The primary purpose of New Office and Business Education Learning 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 recategorization and reordering of task statements, coding of all statements, and a concordance of verbs and objects. Based on empirical 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)
MISSION OF THE CENTER

The Center for Vocational and Technical Education, an independent unit on The Ohio State University campus, operates under a grant from the National Center for Educational Research and Development, U.S. Office of Education. It serves a catalytic role in establishing consortia to focus on relevant problems in vocational and technical education. The Center is comprehensive in its commitment and responsibility, multidisciplinary in its approach and interinstitutional in its program.

The Center's mission is to strengthen the capacity of state educational systems to provide effective occupational education programs consistent with individual needs and manpower requirements by:

- Conducting research and development to fill voids in existing knowledge and to develop methods for applying knowledge.
- Programmatic focus on state leadership development, vocational teacher education, curriculum, vocational choice and adjustment.
- Stimulating and strengthening the capacity of other agencies and institutions to create durable solutions to significant problems.
- Providing a national information storage, retrieval and dissemination system for vocational and technical education through the affiliated ERIC Clearinghouse.
DEVELOPMENT OF TASK PERFORMANCE STATEMENTS FOR A NEW OFFICE AND BUSINESS EDUCATION LEARNINGS SYSTEM (NOBELS)

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U.S. DEPARTMENT OF
HEALTH, EDUCATION AND WELFARE

Office of Education
National Center for Educational Research and Development
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Contributions of time and effort by many individuals cannot all be acknowledged, e.g., the area project directors, their numerous interviewers, supervisors in cooperating businesses, and office workers who provided the base information on which the product of performance statements is based. We especially wish to thank Calfrey C. Calhoun and his staff at the University of Georgia who conducted correlative studies of interaction requirements and office hardware; Bobbye Jo Wilson who, on detached service from the University of Georgia, organized much of the basic information on which this final report is based; Edwin J. Weber of the University of Northern Iowa who contributed to format and writing of task statements as well as disseminated NOBELS progress; and E. J. Morrison, research coordinator at the Center for Research and Leadership Development in Vocational and Technical Education, who served as a supportive critic at each stage of development. Finally, for encouragement and active support in arranging assignments, facilities, and space, frequently beyond the call of duty, we acknowledge J. W. Menge, Dean of the authors' College of Education.

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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, NOBELS system 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 synonymous 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

<table>
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<tr>
<th></th>
<th>All Industries</th>
<th>Agriculture</th>
<th>Manufacturing</th>
<th>Utilities</th>
<th>Wholesale Retail</th>
<th>Fin. Ins. Real Est.</th>
<th>Services</th>
<th>Government</th>
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<tbody>
<tr>
<td><strong>1960</strong></td>
<td>66.7</td>
<td>2.9</td>
<td>12.9</td>
<td>14.4</td>
<td>11.4</td>
<td>14.2</td>
<td>14.1</td>
<td>11.1</td>
</tr>
<tr>
<td><strong>1975</strong></td>
<td>88.7</td>
<td>3.9</td>
<td>16.8</td>
<td>19.7</td>
<td>16.1</td>
<td>16.1</td>
<td>13.2</td>
<td>17.6</td>
</tr>
<tr>
<td><strong>Increase (+) Decrease (-)</strong></td>
<td>+5.0</td>
<td>+0.0</td>
<td>+3.9</td>
<td>+5.3</td>
<td>+2.7</td>
<td>+2.0</td>
<td>+3.1</td>
<td>+6.5</td>
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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 state's 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. Rummeler 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 he 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 empirical 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 noneeducational 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.

Chapter II

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 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
1. DESIGN CRITERIA
General Objectives for:
- Persons
- Processes
- Properties
of the system under consideration.

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)

3. INPUTS (OUTPUTS)
Description of:
- Persons
- Processes
- Properties
included in the system under consideration to arrive at goals.

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 produced from those of proposal specifications.

1. **Change in Number of Data Collection Centers**

   In a judgmental sampling design, the following had been originally proposed 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 difficulties within the limitation of resources, the decision was made to decrease the nine regions to four area centers representing four subdivisions used for classifying and reporting U. S. Census data. As stated in the proposal, 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 because 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 decreased, (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 absolute 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 learning 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 determining interim goals necessary for the later achievement of a more difficult 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 performance related to input; handling or processing; and storage, retrieval or output of data and information as prerequisite to most office learnings.

(b) An occupational task which, because of its expected high motivational 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 business 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 prevocational 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 represent 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) NOBEL System 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 uncontrolled 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 indicating 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 decision points.
f. Collecting of job task sheets, possibly work samples, and interviewing the employee to complete activities within tasks
g. Interviewing a supervisor for normative role information, collection 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. Forms 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, approximately eighty graduate students tested thirty-five variations of interview protocols, each modification of which was made to yield more nearly a maximum 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.

<table>
<thead>
<tr>
<th>Page of Interview Protocol</th>
<th>Information Received from</th>
<th>Purpose of Information Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Supervisor</td>
<td>Data about company such as SIC, size, SMSA</td>
<td></td>
</tr>
<tr>
<td>2 Supervisor</td>
<td>Basic tasks performed by employee with weightings of factors of importance</td>
<td></td>
</tr>
<tr>
<td>3 Supervisor</td>
<td>Two task-related and two interaction (social role) critical incidents as observed in subject employee and described</td>
<td></td>
</tr>
<tr>
<td>4 Employee</td>
<td>Normative data such as age, sex, job classification, education completed</td>
<td></td>
</tr>
<tr>
<td>5 Employee</td>
<td>Same as page 2 except completed by employee</td>
<td></td>
</tr>
<tr>
<td>6 Employee</td>
<td>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</td>
<td></td>
</tr>
</tbody>
</table>

**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).
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.


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 data 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) **Basic.** 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) **Secondary.** 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) **Special.** 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) **Advanced.** 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) **Ancillary.** 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) **Changing.** 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

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

In addition to function within area; tasks according to their result 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

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

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 medical, have been separated and office performance in each is reported separately.

(b) Dual classification of interdepartmental services were also reconsidered. 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 reclassified. In some typing, transcription, filing, mailing, and stenographic tasks performed in "pools" or service departments, such functional identification 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 performance 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, modified, 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 followed 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 basis 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>
<thead>
<tr>
<th>Data Collection Institution</th>
<th>Pilot</th>
<th>Principal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>State University of New York at Albany</td>
<td>75</td>
<td>252</td>
<td>327</td>
</tr>
<tr>
<td>University of California at Los Angeles</td>
<td>86</td>
<td>302</td>
<td>388</td>
</tr>
<tr>
<td>University of Georgia</td>
<td>82</td>
<td>204</td>
<td>286</td>
</tr>
<tr>
<td>University of Minnesota</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wayne State University</td>
<td>82</td>
<td></td>
<td>82</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>243</td>
<td>1010</td>
<td>1253</td>
</tr>
</tbody>
</table>

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
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

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>90</td>
<td>7</td>
</tr>
<tr>
<td>19</td>
<td>161</td>
<td>13</td>
</tr>
<tr>
<td>20</td>
<td>205</td>
<td>17</td>
</tr>
<tr>
<td>21</td>
<td>209</td>
<td>17</td>
</tr>
<tr>
<td>22</td>
<td>198</td>
<td>16</td>
</tr>
<tr>
<td>23</td>
<td>153</td>
<td>12</td>
</tr>
<tr>
<td>24+</td>
<td>188</td>
<td>15</td>
</tr>
<tr>
<td>TOTALS</td>
<td>1232</td>
<td>99</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Function of Task</th>
<th>16-18 No.</th>
<th>16-18 Percent</th>
<th>19-21 No.</th>
<th>19-21 Percent</th>
<th>22-24+ No.</th>
<th>22-24+ Percent</th>
<th>Totals No.</th>
<th>Totals Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting and Computing</td>
<td>92</td>
<td>20</td>
<td>504</td>
<td>23</td>
<td>470</td>
<td>24</td>
<td>1066</td>
<td>23</td>
</tr>
<tr>
<td>Electronic Data Processing</td>
<td>15</td>
<td>3</td>
<td>121</td>
<td>6</td>
<td>142</td>
<td>7</td>
<td>278</td>
<td>6</td>
</tr>
<tr>
<td>Personnel</td>
<td>14</td>
<td>3</td>
<td>91</td>
<td>4</td>
<td>108</td>
<td>6</td>
<td>213</td>
<td>5</td>
</tr>
<tr>
<td>Production</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>1</td>
<td>20</td>
<td>1</td>
<td>34</td>
<td>1</td>
</tr>
<tr>
<td>Purchasing</td>
<td>5</td>
<td>1</td>
<td>50</td>
<td>2</td>
<td>60</td>
<td>3</td>
<td>115</td>
<td>3</td>
</tr>
<tr>
<td>Shipping and Receiving</td>
<td>11</td>
<td>3</td>
<td>32</td>
<td>1</td>
<td>50</td>
<td>3</td>
<td>93</td>
<td>2</td>
</tr>
<tr>
<td>Sales and Client Related</td>
<td>12</td>
<td>3</td>
<td>67</td>
<td>3</td>
<td>54</td>
<td>3</td>
<td>133</td>
<td>3</td>
</tr>
<tr>
<td>Communication--Stenography; Typewriting; Oral</td>
<td>183</td>
<td>49</td>
<td>823</td>
<td>38</td>
<td>716</td>
<td>37</td>
<td>1722</td>
<td>38</td>
</tr>
<tr>
<td>Other Services (mail, files, etc.)</td>
<td>133</td>
<td>29</td>
<td>446</td>
<td>21</td>
<td>315</td>
<td>16</td>
<td>894</td>
<td>20</td>
</tr>
<tr>
<td>TOTALS</td>
<td>465</td>
<td>101</td>
<td>2148</td>
<td>99</td>
<td>1935</td>
<td>99</td>
<td>4548</td>
<td>101</td>
</tr>
</tbody>
</table>

all coded tasks. Compared with the later hand reclassification of task sheets (as described in Chapter II) in which these kinds of tasks were attached 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 office 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 modification 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

<table>
<thead>
<tr>
<th>Highest Grade Completed</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ten</td>
<td>9</td>
<td>0.7</td>
</tr>
<tr>
<td>Eleven</td>
<td>33</td>
<td>2.7</td>
</tr>
<tr>
<td>Twelve</td>
<td>672</td>
<td>54.5</td>
</tr>
<tr>
<td>Thirteen</td>
<td>247</td>
<td>20.1</td>
</tr>
<tr>
<td>Fourteen</td>
<td>191</td>
<td>15.5</td>
</tr>
<tr>
<td>Fifteen</td>
<td>54</td>
<td>4.4</td>
</tr>
<tr>
<td>Sixteen</td>
<td>7</td>
<td>0.5</td>
</tr>
<tr>
<td>Grade Not Recorded</td>
<td>19</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>1232</td>
<td>99.9</td>
</tr>
</tbody>
</table>

### TABLE 6

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

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 because 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>
<thead>
<tr>
<th>JOB CLASSIFICATION CLUSTER</th>
<th>DEPARTMENTS</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>TOTALS</th>
<th>NO.</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stenographer, Secretary</td>
<td></td>
<td>30</td>
<td>3</td>
<td>37</td>
<td>15</td>
<td>8</td>
<td>1</td>
<td>27</td>
<td>52</td>
<td>112</td>
<td>285</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Accounting Clerk</td>
<td></td>
<td>181</td>
<td>4</td>
<td>14</td>
<td>3</td>
<td>10</td>
<td>13</td>
<td>44</td>
<td>54</td>
<td>171</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typist Clerk</td>
<td></td>
<td>22</td>
<td>2</td>
<td>18</td>
<td>7</td>
<td>10</td>
<td>13</td>
<td>64</td>
<td>54</td>
<td>251</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Clerk</td>
<td></td>
<td>21</td>
<td>3</td>
<td>11</td>
<td>7</td>
<td>7</td>
<td>2</td>
<td>12</td>
<td>19</td>
<td>53</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Processing Operator</td>
<td></td>
<td>21</td>
<td>87</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>10</td>
<td>128</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Public Contact Operator</td>
<td></td>
<td>22</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>7</td>
<td>19</td>
<td>21</td>
<td>77</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Telephone Operator, Receptionist</td>
<td></td>
<td>5</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>13</td>
<td>21</td>
<td>48</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>File Clerk</td>
<td></td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>15</td>
<td>12</td>
<td>41</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Mail Clerk, Messenger</td>
<td></td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>29</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td></td>
<td>326</td>
<td>106</td>
<td>86</td>
<td>36</td>
<td>33</td>
<td>13</td>
<td>85</td>
<td>211</td>
<td>336</td>
<td>1232</td>
<td>99</td>
<td></td>
</tr>
</tbody>
</table>

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 shotgun 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 on 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

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>Percent</td>
<td>No.</td>
</tr>
<tr>
<td>Accounting, Credit</td>
<td>52</td>
<td>29</td>
</tr>
<tr>
<td>Data Processing</td>
<td>27</td>
<td>15</td>
</tr>
<tr>
<td>Personnel</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Production</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Purchasing</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Receiving and Shipping</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Sales</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Services</td>
<td>35</td>
<td>20</td>
</tr>
<tr>
<td>General, Indeterminate</td>
<td>34</td>
<td>19</td>
</tr>
<tr>
<td>TOTALS</td>
<td>177</td>
<td>100</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>SIC</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
<td>157</td>
<td>12.7</td>
</tr>
<tr>
<td>Public Administration</td>
<td>220</td>
<td>17.9</td>
</tr>
<tr>
<td>Finance, Insurance, Real Estate</td>
<td>253</td>
<td>20.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>377</td>
<td>30.6</td>
</tr>
<tr>
<td>Agriculture</td>
<td>28</td>
<td>2.3</td>
</tr>
<tr>
<td>Transportation</td>
<td>97</td>
<td>7.9</td>
</tr>
<tr>
<td>Wholesale and Retail Trade</td>
<td>100</td>
<td>8.1</td>
</tr>
<tr>
<td>TOTALS</td>
<td>1232</td>
<td>100.0</td>
</tr>
</tbody>
</table>

What differences in preparation should the type of business make in a learning 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 learning 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 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

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>+100,000</th>
<th>-100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Percent</td>
</tr>
<tr>
<td>Accounting, Credit</td>
<td>287</td>
<td>26</td>
</tr>
<tr>
<td>Data Processing</td>
<td>96</td>
<td>9</td>
</tr>
<tr>
<td>Personnel</td>
<td>74</td>
<td>7</td>
</tr>
<tr>
<td>Production</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>Purchasing</td>
<td>29</td>
<td>3</td>
</tr>
<tr>
<td>Receiving, Shipping</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Sales</td>
<td>80</td>
<td>7</td>
</tr>
<tr>
<td>Services</td>
<td>197</td>
<td>18</td>
</tr>
<tr>
<td>General, Indeterminate</td>
<td>306</td>
<td>28</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>1109</strong></td>
<td><strong>102</strong></td>
</tr>
</tbody>
</table>

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, represented 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 organization 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 representation of the large company in the urban setting. That a statistically 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

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>NUMBER AND PERCENT OF EMPLOYEES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+100</td>
</tr>
<tr>
<td></td>
<td>No.</td>
</tr>
<tr>
<td>Accounting, Credit</td>
<td>272</td>
</tr>
<tr>
<td>Data Processing</td>
<td>95</td>
</tr>
<tr>
<td>Personnel</td>
<td>78</td>
</tr>
<tr>
<td>Production</td>
<td>33</td>
</tr>
<tr>
<td>Purchasing</td>
<td>27</td>
</tr>
<tr>
<td>Receiving and Shipping</td>
<td>12</td>
</tr>
<tr>
<td>Sales</td>
<td>69</td>
</tr>
<tr>
<td>Services</td>
<td>190</td>
</tr>
<tr>
<td>General, Indeterminate</td>
<td>227</td>
</tr>
<tr>
<td>TOTALS</td>
<td>1003</td>
</tr>
</tbody>
</table>

Yet, some evidence would indicate that data collected do not represent a saturation of all potential office tasks performed within a particular type of business. For example, of 186 basic tasks of hospital and medical service workers as separated, none represents purchasing, drug dispensing, 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 unable 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 classification 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 following 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 interview 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 |
| skills and System Requirements | Number | Percent | No. of Coping |
| 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

<table>
<thead>
<tr>
<th>FUNCTIONAL AREA</th>
<th>CRITICAL INCIDENTS</th>
<th>Ratio (P+N)</th>
<th>Total (P+N)</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>197</td>
<td>271</td>
<td>468</td>
<td>26.9</td>
</tr>
<tr>
<td>Electronic Data Processing</td>
<td>64</td>
<td>88</td>
<td>152</td>
<td>8.7</td>
</tr>
<tr>
<td>Personnel</td>
<td>37</td>
<td>40</td>
<td>77</td>
<td>4.4</td>
</tr>
<tr>
<td>Production</td>
<td>12</td>
<td>15</td>
<td>27</td>
<td>1.6</td>
</tr>
<tr>
<td>Purchasing</td>
<td>18</td>
<td>22</td>
<td>40</td>
<td>2.3</td>
</tr>
<tr>
<td>Shipping and Receiving</td>
<td>11</td>
<td>21</td>
<td>32</td>
<td>1.8</td>
</tr>
<tr>
<td>Sales</td>
<td>35</td>
<td>41</td>
<td>76</td>
<td>4.4</td>
</tr>
<tr>
<td>Communication, Typing, Stenography</td>
<td>263</td>
<td>359</td>
<td>622</td>
<td>35.8</td>
</tr>
<tr>
<td>Other Services</td>
<td>98</td>
<td>146</td>
<td>244</td>
<td>14.0</td>
</tr>
<tr>
<td>TOTALS</td>
<td>735</td>
<td>1003</td>
<td>1738</td>
<td>99.9</td>
</tr>
</tbody>
</table>

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

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

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

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 function 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 adequate 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 symbolic 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>
<thead>
<tr>
<th>TABLE 16. Distribution of 829 Usable Social Interaction Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judgment/Initiative</td>
</tr>
<tr>
<td>Information Stress Making Decision Making</td>
</tr>
<tr>
<td>I. Formal System</td>
</tr>
<tr>
<td>A. Internal</td>
</tr>
<tr>
<td>1. Superior</td>
</tr>
<tr>
<td>2. Peers</td>
</tr>
<tr>
<td>3. Subordinates</td>
</tr>
<tr>
<td>B. External</td>
</tr>
<tr>
<td>4. Customers</td>
</tr>
<tr>
<td>5. Salesmen</td>
</tr>
<tr>
<td>6. Others</td>
</tr>
<tr>
<td>II. Informal System</td>
</tr>
<tr>
<td>A. Internal</td>
</tr>
<tr>
<td>7. Superiors</td>
</tr>
<tr>
<td>8. Peers</td>
</tr>
<tr>
<td>9. Subordinates</td>
</tr>
<tr>
<td>B. External</td>
</tr>
<tr>
<td>10. Customers</td>
</tr>
<tr>
<td>11. Salesmen</td>
</tr>
<tr>
<td>12. Others</td>
</tr>
<tr>
<td>TOTALS</td>
</tr>
<tr>
<td>PERCENT</td>
</tr>
</tbody>
</table>

+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 edu-
cational 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 supervi-
sor 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) trans-
fers 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) correct-
ing 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) work-
ing 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) communica-
ting 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

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>SUPERVISOR</th>
<th>EMPLOYEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting, Computing</td>
<td>832</td>
<td>870</td>
</tr>
<tr>
<td>Electronic Data Processing</td>
<td>222</td>
<td>242</td>
</tr>
<tr>
<td>Personnel</td>
<td>174</td>
<td>176</td>
</tr>
<tr>
<td>Production</td>
<td>35</td>
<td>33</td>
</tr>
<tr>
<td>Purchasing</td>
<td>94</td>
<td>93</td>
</tr>
<tr>
<td>Shipping and Receiving</td>
<td>77</td>
<td>90</td>
</tr>
<tr>
<td>Sales and Client Related</td>
<td>103</td>
<td>113</td>
</tr>
<tr>
<td>Stenographic and Other Communications</td>
<td>1349</td>
<td>1368</td>
</tr>
<tr>
<td>Other Services (mail, files, etc.)</td>
<td>760</td>
<td>778</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>3646</strong></td>
<td><strong>3763</strong></td>
</tr>
</tbody>
</table>

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
- Next most difficult
- Next most difficult
- Next most difficult
- Next most difficult
- Next most difficult

(This is done for 6 or however many tasks listed.)

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, results 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

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>SUPERVISOR</th>
<th>EMPLOYEE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Great</td>
<td>Avg.</td>
</tr>
<tr>
<td>Accounting, Computing</td>
<td>392</td>
<td>294</td>
</tr>
<tr>
<td>Electronic Data Processing</td>
<td>106</td>
<td>61</td>
</tr>
<tr>
<td>Personnel</td>
<td>86</td>
<td>48</td>
</tr>
<tr>
<td>Production</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>Purchasing</td>
<td>41</td>
<td>31</td>
</tr>
<tr>
<td>Inventory, Shipping, and Receiving</td>
<td>43</td>
<td>11</td>
</tr>
<tr>
<td>Sales and Client Related</td>
<td>51</td>
<td>36</td>
</tr>
<tr>
<td>Stenography and Other Communication</td>
<td>557</td>
<td>468</td>
</tr>
<tr>
<td>Other Services (mail, files)</td>
<td>279</td>
<td>263</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>1574</td>
<td>1224</td>
</tr>
</tbody>
</table>

Nonrespondents - Supervisors = 8    Employees = 15
TABLE 19
Comparisons of Supervisor and Employee Responses to Frequency of Basic Task Performance

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

Nonrespondents - Supervisors = 8 Employees = 11

3. Changing Tasks Identified

Of 3646 basic tasks identified by supervisors, 279 in number or 7.7 percent 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 decision 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 foreseeable future. Other

TABLE 20
Supervisor and Employee Indicated Changing Tasks by Functional Areas

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>SUPERVISOR</th>
<th></th>
<th>EMPLOYEE</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. Percent</td>
<td></td>
<td>No. Percent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting, Computing</td>
<td>176</td>
<td>27.2</td>
<td>79</td>
<td>33.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic Data Processing</td>
<td>19</td>
<td>6.8</td>
<td>13</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>20</td>
<td>7.2</td>
<td>13</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>3</td>
<td>1.1</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchasing</td>
<td>8</td>
<td>2.9</td>
<td>10</td>
<td>4.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shipping and Receiving</td>
<td>5</td>
<td>1.8</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales and Client Related</td>
<td>9</td>
<td>3.2</td>
<td>9</td>
<td>3.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stenography and Other Communication</td>
<td>93</td>
<td>33.3</td>
<td>77</td>
<td>32.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Services (mail, files)</td>
<td>46</td>
<td>16.5</td>
<td>35</td>
<td>14.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td>279</td>
<td>100.0</td>
<td>238</td>
<td>100.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
opinion on the "emergent" in changing office tasks are those outputs to be expected from Huffman's "Emergent Office Study," currently in preparation. 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 "electronic 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

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>No. of Responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanization:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic Data Processing</td>
<td>103</td>
<td>57</td>
</tr>
<tr>
<td>Other Equipment</td>
<td>26</td>
<td>15</td>
</tr>
<tr>
<td>Shift of Task Responsibility (to/from Others)</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>Change in Need for Task</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>Change in Organizational Structure</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>179</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

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

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

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 ten-
tative listing of 108 verbs describing office actions as reported by employees
and interviewers was extracted. The need for analysis of verbs was con-
sidered 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

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 process-
ing 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 accord-
ing to highest frequency; i.e., communication defined as stenography, type-
writing, and oral communication; accounting which includes primarily numeri-
cal 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 class-
rooms 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>
<thead>
<tr>
<th>TABLE 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twenty Most Frequently Used Verbs Describing Steps of Basic Task Performance</td>
</tr>
<tr>
<td>Rank Verbs Total Number Percent of 32,447</td>
</tr>
<tr>
<td>1 receive 2933 9.0</td>
</tr>
<tr>
<td>2 typewrite 1925 5.9</td>
</tr>
<tr>
<td>3 deliver 1923 5.9</td>
</tr>
<tr>
<td>4 write 1677 5.2</td>
</tr>
<tr>
<td>5 file 1640 5.1</td>
</tr>
<tr>
<td>6 place 1504 4.7</td>
</tr>
<tr>
<td>7 check 1389 4.3</td>
</tr>
<tr>
<td>8 obtain 1345 4.1</td>
</tr>
<tr>
<td>9 send 996 3.1</td>
</tr>
<tr>
<td>10 record 958 2.9</td>
</tr>
<tr>
<td>11 sort 945 2.9</td>
</tr>
<tr>
<td>12 insert 788 2.4</td>
</tr>
<tr>
<td>13 determine 632 1.9</td>
</tr>
<tr>
<td>14 pull 578 1.8</td>
</tr>
<tr>
<td>15 inform 567 1.7</td>
</tr>
<tr>
<td>16 attach 525 1.6</td>
</tr>
<tr>
<td>17 call 520 1.6</td>
</tr>
<tr>
<td>18 compute 503 1.6</td>
</tr>
<tr>
<td>19 answer 501 1.6</td>
</tr>
<tr>
<td>20 locate 485 1.6</td>
</tr>
<tr>
<td>TOTALS 22,314 68.8</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>Communication Services</th>
<th>Accounting</th>
<th>Other Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
<td>No.</td>
<td>Rank</td>
</tr>
<tr>
<td>1</td>
<td>typewrite</td>
<td>1139</td>
</tr>
<tr>
<td>2</td>
<td>receive</td>
<td>1051</td>
</tr>
<tr>
<td>3</td>
<td>deliver</td>
<td>602</td>
</tr>
<tr>
<td>4</td>
<td>obtain</td>
<td>589</td>
</tr>
<tr>
<td>5</td>
<td>write</td>
<td>512</td>
</tr>
<tr>
<td>6</td>
<td>file</td>
<td>489</td>
</tr>
<tr>
<td>7</td>
<td>place</td>
<td>464</td>
</tr>
<tr>
<td>8</td>
<td>answer</td>
<td>401</td>
</tr>
<tr>
<td>9</td>
<td>check</td>
<td>400</td>
</tr>
<tr>
<td>10</td>
<td>proofread</td>
<td>364</td>
</tr>
</tbody>
</table>

TOTALS | 6,011 | 4,498 | 2,936 |

Communication includes stenography, typewriting, and oral communication; 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

<table>
<thead>
<tr>
<th>Data Processing</th>
<th>Personnel</th>
<th>Client Related Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
<td>No.</td>
<td>Rank</td>
</tr>
<tr>
<td>1</td>
<td>receive</td>
<td>176</td>
</tr>
<tr>
<td>2</td>
<td>punch</td>
<td>151</td>
</tr>
<tr>
<td>3</td>
<td>deliver</td>
<td>136</td>
</tr>
<tr>
<td>4</td>
<td>place</td>
<td>112</td>
</tr>
<tr>
<td>5</td>
<td>obtain</td>
<td>87</td>
</tr>
<tr>
<td>6</td>
<td>check</td>
<td>85</td>
</tr>
<tr>
<td>7</td>
<td>remove</td>
<td>71</td>
</tr>
<tr>
<td>8</td>
<td>write</td>
<td>70</td>
</tr>
<tr>
<td>9</td>
<td>record</td>
<td>68</td>
</tr>
<tr>
<td>10</td>
<td>insert</td>
<td>59</td>
</tr>
</tbody>
</table>

TOTALS | 1,015 | 869 | 603 |

which they relate. Analyses of basic tasks and their weightings of importance as elicited from supervisors and employees were presented. In relation 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

<table>
<thead>
<tr>
<th>Rank</th>
<th>Production</th>
<th>Receiving and Shipping</th>
<th>Purchasing</th>
<th>No.</th>
<th>Rank</th>
<th>No.</th>
<th>Rank</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>receive</td>
<td>receive</td>
<td>receive</td>
<td>38</td>
<td>1</td>
<td>77</td>
<td>1</td>
<td>98</td>
</tr>
<tr>
<td>2</td>
<td>write</td>
<td>check</td>
<td>write</td>
<td>33</td>
<td>2</td>
<td>64</td>
<td>2</td>
<td>71</td>
</tr>
<tr>
<td>3</td>
<td>deliver</td>
<td>deliver</td>
<td>deliver</td>
<td>21</td>
<td>3</td>
<td>61</td>
<td>3</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>file</td>
<td>file</td>
<td>file</td>
<td>17</td>
<td>4</td>
<td>39</td>
<td>4</td>
<td>96</td>
</tr>
<tr>
<td>5</td>
<td>check</td>
<td>typewrite</td>
<td>send</td>
<td>15</td>
<td>5</td>
<td>38</td>
<td>5</td>
<td>51</td>
</tr>
<tr>
<td>6</td>
<td>typewrite</td>
<td>call</td>
<td>record</td>
<td>14</td>
<td>6</td>
<td>35</td>
<td>6</td>
<td>49</td>
</tr>
<tr>
<td>7</td>
<td>place</td>
<td>write</td>
<td>place</td>
<td>11</td>
<td>7</td>
<td>29</td>
<td>7</td>
<td>48</td>
</tr>
<tr>
<td>8</td>
<td>obtain</td>
<td>obtain</td>
<td>obtain</td>
<td>8</td>
<td>8</td>
<td>27</td>
<td>8</td>
<td>38</td>
</tr>
<tr>
<td>9</td>
<td>send</td>
<td>place</td>
<td>typewrite</td>
<td>8</td>
<td>9</td>
<td>26</td>
<td>9</td>
<td>35</td>
</tr>
<tr>
<td>10</td>
<td>duplicate</td>
<td>send</td>
<td>record</td>
<td>7</td>
<td>10</td>
<td>21</td>
<td>10</td>
<td>31</td>
</tr>
</tbody>
</table>

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
than one task. The further revision of task statements reduced the generalized 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 interviewers. 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
02. INTERNAL SERVICES
03. TYPING COMMUNICATION
04. CLIENT RELATED SERVICES
05. ORAL COMMUNICATION
06. ELECTRONIC DATA PROCESSING
07. PERSONNEL
08. SALES
09. INVENTORY, SHIPPING, RECEIVING
10. PURCHASING
11. PRODUCTION
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 frequency 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 processing 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 business 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

<table>
<thead>
<tr>
<th>Title of First-Level Classification</th>
<th>Code</th>
<th>Title of Computer-Coded Major Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMERICAL CLERICAL RECORDS</td>
<td>01.</td>
<td>Accounting</td>
</tr>
<tr>
<td>INTERNAL SERVICES</td>
<td>02.</td>
<td>Services</td>
</tr>
<tr>
<td>TYPING COMMUNICATION</td>
<td>03.</td>
<td>Communication</td>
</tr>
<tr>
<td>CLIENT RELATED SERVICES</td>
<td>04.</td>
<td>Client Related Services</td>
</tr>
<tr>
<td>ORAL COMMUNICATION</td>
<td>05.</td>
<td>Communication</td>
</tr>
<tr>
<td>ELECTRONIC DATA PROCESSING</td>
<td>06.</td>
<td>Electronic Data Processing</td>
</tr>
<tr>
<td>PERSONNEL</td>
<td>07.</td>
<td>Personnel</td>
</tr>
<tr>
<td>SALES</td>
<td>08.</td>
<td>Sales</td>
</tr>
<tr>
<td>INVENTORY, SHIPPING, RECEIVING</td>
<td>09.</td>
<td>Shipping, Receiving, Inventory</td>
</tr>
<tr>
<td>PURCHASING</td>
<td>10.</td>
<td>Purchasing</td>
</tr>
<tr>
<td>PRODUCTION</td>
<td>11.</td>
<td>Production</td>
</tr>
<tr>
<td>MISCELLANEOUS</td>
<td>12.</td>
<td>Miscellaneous (NEC)</td>
</tr>
</tbody>
</table>

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 NUMERICAL 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, 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 classification and the highest frequency performance in the second-level classification.

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

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Classification</th>
<th>Number of Task Statements</th>
<th>Number of Task Sheets</th>
</tr>
</thead>
<tbody>
<tr>
<td>07.</td>
<td>PERSONNEL</td>
<td>27</td>
<td>348</td>
</tr>
<tr>
<td>08.</td>
<td>SALES</td>
<td>32</td>
<td>230</td>
</tr>
<tr>
<td>09.</td>
<td>INVENTORY, SHIPPING, RECEIVING</td>
<td>25</td>
<td>134</td>
</tr>
<tr>
<td>09.01.</td>
<td>Inventory</td>
<td>9</td>
<td>70</td>
</tr>
<tr>
<td>09.02.</td>
<td>Shipping</td>
<td>9</td>
<td>43</td>
</tr>
<tr>
<td>09.03.</td>
<td>Receiving</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>10.</td>
<td>PURCHASING</td>
<td>4</td>
<td>130</td>
</tr>
<tr>
<td>11.</td>
<td>PRODUCTION</td>
<td>3</td>
<td>40</td>
</tr>
<tr>
<td>12.</td>
<td>MISCELLANEOUS</td>
<td>25</td>
<td>48</td>
</tr>
</tbody>
</table>

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 performance task 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**

<table>
<thead>
<tr>
<th>Code</th>
<th>Main Classification</th>
<th>Number of Interview Task Sheets</th>
<th>Number of Task Statements</th>
<th>(1) + (2) Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>NUMERICAL CLERICAL RECORDS</td>
<td>980</td>
<td>76</td>
<td>12.9</td>
</tr>
<tr>
<td>02</td>
<td>INTERNAL SERVICES</td>
<td>750</td>
<td>34</td>
<td>22.1</td>
</tr>
<tr>
<td>03</td>
<td>TYPING COMMUNICATION</td>
<td>644</td>
<td>15</td>
<td>42.9</td>
</tr>
<tr>
<td>04</td>
<td>CLIENT RELATED SERVICES</td>
<td>437</td>
<td>85</td>
<td>5.1</td>
</tr>
<tr>
<td>05</td>
<td>ORAL COMMUNICATION</td>
<td>425</td>
<td>12</td>
<td>35.7</td>
</tr>
<tr>
<td>06</td>
<td>ELECTRONIC DATA PROCESSING</td>
<td>398</td>
<td>35</td>
<td>11.4</td>
</tr>
<tr>
<td>07</td>
<td>PERSONNEL</td>
<td>348</td>
<td>27</td>
<td>12.9</td>
</tr>
<tr>
<td>08</td>
<td>SALES</td>
<td>230</td>
<td>32</td>
<td>7.2</td>
</tr>
<tr>
<td>09</td>
<td>INVENTORY, SHIPPING, RECEIVING</td>
<td>134</td>
<td>25</td>
<td>5.4</td>
</tr>
<tr>
<td>10</td>
<td>PURCHASING</td>
<td>130</td>
<td>4</td>
<td>32.5</td>
</tr>
<tr>
<td>11</td>
<td>PRODUCTION</td>
<td>40</td>
<td>3</td>
<td>13.3</td>
</tr>
<tr>
<td>12</td>
<td>MISCELLANEOUS</td>
<td>48</td>
<td>25</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td><strong>Totals</strong></td>
<td><strong>4564</strong></td>
<td><strong>373</strong></td>
<td><strong>12.2</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Rank</th>
<th>Code</th>
<th>Task Statement</th>
<th>Number of Task Sheets</th>
<th>Percent</th>
<th>Percent Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>03.00.01</td>
<td>The worker types correspondence, memos, and other items from form and rough draft required by employer.</td>
<td>226</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>03.00.02</td>
<td>The worker types dictation from shorthand.</td>
<td>172</td>
<td>3.8</td>
<td>8.7</td>
</tr>
<tr>
<td>3</td>
<td>05.00.01</td>
<td>The worker processes incoming telephone calls.</td>
<td>160</td>
<td>3.5</td>
<td>12.2</td>
</tr>
<tr>
<td>4</td>
<td>02.02.01</td>
<td>The worker processes requests for records or files.</td>
<td>120</td>
<td>3.5</td>
<td>14.9</td>
</tr>
<tr>
<td>5</td>
<td>05.00.02</td>
<td>The worker answers incoming telephone calls.</td>
<td>117</td>
<td>2.6</td>
<td>17.4</td>
</tr>
</tbody>
</table>

**Totals**: 795 17.4

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)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Code</th>
<th>Task Statement</th>
<th>Number of Task Sheets</th>
<th>Percent</th>
<th>Percent Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>02.01.01</td>
<td>The worker processes departmental incoming mail.</td>
<td>99</td>
<td>2.2</td>
<td>19.6</td>
</tr>
<tr>
<td>7</td>
<td>06.01.01</td>
<td>The worker punches cards from source documents such as invoices, orders, time cards, and instructions.</td>
<td>96</td>
<td>2.1</td>
<td>21.7</td>
</tr>
<tr>
<td>8</td>
<td>10.00.01</td>
<td>The worker maintains supplies and stock inventory.</td>
<td>94</td>
<td>2.1</td>
<td>23.8</td>
</tr>
<tr>
<td>9</td>
<td>01.03.01</td>
<td>The worker prepares payroll.</td>
<td>73</td>
<td>1.6</td>
<td>25.4</td>
</tr>
<tr>
<td>10</td>
<td>01.02.01</td>
<td>The worker computes accounts payables from source documents.</td>
<td>69</td>
<td>1.5</td>
<td>26.9</td>
</tr>
</tbody>
</table>

**Subtotal**: 1226 26.9

<table>
<thead>
<tr>
<th>Rank</th>
<th>Code</th>
<th>Task Statement</th>
<th>Number of Task Sheets</th>
<th>Percent</th>
<th>Percent Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>07.00.01</td>
<td>The worker processes employment applications.</td>
<td>68</td>
<td>1.5</td>
<td>28.4</td>
</tr>
<tr>
<td>12</td>
<td>01.01.01</td>
<td>The worker types invoice from such documents as sales tickets, contracts, and receiving reports.</td>
<td>59</td>
<td>1.3</td>
<td>29.6</td>
</tr>
<tr>
<td>13</td>
<td>07.00.02</td>
<td>The worker updates personnel files from changes received.</td>
<td>54</td>
<td>1.2</td>
<td>30.8</td>
</tr>
</tbody>
</table>
### TABLE 31--Continued
High Frequency Task Performances by Rank Order
(Ranks 6 through 51)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Code</th>
<th>Task Statement</th>
<th>Number of Task Sheets</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>05.00.03</td>
<td>The worker performs the duties of a receptionist.</td>
<td>50</td>
<td>1.1</td>
<td>31.9</td>
</tr>
<tr>
<td>15.5</td>
<td>01.01.02</td>
<td>The worker records accounts receivables from such documents as salesmen’s orders, cash receipts, and invoices.</td>
<td>48</td>
<td>1.1</td>
<td>33.0</td>
</tr>
<tr>
<td>15.5</td>
<td>04.01.01</td>
<td>The worker types insurance documents.</td>
<td>48</td>
<td>1.1</td>
<td>34.0</td>
</tr>
<tr>
<td>17</td>
<td>01.02.02</td>
<td>The worker records accounts payables.</td>
<td>47</td>
<td>1.0</td>
<td>35.1</td>
</tr>
<tr>
<td>18.5</td>
<td>02.04.01</td>
<td>The worker prepares duplicated materials.</td>
<td>46</td>
<td>1.0</td>
<td>36.1</td>
</tr>
<tr>
<td>18.5</td>
<td>03.00.03</td>
<td>The worker types communications from dictated belt.</td>
<td>46</td>
<td>1.0</td>
<td>37.1</td>
</tr>
<tr>
<td>20.5</td>
<td>03.00.04</td>
<td>The worker types reports from rough draft.</td>
<td>45</td>
<td>1.0</td>
<td>38.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtotal</td>
<td>1737</td>
<td>38.1</td>
<td></td>
</tr>
<tr>
<td>20.5</td>
<td>06.04.01</td>
<td>The worker codes forms such as purchase orders, invoices, and applications for Keypunch.</td>
<td>45</td>
<td>1.0</td>
<td>39.0</td>
</tr>
<tr>
<td>22</td>
<td>02.02.02</td>
<td>The worker updates files.</td>
<td>43</td>
<td>.9</td>
<td>40.0</td>
</tr>
<tr>
<td>24</td>
<td>02.04.02</td>
<td>The worker duplicates file materials.</td>
<td>42</td>
<td>.9</td>
<td>40.9</td>
</tr>
<tr>
<td>24</td>
<td>05.00.04</td>
<td>The worker operates a switchboard.</td>
<td>42</td>
<td>.9</td>
<td>41.8</td>
</tr>
<tr>
<td>24</td>
<td>06.02.01</td>
<td>The worker checks source documents such as orders, invoices, punched cards, and printouts with computer printouts/listings</td>
<td>42</td>
<td>.9</td>
<td>42.7</td>
</tr>
<tr>
<td>27</td>
<td>01.01.03</td>
<td>The worker prepares billings of sales.</td>
<td>41</td>
<td>.9</td>
<td>43.7</td>
</tr>
<tr>
<td>27</td>
<td>02.02.03</td>
<td>The worker files materials such as legal, personnel, and purchasing documents.</td>
<td>41</td>
<td>.9</td>
<td>44.6</td>
</tr>
<tr>
<td>27</td>
<td>04.01.02</td>
<td>The worker processes insurance inquiries.</td>
<td>41</td>
<td>.9</td>
<td>45.5</td>
</tr>
<tr>
<td>29</td>
<td>06.01.02</td>
<td>The worker operates a verifier.</td>
<td>40</td>
<td>.9</td>
<td>46.3</td>
</tr>
<tr>
<td>30</td>
<td>03.00.05</td>
<td>The worker types medical letters, forms, articles, and reports.</td>
<td>38</td>
<td>.8</td>
<td>47.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subtotal</td>
<td>2152</td>
<td>47.2</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>07.00.03</td>
<td>The worker arranges orientation of new employees.</td>
<td>37</td>
<td>.8</td>
<td>48.0</td>
</tr>
<tr>
<td>32</td>
<td>07.00.04</td>
<td>The worker administers employment tests to applicants.</td>
<td>36</td>
<td>.8</td>
<td>48.8</td>
</tr>
<tr>
<td>34</td>
<td>02.02.04</td>
<td>The worker processes materials for filing such as legal, personnel, and real estate document.</td>
<td>35</td>
<td>.8</td>
<td>49.5</td>
</tr>
<tr>
<td>Rank</td>
<td>Code</td>
<td>Task Statement</td>
<td>Number of Task Sheets</td>
<td>Percent</td>
<td>Cumulative Percent</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>---------</td>
<td>--------------------</td>
</tr>
<tr>
<td>34</td>
<td>06.03.01</td>
<td>The worker operates reproducer from punch cards, printed lists, and summary cards.</td>
<td>35</td>
<td>.8</td>
<td>50.3</td>
</tr>
<tr>
<td>34</td>
<td>07.00.05</td>
<td>The worker types personnel reports from such documents as personnel lists, appointment cards, and rough drafts.</td>
<td>35</td>
<td>.8</td>
<td>51.1</td>
</tr>
<tr>
<td>36.5</td>
<td>01.02.03</td>
<td>The worker prepares payments from documents such as invoices, bills, vouchers.</td>
<td>33</td>
<td>.7</td>
<td>51.8</td>
</tr>
<tr>
<td>36.5</td>
<td>01.07.01</td>
<td>The worker compiles unit costs of jobs and sales/production estimates from expense sheets and/or total sales figures.</td>
<td>33</td>
<td>.7</td>
<td>52.5</td>
</tr>
<tr>
<td>38</td>
<td>07.00.06</td>
<td>The worker types personnel letters, forms, and cards from documents such as rough draft letters, employment forms, and claim forms.</td>
<td>31</td>
<td>.7</td>
<td>53.2</td>
</tr>
<tr>
<td>40</td>
<td>02.03.01</td>
<td>The worker compiles reports and documents from sources such as supply lists, invoices, and outlines.</td>
<td>30</td>
<td>.7</td>
<td>53.8</td>
</tr>
<tr>
<td>40</td>
<td>08.00.01</td>
<td>The worker processes sales documents such as charge slips, purchase orders, and warrants.</td>
<td>30</td>
<td>.7</td>
<td>54.5</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td></td>
<td>2487</td>
<td></td>
<td>54.5</td>
</tr>
<tr>
<td>40</td>
<td>.10.00.02</td>
<td>The worker types purchasing documents.</td>
<td>30</td>
<td>.7</td>
<td>55.2</td>
</tr>
<tr>
<td>43.5</td>
<td>01.04.01</td>
<td>The worker checks the accuracy of source documents such as sales, purchasing, tax reports, and forms.</td>
<td>28</td>
<td>.6</td>
<td>55.8</td>
</tr>
<tr>
<td>43.5</td>
<td>01.06.01</td>
<td>The worker records data for financial reports from schedules, license fee forms, and damage claims.</td>
<td>28</td>
<td>.6</td>
<td>56.4</td>
</tr>
<tr>
<td>43.5</td>
<td>02.01.02</td>
<td>The worker prepares daily bulk mailings.</td>
<td>28</td>
<td>.6</td>
<td>57.0</td>
</tr>
<tr>
<td>43.5</td>
<td>02.03.02</td>
<td>The worker updates records and patient charts from lab reports, case histories, and other information.</td>
<td>28</td>
<td>.6</td>
<td>57.6</td>
</tr>
<tr>
<td>47.5</td>
<td>01.01.04</td>
<td>The worker writes delinquent customer.</td>
<td>27</td>
<td>.6</td>
<td>58.2</td>
</tr>
<tr>
<td>47.5</td>
<td>01.03.02</td>
<td>The worker records payroll information.</td>
<td>27</td>
<td>.6</td>
<td>58.8</td>
</tr>
<tr>
<td>47.5</td>
<td>01.05.01</td>
<td>The worker prepares the bank deposit from cash receipts.</td>
<td>27</td>
<td>.6</td>
<td>59.4</td>
</tr>
<tr>
<td>47.5</td>
<td>04.03.01</td>
<td>The worker types educational lists, schedules, letters and reports.</td>
<td>27</td>
<td>.6</td>
<td>60.0</td>
</tr>
<tr>
<td>50.5</td>
<td>01.06.02</td>
<td>The worker prepares financial reports.</td>
<td>26</td>
<td>.6</td>
<td>60.5</td>
</tr>
<tr>
<td>50.5</td>
<td>04.02.01</td>
<td>The worker processes over-the-counter requests and inquiries.</td>
<td>26</td>
<td>.6</td>
<td>61.1</td>
</tr>
<tr>
<td></td>
<td>Total of 51 Ranks</td>
<td></td>
<td>2789</td>
<td></td>
<td>61.1</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>SIC</th>
<th>Number of Task Sheets</th>
<th>Number of Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service--Medical</td>
<td>186</td>
<td>24</td>
</tr>
<tr>
<td>Finance, Insurance, Real Estate--Banking</td>
<td>286</td>
<td>63</td>
</tr>
</tbody>
</table>

The separate analysis does provide clues to the peculiarity of requirement for successful 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.
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 verifies delinquent customer. (27 task sheets, detail)

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

01.01.06 The worker completes medical charges for insurance reimbursement. (20 task sheets, semi-detail)

01.01.07 The worker prepares statements from patient's accounts and charge slips. (4 task sheets, semi-detail)

01.01.08 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 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, detail)
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/rejected 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, detail)
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 printout, 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)
02.01.01 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 communication 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)
The worker types statistical information from engineering specifications, lists of checks, and rate sheets. (25 task sheets, detail)

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

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

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

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

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

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

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

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

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

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**04. CLIENT RELATED SERVICES**

**04.01. Insurance**

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

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

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

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

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

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

**04.02. Financial**

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

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

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

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 extensions 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, detail)

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

04.09. Repair Service

04.09.01 The worker processes 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 printing adding machine operator's tape production. (2 task sheets)
06.01.07 The worker punches cards coded for school withdrawal. (1 task sheet)

06.02. 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 corporate 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 installation. (1 task sheet)

06.04. Coding

06.04.01 The worker codes forms such as purchase orders, invoices, and applications 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, reproducer, 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 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)

06.06. 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)
08.00.27 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)
08.06.05 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. (5 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/cabletype 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)
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)
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.
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
- Continuation
- Acquisition, Disposition
- Process

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

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### 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, CONTRACTS, AND RECEIVING REPORTS. (59 task sheets)

ACQUISITION

RECEIVES
- shipment, request forms/meter reading cards/
sales tickets/catalog, purchase orders/special
accounts/repair papers/contracts/change
slips/invoices/listings of accounts due/req-
uest 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
SUPPLEMENTARY STEP: Photocopies bills for customers on request

HARDWARE

SOFTWARE

EDUCATIONAL CUES

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 SALESMAN'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/courier 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
 Typewriter
 Adding machine (10-key)
 Duplicator
 Bookkeeping/posting/billing machines
 Hand stamp
 Calculator

SOFTWARE
 Account code books
 Ledger cards
 Invoices
 Sales reports
 Correction tickets
 Tax forms
 Sales receipts

EDUCATIONAL SKILLS
 Typing
 Duplicating
 Computational skills
 Accuracy
 Checking
 Coding
 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/remittance slips/contracts/chain store slips/invoices/computer sheets/requisitions/ledgers/sales work, daily settlement 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/collections/price differences/discount, sales tax/number minutes on call ticket/percentages of discount/extensions/profit/weights/charges

VERIFIES
totals/salesman's territories

TYPES
invoices/account numbers/manifest/amount on wholesale form/profit sheet/sales order forms/report of accounts receivable

PROOFREADS
records/totals

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 supervisor
**SUPPLEMENTARY STEPS:** Batches call tickets;Duplicates statements.

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<td>Books, magazines</td>
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**REPORTED CRITERIA:** "A general knowledge of bookkeeping and accounting terminology is most helpful in early adaptation to nature of the position; Minimum bookkeeping ability; Absolute accuracy required; Simple math ability; Must understand 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

**COMPARSES**
- 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 collection/overdue notices/list of those not reached by telephone

**DUPicates**
- 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
OB TAINS
notarization of bankruptcy forms

FILES
- notices/work orders/letter/payment reminders/loan cards, forms

MAILS
dead 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
- Typewriter
- Adding machine (10-key)
- Duplicator
- Hand stamp
- Files

SOFTWARE
- Account cards
- Envelopes
- Register book
- Work orders
- Loan cards, forms
- Service notices

EDUCATIONAL CUES
- Statistical Typing
- Accuracy
- Filing (numeric, alphabetic)
- Checking
- 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 externally 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 received/tickets for defects/shipping tickets against billing invoice for accuracy/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 processed 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/Medicare
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
Typewriter
Files
Adding machine (10-key)

SOFTWARE
Patient accounts
Punched cards
Medicare book

EDUCATIONAL CUES
Accuracy
Checking
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."
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
amount owed/quantities shipped/actual departmental expenditures
	types
letter requesting tax certificate/tax forms/summary, recap, comparison recap sheets/sales orders/budget reports
proofreads
total
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 salesman/cover letter with tax forms/sales reports

SUPPLEMENTARY STEP: Microfilm sales slips

REPORTED CRITERIA: "Accurate picture of current status of sales compared to previous year; Use judgment deciding whether an item is income or reduction in expense; Tax commissioner receives report on time; All totals balance."

HARDWARE
Adding machine (10-key)
Typewriter
Calculator
Duplicator
Files

SOFTWARE
Sales orders, slips
Collection, recap sheets
Tax certificates
Sales, budget reports
Invoices

EDUCATIONAL CUES
Accuracy
Checking (numerical)
Computational skills
Filing
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 card, charge slips, receipts to Accounting

HARDWARE

Typewriter
Files
Postage machine

SOFTWARE

Billing statements
Patient account
Charge slips
Receipt
Form letters

EDUCATIONAL CUES

Typing
Filing
Accuracy
Concentration
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; Proofreading; 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 account 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 photocopy of rush orders has been made policy."
01.02.01 THE WORKER COMPUTES ACCOUNTS PAYABLES FROM SOURCE DOCUMENTS. (69 task sheets)

Start

ACQUISITION

RECEIVES

computing 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/costa/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/not 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.
HARDWARE
Typewriter
Adding machine/(10-key)
Calculator
Hand stamp

SOFTWARE
Catalog
Accounts/payable documents
Code book

EDUCATIONAL CUES
Computational skills
Accuracy
Checking
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
- Perforating machine
- Adding machine (10-key)
- Bookkeeping machine
- Typewriter
- Hand stamp
- Files
- Calculator

SOFTWARE
- Code book
- Envelopes
- Requisitions, bills
- Price lists
- Cards
- Invoices

EDUCATIONAL CUES
- Accuracy
- Coding
- Computational skills
- Checking
- Filing
- Typing

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/appropriation 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/amout 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
Typewriter
Check proof machine
Stamp

SOFTWARE
Checks
Accounts payable
documents
Check stubs

EDUCATIONAL CUES
Accuracy
Statistical typing
Coding
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 accurately. 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 received 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."
THE WORKER PREPARES PAYROLL. (73 task sheets)

ACQUISITION

RECEIVES
- time cards/weekly payroll registers/payroll information sheets
- labor report sheets

OBTAINs
- labor report sheets

SORTS
- time cards by job category, shift, department/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
Payroll machine
Typewriter
Coins
Addressograph machine
Adding machine (10-key)
Check writing machine
Check protector machine
Hand stamp
Check master machine
Signature machine

Software
Time cards, checks
Payroll registers
Manuals on taxes
Punched tape
Labor report sheets
Pay envelopes
Time sheets
Bills (money)

Educational cues
Coding system
Accuracy
Computational skills
Checking
Tax laws
Company policy

Reported criteria: "Honesty; Trustworthy; Convert hours into figures; Work under pressure."

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

Start

Receives payrolls, time cards from employees

Acquisition

Receives
payroll, time cards from employees

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/signature of employer and temporary worker/correctness of error/for balanced totals of time cards

Corrects
errors missed in audit

Receives
cards from Key punching/printouts from Data Processing

Obtains
signatures of employee, supervisor
1. Delivers to key-punching
   - Receives cards/printouts
   - Checks, sorts cards
   - Mails/sorts cards
   - Files printouts
2. Sends to Data Processing
   - Delivers time cards
   - Corrects cards back to Data Processing

Supplementary steps: Binds cards by department 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 criteria for sorting batches for computer; Accuracy in dealing with numbers."

Hardware
- Adding machine (10-key)

Software
- Payroll, time cards
- Ledger cards
- Printouts

Educational cues
- Batching
- Coding
- Accuracy

01.03.03 THE WORKER COMPUTES PAYROLL CHANGES. (17 task sheets)
Types changes

Records changes

Obtains supervisor's signature

Mails contract/report

Files payroll cards, reports

End

- salary changes/days absent
- salary adjustment
- supervisor's signature, approval of changes/verification of code sheet

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; Interpret union policy; Follow directions; Code"

HARDWARE
- Typewriter
- Adding machine (10-key)
- Files

SOFTWARE
- Salary, policy manuals
- Union contracts
- Time reports, worksheet
- Payroll cards
- Code, overtime sheets
- Doctor's excuse

EDUCATIONAL CUES
- Statistical typing
- Accuracy
- Salary, policy manuals
- Proofreading
- Filing
- 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."
THE WORKER COMPILES PAYROLL REPORTS FROM PAYROLL SHEETS, TIME SHEETS, JOB CARDS, AND PRINTOUTS. (15 task sheets)

Start

Receives payroll documents

Sorts materials

Computes figures

Totals figures

Checks for accuracy

Records information

Types report?

Yes

No

Delivers to typist

Proofreads

Obtains signature

Duplicate?

Yes

Delivers to Reproducing

Obtains report

No

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

Supplementary Step: Determines amount of difference between payroll budgeted and paid.

Reported Criteria: "Coping with employees' errors in ladylike manner; Time pressures."
THE WORKER PUNCHES PAYROLL DATA. (8 task sheets)

Obtains data sheets/pre-punched, program control cards
Arranges cards by code number
Punches account number, amount on cards
Verifies cards
Delivers cards to Accounting

THE WORKER RECORDS PAYROLL CHANGES FOR HOSPITAL EMPLOYEES. (2 task sheets)

Receives list of salary increases/master salary schedule
Checks for salary changes/correct job classification
Pulls employee personnel file
Records salary change on personnel records/revision date on master salary schedule
Completes salary form for changes
Places salary form in interoffice mail
Attaches increase memo to salary schedule for change verification
Files salary schedule

THE WORKER PREPARES A DUMMY PAYROLL. (1 task sheet)

Operates addressograph machine to print dummy payroll sheet
Writes changes on dummy sheet
Refer to vacation schedule
Draws circle around name of employee on vacation
Delivers corrected dummy payroll to another employee

THE WORKER COMPUTES SALESMEN'S COMMISSION. (1 task sheet)

Receives short, over slips
Sorts slips by driver, salesman
Totals with 10-key adding machine
Computes commission earned by hand or bookkeeping machine
Checks computations
Records drivers' names, commissions on payroll sheet
Types summary sheet
Photocopies payroll, summary sheets
Delivers payroll sheet to another worker
Files payroll, summary sheets
Mails summary sheet to distributor

HARDWARE
Typewriter
Electronic calculator
Adding machine (10-key)

SOFTWARE
Manuals on rates
Report forms
Time sheets
Payroll sheets
Job cards
Printouts

EDUCATIONAL CUES
Typing
Coding
Computational skills
Accuracy
Proofreading
Checking
01.03.09 THE WORKER PREPARES TIME CARDS. (1 task sheet)

Receives time cards from Personnel
Runs time cards through addressograph machine
Compares time cards with list making sure there is a card for each employee
Stamps date on time card
Places card in rack by time clock

01.03.10 THE WORKER UPDATES WEEKLY PAYROLL TIME CARDS. (1 task sheet)

Stamps time card, using ID plate
Writes week ending date on time card
Files payroll time cards alphabetically
Removes previous week's employee payroll time card from files
Delivers 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)

Receives weekly activity tickets
Checks for errors
Delivers to Key punching
Records time spent on new product project
Files computer listing

01.03.12 THE WORKER PROCESSES STATUS TIME SLIPS. (1 task sheet)

Receives oral information
Types employee data
Mails time slip to board for certification
Checks returned time slips for verification
Files certified time slip

01.03.13 THE WORKER COMPiles AN EMPLOYEE TRANSFER LIST FROM OUTPUT CARDS. (1 task sheet)

Receives output cards
Punches job, department, code numbers on output cards
Sorts (key sorts) cards
Removes cards of transferred employees
Compiles transfer list from output cards
Delivers transfer list to another worker

PAYROLL CRITICAL INCIDENTS

"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 receiving Workman's compensation checks. The worker forgot to notify the compensation 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."
01.04.01. **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."

**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."
THE WORKER VERIFIES TOTALS OF CANCELLED CHECKS, COMPUTER TAPES, AND TELLERS' BALANCE SHEETS. (21 task sheets)

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, cancelled 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/denomination 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
**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**

- Adding machine
- Telephone
- Typewriter
- Calculator

**SOFTWARE**

- Bank statements
- Deposit, debit, credit 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, checking, 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)

**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 Processing; 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**
- 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/advises/oral information stating withdrawal, deposit from supervisor
01.04.04

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
   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 additional 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
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/account 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
Adding machine (10-key)
Typewriter
Files

SOFTWARE
Hold cards
Checks
Computer listings

EDUCATIONAL CUES
Computational skills, Typing, Filing, 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."
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 payable to cash

No

Punches checks 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
Sped

REPORTED CRITERIA: "Must balance accurately; 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 reading all checks and deposits from documents; 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
Checks previous audits/audit directions
Obtains financial records
Checks procedures for maintaining financial records being audited
Totals financial records
Checks balances with ledger, computations
Locates most recent date financial records in balance
Composes verifications to bank personnel on exceptions noted
Writes audit report
Delivers audit report to Auditing

THE WORKER CODES TRANSACTION TAX ON TICKETS. (1 task sheet)

COMPUTING AND CHECKING CRITICAL INCIDENTS

"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."
01.05.01 NUMERICAL CLERICAL RECORDS

01.05.01 Receipts

THE WORKER PREPARES THE BANK DEPOSIT FROM CASH RECEIPTS. (27 task sheets)

01.05.01

Start

Receives cash receipts

Sorts coins, bills

Totals cash receipts

Places cash in vault

Computes check, cash totals

Photocopies checks

Verifies check totals

Records cash receipts

Stamps endorsement on checks

Writes deposit slips

DELIVERS deposit to bank, co-worker

TYPES cash report

DISPOSITION

PROCESS

ACQUISITION

RECEIVES cash/checks/employee deposit slips/money sheets

SORTS coins on coin machine/checks alphabetically/bills

PACKAGES coins

TOTALS cash receipts

COMPUTES checks 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

MAILS deposit, deposit slip to bank

FILES deposit slip
REPORTED CRITERIA: "Figures must be accurate; Accuracy in use of 10-key adding machine; Honest; Work must be completed at specific time each day."

THE WORKER RECEIVES PAYMENTS OVER THE COUNTER. (20 task sheets)

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 received/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
01.05.02

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
Cash register
Calculator
Adding machine
Typewriter
Posting machine
Charge plate validation machine

SOFTWARE
Customer record books
Company record books
Cash receipts
Merchandise (lay-away)

EDUCATIONAL CUES
Accuracy handling money
Computational skills
Courtesy dealing with customers
Filing
Typing

REPORTED CRITERIA: "Worker must account for any shortages; Essential that customer be greeted immediately; Averages 30 lay-away transactions daily."

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 payment/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; Keypunching, co-worker.

HARDWARE
Mechanical letter opener
Adding machine
Typewriter
Register
Accounting machine
Company name stamp

SOFTWARE
Checks,
Receivables journals,
ledgers
Receivables forms,
envelopes

EDUCATIONAL CUES
Computational skills
Good penmanship
Filing
Typing

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 outpatient 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."
01.05.04

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
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.
THE WORKER PREPARES RECONCILIATION OF BANK ACCOUNT. (8 task sheets)

Start

Receives bank statement

Totals checks

Verifies totals

Error?

Yes

Locates error

Corrects error

No

Sorts checks by type

Checks previous month's statements

Checks cleared?

Yes

Records uncleared checks

Records outstanding checks

Checks void check file

Totals outstanding checks

Checks stop payment file

Checks bank balance with bank account

Files check stubs/bank statements

End

Receives bank statements
Totals checks listed/check register/outstanding checks
Verifies totals with bank's total
Sorts checks by type
Checks previous month's statement/for checks cleared
Records checks not cleared bank/outstanding 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

Yes

Operate machine?

Operates bookkeeping machine

Verifies computations

Obtains approval

Types financial reports

Types envelopes

Mails, Delivers 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

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/operator, supervisor

TYPES reports/invoices/numbers, data on forms/envelopes
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

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

Process
- Checks financial documents for completeness/every fiftieth freight bill number/advertisements/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.
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
Adding machine (10-key)
Typewriter
Rotary calculator
Duplicator

SOFTWARE
Credit, tax forms
Adding machine tapes
Deposit slips
Financial reports, worksheets
Invoices
Adjustment sheets

EDUCATIONAL CUES
Checking
Statistical typing
Accuracy
Proofreading

REPORTED CRITERIA: "Should have ability to type a financial statement in about one hour; Work under pressure; Great deal of concentration, neatness, and legibility of handwriting; Must have accounting knowledge and experience; Able to evaluate profit and loss statements."

THE WORKER RECORDS ITEMS SUCH AS STOCKS, BONDS, DEPOSIT SLIPS, AND PASSBOOKS. (18 task sheets)

ACQUISITION
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

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 return
  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
  Adding machine
  Bookkeeping machine
  Files
  Typewriter

EDUCATIONAL CUES
  Accuracy
  Alertness
  Checking
  Computational skills
  Typing
  Filing

SOFTWARE
  Stocks, bonds
  Deposit slips
  Passbooks
  Conversion sheets
  Cash, checks
  Levy, attachment
  Batches of stubs
  Daily reports
  Loan history cards
  Overdrawn statements

REPORTED CRITERIA: "Care in entering figures; Must be efficient; Polite to customers;
Accuracy in data transferring."

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/correction 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

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
Calculator
Bookkeeping machine
Duplicator
Files

SOFTWARE
Payments
Loan payment sheets
Loan, deposit slips
Journals

EDUCATIONAL CUES
Checking
Accuracy
Filing

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 knowledge 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)

Records all money received
Places money in safe
Writes all checks requested
Records checks written on accounts
Writes receipts weekly
Totals cash twice weekly
Delivers money to bank twice weekly
Checks ledger monthly
Records account balances monthly

01.06.07  THE WORKER ADJUSTS PROPERTY TAX RECORDS FROM TRANSFER FORMS. (1 task sheet)

Receives transfer forms
Records new owner's name, address change, date deed filed on tax roll
Pulls cards
Records data on new owner
Removes name, address of old owner
Files card alphabetically
Obtains signature of property assessor
Completes form
Delivers form to Data Processing
Files 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 understand 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."
01.07.01  THE WORKER COMPILES UNIT COSTS OF JOBS AND SALES/PRODUCTION ESTIMATES FROM EXPENSE SHEETS AND/OR TOTAL SALES FIGURES. (33 task sheets)

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

Start

Receives expense sheets, sales figures

Sorts job cards/orders/reports

Compares figures

Records cost figures

Checks for errors, duplications

Y

Yes

Corrects

Error?

No

Computes itemized total costs

Records itemized costs

Y

Yes

Types report

No

Duplicates report

Send vouchers; work orders to DP/ Acctg.

Files job orders, payroll sheets

Mails report to home office

End
01.07.01

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
- Adding machine
- Calculator (rotary, key-driven)
- Typewriter
- Electrostatic copier
- Duplicator

SOFTWARE
- Ledgers
- Cost sheets
- Payroll sheets
- Job analysis sheets

EDUCATIONAL CUES
- Computational skills
- Analyzing cost data
- Checking for duplication
- Statistical typing

REPORTED CRITERIA: "Finance Department will question worker if records are unclear; Accurate with figures; Knowledge of cost accounting; Accurate in transferring 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 production 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."
01.08.01, THE WORKER PROCESSES CREDIT APPLICATIONS. (17 task sheets)

Start

Receives credit/credit rating request

Yes

Greet credit applicant

No

Assists applicant with application

Checks file for previous application

Checks, Calls credit rating sources

Types letters requesting credit information

Records credit information received

Issues credit

Mails credit card, credit acceptance, rejection

Delivers credit to salesmen, underwriters

Files credit application

End

ACQUISITION

RECEIVES

customer credit, approved, loan application/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 applicant does business/detective agency to check client/references/company employing applicant/applicant to notify of approved application

TYPES

form letters requesting credit information, 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 approved 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 information to credit bureaus, banks, business associates/approved credit letter to customer
DELIVERS
application to potential customers/completed credit checks to salesmen, underwriters
FILES
approved customer credit application/master address label

HARDWARE
Telephone
Typewriter
Switchboard
Files

SOFTWARE
Credit rating books
Applications
Letters

EDUCATIONAL CUES
Checking references
Appraising credit potential
Typing
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)

Start

Receives call for charge verification

Records customer, charge information

Credit information on file?

Yes

Checks file for credit limits, conditions

Issues refusal

No

Charge approved?

Punches verifier button stamping charge

Phones credit information to employee

End

End

HARDWARE
Telephone
Files
Switchboard credit verifier

SOFTWARE
Credit files

EDUCATIONAL CUES
Credit checking promptness
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

01.08.04 THE WORKER INFORMS APPLICANT AND COMPANY DEPARTMENT OF APPROVED/REJECTED CREDIT APPLICATIONS. (7 task sheets)

Start
Receives approved/rejected credit application
Computes, Records credit limit
Assigns number to approved application
Notify customer?
Yes
Sorts applicants by number of credit cards requested
Types rejection, acceptance slips/letters/account card forms
Proofreads
Files rejection slip/acceptance letters
Sends rejection, acceptance letters, forms, customer number to Data Processing, Credit

End

01.08.04 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."
THE WORKER PROCESSES CREDIT MEMORANDUMS. (5 task sheets)

SUPPLEMENTARY STEP:
Adjusts old credit memos and old invoices.

Start
Receives credit/credit requests
Pulls invoices
Checks figures
Credit justified?

Yes
Computes credit
Types credit memo
Records amount on customer account
Sends credit to department of origin/customer/charge to DP
End

No
Delivers credit/credit copy to department of origin

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 checking 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

No

Good credit rating?

Yes

Calls inquirer, informs inquirer

Mails credit information

End

HARDWARE

SOFTWARE

EDUCATIONAL CUES

REPORTED CRITERIA: "Completes approximately 10 credit ratings per day; Great discretion is required in giving out information without account holder's signature; Accuracy and tact in handling confidential information."

Telephone  Credit information forms
Wheel index file
File

Checking
Interpreting credit account data
Filing

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 questioned/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)

Receives order in amount higher than customer's credit limit
Determines if account must be paid before additional credit given/extension of credit/credit references
Checks past payment history/current credit book rating
Writes for confidential information
Informs branch office to release, hold, return order
Sends 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)
01.09.01

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

FULLS
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
<table>
<thead>
<tr>
<th>HARDWARE</th>
<th>SOFTWARE</th>
<th>EDUCATIONAL CUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adding machine</td>
<td>Requisitions for funds</td>
<td>Recording, checking skills</td>
</tr>
<tr>
<td>Typewriter</td>
<td>Cash, checks</td>
<td>Typing</td>
</tr>
<tr>
<td>Check signing machine</td>
<td>Money bags</td>
<td>Filing</td>
</tr>
<tr>
<td>Telautograph machine</td>
<td>Insurance forms</td>
<td>Computational skills</td>
</tr>
<tr>
<td>Cash drawers</td>
<td>Disbursement records</td>
<td></td>
</tr>
</tbody>
</table>

**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.
02.01.01

Note: Hardware, Software, Educational Cues below refer to entire area of Mailing.

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)

Performs materials/mailing instructions
Determine 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, statements, checks, and contracts. (25 task sheets)
THE WORKER PROCESSES COMPANY OUTGOING MAIL. (22 task sheets)

- Receives company outgoing mail
- Sorts outgoing mail by categories: local-first class, out-of-town first class, special mail, airmail, foreign mail, mail requiring more postage
- Operates postage meter
- Arranges metered mail into bundles
- Sorts tied, metered mail, airmail, foreign mail for mail bag

SUPPLEMENTARY STEP: Records departmental postage billing

THE WORKER PERFORMS MAILROOM DUTIES. (19 task sheets)

- Obtains mail twice daily from post office
- Receives mail in Mail Room
- Sorts mail by individual, company in pigeonholes, bins, slots
- Operates mail opener
- Removes envelope contents
- Checks contents for distribution
- Delivers mail to readers who determine distribution

THE WORKER OPERATES AN ADDRESSING MACHINE. (16 task sheets)

- Receives bulletins/metal addressing plates/instructions
- Sorts mail for address changes/address change requests
- Checks revised listing
- Types new plates, cards for mailing list additions
- Removes information on plates to be changed
- Operates addressing machine
- Returns metal addressing plates to cabinet
- Sorts mail: local, outstate, international
- Delivers 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

SUPPLEMENTARY STEPS: Collates multiple-page addressed bulletins; Types rolls of labels; Types new index card; Files new index card; Runs publication through folding machine.

REPORTED CRITERIA: "Must include all necessary people in mailing; Able to establish priorities; Make minor addressing machine repairs."

THE WORKER DELIVERS INCOMING AND OUTGOING MAIL. (16 task sheets)

- Obtains mail cart, telegrams, packages, mail
- Arranges mail in cart by delivery route stops
- Punches time card at beginning of mail run
- Delivers cart contents to building departments
- Obtains outgoing mail from departments while delivering mail
- Arranges outgoing mail on cart by department
- Delivers outgoing mail to Mailing
- Punches time card at end of mail run

SUPPLEMENTARY STEP: 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, statements 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."
THE WORKER PROCESSES INCOMING HOSPITAL MAIL. (9 task sheets)

HARDWARE
- Typewriter
- Mail
- Files
- Checks
- Date stamp
- Patient's files

SOFTWARE
- Typing
- Filing
- Checking

EDUCATIONAL CUES
- Typing
- Filing
- Checking

REPORTED CRITERIA: "It is easy to engage in conversation with other employees while delivering mail; mail must not be delayed; Judgment as to whom mail goes; Extreme care in sorting."

Start

- Receives mail/returned 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

Duplicate?
- Yes
  - Duplicates letters supervisor wishes passed on
- No
  - Writes "return to sender" if no forwarding address
  - Mails bills/letters
  - Delivers mail to doctors/departments
  - Files original letters
  - Destroys junk mail

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 anyone 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 secretary 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 confidential 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 recalled 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 telephone 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."
02.02.01 INTERNAL SERVICES

02.02.01 Filing

THE WORKER PROCESSES REQUESTS FOR RECORDS OR FILES. (120 task sheets)

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

Nails/Delivers copy to requester

Files folders

End

Note: The following refer to the entire area of filing:

HARDWARE
Files
Sortograph
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)
Matching correlating documents not exactly identical
02.02.02  THE WORKER UPDATES FILES. (43 task sheets)

Checks daily auditing list for changes to be made/other designated sources
Pulls records
Records updated information
Files records
Pulls inactive folders
Files inactive folders in inactive file
Destroy inactive folders
Types new label, folder/list of address changes
Files new, updated files

02.02.03  THE WORKER FILES MATERIALS SUCH AS LEGAL, PERSONNEL, AND PURCHASING DOCUMENTS. (41 task sheets)

Stamps source documents "paid" or department name
Sorts materials alphabetically, numerically, geographically, chronologically, by subject
Pulls related documents
Compares documents
Files materials

02.02.04  THE WORKER PROCESSES MATERIALS FOR FILING SUCH AS LEGAL, PERSONNEL, AND REAL ESTATE DOCUMENTS. (35 task sheets)

Receives legal, personnel, real estate documents
Stamps source documents with "paid" or department name
Sorts materials by vendor, job numbers, customer name, destination, by copy
Pulls related documents
Compares documents with pulled related documents
Checks accuracy of documents
Mails documents
Codes materials for filing
Arranges cross references
Files materials alphabetically, numerically, geographically, chronologically, by subject
Types tab/folder
Records 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)

Receives account forms/checks
Checks checks for completeness
Sorts 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
Removes 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 the supervisor 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)

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/description 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 completeness

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/alternative solutions

COMPILES
information for coming weddings/forms/reports/facts/materials at library/books which might contain needed information/new service orders/monthly report

WRITES
narrative about wedding/statement on assessment of property title limitations/rough draft of summary report/invoice numbers/recommendations/information received/articles for evening edition of newspaper/draft of periodic report/reasons for differences 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
SORTs
cards numerically, by project number

TYPES
final report copy/articles/stock information/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 supervisor/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 section; 65 wpm typing, file rapidly, accurately; Time pressure; Moderate knowledge 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 authorization 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
Files
Typewriter
Telephone

SOFTWARE
Laboratory reports
Patient's charts, records
Notebook

EDUCATIONAL CUES
Filing
Typing
Communication skills
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 searching; 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."
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 amendment, 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/records for storage

COMPARSES
- part numbers to drawings

RECORDS
- changes in master catalog/title of property codes/list of cities, programs on summary sheet/referrals (client) weekly, monthly/date of mailings, payments/subject/addressee/writer/date of contract/
  page numbers/part numbers/account numbers/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 itinerary/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
02.03.03

**HARDWARE**
- Typewriter
- Files
- Storage boxes

**SOFTWARE**
- Calendar
- Maps
- Master catalog
- Code book/log book
- Company procedures manuals

**SOFTWARE**
- Typewriter
- Date stamp

**SOFTWARE**
- Code book
- Master catalog
- Maps
- Stencils

**EDUCATIONAL CUES**
- Checking
- Accuracy
- Typing
- Filing
- Coding
- Proofreading

**EDUCATIONAL CUES**
- Coding
- Checking
- Typing

**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 property conveyance; Galley proofs must be correct;
- Must concentrate to pick out errors, edits minutes;
- Basic knowledge of spelling and grammar; Check dictionary; Some analytical ability, common sense required; Must know how to read maps, attention to detail."

**HARDWARE**
- Typewriter
- Date stamp

**SOFTWARE**
- Code book
- Master catalog
- Maps
- Stencils

**EDUCATIONAL CUES**
- Coding
- Checking
- Typing

**SUPPLEMENTARY STEP:**
- Operates MTST
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
MAILS
  donation materials
DELIVERS
  checked forms to department/errors, stencil to typist/correct correspondence to employer

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."
THE WORKER DUPLICATES ITEMS FOR PERMANENT RECORDS. (9 task sheets)

ACQUISITION

cancelled checks/advices/request for advice/ledger, summary, recap, bookkeeping, report sheets/accounts listing/deposits

PROCESS

advices

photocopy machine for proper date, microfilm, date setting

OPERATES

microfilmer on cancelled checks/ledger, summary, recap sheets/bookkeeping reports/all checks/deposits

ARRANGES

reports

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)

**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** (48 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)

Start

Receives dictation in person/over telephone

Checks notes/punctuation/spelling

Types transcription

Proofreads

Obtains signature/corrections/revisions

Duplicate?

Yes

Duplicates typed material

Distributes typed material

Types envelopes

Yes

Files original/copy

No

Mails letters

End

HARDWARE

Typewriter

Duplicator

SOFTWARE

Note pad

Dictionary

Transcribed materials:

Letters

Manuscripts

Charts (from standard format)

Contracts

Reports

Minutes of meetings

Memos

Legal documents

Envelopes

EDUCATIONAL CUES

Typing

Shorthand

Accuracy

Proofreading

Checking

Filing

Transcription

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
THE WORKER TYPES COMMUNICATIONS FROM DICTATED BELT. (40 task sheets)

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 transcribe at 40 wpm."

Typing Communication Critical Incidents

"I dictated a quotation specifying one price and the stenographer transposed 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 intended."

"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 inquiry. 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)

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."
THE WORKER TYPES MEDICAL LETTERS, FORMS, ARTICLES, AND REPORTS.

(38 task sheets)

ACQUISITION
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
patient's ledger card/Medicare record/address cards of discharged, transferred patients

WRITES
instructions/patient's address/date on charts/cancer treatment (radium, cobalt)

CORRECTS
rough drafts, revises (if necessary)

COMPOSES
letter to patient

COMPUTES
number of males, females in medicine, surgery, obstetrics, pediatrics, newborn/number discharged, admitted patients for month/all amounts on statistical tables/number premature, Caesarean births

TYPES

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
  Typewriter
  Adding machine (10-key)
  Files

SOFTWARE
  Patient's files
  Medical documents
  Coding manuals
  Stencils

EDUCATIONAL CUES
  Checking
  Typing
  Proofreading
  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 information to the attorney's client."
THE WORKER TYPES STATISTICAL INFORMATION FROM ENGINEERING SPECIFICATIONS, LISTS OF CHECKS, AND RATE SHEETS. (25 task sheets)

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 company; Spelling, grammar, technical grammar important; Pay attention to detail; Able to read difficult handwriting; Meet a deadline."
THE WORKER OPERATES A TELETYPE MACHINE. (19 task sheets)

<table>
<thead>
<tr>
<th>Start</th>
<th>Receives handwritten messages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sorts messages by destination</td>
</tr>
<tr>
<td></td>
<td>Checks message</td>
</tr>
<tr>
<td></td>
<td>Verifies, Types message unless legible</td>
</tr>
<tr>
<td></td>
<td>Corrects errors by stopping machine, pulling tape to slip by errors</td>
</tr>
<tr>
<td></td>
<td>Removes punched tape, inserts tape into teletype machine</td>
</tr>
<tr>
<td></td>
<td>Sends teletype message</td>
</tr>
<tr>
<td></td>
<td>Receives two copies</td>
</tr>
<tr>
<td></td>
<td>Records time spent handling message</td>
</tr>
<tr>
<td></td>
<td>Delivers message, copy to requestor</td>
</tr>
<tr>
<td></td>
<td>Files message copy</td>
</tr>
<tr>
<td></td>
<td>End</td>
</tr>
</tbody>
</table>

**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)

Receives letters/oral request  
Checks letters  
Locates necessary information  
Determines type of reply  
Composes rough draft reply  
Types reply/carbons/envelopes  
Proofreads  
Obtains signature  
Places letters in envelopes  
Files letter  
Mails letter

**HARDWARE**
- Typewriter
- Signature stamp
- Files

**SOFTWARE**
- Envelopes (blank, window)
- Letterhead paper
- Incoming mail

**EDUCATIONAL CUES**
- Proofreading
- Typing
- Neatness
- Accuracy
- Filing

**REPORTED CRITERIA:** "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 DOCUMENTS. (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
- Proofreads
- Obtains customer signature on signature card/deposit/signature on letters
03.00.09

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
Transcribing machine
Typewriter
Adding machine
Files

SOFTWARE
Forms
Checks
Cards
Computer listings
Passbooks
Adding machine tapes

EDUCATIONAL CUES
Shorthand
Typing
Technical vocabulary
Checking
Filing
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
cippings of bankruptcy listings from
newspaper

PROCESS

PULLS
previous month's report/loan ledger sheets

CHECKS
material, format/totals/report for
accuracy
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

DUPILCATES 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  
Adding machine (10-key)  Accuracy
Typewriter  Typing
DupliCator  Filing
Telephone  Checking
Files  Technical

EDUCATIONAL CUES

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 signature/approval
- Duplicate ?
  - No
  - Yes
  - Delivers to Duplicating
- Duplicates material
- Receives from Duplicating
- Compiles materials
- Files copies, original drafts
- Mails/Delivers duplicated 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

TYING 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."
04.01.01

04.01. Insurance

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/expiration 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/premises/code numbers/endorsements

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 supervisor;
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

SOFTWARE
Rate manuals, charts
Binder book
Dictation belt
Insurance policy forms
Insurance payment cards
Insurance policy endorsement forms
Renewal cards
Ledger sheets

EDUCATIONAL CUES
Computational skills
Typing; statistical
Neatness
Filing
Checking
Coding
Accuracy
Insurance
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/applications/requests for policy/inquiry/correspondence/dictated letter/copy of claims

PROCESS
STAMPS
date on application/letter indicating answered
PULLS
agent's file/requested materials
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

SENTS 
- application to Filing, Medical Section/suspense vouchers to Cashier/application to underwriter
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

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

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."

SOFTWARE
Ledger cards
Record book
Sparsese voucher
Follow-up slip
Application
Record cards
Status cards
Rate book
Dictating belt
Index cards
Color coding
Insurance terminology

EDUCATIONAL CUES
Filing
Typing
Checking
Computational skills
Color coding
Insurance terminology

HARDWARE
Files
Typewriter
Dictating machine

SOFTWARE
Ledger cards
Record book
Sparsese voucher
Follow-up slip
Application
Record cards
Status cards
Rate book
Dictating belt
Index cards
Color coding
Insurance terminology

EDUCATIONAL CUES
Filing
Typing
Checking
Computational skills
Color coding
Insurance terminology

HARDWARE
Files
Typewriter
Dictating machine
Mails
- Claim check

Supplementary Steps: Codes (color) claim jacket; Date stamps mail

Hardware
- Telephone
- Files
- Typewriter

Software
- Accident or loss form
- Claim cards
- Check order forms
- Claims forms
- Checks

Educational Cues
- Communication skills
- Filing, alphabetically
- Accuracy
- Checking
- Typing
- Computational skills
- Insurance terminology

Reported Criteria:
- "Good command of color coding; Read and interpret forms; 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)

Start

Receives customers/telephone inquiries/checks

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

Acquisition

Obtains caller's name, account number, insurance policies

Checks records for information

Discusses bank policies/charges

PROCESS

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

Requests customer send another check/come in to bank

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
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/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 application/application amount

INFORMS
- client of amount he can borrow on signature only/customer of monthly payments

DISPOSITION

MAILS
- loan papers to buyer for signature

SOFTWARE

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."
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

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
- Typewriter
- Files
- Rubber stamp

SOFTWARE
- Check order
- Signature cards
- Deposit slips
- Cash receipts
- ID cards
- Payment books
- Ledger cards
- Trust account forms
- Transfer cards

EDUCATIONAL CUES
- Typing
- Filing
- Accuracy
- Communication skills
- Computational skills
- Checking

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
Duplicates stop-payment/issue reversal 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 apparel, 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, legal terminology; Accuracy is a must in estate settlement procedures and full 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 dividends
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
04.02.15

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 microfilm 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 BENEFICIARY 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)
- Receives customer application for travelers checks
- Verifies application for signature and number
- Obtains money
- Verifies amount of money
- Delivers travelers checks to customer
- Obtains cashier's check for amount owed company
- Mails check to company
- Records credit to bank for profit/sale of travelers checks
- Files copy of sale

04.02.29 THE WORKER PREPARES CHRISTMAS CLUB COUPONS FOR CUSTOMERS. (1 task sheet)
- Obtains Christmas club coupons
- Checks totals
- Sorts coupons by dollar value, numerically
- Writes customer account number, coupon number on adding machine tape/number of coupons
- Totals coupons
- Delivers 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 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."

"Worker was sent to repossess an auto. He recovered the auto from the gentleman 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."
04.03.01 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/photographic plates of newsprinted newsletter/application for certifying information/tests/accident claim forms/claim check

OBTAINS
driver training file/student transcript/information from accident victim

PROCESS

04.03.01 CLIENT RELATED SERVICES

04.03. Education

THE WORKER TYPES EDUCATIONAL LISTS, SCHEDULES, LETTERS, AND REPORTS.

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/photographic plates of newsprinted newsletter/application for certifying information/tests/accident claim forms/claim check

OBTAINS
driver training file/student transcript/information from accident victim

CHECKS

lists/schedules/sports eligibility/curriculum guide format/files for previous alumnus correspondence/syllabi/observation, evaluation sheets/certification application/semester-units/rough draft of test

DISCUSSSES

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/curriculum 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 letter/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 report

HARDWARE SOFTWARE EDUCATIONAL CUES

Typewriter Code card Typing (statistical, straight copy)
Duplicator Enrollment lists Accuracy Checking Proofreading Filing
Files Weekly, class schedules
Reports Checks

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)

ACQUISITION

RECEIVES telephone, caller request/application for matriculation/mail

PROCESS

SORTS mail

CHECKS counselors' calendar/matriculation application/student health record

INFORMS students of procedure to follow

REFERS call

ARRANGES guidance appointments/doctor, nurse appointment

OBTAINS educational materials/requested forms
04.03.02

1

Answer
Yes
No

Refer call

Informs of procedure

Arranges appointments

Obtains requested educational materials

Records messages, appointment, visit, personal data

Delivers appointment card to student

Files student card

Sends student to proper office

End

04.03.03

RECORDS
nature of student visit/messages/ announcements/name, birthdate, college semester in counselors appointment 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

EDUCATIONAL CUES

REPORTED CRITERIA: "Pleasing personality and a good speaking voice; Good telephone manners are necessary; Has to be familiar with overall operation of school; Tact; Friendliness; Helpfulness."

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
Typewriter
Files

SOFTWARE
Student records
Student, housing lists
Teaching schedules

EDUCATIONAL CUES
Proofreading
Checking
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

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
Typewriter
Files
SOFTWARE
Applications
Registration cards
Checks
Student records
EDUCATIONAL CUES
Accuracy
Typing
Filing
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 register/entering students, requested class lists/transfer student records

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)

Receives cash box from student sellers/fee for ID card/checks/enrollment cash for fee
Checks list of fees owed/certification number of supervising teacher/number of tickets sold/bus fare slips sold/cash
Computes supervising teacher's pay/total supervising teacher pay for city school system
Verifies cash against items sold
Types check information on notification forms/fee receipt/list of supervisors/amount of pay for each system
Mails notification forms to students/list of supervising teachers to State Department of Education
Delivers cash box, contents to school office/ID card, receipt to student/fees to Cashier
Files 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

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

DUPicates
master absence list

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
Typewriter
Adding machine (10-key)
Files
Telephone

SOFTWARE
State attendance report
forms
Withdrawal cards
Tardy pass
Absentee report

EDUCATIONAL CUES
Computational skills
Typing
Filing
Accuracy
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 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 manuscript 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. Securities

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/transactions/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

DELEIVERS
stock transaction papers to Credit, Accounting/batched tickets to Auditing

DISTRIBUTES
receipts to broker, customer, New York office

MAILS
checks/stocks/receipts

HARDWARE
Typewriter
Adding machine
Endorsement stamp
Checkwriter

SOFTWARE
Checks, receipts
Customer account card
Payout requests
Stock, account books
Commission, status sheets
Batch tickets

EDUCATIONAL CUES
Typing, Filing
Computational skills
Checking
Filing
Accuracy
Securities terminology
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)

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

SOFTWARE
stock certificate/transfer/request for transfer

SUPPLEMENTARY STEP: Duplicates letter, stock write-up

EDUCATIONAL CUES
Typing
Filing
Communication skills
Accuracy
Checking

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)

ACQUISITION
RECEIVES customer call/list of brokers, 100 most frequently requested stocks/order on conveyor 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 salesman
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
04.04.03

Calls salesman, broker regarding stock

Records stock quotes

Mails, places, delivers orders/stock/reports

End

End

Records stock quotes

RECORDS

stock quote

SEND

new orders by wire

MAILS

stocks

FILES

original ticket/original, stapled report

DELIVERS

report to salesman/open order notice to Addressing/list of brokers to supervisor

HARDWARE

Conveyor belt

Typewriter

Telephone

Files

SOFTWARE

Stock order

List of brokers

Wires

Dividend notices

Stock tickets

EDUCATIONAL CUES

Typing

Communication skills

Filing

Accuracy

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
04.04.04
CALLS brokers about dividends not received, for quotes
RECORDS receipt, non-receipt of dividend
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

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)

Receives request to purchase Government bond
Types bonds/report on purchase
Stamps bond copies with bank number, name
Delivers original bond to customer
Records sales in folder/credit to bank's account for money
Mails report to state capitol.
Files 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 guest to Assistant Manager

04.05.06 THE WORKER ARRANGES ROOM RESERVATIONS. (2 task sheets)

ACQUISITION

RECEIVES request for rooms, reservations

PROCESS

CHECKS dates for openings, arrivals, departures/room type/rate/names, address if guaranteed reservation/reservations
ARRANGES reservations/other accommodations
TYPES confirmation form
04.05.06

1. Arrange accommodations?
   Yes: Arrange other accommodations
   No: Continue

   - Types confirmation
   - Records reservation
   - Informs Housekeeping

   - Delivers employees room assignments
   - Mails room confirmation

   End

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 required, 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 arriving, 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

SEND
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

<table>
<thead>
<tr>
<th>HARDWARE</th>
<th>SOFTWARE</th>
<th>EDUCATIONAL CUES</th>
</tr>
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<tbody>
<tr>
<td>Typewriter</td>
<td>Hospital registration forms</td>
<td>Typing</td>
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<tr>
<td>Files</td>
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<td>Communication skills</td>
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<tr>
<td>Date stamp</td>
<td></td>
<td>Checking</td>
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</tbody>
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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

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 authorized 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 name for failure of discharge date/patient advising him to contact medical consultant/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
Obtains birth certificate forms
Records length, weight of babies in weight record book/premature babies weights in red ink
Types birth certificate form
Obtains birth certificate form approval, signature from mother
Sends 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 extremely upset. The worker pulled the patient's file, apologized for her mistake, 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)

SUPPLEMENTARY STEP: Arranges alternate times, dates if no quorum

HARDWARE
Typewriter
Files
Telephone

SOFTWARE
Desk calendar
Leadership book
Name tags
Tickets
Invitations

EDUCATIONAL CUES
Typing
Filing
Communication skills
Checking

REPORTED CRITERIA: "All members are notified; High level ability to communicate effectively; Confirmed reservations; Careful about attention to details; Follow through on numerous details; Pressure work."
THE WORKER PROCESSES REGISTRATION FOR CONFERENCE PARTICIPANTS. (2 task sheets)

- Receives completed registration forms/checks
- Obtains participant name
- Checks check for correctness
- Sorts checks/registration forms by conference
- Types registration lists, cards
- Delivers name badge/materials to participants
- Sends participants to meeting room
- Files registration cards, lists/form
- Mails check, receipt to conference headquarters
04.08.01 04.08.01 04.08.01

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."
The worker processes applications for welfare assistance. (5 task sheets)

**HARDWARE**
- Adding machine
- Typewriter
- Files

**SOFTWARE**
- Welfare documents
- Aid documents

**EDUCATIONAL CUES**
- Computational skills
- Typing
- Filing
- Coding skills
- Social service terminology

**THE WORKER PROCESSES APPLICATIONS FOR WELFARE ASSISTANCE. (5 task sheets)**

```
Start

Receives call, application for welfare assistance

Obtains personal data

Handle call? No

Determine eligibility for welfare assistance

Receives call

Start

Writes application

Types data cards

Assigns number/social worker

Checks information

Calls social worker

Records case movement

Files personal data cards

Delivers applicant record to social worker

End

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

SUPPLEMENTARY STEP: Calls welfare client requesting, giving information

REPORTED CRITERIA: "Must understand how to use appropriations book to locate information; Ability to communicate with people; Some degree of pressure dealing with anxious people."
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 preparing. She did not miss a detail; and in addition, she supported questionable figures."
04.09. Repair Service

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
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."

DISPOSITION
SENDserviceman to department requesting service
DELIVERsrepair report, service order invoice to serviceman/tape, sheet, order to supervisor/contract to salesman
MAILsinvoice to customer/status of repair
FILESrepair sheet/road service slip/service orders/repair report

HARDWARE
Typewriter
Teletype
Files
Calculator
Duplicator

SOFTWARE
Invoice
Repair sheet
Service orders
Punched cards
Punched tapes

EDUCATIONAL CUES
Typing
Computational skills
Accuracy
Filing
Communication skills
04.010. 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 available?
    - Yes
      - 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 item to user
    - No
      - Completes new file card for book/special card for magazine
      - End

**Check In:**
- Start
  - Receives book/magazine
  - Pulls book, magazine card
  - Discard card?
    - Yes
      - Destroys magazine card
    - No
      - 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)

Receives call slips
Checks if call slips are properly completed, initialed
Sorts call slips by location
Determines route through tiers for obtaining a number of books
Pulls books from shelves
Places books on hand truck
Arranges books in Dewey Decimal order
Delivers books to librarian's desk

04.10.03 THE WORKER TYPES LIBRARY INDEX CARDS. (1 task sheet)

Receives index cards
Types index cards identifying proper file, authority, shelf list, author, title, subject/card, pocket for book
Writes subjects on cards
Attaches pocket to book
Places book card in pocket
Places books on shelves
Calls user if new item was requested
Files cards in card catalog under subject, title, author
Sends new books to librarian for spineing (white ink numbers on spine of book)

04.10.04 THE WORKER ASSISTS LIBRARY USERS IN OBTAINING MATERIALS/BOOKS. (1 task sheet)

Start
Receives library users oral request

Can answer?
Yes

No

Answers questions about library item availability

Checks shelves for requested items

Obtain items?
Yes

No

Places users name on list

Calls users when item available

Note: Hardware, Software, and Educational Cues listed here refer to Performance Goals 04.10.02 and 04.10.03 also.

HARDWARE
Hand truck
Telephone
Shelves
Waiting list
Card catalog.

SOFTWARE
Call slips
Books
Library items

EDUCATIONAL CUES
Dewey Decimal System organization of library, call number system
Communication skills

REPORTED CRITERIA: "Careful checking of shelves for important materials."
04.10.04

1

Obtains requested items from shelves

Inquires whether user will pick up or have item sent

Files/Sends item

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. Miscellaneous Services

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/traffic 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
04.11.01

HARDWARE
- Files
- Photocopy machine
- Hand stamp
- Typewriter

SOFTWARE
- Traffic tickets
- Activity reports
- Tax cases
- Press clippings
- Legal documents
- Coded cards
- Name tags

REPORTED CRITERIA: "Time pressures; Constant 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 irregularities/tax law, regulations for Federal tax service/price of requested license (liquor, alcohol, solicitor's permits)
- obtains completed license application/rental contract/customer signature on contract
- discusses memorial contributions/eligibility for Civil Service employment/amendment and costs to alien 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 customers, securing information; Accurate information, customer signature on contracts."

HARDWARE

Telephone
Files
Typewriter

SOFTWARE

Licenses
Memorial cards
Rental contracts
Tax booklets
Services manuals

EDUCATIONAL CUES

Communication skills
Filing
Typing
Computational skills
Checking

Q4.11.03 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

Q4.11.04 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 accurately; 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)

Start
Receives call
Obtains name of caller
Determines nature of call
Can answer?
Yes
Refers call
No
Obtains requested
Informs on dates/ rates/ repairs
Records messages/orders/appointments
Delivers messages
End

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 screening 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)

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."
THE WORKER OPERATES A SWITCHBOARD. (42 task sheets)

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' grouch; Cautious; Diplomatic; Good telephone voice and presentation; Keep conversations as short as possible; Get correct names and telephone numbers; Helpfulness; Able to make overseas long distance 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 switchboard."
THE WORKER ARRANGES SCHEDULES AND PATIENTS' APPOINTMENTS. (18 task sheets)

**Start**

1. **Receives appointment request**
2. **Checks appointment book/type of x-ray**
   - If No, **Places on waiting list**
   - If Yes, **Arrange appointment?**
     - If No, **Places on waiting list**
     - If Yes, **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 to x-ray/doctor's office**
     - **Delivers x-rays/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 handwriting; Pleasant, outgoing disposition; Tact, helpfulness; Cooperation; 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 intercom system; Sends copies of patient data to Chemistry, Hematology, x-ray, whole-body count, Receptionist; Attaches dental bib to patient
THE WORKER ANSWERS TELEPHONE INQUIRIES.

(16 task sheets)

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

Records call

Files autopsy records, record on calls

Mails message form

End

REPORTED CRITERIA: "Reliability, courtesy, ethical giving of information; Tact; Accurate information given."

SUPPLEMENTARY STEPS: Calls prosecutor; Informs prosecutor of autopsy information

HARDWARE

- Telephone
- Files

SOFTWARE

- Patient files, charts
- List of doctor's dictation requests
- Map of hospital for reference
- Message, autopsy forms

EDUCATIONAL CUES

- Communication skills
- Filing
- Checking

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."

05.00.08 THE WORKER ANSWERS QUESTIONS REGARDING PATIENT BILLING. (3 task sheets)

HARDWARE
Telephone
Typewriter

SOFTWARE
Patient ledger card
Statement forms
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 repeating 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)

Start

Receives source documents, cards, instructions

Does job have identifying number? No

Stamps ID number

Yes

Stamps time, date

Operates keypunch

Arranges program card according to instructions

Punches cards from source documents according to instructions

Known errors in cards? Yes

Corrects known errors

No

Yes

All cards punched? No

Yes

End

Returns source documents, cards, instructions to supervisor

Note: Hardware, Software, Educational Cues listed here refer to any/all Performance Goals in this area.

HARDWARE
Keypunch (printing, other)
Files
Keypoke machines

SOFTWARE
Coding sheets
Company source documents (payroll, accounting, purchasing, production, shipping, receiving, 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 printout of production/basic contract/booklet/claim form/client file/coding manuals/customer invoice/distribution list/insurance applications/invoices/maps/modification information/new program documentation/photocopies of report/purchase order for Data Processing/production control sheet/draft of wire/report/request for repair/requisition/rough draft of technical write-up/shipping tickets/symbol instructions/tab listings/work orders/warranty books/telephone 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 information 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/modification 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, Key punching/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 Key punching/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; Technical terminology; Ability to compare numbers; Understand why errors are errors."

Hardware
Adding machine (10-key)
Automatic typewriter (MTST)
Bulletin board
Calculator
Colored pencils
Electrostatic copier
Stamp (paid-in-full)
Slide rule
Tapes for MTST
Teletype
Templates
Typewriter
Typists

Software
Applications/booklet
Cards
Code book
Computer printout
Contracts/forms
Liquid process masters
Invoices/maps
Modification form
"Paid-in-full" sheet
Payment card
Production control sheet, reports
Purchase order
Shipping tickets

Educational cues
Coding
Computational skills
Duplicating
Typing (including MTST)

06.02.03 THE WORKER CODES PAYMENT CARDS, CHECKS, AND DEPOSIT/WITHDRAWAL SLIPS FOR KEY PUNCHING. (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**  
- Adding machine (10-key)  
- Microfilmer  
- Typewriter  
- Encoding machine  

**SOFTWARE**  
- Deposit/withdrawal slips  
- Checks  
- Payment cards  
- Customer account cards  
- Adding machine tapes

**EDUCATIONAL CUES**  
- Checking  
- Accuracy  
- Typing  
- Computational skills

**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)

Obtains batches of checks on trays/check divider tickets (sub-totals of each batch)/cash letters indicating end of blocks

Writes program
Places checks in sorter by block
Packages checks
Places bundles in trays by bank of origin, code
Delivers trays, cash letters to Outgoing Batching Department
Requests cash letter from computer at end of day
Operates 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)
06.04. Coding

06.04.01 THE WORKER CODES FORMS SUCH AS PURCHASE ORDERS, INVOICES, AND APPLICATIONS FOR KEYPUNCHING. (45 task sheets)

- Receives budget figures/purchase orders/loan application forms/resumes/work orders/policy cancellations/new customer accounts/invoices/bank notes/charge payments/deposits/withdrawals
- Computes number to be coded
- Determines appropriate code by checking manual, listing, geographical location
- Writes code on source document/coding sheet
- Sorts source documents
- Photocopies coded invoice/purchase orders
- Delivers purchase orders to Auditing/source documents to originating department/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 department for missing code; Stamps date, time on source documents received; Codes computer program from flowchart

HARDWARE
- Coding pencils
- Typewriter
- Adding machine (10-key)
- Coding machine

SOFTWARE
- Coding sheets
- Business source documents
- Coding manuals
- Coding listings

EDUCATIONAL CUES
- Checking, completeness
- Coding
- Penmanship
- Typing
- Good memory
- Specialized terminology (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. Sorting, Interpreting, Collating, Reproducing, and Tabulating

Note: Hardware, Software, Educational Cues listed here refer to any/all Task Statements in Sorting, Interpreting, Collating, Reproducing, and Tabulating.

**HARDWARE**
- IBM 029 card punch
- 083, 83, 804 sorter
- 557 interpreter
- 519 reproducer
- 188 collator
- 402 accounting machine
- 1287 optical scanner
- Flexowriter
- Control boards

**SOFTWARE**
- Punched cards
- Equipment operations manual
- Tape
- Source documents
- Magnetic disks

**EDUCATIONAL CUES**
- Operating unit record equipment
- Data processing terminology

06.05.01 THE WORKER OPERATES UNIT RECORD EQUIPMENT SUCH AS THE SORTER, REPRODUCER, COLLATOR, AND INTERPRETER. (22 task sheets)

Receives punched cards/instructions
Records job number, time on machine usage form, personal activity form
Arranges wiring of panel or
Places prewired panel in unit record equipment/punched cards, blank cards in unit record equipment/punched cards in boxes, bundles, batches
Operates machine
Records time in machine usage log/form/time card

SUPPLEMENTARY STEPS: 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

REPORTED CRITERIA: "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)
06.06. Computer Programming

06.06.01 THE WORKER WRITES COMPUTER PROGRAMS. (18 task sheets)

Start

Receives verbal, written instruction from lead operator, customer, supervisor

Checks suggestions for program/ requested outputs

Draws block diagram, flowchart

Writes on coding sheet

Keypunch ?

Yes

No

Sends coding sheet to Keypunching

Delivers program, instruction card to computer, program tester to compile

Receives printed instruction card, program printout

Errors ?

Yes

Corrects program

Returns corrected program to computer

No

Delivers printout, instruction cards, program deck to lead operator, supervisor

End
06.06.02 THE WORKER CHECKS COMPUTER PROGRAMS. (4 task sheets)

Receives program without error from Computer Operations
Obtains data sample (to be used when program is in operation. [If there is no
data sample, programmer makes up data that is like actual.])
Checks that data covers all conditions possible
Sends program, data to computer for test run
Tests data on computer (until satisfied it works correctly)
Corrects error

06.06.03 THE WORKER WRITES COMPUTER PROGRAM IN FINAL FORM. (3 task sheets)

Receives working program
Writes 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.
Writes explanation of purpose of program
Draws flowchart
Delivers to supervisor

06.06.04 THE WORKER ADJUSTS PRESENT COMPUTER PROGRAMS. (1 task sheet)

Receives request to make change from supervisor
Discusses method of accomplishing request with supervisor
Codes approved solution
Runs solution through to test
Corrects solution
Writes change

06.06.05 THE WORKER PUNCHES PRESCRIBED PROGRAM CHANGES FOR NEW COMPUTER. (1 task sheet)

Receives number of program to be changed from supervisor
Pulls program from file
Checks list of changes to make
Codes changes on program coding sheet
Punches changes on punch cards
Sends punched cards to keypunch operator
Places new cards on computer
Pulls old cards
Delivers to computer operator
Files program with changes by program number

06.06.06 THE WORKER ARRANGES A TIME SCHEDULE FOR A NEW COMPUTER PROGRAM. (1 task sheet)

Receives request to write program from supervisor, department
Arranges time schedule for steps to be taken in preparing program
Writes tentative time schedule
Sends time schedule to supervisor
07. PERSONNEL

07.00.01 THE WORKER PROCESSES EMPLOYMENT APPLICATIONS. (6x task sheets)

Start

Receives applicant/applications

Delivers job information to applicant

Obtains completed applications/job forms

Calls references

Checks application accuracy, completeness

Stamps, sorts applications

Duplicate application?

Yes

Duplicates applications

No

Types job application responses

Proofreads

Arranges interviews

Informs, Sends job applicants

Compiles job applicant file

ACQUISITION

RECEIVES
request for application form/resumes/oral information to write letters/reference forms/visitors

PROCESS

DELIVERS
application to applicant/life insurance, ID card/medical, W4 form/information 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/applications

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/references

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; Determines mail weight

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 information/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

HARDWARE
Duplicator
Typewriter
MTST
Telephone

SOFTWARE
Application forms
Envelopes
Job opening/rejection form letters
Labels for files
Salary schedule
Computer printouts
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/automatic 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, overtime/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 approval 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
Typewriter
Duplicator
Hand stamp
Files

SOFTWARE
Personnel cards, lists
Personnel directory

EDUCATIONAL CUES
Typing
Duplicating
Checking
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 temper; Ability to retain knowledge of changes; Knowledge of insurance policies."
THE WORKER ARRANGES ORIENTATION OF NEW EMPLOYEES. (37 task sheets)

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, W-4 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 applicant 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."

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 personnel, new personnel appointments/rough drafts/oral instructions/punched cards on new appointments/population count/daily log/quarterly overtime, injury, turn-over reports/transfer termination

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/vacation list/activity report

WRITES
names of employees due evaluation/rough draft of report/keypunch instructions 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/population data on manpower count form

TYPES
retirement, oath of office lists/reports/letters/list of employees to be evaluated/weekly payroll changes/ditto, stencil list of employee's personal data/master lists/memo noting changes in population count/injury, activity, overtime reports/safety memo/accident summary/retroactive payroll
07.00.05

Obtains authorizations

Proofreads

Obtains authorizations

Yes

[Diagram]

Delivers to Duplicating

Files copies

Distributes reports

End

Yes

Delivers reports

No

Duplicates lists/reports

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 deadlines, 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)

Start

Receives forms/requests

Checks for enclosures

Pulls file/insurance card

ACQUISITION

RECEIVES

recreation information/printouts/employment, 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
07.00.06 Completes accident report/medical ID card.

Types letters/forms/rough drafts.

Proofreads.

Obtains signature on claim forms/approval on transfers.

Procides ID card to worker/Mails letters/claims.

Distributes job postings to departments.

Files copies.

Duplicate? Yes: Duplicates forms/reports.

No: End.

07.00.07

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.

Supplementary steps: Stamps time on claims; Types dictated materials; Receives dictation; Draws bar graph for job salary studies.

Hardware:
Typewriter
Duplicator
Hand stamp

Software:
Letters
Claim forms
ID cards
Checks

Educational cues:
Typing
Filing
Checking
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 deduction 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 probationary forms

MAILS
- rate changes/adjustment forms/probationary forms to employee

SUPPLEMENTARY STEP: Compiles folder of ill employee

SOFTWARE
- Employee folders
- Leave slip
- Personnel forms, cards

EDUCATIONAL CUES
- Typing
- Filing (numerical, 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."
THE WORKER COMPILES NEW EMPLOYEE PERSONNEL DATA FROM EMPLOYMENT FORMS, QUESTIONNAIRE WORK SHEETS, AND APPLICATIONS. (21 task sheets)

ACQUISITION
employment forms/copy of application/authorization for security clearance/questionnaire worksheet/employment verification request

CHECKS
for accuracy/confirmation of employment/references

PROCESSES
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 hires/employee status sheets/absentee record/retirement, eligibility forms

RECORDS
personal data/date of application/medical approval/attendance record card

CODES
benefits
DUPES
application, insurance forms
COMPILES
new employee folder
ATTACHES
label to new employee folder with name, number

DISPOSITION
DELIVER birth certificate/diploma/car stickers/ID card to employee
SEND applications/folders to Payroll
FILE 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

SOFTWARE HARDWARE
Code book Typewriter
Labels Duplicator
Forms
Job applications

EDUCATIONAL CUES
Typing Filing
Checking Coding

REPORTED CRITERIA: "Good appearance, tact; Check details; Extreme accuracy; Ability to follow through; Check information carefully."

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 answering 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."
THE WORKER ARRANGES TRAVEL. (1 task sheets)

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 transportation 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/information 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 reservations at once."
<table>
<thead>
<tr>
<th>HARDWARE</th>
<th>SOFTWARE</th>
<th>EDUCATIONAL CUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typewriter</td>
<td>Plane schedules</td>
<td>Typing</td>
</tr>
<tr>
<td>Telephone</td>
<td>Check requests</td>
<td>Communication skills</td>
</tr>
<tr>
<td></td>
<td>Travel forms</td>
<td>Filing</td>
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<tr>
<td></td>
<td>Rate sheets</td>
<td>Checking</td>
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</tbody>
</table>

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 payment

files

- travel authorization slips/expense statements/receipts/travel claim forms

**SUPPLEMENTARY STEP:** Duplicates voucher

<table>
<thead>
<tr>
<th>HARDWARE</th>
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<th>EDUCATIONAL CUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adding machine (10-key)</td>
<td>Travel voucher forms</td>
<td>Checking</td>
</tr>
<tr>
<td>Typewriter</td>
<td>Check</td>
<td>Accuracy</td>
</tr>
<tr>
<td>Hand stamp</td>
<td>Travel book, log</td>
<td>Computational skills</td>
</tr>
</tbody>
</table>

**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 SALESMA.N. (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 student's upcoming sessions 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 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/purchasing 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
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.

SOFTWARE
- Calculator
- Telephone
- Files

EDUCATIONAL CUES
- Accuracy
- Computational skills
- Courtesy
- Communication skills
- Checking

REPORTED CRITERIA: "Gives accurate information rapidly; deal effectively with customers being courteous and tactful."
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 information 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/expenditure 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

SOFTWARE

EDUCATIONAL AIDS

Typewriter
Form letters
Typing

Files
Customer cards
Filing

RECORDED CRITERIA: "Neatly typed letters with good spelling and correct grammar; Answer letters immediately; Careful proofreading; High level ability to read quickly and accurately."

THE WORKER TYPES SALES ITEMS FROM ROUGH DRAFTS, PROPOSALS, LISTS, AND OTHER SOURCE DOCUMENTS. (19 task sheets)
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/salesmen'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 customer

DISTRIBUTES
bulletins to other departments

MAILS
bid proposals/survey results/price bulletins/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."
THE WORKER ANSWERS CUSTOMER COMPLAINTS.

08.00.07

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."
THE WORKER PROCESSES CLASSIFIED ADS AND AD COMPLAINTS (12 task sheets)

Start

Receives ad request/rough draft/complaints

Discusses ad copy, costs/complaints

Writes ad information/customer name, address, telephone number

Determine error?

Yes

Determines error

No

Types ad on form

Proofreads

Verifies ad information

Compute?

Yes

Types correction ad

Cuts copy of ad

Pastes ad on correction form

Yes

Determines error

No

Computes ad charges

Records ad charge

Sorts ad copies

Files ad copies/bills

Sends customer to Cashier

Delivers correction to Printing/charges to Billing

End

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; helpful to have knowledge of acceptable words, number of words to a line, and costs for ads."
08.00.09 THE WORKER PROCESSES CUSTOMER ORDERS. (10 task sheets)

ACQUISITION
- Receives new orders/order changes/printout of commercial (TV) orders

CHECKS
- Checks orders for accuracy/available commercial time

SORTS
- Sorts orders/changes

COMPUTES
- Computes extensions, weights

RECORDS
- Records items ordered, order number, shipping date, cost, quantity/commercial time sold

TYPES
- 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
- Duplicates orders/changes

COMPILES
- Compiles customer file

DISPOSITION

FILES
- Files customer product order/new orders/order cards/acknowledgment/printout of orders

MAILS
- Mails memo to main office/acknowledgment to customer

DELIVERS
- Delivers file to another department/acknowledgment to supervisor

DISTRIBUTES
- Distributes orders to manager, supervisor, lab department, traffic manager/production order to six other departments

HARDWARE
- Typewriter
- Duplicator
- Files
- Calculator

SOFTWARE
- Price, weight book
- Orders
- Printouts

EDUCATIONAL CUES
- Accuracy
- Typing
- Filing
- 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
08.00.10

Records district totals.

Codes prices on orders

Types list of monthly sales calls

Tals 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

Plitches 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. (5 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."
THE WORKER PREPARES PRICE QUOTATIONS FOR CUSTOMERS AND SALESMEN.

(8 task sheets)

Start

Received quotation request

Wrote requestor's name, number, date due in book

Locate rates?

Yes

Locates rates

No

Obtained quotation

Types formal quotation request card/quotetation proposal form

Proofreads

Yes

Duplicates?

No

Obtains signature on request, quotation form

Records request, sending of quotation

Files request cards

Deliver request to Comptroller/proposal form to messenger

End

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."

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 certain 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)

HARDWARE
- Four-wheel delivery cart
- Microfilm reader

EDUCATIONAL CUES
- Checking
08.00.17

1. Stamps date on requisitions

   Obtains supplies

   Checks items obtained/cards for completeness

   Sorts requisitions/cards

   Records merchandise description

   Places requisition copy with supplies obtained

   Sends supply requisition to Supply/cards to Keypunching

   Delivers supplies

   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)
09.01.01 Inventory

09.01.01 The worker processes orders from inventory. (24 task sheets)

Start

Receives inventory/requisitions

Yes

Calls ordering department on shipment arrival

No

Checks stock

Stock on hand

Yes

Checks orders for duplicates

No

Records supplies for reordering/checks prices

Completes filling of order

Writes packing slip

Yes

Types shipping label

No

Wrote PO/calls supplier

Calls/Writes requesting department/person

Returns requisition
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 requisitions 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
Typewriter
Stock cabinets
Adding machines
Calculator
Materials Handling Equipment

SOFTWARE
Small goods: textbooks, journals / first aid supplies / stationery / procedures
Manuals / testing supplies / chemicals / costumes
Supply requisitions
Packaging materials
Billing forms
Supplies catalogues
Bin tags
Stock cards
Shipping / receiving tickets
Punched cards

EDUCATIONAL CUES
Statistical typing
Recordkeeping
Counting stock
Manual dexterity
09.01.02 THE WORKER UPDATES INVENTORY RECORDS FROM OFFICE SUPPLY INVENTORY DOCUMENTS. (24 task sheets)

SUPPLEMENTARY STEPS:
Places orders to replenish depleted inventory; Corrects inventory discrepancies; Checks inventory discrepancies.

REPORTED CRITERIA:
"Accuracy in transferring numbers; Attitude for figures; Time pressure to keep inventory figures up to date."

- Receives shipping receiving slips/requisitions/inventory data
- Sorts filled requisitions/sales orders/stock replacement records
- Pulls PO
  - Yes
  - No
  - All stock received?

- Records additions to inventory/removal of stock on stock records
- Compares stock received with PO

- Compares physical inventory data to book data/punched cards
  - Yes
  - No
  - Places back orders

- Locates, corrects error for physical--book inventory reconciliation
  - Yes
  - No

- Computes inventory value on hand/cost of inventory removed

- Stamps inventory documents as recorded/dates

- Sends PO to Accounting

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
- Computes production 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 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)

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 returns; Informs drivers of pick-up and delivery changes daily.

Call customer? 
Yes 
No 
Determines best route, carrier 
Computes freight 
Writes delivery ticket/sheets 
Sorts packages 
Types driver's manifest/shipping forms/freight reports 
Delivers merchandise/manifest to driver/copy to dispatcher 
Files delivery schedules 
End
THE WORKER PROCESSES SHIPPING AND BILLING FORMS ON COMPLETED JOBS.

(6 task sheets)

Start

Receives job number, loading sheets

Pulls purchase orders

Write whether whole or 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/packing slip/merchandise

Pulls specification cards

 Checks parts of shipment/merchandise

 Verified?

Yes

Writes address on shipment

Completes shipping forms

Calls carrier for pick-up

Files packing slip copy/common carrier agreement

End

No

Sends shipment for repacking, reworking

Delivers shipping forms to supervisor

09.02.05. THE WORKER CHECKS UNDELIVERED SHIPMENTS. (5 task sheets)

Start

Receives phone search requests, letters

Checks file verifying shipment

End
09.02.05 THE WORKER SENDS LETTER/TELEY TYPE 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 (factory) 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 particular 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 typing 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 herself 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 30 "look ups" a day, plus filing. These "look ups" are time consuming. Workers deliver information to requesters on the same day. ("Look-ups" are requests 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 unloading? Yes

Assists in unloading cartons

No

Checks carton contents with invoice

Appears damaged? Yes

Checks merchandise as unpacked

No

No

Assists in unpacking, shelving

Compares invoices with receiving documents

Records back order

No

Holds/Sends back order to Accounting, Purchasing, Receiving

All items received? Yes

Records merchandise received in stock record book/receiving number

No

Computation total merchandise on hand

1

2
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/OVERSHPMENTS. (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)

ACQUISITION

RECEIVES
- purchase requisition/invoice/book title cards/purchase orders/computer printouts/buyers reports/cancellation invoices/supply requisition

PROCESS

SORTS
- tickets/invoices/printouts/purchase orders

CHECKS
- item prices/shipping instructions/source of materials/requisition card/inventory records/complete information/clearance for pickup/order for signatures/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 catalog/charge tickets/calendar order/needed items/work orders/data on batch slip

TYPES
- release form/check/stock requisitions/charge-backs (shortages or errors)/purchase order

PUNCHES
- purchase order card/card with order information

VERIFYS
- punched cards/computations

COMPUTES
- extensions/totals

OBTAINS
- authorization of purchase order/requisition

CALLS
- vendor to place order

DUPLICATES
- requisition/purchase order/invoices
10.00.01

- **Duplicate?**
  - Yes: Duplicates purchasing documents
  - No: Records purchasing information

- **Delivers/Mails purchasing documents**
- **Files purchasing document copies**

10.00.02

**RECORDS**
- actual cost of item/goods received/
purchase order number/list of 
purchases

**DISPOSITION**
- release forms/shipping instructions/
purchase orders to supplier/invoices 
to Accounting

**MAILS**
- 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**
- Typewriter
- Duplicator
- Adding machine (10-key)
- Microfilm
- Telephone

**SOFTWARE**
- Supplies/materials catalogs
- Purchasing forms

**EDUCATIONAL CUES**
- Typing
- Duplicating
- Accuracy
- Filing
- 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 microfilm 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/agreements for storage/charge forms/release letter price agreements
- PROOFREADS
- OBTAINS
  - authorization of letters/purchase orders/requisitions
- RECORDS
  - purchase order, requisition information
10.00.02

FILES
orders/requisitions
DELIVERS
purchase order to Distributing, Shipping, Accounting, Sales
MAILS
purchase 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; Attache requisition work orders

HARDWARE
SOFTWARE
EDUCATIONAL CUES

Typewriter
Bulletin board
Calculator
Stamp

Requisitions
Purchase orders
Checks
Purchasing forms

Typing
Accuracy
Checking
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 million 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
punched cards of production operation/work orders

PROCESS
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
numbers to work orders, to bills

ASSIGNS
expenses/direct costs

TOTALS
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 Aerospace/job tickets to manager/grinding cards to file/commercial schedules to
Control Room

MAILS
bills
SUPPLEMENTARY STEPS: Updates shortage sheets; Collates punched cards

HARDWARE:
- Adding machine (10-key)
- Duplicator
- Typewriter

SOFTWARE:
- Stock, job cards
- Job tickets
- Punched cards
- Computer sheets
- Rough production reports, schedules

EDUCATIONAL, CUES
- Duplicating
- Computational skills
- Typing
- Checking
- Filing

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 production from beginning to end."

THE WORKER TYPES PRODUCTION REPORTS. (16 task sheets)

1. Start

2. Receives production report data

3. Compiles relevant production data

4. Checks production details

5. Composes report?
   - Yes: Composes/Writes production report
   - No: Proceed to next step

6. Computes production scheduled/occurred?
   - Yes: Computes production scheduled/occurred
   - No: Proceed to next step

7. Records production data

8. Type?
   - Yes: Delivers to typist
   - No: Proceed to next step

REPORTED CRITERIA:
"Must be able to compile data and use it to compose a meaningful report; Accurate recording of information; Correct weights; Promptness; Check details carefully; Know where to find answers; 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 production 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, dispatcher, 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 received/total productions/variance in production on production sheet/instructions for format/daily operations report

TYPES
-production report/schedule on printed form, fluid, process master/changes on master sheet/index labels, tabs for folders

DUPicates
-production, progress report/pre-production schedule

COMPILES
-report

MAILS
-contracts

FILES
-production, transfer, progress, daily operations reports/production, balance sheets/analysis of renewal committee, gain or loss reports/contracts/production 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)

Receives production problems from visitors
Issues technical suggestions on production capabilities versus contract
Refers problem and visitor to supervisor
Requests date work is needed
Checks status of work in-shop, with vendor
Delivers order to shop, vendor

PRODUCTION CRITICAL INCIDENTS

"I asked worker to check into the operation of a new machine we had just received 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 records 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 statements, 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, Corrections)
- production order, 11.00.01
- shipment, 09.03.03

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/.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; 08.00.06/.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)
- 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
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) 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
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.03.01; 07.00.07/.05; 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/
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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
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COSTS (see also Charges) unit, 01.07.01
COUPONS Christmas club, 04.02.29
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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
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DOCTORS, 12.00.15
DOCUMENTS (see also Forms, Items,
Source Documents), 02.03.01
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12.00.11
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producer, Collator, Inter-
preter, 06.05.01
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tions, 06.04.01
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- for mailing, 02.01.17
- for records, 02.04.03
- sales, 08.00.04
- traffic tickets/activity reports/precipicings, 04.11.01

LABELS
- dating, sorting, and filing, 12.00.25

LAYOUTS (see also Display)
- classified ads, 08.00.06

LETTERS (see also Communications, Correspondence, Dictation)
- cash, 06.02.07
- educational, 04.03.01
- incoming/cash, 04.02.18
- insurance cancellation, 04.02.22
- library, 04.10.05
- medical, 03.00.05
- outgoing/cash, 04.02.17
- personnel, 07.00.06
- shipment, 09.02.06

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- educational, 04.03.01
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- decollator, burster, binder, 06.03.02
- keytape, 06.01.03
- optical scanner, 06.01.05
- reproducer, 06.03.01
- tag (for pricing merchandise), 12.00.20
- teletype, 03.00.07

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- bulk, 02.01.02
- certified, special delivery, registered, 02.01.15
- incoming, 02.01.01/07/18; 04.05.03
- incoming financial, 02.01.09
- incoming hospital, 02.01.10
- interoffice, 02.01.16
- outgoing, 02.01.04/07
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- duplicating machines, 12.00.01
- guest's room, 05.00.10

MALFUNCTION
- computer, 06.03.09

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MANUALS (see also Catalog), 02.03.03
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- machine, 08.00.19

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      .new/extended advertising, 08.00.14
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.08.02/11; 04.02.23/.04.03;
05.03.05; 09.02.04
VOUCHERS, 12.00.09
travel, 07.00.10
WAYBILLS, 09.02.01
 WIRES (see also Telegrams)
regarding stocks, 04.04.05
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 I 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 are 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 statements into the specificity of local job expectations, utilizing specific task input, software and forms, and models is the work of Herschelmann with Detroit Metropolitan Teachers in developing "Individualized-Teaching Instructional Packets (Cook, Lanham, 1971).

3. Fundamentals of office task performance related to accuracy of checking and proofreading, to oral and written communication, and to computation of numerical data are components of competency necessary to successful 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, identifying likely points of error, checking and correcting so that the product is accurate because the worker has checked and eliminated any potential inaccuracy."

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 symbolic data--are even more necessary behaviors in our emerging electronic technology than ever before.

Perhaps the necessity of emphasizing checking, communication, and computation components of all task performance is obvious. Yet, the evidence collected 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 possessing 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 organization. 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 percent or 1722 in number of 4548 tasks (p. 27). Typewriting and shorthand
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.
REFERENCES


Brown, Francis J. Final Outcome Analysis to Compare the Effectiveness of an Experimental Business Education System to Prepare Students to Secure Entry Jobs in Office and Retail Occupations (EdD dissertation). Detroit, Michigan: Wayne State University, 1968.


Huffman, Harry, Mary Margaret Brady et al. A Taxonomy of Office Activities for Business and Office Education. Columbus, Ohio: The Center for Research and Leadership Development in Vocational and Technical Education, Ohio State University, 1968.


APPENDIXES
TABLE 50. FIRST SEQUENCE OF NINE HIGH-PRIORITY ABILITIES PROPOSED FOR PREPARATION OF OFFICE PERSONNEL.

<table>
<thead>
<tr>
<th>High-Priority Emerging Ability</th>
<th>Ability Common to This Level of Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Management</td>
</tr>
<tr>
<td>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.</td>
<td>x</td>
</tr>
<tr>
<td>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.</td>
<td>x</td>
</tr>
<tr>
<td>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)</td>
<td>x</td>
</tr>
<tr>
<td>C3--Ability to recognize how inaccurate data entering a system may affect outcomes on succeeding jobs.</td>
<td>x</td>
</tr>
<tr>
<td>D1--Ability to gain rapport with all racial groups.</td>
<td>x</td>
</tr>
<tr>
<td>E2--Ability to communicate via data communication devices and to know the limitations, methods of utilization, and choose from available equipment for particular operations.</td>
<td>x</td>
</tr>
<tr>
<td>G2--Ability to input data in an on-line real-time system to obtain information for report preparation, office work production, and exception reporting.</td>
<td>x</td>
</tr>
<tr>
<td>G3--Ability to review information systems output to determine if there are errors.</td>
<td>x</td>
</tr>
<tr>
<td>G4--Ability to determine what happened to produce the results in an information system and to provide corrections of data, if needed.</td>
<td>x</td>
</tr>
</tbody>
</table>
APPENDIX A

TABLE 5.1. SECOND SEQUENCE OF TWENTY-ONE HIGH-PRIORITY ABILITIES PROPOSED FOR PREPARATION OF OFFICE PERSONNEL.

<table>
<thead>
<tr>
<th>High-Priority Emerging Ability</th>
<th>Management</th>
<th>Supervisory</th>
<th>Clerical</th>
<th>Prof.-Tech.</th>
</tr>
</thead>
<tbody>
<tr>
<td>G6--Ability to utilize contemporary record storage techniques including microfilm, microfiche, aperture cards, etc., including indexing and operating the system.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>H1--Ability to operate various pieces of new equipment through self-instruction or in-service training. (MTST, Electronic Calculator, ATS, etc.)</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>H2--Ability to operate various computer data manipulation devices. (Input, Output, Storage, and Retrieval)</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>H3--Ability to operate microfilm and microfiche equipment.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>I4--Ability to assemble and arrange input data for processing.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>I1--Ability to write and execute information systems programs.</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>C1--Ability to analyze the needs, attitudes, motivations, and actions of others to facilitate the desired outcomes.</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>C2--Ability to interface between management and informational systems personnel.</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>E1--Ability to summarize output from information systems for the purpose of presenting management with concise reports.</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>E3--Ability to interpret and communicate the findings resulting from research studies.</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>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.</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>F2--Ability to identify information needed by management for decision-making purposes.</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
### TABLE 51 (continued)

<table>
<thead>
<tr>
<th>High-Priority Emerging Ability</th>
<th>Management</th>
<th>Supervisory</th>
<th>Clerical</th>
<th>Prof.-Tech.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F3--Ability to formulate plans for collection, processing, storage, and retrieval of information to meet the needs of the organization.</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>F4--Ability to contribute to or conduct a feasibility study.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>F5--Ability to contribute to or conduct cost effectiveness studies.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>F6--Ability to ascertain what information should be programmed into an integrated information system.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>F7--Ability to formulate standards, to measure performance, and to implement control activities, comparing results with expectations and reporting exceptions.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>G1--Ability to construct basic flowcharts for projects, systems, or subsystems for purposes of planning, analyzing, implementing, controlling, and budgeting.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>H4--Ability to ascertain and analyze the capabilities and functions of copying machines, data reproduction equipment, and data display terminals.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>I2--Ability to locate information systems services and to select those that are appropriate.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B

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, Real Estate
(2) ______ Manufacturing
(3) ______ Service
(4) ______ Other Agriculture/Mineral/Construction
(5) ______ Transportation and Utilities
(6) ______ Communication and Utilities
(7) ______ Wholesale/Retail Trade
(8) ______ Federal, Education
(9) ______ Federal, Noneducation
(10) _____ State, Education
(11) ____ State, Noneducation
(12) ____ Local, Education
(13) __ Local, Noneducation

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 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."
B. INFORMATION FROM SUPERVISOR

6. SUPERVISOR NAME/TITLE

Department ___________________ Telephone No. ________ Ext. ________
Address (if different from above ____________________________

"Since you are the supervisor of (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."

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--raking tasks 1-6 by difficulty.

Indicate underlined choice in scores:
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? ______
"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
25. "IN THIS PROJECT WE ARE CONCERNED WITH THE BASIC TASKS WHICH CONSTUT" 
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."

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.
Basic Task No. (as indicated by employee and/or supervisor)

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: (Refer to tasks from page 4—if necessary from page 2) Write in the six-maximum-performance statements.)

1. (Listed as your first step) How do you know when this task is to be performed? (Cases 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 all have completed the task?
5. What kind and level 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 (challenges)? Consequences of not performing satisfactorily?
APPENDIX C

NEW OFFICE AND BUSINESS EDUCATION LEARNINGS SYSTEM (NOBELS)

INSTRUCTIONS

FOR COLLECTING DATA AND WRITING PERFORMANCE STATEMENTS

June 1969
INSTRUCTIONS

CODING IN BOXES IN UPPER RIGHT-HAND CORNER OF EACH PAGE OF FORM:

<table>
<thead>
<tr>
<th>Area</th>
<th>Numerical Sequence of Interviews Within Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 UCLA-West</td>
<td>It is suggested that one person</td>
</tr>
<tr>
<td>2 University of Minn.-North</td>
<td>in each area be designated to keep a master list of all interviews scheduled. He would then</td>
</tr>
<tr>
<td>3 University of Georgia-South</td>
<td>assign each interview a new no. to be coded right to left in the 3 boxes above.</td>
</tr>
<tr>
<td>4 State U. of N.Y.-East</td>
<td></td>
</tr>
<tr>
<td>5 Wayne State University</td>
<td></td>
</tr>
</tbody>
</table>

e.g., the first interview at UCLA 1001
the first interview at N.Y. 4001
the 25th interview at Ga. 3025
the 52nd interview at Minn. 2052

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 interview 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 selected. 7. Not more than seven workers will be selected from one company. Not more than two of the workers can be in the same 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:

<table>
<thead>
<tr>
<th>Area</th>
<th>SMSA Code</th>
<th>Actual Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>L.A.</td>
<td>1A7</td>
<td>Anaheim, Santa Ana, Garden Grove</td>
</tr>
<tr>
<td></td>
<td>1A9</td>
<td>Bakersfield</td>
</tr>
<tr>
<td></td>
<td>1A42</td>
<td>Fresno</td>
</tr>
<tr>
<td></td>
<td>2A1.</td>
<td>L.A.-Long Beach</td>
</tr>
<tr>
<td></td>
<td>2A29</td>
<td>Sacramento</td>
</tr>
<tr>
<td></td>
<td>2A33</td>
<td>San Bernadino, Riverside, Ontario</td>
</tr>
<tr>
<td></td>
<td>2A34</td>
<td>San Diego</td>
</tr>
<tr>
<td></td>
<td>2A35</td>
<td>San Francisco-Oakland</td>
</tr>
<tr>
<td></td>
<td>2A36</td>
<td>San Jose</td>
</tr>
<tr>
<td></td>
<td>2B36</td>
<td>Salinas-Monterey</td>
</tr>
<tr>
<td></td>
<td>2B38</td>
<td>Santa Barbara</td>
</tr>
<tr>
<td></td>
<td>2B49</td>
<td>Stockton</td>
</tr>
<tr>
<td></td>
<td>2B56</td>
<td>Vallejo-Napa</td>
</tr>
<tr>
<td></td>
<td>1A36</td>
<td>Ouluth, Minn.-Superior, Wisc.</td>
</tr>
<tr>
<td></td>
<td>2A6</td>
<td>Minneapolis-St. Paul, Minn.</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>1A8</td>
<td>Atlanta, Ga.</td>
</tr>
<tr>
<td></td>
<td>1A23</td>
<td>Chattanooga, Tenn.</td>
</tr>
<tr>
<td></td>
<td>1A58</td>
<td>Knoxville, Tenn.</td>
</tr>
<tr>
<td></td>
<td>2A8</td>
<td>Nashville, Tenn.</td>
</tr>
<tr>
<td></td>
<td>1B11</td>
<td>Augusta, Ga.</td>
</tr>
<tr>
<td></td>
<td>1B24</td>
<td>Columbus, Ga.</td>
</tr>
<tr>
<td></td>
<td>1B62</td>
<td>Macon, Ga.</td>
</tr>
<tr>
<td></td>
<td>2B39</td>
<td>Savannah, Ga.</td>
</tr>
<tr>
<td>Athens</td>
<td>1A4</td>
<td>Albany, Schenectady, Troy, N.Y.</td>
</tr>
<tr>
<td></td>
<td>1A12</td>
<td>Binghamton, N.Y.</td>
</tr>
<tr>
<td></td>
<td>1A15</td>
<td>Boston, Mass.</td>
</tr>
<tr>
<td></td>
<td>2A12</td>
<td>New York, N.Y.</td>
</tr>
<tr>
<td></td>
<td>2A43</td>
<td>Syracuse, N.Y.</td>
</tr>
<tr>
<td></td>
<td>2A50</td>
<td>Utica-Rome, N.Y.</td>
</tr>
</tbody>
</table>
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
(2) Manufacturing
(3) Service
(4) Other-Agriculture/ Mining/Construction
(5) Transportation
(6) Communication and Utilities
(7) Wholesale/Retail Trade
(8) Federal, Education
(9) Federal, Noneducation
(10) State, Education
(11) State, Noneducation
(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..."


   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 introductory 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.,

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>1</td>
<td>50</td>
<td>3</td>
</tr>
</tbody>
</table>

NOTE: MEMORIZE QUESTION-AND-ANSWER CHOICES. The wording on the NOBELS interview form for A-E is merely a cue to the interviewer. 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 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:

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 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.

C Frequency

Question: "Of all the 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.

D Time Spent

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

Answer: 1%-100%

Choices:

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: Most difficult

Choices: Next most difficult
Next most difficult
Next most difficult
Next most difficult
Next most difficult

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 knows 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 consequences" were listed for all basic tasks, ask the supervisor for any incident on job performance of anyone employed as a (employee'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 successful 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 supervisewho 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 while I was out of town."
She can assemble facts quickly and communicate them to the understanding 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 CONTACTS?" (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 paragraphs 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."

"THOSE 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.
A task is basic 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).

REMEMBER: 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 unless the tasks are part of a process, 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 interviewer 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 SUCCESSFUL 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 state. If home office approves orders, orders are teletyped to worker's office.

TASK: The worker processes 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. Proofs 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 ALTERNATIVES: Instead of step 8, supervisor checks invoices 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 categories—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 terminology 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 statement's written, use the present tense of the action verb.

Do not use: Use:
to identify identifies identifying

to open opens opening

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 "photocopy machine" instead of Xerox).
Do not use: files material

Use: files letters, memos, and reports

checks cards

e.g., checks IBM punched cards

| 1. Takes care of mail | 3 | 2 | 1 | 10 | 6 |

The task 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 Steps; 5-7 are for the Criteria.

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) 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

**Contingencies or Alternatives:**

These are the steps which slightly change the normal routine of performing a task.

e.g., Does not open "Personal" mail, but date stamps the envelope.
Criteria:

Questions 5-7 ask for information that will lead to establishing criteria.

*Criteria*  
Incoming mail reaches correct persons and routine inquiries are handled promptly. All outgoing mail from department must be placed in truck or deposited in safe overnight before the worker leaves for the day.

The criteria are to be elicited from the employee, and the interviewer 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 abbreviation 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:
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.
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<th>CODE</th>
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<td>- make/set up</td>
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<td>- make up</td>
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<td>consult</td>
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 Verb Classification

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<td>hold, identify</td>
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<td>lock, log, look at/on/upt</td>
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- locate 174
- correct 075
- block out 183
- no education 183
- make note of 192
- make up 186
- match 186
- move 186
- instruct 156
- deliver 087, distribute
- travel 306
- search 270
- evaluate 123
- welcome 123
- deliver 087, obtain
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- open 197
- operate 198
- determine 096, inform 147
- sort 282
- advise, alert, identify, notify, relate, remind, signal, suggest 207
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- sign 279
- ask 279
- put in, stuff 213
- check 036
- give direction, show, teach 216
- present 216
- proofread 219
- provide 219
- pull 222
- record 237
- punch 225
- print 225
- hold 144, maintain 153
- mark, tag 234
- put into 234
- record 237
- receive 231
- quote 225
- read 225
- keypunch 231
- destroy 093
- place 210
- feed 132, insert 153
- search 270
- duplicate 120
- keep 156
- compile 057
- note 192
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- label 165, write 324
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- annotate, make 192
- note 192
- inform 147
- fetch, get, pick up, secure 187
- activate 003
- supervise 321
- call 033
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- carry out 033
- duplicate 120
- put 184
- arrange 015
- to ledger only 187
- deliver 087
- supply 222
- extract, take from 222
- keypunch 231
- destroy 093
- place 210
- feed 132, insert 153
- seam 267
- take 267
- balance 267
- enter, journalize, log 267
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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.

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<th>Definition and Examples</th>
<th>Frequency</th>
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<td>add</td>
<td>to increase in number, size, or importance</td>
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<td></td>
<td>&quot;Add items to inventory sheet that have been added to inventory.&quot;</td>
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<td></td>
<td></td>
<td>&quot;Add checks from register and remove tape.&quot;</td>
<td></td>
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<tr>
<td>47</td>
<td>adjust</td>
<td>to bring to a more satisfactory state</td>
<td>159</td>
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<tr>
<td></td>
<td></td>
<td>&quot;Adjusts counter for desired number of copies.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>change</td>
<td>&quot;Change old procedure as required by new procedure.&quot;</td>
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<tr>
<td></td>
<td>set</td>
<td>&quot;Set computer for proper itemization of charges.&quot;</td>
<td></td>
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<tr>
<td>19</td>
<td>answer</td>
<td>to speak, write, or reply</td>
<td>501</td>
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<td></td>
<td></td>
<td>&quot;Answers incoming telephone calls.&quot;</td>
<td></td>
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<tr>
<td>31</td>
<td>arrange</td>
<td>to put into correct or desired order</td>
<td>374</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Arrange appointment to his satisfaction.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>block in/out</td>
<td>&quot;Blocks in reservations of rooms.&quot;</td>
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<td></td>
<td>collate</td>
<td>&quot;Collates paper pack.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>design</td>
<td>&quot;Designs new form in rough draft.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>devise</td>
<td>&quot;Devise the best form for tabulation.&quot;</td>
<td></td>
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<td></td>
<td>flowchart</td>
<td>&quot;Flowchart program using layout and spacing chart.&quot;</td>
<td></td>
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<td></td>
<td>negotiate</td>
<td>&quot;Negotiates solution or refers guests to manager.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>plan</td>
<td>&quot;Plans for three inspections daily.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>schedule</td>
<td>&quot;Schedules appointment for salesman.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>straighten</td>
<td>&quot;Straighten up pamphlets.&quot;</td>
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<tr>
<td>Rank</td>
<td>Verb and Synonyms</td>
<td>Definition and Examples</td>
<td>Frequency</td>
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<tr>
<td>16</td>
<td>attach</td>
<td>to make fast or join</td>
<td>525</td>
</tr>
<tr>
<td></td>
<td>affix</td>
<td>&quot;Attach signed original to patient's chart.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>clip</td>
<td>&quot;Affix postage stamp on envelope.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>staple</td>
<td>&quot;Clip these two items together.&quot;</td>
<td></td>
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<td></td>
<td></td>
<td>&quot;Staple report to original ticket.&quot;</td>
<td></td>
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<tr>
<td>17</td>
<td>call</td>
<td>to communicate or utter</td>
<td>520</td>
</tr>
<tr>
<td></td>
<td>page</td>
<td>&quot;Call supplier and place order.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>telephone</td>
<td>&quot;Page doctor when interviewee arrives.&quot;</td>
<td></td>
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<td></td>
<td></td>
<td>&quot;Telephones doctor to cancel interview.&quot;</td>
<td></td>
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<tr>
<td>7</td>
<td>check</td>
<td>to inspect for satisfactory condition</td>
<td>1389</td>
</tr>
<tr>
<td></td>
<td>examine</td>
<td>&quot;Check schedule for shift's processing.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>inspect</td>
<td>&quot;Examined insured's file to determine amount paid.&quot;</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>&quot;Inspect each check for signature.&quot;</td>
<td></td>
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<tr>
<td>57</td>
<td>code</td>
<td>any system of symbols for meaningful communication</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Code information for keypunch.&quot;</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>collect</td>
<td>to bring together into a band or group</td>
<td>278</td>
</tr>
<tr>
<td></td>
<td>accumulate</td>
<td>&quot;Collect copies of transactions at points of origin.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>assemble</td>
<td>&quot;Accumulate data from memos.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>batch</td>
<td>&quot;Assemble purchase orders for week.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gather</td>
<td>&quot;Batches currency into bundles.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Gathered reports.&quot;</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>compare</td>
<td>to examine for the purpose of discovering resemblances or differences</td>
<td>305</td>
</tr>
<tr>
<td></td>
<td>balance</td>
<td>&quot;Compare balance with checkbook balance.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>match</td>
<td>&quot;Balance register by re-adding.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reconcile</td>
<td>&quot;Match sums received against checks.&quot;</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>&quot;Reconcile ledger monthly.&quot;</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>compile</td>
<td>to assemble and put in logical order</td>
<td>247</td>
</tr>
<tr>
<td></td>
<td>list</td>
<td>&quot;Compile data on collections.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Lists checks and cash on deposit slip.&quot;</td>
<td></td>
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<tr>
<td>Rank</td>
<td>Verb and Synonyms</td>
<td>Definition and Examples</td>
<td>Frequency</td>
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<tr>
<td>350</td>
<td>make up</td>
<td>&quot;Make up a folder for employee.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>set up</td>
<td>&quot;Sets up a folder for applicant.&quot;</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>complete</td>
<td>to fill, make entire, perfect</td>
<td>328</td>
</tr>
<tr>
<td></td>
<td>fill in/out</td>
<td>&quot;Completes card with correct information.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Fills in/out description and amount.&quot;</td>
<td></td>
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<tr>
<td>18</td>
<td>compute</td>
<td>to determine by mathematical means or arrive at an answer</td>
<td>503</td>
</tr>
<tr>
<td></td>
<td>calculate</td>
<td>&quot;Calculates premium using adding machine.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>convert</td>
<td>&quot;Converts data to charts and graphs.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>count</td>
<td>&quot;Counts cash twice a week.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>divide</td>
<td>&quot;Divides list among three workers.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>extend</td>
<td>&quot;Uses calculator to extend orders.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>figure</td>
<td>&quot;Figure up correct premium.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>multiply</td>
<td>&quot;Multiply hours times hourly rate.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>subtract</td>
<td>&quot;Subtract actual from standard cost to get variance.&quot;</td>
<td></td>
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<tr>
<td>27</td>
<td>correct</td>
<td>to change in order to set right</td>
<td>404</td>
</tr>
<tr>
<td></td>
<td>change</td>
<td>&quot;Correct cards containing errors.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>debug</td>
<td>&quot;Debug machine.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>fix</td>
<td>&quot;Inspect and fix machine if possible.&quot;</td>
<td></td>
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<td></td>
<td>update</td>
<td>&quot;Update records to make current.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>upgrade</td>
<td>&quot;Upgrade old cards.&quot;</td>
<td></td>
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<tr>
<td>3</td>
<td>deliver</td>
<td>to give, transfer, yield possession of</td>
<td>1923</td>
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<tr>
<td></td>
<td>give</td>
<td>&quot;Deliver completed report to supervisor.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>hand to</td>
<td>&quot;Give to typist for copying.&quot;</td>
<td></td>
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<td></td>
<td>present</td>
<td>&quot;Hands correspondence to manager.&quot;</td>
<td></td>
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<td></td>
<td>submit</td>
<td>&quot;Submits program for testing.&quot;</td>
<td></td>
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<tr>
<td>54</td>
<td>destroy</td>
<td>to put out of existence</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>discard</td>
<td>&quot;Destroy order notices as executed.&quot;</td>
<td></td>
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<tr>
<td>Rank</td>
<td>Verb and Synonyms</td>
<td>Definition and Examples</td>
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<tr>
<td>1</td>
<td>purge</td>
<td>&quot;Purges confidential materials in burn barrel.&quot;</td>
<td></td>
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<tr>
<td>1</td>
<td>throw away</td>
<td>&quot;Throw carbons away in wastebasket.&quot;</td>
<td></td>
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<tr>
<td>13</td>
<td>determine</td>
<td>to settle a question or come to a decision</td>
<td>632</td>
</tr>
<tr>
<td></td>
<td>choose</td>
<td>&quot;Chooses supplies from shelf.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>decide</td>
<td>&quot;Decide on matter being discussed.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>evaluate</td>
<td>&quot;Evaluates run for source of error.&quot;</td>
<td></td>
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<td></td>
<td>grade</td>
<td>&quot;Grade test using punched master.&quot;</td>
<td></td>
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<td></td>
<td>identify</td>
<td>&quot;Identify the need for information.&quot;</td>
<td></td>
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<td></td>
<td>score</td>
<td>&quot;Scores tests.&quot;</td>
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<td></td>
<td>select</td>
<td>&quot;Select proper form from desk.&quot;</td>
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<td></td>
<td>test</td>
<td>&quot;Tests program on computer.&quot;</td>
<td></td>
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<td></td>
<td></td>
<td>&quot;Administers typing tests.&quot;</td>
<td></td>
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<tr>
<td>25</td>
<td>direct</td>
<td>to assist by giving advice, instruction, and supervision</td>
<td>408</td>
</tr>
<tr>
<td></td>
<td>assist</td>
<td>&quot;Assist applicant as needed.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>describe</td>
<td>&quot;Describes how to type contracts.&quot;</td>
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<td></td>
<td>explain</td>
<td>&quot;Explains correct correspondence format.&quot;</td>
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<td></td>
<td>help</td>
<td>&quot;Help artist arrive at best data portrayal.&quot;</td>
<td></td>
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<td></td>
<td>instruct</td>
<td>&quot;Instructs applicants to wait.&quot;</td>
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<td></td>
<td>oversee</td>
<td>&quot;Oversee filling out of application.&quot;</td>
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<td></td>
<td>provide</td>
<td>&quot;Provide information.&quot;</td>
<td></td>
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<td></td>
<td>show</td>
<td>&quot;Shows applicants to test room.&quot;</td>
<td></td>
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<td></td>
<td>supervise</td>
<td>&quot;Supervise move from office to office.&quot;</td>
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<td></td>
<td>supply</td>
<td>&quot;Supply information necessary.&quot;</td>
<td></td>
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<td></td>
<td>take</td>
<td>&quot;Take person to supervisor.&quot;</td>
<td></td>
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<td></td>
<td>teach</td>
<td>&quot;Teach new employee how to keep records.&quot;</td>
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<td></td>
<td>witness</td>
<td>&quot;Witness signature.&quot;</td>
<td></td>
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<tr>
<td>56</td>
<td>discuss</td>
<td>to discourse about, examine and pass on</td>
<td>96</td>
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<tr>
<td></td>
<td>confer</td>
<td>&quot;Confer with supervisor about matter.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>consult</td>
<td>&quot;Consult with artist while work progresses.&quot;</td>
<td></td>
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<td>Rank</td>
<td>Verb and Synonyms</td>
<td>Definition and Examples</td>
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<tr>
<td>N=57</td>
<td>interview</td>
<td>&quot;Interview patient in patient's room.&quot;</td>
<td>40</td>
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<tr>
<td></td>
<td>talk with</td>
<td>&quot;Talk with supervisor about plans.&quot;</td>
<td>40</td>
</tr>
<tr>
<td>40</td>
<td>distribute</td>
<td>to deal out, to dispense &quot;Distributes mail delivered to office.&quot;</td>
<td>245</td>
</tr>
<tr>
<td></td>
<td>give to hand</td>
<td>&quot;Give out test forms to students.&quot;</td>
<td>245</td>
</tr>
<tr>
<td>25</td>
<td>duplicate</td>
<td>to make a copy of &quot;Duplicates desired number of copies.&quot;</td>
<td>408</td>
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<tr>
<td></td>
<td>copy</td>
<td>&quot;Copy code on item to be filed.&quot;</td>
<td>408</td>
</tr>
<tr>
<td></td>
<td>mimeograph</td>
<td>&quot;Mimeographs 250 copies of sermon.&quot;</td>
<td>408</td>
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<tr>
<td></td>
<td>photocopy</td>
<td>&quot;Photocopy original purchase order.&quot;</td>
<td>408</td>
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<td></td>
<td>Xerox</td>
<td>&quot;Xerox the letter.&quot;</td>
<td>408</td>
</tr>
<tr>
<td>5</td>
<td>file</td>
<td>to arrange in particular order for preservation and reference &quot;File card alphabetically by name.&quot;</td>
<td>1640</td>
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<tr>
<td></td>
<td>greet</td>
<td>to meet and give salutations &quot;Welcome arriving guests at meeting.&quot;</td>
<td>142</td>
</tr>
<tr>
<td></td>
<td>welcome</td>
<td>&quot;Welcome arriving guests at meeting.&quot;</td>
<td>142</td>
</tr>
<tr>
<td>52</td>
<td>hold</td>
<td>an order or indication that some action is to be delayed &quot;Hold cards for verification.&quot;</td>
<td>254</td>
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<td></td>
<td>keep</td>
<td>&quot;Keeps one pile for office file.&quot;</td>
<td>254</td>
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<td></td>
<td>maintain</td>
<td>&quot;Maintain control sheet for office keys.&quot;</td>
<td>254</td>
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<td></td>
<td>store</td>
<td>&quot;Store paid instrument for further processing.&quot;</td>
<td>254</td>
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<td>15</td>
<td>inform</td>
<td>to make known or give instruction &quot;Informs supervisor of new procedure.&quot;</td>
<td>547</td>
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<td></td>
<td>advise</td>
<td>&quot;Advises caller that callee is out.&quot;</td>
<td>547</td>
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<tr>
<td></td>
<td>alert</td>
<td>&quot;Alert room service dates guests will arrive.&quot;</td>
<td>547</td>
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<tr>
<td></td>
<td>notify</td>
<td>&quot;Notify ex-patient his payment is past due.&quot;</td>
<td>547</td>
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<tr>
<td></td>
<td>quote</td>
<td>&quot;Quotes coverage, premium for firs t year, and escrow.&quot;</td>
<td>547</td>
</tr>
<tr>
<td></td>
<td>reiterate</td>
<td>&quot;Reiterate that it is patient's responsibility to pay.&quot;</td>
<td>547</td>
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<tr>
<td></td>
<td>relate</td>
<td>&quot;Relate to customer desired information.&quot;</td>
<td>547</td>
</tr>
<tr>
<td>Rank</td>
<td>Verb and Synonyms</td>
<td>Definition and Examples</td>
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<tr>
<td>N=57</td>
<td>remind</td>
<td>&quot;Remind supervisor of appointments.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>repeat</td>
<td>&quot;Repeat process until number of needed copies are typed.&quot;</td>
<td></td>
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<td></td>
<td>signal</td>
<td>&quot;Signal supervisor his call is ready.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>suggest</td>
<td>&quot;Suggested revisions in the plan.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>tell</td>
<td>&quot;Tell supervisor when evidence of coverage is not received.&quot;</td>
<td></td>
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<tr>
<td>12</td>
<td>insert</td>
<td>to put into or inject</td>
<td>788</td>
</tr>
<tr>
<td></td>
<td>put in</td>
<td>&quot;Insert paper into computer for printout.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>stuff</td>
<td>&quot;Put letter in basket.&quot;</td>
<td></td>
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<tr>
<td>49</td>
<td>issue</td>
<td>to give out or make available</td>
<td>153</td>
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<td></td>
<td>assign</td>
<td>&quot;Assigns a number to the application.&quot;</td>
<td></td>
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<td></td>
<td>disburse</td>
<td>&quot;Disburses cash for reimbursement.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>pay</td>
<td>&quot;Pays out money from window cash.&quot;</td>
<td></td>
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<tr>
<td>20</td>
<td>locate</td>
<td>to determine the place of, to seek out and find</td>
<td>485</td>
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<tr>
<td></td>
<td>find</td>
<td>&quot;Locates information in file.&quot;</td>
<td></td>
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<td></td>
<td>go thru</td>
<td>&quot;Goes through pending pouch.&quot;</td>
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<td></td>
<td>look for/up</td>
<td>&quot;Look up information in computer book.&quot;</td>
<td></td>
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<td></td>
<td>search</td>
<td>&quot;Worker searches for order in her files.&quot;</td>
<td></td>
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<td></td>
<td>trace</td>
<td>&quot;Trace shipment by calling or writing customer, supplier, or carrier.&quot;</td>
<td></td>
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<tr>
<td>29</td>
<td>mail</td>
<td>to send postal matter by mail</td>
<td>484</td>
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<tr>
<td></td>
<td>note</td>
<td>&quot;Mails invoice to customer.&quot;</td>
<td></td>
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<td>45</td>
<td>note</td>
<td>to take due or special notice of</td>
<td>193</td>
</tr>
<tr>
<td></td>
<td>annotate</td>
<td>&quot;Notes procedure and types rough draft.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>make note of</td>
<td>&quot;Makes note of the changes.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>notate</td>
<td>&quot;Make notations in log book of voided order.&quot;</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>obtain</td>
<td>to gain or attain possession of</td>
<td>1345</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Obtains necessary signatures on forms.&quot;</td>
<td></td>
</tr>
<tr>
<td>Rank</td>
<td>Verb and Synonyms</td>
<td>Definition and Examples</td>
<td>Frequency</td>
</tr>
<tr>
<td>------</td>
<td>------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>35</td>
<td>operate</td>
<td>to cause to function; to bring about; effect.</td>
<td>299</td>
</tr>
<tr>
<td></td>
<td>activate</td>
<td>&quot;Activated MTST to correct spot on tape.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>deactivate</td>
<td>&quot;Deactivates machine when finished.&quot;</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>open</td>
<td>to make available for use.</td>
<td>199</td>
</tr>
<tr>
<td></td>
<td>secure</td>
<td>&quot;Secures permission of underwriter to process change.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gel</td>
<td>&quot;Gels information from mana/1,er.&quot;</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>package</td>
<td>to enclose, in a package or protective covering.</td>
<td>159</td>
</tr>
<tr>
<td></td>
<td>bind</td>
<td>&quot;Bind on spiral binder.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>tie</td>
<td>&quot;Tie each group of envelopes with string.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>wrap</td>
<td>&quot;Film and packages wrapped for mailing.&quot;</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>place</td>
<td>to cause to rest or lie, to dispose, to put into</td>
<td>1504</td>
</tr>
<tr>
<td></td>
<td>put</td>
<td>&quot;Places mail order on spindle on desk.&quot;</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>proofread</td>
<td>to read and mark corrections in matter</td>
<td>422</td>
</tr>
<tr>
<td></td>
<td>extract</td>
<td>&quot;Extracts copy of policy.&quot;</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>extract</td>
<td>&quot;Extracts copy of policy.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>take from</td>
<td>&quot;Investment book is taken from file.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>feed</td>
<td>&quot;Feed tape into keypunch.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>load</td>
<td>&quot;Loads input cards into the card reader.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>move</td>
<td>&quot;Moves lever to operating position.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>start</td>
<td>&quot;Start the machine.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>put in</td>
<td>&quot;Put mail into machine for stamping.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>thread</td>
<td>&quot;Thread tape on machine.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>turn off/on</td>
<td>&quot;Turn off/on machine.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>proofread</td>
<td>&quot;Proofread letter and sign it.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pull</td>
<td>to remove or cause to be removed from a place (file)</td>
<td>574</td>
</tr>
<tr>
<td></td>
<td>place</td>
<td>to cause to rest or lie, to dispose, to put into</td>
<td></td>
</tr>
<tr>
<td></td>
<td>put</td>
<td>&quot;Puts copy of suspense voucher in insured's folder.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>extract</td>
<td>&quot;Extracts copy of policy.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>take from</td>
<td>&quot;Investment book is taken from file.&quot;</td>
<td></td>
</tr>
<tr>
<td>Rank</td>
<td>Verb and Synonyms</td>
<td>Definition and Examples</td>
<td>Frequency</td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>43</td>
<td>punch,</td>
<td>to record data by perforating a card or tape.</td>
<td>234</td>
</tr>
<tr>
<td></td>
<td>keypunch</td>
<td>&quot;Punch cards using information from sheets.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Keypunch grades into individual class cards.&quot;</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>receive</td>
<td>to take in, to admit, to accept.</td>
<td>2933</td>
</tr>
<tr>
<td></td>
<td>take</td>
<td>&quot;Receives an order from a salesman.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Takes requisition for funds.&quot;</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>record</td>
<td>to set down in writing.</td>
<td>958</td>
</tr>
<tr>
<td></td>
<td>enter</td>
<td>&quot;Records prices on sheet of paper.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Enters invoice payment date when payment arrives.&quot;</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>refer</td>
<td>to send or direct for information.</td>
<td>270</td>
</tr>
<tr>
<td></td>
<td>consult</td>
<td>&quot;Refer phone call to supervisor.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>look at/on/</td>
<td>&quot;Consult reference book for codes.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>turn over</td>
<td>&quot;Look on precomputed chart for amount of discount.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>log</td>
<td>&quot;Logs travel request in travel log.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>post</td>
<td>[to the ledger only] &quot;Post salaries paid to personnel.&quot;</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>remove</td>
<td>to change or shift location, take off or away.</td>
<td>444</td>
</tr>
<tr>
<td></td>
<td>delete</td>
<td>&quot;Delete record by taking out 3x5 cards.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>erase</td>
<td>&quot;Erases former class and puts in new one on office class cards.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>take off</td>
<td>&quot;Takes off belt and index strip when machine stops.&quot;</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>request</td>
<td>the act of asking for something.</td>
<td>468</td>
</tr>
<tr>
<td></td>
<td>ask</td>
<td>&quot;Request identification on receipt of check.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>inquire</td>
<td>&quot;Ask for immediate payment.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Inquire as to nature of problem.&quot;</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>return</td>
<td>to go back or send back</td>
<td>424</td>
</tr>
<tr>
<td></td>
<td>give back</td>
<td>&quot;Return tickets to computer room.&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;Give completed material back to supervisor.&quot;</td>
<td></td>
</tr>
</tbody>
</table>
### CARD EIGHT

<table>
<thead>
<tr>
<th>Location on NOBELS Form</th>
<th>Card Column</th>
<th>Code</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL PAGE 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper rt. corner</td>
<td>1-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>08</td>
<td>MASTER CARD NUMBER</td>
</tr>
<tr>
<td>Opposite box 1, 1st 2 digits</td>
<td>7-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9-10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opposite box 1, 2nd 2 digits</td>
<td>11-12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boxes A-E for box 1</td>
<td>11</td>
<td>1-3</td>
<td>A) Consequences of Not Performing Task Correctly: 1 - Great, 2 - Moderate, 3 - Little</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>1-2</td>
<td>B) Changing Task: 1 - Yes, 2 - No</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>1-3</td>
<td>C) Frequency of Performing Task: 1 - High, 2 - Medium, 3 - Low</td>
</tr>
<tr>
<td></td>
<td>14-15</td>
<td>01-99</td>
<td>D) Percent figure of employee's total time spent on task</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>1-9</td>
<td>E) Most Difficult Task to Least Difficult Task--as many numbers as tasks written</td>
</tr>
<tr>
<td>Opposite box 2, 1st 2 digits</td>
<td>17-18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opposite box 2, 2nd 2 digits</td>
<td>19-20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In boxes A-E, box 2</td>
<td>21-26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Location on NOBELS Form</th>
<th>Card Column</th>
<th>Code</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL PAGE 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper rt. corner</td>
<td>1-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>09</td>
<td>MASTER CARD NUMBER</td>
</tr>
<tr>
<td></td>
<td>7-76</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(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.)