPARES BIRTH CERTIFICATES FROM DELIVERY ROOM RECORDS.
          (1 task sheet)

Obtains names of mothers, room numbers
Records names of mothers, hospital number, doctor, date, time of birth, sex in
  record book
Delivers birth certificate form to mother for completion

<u>Obtains</u> birth certificate forms
<u>Records</u> length, weight of babies in weight record book/premature babies weights
     in red ink
<u>Types</u> birth certificate form
<u>Obtains</u> birth certificate form approval, signature from mother
<u>Sends</u> birth certificate form copy to Medical Records when notified baby has
     gone home/original birth certificate to county office weekly

HOSPITAL SERVICES CRITICAL INCIDENTS

"In the billing operation it is necessary to send follow-up collection letters.
The worker did not pick up the recent payment on the patient's card and sent
out the final-notice letter. The patient called the hospital as he was ex-
tremely upset. The worker pulled the patient's file, apologized for her mis-
take, and retained the goodwill of the patient."

"The worker must open the mail and retain the checks that arrive in payment of
hospital bills. She noticed that one in-coming check had the numerical amount
crossed out and changed. She called the bank and found that they would not
accept this check so she returned it to the patient with a note, thereby saving
everyone's time."

"The worker made a suggestion concerning the procedures involved with a refund
to a patient. The idea was for a revision in the form being used to show that
the account had been researched and by whom. The worker also recommended a form
letter to be used. The suggestions have been incorporated into our overall
hospital procedure."

04.   CLIENT RELATED SERVICES

04.07.   Conferences and Meetings

04.07.01   THE WORKER ARRANGES CONFERENCES AND MEETINGS. · (11 task sheets)

```
                    (Start)                              (1)
                       |                                  |
              +------------------+              +----------------------+
              |    Receives      |              |  Compiles materials  |
              |   notice of      |              |    for meetings      |
              |    meeting       |              +----------------------+
              +------------------+                         |
                       |                        +----------------------+
         ( Completes meeting )                  ( Writes confirming memo )
         (  request forms    )                  (  to supplier/name tags )
                       |                                  |
         ( Records meeting date, )                ( Checks rooms,    )
         ( time, place on calendar )              ( coffee delivery  )
                       |                                  |
         ( Writes/Calls members )                 ( Assigns numbers  )
         ( of meeting date, time )                (  to tickets      )
                       |                                  |
         ( Types invitations,    )          +-----------+-----------+-----------+
         ( letters, agenda,      )          |Distributes|Files|Mails in- |
         ( leadership booklet    )          |meal tickets/|let- |vitations|
                       |                     |invitations |ters |to banquet,|
              ( Proofreads )                 |letters     |     |follow-up  |
                       |                     +-----------+-----+invitations|
                   <Duplicate> ---No---+                      (End)
                       ?                |
                      Yes       ( Sends leader-  )
                       |        ( ship booklet to )
                       |        (     Printer     )
         ( Duplicates invita- )
         (   tion letter      )
                       |
         ( Arranges room, meals, )
         ( equipment, refreshments )
                       |
         ( Obtains confirma- )
         ( tion of reservations )
                       |
                      (1)
```

SUPPLEMENTARY STEP: Arranges alternate
times, dates if no quorum
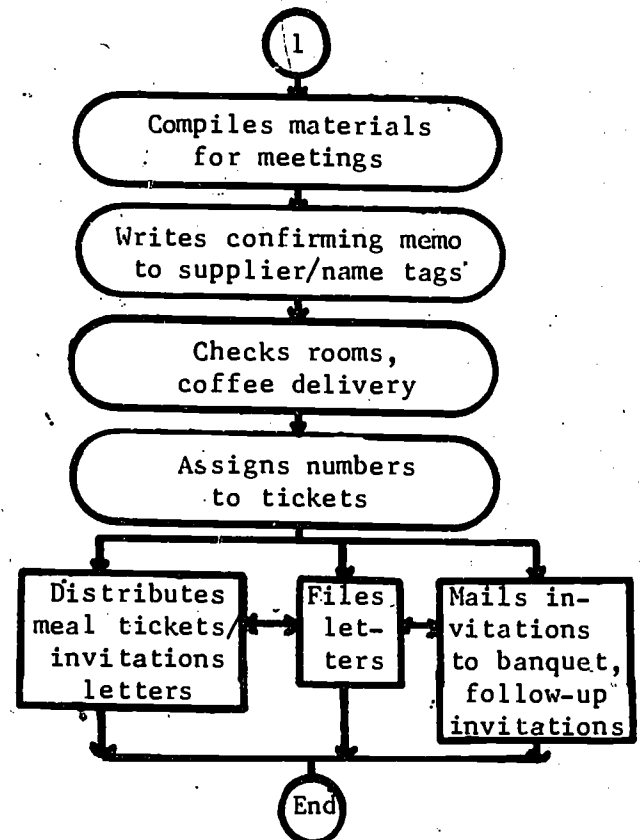
HARDWARE   SOFTWARE

Typewriter   Desk calendar
Files   Leadership book
Telephone   Name tags
                      Tickets
                      Invitations

EDUCATIONAL CUES

Typing
Filing.
Communication skills
Checking

REPORTED CRITERIA: "All members
are notified; High level ability
to communicate effectively; Con-
firmed reservations; Careful about
attention to details; Follow through
on numerous details; Pressure work."

04.07.02   THE WORKER PROCESSES REGISTRATION FOR CONFERENCE PARTICIPANTS.   (2
            task sheets)

<u>Receives</u> completed registration forms/checks
<u>Obtains</u> participant name
<u>Checks</u> check for correctness
<u>Sorts</u> checks/registration forms by conference
<u>Types</u> registration lists, cards
<u>Delivers</u> name badge/materials to participants
<u>Sends</u> participants to meeting room
<u>Files</u> registration cards, lists/form
<u>Mails</u> check, receipt to conference headquarters

04.   CLIENT RELATED SERVICES

04.08.   Welfare and Aid

04.08.01   THE WORKER PROCESSES WELFARE ASSISTANCE CLAIMS.   (8 task sheets)

ACQUISITION

RECEIVES
   vendor bills/disbursement sheet/cash-aid receipts/warrant/repayment forms

PROCESS
PULLS
   unpaid bills folder/collection, money card
CHECKS
   collection, money cards/case number for eligibility/type doctor/number bus
   tokens requested/type aid/cash-aid receipts
SORTS
   cash-aid receipts/repayment forms
DETERMINES
   client's unmet needs/social workers assigned
CODES
   budget documents
COMPUTES
   contributed amount/difference in excess of need to be retained by county/
   totals of cash-aid receipts
TYPES
   claims information/request for adjustment
RECORDS
   information on collection card/number bus tokens requested/district number,
   amount on car fare cash-aid receipts/information from money, collection cards
TOTALS
   bus token balances/amount of money
ATTACHES
   repayment form to collection card

DISPOSITION

SENDS
   collection card, repayment forms to typist/coded budgets to Teletyping
PLACES
   bills in stack for coding/bus tokens in envelopes
DELIVERS
   accounting sheets, budget to Accounting/cash-aid claims to Data Processing/
   repayment forms to typist/request for adjustment to social worker/car fare
   cash-aid receipts
FILES
   cash-aid claims/collection, money cards

SUPPLEMENTARY STEP: Duplicates coded budget document

REPORTED CRITERIA: "Not to assume doctor's bill is correct, ask questions on
bills received; Must be sure computations are correct; Ability to keep sets of
records; Understand coding; Knowledge of types of aid."

<u>HARDWARE</u>

Adding machine
Typewriter
Files

<u>SOFTWARE</u>

Welfare documents
Aid documents

<u>EDUCATIONAL CUES</u>

Computational skills
Typing
Filing
Coding skills
Social service terminology

04.08.02　THE WORKER PROCESSES APPLICATIONS FOR WELFARE ASSISTANCE. (5 task sheets)
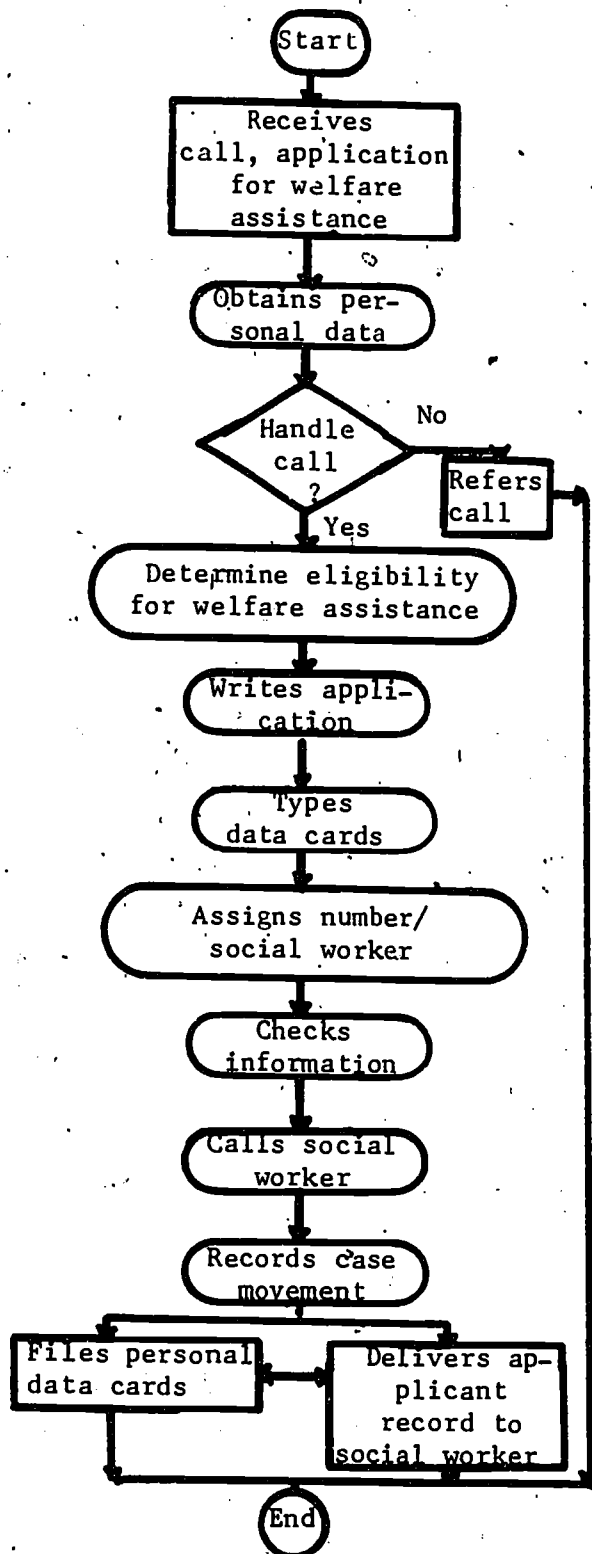
ACQUISITION

RECEIVES

telephone call/callers/request for aid/ applications/processed applications

OBTAINS

warrant number/callers' name/contact/needs/ personal history

PROCESS

ANSWERS

questions concerning warrant

REFERS

calls.

DETERMINES

eligibility for welfare assistance

WRITES

preliminary application·

TYPES

printed card of personal information/ number on control card

ASSIGNS

social worker/number

CHECKS

financial card for information concerning moves, district location, change of name, address, deceased

RECORDS

case movement on control card

DISPOSITION

REFERS

calls to social worker

FILES

personal information card

DELIVERS

preliminary, processed application to social worker/application to opening desk

<u>SUPPLEMENTARY STEP</u>: Calls welfare client requesting, giving information

<u>REPORTED CRITERIA</u>: "Must understand how to use appropriations book to locate information; Ability to communicate with people; Some degree of pressure dealing with anxious people."

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Telephone	Warrant	Communication skills
Typewriter	Financial card.	Accuracy
Files	Personal information card	Typing
		Filing
		Social service
		terminology

WELFARE ASSISTANCE CRITICAL INCIDENTS

"The worker received a claim last week with a question of allowability.   She
searched until she located the correct answer and proper code to fill out her
form.   She is extremely patient and will painstakingly check into all details
the first time without having someone else tell her to do so."

"This worker does not like changes in routine.   When the order to change the
form of sending claims, she managed to forget, creating many problems and delays."

"The worker sent applicants for welfare to the wrong district because she' read
the maps incorrectly.   The borders are subject to frequent change, but she
does not make the changes when they cross her desk."

"One client demanded immediate attention.   The worker very calmly seated him
and proceeded with the task of processing the case.   She spoke quietly and
slowly and completely gained the confidence of the client."

"The county had lost Federal money, and it was very important to the people
concerned that all the facts be related in the report the worker was pre-
paring.   She did not miss a detail; and in addition, she supported question-
able figures."

04. CLIENT RELATED SERVICES

04.09. <u>Repair Service</u>

04.09.01   THE WORKER TYPES SERVICE ORDERS AND REPORTS. (13 task sheets)
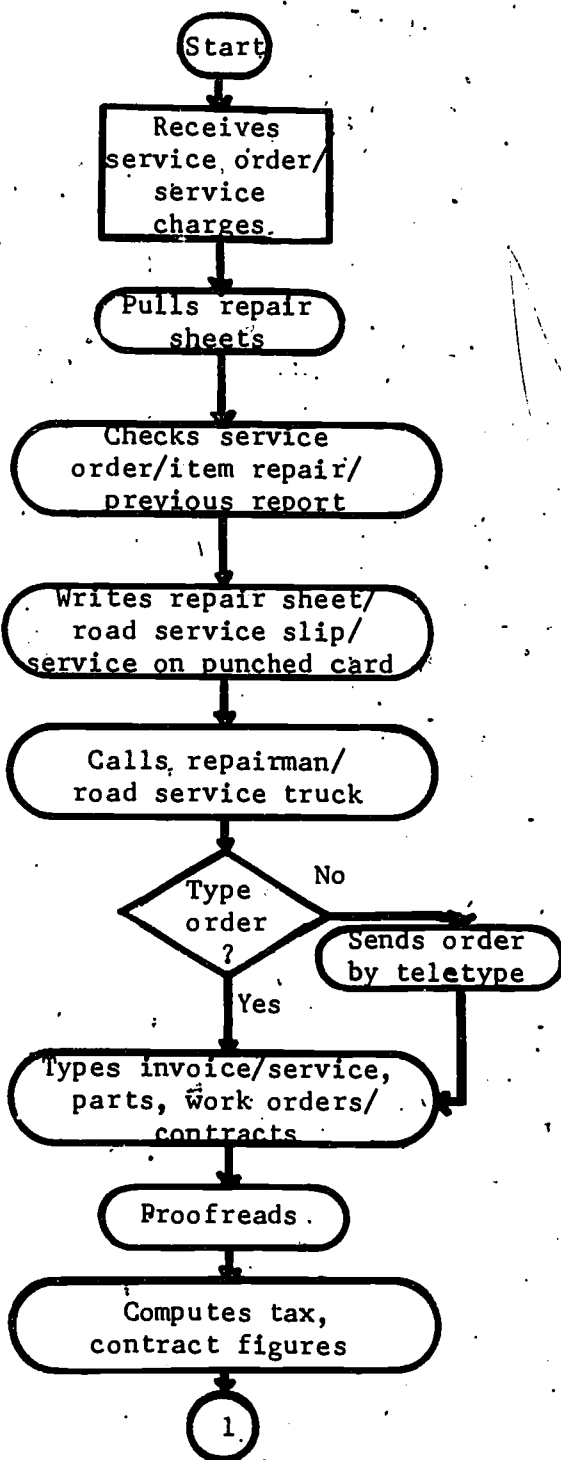
ACQUISITION

RECEIVES
    service order, charges/serviceman,
    serviceman notice when repair is com-
    pleted/request to order parts/road
    service calls

PROCESS

PULLS
    repair sheet/punched card for office
    equipment requiring service/previous
    repair report
CHECKS
    service order/previous report for shipped,
    new instruments/status of item repair
WRITES
    repair sheet/date repair completed on
    repair sheet/reason, date of service
    on punched card/customer name, number,
    problem, location of breakdown, road
    service slip/meter number, date in-
    stalled/customer regarding status of
    item repair
CALLS
    repairman/road service truck
TYPES
    invoice for service order/service
    charges, parts on invoice/totals/work
    orders/service orders/contracts/up-
    dated repair report
SENDS
    order by teletype
PROOFREADS
OBTAINS
    additions to repair report from Repair-
    ing
COMPUTES
    tax/contract figures
DUPLICATES
    repair report
RECORDS
    length of time of road service
ATTACHES
    punched tape, typed sheet, order

DISPOSITION

SENDS
  serviceman to department requesting service

DELIVERS
  repair report, service order invoice to serviceman/tape, sheet, order to supervisor/contract to salesman

MAILS
  invoice to customer/status of repair

FILES
  repair sheet/road service slip/ service orders/repair report

HARDWARE	SOFTWARE
Typewriter	Invoice
Teletype	Repair sheet
Files	Service orders
Calculator	Punched cards
Duplicator	Punched tapes

EDUCATIONAL CUES

Typing
Computational skills
Accuracy
Filing
Communication skills

REPORTED CRITERIA: "Prompt repair; Accurate record of repairs; Same day's service; Necessary to record exact location of breakdown; Ability to type on lines is helpful."

Flowchart:
- 1 → Duplicate report ?
  - Yes → Duplicates repair report
  - No → Records length of time of road service
- Records length of time of road service → Attaches tape, typed sheet, order
- Attaches tape, typed sheet, order → Sends serviceman to trouble / Delivers/mails service reports/contracts / Files repair orders
- End

04. CLIENT RELATED SERVICES

04.10. Library

04.10.01   THE WORKER PROCESSES CHECK OUT/IN OF LIBRARY MATERIALS. (3 task
           sheets)

Check Out: (Start)

Receives
book for
check out

Pulls card
from book pocket

Stamps card, slip
with due date

File
card avail-
able
?   No

Yes   Completes new file
            card for book/spe-
            cial card for maga-
            zine

Writes name,
check-out date,
book name on file card

Obtains borrower's
signature on card

Records borrower's name
if magazine sent in
answer to phone request

Delivers   Files
item to   book
user   cards

(End)

Check In: (Start)

Receives
book/
magazine

Pulls book,
magazine card

Discard
card
?   Yes

No   Destroys
            magazine
            card

Draws line through
item returned

Places card in
pocket of book

Places book/
magazine on
shelf

(End)

HARDWARE

Files
Shelves

SOFTWARE

Books
Magazines
Card file
Book card, pocket

EDUCATIONAL CUES

Filing
Library procedures/terminology

REPORTED CRITERIA: "Shelves are kept
neat."

04.10.02   THE WORKER OBTAINS LIBRARY BOOKS FROM CALL SLIPS.   (2 task sheets)

<u>Receives</u> call slips
<u>Checks</u> if call slips are properly completed, initialed
<u>Sorts</u> call slips by location
<u>Determines</u> route through tiers for obtaining a number of books
<u>Pulls</u> books from shelves
<u>Places</u> books on hand truck
<u>Arranges</u> books in Dewey Decimal order
<u>Delivers</u> books to librarian's desk

04.10.03   THE WORKER TYPES LIBRARY INDEX CARDS.   (1 task sheet)

<u>Receives</u> index cards
<u>Types</u> index cards identifying proper file, authority, shelf list, author, title,
    subject/card, pocket for book
<u>Writes</u> subjects on cards
<u>Attaches</u> pocket to book
<u>Places</u> book card in pocket
<u>Places</u> books on shelves
<u>Calls</u> user if new item was requested
<u>Files</u> cards in card catalog under subject, title, author
<u>Sends</u> new books to librarian for spining (white ink numbers on spine of book)

04.10.04   THE WORKER ASSISTS LIBRARY USERS IN OBTAINING MATERIALS/BOOKS.   (1
          task sheet)
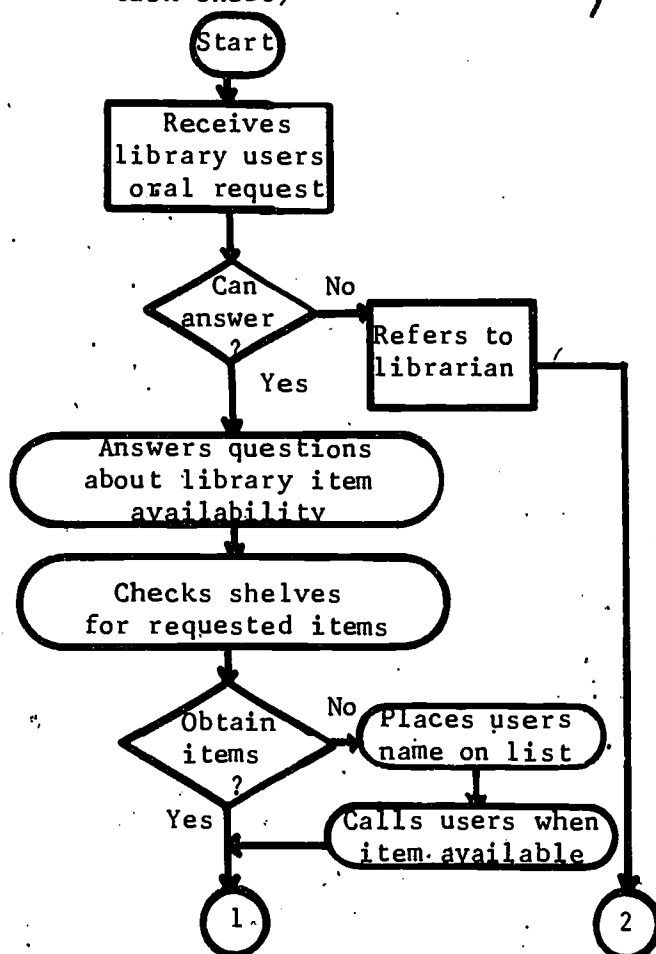
Note: Hardware, Software, and
        Educational Cues listed
        here refer to Performance
        Goals 04.10.02 and 04.10.03
        also.

HARDWARE	SOFTWARE
Hand truck	Call slips
Telephone	Books
Shelves	Library items
	Waiting list
	Card catalog

<u>EDUCATIONAL CUES</u>

Dewey Decimal System organization
  of library, call number system
Communication skills

<u>REPORTED CRITERIA</u>:   "Careful
checking of shelves for important
materials."

Flowchart:

Start → Receives library users oral request → Can answer? — No → Refers to librarian → 2

Can answer? — Yes → Answers questions about library item availability → Checks shelves for requested items → Obtain items? — No → Places users name on list → Calls users when item available → Yes → 1

Obtain items? — Yes → 1

```
   (1)                    (2)
    |                      |
    v                      |
+------------------+       |
| Obtains requested|       |
| items from shelves|      |
+------------------+       |
    |                      |
    v                      |
+------------------+       |
| Inquires whether |       |
| user will pick up|       |
| or have item sent|       |
+------------------+       |
    |                      |
    v                      |
+------------+             |
| Files/Sends|             |
|   item     |             |
+------------+             |
    |                      |
    v                      |
  (End)<-------------------+
```
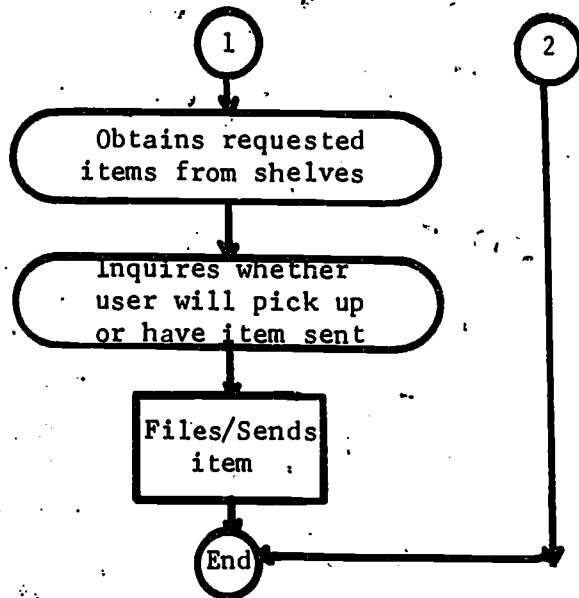
,04.10.05   THE WORKER TYPES LETTERS REQUESTING INTER-LIBRARY LOANS.   (1 task sheet) .

Receives inter-library loan request
Types form/composed letter
Obtains librarian's signature
Mails letter to another library

04.   CLIENT RELATED SERVICES

04.11. <u>Miscellaneous Services</u>

04.11.01   THE WORKER RECORDS ITEMS SUCH AS TRAFFIC TICKETS, ACTIVITY REPORTS,
           AND PRESS CLIPPINGS.   (10 task sheets)

ACQUISITION

RECEIVES
   traffic ticket/cashiers daily activity reports/tax cases/ press clippings/
   tax delinquency, investigation reports/inmates drafts

PROCESS

PULLS
   driver's record
SORTS
   reports by type of action, alphabetically, by region/press clippings/traf-
   fic tickets
CHECKS
   report with attached documents/legal documents for completeness, signature
   of notary public/taxpayer information
COMPILES
   monthly press clipping report
WRITES
   price of policy on report cover sheet/statistical information on coded cards
TYPES
   name tag for report recipients/violation, payment notation on driver's record
   card
DUPLICATES
   legal documents
COMPILES
   summary report
PLACES
   name tag on summary report
STAMPS
   inmate's number on draft

DISPOSITION

DISTRIBUTES
   documents to work areas/inmate drafts to hospital, service units
DELIVERS
   reports with name tags to Mailing/report to supervisor/tax case, coded card/
   paid traffic tickets to vault
FILES
   activity reports/driver's record
SENDS
   tax reports to branch chief/press clippings to district offices/folder to
   tax examiner for approval
MAILS
   press clippings report to division headquarters

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Files	Traffic tickets	Coding
Photocopy machine	Activity reports	Filing
Hand stamp	Tax cases	Accuracy
Typewriter	Press clippings	Checking
	Legal documents	Typing
REPORTED CRITERIA: "Time	Coded cards	
pressures; Constant	Name tags	
checking."		

04.11.02 THE WORKER ANSWERS MISCELLANEOUS OVER-THE-COUNTER OR TELEPHONE
REQUESTS. (8 task sheets)

ACQUISITION

RECEIVES
  telephone call/visitor's inquiry regarding Civil Service jobs/public utility
  customer/alien registration card, passport, last year's tax return/tax inquiry/
  money for license/car rental request

PROCESS

WRITES
  name of caller, telephone number/letter to obtain information/forms to turn
  on, off electrical service/tax clearance forms/contract information for car
  rental
CHECKS
  name, district/reference material on disease-prevention and cure societies/
  files for job descriptions/records to answer billing questions/tax return for
  irregulatiries/tax law, regulations for Federal tax service/price of requested
  license (liquor, alcohol, solicitors permits)
OBTAINS
  completed license application/rental contract/customer signature on contract
DISCUSSES
  memorial contributions/eligibility for Civil Service employment/amendment and
  costs to alient registrants
TYPES
  license/list of licenses issued
RECORDS
  name on memorial/license issue/pertinent data
COMPUTES
  license fees received
STAMPS
  seal of agency on tax form
INFORMS
  taxpayer of findings, method to solve problems/car rental agency to bring car
  for customer
CALLS
  party to give information located

DISPOSITION

SENDS
  memorial contribution information to proper district/job description for Civil
  Service to applicant
DELIVERS
  job description to visitor/passport to alien/license to applicant/memo of
  issued licenses to Cashier

FILES
   memo on license totals

REPORTED CRITERIA: "Diplomacy in dealing with public; Tact in handling custo-
mers, securing information; Accurate information, customer signature on contracts."

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Telephone	Licenses	Communication skills
Files	Memorial cards	Filing
Typewriter	Rental contracts	Typing
	Tax booklets	Computational skills
	Services manuals	Checking

04.11.03   THE WORKER PROCESSES TICKET SALES.   (2 task sheets)

Receives request for tickets
Checks availability of performance accommodations
Answers questions regarding price, event
Writes information on special form/customer name, address, order/"paid" on
   receipt
Stamps completed forms
Receives money for tickets
Delivers receipt, tickets to customer
Places money in cash box
Records amounts received

04.11.04 THE WORKER PREPARES REVISED CITY TELEPHONE DIRECTORY.   (1 task sheet)

Receives yearly data of city telephone directory
Obtains addition/deletion listings
Draws red line through deleted listings
Sorts addition/deletion listings alphabetically by directory headings for
   yellow pages
Stamps date, initials on directory page
Files additions, deletions/cards
Types additions on file cards

05. ORAL COMMUNICATION

05.00.01 THE WORKER PROCESSES INCOMING TELEPHONE CALLS. (160 task sheets)

Receives call
Obtains name of caller
Refers call to another worker
Records call, message
Delivers message

SUPPLEMENTARY STEPS: Receives dictation; Types material for co-worker

REPORTED CRITERIA: "Good diction; Pleasant speaking voice; Take messages ac-
curately; Able to decipher spoken words regardless of accent; Project pleasant,
efficient office; Relay messages promptly; Must get names, numbers correctly
so call may be returned promptly; Pressure of many phones ringing at once;
Sympathetic; Able to calm irate callers; Courteous to all callers; Ability to
handle 500-1000 calls per day; High degree of decision making; Diplomatic."

05.00.02 THE WORKER ANSWERS INCOMING TELEPHONE CALLS. (117 task sheets)
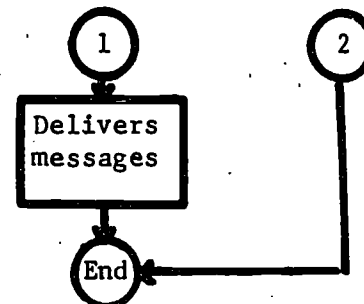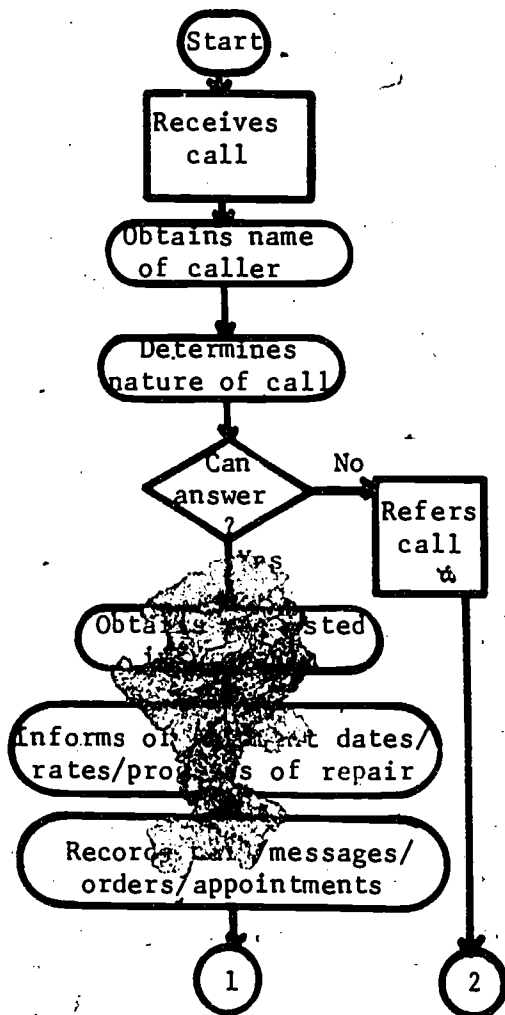
HARDWARE

Telephone

SOFTWARE

Rate sheets
Company directory
Message forms

EDUCATIONAL CUES

Company policies, procedures
Communication skills

SUPPLEMENTARY STEPS: Informs supervisor
of appointments, meetings, deadlines;
Edits orders received on phone; Types,
duplicates reports; Maintains complete
record of phone calls, numbers; Refuses
callers when instructed to do so

REPORTED CRITERIA: "Use discretion screen-
ing calls, giving information; Handle
50-60 calls per day; High degree of
decision making; Recognize calls that
are of serious nature--to differentiate

REPORTED CRITERIA (CONTINUED): between a power failure call and a need to empty a wastebasket; Must speak softly; Polite, tactful, courteous; Well modulated voice; Work under pressure."

05.00.03   THE WORKER PERFORMS THE DUTIES OF A RECEPTIONIST.   (50 task sheets)

```
                              ┌───────┐
                              │ Start │
                              └───┬───┘
                              ┌───┴────┐
                              │Receives│
                              │phone call/
                              │ visitor│
                              └───┬────┘
                            (Obtains name)
                                  │
                          ┌───────┴───────┐
                          │  Determines   │
                          │ nature of call│
                          └───────┬───────┘
        ┌──────────┬─────────────┼──────────────┬──────────┐
   (Records    (Directs to    (Informs        (Obtains
    message)    waiting room)  supervisor)      information)
        │           │              │                 │
        │           │        (Records               │
        │           │        appointment)           │
        │           │              │                 │
   ┌────┴───┐       │         ┌────┴────┐       ┌────┴───┐
   │Delivers│       └────────▶│Sends to │       │Answers │
   │message │                 │supervisor       │request │
   └────┬───┘                 └────┬────┘       └────┬───┘
        └───────────────────────┬──┴─────────────────┘
                             ┌──┴──┐
                             │ End │
                             └─────┘
```
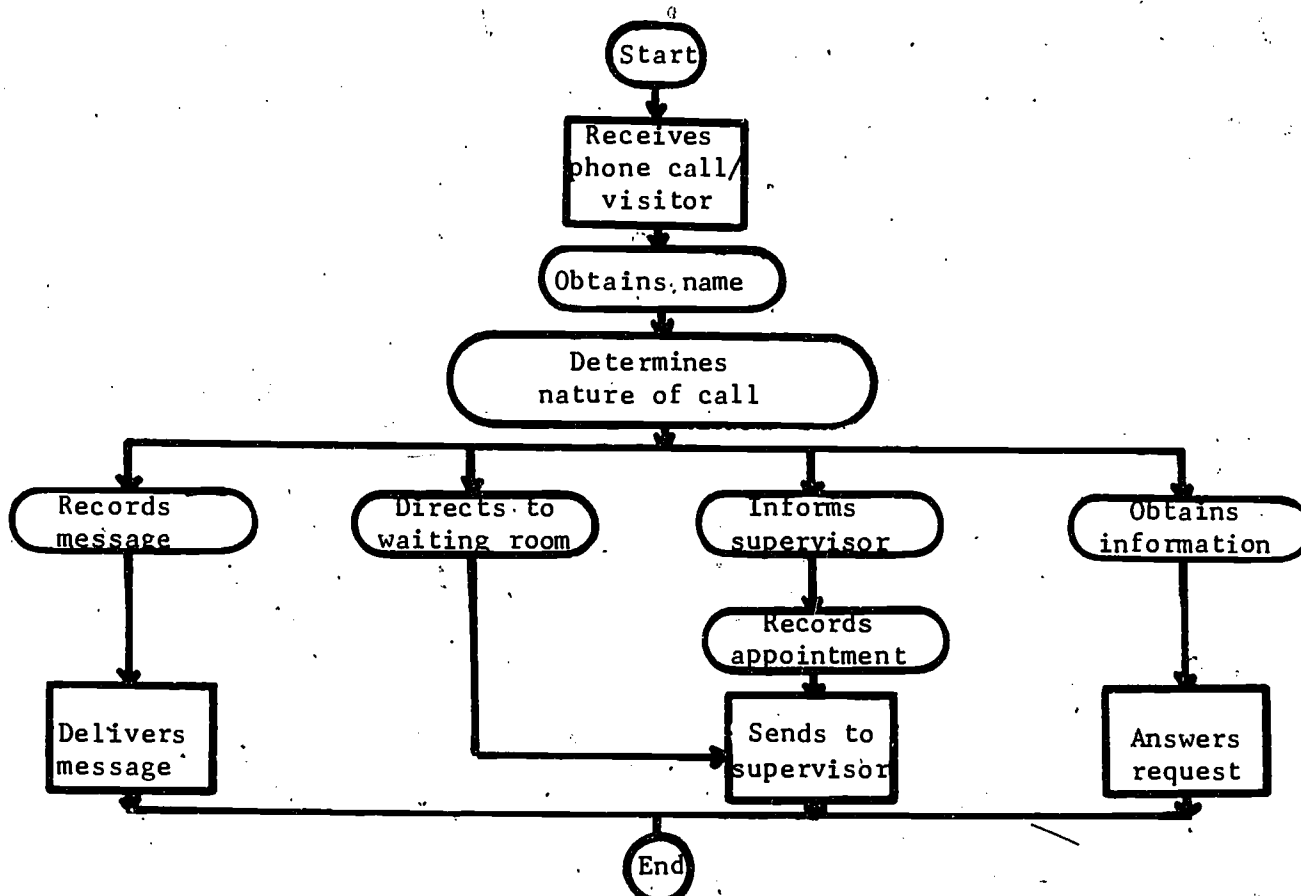
SUPPLEMENTARY STEPS: Delivers temporary pass to visitors; Records times entering, leaving; Completes visitor's permit; Provides coffee, tea, chats with visitors

STEPS THAT ACCOMPANY THE POSITION OF SOME RECEPTIONISTS: (17 task sheets)

Assists students in finding work; Arranges appointments; Processes lamination of ID cards; Sells stamps; Assigns rooms; Stamps parking validation tickets; Distributes maps; Takes dictation; Types letters, reports, forms; Files applications; Packages coins for bank deposit; Issues job application forms; Records cars and trucks entering or leaving plant.

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Telephone	Note pad	Communication skills

REPORTED CRITERIA: "Must have understanding of people and not get flustered; Patience with people; Absolute accuracy; Good social manners; Ability to greet visitors graciously and to sort out those without prior appointments; Great amount of tact and judgment necessary; Treat all visitors with respect even though it may not be given in return; Must be a good listener."

05.00.04   THE WORKER OPERATES A SWITCHBOARD.   (42 task sheets)

```
                    ( Start )
                       |
                 ┌───────────┐
                 │ Receives  │
                 │   call    │
                 └───────────┘
                       |
                   / Incoming \    No      ┌──────────┐
                   \    ?     /──────────→ │ Refers   │
                       |                   │ to out-  │
                      Yes                  │ side line│
                       |                   └──────────┘
                 / Extension \   Yes       ┌──────────┐
                 \ requested /──────────→  │ Refers   │
                 \    ?     /              │   to     │
                       |                   │ extension│
                      No                   └──────────┘
                       |
                 ( Obtains name )
                       |
               ( Determines       )
               ( nature of call   )
                       |
                    /  Can  \     No        ┌──────────┐
                    \ handle /──────────→   │ Refers   │
                    \   ?   /               │   to     │
                       |                    │ another  │
                      Yes                   └──────────┘
                       |
                  / Receives \    Yes       ( Receives )
                  \ messages /──────────→   ( messages )
                  \    ?    /
                       |
                      No
                       |
               ( Answers.          )
               ( routine questions )
                       |
                ( Records call )
                       |
                 ┌───────────┐             ┌──────────┐
                 │ Completes │             │ Delivers │
                 │call by pull│            │ message  │
                 │  ing plug │             └──────────┘
                 └───────────┘
                       |
                    ( End )
```
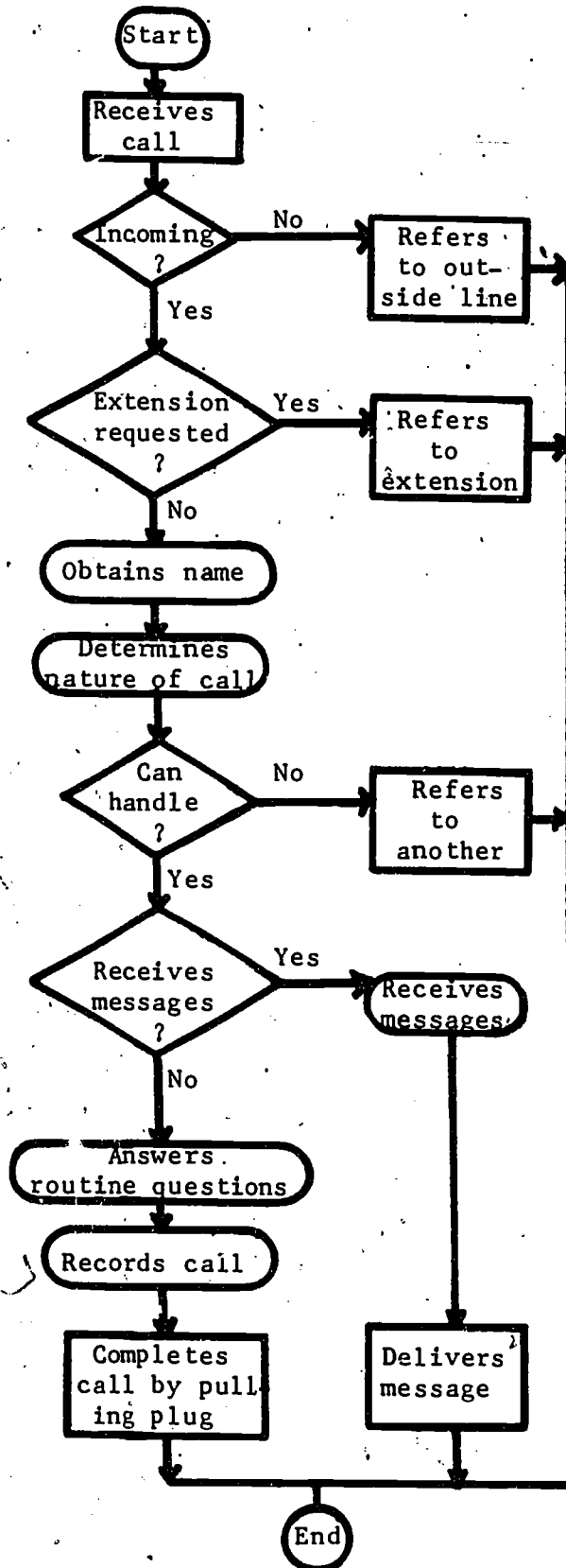
SUPPLEMENTARY STEPS: Checks
list for correct extension

HARDWARE

Telephone switchboard

SOFTWARE

Telephone directories
Message slips

EDUCATIONAL CUES

Communication skills

REPORTED CRITERIA: "Polite;
Often required to 'cool' grouches;
Cautious; Diplomatic; Good tele-
phone voice and presentation;
Keep conversations as short as
possible; Get correct names and
telephone numbers; Helpfulness;
Able to make overseas long dis-
tance calls; Knowledge of company
policies; Work under pressure;
Must not leave people waiting
on the line or hang up on them;
Good English grammar; Manual
dexterity in handling switch-
board."

05.00.05 THE WORKER ARRANGES SCHEDULES AND PATIENTS' APPOINTMENTS. (18 task
          sheets)

```
                    ( Start )
                        |
            ┌───────────────────────┐
            │     Receives          │
            │    appointment        │
            │     request           │
            └───────────────────────┘
                        |
            ╭───────────────────────╮
            │  Checks appointment   │
            │  book/type of x-ray   │
            ╰───────────────────────╯
                        |
                      ╱─────╲            No
                    ╱ Arrange  ╲───────────────┐
                    ╲appointment╱               │
                      ╲   ?   ╱           ╭──────────────╮
                       ╲─────╱            │  Places on   │
                        │ Yes            │ waiting list │
                        │                 ╰──────────────╯
            ╭───────────────────────╮          │
            │ Arranges appointment  │◄─────────┘
            │     time, date        │
            ╰───────────────────────╯
                        |
            ╭───────────────────────╮
            │ Instructs patient in  │
            │   x-ray preparation   │
            ╰───────────────────────╯
                        |
            ╭───────────────────────╮
            │ Writes appointment card/│
            │ patient chart/new patient│
            │  card/appointment list  │
            ╰───────────────────────╯
                        |
            ╭───────────────────────╮
            │ Records appointment/  │
            │   cancellation in     │
            │  appointment book     │
            ╰───────────────────────╯
                        |
            ╭───────────────────────╮
            │ Calls Medical Records to│
            │  inform of next day's  │
            │     appointments       │
            ╰───────────────────────╯
                        |
            ╭───────────────────────╮
            │ Obtains records/patient│
            │ signature in register book│
            ╰───────────────────────╯
                        |
            ╭───────────────────────╮
            │ Attaches appointment  │
            │   card to record      │
            ╰───────────────────────╯
                        |
      ┌──────────────┐     ┌──────────────┐
      │ Sends patient│     │  Delivers    │
      │to x-ray/doctor's│  │   x-rays/     │
      │   office     │     │  charts to    │
      └──────────────┘     │   doctor      │
                           └──────────────┘
                        |
                     ( End )
```

HARDWARE

Telephone
Intercom system
Files

SOFTWARE

Appointment book
Register book
Appointment card
Patient card

EDUCATIONAL CUES

Communication skills
Filing, alphabetical
Checking

REPORTED CRITERIA: "Legible hand-
writing; Pleasant, outgoing dispo-
sition; Tact, helpfulness; Coopera-
tion; Clear diction; Patience; Good
psychology in dealing with sick,
difficult people; Conservation of
time--avoid getting "case history"
from patient; Moderate familiarity
with types of x-ray, time necessary
for each type of x-ray; Knowledge
of special preparations for x-ray;
Medical terminology."

SUPPLEMENTARY STEPS: If fever
suspected, records temperature;
Calls patient, doctor over inter-
com system; Sends copies of
patient data to Chemistry, Hema-
tology, x-ray, whole-body count,
Receptionist; Attaches dental
bib to patient

05.00.06   THE WORKER ANSWERS TELEPHONE INQUIRIES.   (16 task sheets)
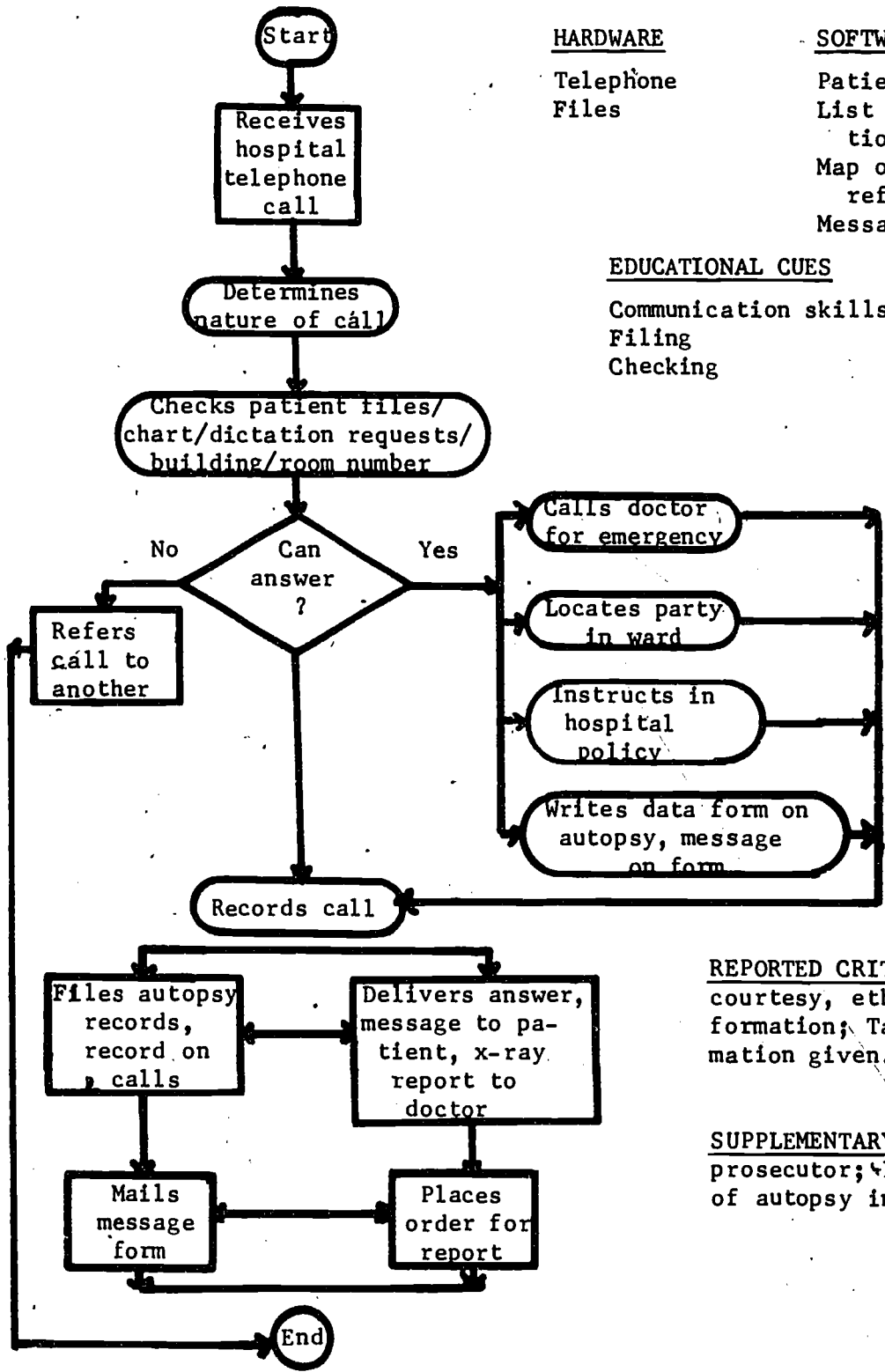
HARDWARE

Telephone
Files

SOFTWARE

Patient files, charts
List of doctor's dicta-
    tion requests
Map of hospital for
    reference
Message, autopsy forms

EDUCATIONAL CUES

Communication skills
Filing
Checking

Start

Receives
hospital
telephone
call

Determines
nature of call

Checks patient files/
chart/dictation requests/
building/room number

No   Can
            answer
            ?   Yes

Refers
call to
another

Calls doctor
for emergency

Locates party
in ward

Instructs in
hospital
policy

Writes data form on
autopsy, message
on form

Records call

Files autopsy
records,
record on
calls

Delivers answer,
message to pa-
tient, x-ray
report to
doctor

Mails
message
form

Places
order for
report

End

REPORTED CRITERIA: "Reliability,
courtesy, ethical giving of in-
formation; Tact; Accurate infor-
mation given."

SUPPLEMENTARY STEPS: Calls
prosecutor; Informs prosecutor
of autopsy information

05.00.07　THE WORKER PLACES LOCAL AND LONG DISTANCE TELEPHONE CALLS.　(14 task sheets)
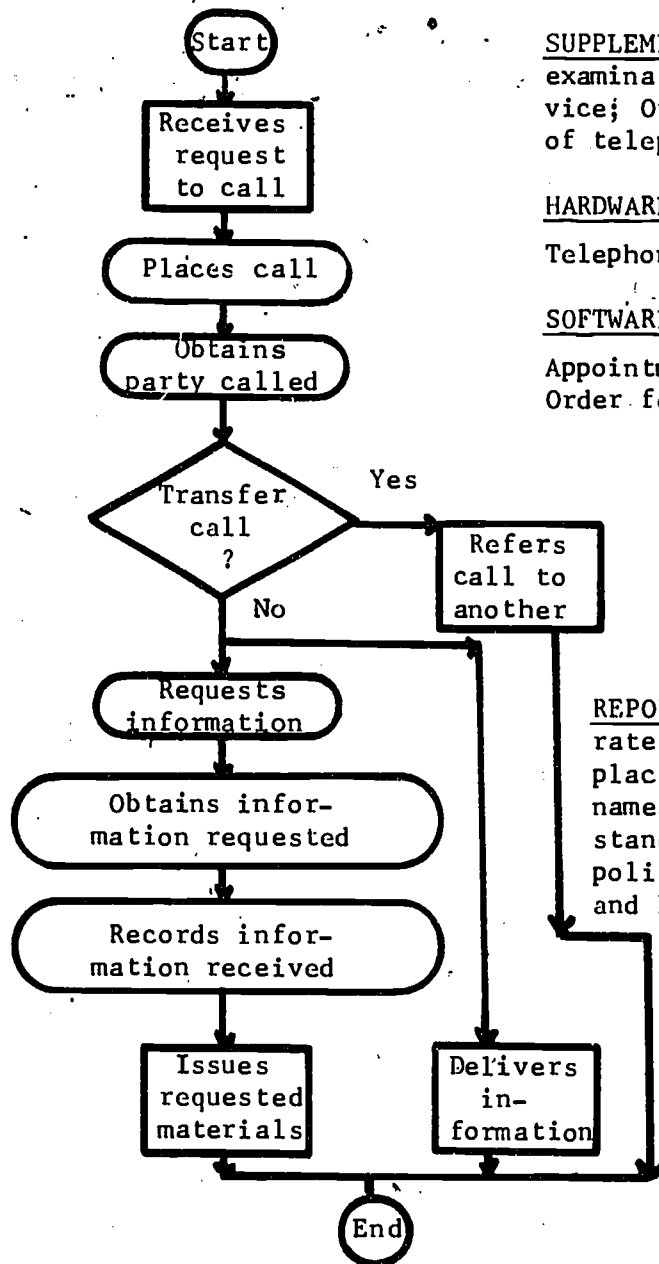
SUPPLEMENTARY STEPS:　Arranges for medical examinations, appointments; Requests service; Orders supplies; Arranges methods of telephone calls

HARDWARE

Telephone

SOFTWARE

Appointment book
Order forms

EDUCATIONAL CUES

Communication skills

REPORTED CRITERIA:　"Must have accurate information; Be patient when placing overseas calls; Spell out names which appear difficult to understand; Pleasant telephone voice and polite, showing interest in the caller and his particular problem."

```
        ( Start )
           |
      +-----------+
      | Receives  |
      | request   |
      | to call   |
      +-----------+
           |
      ( Places call )
           |
      ( Obtains
        party called )
           |
        / Transfer \      Yes
       <   call      >-------->  +-----------+
        \   ?      /             | Refers    |
           |  No                 | call to   |
           |                     | another   |
           |                     +-----------+
      ( Requests
        information )
           |
      ( Obtains infor-
        mation requested )
           |
      ( Records infor-
        mation received )
           |
      +-----------+        +-----------+
      | Issues    |        | Delivers  |
      | requested |        | in-       |
      | materials |        | formation |
      +-----------+        +-----------+
           |                    |
           +--------( End )------+
```

05.00.08　THE WORKER ANSWERS QUESTIONS REGARDING PATIENT BILLING.　(3 task sheets)
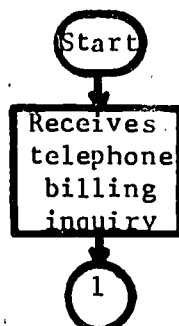
HARDWARE

Telephone
Typewriter

SOFTWARE

Patient ledger card
Statement forms

```
      ( Start )
         |
   +-----------+
   | Receives  |
   | telephone |
   | billing   |
   | inquiry   |
   +-----------+
         |
       ( 1 )
```

```
                    ┌─1─┐
                    └─┬─┘
            ╭─────────┴─────────╮
            │ Writes callers name,│
            │ requested information│
            ╰─────────┬─────────╯
                      │
              ╭───────┴──────╮
              │ Pulls ledger │
              │    card      │
              ╰───────┬──────╯
                      │
                  ╱───┴───╲            No
                 ╱  Can    ╲──────────────────┐
                ╱ explain   ╲                 │
                ╲    ?      ╱                  │
                 ╲───┬───╱               ┌────┴─────┐
                     │ Yes              │ Refers to │
                     │                  │ supervisor│
            ╭────────┴────────╮         └────┬──────┘
            │ Discusses charge,│              │
            │ claim procedures │              │
            ╰────────┬────────╯              │
                     │                        │
                 ╱───┴───╲    Yes             │
                ╱ Error   ╲──────────┐        │
                ╲   ?     ╱          │        │
                 ╲───┬───╱      ╭────┴────╮   │
                     │ No       │Writes memo│  │
                     │          │to correct│   │
            ╭────────┴────────╮ ╰────┬────╯    │
            │ Types notation on led-│          │
            │ ger card/new statement│          │
            ╰────────┬────────╯                │
                     │                          │
              ┌──────┴──────┐                  │
              │   Sends     │                  │
              │ statement   │                  │
              │    to       │                  │
              │  patient    │                  │
              └──────┬──────┘                  │
                     │                          │
                  ╭──┴──╮                       │
                  │ End │◄──────────────────────┘
                  ╰─────╯
```
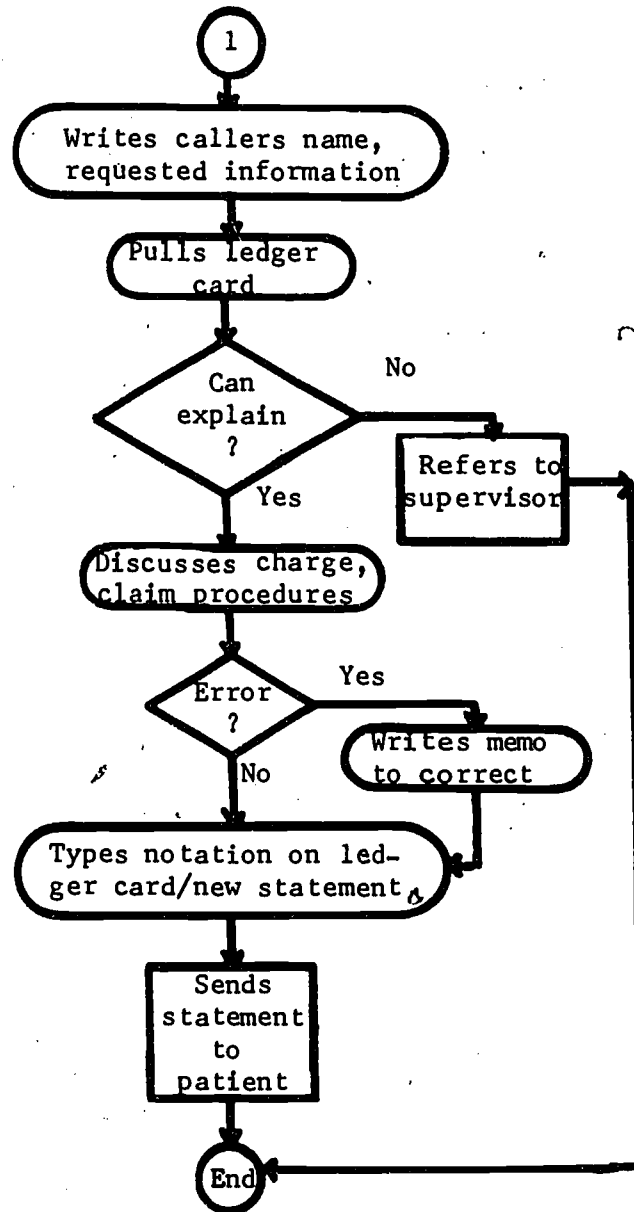
EDUCATIONAL CUES

Communication skills
Typing
Checking
Accuracy

REPORTED CRITERIA: "High
degree of patience and skill
in effectively communicating;
Coding knowledge; Minimum level
of knowledge of general book-
keeping procedures and Medicare
procedures."

05.00.09   THE WORKER OPERATES A PAGING SYSTEM.   (2 task sheets)

Operates paging equipment
Requests person paged to contact switchboard
Calls message second time
Delivers message to individual paged

05.00.10   THE WORKER REQUESTS REPAIRS OR MAINTENANCE OF GUEST'S ROOM.   (1
           task sheet)

Receives telephone request
Calls hotel switchboard operator
Requests operator page houseman
Informs houseman of needs

05.00.11   THE WORKER ARRANGES SCHEDULES FOR CONFERENCE ROOM.. (1 task sheet)

05.00.12   THE WORKER ARRANGES DOCTOR/PATIENT CONFERENCES. (1 task sheet)

Receives list of patients to attend conference
Checks patient's chart
Calls/Writes message to doctor of each patient to attend conference
Calls consultants for availability
Types list of patients
Calls x-ray department to request x-ray of each patient
Informs patient to attend conference
Delivers list, chart, x-ray to doctor
Sends patient to conference room as requested by doctor
Receives results of conference
Files patient chart

ORAL COMMUNICATION CRITICAL INCIDENTS

"A field unit sent in a request for assistance and the operator promptly relayed
it back to the same unit. The unit informed her that if they were able to help
themselves, they would not have radioed her in the first place. She then sent
them another radio message telling them to give assistance to themselves re-
peating the error twice. Fortunately nothing serious resulted this time. ·
However, had the officers needed help desperately, this double error could
have been very costly."

06.   ELECTRONIC DATA PROCESSING

06.01.   Keypunching, Verifying

06.01.01   THE WORKER PUNCHES CARDS FROM SOURCE DOCUMENTS SUCH AS INVOICES,
ORDERS, TIME CARDS, AND INSTRUCTIONS. (96 task sheets)
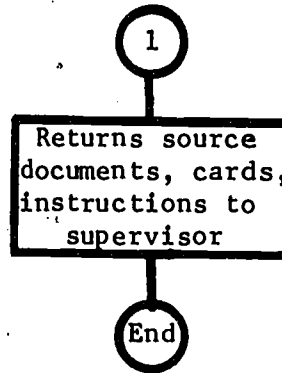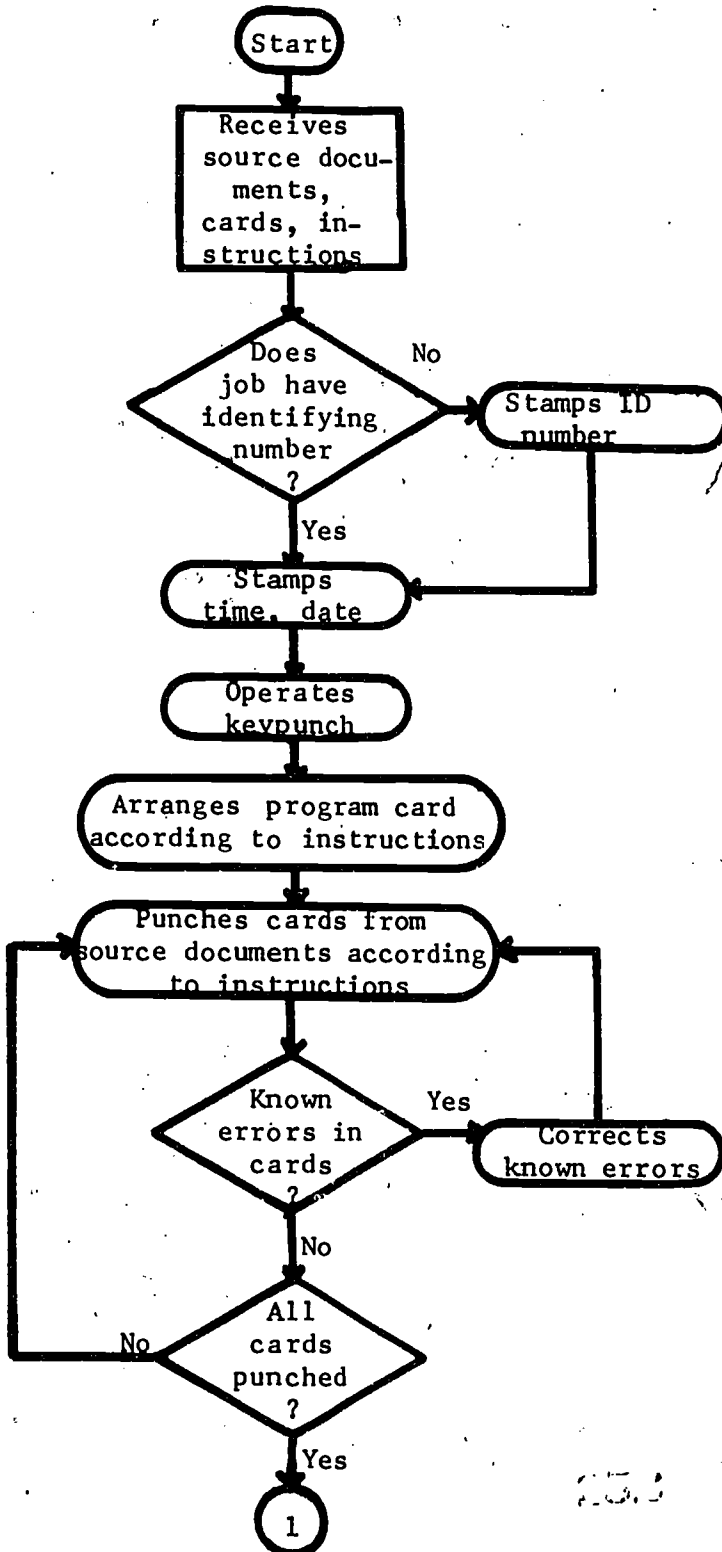
Note: Hardware, Software, Educa-
tional Cues listed here
refer to any/all Performance
Goals in this area.

HARDWARE

Keypunch (printing, other)
Files
Keytape machines

SOFTWARE

Coding sheets
Company source documents
(payroll, accounting, purchas-
ing, production, shipping, re-
ceiving, etc.)
Punch cards
Punch tape

EDUCATIONAL CUES

Operate keypunch/keytape machine
Data Processing terminology,
languages
Accuracy
Speed
Technical terminology (banking,
medical, etc.)
Contends with high-noise level
Organizes work logically

SUPPLEMENTARY STEPS: Pulls proper color coded punch cards; Refers to code book; Punches clock in, out for each new job; Records time spent on each job; Packages finished punched cards; Attaches labels to boxes

REPORTED CRITERIA: "Punches 800-1000 documents daily; Accurate because knows verifier will catch mistakes; Time pressure; Understands tabulating room work flow; 400-500 numerical cards per hour, 300-400 alphabetical cards; Must prepare own program cards; Average day records 40-50,000 keypunching strokes; 1,000 strokes per hour."

06.01.02 THE WORKER OPERATES A VERIFIER.   (40 task sheets)
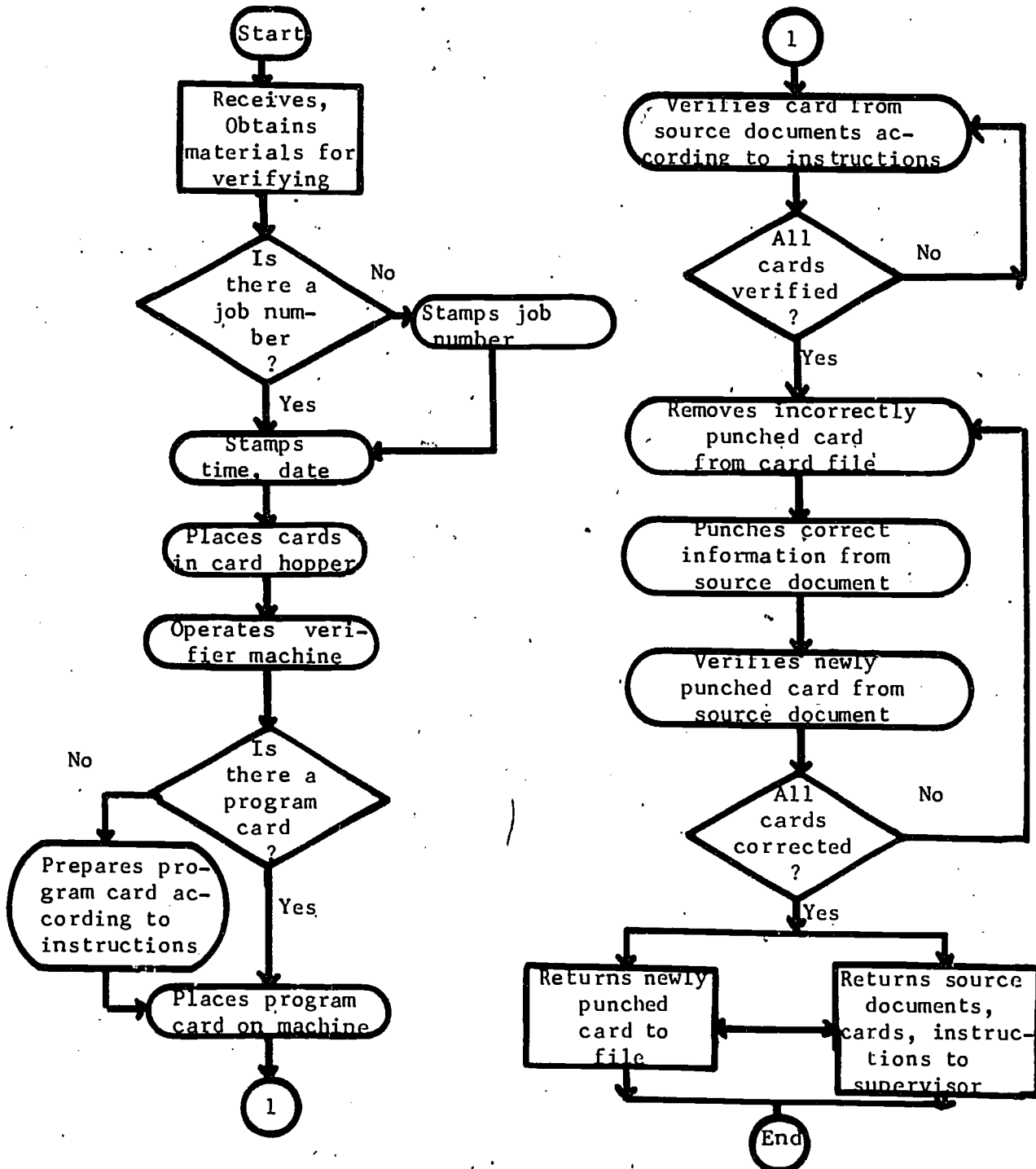
06.01.03   THE WORKER OPERATES A KEYTAPE MACHINE PUNCHING MAGNETIC TAPE.   (8
            task sheets)

06.01.04   THE WORKER PUNCHES CORRECTIONS IN CARDS.   (7 task sheets)

06.01.05   THE WORKER OPERATES OPTICAL SCANNER FOR PAYROLL PRINTOUT.   (2 task
            sheets)

06.01.06   THE WORKER PERFORMS QUALITY CONTROL CHECKS ON THE OPTICAL-FONT
            PRINTING ADDING MACHINE OPERATOR'S TAPE PRODUCTION.   (2 task sheets).

06.01.07   THE WORKER PUNCHES CARDS CODED FOR SCHOOL WITHDRAWAL.   (1 task
            sheet)

06. ELECTRONIC DATA PROCESSING

06.02. Related Electronic Data Processing

06.02.01 THE WORKER CHECKS SOURCE DOCUMENTS SUCH AS
ORDERS, INVOICES, PUNCHED CARDS, AND PRINTOUTS WITH COMPUTER
PRINTOUTS/LISTINGS. (42 task sheets)

Receives punched cards/complete, incomplete source documents/orders/reports/
listings/printouts
Compares source documents with reports/listings
Sorts source documents
Compares computer run totals with control sheet totals
Determines errors and reasons for errors on source documents/printouts
Informs person, department of errors
Requests information for incomplete source documents
Pulls documents from files to complete
Files reports/source documents by job number
Records corrections on source documents, reports, listings
Operates check-signing machine
Punches cards for those with errors
Sends reports, source documents, printouts, listings to originating departments,
Keypunching, customers, Accounting

06.02.02 THE WORKER PERFORMS ELECTRONIC DATA PROCESSING TASKS FROM
SUCH ITEMS AS COMPUTER PRINTOUTS, FILES, ACCOUNTING FORMS,
MANUALS, MAPS, AND INSTRUCTIONS. (22 task sheets)

ACQUISITION
RECEIVES
computer printout of daily production/"paid-in-full" sheet from computer
room/reorder tickets from Data Processing/weekly accumulative computer print-
out of production/basic contract/booklet/claim form/client file/coding manuals/
customer invoice/distribution list/insurance applications/invoices/maps/modi-
fication information/new program documentation/photocopies of report/purchase
order for Data Processing/production control sheet/draft of wire/report/re-
quest for repair/requisition/rough draft of technical write-up/shipping
tickets/symbol instructions/tab listings/work orders/warranty books/tele-
phone inquiries/copies of ID card from computer service/work sheet/pre-
assembled cards

PROCESS
SORTS
cards/purchase, service orders/renewal sheets requisitions
ASSIGNS
number to modification form
PULLS
payment cards/previous month's production report
INSTRUCTS
employees in coding methods, set up of MTST
ANSWERS
student questions

CODES
  claim information/information on application form/job contracts/materials on
  composer/service orders/wire
COMPARES
  invoices with shipping ticket serial numbers/serial numbers with listing of
  card/totals with printout
CHECKS
  master file with new documentation/overdue accounts/students' work/input in-
  formation stock numbers, amounts/units, stock code numbers
REFERS
  to manuals/booklets
COMPUTES
  book value of stamps/requisition groupings/daily report/invoice amounts
CHECKS
  units for tab set
ARRANGES
  repair service schedule
DRAWS
  lines to define areas on map with colored pencil/symbols with typits and
  templates
TYPES
  booklet/draft of write-up/ID card/envelopes from distribution list/information
  on cards from work sheet/invoice information on card/label for card/modifica-
  tion of program/information from production control sheet on liquid process
  master/material on composer, MTST/new program documentation
RECORDS
  computer information on typing request/book orders for service/cross-reference
  invoices, shipping tickets/daily production figures/premium/insurance premium/
  stock numbers/purchase order by vendor, date, price/stock, serial, invoice
  numbers in order book

REMOVES
  outdated cards from bulletin board
STAMPS
  date on each card/"paid-in-full" on payment card
WRITES
  bill for renewal/code on renewal slip/code, date, account number on adding
  machine tape/order prices on invoices/street name, number on card from map/
  unit, code numbers/unit, stock code numbers on requisition
CORRECTS
  purchase order differences
PROOFREADS
VERIFIES
  claim/invoice amounts with reorder tickets
ATTACHES
  bill for payment of premium to file/copy of wire to message/correct forms to
  application/label to card/renewal slip to bill
PLACES
  MTST tapes on machine
ARRANGES
  claims for Keypunching/invoices/cards by street name
COMPILES
  booklet
OBTAINS
  approval of booklet, modification form/draft of publication

DUPLICATES
   program documentation/production report

DISPOSITION

CALLS
   engineer to pick up report
DELIVERS
   cards to another worker, Keypunching/file, typing request to supervisor/final
   copy of report/master to Duplicating/message copies to sender
SENDS
   booklet to print shop/cards to tab room/ID tabs to other departments/purchase
   orders, invoices to Data Processing/invoices to Production/modification form
   to print shop/program documentation to users/renewal slip, bill to Shipping/
   tapes, requisition to Keypunching/teletype
DISTRIBUTES
   booklet/modification form to Personnel/report
FILES
   car cards/current reports/invoices/modification/returned requisitions/shipping
   tickets/warranty booklets/insurance application in client's folder
DESTROYS
   orders from salesman's order book/printout sheet
MAILS
   acknowledgment of claim letter/map, coded cards/copies of report

REPORTED CRITERIA: "Extreme accuracy in totaling; Tact, diplomacy in handling
students; Close checking of printouts as input for draftsman designs; Techni-
cal terminology; Ability to compare numbers; Understand why errors are errors."

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Adding machine (10-key)	Applications/booklet	Coding
Automatic typewriter	Cards	Computational skills
(MTST)	Code book	Duplicating
Bulletin board	Computer printout	Typing (including
Calculator	Contracts/forms	MTST)
Colored pencils	Liquid process masters	
Electrostatic copier	Invoices/maps	
Stamp (paid-in-full)	Modification form	
Slide rule	"Paid-in-full" sheet	
Tapes for MTST	Payment card	
Teletype	Production control sheet,	
Templates	reports	
Typewriter	Purchase order	
Typits	Shipping tickets	

06.02.03   THE WORKER CODES PAYMENT CARDS, CHECKS, AND DEPOSIT/WITHDRAWAL
           SLIPS FOR KEYPUNCHING.   (4 task sheets)

Receives deposit/withdrawal slips, checks, payment cards
Sorts withdrawal, deposit slips
Writes customer account number on deposit slip
Operates microfilmer on deposit, withdrawal slips
Operates encoding machine printing account code on deposit slip
Computes total deposit slips, checks
Checks computations, payment cards
Attaches adding machine tapes to deposit, withdrawal slips

Types form giving totals, deposits, withdrawal slips, bank number, date
Sends deposit, withdrawals, payment cards to Data Processing

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Adding machine (10-key)	Deposit/withdrawal slips	Checking
Microfilmer	Checks	Accuracy
Typewriter	Payment cards	Typing
Encoding machine	Customer account cards	Computational skills
	Adding machine tapes	

REPORTED CRITERIA: "Must have knowledge of savings account, withdrawal
procedures."

06.02.04 THE WORKER MAINTAINS CONTROL OF INPUT/OUTPUT WORK FLOW BETWEEN
          CORPORATE TRUST DEPARTMENT AND DATA PROCESSING DEPARTMENT. (2
          task sheets)

Receives input/output/list of outputs
Checks output for completion, accuracy
Records input in log book
Calls to obtain output delayed
Informs Corporate Trust of delay reason
Delivers input to Data Processing/output to Corporate Trust

06.02.05 THE WORKER CORRECTS COMPUTER REJECTED DEBITS/CREDITS. (2 task sheets)

Obtains daily journal sheet, balance report, savings total
Sorts deposits, withdrawals numerically
Checks savings total sheet for rejected items
Pulls rejected items
Locates error in rejected items
Corrects deposit, withdrawal with encoding machine
Sends rejection items to assistant manager for approval

06.02.06 THE WORKER PREPARES BATCHES OF CHECKS FOR DATA PROCESSING. (1 task
          sheet)

Receives batches of checks
Checks account number/wrinkled checks/checks that do not belong to bank
Operates microfilmer on all checks
Computes totals
Verifies totals
Delivers checks, computation sheet to Data Processing

06.02.07 THE WORKER TYPES CASH LETTERS FOR CHECKS DRAWN ON BANK BUT CASHED
          ELSEWHERE. (1 task sheet)

Receives checks
Checks checks for missing account numbers
Records totals on debit, credit sheet
Codes checks with account number on coding machine
Operates microfilmer on all checks
Places checks in box for Data Processing

06.   ELECTRONIC DATA PROCESSING

06.03. Computer Operation

Note: Hardware, Software, Educational Cues listed here refer to any/all
        Task Statements in computer operation tasks.

HARDWARE

IBM 1401, 1440, (360/30, 40, 50, 65-67),
    2701-2702-2741
Teletype 033-035, 1050
Decollator
Keypunch IBM 029
Burster
Converter
Data speed machine
Tape punch, reader, printer
Honeywell 1400, 2200
Check sorter (IBM 803)
Burroughs 2500, 3500, 6500
Stapler
Emulater 7044
NCR 395
UNIVAC

SOFTWARE

Punched cards
Paper tape
Magnetic tape
Computer operations manuals
Machine usage log
Source documents, i.e., payroll,
    financial, production

EDUCATIONAL CUES

Organizes work
Observes schedules
Operates hardware
Technical language

06.03.01   THE WORKER OPERATES REPRODUCER FROM PUNCH CARDS, PRINTED LISTS,
           AND SUMMARY CARDS. (35 task sheets)

Receives punch cards from Keypunching/tape from library
Checks work request card describing job
Obtains punched program card deck from file in Data Processing
Checks instructions on program card deck
Places program card deck in computer with the input (keypunch cards needed for
    the job)/tapes in computer
Checks machine for correct printout paper, keypunch cards, carriage tape,
    signal switch (which indicates if previous job is completed)
Operates start button on card reader for computer
Checks control panel for indication job is completed
Removes printed output paper/punched cards/labels/paper, magnetic tapes/output
Delivers output (printed output paper, punched cards) from computer to job
    requester
Files computer program keypunch card deck numerically in computer center

SUPPLEMENTARY STEP: Checks to see what went wrong--card jams, computer unable
to read particular card--if computer halts in the middle of a job

REPORTED CRITERIA: "Must be able to follow a set procedure on a computer;
Jobs must be run to satisfaction of individual bringing job to computer;
Decides which jobs to run first; Must re-run jobs containing errors."

06.03.02   THE WORKER OPERATES (DECOLLATES, BURSTS, BINDS) COMPUTER OUTPUT.
           (6 task sheets)

Determines date report to reach customer when completed by computer
Operates machine to decollate (remove carbon paper)/for bursting (separating
  pages)
Operates book binders

06.03.03   THE WORKER PLACES MAGNETIC TAPES ON A COMPUTER TAPE DRIVE.   (4 task
           sheets)

Receives instructions from computer operated typewriter when magnetic tape is
  required for job being run
Obtains correct tape from tape librarian on computer instructions
Places tape on tape drives
Types start-up message on console
Receives message on typewriter when computer is finished with tape
Removes tape from tape drive
Delivers tape to library to be logged

REPORTED CRITERIA: "Must move fast and get the right tapes on at the proper
time in order not to delay the computer; Must understand the technical language
and terms printed by the computer."

06.03.04   THE WORKER PREPARES WEEKLY PAYROLL FROM PAYROLL TAPES.   (4 task
           sheets)

Receives tapes
Places tapes on tape drives on computer
Receives balanced punched card containing changes
Places punched cards in hopper
Operates machine to start records tape on payroll number
Removes cards from computer
Places cards in tray for Payroll
Operates machine to sort record tape in employee sequences, to update master
  payroll records, to generate payroll check tape
Removes payroll check tape/all tapes
Delivers payroll check tape to another computer to write checks/tapes to library

06.03.05   THE WORKER VERIFIES MANUALLY PREPARED TOTALS WITH COMPUTER DETAILED
           TOTALS.   (4 task sheets)

06.03.06   THE WORKER OPERATES ELECTRONIC COMPUTER AND PERIPHERAL EQUIPMENT.
           (3 task sheets)

Checks schedule of customers for shift's processing
Discusses special instructions/techniques with customers/programs when required
Receives turnover of jobs in process from first shift operator
Checks area for cleanliness/Input, Output devices for satisfactory operation/
  programmed operating instructions for correct input to computer, peripheral
  equipment

06.03.07   THE WORKER SORTS BATCHES OF CHECKS.   (2 task sheets)

<u>Obtains</u> batches of checks on trays/check divider tickets (sub-totals of each
  batch)/cash letters indicating end of blocks
<u>Writes</u> program
<u>Places</u> checks in sorter by block
<u>Packages</u> checks
<u>Places</u> bundles in trays by bank of origin, code
<u>Delivers</u> trays, cash letters to Outgoing Batching Department
<u>Requests</u> cash letter from computer at end of day
<u>Operates</u> computer to clear

06.03.08   THE WORKER PREPARES PUNCHED CARDS FOR COMPUTER RUN.   (2 task
           sheets)

06.03.09   THE WORKER DETERMINES COMPUTER MALFUNCTION BY RUNNING DIAGNOSTICS.
           (2 task sheets)

06.03.10   THE WORKER DETERMINES ACCURACY OF DATA SPEED MACHINE SENDING
           INSTALLATION.   (1 task sheet)

06. · ELECTRONIC DATA PROCESSING

06.04.   Coding

06.04.01   THE WORKER CODES FORMS SUCH AS PURCHASE ORDERS, INVOICES, AND APPLI-
           CATIONS FOR KEYPUNCHING. (45 task sheets)

<u>Receives</u> budget figures/purchase orders/loan application forms/resumes/work
   orders/policy cancellations/new customer accounts/invoices/bank notes/charge
   payments/deposits/withdrawals
<u>Computes</u> number to be coded
<u>Determines</u> appropriate code by·checking.manual, listing, geographical location
<u>Writes</u> code on source document/coding sheet
<u>Sorts</u> source·documents
<u>Photocopies</u> coded invoice/purchase orders
<u>Delivers</u> purchase orders to Auditing/source documents to originating depart-
   ment/coded material to Keypunching .

SUPPLEMENTARY STEPS: Determines new code if necessary; Adds to master code;
Types index cards; Records printout data in journal; Calls originating depart-
ment for missing code; Stamps date, time on source documents received; Codes
computer program from flowchart

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Coding pencils	Coding sheets	Checking, completeness
Typewriter	Business source	Coding
Adding·machine (10-key)	documents	Penmanship
Coding machine	Coding manuals	Typing
	Coding listings	Good memory
		Specialized termin-
		ology (insurance)

REPORTED CRITERIA: "Accuracy checked as computer will reject errors; Good
proofreading; Data must be sorted properly before it can be coded; Quality
of work and not quantity is important; Codes 15 to 50 budget documents daily
each taking 1-3 minutes."

CODING CRITICAL INCIDENTS

"Initially, the worker misread the codebook and miscoded some new loans. The
loans were rejected by the computer and the error had to be corrected."

"In coding a re-insurance entry, the worker found the policy incorrectly written,
notified supervisor, and saved a lot of error time.".

"Because an order for a large quantity of merchandise was coded incorrectly,
the incorrect merchandise was returned at company expense."

"Transposing just two numbers in a code tied us up all day."

06.   ELECTRONIC DATA PROCESSING

06.05.   <u>Sorting, Interpreting, Collating, Reproducing, and Tabulating</u>

Note: Hardware, Software, Educational Cues listed here refer to any/all Task
Statements in Sorting, Interpreting, Collating, Reproducing, and Tabulating.

<u>HARDWARE</u>	<u>SOFTWARE</u>
IBM 029 card punch	Punched cards
083, 83, 804 sorter	Equipment operations manual
557 interpreter	Tape
519 reproducer	Source documents
188 collator	Magnetic disks
402 accounting machine	
1287 optical scanner	<u>EDUCATIONAL CUES</u>
Flexowriter	
Control boards	Operating unit record equipment
	Data processing terminology

06.05.01. THE WORKER OPERATES UNIT RECORD EQUIPMENT SUCH AS THE SORTER, RE-
PRODUCER, COLLATOR, AND INTERPRETER.   (22 task sheets)

<u>Receives</u> punched cards/instructions
<u>Records</u> job number, time on machine usage form, personal activity form
<u>Arranges</u> wiring of panel   or
<u>Places</u> prewired panel in unit record equipment/punched cards, blank cards in
unit record equipment/punched cards in boxes, bundles, batches
<u>Operates</u> machine
<u>Records</u> time in machine usage log/form/time card

<u>SUPPLEMENTARY STEPS</u>:   Mails sorted cards to salesmen; Places heading card in
front of deck; Unmatched cards (collator operation) must be checked; Punches
card for new account; Duplicates non-sortable cards on reproducer

<u>REPORTED CRITERIA</u>:   "Must keep keypunch card files separate for each job, must
complete jobs quickly to free machine for other operators; Must make decisions
on job priorities; Completes all work daily; Must have technical vocabulary."

06.05.02   THE WORKER CODES FORMS SUCH AS ACCOUNT STATEMENTS, PRODUCTION
FIGURES, INVENTORY LISTINGS, PUNCHED CARDS, WIRED OR UNWIRED BOARDS
FOR KEYPUNCHING.   (5 task sheets)

06.05.03   THE WORKER OPERATES OPTICAL SCANNING EQUIPMENT TO CONVERT PRINTED
DATA TO PUNCHED DATA.   (4 task sheets)

06.05.04   THE WORKER ADJUSTS ERRORS ON COMPUTER INPUT TAPE.   (1 task sheet)

06.   ELECTRONIC DATA PROCESSING

06.06.   Computer Programming

06.06.01   THE WORKER WRITES COMPUTER PROGRAMS.   (18 task sheets)

```
                    ( Start )
                       |
                       v
            +---------------------+
            | Receives verbal,    |
            | written instruction |
            | from lead operator, |
            | customer,           |
            | supervisor          |
            +---------------------+
                       |
                       v
            (  Checks suggestions  )
            (  for program/        )
            (  requested outputs   )
                       |
                       v
            ( Draws block diagram, )
            (     flowchart        )
                       |
                       v
              (   Writes on    )
              ( coding sheet   )
                       |
                       v
                   / Keypunch \      No        ( Sends coding   )
                  (     ?      )-------------->(   sheet to     )
                   \          /                ( Keypunching    )
                       |                                |
                      Yes                               |
                       v                                |
            ( Delivers program, instruc- )<-------------+
            ( tion card to computer,     )
            ( program tester to compile  )
                       |
                       v
            ( Receives printed instruc-  )
            ( tion card, program printout)
                       |
                       v
                   /  Errors  \      No
          +-------(     ?      )---------------+
          |        \          /                |
          |            |                       v
          |           Yes              +--------------------+
          |            v               | Delivers printout, |
          |     (  Corrects  )         | instruction cards, |
          |     (  program   )         | program deck to    |
          |            |               | lead operator,     |
          |            v               | supervisor         |
          |  ( Returns corrected )     +--------------------+
          +--( program to computer)             |
                                                v
                                             ( End )
```

06.06.02   THE WORKER CHECKS COMPUTER PROGRAMS. (4 task sheets)

<u>Receives</u> program without error from Computer Operations
<u>Obtains</u> data sample (to be used when program is in operation. [If there is no
   data sample, programmer makes up data that is like actual.])
<u>Checks</u> that data covers all conditions possible
<u>Sends</u> program, data to computer for test run
<u>Tests</u> data on computer (until satisfied it works correctly) .
<u>Corrects</u> error

06.06.03   THE WORKER WRITES COMPUTER PROGRAM IN FINAL FORM.   (3 task sheets)

<u>Receives</u> working program
<u>Writes</u> operating instructions for Computer Operations by filling in preprinted
   forms on when, how program to be run on computer, i.e., where to get input,
   how often to run, etc.
<u>Writes</u> explanation of purpose of program
<u>Draws</u> flowchart
<u>Delivers</u> to supervisor

06.06.04   THE WORKER ADJUSTS PRESENT COMPUTER PROGRAMS.   (1 task sheet)

<u>Receives</u> request to make change from supervisor
<u>Discusses</u> method of accomplishing request with supervisor
<u>Codes</u> approved solution
<u>Runs</u> solution <u>through</u> to test
<u>Corrects</u> solution
<u>Writes</u> change

06.06.05   THE WORKER PUNCHES PRESCRIBED PROGRAM CHANGES FOR NEW COMPUTER.
           (1 task sheet)

<u>Receives</u> number of program to be changed from supervisor
<u>Pulls</u> program from file
<u>Checks</u> list of changes to make
<u>Codes</u> changes on program coding sheet
<u>Punches</u> changes on punch cards
<u>Sends</u> punched cards to keypunch operator
<u>Places</u> new cards on computer
<u>Pulls</u> old cards
<u>Delivers</u> to computer operator
<u>Files</u> program with changes by program number

06.06.06   THE WORKER ARRANGES A TIME SCHEDULE FOR A NEW COMPUTER PROGRAM.   (1
           task sheet)

<u>Receives</u> request to write program from supervisor, department
<u>Arranges</u> time schedule for steps to be taken in preparing program
<u>Writes</u> tentative time schedule
<u>Sends</u> time schedule to supervisor

07. PERSONNEL

07.00.01   THE WORKER PROCESSES EMPLOYMENT APPLICATIONS.   (68 task sheets)

```
        ┌─────────┐
        │  Start  │
        └────┬────┘
             ▼
      ┌──────────────┐
      │   Receives   │
      │  applicant/  │
      │ applications │
      └──────┬───────┘
             ▼
      ( Delivers job informa- )
      (   tion to applicant   )
             │
             ▼
      ( Obtains completed applica- )
      (     tions/job forms        )
             │
             ▼
           ( Calls )
           ( references )
             │
             ▼
      ( Checks application )
      ( accuracy, completeness )
             │
             ▼
      ( Stamps, sorts )
      ( applications )
             │
             ▼
         ◇ Duplicate ◇  Yes
         ◇ application ◇ ──────► ( Duplicates )
         ◇    ?     ◇            ( applications )
             │ No                     │
             ▼                        │
      ( Types job applica- ) ◄────────┘
      (   tion responses   )
             │
             ▼
        ( Proofreads )
             │
             ▼
        ( Arranges )
        ( interviews )
             │
             ▼
      ( Informs, Sends )
      (  job applicants )
             │
             ▼
      ( Compiles job )
      ( applicant file )
             │
             ▼
           ( 1 )
```
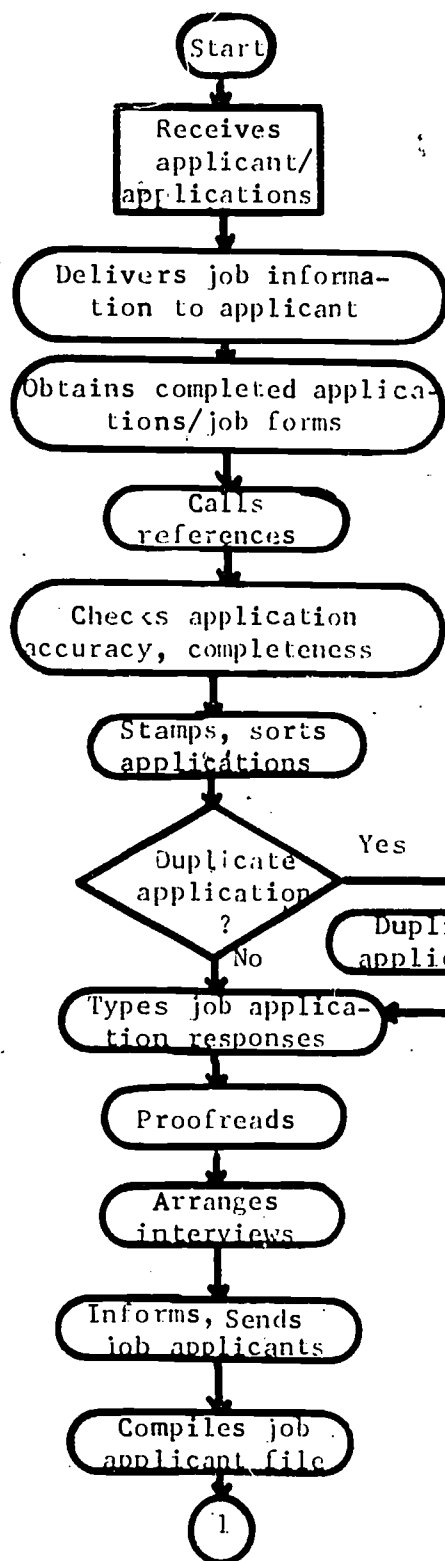
ACQUISITION
RECEIVES
   request for application form/resumes/
   oral information to write letters/
   reference forms/visitors

PROCESS
DELIVERS
   application to applicant/life insur-
   ance, ID card/medical, W4 form/in-
   formation regarding job openings,
   office hours/personnel security
   questionnaire
OBTAINS
   completed application form/list of
   references/results of previous day's
   physicals/application file, card
CALLS
   references for verification
CHECKS
   application form for completeness/
   eligibility/classification/file for
   previous application, codes/coded
   number, name of reject/printout for
   information on employee/type of work
   requested
STAMPS
   date on application
SORTS
   applications
DUPLICATES
   verification of employment/applica-
   tions
TYPES
   labels/response to application letter/
   report-for-duty, pass cards/payroll
   authorization/reject letters on MTST/
   personal data card/reference rating
   sheet/teaching permit/contracts/re-
   ferences
ARRANGES
   interviews/physical examinations
INFORMS
   applicants who did not pass physical
   examination
SENDS
   applicants to interview area
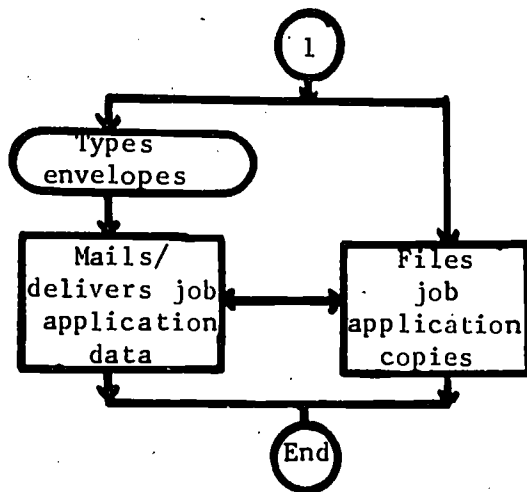
SUPPLEMENTARY STEPS: Obtains
fingerprints of employee;
Photographs employees; Deter-
mines mail weight

RECORDS
   date mailed/reference sent, to whom/
   physical examination on card/inter-
   view information
COMPILES
   files on applicant
ATTACHES
   label to folder/references to application

DISPOSITION

FILES
   application form/copy of letters/card,
   copy of teacher's contracts
MAILS
   form rejection letter/request to appear
   for interview
DELIVERS
   application to interviewer/physical
   examination form to supervisor
REFERS
   client to another office

HARDWARE

Duplicator
Typewriter
MTST
Telephone

SOFTWARE

Application forms
Envelopes
Job opening/rejection
   form letters
Labels for files
Salary schedule
Computer printouts

EDUCATIONAL CUES

Duplicating
Typing
Filing (alphabetically)
Checking
Proofreading
Operation of MTST
Communication skills
Medical terminology

REPORTED CRITERIA: "Courteous; Gives correct instructions; Must type 45 wpm
on electric typewriter; Good judgment; Detailed work; Must be able to spot
errors or omissions; Tact; Handle different situations well; Reword form
letter if necessary; Check details carefully; No confidential information
sent; Pleasant; Keep up to date."

07.00.02   THE WORKER UPDATES PERSONNEL FILES FROM CHANGES RECEIVED. (54 task
           sheets)

ACQUISITION

RECEIVES
   approved employment, changes of status, address forms/mail/insurance claims/
   form requesting information on termination/notice employee has been sent to
   job/tuition refund application from employee/employee lists/telephone infor-
   mation/memo to update overhead files, personal directory/computer sheets of
   changes/visitor/materials to be filed/ activity tickets of contract people

PROCESS

SORTS
   mail/insurance claims alphabetically
COMPILES
   file on new employee

CHECKS
   employment form/effective insurance date/with customer to see if worker
   arrived on job/personnel record/grades/tuition/to see if employee is doing
   job-related task/computer sheets for initials, date, and termination/files
   for desired information/benefits, insurance information for visitor/auto-
   matic salary increase/activity tickets
UPDATES
   status cards/departmental moves records/forms/overhead file/personnel
   directory/clock number
RECORDS
   personnel, insurance changes/personal, new employee data/information on
   personnel record/changes from computer sheets
WRITES
   certifications for insurance claims/refund amount/contract information in
   notebook
TYPES
   insurance claim forms/personnel report listing workers, hours/payroll, over-
   time/salary review forms/new time cards/address changes/job classification
   card/personnel history card/labels for folders/personnel changes
DUPLICATES
   forms on termination information

                              DISPOSITION
DELIVERS
   change notice to Addressograph/activity tickets to Keypunching/change notices
   to Payroll/refund form to supervisor/computer sheets of change to Payroll/
   information to employee regarding salary increase
DISTRIBUTES
   mail/salary review forms to department heads
FILES
   copies of termination information form/certification for claims/course ap-
   proval form/personnel history card/employee folder/insurance change report/
   miscellaneous documents
MAILS
   approved employment, termination information forms/claim check to employee

SUPPLEMENTARY STEP: Calls employee with highest seniority to report for work;
Stamps date on forms received

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Personnel cards, lists	Typing
Duplicator	Personnel directory	Duplicating
Hand stamp		Checking
Files		Filing
		Proofreading

REPORTED CRITERIA: "These records must be kept up to date; Accurate records
on each employee; Courtesy; Follow through on details; Great tact; Control tem-
per; Ability to retain knowledge of changes; Knowledge of insurance policies."

07.00.03 THE WORKER ARRANGES ORIENTATION OF NEW EMPLOYEES. (37 task sheets)

Start

Receives orientation data

Checks orientation training

Receives trainees

Operates camera

Arranges orientation

Instructs trainees in office procedures

Distributes orientation materials

Assigns, checks trainees' work

Obtains employment, personnel forms

Types employment forms

Mails insurance forms

Files orientation records

Delivers orientation personnel data

End
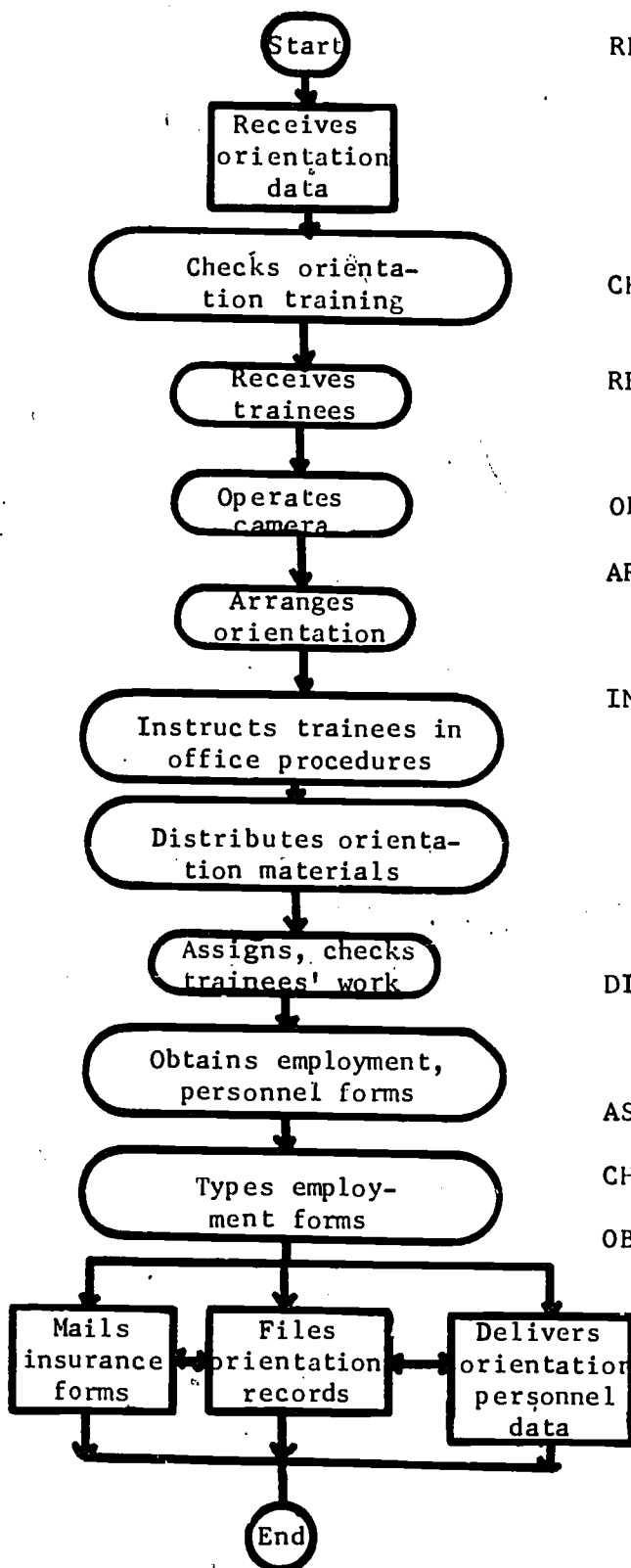
ACQUISITION
RECEIVES
applications/employees/salary card/educational course information on courses to be offered for company personnel/calendar of training sessions/instructions to prepare orientation

PROCESS
CHECKS
supplies for trainees/orientation programs
RECORDS
employment dates/employee data on plaque for photograph/personal information for personnel file
OPERATES
camera to photograph trainees
ARRANGES
new employee schedules for orientation/trainees in sections/rooms for teaching hotel management, maintenance courses
INSTRUCTS
employees in telephone techniques/10-key adding machine/order writing/envelope typing/mailing procedures/technical language/uses, locations of office forms, files/format for reports, correspondence/switchboard operation/company policy, W4 forms, insurance program, employment forms, reference manuals
DISTRIBUTES
booklets of rules, regulations/oath of office card/employment forms/packets of trainee materials/work to trainees
ASSIGNS
sample, regular work
CHECKS
trainees' sample, work for first 4 months
OBTAINS
employees signature/completed employment forms/birth certificate/transcripts/approval on manual revisions
TYPES
insurance enrollment card/list of insurance enrollees/employment forms/training manuals/schedule of courses to be offered/fluid process masters on notification of courses offered

REPORTED CRITERIA: "Pleasant, should be able to make decisions whether appli-
cant should be tested; Make applicant feel at ease; Skilled in interpersonal
relations; Appear calm, high degree of flexibility in handling people and
different situations and problems; Patience, common sense required."

07.00.05 THE WORKER TYPES PERSONNEL REPORTS FROM SUCH DOCUMENTS AS PERSONNEL
LISTS, APPOINTMENT CARDS, AND ROUGH DRAFTS. (35 task sheets)
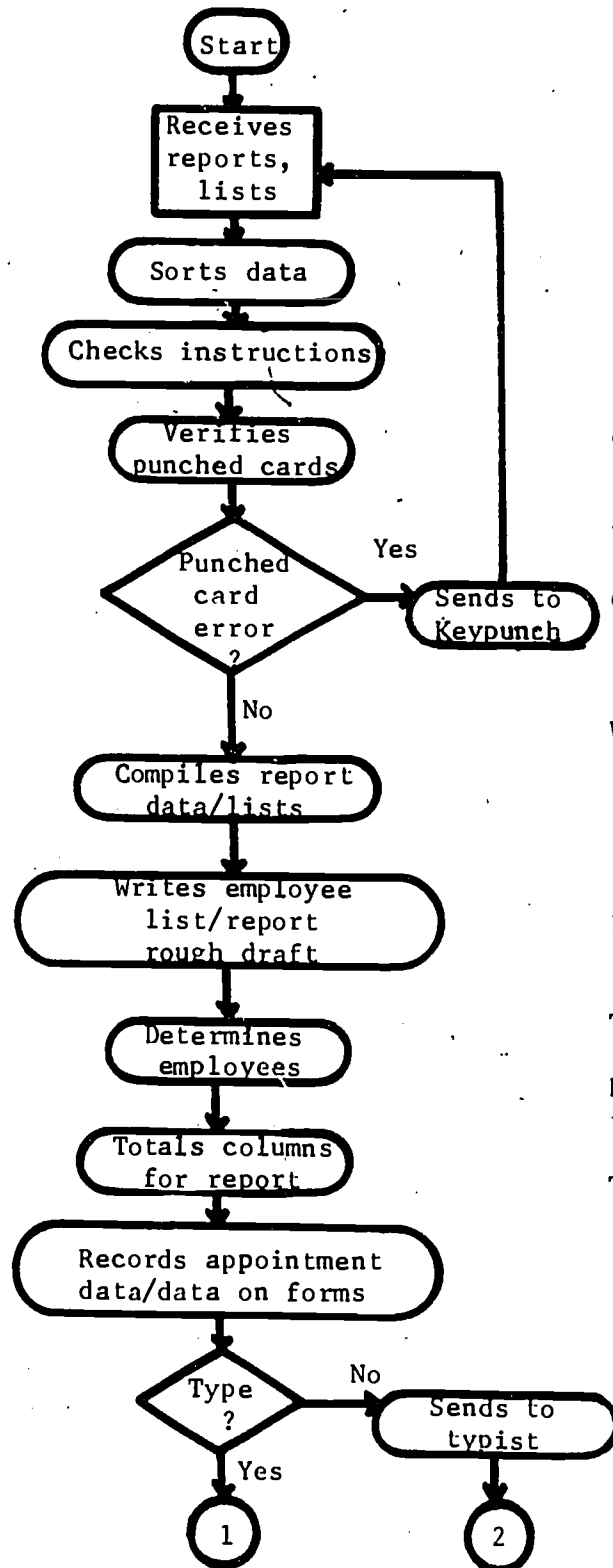
ACQUISITION

RECEIVES
written information/list of person-
nel, new personnel appointments/
rough drafts/oral instructions/
punched cards on new appointments/
population count/daily log/quarterly
overtime, injury, turn-over reports/
transfer termination

PROCESS

SORTS
by department, sex, number sick days,
absences
CHECKS
instructions/permanent record cards/
number copies needed
VERIFIES
punched cards
COMPILES
data for report/monthly report of
significant accomplishments/vaca-
tion list/activity report
WRITES
names of employees due evaluation/
rough draft of report/keypunch in-
structions on new appointment sheet/
order form for duplication/accident
safety, daily activity reports
DETERMINES
employees hired, resigned, laid off
during the month
TOTALS
columns for report
RECORDS
data from new appointment sheet/popu-
lation data on manpower count form
TYPES
retirement, oath of office lists/re-
ports/letters/list of employees to
be evaluated/weekly payroll changes/
ditto, stencil list of employee's
personal data/master lists/memo not-
ing changes in population count/in-
jury, activity, overtime reports/
safety memo/accident summary/retro-
active payroll
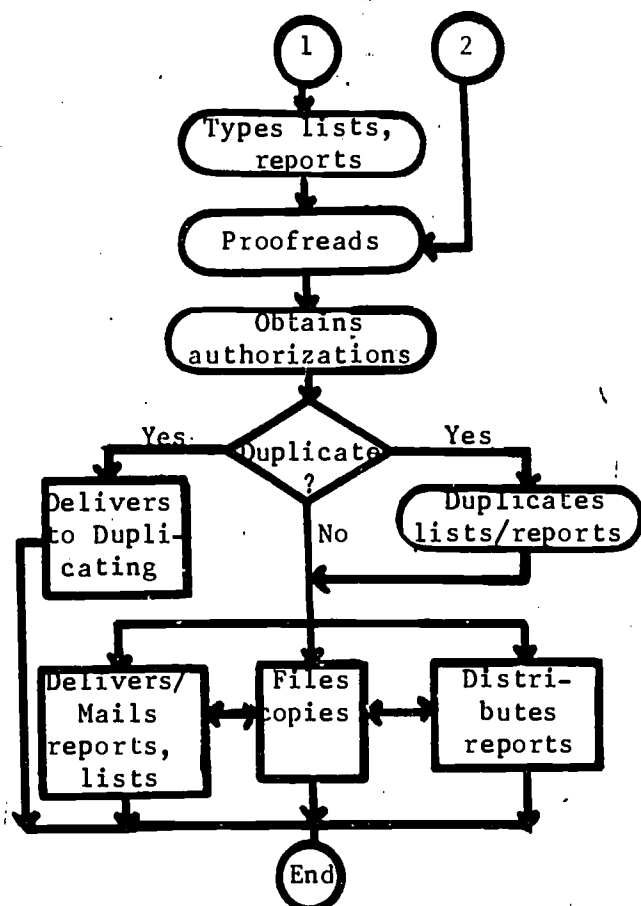
OBTAINS
  signature of doctor, nurse on in-
  jury report
DUPLICATES
  population count/employee personal
  data list/memos/injury, activity
  reports
                DISPOSITION
DELIVERS
  stencils to duplicating/final report
  to dean/evaluation list to supervi-
  sor/report to project manager/appoint-
  ment sheets to Keypunching/safety
  report to main office
DISTRIBUTES
  administrative, injury reports
MAILS
  reports/letters/original injury,
  physicians, activity reports
FILES
  master list of personnel data/new
  appointment sheets/copy of injury,
  activity, turn-over reports

SUPPLEMENTARY STEP: Microfilms
Personnel documents

SOFTWARE	HARDWARE
Punched cards	Typewriter
Masters for	Duplicator
duplication	Blueprint, adding
	machines

EDUCATIONAL CUES

Proofreading	Accuracy
Typing	Checking
Duplicating	Computational skills

REPORTED CRITERIA: "Typing accuracy valued over speed; Accuracy very important;
Correct paychecks received by personnel; Typing ability required 40-50 wpm on
electric typewriter; Accuracy in work with numbers is a must; Pressure of dead-
lines, strictly confidential with information; Legible handwriting; Tact."

07.00.06   THE WORKER TYPES PERSONNEL LETTERS, FORMS, AND CARDS FROM DOCUMENTS
           SUCH AS ROUGH DRAFT LETTERS, EMPLOYMENT FORMS, AND CLAIM FORMS.   (25
           task sheets)
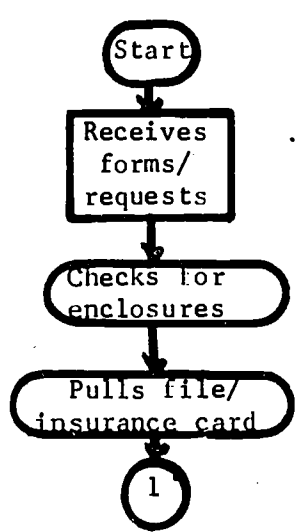
                        ACQUISITION
RECEIVES
  recreation information/printouts/employ-
  ment, insurance claim forms/telephone
  request/insurance check/accident report/
  rough draft of letters/application/oral
  instructions
                        PROCESS
CHECKS
  for enclosures/number of carbons/length
  of letter
PULLS
  file/insurance card
COMPLETES
  accident report form/medical ID slip
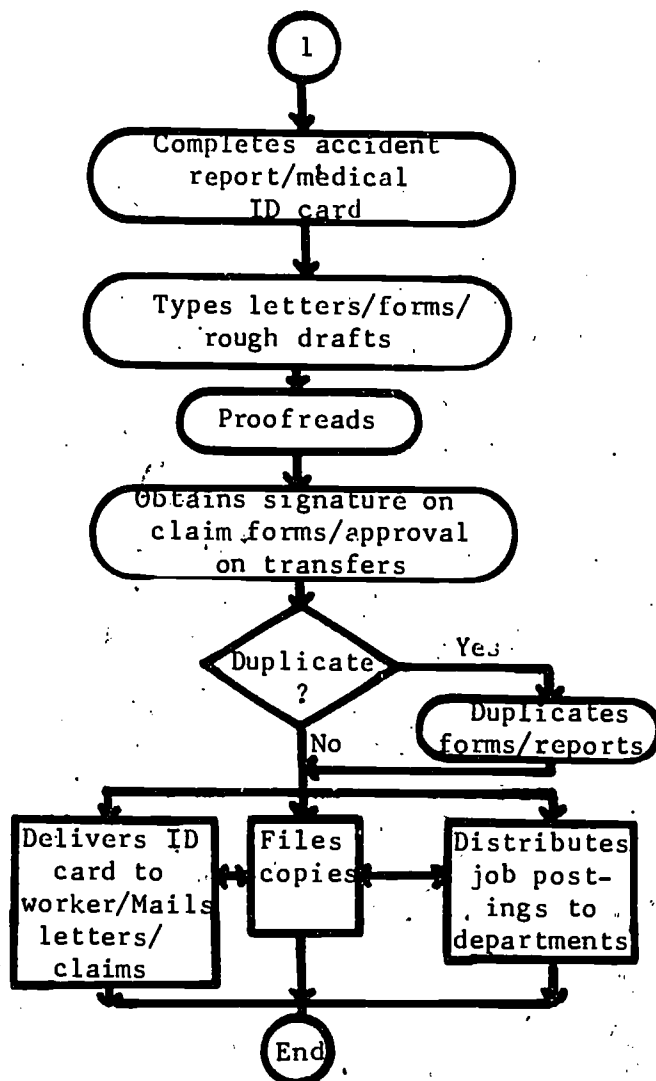
TYPES

claim information/telegram/status, employment forms/reject letters/letters/injury report/employment forms/ rough drafts/separation notices/notice of company recreation activity/ forms for use in Personnel i.e., purchase orders, memos/weekly time, roster cards/transfer information/salary payment forms

PROOFREADS

OBTAINS

signature on claim, insurance, injury forms/approval on transfer forms

DUPLICATES

claim forms/injury report/transfers

DISPOSITION

DELIVERS

medical ID to worker/notices, job postings for bulletin board/new time cards

MAILS

claim form to insurance company/insurance claim check/letters/separation notice to Payroll

FILES

transfer, claim forms/hospital bill/ injury report/letters

Flowchart:

1 → Completes accident report/medical ID card → Types letters/forms/rough drafts → Proofreads → Obtains signature on claim forms/approval on transfers → Duplicate?

- Yes → Duplicates forms/reports
- No → Delivers ID card to worker/Mails letters/claims | Files copies | Distributes job postings to departments → End

---

SUPPLEMENTARY STEPS: Stamps time on claims; Types dictated materials; Receives dictation; Draws bar graph for job salary studies

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Letters	Typing
Duplicator	Claim forms	Filing
Hand stamp	ID cards	Checking
	Checks	Accuracy
		Neatness
		Shorthand, transcription

REPORTED CRITERIA: "Accurate information sent as soon as possible, neat letters and erasures; Good English skills required; Ability to compose interesting notices from rough drafts; Close attention to detail; Drafting ability; Interpretation of information from statistics to graph."

07.00.07   THE WORKER COMPILES PAYROLL INFORMATION FROM ABSENTEE REPORTS, UNION CARDS, AND REQUESTS FOR LEAVE. (23 task sheets)

ACQUISITION

RECEIVES

telephone call from ill employee/department, absentee reports/time, attendance, union cards/employee moving expenses/operations cards of time worked per job, amount to be paid/notification of pay rate change/payroll questions/ salary deduction form/request for leave/termination notice

PROCESS

INFORMS
  department manager of employee absence
PULLS
  personnel record, ID payroll punched cards/manual of procedures/applicant
  separation folder
CHECKS
  number of leave days/overtime/payroll punched card with operations cards/
  job title with wage/personnel, attendance records/completion of salary deduc-
  tion form
WRITES
  employee name, badge number, department, payroll number, address, last day
  worked on form
RECORDS
  date, reason for absence/holidays/overtime/employee name/taxable portion of
  moving expenses/time sheet information/request for payroll adjustment/date
  of return from leave/personnel change notice
TYPES
  employee information on cover sheet, tab of folder/leave slip/report of non-
  taxable items/rate change, absentee forms/disciplinary letter/appointment,
  termination notice
OBTAINS
  attendance, adjustment sheets/approval of rate changes

DISPOSITION

DISTRIBUTES
  disciplinary letters to department head/personnel papers for signatures
DELIVERS
  union dues deduction card, time attendance cards to Payroll/adjustment sheet/
  payroll deduction form
FILES
  employee folder/time, matched operations, ID payroll punched cards/copy of
  rate change/union cards/leave of absence, termination forms/copy of proba-
  tionary forms
MAILS
  rate changes/adjustment forms/probationary forms to employee

SUPPLEMENTARY STEP: Compiles folder of ill employee

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Employee folders	Typing
Telephone	Leave slip	Filing (numerical,
Hand stamp	Personnel forms, cards	alphabetical)
		Checking
		Accuracy

REPORTED CRITERIA: "High degree of accuracy; Know company policy; Pressure;
Cooperative attitude; Patience, understanding; Work under pressure."

PERSONNEL CRITICAL INCIDENT

"The worker wrote too much personal information on a verification of employment
form to be sent to another company. It is our policy only to answer certain
questions on these forms; not to give any financial information on the employee."

07.00.08   THE WORKER COMPILES NEW EMPLOYEE PERSONNEL DATA FROM EMPLOYMENT FORMS,
QUESTIONNAIRE WORK SHEETS, AND APPLICATIONS.   (21 task sheets)

ACQUISITION

RECEIVES
employment forms/copy of application/authorization for security clearance/
questionnaire worksheet/employment verification request

PROCESS

CHECKS
for accuracy/confirmation of employment/references
TYPES
employment forms, i.e., tax, personal record change card, insurance, ID
card/master index, salary history, time cards/labels for files/list of new
hirees/employee status sheets/absentee record/retirement, eligibility forms
RECORDS
personal data/date of application/medical approval/attendance record card
CODES
benefits
DUPLICATES
application, insurance forms
COMPILES
new employee folder
ATTACHES
label to new employee folder with name, number

DISPOSITION

DELIVERS
birth certificate/diploma/car stickers/ID card to employee
SENDS
applications/folders to Payroll
FILES
completed employment forms/master index, insurance card/rejected applications/
employee folder/reports

SUPPLEMENTARY STEPS: Punches card for
Data Processing; Assigns time clock
number to new employee

REPORTED CRITERIA: "Good appearance,
tact; Check details; Extreme accur-
acy; Ability to follow through;
Check information carefully."

SOFTWARE   HARDWARE

Code book   Typewriter
Labels   Duplicator
Forms
Job applications

EDUCATIONAL CUES

Typing   Filing
Checking   Coding

PERSONNEL CRITICAL INCIDENTS

"Some applicants are hesitant about entering the agency. This particular
worker makes them feel welcome, at ease, and is particularly gracious in ans-
wering their questions. Once she made a highly specialized, mature applicant
feel welcome, so that the applicant stayed, was interviewed, and was later sent
on a very difficult-to-fill position which worked out very well for company,
customer, and employee."

"At times this employee has sent out letters she had typed "Mrs." instead of
"Mr." These were sent to very important people causing much embarrassment for
the Personnel Office."

07.00.09   THE WORKER ARRANGES TRAVEL. (15 task sheets)

```
                    ┌─────────┐
                    │  Start  │
                    └─────────┘
                         │
                    ┌─────────┐
                    │Receives │
                    │  trip   │
                    │ request │
                    └─────────┘
                         │
         Yes        ╱─────────╲
      ┌────────────╱  Agency   ╲
      │            ╲     ?     ╱
 ┌─────────┐        ╲─────────╱
 │  Calls  │             │ No
 │ agency  │             │
 └─────────┘        ┌─────────┐
      │             │ Checks  │
      │             │plane    │
      │             │schedules│
      │             └─────────┘
      │                  │
      │             ┌─────────────────┐
      │             │Calls airline,   │
      │             │hotel, motel for │
      │             │reservations     │
      │             └─────────────────┘
      │                  │
      │             ┌─────────────┐
      └─────────────│  Requests   │
                    │accommodations│
                    └─────────────┘
                         │
                    ┌─────────────┐
                    │ Determines  │
                    │travel       │
                    │conveniences │
                    └─────────────┘
                         │
                    ┌─────────────┐
                    │  Obtains    │
                    │confirmation │
                    └─────────────┘
                         │
                    ┌─────────────┐
                    │Informs      │
                    │traveler of  │
                    │arrangements │
                    └─────────────┘
                         │
                    ┌─────────────┐
                    │Types check/ │
                    │confirmation/│
                    │itinerary    │
                    └─────────────┘
                         │
                    ┌─────────────┐
                    │  Receives   │
                    │  tickets    │
                    └─────────────┘
                         │
      ┌──────────────────┴──────────────────┐
 ┌─────────┐                                 │
 │ Types   │                                 │
 │envelopes│                                 │
 └─────────┘                                 │
      │                                      │
 ┌─────────┐                          ┌─────────┐
 │ Mails/  │                          │ Files   │
 │delivers │◄────────────────────────│ travel  │
 │check/   │                          │ form    │
 │travel   │                          │ copies  │
 │forms    │                          └─────────┘
 └─────────┘                               │
      └──────────────────┬─────────────────┘
                    ┌─────────┐
                    │   End   │
                    └─────────┘
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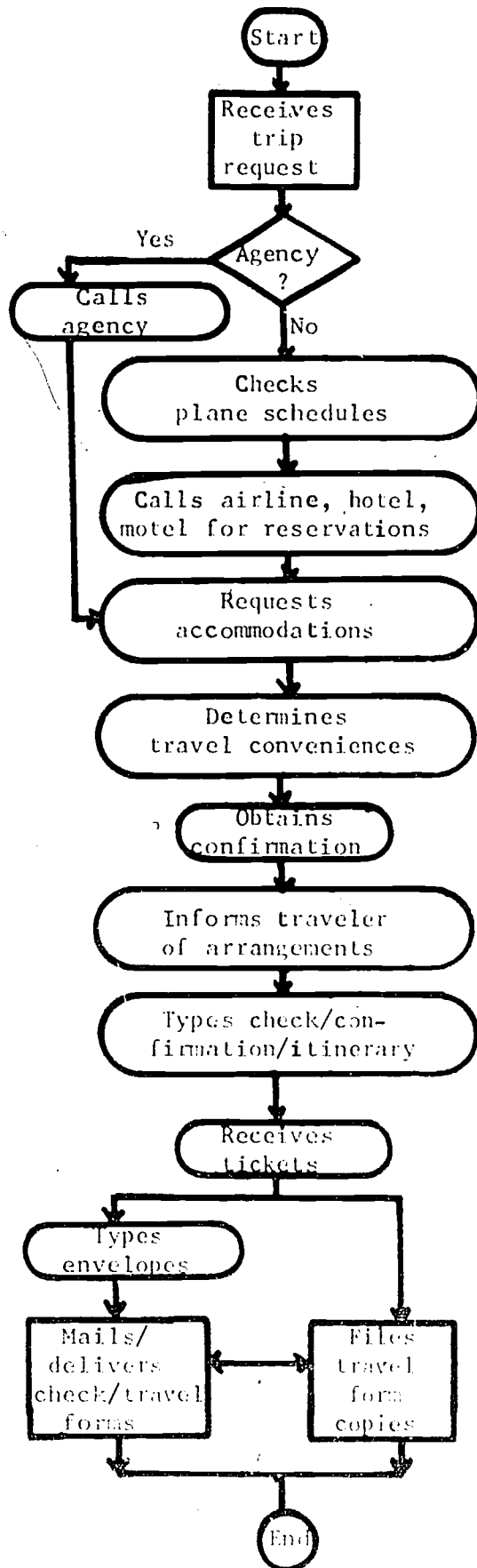
                      ACQUISITION
RECEIVES
  oral/written request
                        PROCESS
CALLS
  travel agency, department/motel/hotel/
  to confirm reservations
CHECKS
  plane schedules
REQUESTS
  desired accommodations/date of arrival,
  departure/length of stay/departure time
DETERMINES
  most effective route, convenient flight/
  car rental/other transportation
ARRANGES
  plane flight/hotel/motel/auto rental/
  state car use
OBTAINS
  confirmation of reservations
INFORMS
  requester of arrangements/company trans-
  portation agent/travel agency to make
  reservations
TYPES
  authorization for travel/request for check/
  confirmation form/travel reimbursement
  voucher/petty cash voucher/itinerary
OBTAINS
  signature on travel reimbursement voucher
RECEIVES
  ticket

                      DISPOSITION
FILES
  travel authorization/copies of forms
DELIVERS
  travel form/check request to Business
  Office/confirmation form to employer/in-
  formation to traveler/travel reimbursement
  voucher to Purchasing/tickets to supervisor
MAILS
  tickets to traveler

SUPPLEMENTARY STEPS: Arranges cancellation
on reservations when necessary; Assigns coded
job number to travel authorization form

REPORTED CRITERIA: "Knowledge to make hotel
or auto reservations; Read plane schedules;
Correct information very important; Accuracy
extremely important; Knowledge of geography;
Withstand pressures of making many reserva-
tions at once."

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Plane schedules	Typing
Telephone	Check requests	Communication skills
	Travel forms	Filing
	Rate sheets	Checking

07.00.10   THE WORKER PROCESSES TRAVEL VOUCHERS.   (10 task sheets)

ACQUISITION

RECEIVES

    travel expense vouchers/travel book/vouchers for paid travel advances

PROCESS

STAMPS

    expense vouchers with date

CHECKS

    for accuracy/receipts with travel authorization card/validity of claims/
    mileage

COMPUTES

    expense account total/mileage allowances/balances general ledger/journal
    totals

CORRECTS

    expense voucher amounts/expense totals

RECORDS

    travel voucher total/advances/expense figures in different accounts/travel
    request in travel log/date mailed/changes of travel made enroute/advances
    in journal

ATTACHES

    authorization to expense statements/receipt to voucher/check copy to voucher

TYPES

    transmittal or travel claim forms

DISPOSITION

MAILS

    letters/reimbursement/advances/check/travel claim forms

DELIVERS

    forms to Accounting, division office for further checking/vouchers for pay-
    ment

FILES

    travel authorization slips/expense statements/receipts/travel claim form

SUPPLEMENTARY STEP: Duplicates voucher

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Adding machine (10-key)	Travel voucher forms	Checking
Typewriter	Check	Accuracy
Hand stamp	Travel book, log	Computational skills
		Typing
		Filing

REPORTED CRITERIA: "Expense statements are verified and voucher completed;
Check figures correctly; Knowledge of accounting procedures; Accuracy most
important."

07.00.11   THE WORKER ARRANGES TRANSPORTATION FROM CITY CAR POOL. (2 task
           sheets)

Receives oral request for transportation
Delivers transportation card to employee to complete
Checks card for completion
Arranges car pool
Delivers keys to employee
Records vehicle, car pool information in log

07.00.12   THE WORKER PROCESSES MERIT AWARD PAPERS AND PINS. (2 task sheets)

07.00.13   THE WORKER ASSISTS IN LABOR GRIEVANCES. (2 task sheets)

07.00.14   THE WORKER ISSUES WORKING PAPERS TO STUDENTS. (2 task sheets)

07.00.15   THE WORKER ISSUES PARKING PERMITS. (1 task sheet)

07.00.16   THE WORKER ISSUES EMPLOYEE PASS CARDS. (1 task sheet)

07.00.17   THE WORKER ISSUES STUDENT WORK PERMITS. (1 task sheet)

07.00.18   THE WORKER ISSUES SOCIAL SECURITY CARDS. (1 task sheet)

07.00.19   THE WORKER ADMINISTERS DRIVER TESTS. (1 task sheet)

07.00.20   THE WORKER ARRANGES ANNUAL AWARDS MEETINGS. (1 task sheet)

07.00.21   THE WORKER ISSUES ENTERTAINMENT TICKETS. (1 task sheet)

07.00.22   THE WORKER DISCUSSES LABOR CONTRACT PROVISIONS. (1 task sheet)

07.00.23   THE WORKER ASSISTS IN UNION/MANAGEMENT MEETINGS. (1 task sheet)

07.00.24   THE WORKER ADMINISTERS HIGHWAY SAFETY PROGRAM FOR SALESMEN. (1
           task sheet)

07.00.25   THE WORKER REQUESTS STUDENT NURSES' HEALTH EXAMINATION APPOINTMENTS.
           (1 task sheet)

Receives cards on student nurses
Informs student nurses to make appointment for health examination
Checks appointment sheet
Arranges health examination appointment
Mails reminder of health examination
Delivers report to nurse, Admissions Office on students ignoring summons for
   examination

07.00.26   THE WORKER UPDATES PERSONNEL FORMS.   (1 task sheet)

Receives pre-employment registration form
Requests employee complete necessary employment forms
Writes new employee personal data on data sheet .
Types additional personnel forms
Records name, date, department in new employee's record book
Files employee folder

07.00.27   THE WORKER ADMINISTERS AN ORIENTATION PROGRAM FOR NEW HOSPITAL
            .   EMPLOYEES.   (1 task sheet)

Arranges conference room/movie projector
Sends new employees to seats
Discusses policies of hospital
Operates projector to show film of hospital history
Answers employee's questions
Distributes personnel forms for completion
Receives completed forms
Checks forms returned for completion
Places forms in each employee's record file

05. SALES

08.00.01   THE WORKER PROCESSES SALES DOCUMENTS SUCH AS CHARGE SLIPS, PURCHASE
           ORDERS, WARRANTS. (30 task sheets)

ACQUISITION

RECEIVES

  ad charge slips/purchase, shipping orders/warrants/file folders/invoices/
  requests to pull invoices, shipping tickets/sales materials/contracts/ad copies

PROCESS

SORTS

  ad charge slips/warrants/inactive ads

CHECKS

  ad charge slips/purchase order codes/names on purchase orders/routing slips

COMPILES

  new customer file

PULLS

  corresponding shipping order, tickets, invoices/purchase orders

DUPLICATES

  invoices

ATTACHES

  shipping orders, invoices/purahces orders, acknowledgments

DETERMINES

  correct filing code for correspondence

DISPOSITION

FILES

  correspondence/purchase orders/charge slips/warrants/folders/shipping orders,
  invoices/acknowledgments/contracts/sales materials/inactive ads

08.00.02   THE WORKER PROCESSES REQUESTS BY TELEPHONE AND OVER THE COUNTER.
           (25 task sheets)
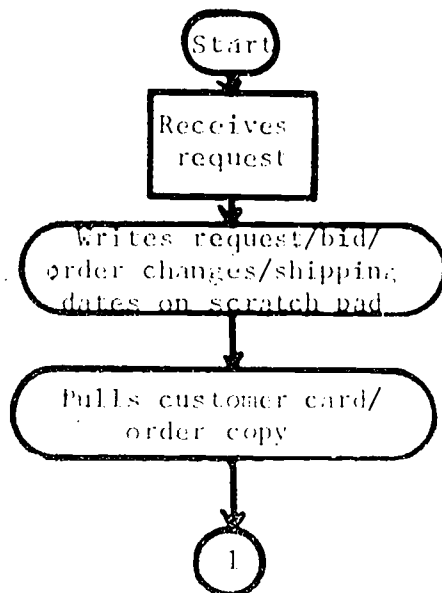
ACQUISITION

RECEIVES

  requests

PROCESS

WRITES

  request to increase order/information on
  pad/request for ID card/credit rating on
  card/order changes/shipping dates/bid

PULLS

  customer card/order copy

ANSWERS

  customer questions

REFERS

  call to Public Relations director

REFERS

  to inventory for items ordered/to card
  file for descriptive information

COMPUTES

  extensions/item prices

```
                    ( 1 )
                      │
              No      ▼
         ┌──────── ◇ Can
         │           answer
         ▼             ?
    ┌─────────┐      │ Yes
    │Transfers│      │
    │ call    │      ▼
    └─────────┘  ( Answers customer )
                 (   questions      )
                      │
                      ▼
                 ( Refers to inventory/ )
                 ( card files for       )
                 ( information          )
                      │
                      ▼
                 ( Computes extensions/ )
                 ( item prices          )
                      │
                      ▼
                 ( Informs customer )
                 ( of prices        )
                      │
                      ▼
                 ( Checks serial numbers,    )
                 ( name, address of customer )
                 ( terms, ID information     )
                      │
                      ▼
                 ( Types invoice forms, con- )
                 ( firming letter, purchase, )
                 ( shipping order            )
                      │
                      ▼
                 ( Stamps order forms )
                 ( with customer      )
                 ( address plate      )
                      │
                      ▼
                 ( Locates      )
                 ( order parts  )
                      │
                      ▼
                 ( Records numbers of   )
                 ( parts/order sending  )
                 ( of new ID card       )
                      │
          ┌───────────┼───────────┐
          ▼                       ▼
    ┌──────────────┐      ┌──────────────┐
    │Mails letter/ │      │Files quote   │
    │Delivers in-  │      │copies/cards/ │
    │voices/orders │      │orders        │
    └──────────────┘      └──────────────┘
          │                       │
          └───────────┬───────────┘
                      ▼
                    (End)
```

INFORMS
   customer of prices
CHECKS
   serial, model numbers/name, address of
   customer/cash, credit terms/customer ID
   information
TYPES
   invoice forms, numbers/purchase order/
   confirming letter/shipping order
STAMPS
   order form with customer address plate
LOCATES
   ordered parts
RECORDS
   numbers of parts on invoice/order/
   sending of new ID card

DISPOSITION

MAILS
   confirmation letter/ID card to customer
FILES
   quote/customer card/shipping order/credit
   card
DELIVERS
   invoice to Accounting/purchase order to
   salesman/shipping order to customer/
   sales orders to Shipping

SUPPLEMENTARY STEP: Arranges appointment
with customer and salesman.

HARDWARE	SOFTWARE
Calculator	Customer address
Telephone	plate/card/order
Files	Inventory books

EDUCATIONAL CUES

   Accuracy
   Computational skills
   Courtesy
   Communication skills
   Checking

REPORTED CRITERIA: "Gives accurate in-
formation rapidly; Deal effectively with
customers being courteous and tactful."

08.00.03   THE WORKER TYPES CORRESPONDENCE FROM DICTATION, INCOMING MAIL, AND
           OTHER SOURCE DOCUMENTS. (24 task sheets)

ACQUISITION

RECEIVES

dictation/letters regarding customer complaints/bid specifications/list of
customer accounts overdue/account status information/statements/product in-
formation request/customer purchase orders/customer request for expenditure
report/list of needed bills of lading

PROCESS

PULLS

customer files

CHECKS

letters/enclosures/orders

DETERMINES

collection process for delinquents/form letter to use

TYPES

letters to complaining customer, collection follow-ups, bid specifications/
overdue reminder/legal actions on delinquents/order acknowledgements/expendi-
ture report/monthly statements/bills of lading

PROOFREADS

OBTAINS

signature on letters

DUPLICATES

bid specification letters

RECORDS

attorney, customer request

DISPOSITION

FILES

letters

MAILS

letters/monthly statements

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Form letters	Typing
Files	Customer cards	Filing
		Checking

REPORTED CRITERIA: "Neatly typed letters with good spelling and correct gram-
mar; Answer letters immediately; Careful proofreading; High level ability to
read quickly and accurately."

08.00.04   THE WORKER TYPES SALES ITEMS FROM ROUGH DRAFTS, PROPOSALS, LISTS, AND
           OTHER SOURCE DOCUMENTS. (19 task sheets)
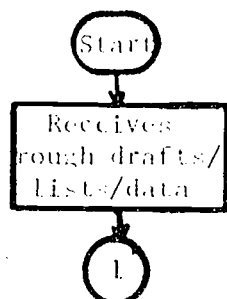
ACQUISITION

RECEIVES

rough drafts of rate manuals, bid proposals,
public relation survey results/weekly bulle-
tins/salesmen's reports/lists of orders, sub-
contractors, old commercials/requisition
data sheet/purchase orders form on prospective
subscriber/ledger sheets/customer contracts/
bid specifications
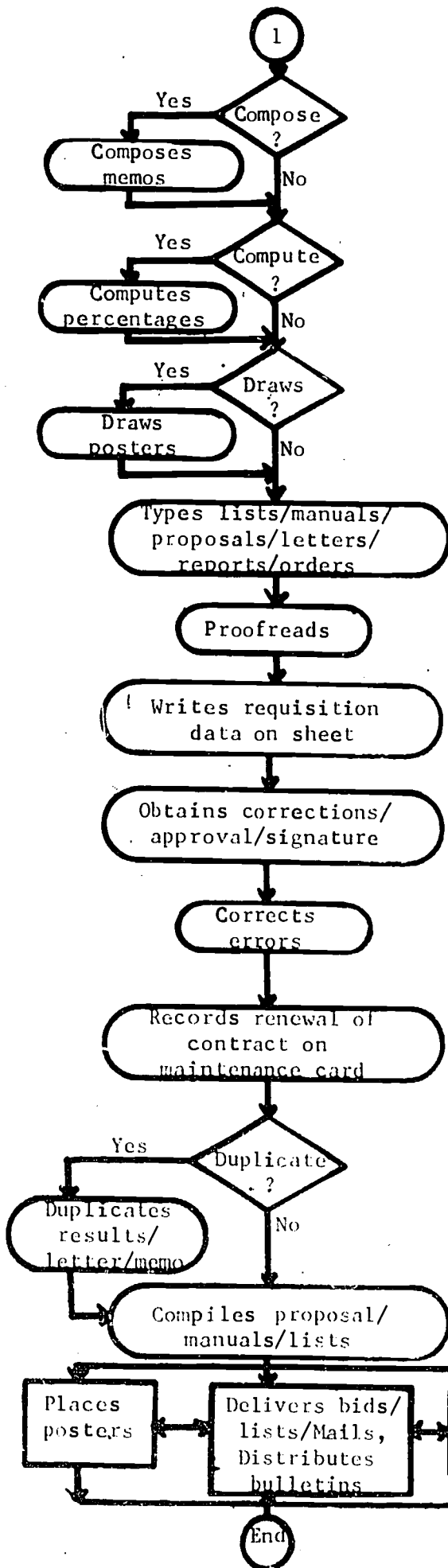
PROCESS

COMPOSES
  memos from information received
COMPUTES
  percentages for survey results
DRAWS
  posters
TYPES
  lists of available commercial time,
  orders, prospective customers/mail
  labels/card form on bid details/rate
  manuals/bid proposals/cover letters/
  memos/stencil of price bulletins/sales-
  men's reports/cards with time, address,
  limit of customer credit/charge tickets/
  renewal contracts
PROOFREADS
WRITES
  requisition data sheet
OBTAINS
  correction, approval/signature of
  customer on renewal contract
CORRECTS
  errors
RECORDS
  renewal of contract on maintenance card
DUPLICATES
  survey results/cover letters/memos/
  price bulletins
COMPILES
  duplicated, typewritten reports/price
  bulletins

DISPOSITION

DELIVERS
  bids, specifications to engineers/rate
  manuals/prospect lists to supervisor/
  copy of renewal of contract to custo-
  mer
DISTRIBUTES
  bulletins to other departments
MAILS
  bid proposals/survey results/price bulle-
  tins/available list of commercials
FILES
  charge tickets/maintenance cards/survey
  report/price bulletin copy/cover letter/
  bid proposal copy/cards

REPORTED CRITERIA: "Typing must
be 100 percent accurate; Must be
acquainted with bid terminology."

08.00.07 THE WORKER ANSWERS CUSTOMER COMPLAINTS. (13 task sheets)

```
                    ( Start )
                        │
                        ▼
                  ┌──────────────┐
                  │  Receives    │
                  │  customer    │
                  │  complaint   │
                  └──────────────┘
                        │
                        ▼
              ┌────────────────────────┐
              │ Checks service address/│
              │  bill serial number/   │
              │  airline flight number │
              └────────────────────────┘
                        │
                        ▼
              ┌────────────────────┐
              │   Pulls customer   │
              │     A/R card       │
              └────────────────────┘
                        │
                        ▼          No
                    ╱ Can  ╲ ──────────┐
                    ╲answer ╱           ▼
                      ╲ ? ╱      ┌──────────┐
                     Yes│        │ Refers   │
                        ▼        │  call    │
              ┌────────────────┐ └──────────┘
              │Answers customer│      │
              │   questions    │      │
              └────────────────┘      │
                        │             │
                        ▼             │
              ┌────────────────────┐  │
              │ Arranges pick-up/  │  │
              │  delivery dates    │  │
              └────────────────────┘  │
                        │             │
                        ▼             │
              ┌──────────────────────┐│
              │Records complaint/serial│
              │ number on form, call   │
              │ticket/names of hostesses│
              └──────────────────────┘│
                        │             │
                        ▼             │
              ┌────────────────────┐  │
              │  Pulls customer's  │  │
              │     old bill       │  │
              └────────────────────┘  │
                        │             │
                        ▼             │
              ┌────────────────────┐  │
              │ Types corrections in│ │
              │ correction journal/ │  │
              │  complaint form     │  │
              └────────────────────┘  │
                        │             │
                        ▼             │
              ┌────────────────────┐  │
              │  Stamps telephone  │  │
              │   call tickets     │  │
              └────────────────────┘  │
                        │             │
                        ▼             │
              ┌────────────────────┐  │
              │ Sends correc-      │  │
              │ tions to D.P.,     │  │
              │ complaint to       │  │
              │ supervisor         │  │
              └────────────────────┘  │
                        │             │
                        ▼             │
                    ( End ) ◄─────────┘
```

HARDWARE

Telephone
Files
Typewriter

SOFTWARE

Customer file
Invoices
Bills
Call tickets
Complaint forms

EDUCATIONAL CUES

Checking
Typing
Filing
Courtesy
Tact

REPORTED CRITERIA: "Handles people efficiently and courteously; Keeps customer happy; Uses tact and gives customers benefit of the doubt."

SALES CRITICAL INCIDENTS

"Today a customer called in an order for a tractor gear. The worker did a good job in suggesting those associated parts needed to install the gear. By having a thorough knowledge of these parts, the worker was able to sell the customer additional, necessary parts."

"Worker does not get enough information on the phone from customers regarding placement of orders. One customer wanted the order to be specially delivered in an emergency to a restaurant and the employee failed to make note of this special delivery to the routeman."

"Worker failed to log a commercial that had been sold. She thought she had posted it, but she hadn't. As a result the customer complained, and the salesman lost his commission for the account."

08.00.08   THE WORKER PROCESSES CLASSIFIED ADS AND AD COMPLAINTS.
(12 task sheets)
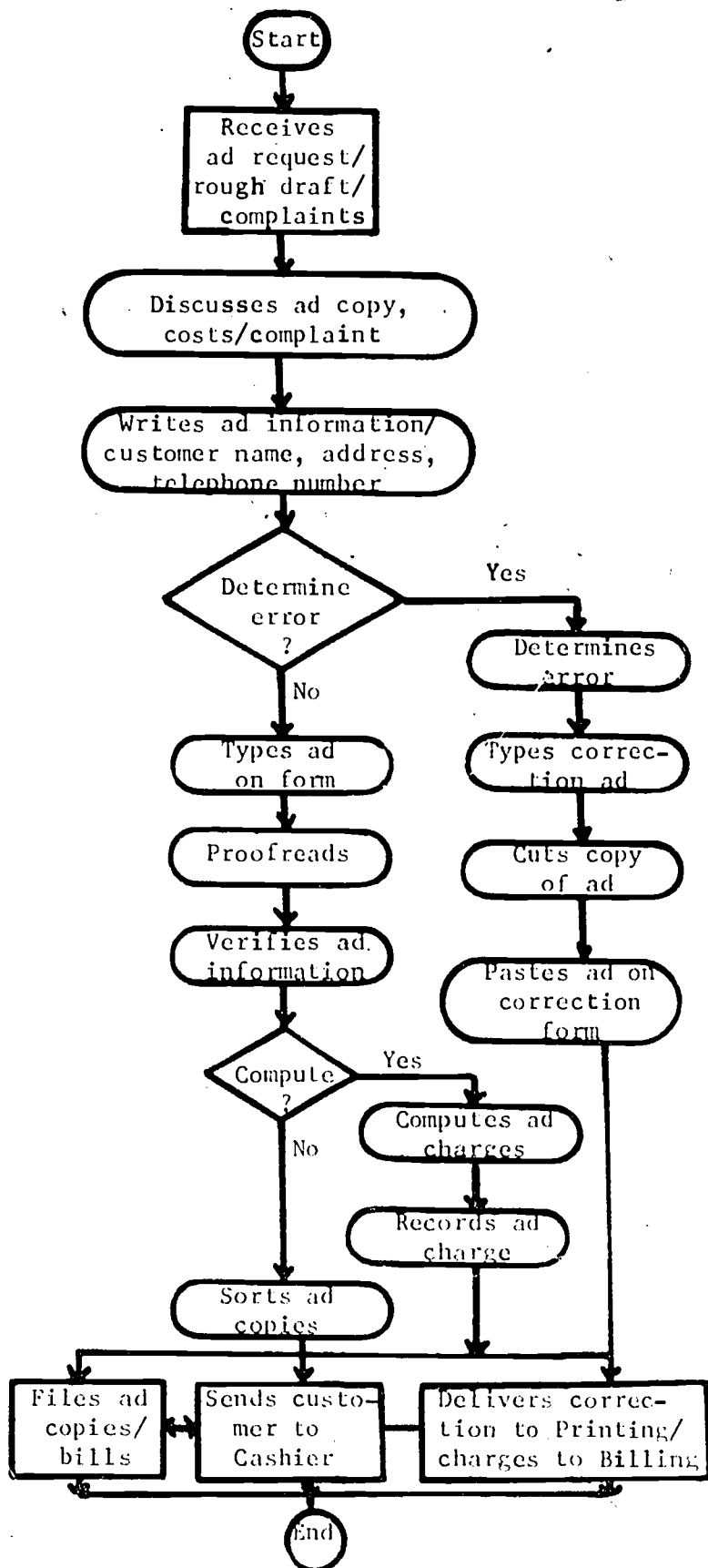
HARDWARE

Typewriter
Adding machine
Files

SOFTWARE

Rough drafts
Ads
Correction forms

EDUCATIONAL CUES

Accuracy
Checking
Typing
Filing
Computational skills

REPORTED CRITERIA: "Customer satisfied that ad appears correctly in paper; Accurate gathering of information from customer; Good English skills; Able to take quite a bit of abuse without losing temper; Helps to have knowledge of acceptable words, number of words to a line, and costs for ads."

Flowchart:
Start → Receives ad request/ rough draft/ complaints → Discusses ad copy, costs/complaint → Writes ad information/ customer name, address, telephone number → Determine error?
- Yes → Determines error → Types correction ad → Cuts copy of ad → Pastes ad on correction form
- No → Types ad on form → Proofreads → Verifies ad information → Compute?
  - Yes → Computes ad charges → Records ad charge
  - No → Sorts ad copies
→ Files ad copies/ bills → Sends customer to Cashier → Delivers correction to Printing/ charges to Billing → End

08.00.09   THE WORKER PROCESSES CUSTOMER ORDERS. (10 task sheets)

ACQUISITION

RECEIVES
  new orders/order changes/printout of commercial (TV) orders

PROCESS

CHECKS
  orders for accuracydavailable commercial time
SORTS
  orders/changes
COMPUTES
  extensions, weights
RECORDS
  items ordered, order number, shipping date, cost, quantity/commercial time
  sold
TYPES
  order number, customer name on record card/memo listing orders, dates/file
  cards on customer order/customer order on form letter/order acknowledgment
PROOFREADS
DUPLICATES
  orders/changes
COMPILES
  customer file

DISPOSITION

FILES
  customer product order/new orders/order cards/acknowledgment/printout of
  orders
MAILS
  memo to main office/acknowledgment to customer
DELIVERS
  file to another department/acknowledgment to supervisor
DISTRIBUTES
  orders to manager, supervisor, lab department, traffic manager/production
  order to six other departments

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Price, weight book	Accuracy
Duplicator	Orders	Typing
Files	Printouts	Filing
Calculator		Computational skills

REPORTED CRITERIA: "Must accurately record items; Must know code words,
technical vocabulary."

08.00.10   THE WORKER RECORDS ORDERS, PRINTOUTS, AND CHANGES. (9 task sheets)

Receives orders/printouts of newspaper circulation/cards of salesmen's calls/
  newspaper route changes/request to transfer account from another city
Sorts orders
Pulls customer card
Computes district news circulation totals
Records customer name, address, date, order number, items ordered/district
  newspaper circulation/salesmen's calls on customer card

Records district totals
Codes prices on orders
Types list of monthly sales calls
Totals individual customer orders
Files purchase orders/printouts/salesmen's card/sales calls form
Delivers orders to supervisor, file clerk/sales calls form to supervisor/route
    changes to Data Processing/transfer to Accounting

08.00.11   THE WORKER UPDATES MANUALS, CATALOGS, PRICE LISTS, AND CUSTOMER
           ACCOUNTS.   (9 task sheets)

Receives catalog revisions/new price lists/new pages for books/galley proofs/
    customer account cards/mailing lists
Checks changes/galley proof/customer account cards
Pulls old catalog/pages
Types revisions
Arranges clipped revisions (one item per strip)
Sorts strips alphabetically
Attaches strips to paper
Proofreads
Places   revisions in catalog/manual
Records changes in catalog
Duplicates final changed sheet
Delivers pasted strips, galleys to Printing/final changed sheet to supervisor
Files changes/mailing list changes

08.00.12   THE WORKER COMPOSES MEMOS, RESPONSES, AND TV COMMERCIALS.   (8 task
           sheets)

Receives memo of coming event/commercial (TV) information/letter of complaint
Composes information for memo, calendars/rough commercial copy/answer to
    customer letter
Refers to catalogue for verification of prices, other information
Types memo, publicity copy for coming events/commercial information/composed,
    form letters
Proofreads
Records commercial information on dubbing sheet, instruction card
Determines literature to enclose
Files publicity sheets/dubbing sheets
Delivers dubbing sheet to Control room/memo

SALES CRITICAL INCIDENTS

"When assigned to check on back orders, he devised a summary sheet needed to
accumulate information. The sheet is now retained where all the salesmen have
access to it, so that several people do not have to answer the same questions
repeatedly."

"The worker took an ad for a burglar alarm company and erred in writing the
copy. He wrote 'Must have burglar experience.' The company complained that
they were deluged with calls and requested a correction and rerun."

"During a peak rush, the worker was exceptionally efficient in getting the
orders issued to the deliverymen on time without causing any late deliveries
to customers."

05.00.13 THE WORKER PREPARES PRICE QUOTATIONS FOR CUSTOMERS AND SALESMEN.
(8 task sheets)
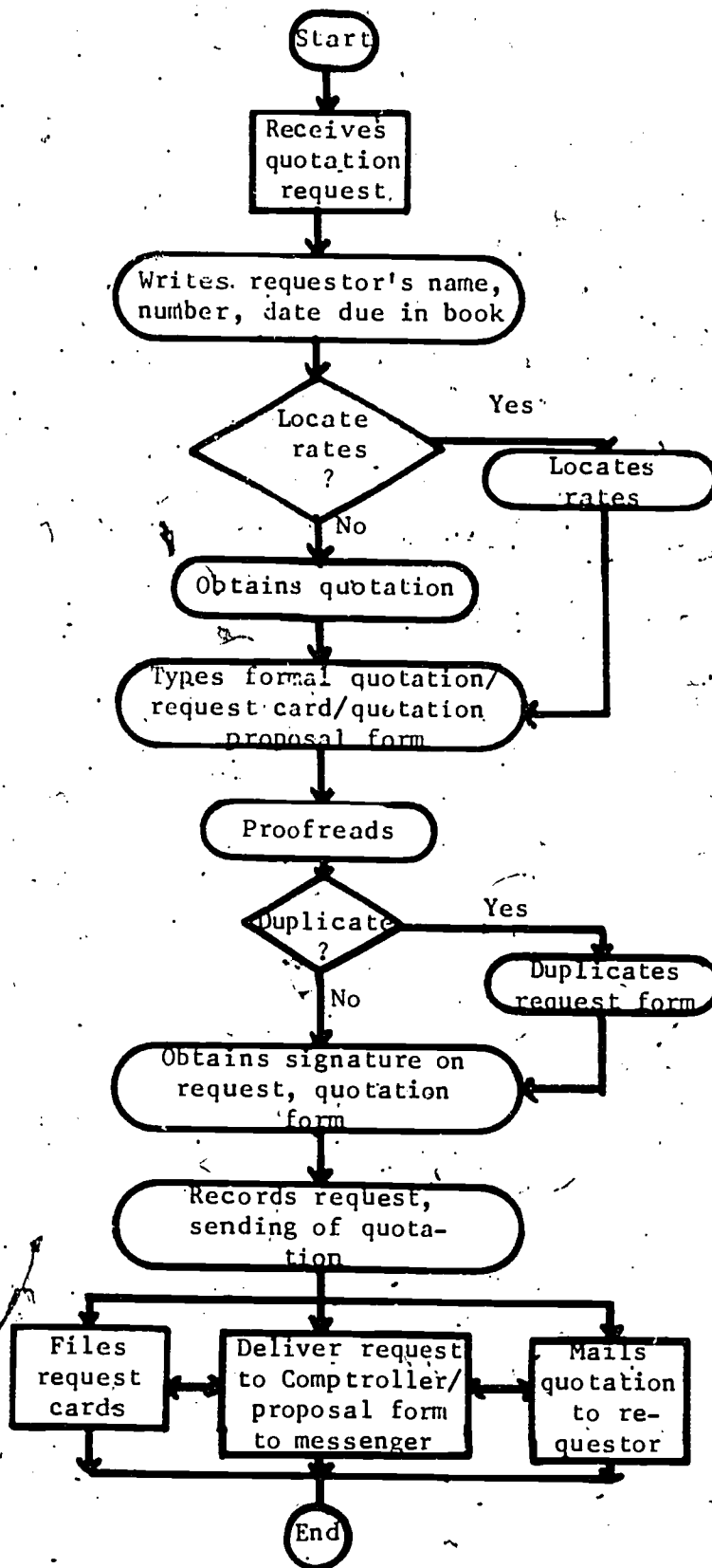
HARDWARE

Typewriter
Files

SOFTWARE

Quotation request book
Rate book
Request card
Formal quotation form
Bid quotation form

EDUCATIONAL CUES

Accuracy
Checking
Typing
Filing

REPORTED CRITERIA: "A correct quotation is a must."

```
                    Start
                      |
              Receives
              quotation
              request
                      |
          Writes requestor's name,
          number, date due in book
                      |
                  Locate          Yes
                  rates  --------------->  Locates
                    ?                        rates
                      | No                     |
              Obtains quotation                |
                      |                        |
          Types formal quotation/             |
          request card/quotation  <-----------+
          proposal form
                      |
                  Proofreads
                      |
                 Duplicate         Yes
                    ?     --------------->  Duplicates
                      | No                  request form
                      |                        |
          Obtains signature on  <-------------+
          request, quotation
          form
                      |
          Records request,
          sending of quota-
          tion
                      |
       +--------------+--------------+
       |              |              |
     Files      Deliver request    Mails
   request      to Comptroller/   quotation
     cards       proposal form     to re-
              to messenger        questor
       |              |              |
       +--------------+--------------+
                      |
                    End
```

SALES CRITICAL INCIDENT

"Due to a moon flight, much of the regularly scheduled broadcasting and commercials had to be delayed. The worker received a 14-page instruction sheet from the network concerning rescheduling. She did a marvelous job of figuring it out and rescheduling the original programs and commercials."

08.00.14   THE WORKER REQUESTS NEW OR EXTENDED ADVERTISING ORDERS.
           (7 task sheets)

Receives customer accounts/expired ad, prospective customer list
Calls customer/prospective customer
Verifies customer satisfaction of newspaper ad service
Checks billing problems/extension of ad, days to run, ad working with customer
Requests more advertising from customer
Discusses format/special services
Types new ad on form/insertion orders
Records ad follow-up
Delivers ad, insertion order form to Printing, Accounting

REPORTED CRITERIA: "Must be persistent, keep account interested and informed
concerning the paper; Must be eager to help customer and do favors for cer-
tain clients; Knowledge of newspaper, jargon; Know how to deal with public and
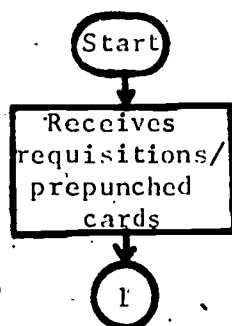have patience; Must have a good feeling for advertising."

08.00.15   THE WORKER ARRANGES SCHEDULES FOR TV/RADIO COMMERCIALS.   (5 task
           sheets)

Receives radio, TV schedule/network program changes/commercial contract sheet/
  salesman's order
Obtains calendar for commercials
Checks commercials/traffic board for product advertising conflicts
Records programs, times for airing
Arranges schedules for commercials, public service announcements/time slots/
  order of commercials on traffic board
Sorts punched cards
Types tab noting change
Places tab noting change on traffic board for day
Files punched cards by time slot/network program changes/contracts
Delivers schedule to program announcer

08.00.16   THE WORKER MAILS PRODUCT INFORMATION AND ADVERTISING MATERIALS
           TO CUSTOMERS, PROSPECTIVE CUSTOMERS.   (4 task sheets)

Receives product information requests
Records prospect data on index card/product information sent
Compiles product information pieces
Types mailing address
Packages product information
Files index card
Delivers packages to Mailing

08.00.17   THE WORKER PROCESSES SUPPLY REQUISITIONS FOR COMPANY SALESMEN.   (2
           task sheets)

```
    ( Start )
        |
        v
 +---------------+
 |   Receives    |
 | requisitions/ |
 |  prepunched   |
 |    cards      |
 +---------------+
        |
        v
      ( 1 )
```
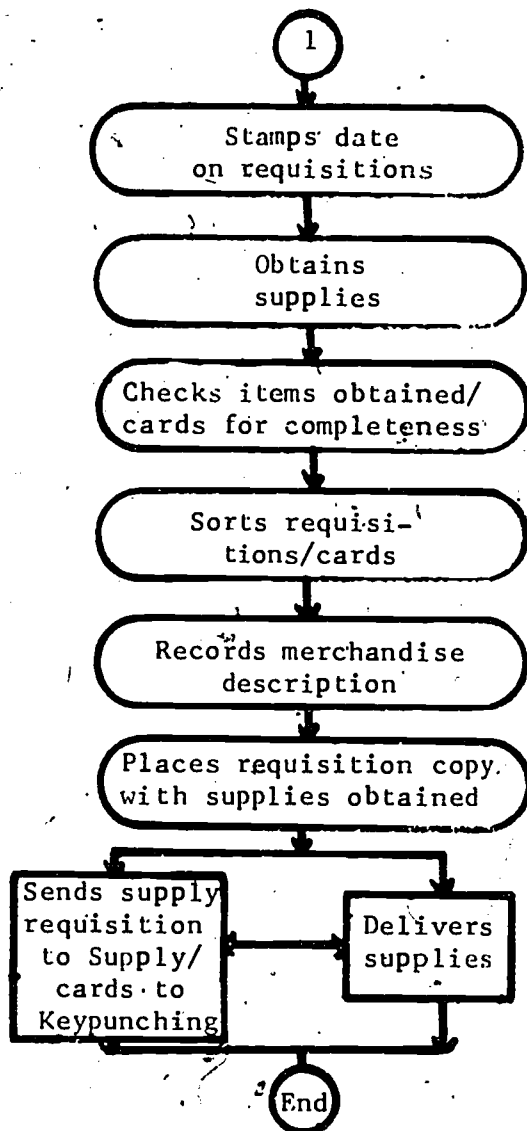
HARDWARE

Four-wheel delivery cart
Microfilm reader

EDUCATIONAL CUES

Checking

```
                    ( 1 )
                      │
              ┌───────▼───────┐
             (  Stamps date   )
             (  on requisitions )
              └───────┬───────┘
                      │
              ┌───────▼───────┐
             (   Obtains     )
             (   supplies    )
              └───────┬───────┘
                      │
              ┌───────▼───────┐
             ( Checks items obtained/ )
             ( cards for completeness )
              └───────┬───────┘
                      │
              ┌───────▼───────┐
             ( Sorts requisi- )
             ( tions/cards   )
              └───────┬───────┘
                      │
              ┌───────▼───────┐
             ( Records merchandise )
             ( description    )
              └───────┬───────┘
                      │
              ┌───────▼───────┐
             ( Places requisition copy )
             ( with supplies obtained )
              └───────┬───────┘
                      │
    ┌─────────────────┴────────┐
 ┌──▼────────────┐      ┌───────▼──────┐
 │ Sends supply  │      │ Delivers     │
 │ requisition   │◄────►│ supplies     │
 │ to Supply/    │      └──────┬───────┘
 │ cards·to      │             │
 │ Keypunching   │             │
 └──────┬────────┘             │
        └──────────┬───────────┘
                   ▼
                ( End )
```

SOFTWARE

Requisitions
Supplies
Microfilm catalog
Microfilm of supply description
Punched cards

REPORTED CRITERIA: . "Insures
that correct supplies are
obtained; Decisions must be
made to substitute color for.
one not in stock; Attention to
details."

08.00.18   THE WORKER PREPARES NEW CUSTOMER PLATES ON GRAPHOTYPE MACHINE. (1
            task sheet)

Receives instructions
Operates graphotype machine for new plates
Destroys old plates
Duplicates index card for some plates.
Returns index card to requestor
Arranges plates in tray

08.00.19   THE WORKER RECORDS MACHINE MOVES FROM INSTALLATION
            TRANSMITTALS.   (1 task sheet)

08.00.20   THE WORKER CHECKS UNFILLED AND BACK ORDERS.   (1 task sheet)

08.00.21   THE WORKER COMPLETES FORMS FOR INSTALLATION OF BUSINESS EQUIPMENT.
            DELIVERED.. (1 task sheet)

08.00.22   THE WORKER ARRANGES TRAVEL FOR EMPLOYEES' SPEAKING ENGAGEMENTS. (1
            task sheet)

08.00.23   THE WORKER OPERATES MICROFILMER ON ALL DETAIL TICKETS, CHARGE SLIPS,
            AND RETURNED MERCHANDISE.   (1 task sheet)

08.00.24   THE WORKER FILES ADVERTISEMENTS FROM CLIPPING AGENCY. ·(1 task sheet)

08.00.25   THE WORKER PREPARES DUMMY FOR NEW BOOKS TO BE PUBLISHED. (1 task
            sheet)

Receives list of new books to be published
Types letter to authors, editors requesting data
Files letter
Receives dummy books from Printing
Attaches book jacket to dummy book
Mails dummy book to Photographing
Receives dummy book with glossy photographs
Checks for correctness and completion
Mails dummy book to Engraving
Receives art work plates
Checks art work plates for correctness
Mails art work plates to Engraving
Receives art work plates, dummy book, glossy photographs
Files photographs
Delivers plates to Printing
Files dummy book

08.00.26   THE WORKER ASSISTS COMMITTEES IN PUBLIC RELATIONS ACTIVITIES.   (1
            task sheet)

Mails entry blanks to candidates for "Teacher of the Year"
Receives completed entry blanks from candidates
Types candidates name on card
Sorts cards by districts
Mails cards to judges for elimination
Receives cards of semi-finalists
Files cards alphabetically
Types news release announcement naming semi-finalists and letter to semi-
    finalists
Places orders for winners plaques, certificates
Mails cards of semi-finalists to judges for elimination
Receives cards of finalists
Files cards alphabetically
Types news release announcing finalists/letter to finalists notifying them to
    appear for final competition

08.00.27   THE WORKER PROCESSES LAY-AWAY TICKETS AND MERCHANDISE. (1 task sheet)

08.00.28   THE WORKER CALLS BUSINESSES FOR REPORT OF COMPANY'S
            GOODS SOLD OR MONIES COLLECTED. (1 task sheet)

08.00.29   THE WORKER ARRANGES FOR A COMMERCIAL PHOTOGRAPHER TO TAKE PICTURES
            OF EQUIPMENT MANUFACTURED. (1 task sheet)

08.00.30   THE WORKER ARRANGES SAMPLE DISPLAY FOR SALESMEN OR CUSTOMERS.
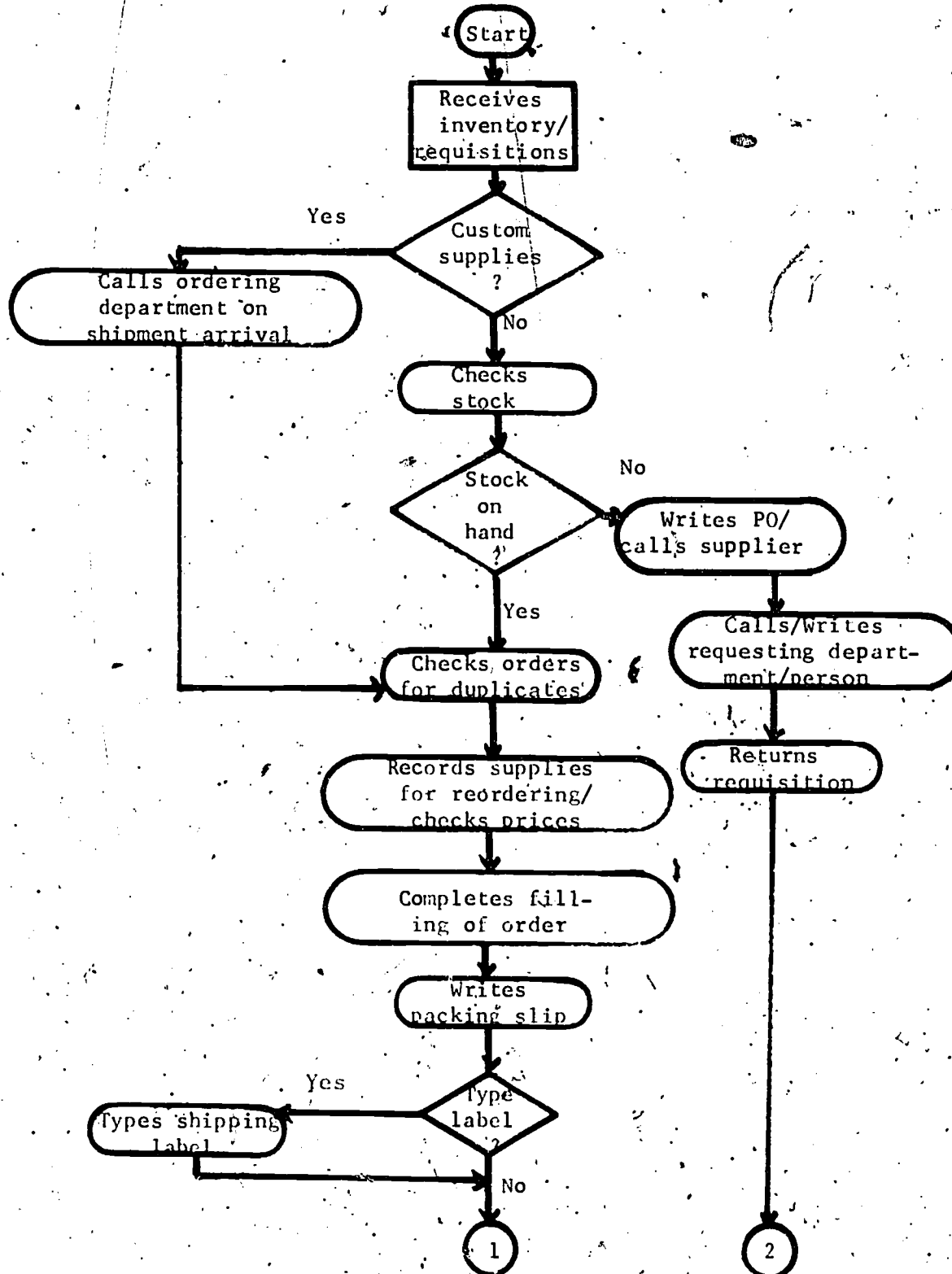   (1 task sheet)

08.00.31   THE WORKER INFORMS CUSTOMER OF INSURANCE COVERAGE.   (1 task sheet)
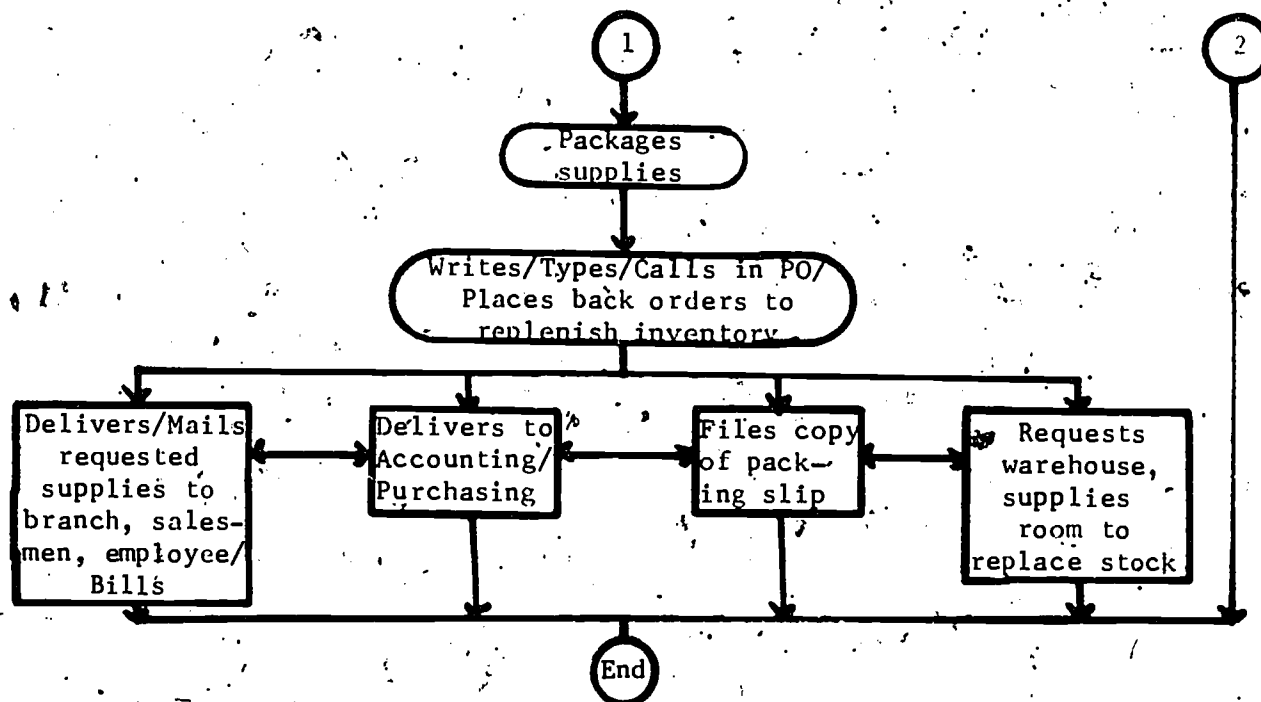
08.00.32   THE WORKER ARRANGES SALES PLAN FOR DEPARTMENT STORE YEARLY SALES.
           (1 task sheet)

09.   INVENTORY, SHIPPING, RECEIVING

09.01. Inventory

09.01.01 THE WORKER PROCESSES ORDERS FROM INVENTORY. (24 task sheets)

```
                          ( Start )
                             │
                    ┌────────────────┐
                    │   Receives     │
                    │   inventory/   │
                    │  requisitions  │
                    └────────────────┘
                             │
           Yes              ╱ ╲
    ┌──────────────────────╱Custom╲
    │                      ╲supplies╲
 ┌──────────────┐          ╲   ?   ╱
 │Calls ordering│           ╲  ╱
 │department on │            │ No
 │shipment arrival│          ▼
 └──────────────┘       ┌─────────┐
    │                   │ Checks  │
    │                   │  stock  │
    │                   └─────────┘
    │                        │
    │                       ╱ ╲        No
    │                      ╱Stock╲───────────┐
    │                      ╲ on   ╱          ▼
    │                      ╲hand ╱      ┌──────────────┐
    │                       ╲ ? ╱       │  Writes PO/  │
    │                        │          │calls supplier│
    │                        │Yes       └──────────────┘
    │                        │                │
    │                        ▼                ▼
    │                 ┌──────────────┐  ┌──────────────┐
    └────────────────▶│Checks orders │  │ Calls/Writes │
                      │for duplicates│  │requesting depart-│
                      └──────────────┘  │ment/person   │
                             │          └──────────────┘
                             ▼                │
                      ┌──────────────┐        ▼
                      │Records supplies│ ┌──────────────┐
                      │for reordering/│ │  Returns     │
                      │checks prices  │ │ requisition  │
                      └──────────────┘ └──────────────┘
                             │                │
                             ▼                │
                      ┌──────────────┐        │
                      │Completes fill-│       │
                      │ing of order  │        │
                      └──────────────┘        │
                             │                │
                             ▼                │
                      ┌──────────────┐        │
                      │   Writes     │        │
                      │ packing slip │        │
                      └──────────────┘        │
                             │                │
           Yes              ╱ ╲               │
    ┌──────────────────────╱Type╲            │
 ┌──────────────┐          ╲label╱            │
 │Types shipping│           ╲ ? ╱             │
 │label         │            │ No             │
 └──────────────┘            │                │
    │                        ▼                ▼
    └──────────────────────▶( 1 )          ( 2 )
```

```
                                   ( 1 )                              ( 2 )
                                     │                                  │
                                     ▼                                  │
                              ┌─────────────┐                          │
                              │  Packages   │                          │
                              │  supplies   │                          │
                              └─────────────┘                          │
                                     │                                  │
                                     ▼                                  │
                        ┌──────────────────────────┐                  │
                        │ Writes/Types/Calls in PO/ │                  │
                        │ Places back orders to     │                  │
                        │ replenish inventory       │                  │
                        └──────────────────────────┘                  │
            ┌──────────────┬──────────────┬──────────────┐            │
            ▼              ▼              ▼              ▼              │
   ┌──────────────┐ ┌──────────────┐ ┌──────────────┐ ┌──────────────┐ │
   │Delivers/Mails│ │Delivers to   │ │Files copy    │ │  Requests    │ │
   │requested     │◄┤Accounting/   │◄┤of pack-      │◄┤  warehouse,  │ │
   │supplies to   │►│Purchasing    │►│ing slip      │►│  supplies    │ │
   │branch, sales-│ │              │ │              │ │  room to     │ │
   │men, employee/│ │              │ │              │ │replace stock │ │
   │Bills         │ │              │ │              │ │              │ │
   └──────────────┘ └──────────────┘ └──────────────┘ └──────────────┘ │
            │              │              │              │              │
            └──────────────┴──────┬───────┴──────────────┘              │
                                  ▼                                     │
                               ( End )◄─────────────────────────────────┘
```

SUPPLEMENTARY STEPS: Scans stock visually; Places orders low items; Informs
supervisor to reorder low items; Checks supplies taken by employees with
self-service privileges; Records issues in perpetual inventory.

REPORTED CRITERIA: "Fills 25-30 requisitions daily; Must fill all requisi-
tions within 24 hours or notify department; Correct decision if requesting
department is entitled to supplies; Ability to stand for long periods of
time; Knowledge of all supplies in stockroom; Moderate degree of decision
making in determining new supplies."

Note: Hardware, Software, and Educational Cues listed here refer to entire
       area of inventory.

HARDWARE   SOFTWARE

Typewriter   Small goods: textbooks, journals/
Stock cabinets   first aid supplies/stationery/procedures
Adding machines   manuals/testing supplies/chemicals/
Calculator   costumes
Materials Handling Equipment   Supply requisitions
                                        Packaging materials
                                        Billing forms
EDUCATIONAL CUES   Supplies catalogues
                                        Bin tags
Statistical typing   Stock cards
Recordkeeping   Shipping/receiving tickets
Counting stock   Punched cards
Manual dexterity

09.01.02 THE WORKER UPDATES INVENTORY RECORDS FROM OFFICE SUPPLY INVENTORY
         DOCUMENTS. (24 task sheets)

SUPPLEMENTARY STEPS:
Places orders to re-
plenish depleted in-
ventory; Corrects in-
ventory discrepancies;
Checks inventory dis-
crepancies.

REPORTED CRITERIA:
"Accuracy in transferring
numbers; Aptitude for
figures; Time pressure to
keep inventory figures up
to date."

```
                          ( Start )
                              │
                              ▼
                   ┌─────────────────────┐
                   │ Receives shipping,  │
                   │ receiving slips/    │
                   │ requisitions/       │
                   │ inventory data      │
                   └─────────────────────┘
                              │
                              ▼
                   ╭─────────────────────╮
                   │ Sorts filled requisi-│
                   │ tions/sales orders/  │
                   │ stock replacement    │
                   │ records              │
                   ╰─────────────────────╯
                              │
                              ▼
                        ◇ PO ?  ◇ ──Yes──► ( Pulls PO )
                           │                     │
                           │No                   ▼
                           │            ╭──────────────────╮
                           │            │ Compares stock    │
                           │            │ received with PO  │
                           │            ╰──────────────────╯
                           │                     │
                           │                     ▼
                           │              ◇ All stock
                           │                received ? ◇
                           │              │Yes        │No
                           ▼              │           ▼
                   ╭─────────────────────╮│    ╭──────────────╮
                   │ Records additions to│◄┘    │ Places       │
                   │ inventory/removal of│      │ back orders  │
                   │ stock on stock records     ╰──────────────╯
                   ╰─────────────────────╯            │
                           │                          │
                           ▼                          │
                   ╭─────────────────────╮            │
                   │ Compares physical in-│           │
                   │ ventory data to book │           │
                   │ data/punched cards   │           │
                   ╰─────────────────────╯            │
                           │                          │
                           ▼                          │
   ╭───────────────────╮  ◇ Error ? ◇                 │
   │ Locates, corrects │◄─Yes                         │
   │ error for physical│    │No                       │
   │ --book inventory  │    ▼                          │
   │ reconciliation    │                              │
   ╰───────────────────╯                              │
           │                                          │
           └──────►╭─────────────────────╮            │
                   │ Computes inventory   │           │
                   │ value on hand/cost of│           │
                   │ inventory removed    │           │
                   ╰─────────────────────╯            │
                           │                          │
                           ▼                          │
                   ╭─────────────────────╮            │
                   │ Stamps inventory     │           │
                   │ documents as         │           │
                   │ recorded/dates       │           │
                   ╰─────────────────────╯            │
                           │                          ▼
                           ▼                  ┌──────────────┐
                   ┌─────────────────┐        │ Sends        │
                   │ Files           │        │ PO to        │
                   │ requisitions/   │        │ Accounting   │
                   │ receiving slip  │        └──────────────┘
                   │ (until invoice  │              │
                   │ received)       │              │
                   └─────────────────┘              │
                           │                        │
                           └──────► ( End ) ◄───────┘
```

09.01.03   THE WORKER RECORDS' FINISHED-GOODS INVENTORY FROM PRODUCTION AND
           SHIPPING DATA. (8 task sheets)

Receives production, shipping data
Pulls previous finished-goods inventory
Records ending inventory figures from old on new form
Computespproduction figures from computer printout/ending inventory/shipment,
  production losses
Checks final finished-goods inventory figures
Delivers finished-goods inventory report

09.01.04   THE WORKER COMPLETES PHYSICAL INVENTORY. (6 task sheets)

Receives inventory form
Checks stock following aisle plan/shelves/items for damage/wear/dating/number
  of items
Attaches tags to stock as counted.
Determines discrepancies between physical and perpetual inventory figures
Compiles itemized list of stock needed/on hand/missing/location of items
Types inventory reports
Photocopies inventory reports
Delivers report to Purchasing, Accounting, Sales, Production

SUPPLEMENTARY STEPS: Calls warehouse; Checks supplier listings; Types orders;
Mails orders to suppliers.

09.01.05   THE WORKER MAINTAINS INVENTORY RECORDS ON STOCK SENT TO PRODUCTION.
           (4 task sheets)

09.01.06   THE WORKER COMPILES REVISED INVENTORY DESCRIPTIONS PERIODICALLY. (1
           task sheet)

09.01.07   THE WORKER PROOFREADS SEMI-AUTOMATED STOCK REPORTS FOR KEYPUNCHINC.
           (1 task sheet)

09.01.08   THE WORKER TRANSFERS STOCK FROM WAREHOUSE SUPPLIES TO SUBSTORE. (1
           task sheet)

09.01.09   THE WORKER PREPARES INVENTORY REPORT FOR SALESMEN. (1 task sheet)

INVENTORY CRITICAL INCIDENT
"Worker was assigned to make an inventory of books. Rather than check each
individual card to see if the book was checked out and not on the shelf, she
took a count of the shelf books and came up with a worthless inventory report.
She frequently forgot where she was working on the shelf."

09. INVENTORY, SHIPPING, RECEIVING

09.02. · Shipping

09.02.01 THE WORKER TYPES SHIPPING MANIFEST/BILLS OF LADING, AND WAYBILLS.
          (9 task sheets)

09.02.02 THE WORKER ARRANGES DELIVERY ROUTES. (7 task sheets)

SUPPLEMENTARY STEPS:
Arranges merchandise re-
turns; Informs drivers of
pick-up and delivery
changes daily.
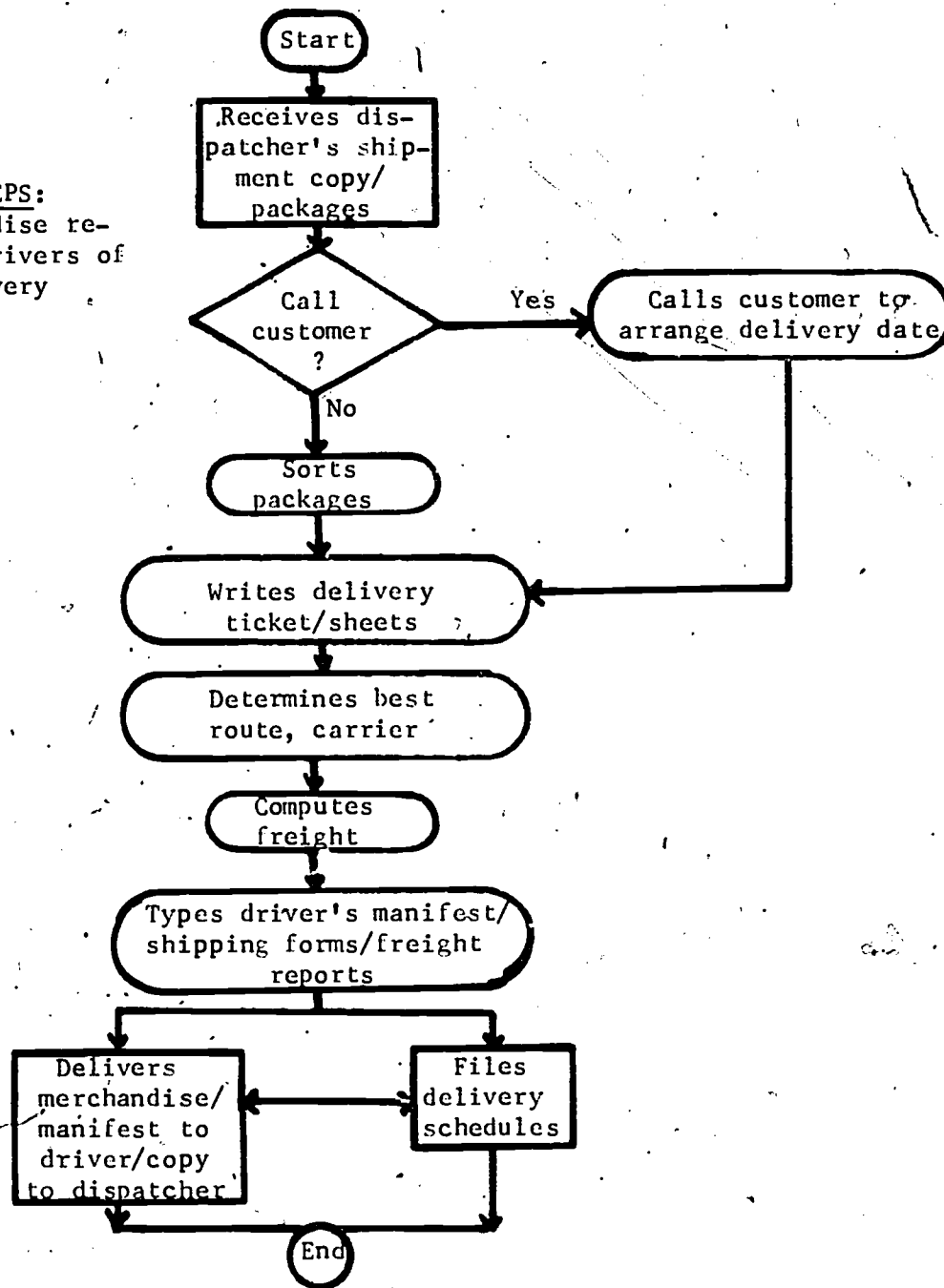
09.02.03   THE WORKER PROCESSES SHIPPING AND BILLING FORMS ON COMPLETED JOBS.
(6 task sheets)

Flowchart:
- Start
- Receives job number, loading sheets
- Pulls purchase orders
- Writes whether whole partial shipment/method of shipment
- Record shipment? → Yes → Records shipping information in warehouse book
  - No →
- Types shipping form including B/L
- Calls freight lines for shipping charges
- Computes discount
- Types invoices
- Stamps dates on invoices when shipped
- Duplicates invoices/shipping forms
- Delivers shipping forms to trucker | Mails invoices | Delivers invoices to Accounting
- End
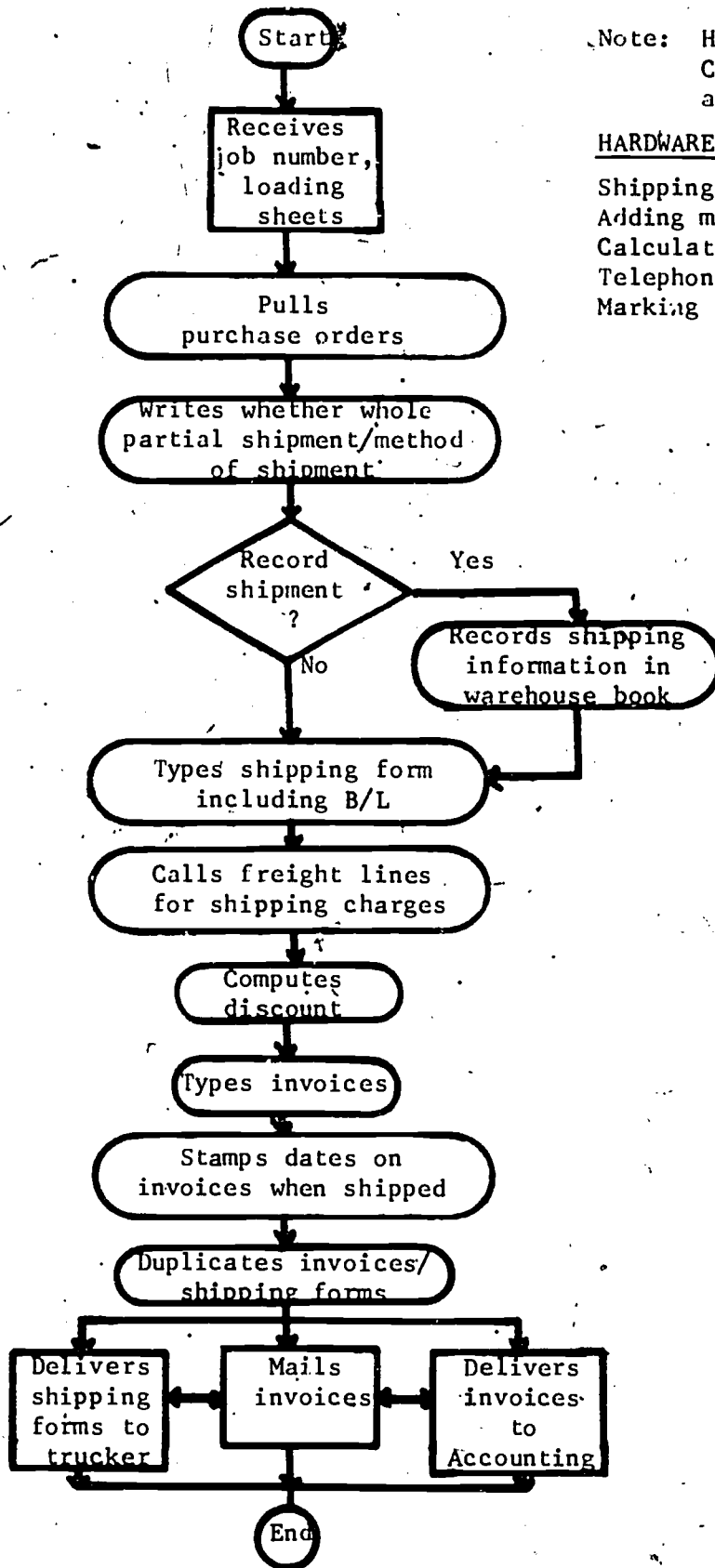
Note: Hardware, Software, and Educational Cues listed here refer to entire area of shipping.

HARDWARE

Shipping machinery
Adding machine (10-key
Calculator
Telephone
Marking pens

SOFTWARE

Purchase orders
Waybills
Bills of Lading
Manifest (driver's delivery route)
Billing forms
Packaging materials
Routing manuals

EDUCATIONAL CUES

Statistical typing
Computational skills
Manual dexterity
Telephone manner
Decisions of cost versus speed in routing
Filing (alphabetic, numeric)
Verifying shipments
Checking, tracing shipments
Freight, delivery, and billing procedures

SUPPLEMENTARY STEP: Types new invoice for back orders.

REPORTED CRITERIA: "Speed, accuracy, neatness in typing numbers."

09.02.04   THE WORKER VERIFIES CONTENTS OF OUTBOUND SHIPMENTS. (6 task sheets)

SUPPLEMENTARY STEP:
Packages shipment.

```
                        ( Start )
                            │
                            ▼
                ┌───────────────────────┐
                │ Receives shipping     │◄──────────────┐
                │ date orders/pack-     │               │
                │ ing slip/             │               │
                │ merchandise           │               │
                └───────────────────────┘               │
                            │                            │
                            ▼                            │
                ( Pulls specification cards )            │
                            │                            │
                            ▼                            │
                ( Checks parts of                        │
                  shipment/merchandise )                 │
                            │                            │
                            ▼                            │
                        ◇ verified ◇──No──┌──────────────┴────────┐
                            │             │ Sends shipment for    │
                            │             │ repacking, reworking  │
                           Yes            └───────────────────────┘
                            ▼
                ( Writes address
                  on shipment )
                            │
                            ▼
                ( Completes
                  shipping forms )
                            │
                            ▼
                ( Calls carrier
                  for pick-up )
                            │
            ┌───────────────┴───────────────┐
            ▼                                ▼
  ┌──────────────────┐            ┌──────────────────┐
  │ Files packing    │◄──────────►│ Delivers         │
  │ slip copy/       │            │ shipping forms   │
  │ common carrier   │            │ to               │
  │ agreement        │            │ supervisor       │
  └──────────────────┘            └──────────────────┘
            │                                │
            └───────────────┬────────────────┘
                            ▼
                        ( End )
```

09.02.05   THE WORKER CHECKS UNDELIVERED SHIPMENTS. (5 task sheets)

```
                        ( Start )
                            │
                            ▼
                ┌───────────────────────┐
                │ Receives phone        │
                │ search requests,      │
                │ letters               │
                └───────────────────────┘
                            │
                            ▼
                ( Checks file
                  verifying shipment )
                            │
                            ▼
                          ( 1 )
```

09.02.06   THE WORKER SENDS LETTER/TELETYPE TO CUSTOMER REGARDING
MERCHANDISE SHIPMENT. (3 task sheets)

09.02.07   THE WORKER DISTRIBUTES SHIPMENT LISTINGS. (3 task sheets)

09.02.08   THE WORKER RECORDS SHIPMENTS. (3 task sheets)

09.02.09   THE WORKER COMPLETES SHIPPING REPORTS. (1 task sheet)

SHIPPING CRITICAL INCIDENTS

"There had been friction between office and factory employees, which resulted
in incorrect size boxes being requested for outgoing shipments from the factory.
This caused human relations problems. The worker went to the production (fac-
tory) department, and in a pleasant manner worked out a solution."

"Carelessly, she sent an order to the wrong vendor. This error resulted in
unnecessary delay. The books were needed for reference material in a par-
ticular class. The delay caused poor public relations."

"Machines are sometimes exported to Canada. Among the shipping papers, a
special export form is necessary. Once the carrier had arrived to pick up
the equipment earlier than expected. The forms were not ready and the worker
in charge was out to lunch. This employee dropped everything, and with just
a few hurried instructions, completed the forms. These were in order by the
time the shipment was ready to go. The carriers were particularly gratified
because they were not delayed and could return to their plant before closing
time."

"For railroad carload shipments the traffic manager must make a car-diagram to
show the exact location of cartons in a freight car. The purpose is to make
the cartons accessible for efficient unloading at scheduled stops. While typ-
ing the bill of lading, the worker noticed the cartons on the car-diagram did
not correspond with the number on the invoice. She notified her supervisor,
who discovered that only half the order had been diagramed. The traffic manager
was very pleased and a great deal of extra work was avoided."

"One merchandiser requested that the employee work with him on a list of "ship
laters." Worker very diplomatically called each customer for the merchandiser
and explained the reason for late shipment. Her effectiveness resulted in no
loss of customers."

"Worker performing this task managed to lose a weight ticket. The truck
driver was ready to leave when he noticed that it was not attached to the
bill of lading, so had to wait while another was prepared. Worker lacked the
necessary follow through to check himself to see that all steps had been
completed to finish a task."

"Two workers now handle tasks that previously took seven girls to handle. There
are about 50 "look ups" a day, plus filing. These "look ups" are time consuming.
Workers deliver information to requesters on the same day. ("Look-ups" are re-
quests for materials-shipping tickets and customer invoices that have been
filed and are now wanted by someone in the building.) Worker did 50 "look-
ups" in addition to her daily filing in one day. The other girls didn't have
time to do any of them, so she took it upon herself to get them all done. She
knew the people wanted them that same day, so she finished them."

09.   INVENTORY, SHIPPING, RECEIVING

09.03. Receiving

09.03.01 THE WORKER RECORDS INBOUND SHIPMENTS.   (9 task sheets)

```
                        ( Start )
                            │
                            ▼
              ┌─────────────────────────┐
              │  Receives receiving     │
              │  documents/merchandise  │
              └─────────────────────────┘
                            │
                            ▼
                      ╱ Assist  ╲        Yes      ╭──────────────╮
                     ╱ unloading ╲ ──────────────▶│  Assists in   │
                     ╲     ?     ╱                 │  unloading    │
                      ╲         ╱                  │  cartons      │
                          │ No                     ╰──────────────╯
                          ▼                               │
              ╭──────────────────────────╮◀───────────────┘
              │  Checks carton con-       │
              │  tents with invoice       │
              ╰──────────────────────────╯
                            │
                            ▼
                      ╱ Appear  ╲        Yes      ╭──────────────────╮
                     ╱ damaged   ╲ ──────────────▶│ Checks merchandise│
                     ╲     ?     ╱                 │   as unpacked     │
                      ╲         ╱                  ╰──────────────────╯
                          │ No          No                │
                          │◀───────────────────────     ╱ Damaged ╲
                          ▼                              ╲    ?     ╱
              ╭──────────────────────╮                       │ Yes
              │  Assists in un-      │                       ▼
              │  packing, shelving   │                  ╭──────────╮
              ╰──────────────────────╯                  │ Completes │
                          │                             │  claim    │
                          ▼                             ╰──────────╯
              ╭──────────────────────╮                       │
              │  Compares invoices   │                       │
              │ with receiving documents│                    │
              ╰──────────────────────╯                       │
                          │                                  │
   ╭──────────╮    No     ▼                                  │
   │ Records  │◀──────╱  All   ╲                             │
   │back order│       ╱ items   ╲                            │
   ╰──────────╯       ╲ received ╱                           │
        │              ╲   ?    ╱                            │
        ▼                  │                                 │
   ╭──────────────╮        │ Yes                             │
   │Holds/Sends back│      ▼                                 │
   │order to Account-│ ╭──────────────────────╮              │
   │ing, Purchasing,│─▶│ Records merchandise   │             │
   │ Receiving      │  │received in stock record│            │
   ╰──────────────╯   │book/receiving number  │             │
                      ╰──────────────────────╯              │
                                  │                          │
                                  ▼                          │
                      ╭──────────────────────╮              │
                      │  Computes total       │             │
                      │ merchandise on hand   │             │
                      ╰──────────────────────╯              │
                                  │                          │
                                  ▼                          ▼
                                ( 1 )                      ( 2 )
```

```
        (1)                                                    (2)

┌───────────┐   ┌───────────┐   ┌───────────┐   ┌───────────┐   ┌───────────┐
│ Delivers  │   │ Sends to  │   │  Files    │   │ Sends in- │   │  Holds    │
│ receiving │   │ unpacker/ │   │ receiving │   │ voice/PO/ │   │merchandise│
│ form to   │   │ depart-   │   │documents/ │   │ receiving │   │for dispo- │
│ co-worker │   │ ment      │   │purchase order │ documents │   │ sition    │
│           │   │           │   │  copies   │   │    to     │   │  order    │
└───────────┘   └───────────┘   └───────────┘   │Accounting │   └───────────┘
                                                 └───────────┘

                                 (End)
```

SUPPLEMENTARY STEPS: Calls warehouse regarding missing information on receiving forms; Records reduced price shipments in colored pencil; Stamps receiving documents "partial" if only portion of shipment received; Delivers receiving forms to supervisor for price adjustments.

REPORTED CRITERIA: "Shipment receipt accurately recorded; Needs manual dexterity; Skillful at counting material; Quick handling of damaged materials (chemicals); Organizes own work schedules."

09.03.02   THE WORKER ARRANGES EXPEDITING OF INBOUND SHIPMENTS. (4 task sheets)

Receives request to check on incoming shipment or
Determines when order should be followed up
Calls/Writes shipping source, carrier for whereabouts of shipment
Records shipping information
Informs interested party when inbound shipment expected

09.03.03   THE WORKER ISSUES A CLAIM OR AN ADJUSTMENT AGAINST THE CARRIER/SUPPLIER
           FOR DAMAGED/SHORT/OVERSHIPMENTS. (3 task sheets)

09.03.04   THE WORKER PROCESSES DAMAGE CLAIMS. (2 task sheets)

09.03.05   THE WORKER PROCESSES FREIGHT BILLS FOR PAYMENT. (1 task sheet)

09.03.06   THE WORKER ARRANGES RETURN OF LEASED MACHINERY. (1 task sheet)

09.03.07   THE LIBRARY WORKER DETERMINES DISPOSITION OF INCOMING BOOKS. (1 task
           sheet)

Receives boxes of books
Checks that previous week's books are removed
Places new books in bibliographer's section
Determines disposition of previous week's books
Sends invoices to Accounting

RECEIVING CRITICAL INCIDENT
"A worker received a shipment and did not open all boxes. Therefore he thought there was an error on the shipment and brought it to the attention of the supervisor. Supervisor felt this error was due to inexperience and not learning to check completely."

10. PURCHASING

10.00.01 THE WORKER MAINTAINS SUPPLIES AND STOCK INVENTORY. (94 task sheets)

```
      ( Start )

  ┌─────────────┐
  │  Receives   │
  │  supply     │
  │  request    │
  └─────────────┘

  ( Sorts checks,  )
  ( PO's, invoices )

  ( Checks prices/          )
  ( purchasing instructions/)
  ( specifications          )

  ( Stamps, Assigns code )
  ( on purchasing data   )

  ( Writes     )
  ( vendor/PO  )

       /\        No
      / Type \────────►  ( Sends to )
      \  ?   /            ( typist   )
       \/
       │ Yes
       ▼
  ( Types purchas- )
  ( ing documents  )

       /\        Yes
      /Punch\───────►  ( Punches /Verifies      )
      \  ?  /          ( punched order cards    )
       \/
       │ No
       ▼
  ( Computes/Verifies )
  ( extensions        )

  ( Obtains signa-  )
  ( ture, approval  )

       /\        Yes    ( Places       )
      /Call \─────────► ( phone order  )
      \vendor/
       \?/
       │ No            ( Stamps order  )
       │               ( "confirming"  )
       ▼
       (1)
```
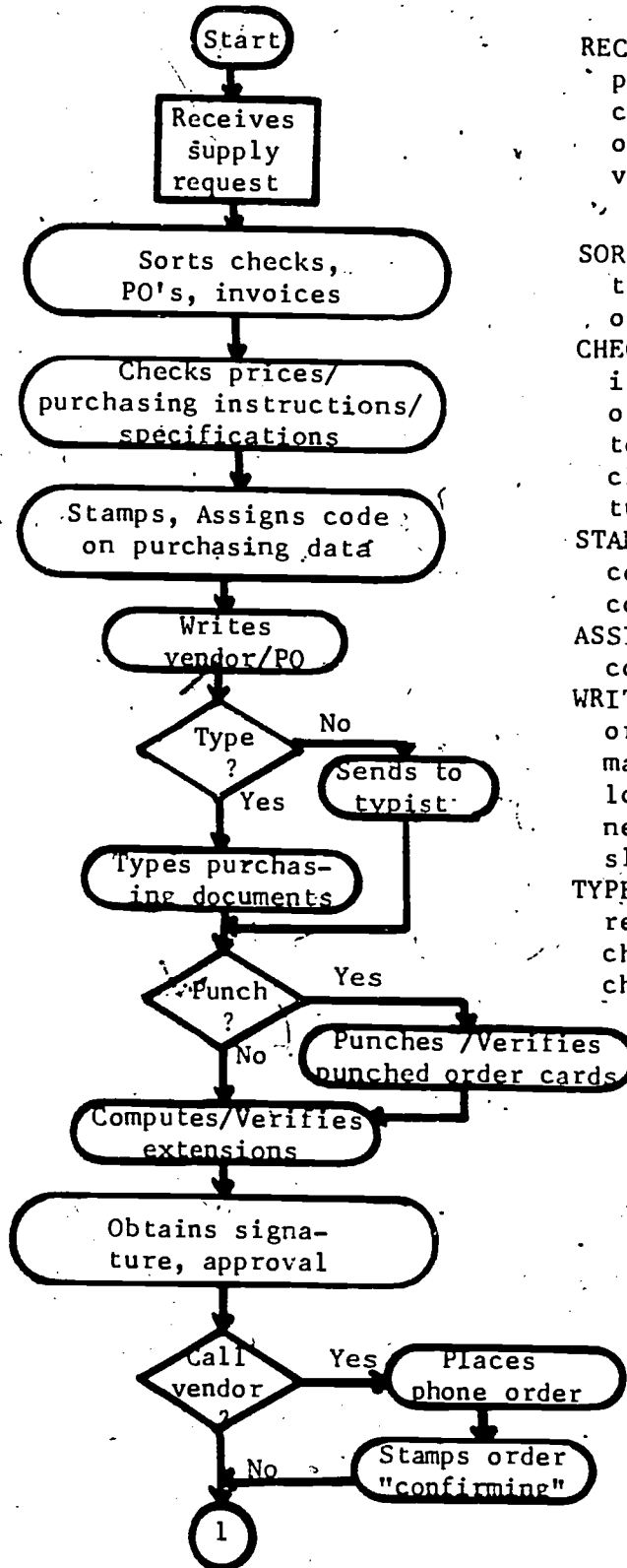
ACQUISITION

RECEIVES
  purchase requisition/invoice/book title
  cards/purchase orders/computer print-
  outs/buyers reports/cancellation in-
  voices/supply requisition

PROCESS

SORTS
  tickets/invoices/printouts/purchase
  orders
CHECKS
  item prices/shipping instructions/source
  of materials/requisition card/inven-
  tory records/complete information/
  clearance for pickup/order for signa-
  tures/vendors
STAMPS
  code on requisition/bulletins with
  company name/number on requisition
ASSIGNS
  code to purchase orders
WRITES
  order information on telegram forms/
  mark to indicate order placed in cata-
  log/charge tickets/calendar order/
  needed items/work orders/data on batch
  slip
TYPES
  release form/check/stock requisitions/
  charge-backs (shortages or errors)/pur-
  chase order

     PUNCHES
       purchase order card/card with
       order information
     VERIFIES
       punched cards/computations
     COMPUTES
       extensions/totals
     OBTAINS
       authorization of purchase order,
       requisition
     CALLS
       vendor to place order
     DUPLICATES
       requisition/purchase order/in-
       voices
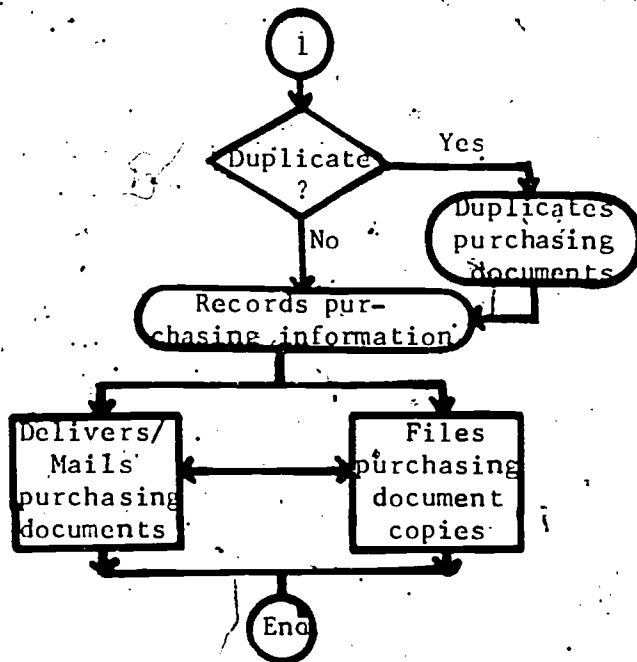
RECORDS
   actual cost of item/goods received/
   purchase order number/list of
   purchases

DISPOSITION

MAILS
   release forms/shipping instructions/
   purchase orders to supplier/invoices
   to Accounting.

DELIVERS
   purchase orders,.vendors, invoices
   to Receiving, Accounts Payable

FILES
   purchase orders/equipment reports/
   charge-backs/requisitions/letters/
   statements

SUPPLEMENTARY STEP: Assigns purchase
order numbers

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Supplies/materials	Typing
Duplicator	catalogs	Duplicating
Adding machine (10-key)	Purchasing forms	Accuracy
Microfilm		Filing
Telephone		Communication skills
		Computational skills

REPORTED CRITERIA: "Basic math; Ability to spell correctly and write legibly;
Good memory; Some pressure; Alert in numbering of sheets; Knowledge of micro-
film reader operation; Concentrate on duties with frequent interruptions;
Should have a basically neat and tidy appearance; Watchful of what is going
on at all times."

10.00.02   THE WORKER TYPES PURCHASING DOCUMENTS.   (30 task sheets)

ACQUISITION

RECEIVES
   oral, written requests for orders, raw materials/rough draft requisitions,
   purchase, work orders/order forms/purchase requests from salesmen

PROCESS

SORTS
   requisitions/order cards

CHECKS
   requisitions/descriptions by part number/for completeness of orders/vendor's,
   customer card

TYPES
   raw materials orders/requisition/purchase orders/checks/letter orders/agree-
   ments for storage/charge forms/release letter price agreements

PROOFREADS

OBTAINS
   authorization of letters/purchase orders/requisitions

RECORDS
   purchase order, requisition information

DISPOSITION

FILES
   orders/requisitions
DELIVERS
   purchase order to Distributing, Shipping, Accounting, Sales
MAILS
   purchare orders
PLACES
   purchase order on bulletin board

SUPPLEMENTARY STEPS: Sends purchase order using TWX; Duplicates agreement
for storage; Stamps order with confirmation/letters with meter mail machine;
Attaches requisition work orders

HARDWARE	SOFTWARE	EDUCATIONAL CUES
Typewriter	Requisitions	Typing
Bulletin board	Purchase orders	Accuracy
Calculator	Checks	Checking
Stamp	Purchasing forms	Filing
		Letter writing/grammar

REPORTED CRITERIA: "Must type accurately; Close attention to detail; Must be
able to read all kinds of handwriting; Care in typing customer name on order
since many names are similar except for one initial; Excellent English;
Compose letters."

10.00.03 THE WORKER ARRANGES EXPEDITING OF PURCHASE SHIPMENTS. (5 task sheets)

Receives lists of late shipments
Checks follow-up file daily
Calls Receiving, vendor representative to trace item
Completes follow-up form
Sends follow-up messages to vendor by teletype
Records findings
Sends follow-up forms to departments concerned
Files copy of teletype message

10.00.04 THE WORKER ADMINISTERS PURCHASE AND SALE OF STAMPS FOR HOSPITAL AND
          PATIENTS. (1 task sheet)

PURCHASING CRITICAL INCIDENTS
"Worker typed a purchase order and instead of ordering 1400 each of a specific
rivet, ordered 1400 lbs. of rivets. This amounted to a difference of six mil-
lion rivets, and resulted in an excess cost of $60,000 for the company."

"Forty custom-made cables had to be scrapped because she entered the wrong code
number on the purchase order."

"The Receiving Department called the worker about an order the worker knew was
cancelled for 100 rolls of carpet but let it go to the Manufacturing Department.
Consequently, the company has not been able to sell the carpet, which is valued
from $350 to $450 per roll."

11. PRODUCTION

11.00.01 THE WORKER PROCESSES SCHEDULES AND ADJUSTMENT OF SCHEDULED PRODUCTION
          ORDERS. (23 task sheets)

ACQUISITION

RECEIVES
  punched cards of production operation/work orders

PROCESS

CHECKS
  quantity of parts/schedules/credit references/labor costs/engineers'
  drawings/work orders/control cards/closing publication data/job number/
  specifications/completeness of orders
DETERMINES
  schedule adjustments/difficult-to-obtain parts from Production/schedules for
  photography, layout, unauthorized materials
TYPES
  printed forms/expenses on production orders/route cards/number of route card
  issues/bill of materials/date of job bid/work order/part requisition/job
  information/production schedule
PROOFREADS
ASSIGNS
  numbers to work orders, to bills
TOTALS
  expenses/direct costs
OBTAINS
  authorizations of work schedules
RECORDS
  stock inventory on card/weight of each order/machine-part-shortage sheet/
  revised production schedule/assigned number to work order/press order/pro-
  duction data/changes on computer input sheet/keypunched card data/deadlines
  on work orders/instructions on printout sheet
ATTACHES
  punched cards, stock cards, printouts to production forms
DUPLICATES
  revised schedule/production, field change orders

DISPOSITION

FILES
  production schedule/production control/job tickets/job ticket ledger sheet/
  press, field change orders/specifications/production control cards
DISTRIBUTES
  final planning sheets/control cards/work order deadlines
DELIVERS
  shortage sheets to Production Materials/route, data cards to Production/work
  orders to engineer/press orders/drawings to Duplicating/requisition to Parts
  Procurement/materials transfer list to Expediting/laboratory cards to Aero-
  space/job tickets to manager/grinding cards to filer/commercial schedules to
  Control Room
MAILS
  bills

SUPPLEMENTARY STEPS: Updates shortage sheets; Collates punched cards

HARDWARE.   SOFTWARE   EDUCATIONAL, CUES

Adding machine (10-key)   Stock, job cards   Duplicating
Duplicator   Job tickets   Computational skills
Typewriter   Punched cards   Typing
                             Computer sheets   Checking
                             Rough production   Filing
                               reports, schedules

REPORTED CRITERIA: "Ability to follow instructions; Make right decisions in
adjustment or leveling off the production schedule; Accuracy; Proficient in
typing and filing; Be extremely explicit in writing detailed instructions;
Check and organize details; Knowledge of ever production step in ad produc-
tion from beginning to end."

11.00.02 THE WORKER TYPES PRODUCTION REPORTS. (16 task sheets).
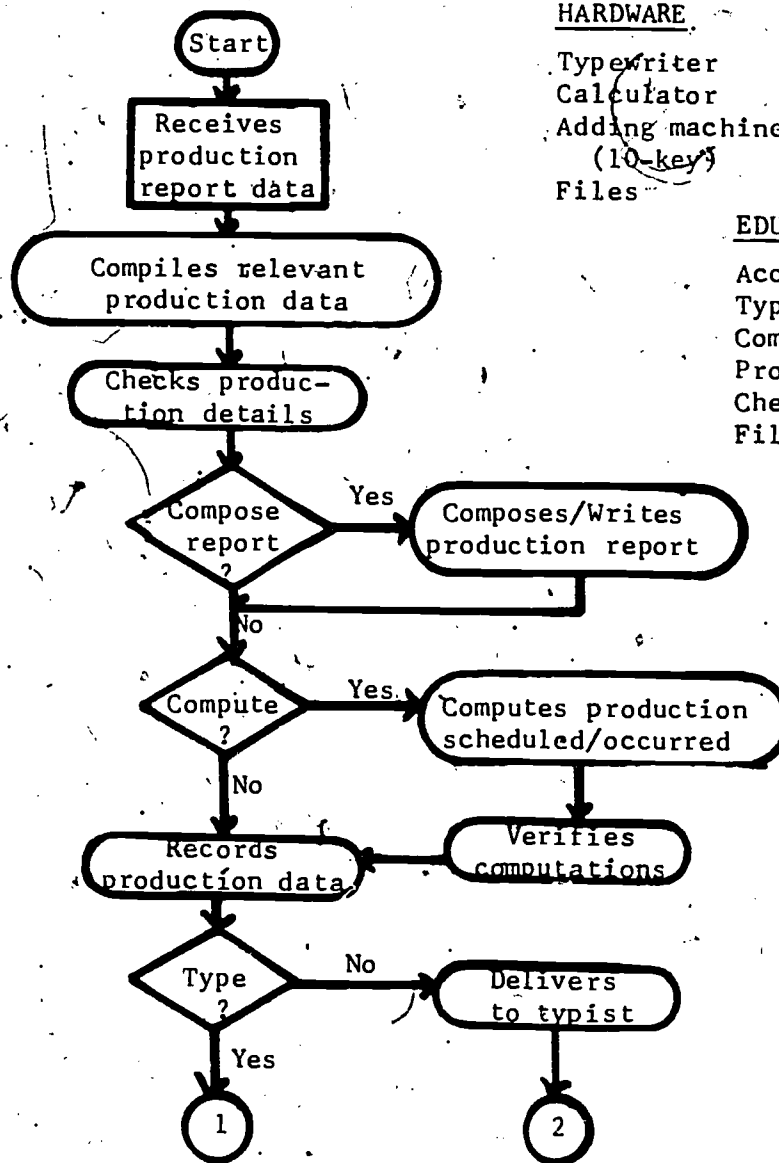
HARDWARE   SOFTWARE

Typewriter   Weights, log books
Calculator   Production reports
Adding machine   Analysis sheets
  (10-key)   File labels, tabs
Files

EDUCATIONAL CUES

Accuracy
Typing
Computational skills
Proofreading
Checking
Filing

REPORTED CRITERIA:
"Must be able to compile
data and use it to com-
pose a meaningful report;
Accurate recording of
information; Correct
weights; Promptness;
Check details carefully;
Know where to find ans-
wers; All copies must
be legible with dates
correct, inserts and
placement; Report
should have a good
general appearance."
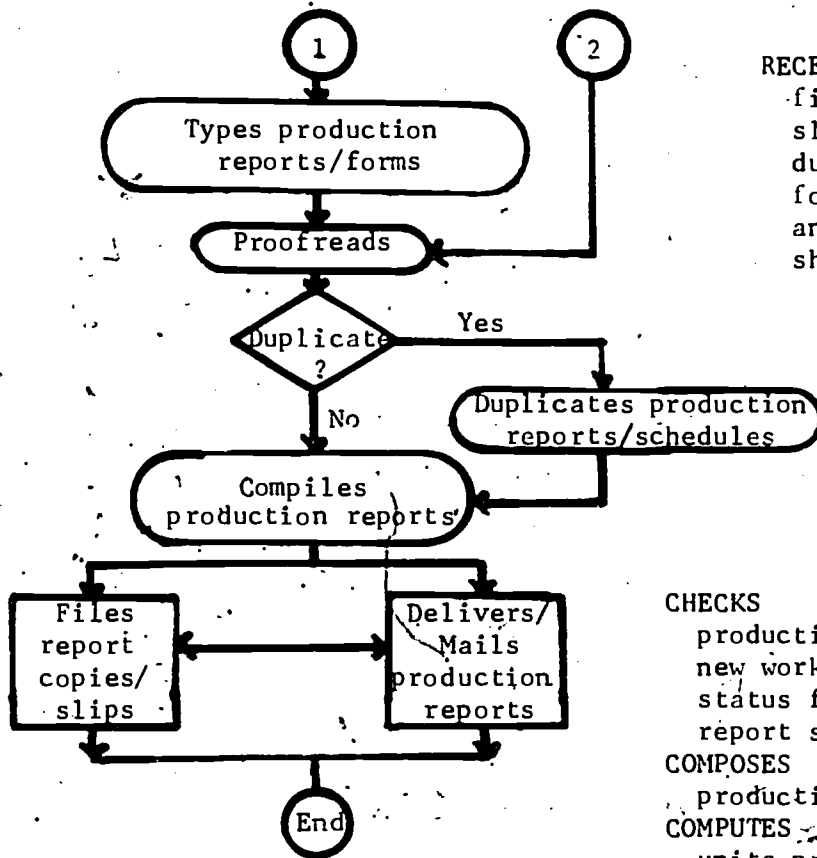
ACQUISITION

RECEIVES

final report/printouts/production
slips, lists/rough draft of pro-
duction report, schedule/report
forms/raw data/instructions/notes/
analysis committee, pre-production
sheets/contracts/shipping tickets

PROCESS

COMPILES

report from notes; other
sources

SORTS

printouts by subject, dis-
patcher, area/reports by
products/production slips
by number/packing slips

CHECKS

production report/notes, dates received/
new work on ad/completeness of work
status forms/master sheets/production-
report sheet

COMPOSES

production report

COMPUTES

units produced/variance of schedules
from actual amounts produced/weights/
extensions/packing slip totals/balance
to be produced/production hours for
workers

VERIFIES

accuracy of computations

RECORDS

production information/units produced/gain, loss amounts/date contract re-
ceived/total productions/variance in production on production sheet/instruc-
tions for format/daily operations report

TYPES

production report/schedule on printed form, fluid process master/changes on
master sheet/index labels, tabs for folders

DUPLICATES

production, progress report/pre-production schedule

COMPILES

report

DISPOSITION

MAILS

contracts

FILES

production, transfer, progress, daily operations reports/production, balance
sheets/analysis of renewal committee, gain or loss reports/contracts/produc-
tion schedules/packing slips

DELIVERS

production report to department heads/summary sheets to Duplicating/gain or
loss report to supervisor/reports of back orders to dispatchers, supervisor

SENDS

copy of production report to company members/analysis files to credit
assistant

11.00.03   THE WORKER·DISCUSSES PRODUCTION PROBLEMS WITH·POTENTIAL CUSTOMERS.
           (1 task sheet)

<u>Receives</u> production· problems from visitors
<u>Issues</u> technical suggestions on production capabilities versus contract
<u>Refers</u> problem and visitor to supervisor
<u>Requests</u> date work is needed
<u>Checks</u> status·of work in-shop, with vendor
<u>Delivers</u> order to shop, vendor

<u>PRODUCTION CRITICAL INCIDENTS</u>

"I asked worker to check into the operation of a new machine we had just re-
ceived in the shop. I wanted him to work with the foreman and then give me a
report on the machine. He never took care of the job, and I did not get a
report from him. I don't think he understood the importance of what I was
asking him to do for me. This information involved production cost reduction
figures for the shop."

"When worker first started he did not keep an up-to-date record of materials
and parts on order. As a result, our satellite plant faced a shut down because
of shortages of materials. He did not review the daily production re ords for
the plant and did not keep his records·current."

12. MISCELLANEOUS

12.00.01   THE WORKER COMPLETES MINOR REPAIRS AND MAINTENANCE OF DUPLICATING
MACHINES. (6 task sheets)

12.00.02   THE WORKER OPERATES COLLATOR. (4 task sheets)

12.00.03   THE WORKER COMPLETES BINDING AND PADDING OF PRINTED FORMS. (3 task
sheets)

12.00.04   THE WORKER ARRANGES FOR SUPPLY AND MOVEMENT OF EQUIPMENT REQUESTED.
(3 task sheets)

12.00.05   THE WORKER PERFORMS TIME AND MOTION STUDIES. (3 task sheets)

12.00.06   THE WORKER ARRANGES GRAPHIC DISPLAY OF TEST RESULTS. (3 task sheets)

12.00.07   THE WORKER COMPLETES TESTS AND REPORTS OF COMPANY PRODUCTS. (3 task
sheets)

12.00.08   THE WORKER ARRANGES RECEPTION ROOM AND COFFEE SERVING FOR EMPLOYEES
AND GUESTS. (3 task sheets)

12.00.09   THE WORKER DELIVERS VOUCHERS OR OTHER SPECIAL DOCUMENTS. (2 task
sheets)

12.00.10   THE WORKER PROCESSES DELINQUENT AUTO LOAN COLLECTIONS. (2 task
sheets)

12.00.11   THE WORKER PREPARES DRAWINGS OF BUILDINGS OR ROCKET ENGINES. (2
task sheets)

12.00.12   THE WORKER DETERMINES PROCESS FOR NEW PRODUCT. (1 task sheet)

12.00.13   THE WORKER DISCUSSES HANDLING OF FRANCHISE CONTRACTS. (1 task sheet)

12.00.14   THE WORKER PACKAGES FINANCIAL RECORDS FOR PERMANENT STORAGE. (1 task
sheet)

12.00.15   THE WORKER CALLS DOCTORS, HOSPITALS, POLICE, FIRE DEPARTMENT, AND
INSURANCE CARRIER IN EMERGENCIES. (1 task sheet)

12.00.16- THE WORKER OPERATES LOST AND FOUND DEPARTMENT. (1 task sheet)

12.00.17   THE WORKER PREPARES BILL OF MATERIALS FROM BLUEPRINTS. (1 task sheet)

12.00.18   THE WORKER ARRANGES FORMAT OF COMPUTER OUTPUT SHEETS. (1 task sheet)

12.00.19   THE WORKER ASSISTS TECHNICIANS SUCH AS ELECTRICIANS, PLUMBERS, AND
PAINTERS. (1 task sheet)

12.00.20 THE WORKER OPERATES A TAG MACHINE FOR PRICING MERCHANDISE. (1 task sheet)

12.00.21 THE WORKER OPERATES GIFT WRAPPING SERVICE. FOR CUSTOMERS. (1 task sheet)

12.00.22 THE WORKER CHECKS PHONOGRAPH RECORDS. (1 task sheet)

12.00.23 THE WORKER CODES METER READINGS FOR UTILITY BILLINGS. (1 task sheet)

12.00.24 THE WORKER ASSISTS IN WIND TUNNEL TESTS. (1 task sheet)

12.00.25 THE WORKER PROCESSES LABELS BY DATING, SORTING, AND FILING. (1 task sheet)

MISCELLANEOUS CRITICAL INCIDENTS

"Once the worker painted wrong edges of forms with rubber cement when padding. He had to wait until it dried, scrape the cement off, trim the edges again, and paint the proper edge."

"Recently some pages were omitted by the worker in collating one of the classified documents. Fortunately, the error was caught before the report left our plant so it only resulted in extra work. Had it gone out in that condition, it would have resulted in work being repeated at our expense."

"A report was received for binding late one afternoon. It had to be out the next day. The worker came in at 6:30 a.m., and worked on it steadily under constant pressure until 4:30 p.m. The job was complete and correct and we made the deadline."

G.   CONCORDANCE OF VERBS AND OBJECTS (EXPLANATION)

    For easy reference of the verbs and objects of generalized task state-
ments, the following concordance has been compiled. The six digit code
following each entry refers to the coded task statements in either the
Compendium by Code Classification of 373 Task Statements or the Detailed
Task Statements (see the code index at the front of Detailed Task Statements
for codes of first and second level classifications).

    How to read the Concordance:

    Example 1

        ACCOUNTS
            customer, 08.00.11
            new and accrual, 01.07.07

    To be read: The object "customer accounts" appears in task statement
                 08.00.11; the object "new and accrual accounts" appears in
                 task statement 01.07.07.

    Example 2

        ANSWERS, 01.08.07; 03.00.08; 04.04.04/.11.02; 05.00.02/.06/.08;
                 08.00.07.

    To be read: The verb "answers" appears in each of the above coded task
                 statements. Note: 04.04.04/.11.02; that repetition of
                 one or more main classifications is indicated by a diagonal.
                 Therefore, the second listing /.11.02 refers to first main
                 category
                     04.   CLIENT RELATED SERVICES
                     04.11.   Miscellaneous Services
                     04.11.02   The second task statement under Miscellaneous
                                 Services that reads: "The worker answers
                                 miscellaneous over-the-counter or telephone
                                 requests."

GENERALIZED TASK STATEMENTS

CONCORDANCE OF VERBS AND OBJECTS

ACCOUNTS
    customer, 08.00.11
    new and accrual, 01.07.07
    new, transfers, and trust,
        04.02.03
ACCOUNTS PAYABLE, 01.02.01/.02
ACCOUNTS RECEIVABLE, 01.01.02
    customer's, 01.01.05
ACCURACY, 01.04.01
    of Data Speed Machine, 06.03.10
ADJUSTMENT (see also Changes, Cor-
    rections)
    production order, 11.00.01
    shipment, 09.03.03
ADJUSTS, 01.06.07; 06.05.04/.06.04
ADMINISTERS, 04.02.08; 07.00.04/.19/
    .24/.27; 10.00.04
ADVERTISEMENTS
    classified, 08.00.08/.24
ADDRESSES, 03.00.12
AMOUNTS, 04.02.05
    securities, 04.02.14
ANSWERS, 01.08.07; 03.00.08;
    04.04.04/.11.02; 05.00.02/.06/
    .08; 08.00.07
APPLICANT
    credit, 01.08.04
APPLICATIONS (see also Forms)
    auto club membership, 04.01.06
    credit, 01.08.01
    employment, 07.00.01
    membership/loan, 04.02.02
    new student, 04.03.04
    special learning disability,
        04.03.09
    VSI, 04.02.07
    welfare assistance, 04.08.02
APPOINTMENTS
    patient's, 05.00.05
    student nurses' health exam,
        07.00.25
ARRANGES, 02.01.11/.02.05; 04.05.01/
    .04/.06/.06.02/.07.01; 05.00.05/
    .11/.12; 06.06.06; 07.00.03/.09/
    .11/.20; 80.00.06/.15/.22/.29/.30/
    .32; 09.02.02/.03.02/.06;
    10.00.03; 12.00.04/.06/.08/.18

ARTICLES
    medical, 03.00.05
ASSISTS, 04.03.05/.10.04; 07.00.13/
    .23; 08.00.26; 12.00.19/.24
ASSUMPTIONS
    of loans, 04.02.19
ATTACHES, 02.01.18
ATTENDANCE
    student, 04.03.07
AUDIT, 01.04.11

BALANCES (see also Reconciliation,
    Totals)
    loan, 01.04.09
BIDS (see also Quotations), 01.07.02
BILLINGS (see also Statements)
    of sales, 01.01.03
BILL OF LADING, 09.02.01
BILLS (see also Statements)
    freight, 09.03.05
    of materials, 12.00.17
BINDING
    of printed forms, 12.00.03
BONDS (see also Securities, Stocks)
    01.06.03
    call, 04.04.07
    government, 04.04.08
BOOKS
    library, 04.10.02
BOXES
    safety deposit, 04.02.08
BULLETINS, 03.00.10
BUSINESSES, 08.00.28

CALLS, obj.
    incoming telephone, 05.00.01/.02
    local/long distance, 05.00.07
CALLS, v., 01.01.09; 08.00.28;
    12.00.15
CARDS
    employee pass, 07.00.16
    ledger, 02.02.05
    library index, 04.10.03
    payment, 06.02.03
    personnel, 07.00.06
    punch, 06.01.01/.07/.03.08
    social security, 07.00.18
    time, 01.03.09/.10

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CASH (see also Coins, Money),
01.04.07
CATALOGS (see also Manuals)
sales, 08.00.11
CERTIFICATES
birth, 04.06.06
savings, 04.02.26/.27
stock, 04.04.01
CHANGES (see also Adjustments)
account status, 01.01.10
computer program, 06.06.05
payroll, 01.03.03/.06
sales, 08.00.10
CHARGES (see also Costs)
guest, 04.05.02
medical, 01.01.06
CHARTS
patient, 02.03.02
CHECK-IN
guest, 04.05.01
library materials, 04.10.01
CHECK-OUT
guest, 04.05.04
library materials, 04.10.01
CHECKS, obj. (see also Currency,
Money), 06.02.03
batches of, 06.02.06/.03.07
checks, 01.04.05
quality control, 06.01.06
routine, 01.04.03
travelers, 04.02.28
CHECKS, v., 01.04.01/.06; 02.01.19;
04.02.05/.09/.14/.25/.03.08;
06.02.01/.06.02; 08.00.20;
09.02.05; 12.00.22
CLAIMS
insurance, 04.01.03/.06.04
security, 04.02.09
shipment, 09.03.03
shipment damage, 09.03.04
welfare assistance, 04.08.01
CODES, 01.04.12; 06.02.03/.04.01/
05.02; 12.00.23
COINS (see also Cash, Money)
01.04.08
COLLECTIONS
delinquent auto loan, 12.00.10
COMMERCIALS (see also Advertisements)
radio, 03.00.13
TV sales, 08.00.12
COMMISSION
salesmen, 01.03.08
COMMITTEES, 08.00.26
COMMUNICATIONS (see also Letters,
Memos), 03.00.03

COMPILES, 01.03.04/.13/.07.01/.03/
.06/.08.10; 02.03.01; 04.02.10/
.03.03; 07.00.07/.08; 09.01.06
COMPLAINTS (see also Grievances)
ad, 08.00.08
customer, 08.00.07
guest/employee, 04.05.05
COMPLETES, 01.01.06/.07; 08.00.21;
09.01.04/.02.09; 12.00.01/.03/.07
COMPOSES, 08.00.12
COMPUTATIONS (see also Totals)
01.04.06
COMPUTER
electronic, 06.03.06
COMPUTES (see also Totals), 01.02.01/
.03.03/.08
CONFERENCES (see also Meetings)
doctor/patient, 05.00.12
hotel, 04.07.01
CONTENTS
outbound shipments, 09.02.04
CONTRACTS
scholarship expenses, 04.03.12
CONTROL
work flow, 06.02.04
CORRECTIONS (see also Adjustments,
Changes), 06.01.04
CORRECTS, 01.04.05; 02.03.04/.05;
06.02.05
CORRESPONDENCE (see also Communications,
Letters, Memos), 03.00.01; 08.00.03
COSTS (see also Charges)
unit, 01.07.01
COUPONS
Christmas club, 04.02.29
COVERAGE
insurance, 04.02.23
CREDIT
computer rejected, 06.02.05
customer, 01.08.02
CURRENCY (see also Cash, Money)
04.02.20
CUSTOMER, 04.02.21; 08.00.31
delinquent, 01.01.04/.09

DATA (see also Information)
new personnel, 07.00.08
payroll, 01.03.05
report, 01.06.01
DEBITS
computer rejected, 06.02.05
DELIVERS, 02.01.07/.08/.12/.20;
12.00.09
DEPARTMENT, 01.08.04
lost and found, 12.00.16

RECORDS, v., 01.01.02/.02.02/.03.02/
 .06/.05.03/.04/.05/.06.01/.03/
 .04/.05/.06; 04.03.07/.05.02/.11
 .01; 03.00.10/.19; 09.01.03/
 .02.03/.03.01
REGISTRATION
 conference, 04.07.02
 insurance car, 04.02.23
 student, 04.03.05
REPAIRS
 minor, 12.00.01
 room, 05.00.10
REPORTS, 02.03.01; 03.00.04/.10
 company product tests, 12.00.07
 cost analysis, 01.07.04
 delinquent receipts, 01.08.10
 educational, 04.03.01
 financial, 01.06.02
 inventory, 09.01.09
 medical, 03.00.05
 new business, 04.01.04
 payroll, 01.03.04
 personnel, 07.00.05
 production, 11.00.02
 sales, 01.01.07
 service, 04.09.01
 shipping, 09.02.09
 stock, 09.01.07
 variance, 01.07.03
REQUEST, 02.01.13/.02.01; 03.00.08;
 04.02.01/.03.02/.11.02
 credit information, 01.08.06
 customer, 01.08.11
 for lecturers, 04.03.11
 telephone/over-the-counter,
 08.00.02
REQUESTS, v., 01.01.11; 05.00.10;
 07.00.25; 08.00.14
REQUISITIONS
 saving bond, 04.04.06
 supply, 08.00.17
RESERVATIONS
 room, 04.05.06
RESPONSES
 sales, 08.00.12
RETURN
 of leased machinery, 09.03.06
ROOM
 reception, 12.00.08
ROUTES (see also Manifest)
 delivery, 09.02.02
ROUTING
 publications, 02.01.11

SALE
 stamps, 10.00.04
SALES
 ticket, 04.11.03
SCHEDULES, 02.03.03
 conference room, 05.00.11
 educational, 04.03.01
 hospital, 05.00.05
 payroll, 04.02.24
 production order, 11.00.01
 TV/radio commercial, 08.00.15
 time for computer program, 06.06.06
SECURITIES (see also Bonds, Stocks)
 04.02.05
SENDS, 03.00.15; 04.04.05; 09.02.06
SERVICE
 gift wrapping, 12.00.21
SERVING
 coffee, 12.00.08
SETTLEMENTS
 buy/sell orders, 04.02.11
 estate, 04.02.06
SHEETS
 balance, 01.04.05
 broker's exchange summary, 04.02.10
 function, 04.05.08
SHIPMENTS, 09.02.08
 inbound, 09.03.01
 undelivered, 09.02.05
SLIPS
 deposit, 01.06.03
 deposit/withdrawal, 06.02.03
 savings/withdrawal, 01.04.05
 time, 01.03.12
SORTS, 01.04.08; 02.01.03; 06.03.07
SOURCE DOCUMENTS (see also Documents,
 Forms, Items), 01.04.05
 orders/invoices/punched cards/
 printouts/listings, 06.02.01
STATEMENTS (see also Billings, Bills)
 patient account, 01.01.08
STATISTICS, 01.07.06
STENCILS, 02.03.04
STICKERS
 claim, 04.01.05
STOCK (see also Bonds, Securities)
 01.06.03; 09.01.08
STUDIES, TIME AND MOTION, 12.00.05
SUPPLIES, 10.00.01
 equipment, 12.00.04
SWITCHBOARD, 05.00.04

TAPES
 magnetic, 06.03.03

Chapter V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A. SUMMARY OF THE REVISED REPORT AND ITS PRODUCTS

Empiric data for New Office and Business Education Learnings System were from 1232 interviews of office employees, aged 16-24 years, and their supervisors. These interviews yielded 4564 basic tasks analyzed into 32,447 steps of task performance. The 4564 task sheets were also generalized to 373 task statements.

Chapters I, II, and III dealing with the computer-coded data of the 1232 interviews remain the same in this revision as presented in the original report published in April, 1970. These data were based on 4548 task sheets, a discrepancy of 16 tasks between the 4564 task sheets reported above. The discrepancy of 16 added tasks resulted from judgments in the further hand sorting of task sheets that certain sheets represented more than one task.

Each of the task statements and their detailed performance as presented in Chapter IV were reviewed and revised to the extent that such revision was judged to add clarity. The task statements were reclassified and reordered according to the number of task sheets represented in the interview data. In addition to presenting the detailed task statements, recoded and arranged with a notation system for cross-referencing, additional listings of the task statements were displayed as follows:

1. A compendium by code classification of 373 task statements

2. A list of 51 high-frequency task performances

3. A list of task performances drawn from the medical field representing the Standard Industrial Classification of service type office jobs and from banking, representing the SIC of finance, insurance, and real estate.

4. A concordance of verbs and objects of the 373 task statements compiled and cross-referenced

Products of the current phase of NOBELS are listed on page 8 of this report. In addition to the area reports from four data collection centers, the Taxonomy of Office Activities (Huffman, 1968), the Talent Inventory (Cook, 1970), the Emergent Office (Huffman, 1971) were products of Phase 1 of NOBELS. The NOBELS Verbs and Synonyms and its successor list of 57 verbs and synonyms are a part of the current report (pp. 47-49 and Appendix E). Correlative analyses of interaction critical incidents and of hardware used in office task performance were prepared at the University of Georgia (Calhoun, 1970).

B. LIMITATIONS OF THE DATA

Claims to a statistical sample of office workers representing the United States were not made.

The selection of the population of interviewees was influenced by the geographic location of the principal data collection centers at Albany, New York, Athens, Georgia, Los Angeles, California, and Minneapolis, Minnesota. In addition, some pilot interviews were collected in Detroit, Michigan. Within the above geographic areas, office workers were selected to approximate a profile of workers as found in U.S. Census data on dimensions of Standard Metropolitan Statistical Areas of more or less than 100,000 population, more or less than 100 employees in the businesses, sex, and Standard Industrial Classification of types of businesses.

C. CONCLUSIONS AND RECOMMENDATIONS

1. NOBELS' task statements as herein presented provide a base for modifying present curriculum or developing new sets of learnings in office occupational preparation at an operational level of performance.

Within the limitations of the data, the high-frequency of performances expected in a relatively small number of generalized tasks does provide clues to priorities of kinds of tasks that can be expected of most office workers in jobs.

The first five highest ranked generalized task performances, ranked on the number of task sheets collected, account for 17.4 percent of all task sheets. The first 35 generalized task statements account for 51.1 percent; and first 51 tasks, for 61.1 percent.

It should be remembered, of course, that the foregoing conclusion is biased toward an operational level of work versus a management or decision-making level. By design, our data were limited to performances of 16- to 24-year old workers. This bias was further substantiated by our inability to classify steps of task performance around the "managing domain" of verbs in the Taxonomy (Huffman, 1968).

2. NOBELS' generalized task statements admit to local interpretation of specific performances and their standards of excellence.

A claim to the development of "performance goals" as in the original report was in error and has been changed in the revised materials to the more modest designation of generalized task statements or performance specifications from which performance goals will need to be developed. To be sure, the competencies and performances attached to an office preparation program should be extracted from the actual performances of office work. Yet, a generalized task statement even in its detailed form is at most a generalization of important steps taken to perform office tasks and not the specific performance expected of a particular office worker.

One way for curriculum workers to overcome this lack of specificity is to seek out local examples of a performance capturing specific examples of

input, the software and supplies necessary to process, and models of local
task product acceptability. One such effort to place NOBELS task state-
ments into the specificity of local job expectations, utilizing specific
task input, software and forms, and models is the work of Herschelmann with
Detroit Metropolitan eachers in developing "Individualized-Teaching Instruc-
tional Packets (Cook, Lanham, 1971).

3. Fundamentals of office task performance related to accuracy of
checking and proofreading, to oral and written communication, and to compu-
tation of numerical data are components of competency necessary to success-
ful completion of most office tasks.

As stated earlier, accuracy as a desired generalized behavior of office
workers is a function of checking for potential error and of correcting
error. When supervisors so universally say they require "absolute accuracy"
as they did in NOBELS' interviews, we must conclude they mean: "An accurate
office task performance means perceiving what an accurate product is, identi-
fying likely points of error, checking and correcting so that the product
is accurate because the worker has checked and eliminated any potential in-
accuracy."

Inadequate communication skills, both oral and written, are a frequent
source of unsuccessful office performance. Communication skills adequate to
instruct others or to modify office actions are sought by supervisors.

Organizing and classifying of both numerical and verbal data--all sym-
bolic data--are even more necessary behaviors in our emerging electronic
technology than ever before.

Perhaps the necessity of emphasizing checking, communication, and compu-
tation components of all task performance is obvious. Yet, the evidence col-
lected cause us to underline the necessity of at least the universal demand
of employers for these behaviors in their office employees. The fact that
present employees in the NOBELS survey were often criticized for not pos-
sessing these basic competencies is strong enough evidence that current
learnings programs are not yet good enough.

The number of interaction critical incidents reflecting "thin-skinned,"
angry workers almost caused us to add a "fundamental" related to social
graciousness in dealing with people within and without the business organi-
zation. Whether the added educational emphasis of social graciousness takes
the form of sensitivity training, of case study in application of the golden
rule, or of the more mundane "how to win friends," office workers in our
sample displayed weaknesses in interacting with other people.

4. Communication tasks, typewriting and oral, provide a promising
cluster for curriculum grouping in preparing for office work.

Clerk typist as a job classification cluster accounted for 14 percent
of the 1232 workers interviewed for NOBELS. These workers were located in
every functional department of the businesses contacted (Table 7, p. 30).
Typewriting, stenography, and oral communication also accounted for 38 per-
cent or 1722 in number of 4548 tasks (p. 27). Typewriting and shorthand

3.

task performances alone account for 8.7 percent of all task sheets and represent the first two, ranked by highest frequency, of task performances. Telephone calls (oral communication) account for 8.1 percent of all task sheets and represent the third and fifth highest ranks by frequency.

5. Numerical clerical records and data processing tasks provide a promising cluster for curriculum grouping in preparing for office work.

Accounting clerks as a job classification account for 251 in number or 20 percent of 1232 workers interviewed and data processing operators, 128 in number or 10 percent. Additionally, general clerk job classification in which numerical record and data processing tasks were also performed account for 135 in number or 11 percent of all workers. Some of the workers so classified were attached to all functional departments of business contacted. Again, numerical clerical records account for 980 in number or 21 percent of 4564 task sheets collected and electronic data processing accounted for 398 in number or 9 percent of all tasks.

Not only are there a high concentration of tasks in the above areas, but these areas of tasks provide the source of practice for fundamentals of accuracy and checking and the organizing and classifying of numerical data discussed in conclusion number three, above.

It should be noted that the weight of evidence from the analyzed steps of tasks performed does not support double entry bookkeeping or accounting as now taught. Most of the numerical clerical record tasks deal with the production or handling of original documents such as, accounts receivables, payables, or payroll documents and not the accounting entries from those transactions. Further, the mechanization of accounting through data processing equipment makes the form of the accounting entry somewhat remote from the way the entry is taught in many classrooms.

Supporting the view that "principles" of a system of double entry record keeping should be retained is one that the system of analyzing transactions into its duality develops understanding of the nature of basic documents dealt with.

Opposing the view is one that suggests the futility of teaching the debits and credits of a sales transaction without a repertoire of performances related to completing sales and credit documents and without the simple computational skills to extend or add accurately the numerical data of the transaction.

6. Performance tasks extracted from industry groupings such as those in this report from medical or banking may serve curriculum developers to provide promising performance goals of unique purpose and accomplishment other than the narrow occupational intent of the specific task performance.

Several examples from NOBELS still at the level of hypothesis illustrate the meaning of the foregoing. Money and banking, credit, and credit relationships as illustrated in banking tasks may have an occupational import to some students planning to work in financial institutions. Yet, these same tasks, viewed from tasks performed in a bank, have basic consumer economic learnings important to all students and provide a promising means for deriving these consumer economic goals.

In curriculum for career education, we suspect that developers can find in the various office task performances a direct relation in subject content and learnings needed to meet career education performance goals.

Medical tasks, with their emphasis on "tender, loving care" as an ingredient in most performances dealing with patients may provide the practice needed to develop certain social-grace types of goals such as needed in empathic interaction with distraught patients.

Finally, the "rifle" type curriculum versus the "shotgun blast" may speak for a limited number of industries represented in local curriculum performance goals in those localities where most of the students are likely to be employed in these few industries.

Opposed to the "rifle" type curriculum suggested in the last example, learning programs may well derive materials for teaching from more than one industry to add scope and generality to the basic performance to be learned. For example, rather than limit the performance to retailing or other service industries, as high school bookkeeping textbooks tend to do, learning and performance would seem to be enhanced by practicing similar performances in, say, a manufacturing or other type of business as well. .

D. THE FUTURE OF NOBELS

Despite the view of NOBELS as a long-range curriculum development program expressed in Chapter I of this report, proposals from DPE's Board of Governors for Research and Development or organized plans for extending the phases of NOBELS have not yet been implemented.

In NOBELS' current quiescence on an organized and national level, the authors reaffirm the concluding remark of the original report:

"We urge, therefore, all those researchers and developers who envision a next phase of NOBELS development to propose and to seek funds for continuing the renewal of office and business education curriculums, the foundation of which is contained in our current outputs. (Lanham, 1970)"

In the meantime, we also encourage those individual, local, and state research and development people who are now in the throes of developing and implementing competency based office curriculums to continue to expand their efforts. For it is the success of these developers, usually near the classroom, who have the power of curriculum renewal in business and office learnings program.

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APPENDIXES

APPENDIX A

TABLE 50. FIRST SEQUENCE OF NINE HIGH-PRIORITY ABILITIES PROPOSED FOR PREPARATION OF OFFICE PERSONNEL.

High-Priority Emerging Ability	Ability Common to This Level of Personnel			
	Management	Supervisory	Clerical	Prof.-Tech.
A1--Ability to comprehend and conceptualize the system of the organization or unit as a vast network or information flow and to understand as an employee one's position in the operation of the system.	x	x	x	x
B2--Ability to adjust quickly to new equipment, procedures, and work sequences brought about by rapid technological changes for the purpose of updating skills, increasing individual productive capacity, and raising company output.	x	x	x	x
B4--Ability to perform adequately in one system, switch to another system and perform adequately, and then switch back and perform adequately again. (Total job flexibility)	x	x	x	x
C3--Ability to recognize how inaccurate data entering a system may affect outcomes on succeeding jobs.	x	x	x	x
D1--Ability to gain rapport with all racial groups.	x	x	x	x
E2--Ability to communicate via data communication devices and to know the limitations, methods of utilization, and choose from available equipment for particular operations.	x.	x	x	x
G2--Ability to input data in an on-line real-time system to obtain information for report preparation, office work production, and exception reporting.	x	x	x	x
G3--Ability to review information systems output to determine if there are errors.	x	x	x	x
G4--Ability to determine what happened to produce the results in an information system and to provide corrections of data, if needed.	x	x	x	x

APPENDIX A

TABLE 51. SECOND SEQUENCE OF TWENTY-ONE HIGH-PRIORITY ABILITIES PROPOSED FOR PREPARATION OF OFFICE PERSONNEL.

High-Priority Emerging Ability	Ability Common to This Level of Personnel			
	Manage-ment	Super-visory	Cleri-cal	Prof.-Tech.
G6--Ability to utilize contemporary record storage techniques including microfilm, microfiche, aperture cards, etc., including indexing and operating the system.		x	x	x
H1--Ability to operate various pieces of new equipment through self-instruction or in-service training. (MTST, Electronic Calculator, ATS, etc.)				
H2--Ability to operate various computer data manipulation devices. (Input, Output, Storage, and Retrieval)		x	x	x
H3--Ability to operate microfilm and microfiche equipment.		x	x	x
I3--Ability to convert data to appropriate coding schemes.		x	x	x
I4--Ability to assemble and arrange input data for processing.		x	x	x
I1--Ability to write and execute information systems programs.		x	x	x
C1--Ability to analyze the needs, attitudes, motivations, and actions of others to facilitate the desired outcomes.	x	x		x
C2--Ability to interface between management and informational systems personnel.	x	x		x
E1--Ability to summarize output from information systems for the purpose of presenting management with concise reports.	x	x		x
E3--Ability to interpret and communicate the findings resulting from research studies.	x	x		x
F1--Ability to identify and select among a number of alternate combinations of equipment, procedures, and people for that combination which best accomplishes a certain established objective, purpose, or goal according to certain criteria.	x	x		x
F2--Ability to identify information needed by management for decision-making purposes.	x	x		x

APPENDIX A

TABLE 51 (continued).

High-Priority Emerging Ability	Ability Common to This Level of Personnel			
	Manage-ment	Super-visory	Cleri-cal	Prof.-Tech.
F3--Ability to formulate plans for collection, processing, storage, and retrieval of information to meet the needs of the organization.				
F4--Ability to contribute to or conduct a feasibility study.	x	x		x
F5--Ability to contribute to or conduct cost effectiveness studies.	x	x		x
F6--Ability to ascertain what information should be programmed into an integrated information system.	x	x		x
F7--Ability to formulate standards, to measure performance, and to implement control activities, comparing results with expectations and reporting exceptions.	x	x		x
G1--Ability to construct basic flowcharts for projects, systems, or subsystems for purposes of planning, analyzing, implementing, controlling, and budgeting.	x	x		x
H4--Ability to ascertain and analyze the capabilities and functions of copying machines, data reproduction equipment, and data display terminals.	x	x		x
I2--Ability to locate information systems services and to select those that are appropriate.	x	x		x

☐☐☐☐

_____Interviewer

NOBELS' INTERVIEW FORM

A. INFORMATION ABOUT COMPANY

1. COMPANY CONTACT PERSON/TITLE_____

     Department_____Telephone No._____,____Ext._____

     Address_____
                     (Number)   (Street)

     _____
           (City)   (County)   (State)   (Zip)

     ·Wants summary of study?   Yes_____   No_____

2. COMPANY_____

     Employing Unit - that is, the name of unit at this geographical
     site where this interview is held
     (e.g., name of plant or division)_____

3. SIZE - Check total number of all
     employees in above unit at this site: +100_____   -100_____

4. STANDARD METROPOLITAN STATISTICAL AREA_____

5. STANDARD INDUSTRIAL CLASSIFICATION OF COMPANY AT THIS
     GEOGRAPHICAL SITE (Check one)

     (1)____ Finance, Insurance,   (7)____ Wholesale/Retail Trade
               Real Estate   (8)____ Federal, Education
     (2)____ Manufacturing   (9)____ Federal, Noneducation
     (3)____ Service   (10)____ State, Education
     (4)____ Other-Agriculture/   (11)____ State, Noneducation
               Mining/Construction   (12)____ Local, Education
     (5)____ Transportation   (13)____ Local, Noneducation
     (6)____ Communication and
               Utilities

INTERVIEWER: YOU MAY WANT TO DESCRIBE NOBELS IN WORDS SIMILAR TO THE FOLLOWING TO THE COMPANY CONTACT
               AND/OR THE SUPERVISOR YOU INTERVIEW:

               "IN NOBELS, NEW OFFICE AND BUSINESS EDUCATION LEARNINGS SYSTEM, WE ARE STUDYING THE TASKS
               THAT OFFICE WORKERS PERFORM IN THEIR JOBS. IN ORDER TO REVISE SCHOOL CURRICULUMS, WE NEED
               TO KNOW WHAT OFFICE WORKERS ACTUALLY DO AND WHAT MAKES THEM EFFECTIVE OR INEFFECTIVE."

               "THESE FORMS ARE BEING CODED IN SUCH A WAY THAT THE INFORMATION YOU GIVE US CANNOT BE
               IDENTIFIED BY OTHERS IN YOUR COMPANY AND LATER CANNOT BE IDENTIFIED BY SPECIFIC COMPANY
               OR WORKERS."

_____ Interviewer

B. INFORMATION FROM SUPERVISOR

6. SUPERVISOR NAME/TITLE_____

Department_____Telephone No._____Ext.____

Address (if different from above_____

"SINCE YOU ARE THE SUPERVISOR OF A (JOB TITLE OF EMPLOYEE) WE FEEL YOU ARE
ESPECIALLY WELL QUALIFIED TO TELL US ABOUT THE BASIC TASKS OF THE (JOB
TITLE OF EMPLOYEE). DO YOU HAVE A WRITTEN JOB DESCRIPTION OF (EMPLOYEE'S)
JOB?" IF YES, "MAY I HAVE A COPY?"

7. "BASIC TASKS CONSTITUTE THE CENTRAL PURPOSE OF THE JOB. THESE TASKS
WOULD INCLUDE THE MOST DIFFICULT TASKS, THE MOST TIME CONSUMING TASKS,
AND THE TASKS REQUIRING THE MOST RESPONSIBILITY ON THE PART OF THE WORKER."

	A. Consequences	B. Changing	C. Frequency	D. % Time Spent	E. Rank Tasks
1.					
2.					
3.					
4.					
5.					
6.					

DIRECTIONS:.

1. ASK AND WRITE BASIC TASK NO. 1.
2. ASK AND WRITE A FOR BASIC TASK NO. 1.
3. PROCEED TO ASK AND WRITE FOR REMAINING
    TASKS AS OUTLINED IN 1 AND 2.
4. WHEN ALL TASKS AND A ARE FILLED IN,
    ASK INTERVIEWEE (REPEATING TASKS) B
    FOR ALL TASKS (NOTING AT BOTTOM IF
    "YES"), C FOR ALL TASKS, THEN D FOR
    ALL TASKS, AND FINALLY E--RANKING
    TASKS 1-6 BY DIFFICULTY.

INDICATE UNDERLINED CHOICE IN SQUARES:

A. GREAT _1_   MODERATE _2_   LITTLE _3_

B. YES _1_   NO _2_

C. HIGH _1_   MEDIUM _2_   LOW _3_

C. % FIGURE OF EMPLOYEE'S TOTAL TIME

E. MOST DIFFICULT _1_, NEXT MOST DIFFICULT _2_, ETC.

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Task No._____ B. How changing?_____

Interviewer _____

"THE NEXT FOUR QUESTIONS ASK FOR SPECIFIC INCIDENTS IN WHICH THIS EMPLOYEE HAS TAKEN PART ON HIS JOB. BY GETTING EACH OF THE PROSPECTIVE 1000 SUPERVISORS TO CITE SPECIFIC INCIDENTS FOR EACH OF THE FOUR QUESTIONS, WE WILL HAVE A LIST OF ACTUAL JOB HAPPENINGS TO USE AS CRITERIA IN EVALUATING PERFORMANCE."

"THE FIRST TWO QUESTIONS RELATE TO JOB PERFORMANCE OF A SPECIFIC BASIC TASK, AND THE NEXT TWO RELATE TO THE CONTACT HE HAS WITH OTHER PEOPLE IN HIS JOB."

8. "REGARDING JOB PERFORMANCE OF A BASIC TASK, WOULD YOU CITE A SPECIFIC INCIDENT WHEN THIS EMPLOYEE WAS PARTICULARLY EFFECTIVE IN PERFORMING THIS TASK?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" EFFECTIVE.) (RELATES TO TASK NO._____.)

9. "IN THE WORKER'S TASK OF _(RECALL FROM TASK LIST)_ , YOU MENTION THAT AN ERROR COULD CAUSE _(CHOOSE ONE WITH GREAT OR MODERATE)_ CONSEQUENCES. WOULD YOU CITE AN EXAMPLE WHEN THIS EMPLOYEE'S PERFORMANCE WAS A LITTLE LESS THAN PERFECT." (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" ERROR WAS MADE.) (RELATES TO TASK NO._____.)

10. "SINCE ASSUMING THIS JOB, THERE MUST HAVE BEEN TIMES WHEN THIS EMPLOYEE DID AN OUTSTANDING JOB OF WORKING WITH SOMEONE ELSE OR IN HANDLING A SITUATION WITH A CUSTOMER OR CLIENT EITHER FACE TO FACE OR ON THE PHONE. WOULD YOU CITE AN EXAMPLE AND TELL ME IN WHAT WAY THIS EMPLOYEE HANDLED THE SITUATION EFFECTIVELY?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" SUCCESSFUL.)

11. "NOW WOULD YOU GIVE ME AN INCIDENT WHEN THIS EMPLOYEE WAS A BIT LESS THAN 100 PERCENT EFFECTIVE IN HIS CONTACT WITH OTHER BUSINESS PEOPLE—EITHER IN THE OFFICE OR WITH YOUR BUSINESS CONTACTS?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" LESS THAN EFFECTIVE.)

C. INFORMATION FROM EMPLOYEE

"IN NOBELS, NEW OFFICE AND BUSINESS EDUCATION LEARNINGS SYSTEM, WE ARE STUDYING THE TASKS THAT YOU AND ALL OTHER OFFICE WORKERS PERFORM IN YOUR JOBS. TO REVISE SCHOOL CURRICULUMS, WE NEED FIRSTHAND INFORMATION ABOUT YOUR BASIC DUTIES AND HOW YOU PERFORM THEM."

"THESE FORMS ARE BEING CODED IN SUCH A WAY THAT THE INFORMATION YOU GIVE US CANNOT BE IDENTIFIED BY OTHERS IN YOUR COMPANY, AND LATER CANNOT BE IDENTIFIED BY SPECIFIC COMPANY OR WORKERS."

12. NAME OF EMPLOYEE_____
                (Last)   (First) (Middle Initial)

13. EMPLOYEE TELEPHONE - AREA CODE_____NO._____EXT._____

14. HOW LONG HAVE YOU BEEN EMPLOYED BY THIS COMPANY?_____

15. WHAT IS YOUR PRESENT JOB TITLE?_____

16. HOW LONG HAVE YOU BEEN IN YOUR PRESENT JOB?_____

17. WHAT WAS THE TITLE OF YOUR PREVIOUS JOB (if any)?_____

18. HOW LONG WERE YOU IN YOUR PREVIOUS JOB?_____

19. WHAT WOULD YOUR NEXT JOB BE IN LINE OF A PROMOTION?_____

20. WHEN MIGHT THIS PROMOTION OCCUR?_____

(Circle appropriate answers in 21, 22, 23, and 24.)

21. SEX OF EMPLOYEE: M   F

22. AGE: 16   17   18   19   20   21   22   23   24

23. HIGHEST SCHOOL GRADE COMPLETED: K-8 9 10 11 12 13 14 15 16+

24. BACHELOR'S DEGREE: YES   NO

_____ Interviewer

25. "IN THIS PROJECT WE ARE CONCERNED WITH THE BASIC TASKS WHICH CONSTITUTE
THE CENTRAL PURPOSE OF YOUR JOB. THESE BASIC TASKS WOULD INCLUDE THE
MOST DIFFICULT TASKS, THE MOST TIME·CONSUMING TASKS, AND THE·TASKS
REQUIRING THE MOST RESPONSIBILITY ON YOUR PART."

	A. Consequences	B. Changing	C. Frequency	D. % Time Spent	E. Rank Tasks
1.					
2.					
3.					
4.					
5.					
6.					

DIRECTIONS:

1. ASK AND WRITE BASIC TASK NO.1.
2. ASK AND WRITE A FOR BASIC TASK NO. 1.
3. PROCEED TO ASK AND WRITE FOR REMAINING
   TASKS AS OUTLINED IN 1 AND 2.
4. WHEN ALL TASKS AND A ARE FILLED IN,
   ASK INTERVIEWEE (REPEATING TASKS) B
   FOR ALL TASKS (NOTING AT BOTTOM IF
   "YES"), C FOR ALL TASKS, THEN D FOR
   ALL TASKS, AND FINALLY E—RANKING
   TASKS 1-6 BY DIFFICULTY.

INDICATE UNDERLINED CHOICE IN SQUARES:

A. GREAT _1_   MODERATE _2_   LITTLE _3_

B. YES _1_   NO _2_

C. HIGH _1_   MEDIUM _2_   LOW _3_

D. % FIGURE OF EMPLOYEE'S TOTAL TIME

E. MOST DIFFICULT _1_ , NEXT MOST DIFFICULT _2_ ,ETC.

Task No. _____   B. How Changing? _____

Basic Task No. (as indicated
by employee and/or supervisor)

_____ Interviewer

E_____ S_____

TASK DATA FOR PERFORMANCE GOAL WRITING

SUMMARY--TASK
BACKGROUND:

TASK:

(STEPS):

CONTINGENCIES OR
ALTERNATIVES:

CRITERIA:

INTERVIEWER: TO WRITE FINAL DATA SHEET FOR PERFORMANCE GOAL, YOU WILL NEED ANSWERS TO THE FOLLOWING
QUESTIONS: (RESTATE TASKS FROM PAGE 4--IF NECESSARY FROM PAGE 2--) WRITE UP THE SIX--MAXIMUM--
PERFORMANCE STATEMENTS.)

1. (LISTED AS YOUR FIRST STEP) HOW DO YOU KNOW WHEN THIS TASK IS TO BE PERFORMED? (CUES AND SOURCE)
2. WHAT DOES THE EMPLOYEE DO IN PERFORMING THIS TASK?
3. WHAT TOOLS (EQUIPMENT), SPECIAL SUPPLIES, OR REFERENCE MATERIALS ARE NECESSARY FOR PERFORMING
   THIS TASK?
4. (LISTED AS YOUR FINAL STEP) HOW DO YOU KNOW WHEN YOU HAVE COMPLETED THE TASK?
5. WHAT KINDS AND LEVELS OF SPECIAL SKILLS ARE REQUIRED FOR THIS TASK?
6. WHAT ARE THE STANDARDS (OR CRITERIA) NECESSARY FOR SUCCESSFUL COMPLETION?
7. SPECIAL REQUIREMENTS FOR PERFORMANCE: DECISION MAKING? TECHNICAL VOCABULARY? PRESSURES (COPING)?
   CONSEQUENCES OF NOT PERFORMING SATISFACTORILY?

APPENDIX C

NEW OFFICE AND BUSINESS EDUCATION

LEARNINGS SYSTEM (NOBELS)

I N S T R U C T I O N S

FOR COLLECTING DATA

AND WRITING PERFORMANCE STATEMENTS

June 1969

INSTRUCTIONS

CODING IN BOXES IN UPPER RIGHT-HAND CORNER OF EACH PAGE OF FORM:

Area Code / Numerical Sequence of Interviews Within Area

1 UCLA-West
2 University of Minn.- North
3 University of Georgia- South
4 State U. of N.Y.-East
5 Wayne State University

It is suggested that one person in each area be designated to keep a master list of all interviews scheduled. He would then assign each interview a new no. to be coded right to left in the 3 boxes above.

e.g., the first interview at UCLA

1	0	0	1

the first interview at N.Y.

4	0	0	1

the 25th interview at Ga.

3	0	2	5

the 52nd interview at Minn.

2	0	5	2

Code each page of Interview Form with all 4 code numbers as soon as interview number is assigned.

The fifth box | | | | | | | | on the "Task Data for Performance Goal Writing" sheet (page 6) is to be numbered 1 to as many as 6 to correspond numerically with the number of the performance statement written. This number is not the basic task number (top left-hand corner--page 6), but the actual number (not to exceed six per case) of the performance statement written from all accumulated raw data.

e.g., Suppose the first interview has been completed in the New York area. The code for this interview is, following the above, 4001. Now suppose that the interviewer has accumulated 4 basic task statements from the supervisor and/or employee, the interviewer would then type (a copy of page 6) for the first task statement coding it 4001-1, the second task statement on another copy of page 6 4001-2, etc.

During the interview, the N.Y. interviewer may actually have filled out as many as 6 page 6's and numbered them 1-6, but in typing the final data decides he has only 4 task statements (the other 2 fitting into the 4 he finally submits). The interviewer would then submit 4 page 6's numbering them: 4001-1, 4001-2, 4001-3, and 4001-4.

After the interviewer fills in the area no., interview no., and task statement no., he then fills in his name on each sheet.

The interviewer is now ready to begin his interview.

PART A   INFORMATION ABOUT COMPANY--Page 1

1. COMPANY CONTACT PERSON/TITLE__e.g., Mrs. Lydia Rawlins, Manager__

   Department__Personnel__Telephone No.__313-6294__Ext.__596__

   Address_____1035 Peachtree Street_____
              (Number)   (Street)

   ____Atlanta_____Dekalb_____Georgia____30083__
      (City)   (County)   (State)   (Zip)

   Wants summary of study?   Yes__X__ No_____

Fill in each blank as each is significant, e.g., the county aids us in determining the Standard Metropolitan Statistical area although what the interviewer writes under the Standard Metropolitan Statistical area is the actual city in which he interviews...by code.

The company contact person is the person who arranges for interviews within the company--usually someone in Personnel. The NOBELS person who arranges the interview is responsible for filling in this section as illustrated above. (The summary will be sent after the study is completed this year.)

2. COMPANY__e.g., Coca Cola Company (the mother company)__

   Employing Unit - that is, the name of unit at this geographical site where this interview is held
   (e.g., name of plant or division)__Coca Cola Bottling Division__

3. SIZE - Check total number of all
   employees in above unit at this site: +100__X__   -100_____

According to the NOBELS proposal, page 29 no. 4, "Four-fifths of the data will be collected from firms employing 100 or more workers..." Therefore, 4 out of 5 companies chosen must employ +100 workers. Each area project director will be assigned a quota of companies of 100+ and 100- employees in which interviews will be scheduled.

Other specifications for interviews include (from Detroit-Metro
Guidelines 6 and 7): "6. Within a department of a company, not
more than one person in the same job classification will be se-
lected. 7. Not more than seven workers will be selected from
one company. Not more than two of the workers can be in the sa:
job classification."

4.   STANDARD METROPOLITAN STATISTICAL AREA_____ e.g., 1A8_____

(The 1A8 code was taken from the SMSA codes for the four areas--
listed below in this set of instructions.)

According to the NOBELS proposal, page 29, no. 4, "Approximately
seven-ninths of all field data will be collected from standard
metropolitan statistical areas of 100,000 or more population..."
The standard metropolitan statistical areas for the 4 immediate
areas surrounding L.A., Minneapolis, Athens, and Albany are:

Area	SMSA Code	Actual Area
L.A.	1A7	Anaheim, Santa Ana, Garden Grove
	1A9	Bakersfield
	1A42	Fresno
	2A1	L.A.-Long Beach
	2A29	Sacramento
	2A33	San Bernadino, Riverside, Ontario
	2A34	San Diego
	2A35	San Francisco-Oakland
	2A36	San Jose
	2B36	Salinas-Monterey
	2B38	Santa Barbara
	2B49	Stockton
	2B56	Vallejo-Napa
Minneapolis	1A36	Duluth, Minn.-Superior, Wisc.
	2A6	Minneapolis-St. Paul, Minn.
Athens	1A8	Atlanta, Ga.
	1A23	Chattanooga, Tenn.
	1A58	Knoxville, Tenn.
	2A8	Nashville, Tenn.
	1B11	Augusta, Ga.
	1B24	Columbus, Ga.
	1B62	Macon, Ga.
	2B39	Savannah, Ga.
Albany	1A4	Albany, Schenectady, Troy, N.Y.
	1A12	Binghamton, N.Y.
	1A15	Boston, Mass.
	2A12	New York, N.Y.
	2A43	Syracuse, N.Y.
	2A50	Utica-Rome, N.Y.

We would encourage you to conduct your interviews in other metropolitan areas within limitations of budget. If you do interview in areas other than those listed, just write in the name of the city or cities remembering that they must have more than 100,000 population. If you are in doubt as to whether a particular city qualifies, write us and we will let you know.

5.   STANDARD INDUSTRIAL CLASSIFICATION OF COMPANY AT THIS
     GEOGRAPHICAL SITE (Check one)

(1)____	Finance, Insurance, Real Estate	(7)____	Wholesale/Retail Trade
e.g.,(2)__X__	Manufacturing	(8)____	Federal, Education
(3)____	Service	(9)____	Federal, Noneducation
(4)____	Other-Agriculture/ Mining/Construction	(10)____	State, Education
(5)____	Transportation	(11)____	State, Noneducation
(6)____	Communication and Utilities	(12)____	Local, Education
		(13)____	Local, Noneducation

Check the classification into which the _geographical unit_ of this company falls and not the particular department in which you are interviewing. If you were interviewing at the central switchboard of the Buick Motor Division of General Motors Corporation, you would check "Manufacturing" and not "Communication and Utilities."

INTERVIEWER: YOU MAY WANT TO DESCRIBE NOBELS IN WORDS SIMILAR TO
                THE FOLLOWING TO THE COMPANY CONTACT AND/OR THE
                SUPERVISOR YOU INTERVIEW:

                "IN NOBELS, NEW OFFICE AND BUSINESS EDUCATION LEARNINGS
                SYSTEM, WE ARE STUDYING THE TASKS THAT OFFICE WORKERS
                PERFORM IN THEIR JOBS. IN ORDER TO REVISE SCHOOL
                CURRICULUMS, WE NEED TO KNOW WHAT OFFICE WORKERS
                ACTUALLY DO AND WHAT MAKES THEM EFFECTIVE OR INEFFECTIVE."

                "THESE FORMS ARE BEING CODED IN SUCH A WAY THAT THE
                INFORMATION YOU GIVE US CANNOT BE IDENTIFIED BY OTHERS
                IN YOUR COMPANY AND LATER CANNOT BE IDENTIFIED BY
                SPECIFIC COMPANY OR WORKERS."

Memorize the above paragraphs and the similar introduction to the employee on page 4 of the NOBELS form for use in introducing NOBELS to anyone you interview. All items in microtype on NOBELS form (in manifold type here in instructions) are either instructions to aid the interviewer or wording to be memorized by the interviewer before his first interview. Facility in recalling the exact wording of the questions is imperative to a smooth interview.

PART B   INFORMATION FROM SUPERVISOR--Page 2

 6. SUPERVISOR NAME/TITLE___e.g., William Jones, Supervisor___

  Department___Sales___Telephone No.343-6294 Ext.___601___

  Address (if different from above)___101 S. Peachtree, Atlanta___

The interviewer will speak with both the supervisor and the employee.
The NOBELS interview Form has been set up so that the supervisor
will be interviewed first and following him the employee. (Also,
from the Detroit-Metro Guidelines, "1. Because of absenteeism,
have a back-up person selected to be interviewed.")

Upon entering the supervisor's office, the interviewer will verify
the information in no. 6 if already filled in or fill in the blanks
by asking the supervisor for the information.

The interviewer should memorize the following paragraph and know
the job title of the employee well enough so he can insert it in
the proper places without hesitating.

> "SINCE YOU ARE THE SUPERVISOR OF A (JOB TITLE OF EMPLOYEE)
> WE FEEL YOU ARE ESPECIALLY WELL QUALIFIED TO TELL US ABOUT
> THE BASIC TASKS OF THE (JOB TITLE OF EMPLOYEE). DO YOU
> HAVE A WRITTEN JOB DESCRIPTION OF (EMPLOYEE'S) JOB?" IF
> YES, "MAY I HAVE A COPY?"

The Detroit-Metro Guidelines state, "8. Data collectors are urged
to support interview data with job descriptions, work samples, and
forms as an aid for preparing performance goal data."

If the supervisor gives the interviewer a job description sheet,
it is suggested the interviewer preface the basic task introduction
in no. 7 with, "Using this job description sheet as it applies to
this particular job, let's discuss this employee's basic tasks..."

 7. "BASIC TASKS CONSTITUTE THE CENTRAL PURPOSE OF THE JOB.
  THESE TASKS WOULD INCLUDE THE MOST DIFFICULT TASKS, THE
  MOST TIME CONSUMING TASKS, AND THE TASKS REQUIRING THE
  MOST RESPONSIBILITY ON THE PART OF THE WORKER."

Detroit-Metro Guidelines state, "10. Basic tasks are defined by
the supervisor or employee as those activities that constitute
the major purpose of the job. For purposes of NOBELS, not more than
six activities will be identified as basic."

Follow directions given on the bottom of page 2. After the intro-
ductory paragraph in no. 7, the interviewer states, "Now would you
give me one of this employee's basic tasks." The supervisor might
answer, "She takes my dictation and types up the letters for my
signature."

The interviewer writes the supervisor's response on the left-hand side of the page by no. 1 and proceeds to square A in which he lists the correct numerical code according to the following definitions: e.g.,

		A	B·C		D	E
1.	She takes my dictation and types up the letters for my signature.	2	2	1	50	3

NOTE: MEMORIZE QUESTION-AND-ANSWER CHOICES. The wording on the NOBELS interview form for A-E is merely a cue to the inter= viewer. The wording of the question-and-answer choices appears in full only here in the instructions.

A   Consequences

Question: "How would you evaluate the effect of an employee's error or the employee's failure to perform this task or a portion of it related to company financial loss or effects on people inside or outside your company? Would you say the error would bear:

Answer   Great consequences   1
Choices: Moderate consequences   2
             Little if any consequences"   3

Now ask additional basic tasks and A for each task as it is men- tioned. When all tasks and all A's are listed, proceed with B, C, D, and E as follows:

B   Changing

Question: "Of all the tasks listed, do you see any of these tasks changing in the near future?" (Share what you have written on basic tasks with the supervisor to permit him to answer more easily on B-E.)

Answer   Yes 1   No 2
Choices:

If the supervisor says a task is changing, ask "How changing?" and fill in answer at the bottom of page 2. DO NOT PROBE FOR EXISTING TASKS THAT SUPERVISOR SAYS ARE CHANGING. No data for performance statements (page 6) will be written up for old tasks that the supervisor says will shortly cease to exist.

C   Frequency

Question: "Of all the tasks listed, how would you evaluate each as to frequency of performance?

Answer   Is this among the tasks most frequently performed?   1
Choices   Is this among tasks performed with medium frequency?   2
             Is this infrequently performed--once in a long while?"   3

Fill in C for all basic task information given. D is asked for all tasks listed after C is completed.

D .Time Spent

Question: "What percent of this employee's total time does she spend on (state tasks in order given)?"

Answer Choices: 1%-100%

A quick check by the interviewer after D is completed for all tasks listed should indicate a percent total at or near 100%. A total more than 10 percentage points off 100 results in the interviewer asking the interviewee which item(s) he would like to adjust to come closer to an actual 100.

E Rank Tasks

Question: "Would you now rank the tasks you have mentioned in order of difficulty?" (It may be necessary to repeat tasks.)

Answer Choices:

Most difficult	1
Next most difficult	2
Next most difficult	3
Next most difficult	4
Next most difficult	5
Next most difficult	6

(This is done for 6 or how-ever many tasks listed.)

After completing E, the interviewer now proceeds to page 3 to elicit specific incidents from the supervisor.

INTERACTION INCIDENTS FROM SUPERVISOR--Page 3

Page 3 is entirely in microtype implying that the interviewer know word for word the introductory paragraphs and the specific questions.

"THE NEXT FOUR QUESTIONS ASK FOR SPECIFIC INCIDENTS IN WHICH THIS EMPLOYEE HAS TAKEN PART ON HIS JOB. BY GETTING EACH OF THE PROSPECTIVE 1000 SUPERVISORS TO CITE SPECIFIC INCIDENTS FOR EACH OF THE FOUR QUESTIONS, WE WILL HAVE A LIST OF ACTUAL JOB HAPPENINGS TO USE AS CRITERIA IN EVALUATING PERFORMANCE."

"THE FIRST TWO QUESTIONS RELATE TO JOB PERFORMANCE OF A SPECIFIC BASIC TASK, AND THE NEXT TWO RELATE TO THE CONTACT HE HAS WITH OTHER PEOPLE IN HIS JOB."

8. "REGARDING JOB PERFORMANCE OF A BASIC TASK, WOULD YOU CITE A SPECIFIC INCIDENT WHEN THIS EMPLOYEE WAS PARTICULARLY EFFECTIVE IN PERFORMING THIS TASK?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY" EFFECTIVE.) (RELATES TO TASK NO._____.)

This __must__ be a __specific__ incident. Permit the supervisor to see what you have written for the basic tasks so he may more easily choose to which task he wishes to relate a specific incident. Enter the basic task number in the space provided in question no. 8.

If the supervisor is general and not specific; e.g., "She types very well," repeat what he has said as the beginning of the answer you wish. "You say, 'She types very well;' and what exactly has she typed so well that would make you cite her typing as indicative of effective performance?" Rather than ask "what," the interviewer could phrase his question, "Would you recall a specific incident when her typing particularly impressed you?"

If the supervisor does not state any incident for a basic task, probe with, "Perhaps you cannot recall a specific incident when this employee was particularly effective in performing one of these tasks, but would you give me an incident when anyone employed by you as a (employee's job title) was particularly effective in performing one of these basic tasks?"

Then probe for the "why" effective.

Examples of probes here would include, "You say she did such an excellent job of preparing and typing up the recap of your Massachusetts sales territory that your salesman phoned you to tell you he thought it was the best recap he'd ever received. Why do you think she did such an excellent job here?" This could also be phrased, "What is it that made her do such an outstanding job on this recap?"

An acceptable answer to "why" might be, "She doesn't just do a job because it is assigned. She actually tries to understand what the salesman wants to use the information for and then constructs the information so that it will be of the maximum help to him."

9. "IN THE WORKER'S TASK OF__(RECALL FROM TASK LIST)_, YOU MENTION THAT AN ERROR COULD CAUSE__(CHOOSE ONE WITH GREAT OR MODERATE)__ CONSEQUENCES. WOULD YOU CITE AN EXAMPLE WHEN THIS EMPLOYEE'S PERFORMANCE WAS A LITTLE LESS THAN PERFECT." (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT: PROBE FOR "WHY ERROR WAS MADE.) (RELATES TO TASK NO.____.)

This __must__ be a __specific__ incident. Again, show the supervisor the basic task information you have just filled in as you ask the above question. Enter the basic task number to which the answer refers in the space provided in question no. 9.

If the supervisor does not give an answer, probe with, "In extending invoices which you cite as a task in which an error could cause great consequences, could you give me an incident when anyone extended incorrectly and what happened."

If the supervisor still gives no answer or if only "little con-
sequences" were listed for all basic tasks, ask the supervisor
for any incident on job performance of anyone employed as a (em-
ployee's job title) who ever made a mistake.

Then probe "why" he feels the employee made the error.

An acceptable answer would be, "If she does more than two or three
hours of extensions, she gets careless and doesn't double check her
answers."

10. "SINCE ASSUMING THIS JOB, THERE MUST HAVE BEEN TIMES WHEN THIS
EMPLOYEE DID AN OUTSTANDING JOB OF WORKING WITH SOMEONE ELSE OR IN
HANDLING A SITUATION WITH A CUSTOMER OR CLIENT EITHER FACE TO FACE
OR ON THE PHONE. WOULD YOU CITE AN EXAMPLE AND TELL ME IN WHAT WAY
THIS EMPLOYEE HANDLED THE SITUATION EFFECTIVELY?" (INTERVIEWER:
PROBE FOR SPECIFIC INCIDENT. PROBE FOR "WHY"SUCCESSFUL.)

This incident must be specific. A typically unsatisfactory answer
from a supervisor to question no. 10 is, "She just works well with
people." Another might be, "She handles customers in a satisfactory
manner." If the supervisor begins in such a general manner, probe.

Probes include:

"You say she works well with people. Could you relate a recent
incident when she did work especially well with someone inside or
outside your company?"

If the supervisor does not state a specific incident or says he can't
think of any when you first ask the question, restate the question
as follows:

"Recalling a recent incident when this employee was quite success-
ful in working with people might be difficult to state at a moment's
notice. However, could you tell me about an outstanding incident
of, any other employee you supervisewwho is a (title of employee)
or any previous (title of employee) you have supervised when the
employee worked well with other people?"

Then probe the "why" successful.

"Can you pinpoint why you think she was successful in this instance?"

Acceptable answers would be:

"Last week one of her co-workers, who had a rush typing job, asked
her for help, and she gave it willingly. She also managed to get
all my work done even though she spent over two hours on the other
employee's typing job. She can add that extra spurt when it is
needed." (the "why" successful)   and

"Yesterday an account called to tell me how much he appreciated the
help my secretary gave him with his order while I was out of town.

She can assemble facts quickly and communicate them to the under-
standing of the party concerned." (the "why" successful)

11. "NOW WOULD YOU GIVE ME AN INCIDENT WHEN THIS EMPLOYEE WAS A
BIT LESS THAN 100 PERCENT EFFECTIVE IN HIS CONTACT WITH OTHER
BUSINESS PEOPLE--EITHER IN THE OFFICE OR WITH YOUR BUSINESS CON-
TACTS?" (INTERVIEWER: PROBE FOR SPECIFIC INCIDENT. PROBE FOR
"WHY" LESS THAN EFFECTIVE.)

This must be a specific incident. If the answer is, "She is an
excellent worker and I can't think of anything she does that is
ineffective" or "Her errors must be minor because I really can't
recall one," then the interviewer might proceed with:

"As none of us is perfect and we often make mistakes when we are
first learning a job, would you cite a specific incident when this
employee or any other person in this job classification has done
anything the least bit ineffective in dealing with other business
people either inside or outside your company?" or

"Even though an ineffective contact with other business people
might be ever so slight, your telling us about it would help us
list all these incidents and structure school work so that these
errors might be eliminated in the future. Would you cite any
incident at all when this worker or another working in the capacity
of a (title of employee) was slightly ineffective in his contacts
with any business person?"

Now probe for "why" less than effective; e.g., "Why do you consider
this incident to be ineffective?"

Acceptable answers would be:

"She didn't get back to someone who was waiting to speak with me
on the phone last week. The person had to hang up and try again.
She has a tendency to goof on followup." (the "why" ineffective) and

"She was rude to a student who asked her a question when she was
busy with the end-of-the-month billing last Friday. When she works
under pressure, she lets other people feel she doesn't want to be
bothered with anything else." (the "why" ineffective)

If the interviewer has any incident not filled in, it is suggested
that he courteously express the importance of completeness of the
form and request permission to call the supervisor (state a specific
time and date) and get the information needed after the supervisor
has had time to think about job or social interaction incidents and
might recall one that presently does not come to mind.

PART C   INFORMATION FROM EMPLOYEE--Page 4

The interviewer introduces himself and recites the next two para-
graphs to acquaint the employee with NOBELS.

"IN NOBELS, NEW OFFICE AND BUSINESS EDUCATION LEARNINGS SYSTEM, WE ARE STUDYING THE TASKS THAT YOU AND ALL OTHER OFFICE WORKERS PERFORM IN YOUR JOBS. TO REVISE SCHOOL CURRICULUMS, WE NEED FIRSTHAND INFORMATION ABOUT YOUR BASIC DUTIES AND HOW YOU PERFORM THEM."

"THESE FORMS ARE BEING CODED IN SUCH A WAY THAT THE INFORMATION YOU GIVE US CANNOT BE IDENTIFIED BY OTHERS IN YOUR COMPANY AND LATER CANNOT BE IDENTIFIED BY SPECIFIC COMPANY OR WORKERS."

Now ask questions 12-24.

12. NAME OF EMPLOYEE_____
                     (Last)   (First)   (Middle Initial)

13. EMPLOYEE TELEPHONE - AREA CODE_____ NO._____ EXT._____

14. HOW LONG HAVE YOU BEEN EMPLOYED BY THIS COMPANY?_____

15. WHAT IS YOUR PRESENT JOB TITLE?_____

16. HOW LONG HAVE YOU BEEN IN YOUR PRESENT JOB?_____

17. WHAT WAS THE TITLE OF YOUR PREVIOUS JOB (if any)?_____

18. HOW LONG WERE YOU IN YOUR PREVIOUS JOB?_____

19. WHAT WOULD YOUR NEXT JOB BE IN LINE OF A PROMOTION?_____

20. WHEN MIGHT THIS PROMOTION OCCUR?_____

    (Circle appropriate answers in 21, 22, 23, and 24.)

21. SEX OF EMPLOYEE: M   F

22. AGE: 16   17   18   19   20   21   22   23   24

23. HIGHEST SCHOOL GRADE COMPLETED: K-8 9 10 11 12 13 14 15 16+

24. BACHELOR'S DEGREE: -YES   NO

            NOTE: Questions 21-24 are checks for the following
                   specifications in the NOBELS proposal:

              a.   2 females interviewed to every 1 male interviewed
              b.   Interviewee must be 16-24 years of age
              c.   Cannot hold 4-year degree or higher

The interviewer in finishing page 4 with the employee, now proceeds to page 5 to ask the employee his basic tasks.

The format for asking for this information is the same as that followed with the supervisor when page 2 was filled out. After completing page 5 with the employee, the interviewer now probes each basic task by filling in copies of page 6.

TASK DATA FOR PERFORMANCE GOAL WRITING--Page 6

A <u>task</u> is <u>basic</u> if it has been mentioned by either the supervisor and/or the employee. If the employee does not mention all that the supervisor mentions, the interviewer might probe for tasks the supervisor mentions if the employee mentions less than six or the six she mentions look as if they might be combined into fewer tasks.

Fill in on page 6 in the upper left-hand corner the no. of the task as given on page(s) 2 and/or 5 and who gave it--E (employee) and/or S (supervisor).

R E M E M B E R: A task has meaning in and of itself to the employee. Do not combine such tasks as (a) receives incoming phone calls and (b) makes luncheon reservations-- because you consider them "clerical duties" or "receptionist duties." If you decide each is a basic task, then each must have its own writeup on a separate sheet. If one or the other is not basic, then it will not be written up. Whatever the decision, unlike tasks cannot be combined in one Task Data Sheet <u>unless</u> the tasks are part of a <u>process</u>, and it is the process that has meaning in and of itself to the employee. If "Processing invoices" is a task that has meaning in and of itself to the employee and using the following questions found at the bottom of page 6 as guidelines for probing and writing up the raw data, the inter- viewer might get the response which follows (after the questions):

INTERVIEWER: TO WRITE FINAL DATA SHEET FOR PERFORMANCE GOAL, YOU WILL NEED ANSWERS TO THE FOLLOWING QUESTIONS: (RESTATE TASKS FROM PAGE 5--IF NECESSARY FROM PAGE 2--TO WRITE UP THE SIX--MAXIMUM--PERFORMANCE STATEMENTS.)

1. (LISTED AS YOUR FIRST STEP) HOW DO YOU KNOW WHEN THIS TASK IS TO BE PERFORMED? (CUES AND SOURCE)

2. WHAT DOES THE EMPLOYEE DO IN PERFORMING THIS TASK?

3. WHAT TOOLS (EQUIPMENT), SPECIAL SUPPLIES, OR REFERENCE MATERIALS ARE NECESSARY FOR PERFORMING THIS TASK?

4. (LISTED AS YOUR FINAL STEP) HOW DO YOU KNOW WHEN YOU HAVE COMPLETED THE TASK?

5. WHAT KINDS AND LEVELS OF SPECIAL SKILLS ARE REQUIRED FOR THIS TASK?

6. WHAT ARE THE STANDARDS (OR CRITERIA) NECESSARY FOR SUCCESS- FUL COMPLETION?

7. SPECIAL REQUIREMENTS FOR PERFORMANCE: DECISION MAKING? TECHNICAL VOCABULARY? PRESSURES (COPING)? CONSEQUENCES OF NOT PERFORMING SATISFACTORILY?

IT IS EXTREMELY IMPORTANT THAT THE INTERVIEWER ATTEMPTS AT ALL TIMES
TO CAPTURE THE TASK AS THE EMPLOYEE INTERVIEWED ACTUALLY PERFORMS IT
AS EXPLAINED BY THE EMPLOYEE. THE INTERVIEWER IS NOT TO ADD ANYTHING
WHICH IS NOT TOLD HIM BY THE EMPLOYEE.

"Processing invoices" might be written by the interviewer as follows:

SUMMARY--TASK Customers send orders to home office in another
BACKGROUND: state. If home office approves orders, orders
       are teletyped to worker's office.

  TASK: The worker process invoices.

  (STEPS): 1. Receives customers' orders on teletype from
        home office
       2. Types 14-part snap-out invoice
       3. Sends bill of lading copy of invoice to
        shipping department
       4. Sends out customers' and salesmen's
        acknowledgements in window envelopes
       5. Receives bill of lading copy from shipping
        department when order is shipped
       6. Computes extensions on printing calculator
       7. Types extensions on invoices
       8. Proofreads all numbers with other employee
       9. Mails copies to home office, customers, and
        salesmen
      10. Files control copy in numerical file to
        conclude task

CONTINGENCIES OR Instead of step 8, supervisor checks invoices
ALTERNATIVES: if many invoices are typed.

CRITERIA: Must operate printing calculator and proofread
       correctly. Customers express dissatisfaction
       if billed incorrectly.

Most of your tasks will fall into the following seven categories
which were selected by classifying the first 1500 performance
statements of the NOBELS pilot study.

      1. Mailing
      2. Duplicating
      3. Filing
      4. Recording (includes manipulating numbers)
      5. Typewriting
      6. Automatic and Electronic Data Processing
      7. Personal Interacting

By "falling into" these categories, it is implied that the major
activity of the performance statement fits into one of the cate-
gories--although the steps may actually be actions found in other
categories.

For example, task verbs under no. 4 Recording (includes manipulating numbers) are presently: posts, verifies, compiles, issues, updates, processes, fills in/out, evaluates, corrects, computes, and balances. The verbs in the steps of no. 4 tasks could come from any of the seven categories.

In writing up Task Data for Performance Goal Writing taking the first basic task mentioned by the employee, the interviewer uses the questions at the bottom of page 6 as his constant guide.

Summary--Task Background:

This is the foundation upon which the task statement and subsequent steps are built. It states in a sentence or two the conditions which led to the point at which the worker assumes his task. These few words set the scene for whoever reads the task data.

SUMMARY--TASK BACKGROUND:	Mail is brought up from mail room twice daily (9:00 a.m. and 1:00 p.m.) and given to employee. Outgoing mail is picked up twice daily (11:00 a.m. and 5:00 p.m.).

Task:

This statement begins with "The worker" and follows immediately with one or two action verbs in the present tense which best describe the major activity of the task.

e.g., The worker files the day's answered correspondence.
The worker retrieves auto accident records from policyholders' files.

The Detroit-Metro Guidelines stress, "4. Commonality of termi-nology desirable. We recommend the use of the Taxonomy of Office Activities for Business and Office Education as a source helpful in standardizing terminology." For commonality of all task statements written, use the present tense of the action verb.

Do not use:	Use:
to identify identifying	identifies
to open opening	opens

Following the action verb is the object or objects which receive the action. Be specific enough to identify the objects to the clarification of the reader. Do not use brand names for tools and equipment but state type of tools and equipment (e.g., use "photo-copy machine" instead of Xerox).

Do <u>not</u> use: <u>Use</u>:

files <u>material</u> files <u>letters</u>, <u>memos</u>, and <u>reports</u>

checks <u>cards</u>   checks <u>IBM punched cards</u>

e.g.,

	A	B	C	D	E
1. Takes care of mail .	3	2	·1	10	6

The <u>task</u> for this first basic task mentioned by the employee could be:

TASK: The worker distributes incoming mail and collects outgoing mail.

The Detroit-Metro Guidelines mention, "11. Key steps indicate the sequence of activities making up the task." Therefore, the proper order here will bring the steps into view.

(Steps):

Again, referring to the questions at the bottom of page 6, it is imperative that the interviewer probe for task data getting the answers to these questions. Questions 1-4 are for <u>Steps</u>; 5-7 are for the <u>Criteria</u>.

The first step (question 1) written in final form will tell any reader how the worker knows he is to perform this task.

    e.g.,   1. Opens mail (as soon as mailboy brings it)
    Steps   with electric letter opener.

Questions 2 and 3 note the information necessary in writing up the steps.

    e.g.,   2. Date stamps all mail
             3. Scans contents
             4. Sorts mail by recipients
             5. Distributes all mail other than requests for product information
             6. Fills and sends out requests for product
             7. Collects all mail twice daily from department's outbaskets
             8. Deposits outgoing mail in inter-company truck outside department

<u>Contingencies or Alternatives</u>:

These are the steps which slightly change the normal routine of performing a task.

    e.g.,   Does not open "Personal" mail, but date stamps
    Alternative   the envelope.

Criteria:

Questions 5-7 ask for information that will lead to establishing criteria.

e.g.,   Incoming mail reaches correct persons and routine
Criteria   inquiries are handled promptly. All outgoing mail
                 from department must be placed in truck or de-
                 posited in safe overnight before the worker leaves
                 for the day.

The criteria are to be elicited from the employee, and the inter-
viewer is not to insert here either his own or what he feels are
obvious or acceptable criteria.

PREPARING FINAL COPY OF TASK DATA FOR PERFORMANCE GOAL WRITING SHEETS

In writing the final copy of page six for each basic task (not more
than 6), the answers to the questions at the bottom of page 6 should
be in the Summary, Task, Steps, Contingencies or Alternatives and
Criteria. Do not merely answer these questions but incorporate the
answers in the parts of the Task Data for Performance Goal Writing.

Be certain to mention tools and machines used in the steps, as well
as the task statement.

In using abbreviations on the Performance Goal Writing Sheets, the
writer must spell the word the first time it is used and place the
abbreviation in brackets behind the word. Thereafter the abbrevia-
tion may be used alone.

The writer must use terminology easily understandable to any business
teacher who might read these performance goal writing statements.

It is suggested that the performance goal writing sheets be written
up as soon as possible after each interview. After each case is
completed, the interviewer is urged to turn it in to the person
in charge in his area.

PREPARING NOBELS MATERIALS FOR MAILING TO DETROIT

According to the Detroit-Metro Guidelines, the following statements
pertain to the final processing of NOBELS materials in each of the
areas before sending them on to Detroit:

        Project directors are urged to check data collectors' work:
             a. delete personal names, b. use action verbs in task
             statements and state steps.
        Project director reviews all cases for adequacy prior to
             sending them to Wayne State University.
        All reports sent to project director at Wayne State University
             to be typewritten.
        Project directors are urged to send by first-class mail 10 to
             25 cases in a package. Address the package:

NOBELS
c/o Mrs. E. J. Weber
1107 Edgewood Avenue
Ann Arbor, Michigan 48103

It is agreed, of course, that you will photocopy and retain the photocopy for your own reports and reporting. The photocopy is also insurance against loss in the mail.

Verb Classification

CODE	WORD	SYNONYMS	CODE	WORD	SYNONYMS
	accumulate	– collect 051	072	convert	
003	activate	– operate, start,		copy	– duplicate 120
		turn on	075	correct	– change, de-
006	add				bug, fix,
009	adjust	– change, set			update, up-
	advise	– inform 147			grade
	affix	– attach 024	078	count	
	alert	– inform 147	081	cut	– clip
	annotate	– note 192	084	deactivate	– turn off
012	answer			debug	– correct 075
015	arrange	– negotiate, plan,		decide	– determine
		schedule,			096
		straighten		delete	– remove 246
	ask	– inquire 150,	087	deliver	– give, hand
		request 252			to, present,
	assemble	– collect 051			submit
018	assign		090	deposit	
021	assist			describe	– explain 126
024	attach	– affix, clip,		design	– devise 099
		staple	093	destroy	– discard,
	balance	– reconcile 234			purge, throw
027	batch				away
030	bind	– tie	096	determine	– decide
	block in	– arrange 015	099	devise	– design
	block out	– flowchart 138	102	direct	– show, take
	break down	– sort 282	105	disburse	– pay
	calculate	– compute 066		discard	– destroy 093
033	call	– page, telephone	108	discuss	– confer,
	carry out	– perform 204			consult,
	change	– adjust 009			talk with
036	check	– examine, inspect	111	distribute	– give to,
	choose	– select 273			hand
039	clean	– dust, tidy	114	divide	
	clip	– attach 024,	117	draw	– sketch
		cut 081	120	duplicate	– copy, mimeo-
042	close				graph, photo-
045	code				copy, Xerox
048	collate			dust	– clean 039
051	collect	– accumulate,		enter	– record 237
		assemble, gather		erase	– remove 246
054	compare	– match	123	evaluate	– grade,
057	compile	– make/set up			score
060	complete	– fill in/out		examine	– check 036
063	compose	– make up	126	explain	– describe
066	compute	– calculate,	129	extend	
		figure		extract	– pull 222
	confer	– discuss 108	132	feed	– put into,
	confirm	– verify 312			thread
069	connect			figure	– compute 066
	consult	– discuss 108	135	file	
				fill in/out	– complete 060

345

CODE	WORD	SYNONYMS	CODE	WORD	SYNONYMS
	find	– locate 174		look for	– search 270
	fix	– correct 075	180	mail	
138	flowchart	– block out		mimeograph	– duplicate 120
	fold	– [no education-	183	maintain	– keep
		al signifi-		make	– compile 057
		cance]		make note of	– note 192
	formulate	– devise 099		make up	– compose 063
	forward	– send 276		mark	– label 165,
	gather	– collect 051			write 324
	get	– obtain 195		match	– compare 054
	give back	– return 255	186	move	
	give direction	– instruct 156	189	multiply	
	give to	– deliver 087,		negotiate	– arrange 015
		distribute		notations	– note 192
		111	192	note	– annotate, make
	go	– travel 306			note of, nota-
	go through	– search 270			tion, notice
	grade	– evaluate 123		notice	– note 192
141	greet	– welcome		notify	– inform 147
	hand to	– deliver 087	195	obtain	– [fetch], get,
	handwrite	– write 324			pick up, secure
144	hold	– keep, store	198	open	
	identify	– determine		operate	– activate 003
		096, inform	201	oversee	– supervise
		147		package	– wrap 321
	index	– sort 282		page	– call 033
147	inform	– advise, alert,		pay	– disburse 103
		identify, no-	204	perform	– carry out
		tify, relate,		phone	– call 033
		remind, sig-		photocopy	– duplicate 120
		nal, [suggest]	207	photograph	
		tell		pick up	
	initial	– sign 279	210	place	– put
150	inquire	– ask		plan	– arrange 015
153	insert	– put in, stuff	213	post	– [to ledger
	inspect	– check 036			only]
156	instruct	– give direc-		present	– deliver 087
		tion, show,	216	proofread	
		teach	219	provide	– supply
159	interview		222	pull	– extract, take
162	issue				from
	journalize	– record 237	225	punch	– keypunch
	keep	– hold 144,		purge	– destroy 093
		maintain 183		put	– place 210
165	label	– mark, tag		put into	– feed 132, in-
168	list				sert 153
171	load	– reload, un-	228	quote	
		load		read	– scan 267
174	locate	– find	231	receive	– take
177	lock		234	reconcile	– balance
	log	– record 237	237	record	– enter, journal-
	look at/on/up	– refer 240			ize, log

CODE	WORD	SYNONYMS	CODE	WORD	SYNONMYS
240	refer	- look at/on/ up, relay, turn over		tag	- label 165
				take	- direct 102, receive 231
243	refuse	- reject, turn away	291	take dictation	
				take from	- pull 222, receive 231
	reiterate	- repeat 249			
	relate	- inform 147		take off	- remove 246
	remind	- inform 147		talk with	- discuss 108
246	remove	- delete, erase, take off		teach	- instruct 156
				telephone	- call 033
249	repeat	- reiterate, tell again		tell	- inform 147
				tell again	- repeat 249
252	request	- ask	294	test	- [administer] test
255	return	- give back			
	review	- scan 267		thread	- feed 132
258	route			throw away	- destroy 093
261	run tape			tidy	- clean 039
264	run through			tie	- bind 030
267	scan	- read, review	297	total	
	schedule	- arrange 015		trace	- search 270
	score	- evaluate 123	300	transcribe	
	seal	- [no educational significance]	303	transfer	- switch
				transmit	- send 276
				transport	- travel 306
270	search	- go through, look for/up, trace	306	travel	- go, transport
	secure	- obtain 195		turn away	- refuse 243
273	select	- choose		turn off	- deactivate 084
276	send	- forward, transmit		turn on	- activate 003
				turn over	- refer 240
	separate	- sort 282	309	typewrite	- type
	set	- adjust 009, compile 057		update	- correct 075
				upgrade	- correct 075
	show	- direct 102, instruct 156	312	verify	- confirm
				weed	- sort 282
279	sign	- initial	315	weigh	
	signal	- inform 147		welcome	- greet 141
	sketch	- draw 117	318	wire	
282	sort	- break down, index, separate, weed		witness	- oversee 201
			321	wrap	- package
			324	write	- handwrite, mark
285	stamp				
	staple	- attach 024		Xerox	- duplicate 120
	start	- activate 003			
	store	- hold 144			
	straighten	- arrange 015			
	stuff	- insert 153			
	submit	- deliver 087			
288	subtract				
	supervise	- oversee 201			
	supply	- provide 219			
	switch	- transfer 303			

APPENDIX D

NOBELS Action Verbs and Synonyms

How to Read the NOBELS Verb List

The primary verbs are reported alphabetically in the master NOBELS listing with definitions, examples, and synonyms classified thereunder. The frequency of occurrence in a total of 32,447 verbs and the rank of each of 57 primary verbs classified are also given. All underlined primary verbs and synonyms in the NOBELS Action Verbs and Synonyms were not included in the Index of the Taxonomy of Office Activities.

Rank N=57	Verb and Synonyms	Definition and Examples	Frequency
53	add	to increase in number, size, or importance	137
		"Add items to inventory sheet that have been added to inventory."	
		"Add checks from register and remove tape."	
47	adjust	to bring to a more satisfactory state . .	159
		"Adjusts counter for desired number of copies."	
	change	"Change old procedure as required by new procedure."	
	set	"Set computer for proper itemization of charges."	
19	answer	to speak, write, or reply	501
		"Answers incoming telephone calls."	
31	arrange	to put into correct or desired order . . .	374
		"Arrange appointment to his satisfaction."	
	block in/out	"Blocks in reservations of rooms."	
	collate	"Collates paper pack."	
	design	"Designs new form in rough draft."	
	devise	"Devise the best form for tabulation."	
	flowchart	"Flowchart program using layout and spacing chart."	
	negotiate	"Negotiates solution or refers guests to manager."	
	plan	"Plans for three inspections daily."	
	schedule	"Schedules appointment for salesman."	
	straighten	"Straighten up pamphlets."	

Rank N=57	Verb and Synonyms	Definition and Examples	Frequency
16	attach	to make fast or join	525
		"Attach signed original to patient's chart."	
	affix	"Affix postage stamp on envelope."	
	clip	"Clip these two items together."	
	staple	"Staple report to original ticket."	
17	call	to communicate or utter	520
		"Call supplier and place order."	
	page	"Page doctor when interviewee arrives."	
	telephone	"Telephones doctor to cancel interview."	
7	check	to inspect for satisfactory condition . . .	1389
		"Check schedule for shift's processing."	
	examine	"Examined insured's file to determine amount paid."	
	inspect	"Inspect each check for signature."	
57	code	any system of symbols for meaningful communication	83
		"Code information for keypunch."	
36	collect	to bring together into a band or group . . .	278
		"Collect copies of transactions at points of origin."	
	accumulate	"Accumulate data from memos."	
	assemble	"Assemble purchase orders for week."	
	batch	"Batches currency into bundles."	
	gather	"Gathered reports."	
42	compare	to examine for the purpose of discovering resemblances or differences	305
		"Compare balance with checkbook balance."	
	balance	"Balance register by re-adding."	
	match	"Match sums received against checks."	
	reconcile	"Reconcile ledger monthly."	
34	compile	to assemble and put in logical order	247
		"Compile data on collections."	
	list	"Lists checks and cash on deposit slip."	

Rank N=57	Verb and Synonyms	Definition and Examples	Frequency
	make up	"Make up a folder for employee."	
	set up	"Sets up a folder for applicant."	
33	complete	to fill, make entire, perfect	328
		"Completes card with correct information."	
	fill in/out	"Fills in/out description and amount."	
18	compute	to determine by mathematical means or arrive at an answer	503
		"Computes benefits if loss was payable."	
	calculate	"Calculate premium using adding machine."	
	convert	"Converts data to charts and graphs."	
	count	"Count cash twice a week."	
	divide	"Divides list among three workers."	
	extend	"Uses calculator to extend orders."	
	figure	"Figure up correct premium."	
	multiply	"Multiply hours times hourly rate."	
	subtract	"Subtract actual from standard cost to get variance."	
27	correct	to change in order to set right	404
		"Correct cards containing errors."	
	change	"Change file records to reflect new information."	
	debug	"Debug machine."	
	fix	"Inspect and fix machine if possible."	
	update	"Update records to make current."	
	upgrade	"Upgrade old cards."	
3	deliver	to give, transfer, yield possession of . . .	1923
		"Deliver completed report to supervisor."	
	give	"Give to typist for copying."	
	hand to	"Hands correspondence to manager."	
	present	"Presents to agent handling account."	
	submit	"Submits program for testing."	
54	destroy	to put out of existence	132
		"Destroy order notices as executed."	
	discard	"Discard old files."	

Rank N=57	Verb and Synonyms	Definition and Examples	Fre- quency
	purge	"Purges confidential materials in burn barrel."	
	throw away	"Throw carbons away in wastebasket."	
13	determine	to settle a question or come to a decision . . 632 "Determine number of copies required."	
	choose	"Chooses supplies from shelf."	
	decide	"Decide on matter being discussed."	
	evaluate	"Evaluates run for source of error."	
	grade	"Grade test using punched master."	
	identify	"Identify the need for information."	
	score	"Scores tests."	
	select	"Select proper form from desk."	
	test	"Tests program on computer." "Administers typing tests."	
25	direct	to assist by giving advice, instruction, and supervision . . . . 408 "Direct patient to receptionist's desk."	
	assist	"Assist applicant as needed."	
	describe	"Describes how to type contracts."	
	explain	"Explains correct correspondence format."	
	help	"Help artist arrive at best data portrayal."	
	instruct	"Instructs applicants to wait."	
	oversee	"Oversee filling out of application."	
	provide	"Provide information."	
	show	"Shows applicants to test room."	
	supervise	"Supervise move from office to office."	
	supply	"Supply information necessary."	
	take	"Take person to supervisor."	
	teach	"Teach new employee how to keep records."	
	witness	"Witness signature."	
56	discuss	to discourse about, examine and pass on . . . 96 "Discuss special instructions with customer."	
	confer	"Confer with supervisor about matter."	
	consult	"Consult with artist while work progresses."	

Rank N=57	Verb and Synonyms	Definition and Examples	Frequency
	interview	"Interview patient in patient's room."	
	talk with	"Talk with supervisor about plans."	
40	distribute	to deal out, to dispense	245
		"Distributes mail delivered to office."	
	give to	"Give out test forms to students."	
	hand	"Hands out test booklets."	
25	duplicate	to make a copy of	408
		"Duplicates desired number of copies."	
	copy	"Copy code on item to be filed."	
	mimeograph	"Mimeographs 250 copies of sermon."	
	photocopy	"Photocopy original purchase order."	
	Xerox	"Xerox the letter."	
5	file	to arrange in particular order for preservation and reference	1640
		"File card alphabetically by name."	
52	greet	to meet and give salutations	142
		"Greet visitors."	
	welcome	"Welcome arriving guests at meeting."	
38	hold	an order or indication that some action is to be delayed	254
		"Hold cards for verification."	
	keep	"Keeps one pile for office file."	
	maintain	"Maintain control sheet for office keys."	
	store	"Store paid instrument for further processing."	
15	inform	to make known or give instruction	547
		"Informs supervisor of new procedure."	
	advise	"Advises caller that callee is out."	
	alert	"Alert room service dates guests will arrive."	
	notify	"Notify ex-patient his payment is past due."	
	quote	"Quotes coverage, premium for first year, and escrow."	
	reiterate	"Reiterate that it is patient's responsibility to pay."	
	relate	"Relate to customer desired information."	

Rank N=57	Verb and Synonyms	Definition and Examples	Frequency
	remind	"Remind supervisor of appointments."	
	repeat	"Repeat process until number of needed copies are typed."	
	signal	"Signal supervisor his call is ready."	
	suggest	"Suggested revisions in the plan."	
	tell	"Tell supervisor when evidence of coverage is not received."	
12	insert	to put into or inject	788
		"Insert paper into computer for printout."	
	put in	"Put letter in basket."	
	stuff	"Stuffed envelopes."	
49	issue	to give out or make available	153
		"Issues keys to incoming personnel."	
	assign	"Assigns a number to the application."	
	disburse	"Disburses cash for reimbursement."	
	pay	"Pays out money from window cash."	
20	locate	to determine the place of, to seek out and find	485
		"Locates information in file."	
	find	"Find papers needed from the files."	
	go thru	"Goes through pending pouch."	
	look for/up	"Look up information in computer book."	
	search	"Worker searches for order in her files."	
	trace	"Trace shipment by calling or writing customer, supplier, or carrier."	
29	mail	to send postal matter by mail	484
		"Mails invoice to customer."	
45	note	to take due or special notice of	193
		"Notes procedure and types rough draft."	
	annotate	"Annotates travel calendar with necessary information."	
	make note of	"Makes note of the changes."	
	notate	"Make notations in log book of voided order."	
8	obtain	to gain or attain possession of	1345
		"Obtains necessary signatures on forms."	

Rank N=57	Verb and Synonyms	Definition and Examples	Fre-quency
	get	"Gets information from manager."	
	pick up	"Picked up materials at other office."	
	secure	"Secures permission of underwriter to process change."	
44	open	to make available for use	199
		"Open external mail for supervisor."	
35	operate	to cause to function; to bring about; effect.	299
		"Operates a sequential stamping machine."	
	activate	"Activated MTST to correct spot on tape."	
	deactivate	"Deactivates machine when finished."	
	feed	"Feed tape into keypunch."	
	load	"Loads input cards into the card reader."	
	move	"Moves lever to operating position."	
	start	"Start the machine."	
	put in	"Put mail into machine for stamping."	
	thread	"Thread tape on machine."	
	turn off/on	"Turn off/on machine."	
47	package	to enclose in a package or protective covering	159
		"Package documents for mailing."	
	bind	"Bind on spiral binder."	
	tie	"Tie each group of envelopes with string."	
	wrap	"Film and packages wrapped for mailing."	
6	place	to cause to rest or lie, to dispose, to put into	1504
		"Places mail order on spindle on desk."	
	put	"Puts copy of suspense voucher in insured's folder."	
24	proofread	to read and mark corrections in matter . . .	422
		"Proofread letter and sign it."	
14	pull	to remove or cause to be removed from a place (file)	574
		"Pull report cards of withdrawals."	
	extract	"Extracts copy of policy."	
	take from	"Investment book is taken from file."	

Rank N=57	Verb and Synonyms	Definition and Examples	Fre- quency
43	punch	to record data by perforating a card or tape . "Punch cards using information from sheets."	234
	keypunch	"Keypunch grades into individual class cards."	
1	receive	to take in, to admit, to accept . . . . "Receives an order from a salesman."	2933
	take	"Takes requisition for funds."	
10	record	to set down in writing . . . . "Records prices on sheet of paper."	958
	enter	"Enters invoice payment date when payment arrives."	
	journalize	"Journalizes the day's work."	
	log	"Logs travel request in travel log."	
	post	[to the ledger only] "Post salaries paid to personnel."	
57	refer	to send or direct for information . . . . "Refer phone call to supervisor."	270
	consult	"Consult reference book for codes."	
	look at/on/ up	"Look on precomputed chart for amount of discount."	
	relay	"Relay telephone calls."	
	turn over	"Turn call over to supervisor."	
22	remove	to change or shift location, take off or away . "Remove completed stack of cards from machine."	444
	delete	"Delete record by taking out 3x5 cards."	
	erase	"Erases former class and puts in new one on office class cards."	
	take off	"Takes off belt and index strip when machine stops."	
21	request	the act of asking for something . . . . "Request identification on receipt of check."	468
	ask	"Ask for immediate payment."	
	inquire	"Inquire as to nature of problem."	
23	return	to go back or send back . . . . "Return tickets to computer room."	424
	give back	"Give completed material back to supervisor."	

CARD EIGHT

Location on NOBELS Form	Card Column	Code	Code Description
ALL PAGE 2			
Upper rt. corner	1-4		(See codes and explanations for same 4 digits on Zero Card)
	5-6	08	MASTER CARD NUMBER
Opposite box 1, 1st 2 digits	7-8		(See codes and explanation One-Seven Card for columns 9-10 - WHAT)
Opposite box 1, 2nd 2 digits	9-10		(See codes and explanation One-Seven Card for Columns 11-12 - WHY)
Boxes A-E for box 1	11	1-3	A) Consequences of Not Performing Task Correctly: 1 - Great, 2 - Moderate, 3 - Little
	12	1-2	B) Changing Task: 1 - Yes, 2 - No
	13	1-3	C) Frequency of Performing Task: 1 - High, 2 - Medium, 3 - Low
	14-15	01-99	D) Percent figure of employee's total time spent on task
	16	1-9	E) Most Difficult Task to Least Difficult Task--as many numbers as tasks written
Opposite box 2, 1st 2 digits	17-18		(WHAT--This is a repeat for box 2 of the same kind of material as in columns 7-8 of this card)
Opposite box 2, 2nd 2 digits	19-20		(WHY - OBJECT--This is a repeat for box 2 of the same kind of materials as in columns 9-10 of this card)
In boxes A-E, box 2	21-26		(A-E--This is a repeat for box 2 of the same kind of material as in column 11-16 of this card).

Continue in this manner (columns 7-16 and 17-26) for each task evaluation listed for card columns 27-36, 37-46, 47-56, 57-66, 67-76.

CARD NINE

Location on NOBELS Form	Card Column	Code	Code Description
ALL PAGE 5			
Upper rt. corner	1-4		(See codes and explanation for same 4 digit on Zero Card)
	5-6	09	MASTER CARD NUMBER
	7-76		(See codes and explanation for Card Eight. Card Nine is a replica of Card Eight differing only in that Card Eight records answers of employees and Card Nine the answers of supervisors to the same question.)