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# Clerical and Other Administrative Support Occupations



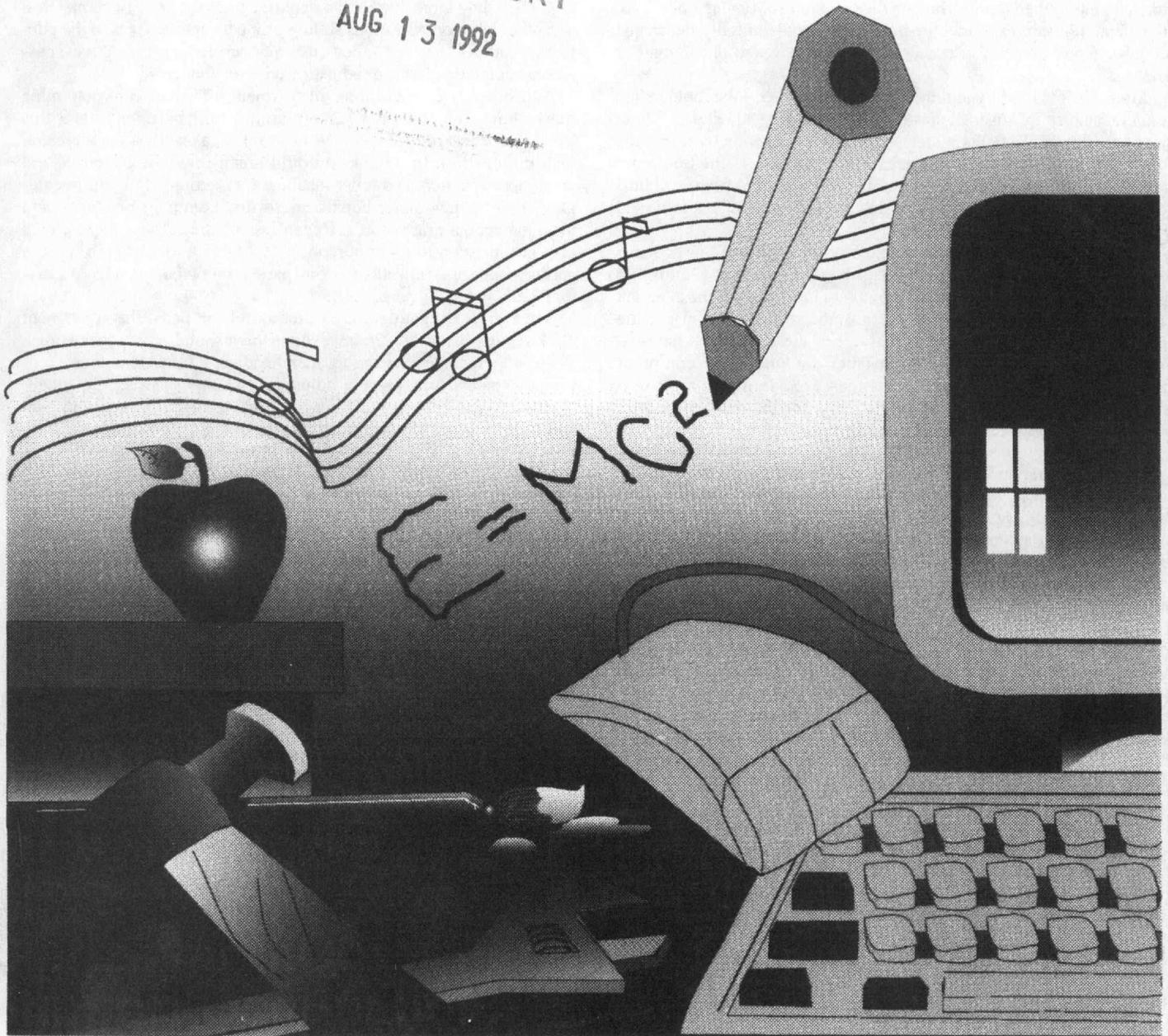
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## Adjusters, Investigators, and Collectors

(D.O.T. 168.267-014 and -038; 191.167-022; 195.267-010; 203.382-014; 205.367-018 and -034; 209.382-014 and .687-018; 219.362-034, -042, and -050, .367-014, and .482-014; 241.267-014, -018, -030, and -034, .357-010, .362-010, .367-010, -014, -022, and -034, and .387-010; and 249.367-030)

### Nature of the Work

Handling complaints, interpreting and explaining policies or regulations, resolving billing disputes, collecting delinquent accounts, and determining eligibility for governmental assistance are examples of everyday situations that organizations must deal with smoothly and efficiently in order to maintain good relations with customers and clients. Organizations like insurance companies, department stores, banks, and government social services agencies employ adjusters, investigators, and collectors to act as intermediaries with the public in these kinds of situations. Following is a discussion of occupations that make up this group of workers.

**Claim Representatives.** Claim representatives at insurance companies investigate claims, negotiate settlements, and authorize payments to claimants. When a policyholder files a claim for damage or a loss, the claim adjuster, examiner, or investigator must initially determine whether the customer's insurance policy covers it and the amount of the loss.

Minor claims filed by automobile or homeowner policyholders are usually handled by "inside adjusters" or "telephone adjusters." These workers contact claimants by telephone or by mail to get information on repair costs, medical expenses, or other details the company needs. Many companies centralize this operation in a drive-in claims center, where the cost of repair is determined and a check is issued immediately.

More complex cases are referred to a "claim adjuster" or "outside adjuster." Claim adjusters plan and schedule the work required to process a claim. They investigate claims by interviewing the claimant and witnesses, consulting police and hospital records, and inspecting property damage to determine the extent of the company's liability. They keep photographs, written or taped statements, or computer files of information obtained from witnesses and prepare reports of their findings. When the company is liable for the damage or loss, they negotiate with the claimant and settle the claim. When claims are contested, adjusters may testify in court.

Some adjusters work with all lines of insurance. Others specialize in claims associated with fire damage, marine loss, automotive damage, product liability, or workers' compensation. Material damage adjusters inspect automobile damage and use the latest computerized estimating equipment to prepare estimates of the damage.

In life and health insurance companies, the counterpart of the claim adjuster is the claim examiner. In property and casualty insurance companies, the claim examiner may supervise claim adjusters. In both cases, they investigate questionable claims or authorize payment for those exceeding a designated amount. Larger claims are referred to senior examiners. Examiners may check claim applications for completeness and accuracy, interview medical specialists, consult policy files to verify information on a claim, or calculate benefit payments. They also maintain records of settled claims and prepare reports to be submitted to their company's data processing department.

Claim representatives are making greater use of computers to keep records of clients and actions taken in various claims. Many have computer terminals on their desks, and a growing number use portable lap-top computers to enter or access information when they are on assignment outside the office.

**Insurance Processing Clerks.** Policy processing clerks process new insurance policies, modifications to existing policies, and claims. They begin the new policy process by reviewing insurance applica-

tions to ensure that all the questions have been answered. After an application has been reviewed by underwriters and the company determines that it will issue a policy, policy processing clerks prepare the necessary forms and inform insurance sales agents of an application's processing status. Policy processing clerks also update existing policies—such as a change in beneficiary, amount of coverage, or type of insurance—and recalculate premiums. They mail correspondence notices regarding changes to the sales agent and to the policyholder. Policy processing clerks maintain files for each policyholder including policies that are to be reinstated or cancelled.

Claim clerks (also called claim interviewers) obtain information from policyholders regarding claims like automobile accidents. They prepare reports and review insurance claim forms and related documents for completeness. They call or write insured or other involved persons for missing information and update claim files. They may transmit routine claims for payment or advise the claim supervisor if further investigation is needed.

Like claim representatives, insurance processing clerks use computers extensively in their work. Most spend a large part of their time creating and updating records at a personal computer or terminal.

**Adjustment Clerks.** Adjustment clerks investigate and resolve customers' complaints about merchandise, service, billing, or credit rating. They may work for banks, department stores, utility companies, and other large organizations selling products and services to the public. Sometimes they are called customer-service representatives, customer-complaint clerks, or adjustment correspondents.

Adjustment clerks examine all pertinent information to determine the validity of a customer's complaint. In a department store, this may mean checking sales slips or warranties, as well as the merchandise in question. In a bank, it could mean reviewing records and videotapes of automated teller machine transactions. In a utility company, they review meter books, microfilm, computer printouts, and machine accounting records. Regardless of the setting, these clerks also get information—in person, by telephone, or through written correspondence—from the various parties involved, such as the customer and company personnel.

After an investigation and evaluation of the facts, the adjustment clerk reports his or her findings, adjustments, and recommendations. These may include exchanging merchandise, refunding money, crediting customers' accounts, or adjusting customers' bills. The adjustment clerk also ensures that the appropriate changes are set in motion and follows up on the recommendation to ensure customer satisfaction. To prevent similar complaints in the future, they may recommend to management improvements in product, packaging, shipping methods, service, or billing methods and procedures. Adjustment clerks keep records of all relevant matters, using them to prepare reports for their supervisors.

Adjustment clerks also respond to inquiries from customers. Clerks frequently can answer these inquiries with a form letter, but other times they must compose a letter themselves. Upon request, adjustment clerks also issue duplicate or additional credit cards for banks and department stores.

**Bill and Account Collectors.** Bill and account collectors, sometimes called collection correspondents, are responsible for ensuring that customers pay their overdue accounts. Some collectors are employed by collection agencies; others, known as "inside collectors," work directly for the original creditors, like department stores, hospitals, or banks.

Many companies automatically notify customers by mail if their account is overdue. If the customer does not respond, a collector is called on to locate and notify him or her of the delinquent account, usually over the telephone, sometimes by letter. If the customer has moved without leaving a forwarding address, the collector may check with the post office, the telephone company, credit bureaus, or former neighbors to obtain the new address. This is called skip-tracing.

Once the collector has found the debtor, he or she informs the customer of the overdue account and solicits payment. If necessary, they

review the terms of the sale, service, or credit contract with the customer. Collectors also may attempt to learn the cause of the delay in payment. Where feasible, they offer the customer advice and counsel on how to pay off the debts, such as by taking out a bill consolidation loan. However, the collector's objective is always to ensure that the customer first pays the debt in question.

If the customer agrees to pay, the collector notes that for the record and checks later to verify that the payment has indeed been made. The collector may have authority to grant an extension of time if the customer asks for one. In the event the customer fails to respond at all, the collector prepares a statement to that effect for the credit department of the establishment. In more extreme cases, the collector may initiate repossession proceedings or service disconnections or may hand the account over to an attorney for legal action.

Most collectors handle other administrative functions for the accounts assigned to them, such as recording changes of address. Bill and account collectors keep records of the amounts collected and the status of the accounts. Some fill out daily reports to keep their supervisors apprised of their progress. In some organizations, inside collectors receive payments and post the amount to the customer's account. In most operations, however, the posting and receiving are done by other clerical workers. Collectors employed by collection agencies do not receive payment; rather, their primary responsibility is to get the customer to pay their obligation.

Increasingly, collectors use computers a variety of automated systems to keep track of overdue accounts. Typically, the collector works at a video display terminal that is linked to a computer. In the most sophisticated systems, the computer dials the phone automatically and the collector begins to speak only when a connection has been made. This system eliminates time spent calling busy or nonanswering numbers. Many collectors use regular telephones; some use headsets like those used by telephone operators. From time to time, their supervisors may listen in on their conversations with debtors as a way to evaluate their job performance.

**Welfare Eligibility Workers and Interviewers.** Welfare eligibility workers and interviewers—sometimes referred to as intake workers, eligibility determination workers, eligibility specialists, or income maintenance specialists—determine who can receive welfare and other types of social assistance. They do so by interviewing and investigating applicants and recipients to see who is eligible. Based on the personal and financial information they obtain and the rules and regulations of each program, they initiate procedures to grant, modify, deny, or terminate individuals' eligibility for various aid programs. This information is recorded and evaluated to determine the amounts of the grants.

Welfare eligibility workers and interviewers work with various kinds of public assistance programs. The best-known are Aid to Families with Dependent Children, Medicaid, Food Stamps, and the Work Incentive Program. Depending on local circumstances, there may be other programs, such as those for public housing, refugee assistance, and fuel assistance.

Most welfare eligibility workers and interviewers specialize in a specific area, such as housing, but some are responsible for several areas. They may assist social workers by informing them of pertinent information they have gathered during their interviews with applicants. In some areas, particularly rural ones, eligibility workers may also perform other kinds of welfare duties.

These workers also provide information to applicants and current recipients. For example, they may explain and interpret eligibility rules and regulations or identify other resources available in the community for financial or social welfare assistance. More experienced workers may help train new workers. In addition, they may be assigned to special units whose responsibility is to detect fraud.

An increasing number of jurisdictions are using computers to increase worker productivity and to reduce the incidence of welfare fraud. When welfare eligibility workers and interviewers interview applicants and recipients in these settings, they sit in front of a computer terminal to enter information provided by the client. In the most advanced systems, the computer terminal prompts them with questions.

Although they usually conduct interviews of applicants and recipients in their offices, they may make occasional home visits, especially if the applicant or recipient is elderly or disabled. They may also check with employers or other references to verify answers and get further information.

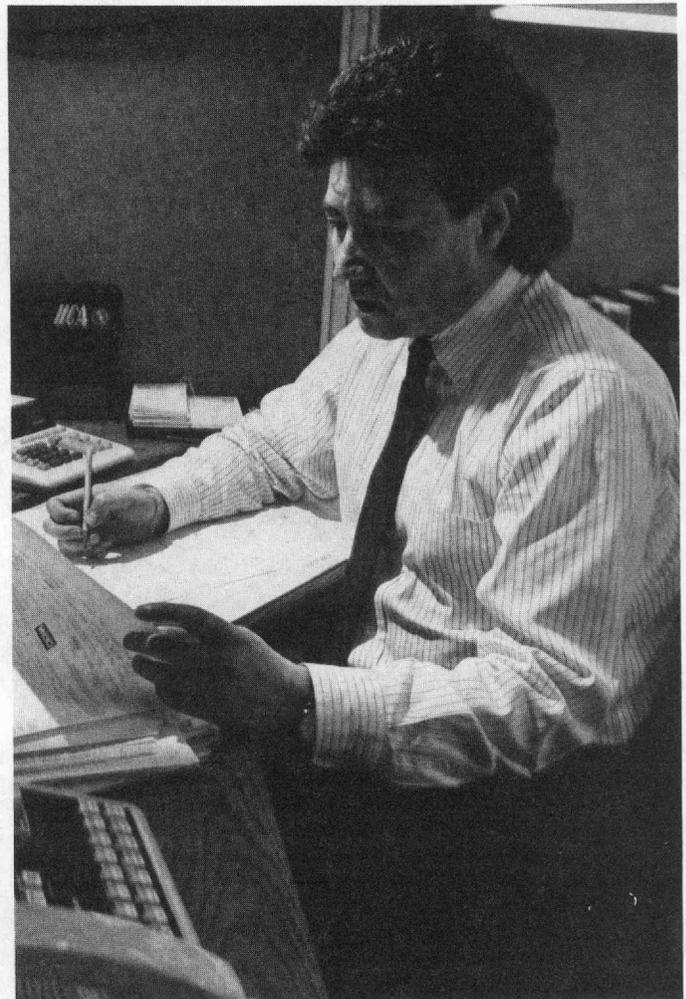
The authority of welfare eligibility workers and interviewers varies from one jurisdiction to another. In some places, these workers are authorized to decide on an applicant's eligibility, subject to review by their supervisor. In other places, however, they can only make recommendations to their supervisors, who in turn make the ultimate decision.

### **Working Conditions**

Most claim examiners have desk jobs that require no unusual physical activity. They typically work a standard 5-day, 40-hour week. Claim examiners may work longer hours during peak periods or when quarterly and annual statements are prepared. They also may travel from time to time to obtain information by personal interview.

Many claim adjusters work outside the office, traveling and inspecting damaged buildings, for example. Occasionally, an experienced adjuster may travel to the scene of a disaster such as a tornado, hurricane, or flood to work with local adjusters and government officials. Some adjusters may be on "emergency call" in case of such accidents. Material damage adjusters work at local claim centers where policy holders may take their cars for estimates of damage.

Adjusters generally have the flexibility to arrange their work schedule to accommodate evening and weekend appointments with clients. Some report to the office every morning to get their assignments while others simply call from home and spend their days



*Claim examiners generally work a standard 40-hour week.*

traveling to claim sites. This enables some adjusters to work independently.

Most insurance processing clerks work in offices 40 hours per week. Much of the work is routine and requires remaining at work stations for extended periods of time. Since most insurance information is stored on computers, many of these workers sit at video display terminals and enter or access information while the customer is on the phone. Because most companies provide 24-hour claim service to their policyholders, some claim clerks work evenings and weekends. Many claim clerks work part time.

Adjustment clerks, bill and account collectors, and welfare eligibility workers and interviewers work in offices, usually during regular business hours. Some work part time. A few bill and account collectors work as temporaries. From their offices, they deal with customers, clients, or applicants, either by telephone or in person. Dealing with upset or angry clients can be part of the daily routine in these jobs, so the work can be stressful.

Some welfare eligibility workers and interviewers may be hired on a seasonal basis to help administer a specific program. For example, some States hire these workers for the winter to help run emergency fuel assistance programs.

Adjusters, investigators, and collectors who spend a lot of time working at video display terminals may experience musculoskeletal strain and eyestrain.

### Employment

Adjusters, investigators, and collectors held about 1,088,000 jobs in 1990. The following tabulation presents their employment distribution by detailed occupation:

	<i>Percent</i>
Total.....	100
Adjustment clerks.....	29
Bill and account collectors.....	17
Insurance policy processing clerks.....	16
Insurance adjusters, examiners, and investigators.....	13
Insurance claims clerks.....	10
Welfare eligibility workers and interviewers.....	9
Property and casualty insurance claims examiners.....	3
All other adjusters and investigators.....	3

Insurance companies employ the vast majority of claim adjusters, examiners, and investigators, property and casualty insurance claim examiners, policy processing clerks, and claim clerks. Real estate firms and government agencies employ most of the rest.

One-fourth of all adjustment clerks are employed by department stores or grocery stores. Manufacturing firms, banks and other financial institutions, and telephone companies are other major employers of these workers.

One in 6 bill and account collectors works for a credit reporting and collection agency. Many others work in banks, department stores, and other institutions that extend credit.

Nine of every 10 welfare eligibility workers and interviewers work for State or local government agencies. In 37 States, these workers are employed exclusively by the State government. In the remainder, they are employed by the county or municipal government. Most of those not working for government work for private social service agencies.

### Training, Other Qualifications, and Advancement

Most companies prefer to hire college graduates for claim representative positions. Persons may be hired without college training, however, if they have specialized experience. For example, persons with knowledge of automobile mechanics may qualify as material damage adjusters and those with extensive clerical experience might be hired as inside adjusters.

No specific college major is recommended as the best preparation. Although courses in insurance, economics, or other business subjects are helpful, a degree in almost any field is adequate. An adjuster who has a business or an accounting background might specialize in financial loss due to strikes, breakdowns in equipment, or damage to mer-

chandise. College training in engineering is helpful in adjusting industrial claims, such as damage from fires and other accidents. A legal background is most helpful to those handling workers' compensation and product liability cases. Knowledge of computer applications is increasingly important.

Most large insurance companies provide on-the-job training and home-study courses to beginning claim adjusters and examiners. For example, material damage adjusters would learn about automobile body construction, analysis of collision data, and repair cost estimation, including computerized estimating equipment. They also learn how to deal with customers.

In smaller firms, workers may receive their training through courses offered by the Insurance Institute of America, a nonprofit organization offering educational programs and professional certification to persons in the property-liability insurance industry. The Insurance Institute of America offers an Associate in Claims (AIC) designation upon successful completion of six examinations. Adjusters can prepare for these examinations by independent home study or through company or public classes.

The International Claim Association (ICA) offers a program on life and health insurance claims administration. Completion of the five-examination program leads to the professional designation, Associate, Life and Health Claims (ALHC).

The Life Office Management Association (LOMA) offers a comprehensive 10-course life and health insurance educational program that leads to the professional designation, Fellow, Life Management Institute (FLMI). LOMA also offers the Master Fellow Program (FLMI/M) that is designed specifically to meet the continuing education needs of life and health insurance professionals. Students can prepare for FLMI exams through independent home study or through insurance company or FLMI Society classes.

Most States require adjusters to be licensed. Applicants usually must comply with one or more of the following: Pass a written examination covering the fundamentals of adjusting; complete an approved course in insurance or loss adjusting; furnish character references; be at least 20 or 21 years of age and a resident of the State; and file a surety bond.

Because they often work closely with claimants, witnesses, and other insurance professionals, claim representatives must be able to communicate effectively and gain the respect and cooperation of others. Some companies require applicants to pass a battery of written aptitude tests designed to measure communication, analytical, and general mathematical skills. Examiners must understand Federal and State insurance laws and regulations. Both adjusters and examiners should be observant and enjoy working with details.

Beginning adjusters and examiners work on small claims under the supervision of an experienced worker. As they learn more about claim investigation and settlement, they are assigned larger, more complex claims. Trainees are promoted as they demonstrate competence in handling assignments and as they progress in their course work. Because of the complexity of insurance regulations and claims procedures, workers who lack formal academic training may advance more slowly than those with more education. Employees who demonstrate competence in claims work or administrative skills may be promoted to department supervisor in a field office or to a managerial position in the home office.

High school graduation is considered adequate preparation for most insurance processing clerk positions. Courses in typing and word processing, business arithmetic, and office machine operation are desirable. Employers view favorably previous office experience and familiarity with computers. Most new workers begin as file clerks and move into insurance processing positions as they demonstrate their ability. However, persons with considerable clerical experience may begin processing insurance policies immediately.

Some experienced insurance processing clerks may be promoted to a clerical supervisory position. Advancement to a claim representative or an underwriting technician position is possible for clerks who demonstrate potential, have had college training, or have taken specialized courses in insurance. Many companies offer home-study courses that allow their employees to gain the necessary knowledge to advance.

Many employers do not require any formal education for adjustment clerk positions. Instead, they look for people who can read and write and who possess good communications and interpersonal skills. Typing ability is also viewed favorably.

Adjustment clerk is an entry level position in some, but not all, organizations. Depending on their assignment, new adjustment clerks may receive training on the job from a supervisor or an experienced coworker, or they may enter a formal training course offered by the organization. Training covers such topics as how to use computers, what standard forms to use, whom to contact in other departments of the organization, and how to deal with customers. Some employers provide more advanced training for experienced adjustment clerks. This training may be offered in-house or from trade associations or local colleges.

While high school graduation sometimes is required by employers when they hire bill and account collectors, formal education beyond high school is not stressed. Previous work experience as a collector is particularly valuable, however. Experience in the field of telemarketing or as a telephone operator also is helpful, as is knowledge of the billing process. Employers seek individuals who speak well and who are persistent and detail-oriented.

Employers normally provide training to new bill and account collectors. This training, which may last up to a couple of months, is usually conducted in a classroom or on the job. It may use lectures, videotapes, computer programs, role-playing, and hands-on experience. In addition to learning about skip-tracing and the firm's billing procedure, new collectors learn communications and negotiating skills. Learning to use the firm's computer and telephone systems is an integral part of such training.

Successful bill and account collectors may become supervisors. Some even start their own collection agencies.

Hiring requirements for welfare eligibility workers and interviewers vary widely. Depending on the jurisdiction, applicants may need a high school diploma, some postsecondary training, or a bachelor's degree. In some jurisdictions, especially rural ones, graduation from high school is not required. Previous work experience may be substituted for education in some places, particularly if it is in a closely related field like employment interviewing, social work, or insurance claims. Fluency in a foreign language may be an advantage in parts of the country with a high concentration of non-English speaking people.

After they are hired, eligibility workers are given training, sometimes in a formal classroom setting, other times in a more informal manner. They are taught the policies, procedures, and program regulations that they are expected to use to determine eligibility. If a formal training program is selected, it generally is followed by on-the-job training provided by the supervisor.

Because they deal with people who are in difficult economic circumstances, welfare eligibility workers and interviewers should be compassionate and empathetic. Attention to detail is important because there are many policies, procedures, and regulations that must be observed.

Advancement to the job of social worker is possible, although additional formal education—such as a bachelor's or master's degree—usually is needed.

Because a significant and growing proportion of adjusters, investigators, and collectors use computers, courses in typing or word processing are recommended. Employers increasingly view experience with computers as an asset.

### **Job Outlook**

Overall employment of adjusters, investigators, and collectors is expected to grow about as fast as the average for all occupations through the year 2005. Most job openings will result from the need to replace workers who transfer to other occupations or leave the labor force.

Growth rates will vary considerably by occupation. Employment of claim representatives is expected to grow faster than average as the increasing volume of insurance results in more insurance claims. Shifts in the age distribution of the population will result in a large increase in the number of people who assume career and family responsibilities. People in this group have the greatest need for life and health insurance, as well as protection for homes, automobiles,

and other possessions. A growing demand for insurance coverage for working women is also expected. New or expanding businesses will need protection for new plants and equipment and for insurance covering their employees' health and safety. Opportunities should be particularly good for claim representatives who specialize in complex business insurance such as marine cargo, workers' compensation, and product and pollution liability.

Employment of insurance processing clerks is expected to grow about as fast as the average to service the increasing number of policyholders. Greater use of word processors, personal computers, and other automated office equipment will make these workers more productive, however. Within this group, employment of claim clerks will be less adversely affected by office automation than employment of policy processing clerks because claim clerks have much more interpersonal contact, which cannot be automated.

The number of job openings for workers in the insurance industry should not fluctuate greatly from year to year. This industry, particularly the health insurance component, is less sensitive to cyclical swings in the economy than most industries.

Employment of adjustment clerks is also expected to grow about as fast as average as business establishments seek to maintain good customer relations. An important aspect of good customer service is resolving customers' complaints in a friendly and timely fashion. Because much of their work involves direct communication with customers, demand for adjustment clerks is expected to keep pace with the growth in the number of customers.

Faster than average growth in the employment of bill and account collectors is expected as the level of consumer debt rises. As the business climate becomes more competitive, firms will strive to increase the efficiency of their debt collection to keep losses at a minimum.

Contrary to the pattern in most occupations, employment of bill and account collectors tends to rise during recessions. This is due primarily to the difficulty that many individuals have in meeting their financial obligations.

Employment of welfare eligibility workers and interviewers is expected to grow about as fast as average as State and local governments respond to the growing need for public assistance among their constituents. The Family Support Act of 1988, a reform of the welfare system, aims to get people off the welfare rolls by helping them get back to work. At the same time, it increasingly will involve welfare departments in such areas as job training, childcare, and medical assistance. Over the long run, this legislation probably will increase the demand for counseling and other services provided by welfare eligibility workers and interviewers.

### **Earnings**

Earnings of adjusters, investigators, and collectors vary significantly. According to a survey of property and liability insurance companies, inside adjusters earned a median salary of \$24,500 a year in 1990; senior inside adjusters, \$30,000; outside adjusters, \$28,500; senior outside adjusters, \$36,500; and technical specialist claims adjusters, \$42,000. Adjusters are also furnished a company car or are reimbursed for use of their own vehicle for business purposes. Claim examiners earned a median annual salary of \$30,800 in 1990; senior claim examiners, \$35,500; claim supervisors, \$43,400; and claim managers, \$53,900. Automobile damage appraisers received a median annual salary of \$28,800 in 1990, while senior automobile damage appraisers earned \$32,700.

Specific information on earnings of policy processing clerks and claim clerks is not available. However, median annual earnings for records clerks, a category that includes policy processing clerks, were \$16,500 in 1990. Interviewers, whose work is similar to that of claim clerks, had median annual earnings of \$15,800.

Median earnings of full-time bill and account collectors were about \$19,000 in 1990; the middle 50 percent earned between \$14,900 and \$24,800 a year. Ten percent earned less than \$11,300 and 10 percent, more than \$31,000. Some bill and account collectors receive a base salary and work on commission beyond that.

According to a survey by the Administrative Management Society, customer service representatives—who perform the duties of adjustment clerks—averaged \$18,200 a year in 1990.

Median annual earnings of full-time welfare eligibility workers and interviewers were about \$18,700 in 1990; the middle 50 percent earned between \$15,400 and \$24,100 a year. The lowest 10 percent earned less than \$13,400 and the top 10 percent earned more than \$28,200.

Many welfare eligibility workers and interviewers belong to unions. The two principal unions representing these workers are the American Federation of State, County, and Municipal Employees and the Service Employees International Union.

### Related Occupations

Insurance adjusters and examiners investigate, analyze, and determine the validity of their firm's liability concerning personal, casualty, or property loss or damages and effect settlement with claimants. Workers in other occupations that require similar skills include cost estimators, budget analysts, and private investigators.

The work of insurance processing clerks and adjustment clerks is similar to that of other workers who compile, review, or maintain records, including coding, contract, auditing, and reservation clerks and title searchers.

The work of bill and account collectors is related to that of customer service representatives, telemarketers, telephone interviewers, and other workers who deal with the public over the telephone.

The work of welfare eligibility workers is similar to that of human services workers, financial aid counselors, loan counselors, credit counselors, probation officers, and other workers who interview customers or clients.

### Sources of Additional Information

General information about careers as a claim representative or an insurance processing clerk is available from the home offices of many life and property and liability insurance companies.

Information about career opportunities in these occupations may be obtained from:

- Insurance Information Institute, 110 William St., New York, NY 10038.

Information about licensing requirements for claim adjusters may be obtained from the department of insurance in each State.

For more information on claim representatives, contact:

- Alliance of American Insurers, 1501 Woodfield Rd., Suite 400 West, Schaumburg, IL 60173-4980.

For information about public insurance adjusting and independent insurance adjusting, contact respectively:

- National Association of Public Adjusters, 300 Water St., Baltimore, MD 21202.

- National Association of Independent Insurance Adjusters, 22 W. Adams St., Rm. 845, Chicago, IL 60606.

Information on the Associate, Life and Health Claims (ALHC) and the Fellow, Life Management Institute (FLMI) designations can be obtained from:

- Life Office Management Association, 5770 Powers Ferry Rd., Atlanta, GA 30327.

Career information on bill and account collectors is available from:

- American Collectors Association, Inc., 4040 West 70th St., P.O. Box 35106, Minneapolis, MN 55435.

Employment information on welfare eligibility workers and interviewers is available at social service offices of municipal, county, and State governments.

## Bank Tellers

(D.O.T. 211.362, except -010; 216.362-018; and 219.462-010)

### Nature of the Work

Most bank customers have contact with tellers. Most tellers handle a wide range of banking transactions, such as cashing checks, accepting deposits and loan payments, and processing withdrawals. They sell savings bonds; accept payment for customers' utility bills; receive deposits for special accounts; keep records and perform the

necessary paperwork for customer loans; process the proliferating variety of certificates of deposit and money market accounts; and sell travelers' checks. Some tellers specialize in handling foreign currencies or commercial or business accounts.

Before cashing a check, the teller must see that the written and numerical amounts agree, verify the identity of the person to receive payment, and be certain that the account has sufficient funds to cover the check. The teller must carefully count out the cash to avoid errors. Sometimes a customer withdraws money in the form of a cashier's check, which the teller prepares and verifies. When accepting a deposit, the teller checks the accuracy of the deposit slip and processes the transaction. Tellers may use machines to calculate and record transactions and to prepare documents, such as receipts and drafts. In most banks, tellers use computer terminals to record deposits and withdrawals. In some banks, they type, or write deposit receipts and passbook entries by hand.

Tellers' duties begin before and continue after banking hours. They begin the day by receiving and counting an amount of working cash for their drawer; this amount is verified by a supervisor, usually the head teller. Tellers use this cash for payments during the day and are responsible for its safe and accurate handling. After banking hours, tellers count cash on hand, list the currency-received tickets on a balance sheet, and balance the day's accounts. They also sort checks and deposit slips. Tellers also spend time learning about the bank's products and services and changes in the bank's procedures, and training to refresh and upgrade their skills.

Tellers process numerous mail transactions. Some tellers replenish cash drawers and corroborate deposits and payments to automatic teller machines (ATM's). Head tellers supervise the work of other tellers and ensure that ATM's function properly.

Because banks offer more and increasingly complex financial services, most bank tellers are now being trained to act as customer service representatives in addition to their other duties. These bank tellers can briefly explain the various types of accounts and financial services offered by their bank, and refer customers to more experienced customer service representatives. (New accounts clerks, who also may act as customer service representatives, are discussed in the *Handbook* statement on interviewing and new accounts clerks.)

### Working Conditions

Most tellers work during the day, Monday through Friday; some work evenings or weekends. The job offers ample opportunity to work part time with flexible hours. Banks often hire part-time tellers for peak banking periods such as lunch hours and weekend mornings. Continual communication with customers, repetitive tasks, prolonged standing within a fairly small area, and a high level of attention to security also characterize the job.

### Employment

Bank tellers held about 517,000 jobs in 1990; over one-fourth worked part time. The following tabulation indicates the distribution of wage and salary jobs by type of banking or credit institution.

Depository institutions .....	512,000
Commercial banks, savings institutions, and credit unions .....	505,000
Banking and closely related functions, not elsewhere classified .....	7,000
Nondepository institutions .....	4,000
Personal credit institutions .....	3,000
Federal and business credit institutions and mortgage bankers and brokers .....	1,000
Security and commodity brokers and holding and other investment offices .....	1,000

### Training, Other Qualifications, and Advancement

In hiring tellers, banks seek people who have good numerical, clerical, and communication skills, and enjoy public contact. Tellers must feel comfortable handling large amounts of cash and, since their work is highly automated, working with computers and video terminals.

Although tellers work independently, their recordkeeping is closely supervised. Accuracy and attention to detail are vital. Tellers should be courteous, attentive, and patient in dealing with the public, since customers often judge a bank by the way they are treated at the teller window. Maturity, tact, and the ability to quickly explain bank procedures and services are important in helping customers complete transactions or make financial decisions.

Most entrants transfer from other occupations; virtually all have at least a high school education. In general, banks prefer applicants who have had high school courses in mathematics, accounting, bookkeeping, economics, and public speaking. New tellers, especially at larger banks, receive at least 1 week of formal classroom training. This is followed by several weeks of on-the-job training where tellers observe experienced workers before doing the work themselves. Smaller banks rely primarily upon on-the-job training. In addition to instruction in basic duties, many banks now include training in communication and sales skills, and instruction on equipment such as ATM's and on-line video terminals.

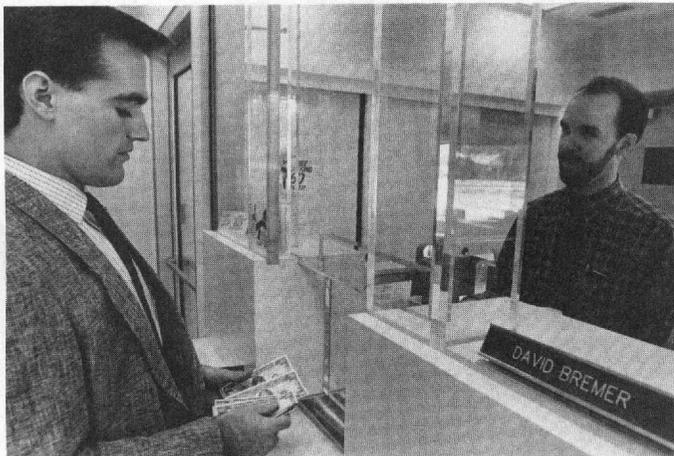
In large banks, beginners usually start as limited-transaction tellers, cashing checks and processing simple transactions for a few days, before becoming full-service tellers. Often banks simultaneously train tellers for other clerical duties.

Advancement opportunities are good for well-trained, motivated employees. Experienced tellers may advance to head teller or customer service representative. Outstanding tellers who have had some college or specialized training offered by the banking industry may be promoted to a managerial position. Banks encourage this upward mobility by providing access to education and other sources of additional training.

Tellers can prepare for better jobs by taking courses accredited by the American Institute of Banking, an educational affiliate of the American Bankers Association, and the Institute of Financial Education. These organizations have several hundred chapters in cities across the country and numerous study groups in small communities. Most banks use the facilities of these organizations, which assist local banks in conducting cooperative training programs or developing independent training programs. In addition, many banks refund college tuition fees to their employees.

### Job Outlook

The number of bank tellers is expected to decline through the year 2005. In recent years, overexpansion and competition from large non-bank corporations that offer bank-like services, including investments and lending, have resulted in closings, mergers, and consolidations in the banking industry. This trend is expected to continue, resulting in relatively slow employment growth in commercial savings banks and savings and loan associations, where employment of tellers is highly concentrated. Furthermore, employment of bank tellers is not expected to keep pace with overall employment growth in banks and other savings and credit institutions because of the increasing use of auto-



Bank tellers often handle large sums of money.

matic teller machines by customers and on-line video terminals by tellers, thus increasing their efficiency. This effect may be enhanced by the emergence of a new generation of ATM's which can process transactions—such as a deposit to multiple accounts—normally performed by tellers.

Despite declining employment of tellers, qualified applicants should have good prospects, since this occupation provides a relatively large number of job openings due to its large size and relatively high turnover rate. Demand for part-time tellers, especially during peak periods, is expected to be particularly strong.

Virtually all job openings for tellers are expected to be created by replacement needs—characteristic of occupations that generally require limited formal education and offer relatively low pay. Most tellers who leave transfer to other occupations. Others stop working—primarily to assume household duties.

Cyclical swings in the economy normally have less immediate impact on banks and other financial institutions than on other sectors of the economy—for example, construction and manufacturing industries. Consequently, tellers are less subject to layoffs than workers in many other industries.

### Earnings

In 1990, median annual earnings of full-time tellers were \$14,200. The lowest 10 percent earned about \$10,000 while the top 10 percent earned around \$21,500. Some banks offer incentives whereby tellers earn supplemental rewards for inducing customers to use other financial services offered by the bank. In general, a greater range of responsibilities results in a higher salary. However, experience, length of service, and, especially, the location and size of the bank are also important.

Tellers generally receive the usual benefits such as pensions and personal and sick leave allowances. Some part-time tellers may not be eligible for certain benefits such as life and health insurance, although they normally have higher hourly earnings.

### Related Occupations

Tellers combine a knowledge of bank procedures with quickness and accuracy to process money, checks, and other financial items for customers. Other workers with similar duties include new accounts clerks, cashiers, toll collectors, post office clerks, auction clerks, and ticket sellers.

### Sources of Additional Information

General information about banking occupations, training opportunities, and the banking industry is available from:

- American Bankers Association, Reference Librarian, 1120 Connecticut Ave. NW., Washington, DC 20036.
  - Institute of Financial Education, 111 E. Wacker Dr., Chicago, IL 60601.
- State bankers' associations can furnish specific information about job opportunities in their State. Or write directly to a particular bank to inquire about job openings. For the names and addresses of banks and savings and related institutions, as well as the names of their principal officers, consult one of the following directories.
- *The American Financial Directory* (Norcross, Ga., McFadden Business Publications).
  - *Polk's World Bank Directory* (Nashville, R.L. Polk & Co.).
  - *Rand McNally Bankers Directory* (Chicago, Rand McNally & Co.).
  - *Rand McNally Credit Union Directory* (Chicago, Rand McNally & Co.).
  - *The U.S. Savings and Loan Directory* (Chicago, Rand McNally & Co.).

## Clerical Supervisors and Managers

(List of D.O.T. codes available on request from the Chief, Division of Occupational Outlook, Bureau of Labor Statistics, Washington, DC 20212.)

### Nature of the Work

All organizations need timely and effective clerical and administrative support to operate efficiently. Coordinating this work and keeping it flowing smoothly is the responsibility of clerical supervisors

and managers. In many firms, they are simply called office managers. Although their specific duties vary by employer, many duties are common to all.

Supervisors or office managers are responsible for administrative tasks that ensure their staff can work efficiently. Equipment and machinery used in their departments must be in good working order. If the computer system goes down or a photocopier malfunctions, they must try to find the problem or alert repair personnel. They also must request new equipment or supplies for their department when necessary.

Planning and supervising the work of their staff is another key function of this job. To do this effectively, the supervisor must know the strengths and weaknesses of each member of the staff as well as the required level of quality and time allotted to each job. They must make allowances for unexpected absences and other disruptions and adjust assignments or perform the work themselves if the situation requires it.

After allocating work assignments and issuing deadlines, clerical supervisors oversee the work to ensure that it is proceeding on schedule and meets established quality standards. This may involve reviewing each person's work on a computer, as in the case of accounting clerks, or, in the case of cashiers, listening to how they deal with customers. When supervising long-term projects, the supervisor may establish regular meetings with staff members to discuss their progress as well as any new developments that have arisen.

Another part of a clerical supervisor's job is to conduct performance evaluations. If a worker has done a good job, the supervisor records it in the employee's personnel file and may recommend a promotion or other award. Likewise, if a worker is performing poorly, the supervisor discusses the problem with the employee to determine the cause and help the worker improve his or her performance. Clerical supervisors may suggest a transfer or dismissal if the situation does not improve.

Clerical supervisors and managers generally interview prospective clerical employees and make recommendations regarding their hiring. Some may be actively involved in the initial recruiting of new workers as well. For example, they may make presentations at high schools and business colleges. When new workers arrive on the job, supervisors greet them and orient them to the procedures in their section. They also familiarize workers to the daily routines of the workplace, work rules, and the overall operation of the organization.

Supervisors are usually responsible for training new employees in organization and office procedures. They may teach them to use the telephone system and how to operate office machines. Because much clerical work is computerized, they must also teach new employees how to use the organization's computer system. When new office equipment or updated computer software is introduced, supervisors retrain experienced employees to use it efficiently. They may also arrange for special outside training for their employees if necessary.

Clerical supervisors act as the liaison between their clerical staff and other professional, technical, and managerial staff. This may involve incorporating new company policies, designing projects or restructuring the workflow in their department. They must also keep their superiors informed of their progress and alert their superiors to any potential problems. They also try to resolve customers' complaints or interpersonal conflicts among the staff.

Clerical supervisors and managers also coordinate, research, and present reports and projects to other managers and professional staff. Because they have access to information like their department's performance records, they may compile and present this data for use in planning or designing new policies.

In organizations covered by union contracts, supervisors must know the provisions of labor-management agreements and run their departments accordingly. They may meet with union representatives to discuss work problems or grievances.

### Working Conditions

Clerical supervisors and managers are employed in a wide variety of work settings, but most work in offices that are clean, well lighted, and generally comfortable.

Most work a standard 40-hour week. Because some organizations operate around the clock, however, clerical supervisors may have to

work nights, weekends, and holidays. In some cases, supervisors rotate among the three shifts. In others, shifts are assigned on the basis of seniority. Due to the need for continuity of supervision, few clerical supervisors and managers work on a temporary or part-time basis.

### Employment

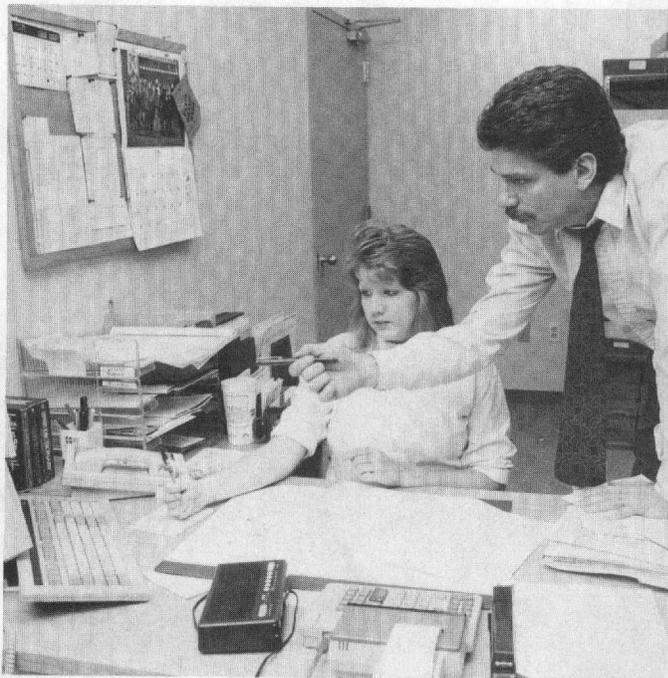
Clerical supervisors and managers held about 1,218,000 jobs in 1990. Although jobs for clerical supervisors are found in practically every industry, the largest number are found in organizations with a large clerical work force, such as government agencies, retail establishments, wholesalers, banks, business service firms, and insurance companies.

### Training, Other Qualifications, and Advancement

Most people entering this occupation transfer from other occupations within the organization, very often from the ranks of those they subsequently supervise. To be promoted to a supervisory position, clerical or administrative support workers must first prove that they are capable of handling additional responsibility. In evaluating candidates, superiors look for strong teamwork skills, determination, loyalty, poise, and confidence. They also look for supervisory attributes, such as the ability to organize and coordinate work efficiently, to set priorities, to give and follow orders, and to motivate others. A broad base of office skills coupled with personal flexibility make supervisors more adaptable to changes in organizational structure and able to move among departments when necessary. The ability to pay close attention to detail, as in proofreading, is necessary in order to ensure that errors made by subordinates are caught and corrected. Good working knowledge of the organization's computer system is also an advantage. Many employers also require some postsecondary training. An associate degree is considered sufficient in many cases, but increasingly a bachelor's degree is preferred.

A clerk with potential supervisory abilities may be given occasional supervisory assignments. Shortly before or after assuming full-time supervisory duties, he or she may attend in-house training or take courses in time management, personal relations, or other management skills at local community colleges or vocational schools.

Some clerical supervisors are hired from outside the organization for positions with more managerial duties. These positions may serve as entry-level training for potential higher-level managers. New col-



*Due to the large size of the occupation, job openings for clerical supervisors will be plentiful.*

lege graduates may rotate through departments of an organization at this level to learn the work of the entire organization.

### Job Outlook

Employment of clerical supervisors and managers is expected to grow about as fast as the average for all occupations through the year 2005. Although growth in the demand for clerical supervisors will generate many job openings, most openings will result from the need to replace experienced supervisors who transfer to other occupations or leave the labor force. Because the occupation is so large, replacement needs will create an exceptionally large number of job openings.

Employment of clerical supervisors is tied somewhat to the demand for clerical workers. More clerical work will be generated as organizations and the economy grow, especially the business and service sectors. Although the amount of work will grow, technological advancements are expected to moderate growth in clerical employment. More managers will be needed to coordinate this rising volume of work. As employment in some clerical occupations slows or even declines as a result of office automation, supervisors may have smaller staffs and perform more professional tasks. In other areas, fewer supervisors may be needed.

### Earnings

Median annual earnings of full-time clerical supervisors were about \$25,800 in 1990; the middle 50 percent earned between \$20,000 and \$34,800 a year. Ten percent earned less than \$15,300, and 10 percent more than \$44,700. As is the case in most fields, large employers tend to pay higher salaries than small ones. In addition, employers in major metropolitan areas tend to pay higher salaries than those in rural areas.

Depending on their employer, clerical supervisors may receive a variety of fringe benefits. These may include health and life insurance, paid vacations, tuition assistance, and a pension plan. Some clerical supervisors in the private sector may receive additional compensation in the form of bonuses and stock options.

### Related Occupations

Clerical supervisors and managers must understand and sometimes perform the work of people that they oversee, including accounting clerks, cashiers, bank tellers, and telephone operators. Their supervisory and professional duties are similar to those of other managers.

### Sources of Additional Information

State employment service offices can provide information about earnings, hours, and employment opportunities in this and other clerical jobs.

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## Computer and Peripheral Equipment Operators

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(D.O.T. 208.685-030; 213.362, .382, .582, .682, and .685)

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### Nature of the Work

Computer and peripheral equipment operators oversee the operation of computer hardware systems. They must ensure that these expensive machines are used as efficiently as possible. This includes anticipating problems before they occur and taking preventive action as well as solving problems that do occur.

The duties of computer and peripheral equipment operators vary with the size of the installation, the type of equipment used, and the policies of the employer. In organizations with small computer systems, for example, computer operators run both the computer and all the peripheral equipment such as printers, disk drives, and tape readers. In large computer installations, computer operators specialize in console operation while peripheral equipment operators run the related devices. Generally, the duties of computer operators and peripheral equipment operators involve the following tasks.

Working from operating instructions prepared by programmers or operations managers, computer operators set controls on the comput-

er and on peripheral devices required to run a particular job. Computer operators or, in large installations, peripheral equipment operators load the equipment with tapes, disks, and paper as needed. While the computer is running—which may be 24 hours a day for large computers—computer operators monitor the computer console and respond to operating and computer messages. If an error message occurs, operators must locate the problem and solve it or terminate the program.

Peripheral equipment operators may have to prepare printouts and other output for distribution to computer users. Operators also maintain log books listing events such as machine malfunctions that occurred during their shift. In addition, computer operators may supervise and train peripheral equipment operators and computer operator trainees. They also may help programmers and systems analysts test and debug new programs. (Detailed descriptions of these occupations are presented elsewhere in the *Handbook*.)

As the trend toward networking—making connections between computers—accelerates, a growing number of these workers are operating personal computers (PC's) and minicomputers. More and more establishments are realizing the need to connect all their computers in order to enhance productivity. In many offices, factories, and other work settings, PC's and minicomputers serve as the center of such networks, often referred to as local area networks or multiuser systems. While some of these computers are operated by users in the area, many require the services of full-time operators. The tasks performed are very similar to those performed on the larger computers.

As organizations continue to use computers in more areas of operation, they are also realizing opportunities to increase the productivity of computer operations. Automation, which traditionally has been the application of computer technology to other functional areas of an organization, is now reaching the computer room. Programs now exist that enable the computer to perform some of the more routine tasks formerly done by computer operators. For example, scheduling, loading and downloading programs, and running periodic reports can be done automatically without the intervention of the operator. In addition, the computer can respond to common error messages and reroute those that need an operator's special attention. These improvements free operators for more important tasks, like solving complex error messages, troubleshooting, or general monitoring of the system.

### Working Conditions

Computer operating personnel work in well-lighted, well-ventilated, and generally comfortable rooms. Because many organizations use their computers 24 hours a day, 7 days a week, computer and peripheral equipment operators may be required to work evening or night shifts and weekends. Shift assignments generally are made on the basis of seniority. Automated operations will lessen the need for shift work because the computer will be able to take over its own operations during the less desirable working hours.

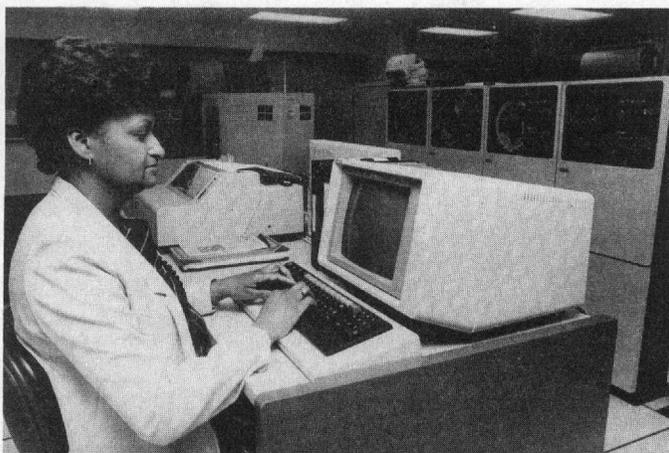
### Employment

In 1990, computer operators and peripheral equipment operators held about 282,000 and 37,000 jobs, respectively. Although jobs for computer and peripheral equipment operators are found in almost every industry, most are in wholesale trade establishments; manufacturing companies; data processing service firms; banks; government agencies; and accounting, auditing, and bookkeeping service firms. These organizations have data processing needs that require large computer installations.

More than 1 out of 10 computer and peripheral equipment operators works part time.

### Training, Other Qualifications, and Advancement

Previous work experience is the key to landing an operator job in many large establishments. These employers look for specific, hands-on experience on the type of equipment and related operating systems that they use. A bachelor's degree in computer science or data processing may be required by some of the largest firms. Smaller organizations may be more willing to provide informal training because their computer systems are not as expensive nor downtime as costly



*Computer operators set controls on the computer and on peripheral devices required to run, store, and print a particular job.*

as in larger installations. In these smaller shops, education may be substituted for experience to some extent. A high school diploma and some college or business school training are usually required for entry level positions. Training is also offered in the military services and by some computer manufacturers.

Workers usually receive some on-the-job training to become acquainted with their employer's equipment and routines. The length of training varies with the job and the experience of the worker. New peripheral equipment operators are expected to learn their jobs in a few weeks. Computer operators with prior experience or training are expected to learn their employer's system also within a few weeks.

Because computer technology changes so rapidly, operators must be adaptable and willing to learn. For example, more formal education or training is now required for operators who work in automated data centers. Greater analytical and technical expertise are also needed to deal with the unique or higher level problems that the computer is not programmed to handle.

Computer and peripheral equipment operators must be able to communicate well in order to work effectively with programmers and each other. Computer operators also must be able to work independently because they may have little or no supervision.

Peripheral equipment operators may become computer operators. A few computer operators may advance to supervisory jobs. Through on-the-job experience and additional formal education, some computer and peripheral equipment operators advance to jobs as programmers or operations analysts.

### **Job Outlook**

Employment of computer and peripheral equipment operators is expected to grow more slowly than the average for all occupations through the year 2005. Most openings will arise from the need to replace workers who transfer to other occupations or leave the labor force.

Advances in technology have reduced both the size and the cost of computer equipment while at the same time increasing its capacity for data storage and processing. While these improvements in technology have fueled an expansion in the use of computers in such areas as factory and office automation, telecommunications, medicine, and education, computer and peripheral equipment operators will not benefit because they work mainly with large computer systems—the part of the overall computer market that has slowed down.

With the expanding use of software that automates computer operations, growth in the number of new operator positions in data centers should slow. This technology enables the computer to respond to routine error messages, to schedule program runs, and to load and download programs and data, freeing the operator to concentrate on unique problems and monitor a greater number of operations at once.

The operation of peripheral equipment is increasingly being handled by robots and by computer operators who have been freed from many routine tasks in highly automated data centers. In some large data centers, robots find and load tapes required by the computer to

run particular programs. As this equipment is developed further, smaller versions and lower prices will induce smaller organizations to invest in these technologies as well, further dampening demand for peripheral equipment operators.

Operators or peripheral equipment operators who are displaced by automation may be reassigned to support staffs assisting other members of the organization. Others may be retrained to perform different job duties such as supervising an entire operations center, maintaining automation packages, and analyzing computer operations to recommend ways to increase productivity.

### **Earnings**

In 1990, full-time computer operators earned an average annual salary of \$19,400. The middle 50 percent earned between \$15,200 and \$25,500. The lowest 10 percent of computer operators earned less than \$12,300, and the top 10 percent earned more than \$33,900. Computer operators and peripheral equipment operators had higher earnings in the Midwest and West than in the Northeast and South.

In the Federal Government, computer operators with a high school diploma started at about \$13,500 a year in 1991. Those with 1 year of college started at \$15,200. Applicants with operations experience started at higher salaries. All computer operators employed by the Federal Government in 1990 averaged about \$23,500.

### **Related Occupations**

Other occupations involving work with computers include systems analysts, programmers, and computer service technicians. Other occupations in which workers operate electronic office equipment include data entry keyers, secretaries, typists, and typesetters and compositors.

### **Sources of Additional Information**

For information about work opportunities in computer operations, contact firms that use computers such as banks, manufacturing and insurance firms, colleges and universities, and data processing service organizations. The local office of the State employment service can supply information about employment and training opportunities.

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## **Credit Clerks and Authorizers**

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(D.O.T. 203.382-022; 205.367-022; 209.362-018 and 367-022; 219.362-038; 237.367-014; 241.267-030; and 249.367-022, -050, and .382-010)

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### **Nature of the Work**

At some point in your life, you will probably apply for credit—to buy a home, furniture or appliances, an automobile, or to get a credit card. A credit clerk or authorizer will review your credit history and obtain the information needed to determine your creditworthiness. Credit clerks contact applicants, credit bureaus, and other sources for information, and verify loan documents to ensure completeness. Credit authorizers refer to credit records and reports to decide whether to approve a customer's credit card purchase.

Clerks in credit bureaus secure and update information for credit reports. These workers are often called credit investigators or reporters. Clerks in banks and other financial institutions process loan and credit applications. Some clerks verify employment and financial information of credit card applicants. Loan processing clerks prepare loan applications for underwriters. They review loan applications, write credit bureaus and reporting agencies for applicant records, and contact employers, banks, and references to verify personal and financial information. Clerks order appraisals from appraisal companies and secure tax forms, bank statements, and any required government forms from applicants. They calculate debt-to-income ratios to see that applicants meet the minimum guidelines for a loan. If any information in the loan package is inaccurate or incomplete, clerks contact the proper source for further information. Closing clerks obtain and prepare documents needed for real estate settlements. They check to see that they are complete, that all legal documents, such as deeds of trust, hazard insurance papers, and title commit-

ments, are accurate and correctly signed, and that all loan conditions required for settlement have been met.

Credit authorizers approve charges against customers' existing accounts. Most charges are approved automatically by computer. However, when accounts are past due, overextended, invalid, or show a change of address, sales persons refer transactions to credit authorizers located in a central office. Authorizers evaluate the customers' computerized credit records and payment histories and quickly decide whether or not to approve new charges. Authorizers may enter address changes and credit extensions into computer credit files.

### Working Conditions

Credit clerks and authorizers usually work a 35- to 40- hour week. However, during particularly busy periods, they may work overtime. For credit clerks handling residential real estate, the busy periods are spring and summer and at the end of the month. For credit authorizers, busy periods are during the Christmas shopping season and on store sale days. In fact, temporary workers are often hired as credit authorizers during peak workloads. In retail establishments, authorizers may work nights and weekends during store hours.

Credit authorizers sit for long periods in front of video display terminals, which may cause eyestrain and headaches.

### Employment

Credit clerks and authorizers held about 240,000 jobs in 1990. Almost three-fourths were in banks and other financial institutions, and about 1 in 10 were in wholesale and retail trade. The rest were distributed among business services, such as credit reporting and collection agencies and computer and data processing services.



*A credit authorizer evaluates a customer's credit history before approving new charges.*

### Training, Other Qualifications, and Advancement

No specific training is needed for entry level positions in credit clerking and authorizing, with the exception of loan closing. Closers are often required to have previous work experience, preferably in financial institutions.

New employees are generally trained on the job—working under the close supervision of more experienced workers. Some credit workers also take courses in credit offered by banking and credit associations, public and private vocational schools, and colleges and universities. As workers demonstrate competence, they can advance to loan or credit department supervisor, underwriter, or management. For management positions, employers prefer applicants with a bachelor's degree in business or a related field, or at least some college-level business or management courses.

Positions in these fields involve much telephone contact, so good communication skills are a necessity. Good organizational skills and the ability to pay attention to detail are also important.

### Job Outlook

Employment of credit clerks and authorizers is expected to increase as fast as the average for all occupations through the year 2005 as the volume of credit in the economy continues to grow. Growth will occur as the number of real estate, retail sales, and other transactions requiring credit grows. The interpersonal nature of loan clerking and the judgment required of authorizers ensure that computers will not significantly affect employment. In addition to jobs created by growth, many jobs will become available as workers transfer to other occupations or leave the labor force.

### Earnings

According to the Administrative Management Society, the median salary for credit and collection clerks was about \$16,900 in 1991.

Full-time workers generally receive health insurance, vacation and sick leave, and other standard benefits; part-timers may not. In addition, workers in retail establishments usually receive a discount on store purchases.

### Related Occupations

Occupations with duties similar to those of credit clerks and authorizers include claim examiners and adjusters, customer-complaint clerks, procurement clerks, probate clerks, and collection clerks.

### Sources of Additional Information

Information about local job opportunities in credit clerking and authorizing may be obtained from retail stores, banking institutions, and credit reporting agencies.

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## General Office Clerks

(D.O.T. 209.362-030, .562-010, .567-022; 219.362-010, -022, -026; 243.362-014; 245.362-014, .367-010, -014, -018; 249.367-010, -014; 375.362-010; 579.137-030)

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### Nature of the Work

Variety is the key to a job as a general office clerk. Rather than specialize in a single primary task, general office clerks have duties that are as varied as the needs of the employer. Some days may be spent filing or typing; others may be spent entering data at a computer terminal. They also may operate photocopiers, facsimile machines, or other office equipment; prepare mailings; proofread copy; and answer telephones and deliver messages.

A general office clerk in a doctor's office may not perform the same tasks as a clerk in a large financial institution or in the office of an auto parts wholesaler. Although they all may sort checks, keep payroll records, take inventory, or access information, they also may perform duties specific to their employer like organizing medications, making transparencies for a presentation, or filling orders received by facsimile machine.

Duties also vary by level of experience. Inexperienced employees

may transcribe data, operate calculators, or record inquiries while more experienced workers may handle greater responsibilities. They might maintain financial or other records, verify statistical reports for accuracy and completeness, handle and adjust customer complaints, take inventory of equipment and supplies, answer questions on departmental services and functions, and help prepare budgetary requests. Senior general office clerks may be expected to oversee and direct the work of lower level clerks.

### Working Conditions

For the most part, working conditions for general office clerks are the same as those for other office employees in the same company. Those on a full-time schedule usually work a standard 40-hour week. Some may work shifts or overtime during busy periods and 1 in 4 works part time. In addition, many general office clerks work as temporaries.

### Employment

General office clerks held about 2,737,000 jobs in 1990. They work in every sector of the economy. Most general office clerks are employed in relatively small establishments.

### Training, Other Qualifications, and Advancement

Many general office clerk jobs are entry level and do not require office or business experience. Employers usually require a high school diploma, and some require typing, word processing, and other general office skills. In addition, basic computer skills are becoming increasingly important.

Training for this occupation is available in business education programs offered in high schools, community and junior colleges, and postsecondary vocational schools. Courses in keyboarding, micro-computer applications, and office practices are particularly helpful.

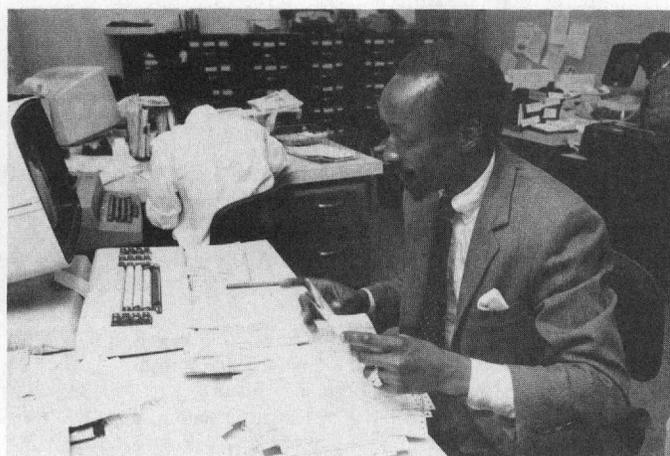
General office clerks usually work with others. Therefore, they should be cooperative and able to work as part of a team. They must also be willing to change to meet the unexpected requirements of the job.

General office clerks who exhibit strong communication, interpersonal, and analytical skills may be promoted to supervisory positions. Others move into different clerical jobs, such as receptionist, typist, or secretary. Advancement to professional occupations in the establishment usually requires more formal education like a college degree.

### Job Outlook

Employment of general office clerks is expected to grow about as fast as the average for all occupations through the year 2005 as more small businesses place a single office worker—frequently a general office clerk—in charge of all clerical work.

Because they are so versatile, general office clerks find work in virtually every kind of industry. Therefore, employment is not depen-



*Because they are so versatile, general office clerks find work in virtually every industry.*

dent on the fortunes of any single sector of the economy. Similarly, because they perform a wide variety of office duties using many types of equipment, their employment is not necessarily dependent on any particular technological development.

As a result of high turnover in this very large occupation, a large number of job openings are expected and employment prospects should be quite favorable. Jobseekers who have typing and other secretarial skills, basic computer skills, and knowledge of office machine operation such as facsimile machines and copiers should have the best opportunities. General office clerks should find many opportunities for part-time or temporary work, especially during peak business periods.

### Earnings

Median annual earnings of full-time general office clerks were about \$16,800 in 1990; the middle 50 percent earned between \$13,400 and \$21,600 annually. Ten percent earned less than \$10,600, and 10 percent more than \$26,900.

Beginning general office clerks in private firms averaged \$11,500 a year in 1990. Clerks with more responsibilities earned higher salaries, up to an average of \$21,100 a year.

General office clerks' salaries vary by industry. They tend to be highest in public utilities and mining and lowest in construction and finance, insurance, and real estate.

In 1991, the Federal Government paid general office clerks a starting salary of between \$12,400 and \$15,200 a year, depending on education and experience. In 1990, general office clerks in the Federal Government earned an average annual salary of about \$21,800.

### Related Occupations

General office clerk is usually an entry-level office job. Entry-level jobs in other settings include cashier, medical assistant, teacher aide, and food and beverage service worker.

### Sources of Additional Information

State employment service offices can provide information about job openings for general office clerks.

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## Information Clerks

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### Nature of the Work

Information clerks gather information from and provide information to the public. Depending on the setting, they may be called hotel and motel desk clerks, interviewing clerks, new accounts clerks, receptionists, or reservation agents and transportation ticket clerks.

Although day-to-day duties vary widely, many information clerks greet customers and other visitors, determine their needs, and either assist them or refer the individuals to the person who can help them. Others answer questions and elicit information from the public. More detail on these occupations is available in the statements that appear later in this section.

A growing number of information clerks use automated office equipment such as word processors or personal computers in the course of their work. While this equipment allows them to handle more information, it does not alter the basic content of their job—human contact and interaction. That is something that even the most sophisticated machine cannot replace.

### Working Conditions

Those information clerks who greet customers and visitors usually work in areas that are highly visible and carefully designed and furnished to make a good impression. Working conditions usually are pleasant; work stations are clean, well lighted, and relatively quiet. Reservation agents generally work away from the public, in quiet spaces where a number of agents sit, so the work space can be noisy.

Although most information clerks work a standard 40-hour week, a sizable number work irregular schedules. Some jobs—those in the transportation industry, hospitals, hotels, and banks, in particular—may require working evenings, late night shifts, weekends, and holi-

days. Employees with the least seniority usually are assigned the least desirable shifts.

For most information clerks, the work is not physically demanding, although the repetitious nature of the job may be tiring. For example, reservation agents may spend all day answering telephone inquiries and entering reservations into a computer system. Prolonged exposure to a video display terminal may lead to eye and musculoskeletal strain as well as complications to pregnancy.

Hotel and motel desk clerks and ticket agents are on their feet most of the time, and ticket agents may have to lift heavy baggage. During holidays and other busy periods, these clerks may find the work hectic due to the large number of guests or travelers who must be served. When service does not flow smoothly—because of cancelled flights or mishandled reservations, for example—these clerks act as a buffer between the establishment and its customers. Trying to pacify angry customers can be emotionally draining.

Interviewing clerks who conduct surveys may have to travel from place to place within their local area. They also may have to deal with rejection or irritated persons because they have called at an inconvenient time, such as at mealtime.

### Employment

In 1990, information clerks held 1.4 million jobs. The following tabulation shows 1990 employment for the individual occupations.

Receptionists and information clerks.....	882,000
Interviewing and new accounts clerks .....	250,000
Reservation and transportation ticket agents and travel clerks.....	150,000
Hotel desk clerks.....	118,000

These workers are employed throughout the economy, but are concentrated in lodging establishments, offices of physicians, hospitals, banks, firms providing business services, and firms in the transportation industry. This type of work lends itself to flexible working arrangements—much more prevalent for receptionists, interviewing and new accounts clerks, and hotel and motel desk clerks than for reservation agents—and almost 1 of every 3 information clerks works part time.

### Training, Other Qualifications, and Advancement

Although hiring requirements vary from industry to industry, a high school diploma or its equivalent usually is required. However, some high school students work part time as information clerks outside of school hours. For some jobs, such as airline reservation and ticket agents, some college education is preferred.

With the exception of airline reservation and other passenger transportation agents, orientation and training for information clerks is generally given on the job. Hotel and motel desk clerk job orientation is usually brief, and includes an explanation of the job duties and information about the establishment, such as room location and available services. They start work on the job under the guidance of a supervisor or an experienced clerk. They may need additional training in data processing or office machine operations to use computerized reservation, room assignment, and billing systems.

Receptionists and interviewing clerks also receive their training on the job. They learn good interviewing techniques and telephone etiquette; they learn how their employers keep records and become familiar with the kinds of business forms used. These workers also may learn to operate duplicating machines, calculators, word processors, and personal computers.

Most airline reservation agents learn their skills through formal company programs. They spend a few days in a classroom setting, learning company and industry policies that cover ticketing procedures and other matters related to the airline. They learn to use the computer to obtain information on schedules, seat availability, and fares; to reserve space for passengers; and to plan passenger itineraries. They must learn airport and airline code designations, and are tested on this knowledge. To maximize their productivity, reservation agents are expected to limit the time spent on each call without, of course, alienating customers. Thus, learning how to carry on a conversation in an organized, yet pleasing manner is an important part of

their training. After completing classroom instruction, new agents work under supervisors or experienced agents for a short period of time. In contrast, automobile clubs train their travel clerks on the job, without formal classes.

Many information clerks continue to receive instruction after their initial training ends, with employers keeping them informed about new procedures and changes in company policies.

Because information clerks must deal directly with the public, a good appearance and a pleasant personality are essential, as are problem-solving ability and good interpersonal skills. A good speaking voice is essential because these employees frequently use the telephone or public address systems. Courses useful to persons wanting to enter these occupations include basic math and English, geography, U.S. history, psychology, and public speaking. Typing ability and computer literacy often are needed.

Some employers may require applicants to take a typing test to gauge their skills. It also may be helpful for those in the lodging industry to be able to speak a foreign language.

Advancement for information clerks comes about either by transfer to a more responsible job or by promotion to a supervisory position. For example, receptionists, interviewers, and new accounts clerks with typing or other clerical skills may advance to a better paying job as a secretary, administrative assistant, or bookkeeper. In the airline industry, a ticket agent may advance to supervisory positions or may become a field sales agent. Additional training frequently is helpful in preparing information clerks for promotion. In the lodging industry, for example, clerks can improve their chances for advancement by taking home or group study courses in lodging management such as those sponsored by the Educational Institute of the American Hotel and Motel Association. Regardless of job setting, a college degree frequently is required for advancement to the management ranks.

### Job Outlook

Overall employment of information clerks is expected to increase much faster than the average for all occupations through the year 2005. In addition to the many openings that will occur as businesses and organizations expand, numerous jobs for information clerks will result from the need to replace experienced workers who transfer to other occupations or leave the labor force. Replacement needs will create an exceptionally large number of job openings, for the occupation is large and turnover is higher than average. Many young people work as information clerks for a few years before switching to other, better paying jobs. This work is well suited to flexible work schedules, and many opportunities for part-time work will continue to be available.

Economic growth and general business expansion are expected to stimulate demand for these workers. Employment of receptionists, hotel and motel desk clerks, interviewing clerks and reservation and transportation ticket agents and travel clerks should grow more rapidly than that of new accounts clerks. The slower growth projected for new accounts clerks reflects slower than average growth among commercial banks and savings institutions, where employment is heavily concentrated.

### Earnings

In 1990, median weekly earnings of full-time information clerks were about \$290. The middle 50 percent earned between \$235 and \$370. The bottom 10 percent earned less than \$190, while the top 10 percent earned more than \$480. Earnings vary widely by occupation. Salaries of reservation and ticket agents tend to be significantly higher than for other clerks, while hotel and motel desk clerks tend to earn quite a bit less, as the following tabulation of median weekly earnings shows.

Reservation and transportation ticket agents and travel clerks.....	\$390
Interviewing and new accounts clerks.....	300
Receptionists.....	270
Hotel and motel clerks.....	230

In 1991, the Federal Government paid beginning information receptionists with a high school diploma or 6 months' experience

\$12,400 a year. The average salary for all information receptionists employed by the Federal Government was \$16,800 a year in 1991.

Earnings of hotel and motel desk clerks depend on the location, size, and type of establishment in which they work. Large luxury hotels and those located in metropolitan and resort areas generally pay clerks more than less expensive ones and those located in less populated areas. In general, hotels pay higher salaries than motels or other types of lodging establishments.

In addition to their hourly wage, full-time information clerks usually receive the same package of fringe benefits as other workers in the organization. Typical benefits include health and life insurance, vacation and sick leave, paid holidays, and a pension plan. Those who work evenings, nights, weekends, or holidays also may receive a shift differential. Some employers offer educational assistance to their employees. Reservation and transportation ticket agents and travel clerks receive free or very low cost travel on their company's carriers for themselves and their immediate family and, in some companies, free uniforms.

About 1 in 4 reservation and transportation ticket agents and travel clerks belongs to a labor union. Five unions cover most of the organized agents and clerks: The Amalgamated Transit Union; the International Association of Machinists and Aerospace Workers; the Transportation Communications Union; the International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America; and the Transport Workers Union of America.

### Related Occupations

A number of other workers deal with the public, receive and provide information, or direct people to others who can assist them. Among these are customer-service representatives, dispatchers, and telephone operators.

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## Hotel and Motel Desk Clerks

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(D.O.T. 238.362-010)

### Nature of the Work

Hotel and motel desk clerks perform a variety of services for guests of hotels, motels, and other lodging establishments. They may register guests, assign rooms, and answer questions about available services, checkout times, the local community, and other matters. In assigning rooms, they must consider their guests' preferences while trying to maximize the establishment's revenues. They keep records of room assignments so they can advise housekeepers, telephone operators, and maintenance workers that rooms are occupied, and may collect payment. Desk clerks are always in the public eye and, through their attitude and behavior, greatly influence the public's impressions and affect an establishment's reputation.

Because most smaller hotels and motels have minimal staffs, the clerk also may function as a bookkeeper, advance reservation agent, cashier, and/or telephone operator. Large establishments, however, usually require different employees to perform these various services.

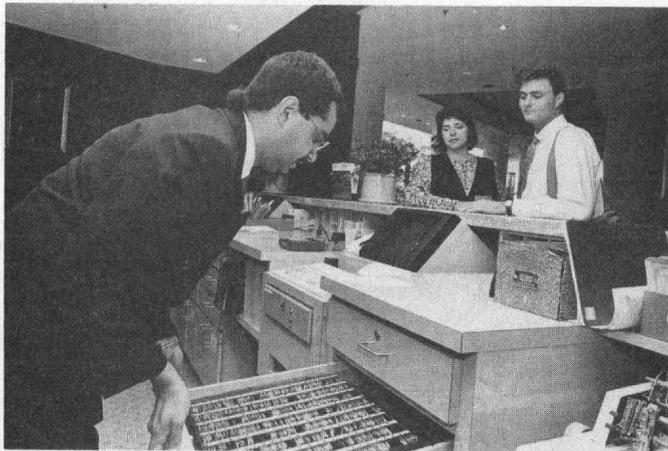
### Employment

Hotel and motel desk clerks held about 118,000 jobs in 1990. This occupation is well suited to flexible work schedules, with over 1 in 5 clerks working part time. Hotels and motels are found in all parts of the country.

### Job Outlook

Employment of hotel and motel desk clerks is expected to grow faster than the average for all occupations through the year 2005 as more hotels, motels, and other lodging establishments are built and as occupancy rates rise.

Several factors should favorably affect employment of hotel and motel desk clerks. Business travel, the staple of the lodging industry, will likely remain strong. The number of international travelers to the United States should grow because of the increased promotion abroad of the domestic tourist industry. Increases in the number of two-earn-



*Hotel and motel desk clerks may work evenings, weekends, and holidays.*

er families, as well as smaller families and delayed childbearing, should raise discretionary income, which could increase the demand for vacation accommodations. Shifts in travel preferences away from long vacations toward long weekends and other, more frequent, short trips also should increase demand.

Job opportunities should be excellent because turnover is very high. Each year thousands of workers transfer to other occupations that offer better pay and advancement opportunities. Opportunities for part-time work should continue to be plentiful, both because this type of work is compatible with flexible schedules and because employers increasingly stress this flexibility as a benefit in order to attract workers.

Employment of hotel and motel desk clerks is sensitive to cyclical swings in the economy. During recessions, vacation and business travel declines, so persons seeking these positions have a harder time finding jobs.

### Sources of Additional Information

Information on careers in the lodging industry, as well as information on professional development and training programs, may be obtained from:

• The Educational Institute of the American Hotel and Motel Association, P.O. Box 1240, East Lansing, MI 48826.

(See the introductory part of this section for information on working conditions, training requirements, and earnings.)

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## Interviewing and New Accounts Clerks

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(D.O.T. 205.362-018, -026, -030, .367-014, -026, -042, -054, and -058)

### Nature of the Work

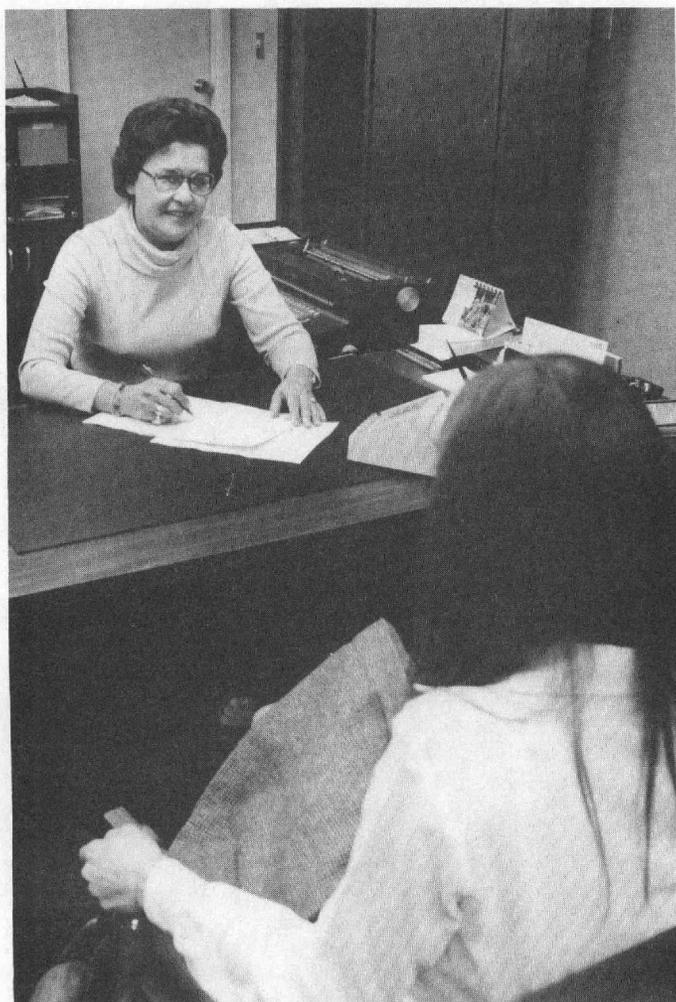
Interviewing and new accounts clerks contact individuals by phone, mail, or in person to interview them and to assist them in completing various forms. They verify the information they obtain and perform various processing tasks. The specific duties and job titles of these workers depend upon the type of employer.

For example, clerks working in a hospital or clinic are called admitting interviewers. They gather all the preliminary information required for admission, such as the patient's name, address, age, religion, persons to notify in case of emergency, attending physician, and individual or insurance company responsible for payment of the bill. In a hospital, they may assign a patient to a room and escort the patient or arrange for an escort to the assigned room. They type admitting records and route them to designated departments. In a clinical setting, they schedule appointments and provide general information about outpatient care. They also receive payments and answer the telephone.

Charge-account clerks interview and help applicants fill out the application forms for credit cards. They check references by phone or form letter and notify the customer of the credit decision. They also may verify entries and correct errors on charge accounts and may answer credit rating requests from banks and credit bureaus. (For more information about the issuance of credit, see the statement on credit clerks and authorizers elsewhere in the *Handbook*.)

Survey workers, sometimes called telemarketing representatives, work for organizations that develop information by conducting surveys of the public. They interview people and compile statistical information on such topics as occupation and earnings, political preferences, and buying habits. They contact people at home or at their place of business, approach people at random on the streets, or contact them by telephone following specified sampling procedures. They review, classify, and sort the responses to their questions. Regardless of the job setting, all interviewing and new accounts clerks must elicit information from others.

New accounts clerks, also known as customer service representatives, work for financial institutions such as commercial banks and savings and loan associations. They interview people who want to open a checking or savings account and record the data on an application form. They describe the increasing array of services that are available and help people fill out forms for special services, such as overdraft protection or automatic teller machine cards. They also may answer telephone inquiries about procedures for opening or closing accounts. (Bank tellers, who may also perform customer service representative duties, are discussed elsewhere in the *Handbook*.)



*Interviewing and new accounts clerks assist people in completing various forms.*

## Employment

Interviewing and new accounts clerks held about 250,000 jobs in 1990. Virtually all of them were employed by banks and savings and loan associations, firms providing research and testing services, hospitals, and the Federal Government, for which they conduct population surveys. About 1 of every 4 interviewing clerks works part time.

## Job Outlook

Employment of interviewing clerks is expected to increase much faster than the average for all occupations through the year 2005. The fastest growth will occur in research and testing services, as more organizations rely on firms to provide market research and public relations services on a contract or fee basis. Expansion of the credit card service industry also will spur job growth. Little change is expected for interviewing clerks in the Federal Government—in line with overall projected employment in the Federal Government.

On the other hand, slower than average employment growth is expected for new accounts clerks, reflecting relatively slow growth among commercial banks and savings and loan institutions—where employment is concentrated. Employment growth of new accounts clerks may also be limited as bank tellers and other bank employees assume some customer service representative duties.

## Sources of Additional Information

State employment service offices can provide information about employment opportunities.

A brochure on careers in banking, including information on new accounts clerks (referred to as customer service representatives in the brochure), is available from:

• American Bankers Association, 1120 Connecticut Ave. NW., Washington, DC 20036.

(See the introductory part of this section for information on working conditions, training requirements, and earnings.)

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## Receptionists

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(D.O.T. 203.362-014; 205.367-038; 237.267-010, .367-010, -018, -022, -026, -038, -042, -046, and -050; 238.367-022 and -034; and 249.262-010 and .367-082)

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## Nature of the Work

All organizations want to make a good first impression, and this often is the job of the receptionist—the first person a caller sees or speaks to.

Receptionists greet customers and other visitors, determine their needs, and refer callers to the person who can help them. They also answer questions from the public. Their day-to-day duties vary a great deal, depending on where they work. Those in hospitals and doctors' offices, for example, may obtain personal and financial information and then direct patients to the proper waiting rooms. In beauty shops, they arrange appointments and may direct customers to the hairstylist. In factories or large business firms and government offices, they provide identification cards and arrange for escorts to take callers to the proper office. Those working for bus and train companies respond to inquiries about departures, arrivals, stops, and related matters.

Many receptionists keep records of callers, the times at which they called, and the persons to whom they were referred. When they are not busy with callers, they may perform clerical duties, such as typing or filing. Some open and sort mail and collect and distribute messages. Still others prepare travel vouchers and do simple book-keeping.

Receptionists, particularly those in large cities, frequently perform a security function—seeing who belongs in a given place and who does not. They also may be expected to monitor the attendance of other employees and report this to management.

Increasingly, receptionists use automated office equipment such as word processors or personal computers in the course of their work. While this equipment allows them to handle more messages, for

## Reservation and Transportation Ticket Agents and Travel Clerks

(D.O.T. 214.362-030; 238.167-010 and -014, .362-014, .367 except -022; and 248.382-010)

### Nature of the Work

Each year, millions of Americans travel by plane, train, ship, bus, and automobile. Because so many people travel, it often is necessary to make reservations and plan trips well in advance. Reservation and transportation ticket agents and travel clerks are some of the workers who help people do this. These workers facilitate passenger travel in a variety of ways. They help passengers plan their trips by answering questions and offering suggestions on travel arrangements such as routes, time schedules, rates, and types of accommodation. They make and confirm transportation and hotel reservations, calculate expenses, and write and sell tickets. When passengers are about to embark on their trip, these agents and clerks check their baggage, direct them to the point of departure, and help them to board.

Reservation agents usually work in large central offices answering customer telephone inquiries and booking reservations. Most agents have access to computer terminals and, by typing instructions on the keyboard, can quickly obtain the necessary information and make the reservations. Agents also can change or cancel reservations at the customer's request, simply by modifying the record on the computer. After the reservation has been made and the ticket has been purchased, ticketing clerks compile and record the information, such as dates of travel and method of payment. The tickets then are sent to or picked up by the passenger.

Ticket agents are sometimes referred to by other titles, such as passenger agent, passenger-booking clerk, reservation clerk, ticket clerk, and ticket seller. In addition to selling tickets, they answer inquiries, check baggage, examine passports and visas, ensure passenger seating, and check in animals. Other ticket agents, more commonly known as gate agents, work in airports assisting passengers when boarding. Their duties include directing passengers to the correct boarding area, checking flight tickets, making boarding announcements, and assisting elderly, disabled, or young passengers when they board or depart the airplane.

Passenger rate clerks work for bus companies. They arrange trips by planning travel routes, computing rates, selling fares, and keeping customers informed of appropriate details. They also may arrange travel accommodations for tourists.

Most travel clerks are employed by automobile clubs. These workers, often called travel counselors, plan trips and offer travel suggestions for club members. Using a road map, they show the best route from the point of origin to the destination, as well as the return. They



*Unlike many other clerical jobs, employment of receptionists is not affected by office automation.*

example, it does not alter the basic content of their job—human contact and interaction.

### Employment

Receptionists held about 900,000 jobs in 1990—well over half of all information clerk jobs. About one-third of all jobs were located in health facilities: Doctors' and dentists' offices, hospitals, nursing homes, urgent care centers, surgicenters, clinics, and so forth. Factories, wholesale and retail stores, government agencies, real estate offices, and firms providing personnel supply and legal services also employed large numbers of receptionists. More opportunities for part-time working arrangements exist for receptionists than for other information clerks; almost 1 of every 3 receptionists works part time.

### Job Outlook

Employment of receptionists is expected to grow much faster than the average for all occupations through the year 2005. Employment is expected to grow more rapidly than employment of clerical workers in general. This is largely because so many receptionists work for firms in the services industry—a sector of the economy that is expected to continue to show strong growth, particularly doctors' and dentists' offices, law firms, temporary help agencies, and consulting firms. In addition, more and more firms are recognizing the importance of these workers in promoting good public relations.

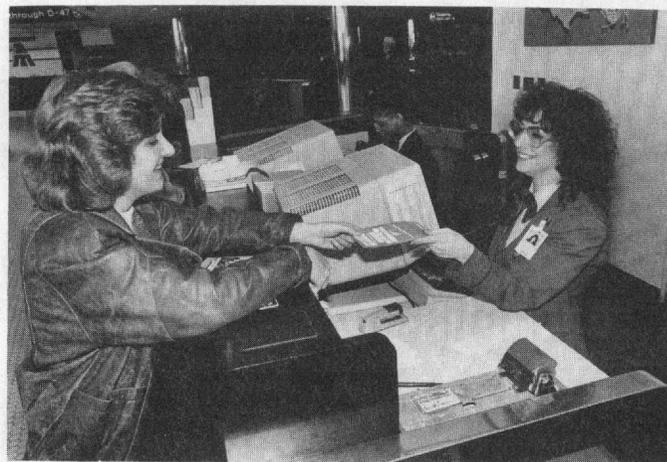
Job opportunities should be very plentiful. In addition to rapid employment growth, turnover is very high. Each year, a great many receptionists transfer to other occupations, often seeking better pay or career advancement, or leave the labor force to tend to household responsibilities, return to school, or retire. Because the work of receptionists is of a person-to-person nature, it is unlikely to be affected by office automation. In addition, because establishments need receptionists' services even during economic downturns, they usually are not subject to layoffs during recessions.

Many receptionists also perform secretarial duties, and persons with good typing, computer, and other skills should have the best job prospects.

### Sources of Additional Information

State employment offices can provide information on job openings for receptionists.

(See the introductory part of this section for information on working conditions, training requirements, and earnings.)



*About 7 out of 10 ticket agents work for airlines.*

indicate the points of interest, restaurants, hotels, or other housing accommodations along the route and explain what emergency repair services are available during the trip. They may make reservations for club members and calculate mileage.

Travel clerks also work in other settings, such as for hotels and motels, business firms, and government agencies. When guests or employees are planning trips, travel clerks assist them by providing them with the appropriate literature and information, answering questions, and offering suggestions. They make reservations, pick up and deliver tickets, arrange for visas, and make any other arrangements necessary for a safe and enjoyable trip.

Regardless of setting, reservation and transportation ticket agents and travel clerks must be knowledgeable about their companies' policies and procedures. They must be aware of the availability of special promotions and services and be able to answer any questions their customers may have.

### Employment

Reservation and transportation ticket agents and travel clerks held about 150,000 jobs in 1990. Nearly 7 of every 10 of these workers were employed by the airlines. Others worked for automobile clubs, hotels and other lodging places, railroad companies, and other companies that provide transportation services.

Although agents and clerks are found throughout the country, most work in downtown ticket and reservation offices and at large metropolitan transportation terminals, where most passenger business originates. The remainder work in smaller communities often served only by intercity bus or railroad lines.

### Job Outlook

Employment of reservation and transportation ticket agents and travel clerks is expected to increase faster than the average for all occupations through the year 2005. Business travel, a significant contributor to airline, bus, rail, and automobile travel, will likely remain strong and spur employment growth. Increases in the number of two-earner families, as well as smaller families and delayed childbearing, should raise discretionary income and allow for more travel, also contributing to demand for these workers.

In addition, job openings will become available as workers transfer to other occupations, retire, or leave the labor force for other reasons. However, the number of openings will be smaller than that of other information clerks because turnover among reservation and transportation ticket agents and travel clerks is the lowest of all information clerks.

Applicants are likely to encounter considerable competition for openings, not only due to the relatively low turnover, but because the supply of qualified applicants far outstrips demand. Many people satisfy the entry requirements, and airline jobs, in particular, attract many applicants because of the travel benefits and glamour associated with the industry.

Employment of reservation and transportation ticket agents and travel clerks is sensitive to cyclical swings in the economy. During recessions, discretionary passenger travel declines, and transportation service companies are less likely to hire and may even lay off or demote agents and clerks.

### Sources of Additional Information

For information about job opportunities as reservation and transportation ticket agents and travel clerks, write the personnel manager of individual transportation companies. Addresses of airlines are available from:

✦ Air Transport Association of America, 1709 New York Ave. NW., Washington, DC 20006.

A brochure describing airline jobs is available from:

✦ Air Line Employees Association, 5600 South Central Ave., Chicago, IL, 60638-3797.

(See the introductory part of this section for information on working conditions, training requirements, and earnings.)

## Mail Clerks and Messengers

(D.O.T. 209.562-014, .567-018, .587-018, -026, -038; 215.563; 222.367-022, .387-038, .567-018, .587-030, -032; 230.367-014, .647-010, .667-010; 239.362, .567, .677, .687; 243.367-010; 248.367-030; and 249.687-010)

### Nature of the Work

Mail clerks and messengers help businesses and governments run efficiently by moving and distributing information, documents, and small packages.

Most large organizations employ *mail clerks* to handle their internal mail. Internal mail goes back and forth among people, offices or departments within a firm or institution. It ranges from memos to key personnel to bulletins on job issues to all employees. Mail clerks sort internal mail and deliver it to their fellow employees, often using carts to carry the mail between offices.

Mail clerks also handle external mail, serving as the link between the U.S. Postal Service and individual offices and workers. They sort incoming mail and deliver mail within large office buildings. They also prepare outgoing mail—which may range from advertising flyers, to customers' orders, to legal documents—for delivery to the post office. Many organizations have large mailings of an item; mail clerks may prepare materials for mailing by folding it, inserting it into envelopes, and affixing the proper postage. Mail may be sent registered, certified, special delivery or first, second, third or fourth class. When necessary, they contact delivery services to send important letters or parcels. Mail clerks also may sort large mailings by zip code before delivery to the post office. In larger organizations, or organizations with a large volume of outgoing mail, mail clerks often operate machines which collate, fold, and insert material to be mailed into envelopes. They also operate machines which affix postage. In addition, mail clerks increasingly use computers to keep their records of incoming and outgoing items on computers.

*Messengers* pick up and deliver letters, important business documents, or small packages which need to be sent or received in a hurry from one side of town to another. By sending an item by messenger, the sender ensures that it reaches its destination the same day or even within the hour. Messengers also deliver items which the sender is unwilling to entrust to other means of delivery, such as important legal or financial documents. Some messengers pick up and deliver important small packages such as medical samples to be tested.

Messengers receive their instructions either by reporting to their office in person or by telephone or two-way radio. They then pick up the item and carry it to its destination. After a delivery, they check with their office and receive instructions about the next delivery. Consequently, most messengers spend most of their time outdoors or in their vehicle. Messengers usually maintain records of deliveries and often obtain signatures from the persons receiving the items.

Most messengers deliver items within a limited geographic area, such as a city or metropolitan area. Items which need to go longer distances usually are sent by mail or by an overnight delivery service. Some messengers carry items only for their employer, which typically might be a law firm, bank, or financial institution. Other messengers may act as part of an organization's internal mail system and mainly carry items between an organization's buildings or entirely within one building. Many messengers work for messenger or courier services; for a fee they pick up items from anyone and deliver them to specified destinations within a local area.

Messengers reach their destination by several methods. Many drive vans or cars or ride motorcycles. A few travel by foot, especially in urban areas or when making deliveries nearby. In congested urban areas, messengers often use bicycles, since this is the fastest way to travel in heavy traffic. Bicycle messengers usually are employed by messenger or courier services. Only electronic facsimile (FAX) machines that send copies of documents over telephone lines can deliver information faster in a city than bicycle messengers, but for many types of business transactions a FAX copy cannot be substituted for the original document.

Some messengers, especially those who work for courier services,

provide and maintain their own transportation. They receive a fee for each delivery, from which they must deduct any expenses associated with the operation of their vehicle. Unlike other messengers, they seldom receive paid vacations, sick leave, health insurance, or other benefits.

### Working Conditions

Working conditions for mail clerks are much different from the working conditions for most messengers. Most mail clerks work regular hours, spending much of their time in mailrooms, which are usually located in office buildings. Although mailrooms are usually clean and well lighted, there may be noise from mail-handling machines. Most of the rest of their time is spent making mail deliveries throughout an office building. Mail clerks spend most of their time on their feet while sorting and delivering mail and operating machinery, which can be tiring and physically demanding. They are sometimes required to lift heavy objects but usually the work is not strenuous.

Messengers work in a less structured environment than mail clerks because they spend most of their time alone making deliveries and usually are not closely supervised. Although many messengers work full time during regular business hours, some messengers work nights and weekends.

Messengers who deliver by bicycle must be physically fit and are exposed to all weather conditions as well as the many hazards connected with heavy traffic. Some messengers, especially those who work for courier services, are paid according to the number of deliveries made and distance traveled. The pressure to make as many deliveries as possible to increase earnings can be stressful and may lead to unsafe driving or bicycling practices.

### Employment

Messengers and mail clerks together held about 280,000 jobs in 1990; about 137,000 were mail clerks and 143,000 were messengers. Only about 12 percent of the messengers were employed by courier and messenger services. About 14 percent worked for law firms, and 12 percent worked for hospitals and medical and dental laboratories. Financial institutions, such as commercial banks, saving institutions, and credit unions, employed 10 percent. The rest were employed in a wide variety of other industries.

In 1990, about one-fourth of all mail clerks worked in Federal, State, and local governments. Others were employed in a wide range of industries. Very few messengers or mail clerks were self-employed.

### Training, Other Qualifications, and Advancement

There are no formal qualifications or training required to be a mail clerk or messenger, although some employers prefer high school graduates. This is a first job for many.

Mail clerks must be careful and dependable workers. They must be able to do routine work and work well with their hands. They are usually trained on the job. If they operate computers and mail-handling machinery to help prepare mailings, training may be provided by

another employee or by a representative of the machinery manufacturer. Mail clerks are sometimes required to have a driver's license if they make deliveries to other buildings.

Messengers are required to have a driver's license if they operate a motor vehicle; many messengers are required to provide and maintain their own vehicle. They need a good knowledge of the geographic area in which they travel as well as a good sense of direction.

Some mail clerks, depending on the size of the operation, advance to positions as clerical staff supervisors or office managers. Other mail clerks transfer to related jobs with the U.S. Postal Service, if they pass the competitive entrance examination. (Information on postal clerk and mail carrier careers appears elsewhere in the *Handbook*.) Messengers, especially those who work for messenger or courier services, have limited advancement opportunities.

### Job Outlook

Employment of mail clerks and messengers is expected to grow more slowly than the average for all occupations through the year 2005 despite an increasing volume of internal mail, parcels, business documents, promotional materials, and other written information that must be handled and delivered as the economy expands. Nevertheless, job opportunities are expected to be plentiful for mail clerks and messengers through the year 2005. Most job openings will stem from the need to replace workers who leave the occupation. Nevertheless, mail clerk and messenger jobs are attractive to many because the limited formal education and training requirements allow easy entry, making them attractive to persons seeking their first job or a short-term source of income. This is especially true for messengers, many of whom work in this occupation a relatively short time.

Businesses growing reliance on directly mailing advertising and promotional materials to prospective customers will result in increasing amounts of mail to be handled. However, increasing automation of mail-handling will enable mail clerks to handle a growing volume of mail. In addition, employment of mail clerks will be limited by more widespread use of the robot mail carts to distribute mail in large office buildings.

Employment of messengers will grow more slowly as new electronic information-handling technology comes into more widespread use. Electronic facsimile, or FAX machines, for example, allow copies of documents to be immediately sent across town or across the country and are rapidly becoming standard office equipment. The transmission of information through telephone lines between computers will also reduce the demand for messengers as more computers are connected to networks. However, messengers will still be needed to transport materials which cannot be sent electronically, such as legal documents, blue-prints and other over-sized materials, large multi-page documents, and securities. Also, messengers will still be required by medical and dental laboratories to pick up and deliver medical samples, specimens, and other materials.

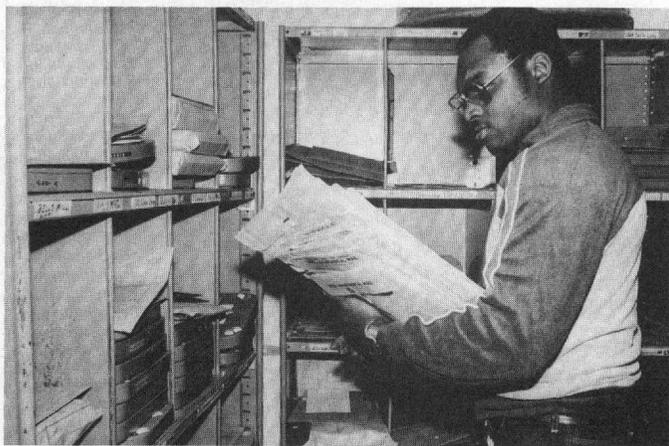
### Earnings

Median weekly earnings of full-time mail clerks were about \$300 in 1990; the middle 50 percent earned between \$240 and \$400. Median weekly earnings of full-time messengers were \$315. The middle 50 percent of messengers earned between \$250 and \$500. Messengers occasionally receive tips from clients, but this is not a significant part of their earnings.

Beginning messengers in manufacturing, transportation, and utilities averaged \$220 a week in 1990; experienced messengers averaged \$240 to \$270.

Some messengers are paid by commission rather than earning a regular wage. The commission usually is based on the number of deliveries made, the distance traveled and the fee charged to the customer. They must provide their own transportation and must pay fuel and maintenance costs. The more deliveries they make and the faster they travel, the more they earn. They seldom receive paid vacation or sick leave, health insurance, or other benefits. Messengers working for employers other than messenger and courier services usually are paid by the hour and receive the benefits offered to all employees.

Mail clerks are usually paid by the hour and benefits often include health and life insurance, sick leave, vacation pay and pension plan.



*Mail clerks sort and deliver internal mail moving between persons and offices in an organization.*

## Related Occupations

Messengers and mail clerks sort and deliver letters, parcels, and other items. They also keep accurate records of their work. Others who do similar work are postal clerks and mail carriers, route drivers, and traffic, shipping, and receiving clerks, correspondence review clerks, vault workers, parcel post clerks, and reconignment clerks.

## Sources of Additional Information

Information about job opportunities may be obtained from local employers and local offices of the State employment service. Persons interested in mail clerk and messenger jobs may also contact messenger and courier services, mail order firms, banks, printing and publishing firms, utility companies, retail stores, or other large firms.

# Material Recording, Scheduling, Dispatching, and Distributing Occupations

## Nature of the Work

Workers in this group are responsible for a variety of communications and recordkeeping operations in business and government. In general, they coordinate, expedite, and keep track of orders for personnel, equipment, and materials.

*Dispatchers* receive requests for service and initiate action to provide that service. Duties vary, depending on the needs of the employer. Police, fire, and ambulance dispatchers, also called public safety dispatchers, handle calls from people reporting crime, fire, and medical emergencies; truck, bus, and train dispatchers schedule and coordinate the movement of these vehicles; taxicab dispatchers relay requests for cabs to individual drivers; tow truck dispatchers take calls for emergency road service; and gas and electric and telephone company dispatchers handle calls related to utility and telephone service.

*Traffic, shipping, and receiving clerks* keep track of goods transferred between businesses and their suppliers and customers. They verify and keep records on all incoming and outgoing shipments. Traffic clerks keep a record of destination, weight, and charges of all incoming and outgoing shipments. Shipping clerks assemble, address, stamp, and ship merchandise or materials. Receiving clerks unpack, verify, and record incoming merchandise. In a small company, one clerk may perform all of these tasks.

*Stock clerks* receive, unpack, store, issue, and maintain inventory of stock—merchandise in wholesale and retail establishments, and equipment, supplies, and materials in all other kinds of organizations. In small firms, they may perform all of the above tasks, including those usually handled by shipping and receiving clerks. In large establishments, they may be responsible for only one task. More detail on these occupations is available in the statements that follow.

Other administrative support occupations in this group include *production, planning, and expediting clerks*—who coordinate and expedite the flow of work and material according to production schedules; *procurement clerks*—who draw up purchase orders for procurement of merchandise or material; *weighers, measurers, checkers, and samplers*—who weigh, measure, and check materials; *utilities customer service representatives*—who interview applicants for water, gas, electric, or telephone service; and *utilities meter readers*—who read electric, gas, water, or steam meters and record the volume used by their customers. (See the end of this section for more information on these occupations.)

## Working Conditions

Working conditions vary considerably by occupation and employment setting. The work of dispatchers can be very hectic when a large number of calls come in at the same time. The job of public safety dispatcher is particularly stressful because slow or improper response to a call can result in destruction of property, serious injury, or death. Also, callers who are anxious or afraid may become hysterical and be unable to provide the needed information; some even become abu-

sive. Despite provocations, the dispatcher must remain cool, objective, and in control of the situation.

Dispatchers work indoors in surroundings that are typical of office jobs. They sit for long periods. If they spend a lot of time at a video display terminal, as is increasingly commonplace, they may experience problems of eyestrain and musculoskeletal strain. Dispatchers generally work a standard 40-hour week but evening, weekend, and holiday work is common because many service providers operate around the clock. Some employers rotate dispatchers among three shifts to divide daytime, weekend, and holiday work equally.

Traffic, shipping, receiving, and stock clerks work in a wide variety of businesses, institutions, and industries. They work in warehouses, stock rooms, or in shipping and receiving rooms that may not be temperature controlled. They also may spend time in cold storage rooms or outside on loading platforms, where they are exposed to the weather. Most jobs involve much standing, bending, walking, stretching, lifting, and carrying. Although many use mechanical material-handling equipment to move heavy items, the work can be strenuous. The typical workweek is 8 hours a day, Monday through Friday, although evening and weekend hours are standard for some jobs and may be required in others when large shipments are delivered or when inventory is taken.

## Employment

In 1990, material recording, scheduling, dispatching, and distributing workers held nearly 3.8 million jobs. Employment was distributed among the occupations in this group as follows:

Total.....	3,755,000
Stock clerks, sales floor.....	1,242,000
Traffic, shipping, and receiving clerks.....	762,000
Stock clerks, stockroom.....	752,000
Production, planning, and expediting clerks.....	237,000
Dispatchers.....	209,000
Order filler.....	197,000
Procurement clerks.....	56,000
Meter readers, utilities.....	50,000
All other.....	250,000

Two out of three material recording, scheduling, dispatching, and distributing jobs were in manufacturing and wholesale and retail trade. Although these workers are found throughout the country, most work near population centers where stores, warehouses, factories, and large communications centers are concentrated.

## Training, Other Qualifications, and Advancement

Employers prefer to hire high school graduates, especially those who have taken business courses. Preference also may be given to candidates who have business, dispatching, or specific job-related experience. Good reading and writing skills, and a basic knowledge of business arithmetic are necessary. Typing, filing and recordkeeping also are important. Some employers give applicants typing tests.

Traffic, shipping, and receiving clerks and stock clerks who handle jewelry, liquor, or drugs may have to be bonded. Police, fire, and ambulance dispatching jobs generally are governed by State or local government civil service regulations. Candidates for these jobs may have to pass written, oral, and performance tests. Familiarity with personal computers or computer terminals is an asset, because computers are increasingly used for inventory control and for dispatching.

Trainees usually develop the necessary skills on the job. This informal training may last from several days to a few months, depending on the complexity of the job. Dispatchers usually require the most extensive training. Working under an experienced dispatcher, they monitor calls and learn how to operate telephones, radio transmitters and receivers, radio consoles, teletypewriters, and data communications terminals. As they gain confidence, they begin to handle calls themselves. Many public safety dispatchers also participate in structured training programs provided by their employer. Some employers offer an 80-hour training course designed by the Associated Public Communications Officers (APCO). This course includes such units as interpersonal communications; overview of the police, fire, and

rescue functions; modern public safety telecommunications systems; basic radio broadcasting; local, State, and national crime information computer systems; and telephone complaint/report processing procedures. Other employers develop in-house programs based on their own needs. Emergency medical dispatchers often get special training or have special skills. Some agencies bring in trained paramedics or nurses to work as dispatchers. Because this is so costly, many agencies expand the training of their dispatchers to include instruction on how to help callers begin appropriate lifesaving procedures while trained professionals are on their way.

Although there are no mandatory licensing or certification requirements, some States require that public safety dispatchers possess a certificate to work on a State network such as the Police Information Network. Voluntary certification programs are offered by both APCO and the International Municipal Signal Association. Many dispatchers participate in these programs in order to improve their prospects for career advancement.

Stock clerks and traffic, shipping, and receiving clerks usually learn the job by doing simple tasks under close supervision. They learn how to count and mark stock and then start keeping records and taking inventory. Stock clerks who just bring merchandise to the sales floor and stock shelves and racks need little or no training. Traffic, shipping, and receiving clerks start out by checking items to be shipped and then attaching labels and making sure the addresses are correct. As more and more establishments use automated equipment, training and retraining on this equipment are done informally on the job.

Communications skills, physical fitness, an understanding of human nature, and the ability to work under pressure are important personal qualities for dispatchers. Public safety dispatchers, especially police dispatchers, must have extremely high standards of personal conduct. Residency in the city or county of employment frequently is required. Strength, stamina, good eyesight, and an ability to work at repetitive tasks and sometimes under pressure are important characteristics for stock clerks and traffic, shipping, and receiving clerks.

Advancement opportunities vary with the place of employment. Dispatchers who work for private firms, which are usually small, will find few opportunities for advancement. Public safety dispatchers, on the other hand, may become a shift or divisional supervisor or chief of communications, or move to higher paying administrative jobs. Some may go on to become police officers or sheriffs. In large firms, stock clerks may advance to invoice clerk, stock control clerk, or procurement clerk. Traffic, shipping, and receiving clerks may be promoted to head clerk, and those with a broad understanding of shipping and receiving may enter a related field such as industrial traffic management. With additional training, some stock clerks and traffic, shipping, and receiving clerks advance to jobs as warehouse manager or purchasing agent.

### Job Outlook

Overall employment of material recording, scheduling, dispatching, and distributing workers is expected to grow more slowly than the average for all occupations through the year 2005. Employment growth among the occupations in this group is expected to vary, however. Employment of stock clerks is expected to grow more slowly than the average. The volume of business transactions will increase as the economy grows, but automation will enable clerks to handle more stock, holding down employment growth somewhat. The impact of automation will be greatest in warehouses and stockrooms. Employment of traffic, shipping, and receiving clerks also is expected to grow more slowly than the average as automation and other productivity improvements enable these clerks to handle materials more efficiently. Employment of dispatchers, on the other hand, is expected to grow faster than the average as the population increases and with it the need to save lives, to protect property, and to provide other services.

Because employment in material recording, scheduling, dispatching and distributing occupations is substantial, workers who leave the labor force or transfer to other occupations are expected to create many thousands of job openings each year.

### Earnings

Median annual earnings of workers in all material recording, scheduling, dispatching, and distributing occupations were about \$18,600 in

1990. The middle 50 percent earned between \$14,000 and \$25,700. The lowest 10 percent earned \$10,700 or less; the top 10 percent earned over \$33,400. Earnings vary by industry.

Earnings vary somewhat by occupation. Dispatchers earn slightly more than the average for all occupations and stock clerks and traffic, shipping, and receiving clerks earn less. Median annual earnings of dispatchers were \$19,800 in 1990. There are considerable differences in dispatcher earnings by industry setting. In 1990, average starting salaries for dispatchers ranged from a low of around \$11,000 for taxicab dispatchers to about \$14,000 for bus and emergency vehicle road dispatchers to approximately \$19,000 for police, fire, and ambulance dispatchers.

The median earnings of traffic, shipping, receiving, and stock clerks were between \$16,000 and \$19,000 in 1990, with stock clerks generally receiving the higher pay.

Workers in material recording, scheduling, dispatching, and distributing occupations usually receive the same benefits as most other workers. See the introductory section, Keys To Understanding What's in the *Handbook*, for more information on benefits. If uniforms are required, employers usually either provide the uniforms or an allowance to purchase them.

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## Dispatchers

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(D.O.T. 215.167-010, .367-018; 221.362-014, .367-070, -082; 239.167-014, .367-014, -022, -030; 248.367-026; 249.167-014, .367-070; 372.167-010; 379.162-010; 362-010; 910.367-018; 911.167-010; 913.167-010; 367-010; 914.167-014; 919.162-010; 932.167-010; 939.362-010; 952.167-010; 953.167-010; 954.367-010; 955.167-010; and 959.167-010)

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### Nature of the Work

Dispatchers receive and transmit emergency calls from the public requesting assistance and usually coordinate the dispatching of the appropriate service provider. They see to it that each request for service is carried out quickly and accurately. Their specific duties depend on the type of service being rendered.

*Police, fire, and ambulance dispatchers*, also called public safety dispatchers, are usually the first people the public talks to when they call for emergency assistance. Dispatchers receive these calls in a variety of settings; they may work in a police station, a fire station, a hospital, or a centralized city communications center. In many cities, the police department serves as the communications center. In these situations, all 911 emergency calls go to the police department where a dispatcher handles the police calls and screens the others before transferring them to the appropriate service.

When handling a call, dispatchers carefully question the caller to determine the type, seriousness, and location of the emergency. They then quickly decide on the kind and number of units needed, locate the closest and most suitable ones available, and send them to the scene of the emergency. They keep in touch with the units until the emergency has been handled, in case further instructions are needed. When appropriate, they stay in close contact with other service providers—for example, a police dispatcher would monitor the response of the fire department when there is a major fire. In a medical emergency, dispatchers not only keep in close touch with the dispatched units but also with the caller. They often give extensive prearrival first aid instructions while the caller is waiting for the ambulance. They continuously give updates on the patient's condition to the ambulance personnel and often serve as a link between the medical staff in a hospital and the emergency medical technicians in the ambulance. (The work of emergency medical technicians is described elsewhere in the *Handbook*.)

*Truck dispatchers* who work for local and long distance trucking companies coordinate the movement of trucks and freight between cities. They direct the pickup and delivery activities of drivers. They receive customers' requests for pick up and delivery of freight, consolidate freight into truck loads for specific destinations, assign drivers and trucks, make up routes and pickup and delivery schedules, and provide other information. *Bus dispatchers* make sure that

local and long distance buses stay on schedule. They handle all problems that may disrupt service and dispatch orders to restore service and schedules. *Train dispatchers* are responsible for the timely movement of trains according to train orders and schedules. *Taxicab dispatchers*, or starters, dispatch taxis in response to requests for service. They maintain a map showing the location of each cab and keep logs on all road service calls. *Tow truck dispatchers* take calls for emergency road service. They relay the problem to a nearby gas station or a tow truck service and see to it that the emergency road service is completed. *Gas and water service dispatchers* monitor gas lines and water mains and send out service trucks and crews to take care of emergencies. Other dispatchers coordinate deliveries, service calls, and related activities for a variety of firms.

Regardless of where they work, all dispatchers keep records, logs, and schedules of the calls they receive and the action they take. They may type and file cards on each call and then prepare detailed reports on all activities occurring during their shift. Those who work with a computer-aided dispatch system make the appropriate entries and corrections into the computer as they occur, and then print a log or report at the end of their shift.

Many police, ambulance, taxicab, and tow truck dispatchers work as part of a two-person team. One person usually receives incoming calls while the other dispatches and follows up on them. This is commonplace in large communications centers or companies.

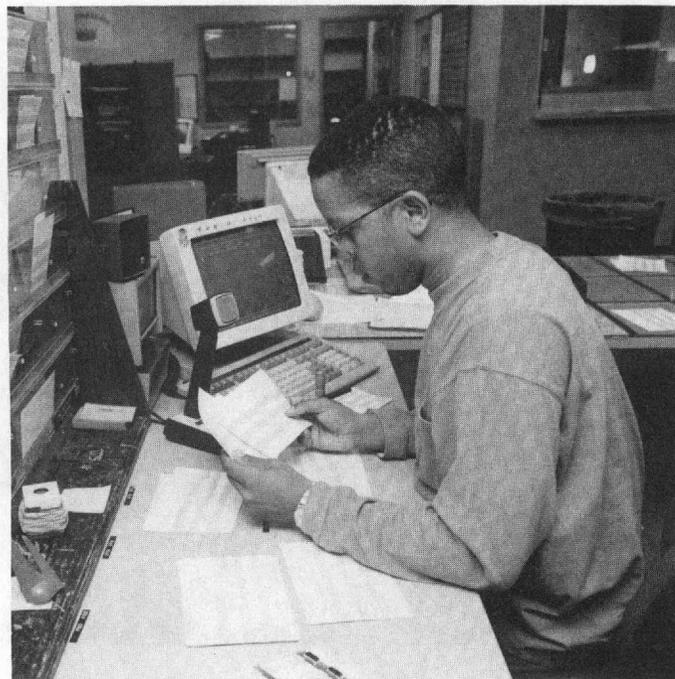
### Employment

Dispatchers held about 209,000 jobs in 1990. About one third were police, fire, and ambulance dispatchers, almost all of whom worked for State and local governments—primarily for local police and fire departments. Most of the remaining dispatchers worked for local and long-distance trucking companies and bus lines; telephone, electric, and gas utility companies; wholesale and retail establishments; and companies providing business services.

Although dispatching jobs are found throughout the country, most work in urban areas where large communications centers and businesses are located.

### Job Outlook

Overall employment of dispatchers is expected to grow faster than the average for all occupations through the year 2005 due to the growing need for the various services that dispatchers provide. Most job openings will result from the need to replace those who transfer



*Dispatchers keep records of the calls they receive and the action they take.*

to other occupations or leave the labor force; dispatchers who work under a lot of pressure often leave the occupation after a few years.

Employment of police, fire, and ambulance dispatchers is expected to grow about as fast as the average for all occupations. Their employment is concentrated in State and local government, an industry sector which is expected to experience average growth. Increasingly intense competition among government functions for available resources should limit the ability of many growing communities to keep pace with rapidly growing emergency services needs.

Although population growth and economic expansion are expected to increase overall employment of other dispatchers not involved in public safety, not all specialties will be affected in the same way. Employment of taxicab, train, and truck dispatchers is sensitive to economic conditions. When economic activity falls, demand for transportation services declines. They may experience layoffs or a shortened workweek, and jobseekers may have some difficulty finding entry-level jobs. Employment of tow truck dispatchers, on the other hand, is seldom affected by general economic conditions, because of the emergency nature of their business.

Computerization is making inroads into all areas of dispatching, increasing productivity and dampening somewhat employment growth. However, computer aided-dispatch systems are very expensive, making them affordable only to relatively large establishments, and slowing growth of dispatchers using computers.

### Related Occupations

Other occupations that involve the direction and control of the movement of vehicles, freight, and personnel, as well as information and message distribution, are airline-radio operators, airline dispatchers, air traffic controllers, radio and television transmitter operators, telephone operators, customer service representatives, and transportation agents.

### Sources of Additional Information

For further information on training for police, fire, and emergency dispatchers contact:

- Associated Public Safety Communications Officers, 2040 S. Ridgewood, South Daytona, FL 32119.
- International Municipal Signal Association, P.O. Box 539, 1115 North Main St., Newark, NY 14513.

For general information and earnings on dispatchers contact:

- American Trucking Associations, Inc., 2200 Mill Rd., Alexandria, VA 22314.
- Service Employees International Union, AFL-CIO, 1313 L St. NW., Washington, DC 20006.
- Communications Workers of America, 1925 K St. NW., Washington, DC 20006.
- American Train Dispatchers Association, 1401 South Harlem Ave., Berwyn, IL 60402.

Information on job opportunities for police, fire, and emergency dispatchers is available from the personnel offices of State and local governments or police departments. Information about work opportunities for other types of dispatchers is available from local employers and State employment service offices. (Information on training and earnings is in the introduction to material recording, scheduling, dispatching, and distributing occupations.)

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## Stock Clerks

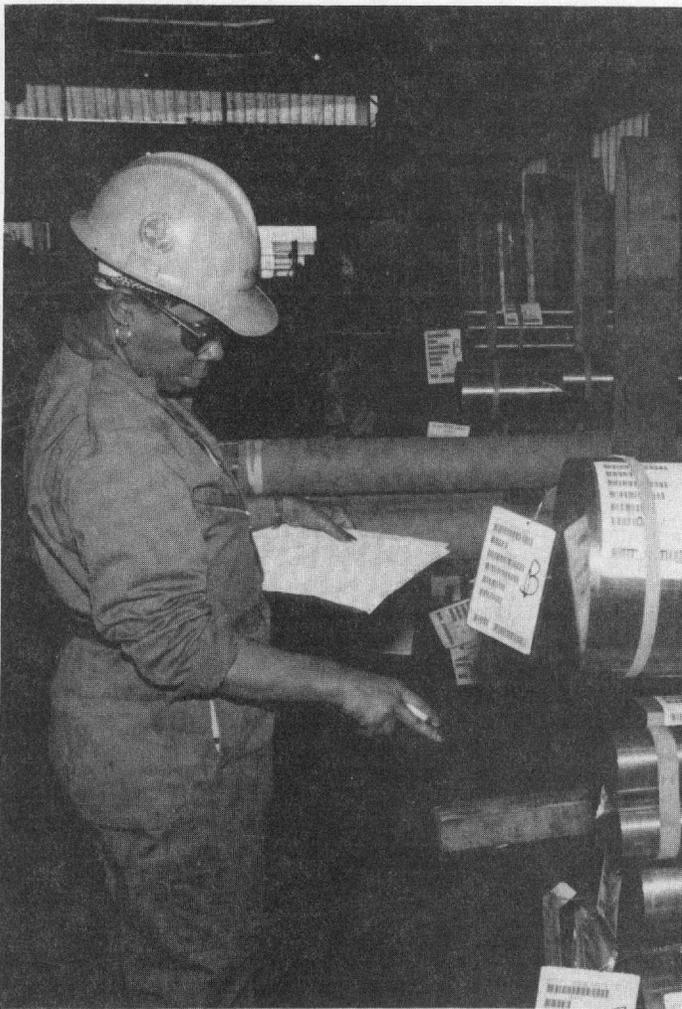
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(D.O.T. 219.367-018, -034, .387-026; 221.587-018, -022; 222.167-010, .367-014, -038, -042, -050, -062, .387-018, -026, -030, -034, -042, -058, -062, -070, .587-022, -054; 229.367-010, -014, .587-014; 249.367-058; 339.687-010; 969.367-010)

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### Nature of the Work

Stock clerks receive, unpack, check, put away, store, and keep track of merchandise or materials. They keep records of items entering or leaving the stock room and report damaged or spoiled goods. They organize and, when necessary, mark items with identifying codes or prices so that inventories can be located quickly and easily. In many firms, stock clerks use hand-held scanners connected to computers to keep inventories up-to-date. In stores, stock clerks may bring mer-



*Stock clerks keep inventory records up-to-date by noting items that enter or leave the stock room.*

chandise to the sales floor and stock shelves and racks. In stockrooms and warehouses, they store materials in bins, on the floor, or on shelves. In large establishments where they may be responsible for only one specific task, they may be known as inventory clerk, stock control clerk, merchandise distributor, order filler, property custodian, or storekeeper. In small firms they may also be responsible for tasks usually handled by shipping and receiving clerks.

#### **Employment**

Stock clerks held about 2.2 million jobs in 1990. Over 80 percent of all stock clerks worked in wholesale or retail trade. The greatest numbers were employed by department and grocery stores. Jobs for stock clerks are found in all parts of the country, but most work in urban areas where stores, warehouses, and factories are concentrated.

#### **Job Outlook**

Employment of stock clerks is expected to grow more slowly than the average for all occupations through the year 2005 as automation in warehouses and stockroom holds down employment growth. Growing use of computers for inventory control and new automated equipment are expected to slow growth in demand for stock clerks. This is especially true in manufacturing and in wholesale trade, the industries whose operations are most easily automated. In addition to computerized inventory control systems, firms in these industries are expected to rely more and more on sophisticated conveyor belts, automatic high stackers to store and retrieve goods, and automatic guided vehicles, which are battery-powered driverless vehicles.

Employment of stock clerks who work in grocery, general merchandise, department, apparel, and accessories stores is expected to

be somewhat less affected by automation since much of their work is done manually on the sales floor and is difficult to automate.

Job prospects should be favorable because this occupation is very large and many job openings will occur each year to replace stock clerks who transfer to other jobs or leave the labor force. Many jobs are entry-level and therefore many vacancies are created by normal career progression.

#### **Related Occupations**

Other workers who also handle, move, organize, and store materials, include, shipping and receiving clerks, distributing clerks, routing clerk, stock supervisors, and cargo checkers.

#### **Sources of Additional Information**

State employment service offices can provide information about job openings for stock clerks. Also, see clerical and sales occupations elsewhere in the *Handbook* for sources of additional information. (Information on training and earnings is in the introduction to material recording, scheduling, dispatching, and distributing occupations.)

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### **Traffic, Shipping, and Receiving Clerks**

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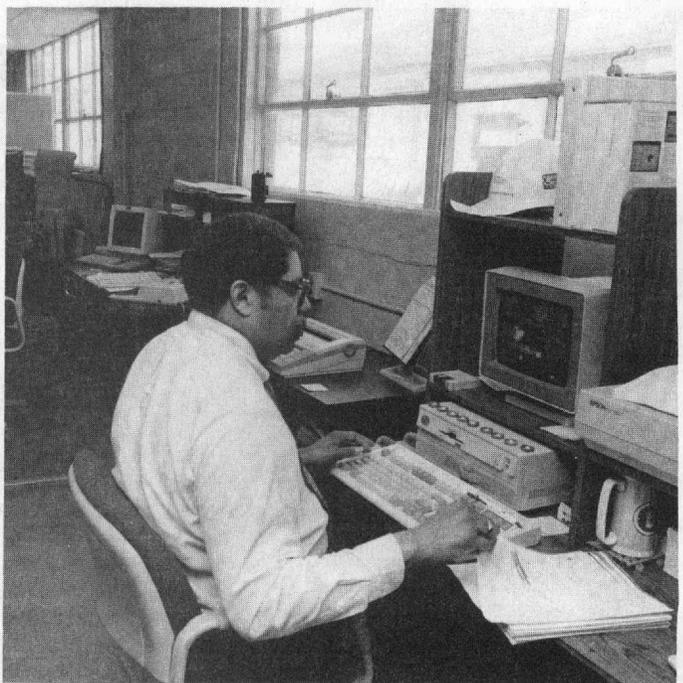
(D.O.T. 209.367-042; 214.587-014; 219.367-022 and -030; 221.367-022 and .687-014; 222.367-066, .387-014, -022, -050, and -054, .485-010, .567-010 and -014, .587-010, -018, -034, and -058, .687-022 and -030; 248.362-010, .367-014 and -022; 919.687-010; and 976.687-018)

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#### **Nature of the Work**

Traffic, shipping, and receiving clerks keep records of all goods shipped and received. Their duties depend on the size of the establishment. In a small company, one clerk may be responsible for accepting deliveries, preparing shipments and maintaining records. In a large company, the responsibilities are usually divided among several clerks who specialize.

*Traffic clerks* maintain records on the destination, weight, and charges on all incoming and outgoing freight. They sometimes enter this information into a computer to be used by the accounting and other departments within the firm. They make sure that the rate charges are accurate by comparing the classification of materials with



*Traffic clerks keep records of the destination, weight, and charges on all incoming and outgoing freight.*

rate charts. They may also keep a file of claims for overcharges and for damages to goods in transit.

*Shipping clerks* are record keepers responsible for all outgoing shipments. They prepare shipping documents and mailing labels, and make sure orders have been filled correctly. They also record items taken from inventory and note when orders were filled. Sometimes they fill the order themselves; they obtain merchandise from the stockroom and wrap it or pack it in shipping containers. They also address and label packages, look up and compute freight or postal rates, and record the weight and cost of each shipment. They also may prepare invoices and furnish information about shipments to another part of the company, such as the accounting department. Once a shipment is checked and ready to go, shipping clerks may move the goods from the plant—sometimes by forklift truck—to the shipping dock and direct its loading.

When shipments arrive, *receiving clerks* perform tasks similar to those of shipping clerks. They determine whether their employer's orders have been correctly filled by verifying incoming shipments against the original order and the accompanying bill of lading or invoice. They record the shipment and the condition of its contents. In many firms, receiving clerks record the information by using hand-held scanners to read the bar codes on incoming products. After recording this information, they connect the scanner or reader to a personal computer and transfer the data to the appropriate department. They may route or move shipments to the proper department, warehouse section, or stockroom. They also arrange for adjustments with shippers whenever merchandise is lost or damaged. Shipping and receiving clerks in small businesses may also perform some stock clerk duties.

### Employment

Traffic, shipping, and receiving clerks held about 762,000 jobs in 1990. Two-thirds were employed by wholesale establishments, retail stores, or manufacturing firms. Although jobs for traffic, shipping, and receiving clerks are found throughout the country, most clerks work in urban areas, where factories and wholesale establishments generally are located.

About 1 out of 10 traffic, shipping, and receiving clerks works part time.

### Job Outlook

Employment of traffic, shipping, and receiving clerks is expected to increase more slowly than the average for all occupations through the year 2005. Employment growth will continue to be affected by automation, as all but the smallest firms move to hold down labor costs by using computers to store and retrieve shipping and receiving records.

Methods of materials handling have changed significantly in recent years. Large warehouses are increasingly automated, using equipment such as computerized conveyor systems, robots, computer-directed trucks, and automatic storage and retrieval systems. Automation, coupled with the growing use of hand-held scanners and personal computers in receiving departments, is expected to hold down employment growth.

Despite automation, job openings will arise due to increasing economic activity and because certain functions cannot be automated. For example, someone needs to check shipments before they go out and when they arrive to ensure that everything is in order. However, most job openings will occur because of the need to replace traffic, shipping, and receiving clerks who leave the occupation. Because this is an entry level occupation, many vacancies are created by normal career progression.

### Related Occupations

Traffic, shipping, and receiving clerks record, check, and often store the materials that a company receives. They also process and pack goods for shipment. Other workers who perform similar duties are stock clerks, material clerks, distributing clerks, routing clerks, express clerks, expeditors, and order fillers.

### Sources of Additional Information

State employment service offices can provide information about job openings for traffic, shipping, and receiving clerks. (Information on

training and earnings is in the introduction to material recording, scheduling, dispatching, and distributing occupations.)

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## Postal Clerks and Mail Carriers

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(D.O.T. 209.687-014; 230.363-010, .367-010; 239.367-018; and 243.367-014)

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### Nature of the Work

Each day, the United States Postal Service receives, sorts, and delivers millions of letters, bills, advertisements, and packages. To do this, it employs about 761,000 workers. Almost 9 out of 10 of these workers are postal clerks, who sort mail and serve customers in post offices, or mail carriers, who deliver the mail.

Clerks and carriers are distinguished by the type of work they do. Clerks are usually classified by the mail processing function they perform, whereas carriers are classified by their type of route—city or rural.

About 440 mail processing centers throughout the country service post offices in surrounding areas and are staffed primarily by postal clerks. Some clerks, more commonly referred to as mail handlers, unload the sacks of incoming mail; separate letters, parcel post, magazines, and newspapers; and transport these to the proper sorting and processing area. In addition, they may perform simple canceling operations and rewrap packages damaged in process. After letters have been put through stamp-canceling machines, they are taken to other workrooms to be sorted according to destination. Clerks operating electronic letter-sorting machines push keys corresponding to the ZIP code of the local post office to which each letter will be delivered; the machine then drops the letters into the proper slots. A growing proportion of clerks operate optical character readers (OCRs) and bar code sorters, machines that can "read" the address and sort a letter according to a code printed on the envelope. Others sort odd-sized letters, magazines, and newspapers by hand. Finally, the mail is sent to local post offices for sorting according to delivery route and delivered.

Postal clerks at local post offices sort local mail for delivery to individual customers and provide retail services such as selling stamps and money orders, weighing packages to determine postage, and checking that packages are in satisfactory condition for mailing. Clerks also register, certify, and insure mail and answer questions about postage rates, post office boxes, mailing restrictions, and other postal matters. Occasionally, they may help a customer file a claim for a damaged package.

Once the mail has been processed and sorted, it is ready to be delivered by mail carriers. Duties of city and rural carriers are very similar. Most travel established routes delivering and collecting mail. Mail carriers start work at the post office early in the morning, where they spend a few hours arranging their mail for delivery and taking care of other details.

Carriers may cover the route on foot, by vehicle, or a combination of both. On foot, they carry a heavy load of mail in a satchel or push it in a cart. In some urban and most rural areas, they use a car or small truck. Although the Postal Service provides vehicles to city carriers, most rural carriers use their own automobiles. Deliveries are made house-to-house, to roadside mailboxes, and to large buildings, such as offices or apartments, which generally have all the mailboxes on the first floor.

Besides delivering and collecting mail, carriers collect money for postage-due and c.o.d. (cash on delivery) fees and obtain signed receipts for registered, certified, and insured mail. If a customer is not home, the carrier leaves a notice that tells where special mail is being held.

After completing their routes, carriers return to the post office with mail gathered from street collection boxes, homes, and businesses. They turn in the mail receipts and money collected during the day and may separate letters and parcels for further processing by clerks.

The duties of some city carriers may be very specialized; some deliver only parcel post while others collect mail from street boxes

and receiving boxes in office buildings. In contrast, rural carriers provide a wide range of postal services. In addition to delivering and picking up mail, they sell stamps and money orders and accept parcels, letters, and items to be registered, certified, or insured.

All carriers answer customers' questions about postal regulations and services and provide change-of-address cards and other postal forms when requested. In addition to their regularly scheduled duties, carriers often participate in neighborhood service programs in which they check on elderly or shut-in patrons or notify the police of any suspicious activities along their route.

Postal clerks and mail carriers are classified as casual, part-time flexible, part-time regular, or full time. Casual workers help process and deliver mail during peak mailing or vacation periods. Part-time flexible workers do not have a regular work schedule or weekly guarantee of hours; they replace absent workers and help with extra work as the need arises. Part-time regulars have a set work schedule of less than 40 hours per week. Full-time postal employees work a 40-hour week over a 5-day period.

### Working Conditions

Postal clerks usually work in clean, well-ventilated, and well-lit buildings. However, other conditions vary according to work assignments and the type of laborsaving machinery available. In small post offices, mail handlers use handtrucks to move heavy mail sacks from one part of the building to another and clerks may sort mail by hand. In large post offices and mail processing centers, chutes and conveyors move the mail, and much of the sorting is done by machines. Despite the use of automated equipment, the work of mail handlers and postal clerks can be physically demanding. These workers are usually on their feet, reaching for sacks and trays of mail or placing packages and bundles into sacks and trays.

Mail handlers and distribution clerks may become bored with the routine of moving and sorting mail. Many work at night or on weekends because most large post offices process mail around the clock, and the largest volume of mail is sorted during the evening and night shifts.

Window clerks, on the other hand, have a greater variety of duties, frequent contact with the public, and rarely have to work at night. However, they may have to deal with upset customers, and they are held accountable for the assigned stock of stamps and for postal funds.

Most carriers begin work early in the morning, in some cases as early as 4 a.m. if they have routes in the business district. A carrier's schedule has its advantages, however: Carriers who begin work early in the morning are through by early afternoon, and they spend most of the day on their own, relatively free from direct supervision.

Carriers spend most of their time outdoors, and deliver mail in all kinds of weather. Even those who drive often must walk when making deliveries and must lift heavy sacks of parcel post items when loading their vehicles. In addition, carriers always must be cautious of potential hazards on their routes. Wet roads and sidewalks can be treacherous, and each year numerous carriers are bitten by unfriendly dogs.

### Employment

The U.S. Postal Service employed 302,000 postal clerks and 305,000 mail carriers in 1990. Three-fourths of them worked full time. Most postal clerks worked at mail processing centers, although some clerks provided window service and sorted mail at local post offices. Although most mail carriers worked in cities and suburban communities, 42,000 were rural carriers.

### Training, Other Qualifications, and Advancement

Postal clerks and mail carriers must be U.S. citizens or have been granted permanent resident-alien status in the United States. They must be at least 18 years old (or 16, if they have a high school diploma). Qualification is based on a written examination that measures speed and accuracy at checking names and numbers and ability to memorize mail distribution procedures. Applicants must pass a physical examination as well, and may be asked to show that they can lift and handle mail sacks weighing up to 70 pounds. Applicants for jobs



*Although automation has streamlined the sorting process, postal service clerks and mail carriers must still sort some mail by hand.*

as postal clerks operating electronic sorting machines must pass a special examination that includes a machine aptitude test. Applicants for mail carrier positions must have a driver's license, a good driving record, and a passing grade on a road test.

Applicants should apply at the post office or mail processing center where they wish to work in order to determine when an exam will be given. Applicants' names are listed in order of their examination scores. Five points are added to the score of an honorably discharged veteran, and 10 points to the score of a veteran wounded in combat or disabled. When a vacancy occurs, the appointing officer chooses one of the top three applicants; the rest of the names remain on the list to be considered for future openings until their eligibility expires, usually 2 years from the examination date.

Relatively few people under the age of 25 are hired as career postal clerks or mail carriers, a result of keen competition for these jobs and the customary waiting period of 1-2 years or more after passing the examination. It is not surprising, therefore, that most entrants transfer from other occupations.

New postal clerks and mail carriers are trained on the job by experienced workers. Many post offices offer classroom instruction. Workers receive additional instruction when new equipment or procedures are introduced. They usually are trained by another postal employee or, sometimes, a training specialist hired under contract by the Postal Service.

A good memory, good coordination, and the ability to read rapidly and accurately are important. In addition, mail handlers should be in good physical condition. Mail handlers and distribution clerks work closely with other clerks, frequently under the tension and strain of meeting dispatch transportation deadlines. Window clerks and mail

carriers must be courteous and tactful when dealing with the public, especially when answering questions or receiving complaints.

Postal clerks and mail carriers often begin on a part-time flexible basis and become regular or full time in order of seniority as vacancies occur. Full-time clerks may bid for preferred assignments such as the day shift, a window job, or a higher level nonsupervisory position as expeditor or window service technician. Carriers can look forward to obtaining preferred routes as their seniority increases, or to higher level jobs such as carrier technician. Both clerks and carriers can advance to supervisory positions.

### Job Outlook

Those seeking a job in the Postal Service can expect to encounter keen competition—the number of applicants for postal clerk and mail carrier positions is expected to continue to far exceed the number of openings. Job opportunities will vary by occupation and duties performed.

Overall employment of postal clerks is expected to grow more slowly than the average through the year 2005. In spite of the anticipated increase in the total volume of mail, automation will continue to increase the productivity of postal clerks. Increasingly, mail will be moved using automated materials-handling equipment and sorted using optical character readers, bar code sorters, and other automated sorting equipment. In addition, demand for window clerks will be moderated by the increased sales of stamps and other postal products by grocery and department stores and other retail outlets.

Conflicting factors also are expected to influence demand for mail carriers. Despite competition from alternative delivery systems and new forms of electronic communication, the volume of mail handled by the Postal Service is expected to continue to grow. Population growth and the formation of new households, coupled with an increase in the volume of third class mail, will stimulate demand for mail delivery. However, increased use of the "ZIP + 4" system, which is used to sort mail to the carrier route, should decrease the amount of time carriers spend sorting their mail. In addition, the Postal Service is moving toward more centralized mail delivery, such as the use of more cluster boxes, to cut down on the number of door-to-door deliveries. Although these trends are expected to increase carrier productivity, they will not significantly offset the growth in mail volume, and employment of mail carriers is expected to grow about as fast as the average for all occupations.

In addition to jobs created by growth in demand for postal services, some jobs will become available because of the need to replace postal clerks and mail carriers who retire or stop working for other reasons. The factors that make entry to these occupations highly competitive—attractive salaries, a good pension plan, steady work, and modest educational requirements—contribute to a high degree of job attachment, so that replacement needs produce relatively fewer job openings than in other occupations of this size. In contrast to the typical pattern, postal workers generally remain in their jobs until they retire; relatively few transfer to other occupations.

Although the volume of mail to be processed and delivered rises and falls with the level of business activity, as well as with the season of the year, full-time postal clerks and mail carriers have, to date, never been laid off. When mail volume is high, full-time clerks and carriers work overtime, part-time clerks and carriers work additional hours, and casual clerks and carriers may be hired. When mail volume is low, overtime is curtailed, part-timers work fewer hours, and casual workers are discharged.

### Earnings

In 1990, base pay for beginning full-time carriers and postal clerks was \$23,640 a year, rising to a maximum of \$29,440 after 10 1/2 years of service. For those working between 6 p.m. and 6 a.m., a supplement is paid. Experienced, full-time, city delivery mail carriers earn an average salary of \$29,100 a year. Postal clerks and carriers working part-time flexible schedules begin at \$11.75 an hour and, based on the number of years of service, increase to a maximum of \$15.30 an hour.

Rural delivery carriers had average base salaries of \$27,300 in 1990. Their earnings are determined through an evaluation of the

amount of work required to service their routes. Carriers with heavier workloads generally earn more than those with lighter workloads. Rural carriers also receive a maintenance allowance when required to use their own vehicles. In early 1991, this was approximately 30 cents per mile.

Postal workers enjoy a variety of employer-provided benefits. These include health and life insurance, vacation and sick leave, and a pension plan.

In addition to their hourly wage and benefits package, some postal workers receive a uniform allowance. This group includes those workers who are in the public view for 4 or more hours each day and various maintenance workers. The amount of the allowance depends on the job performed—some workers are only required to wear a partial uniform, and their allowance is lower. In 1990, for example, the allowance for a letter carrier was \$229 per year, compared to \$98 for a window clerk.

Most of these workers belong to one of four unions: American Postal Workers Union, National Association of Letter Carriers, National Postal Mail Handlers Union, and National Rural Letter Carriers Association.

### Related Occupations

Other workers whose duties are related to those of postal clerks include mail clerks, file clerks, routing clerks, sorters, material moving equipment operators, clerk typists, cashiers, data entry operators, and ticket sellers. Others with duties related to those of mail carriers include messengers, merchandise deliverers, and delivery-route truckdrivers.

### Sources of Additional Information

Local post offices and State employment service offices can supply details about entrance examinations and specific employment opportunities for postal clerks and mail carriers.

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## Record Clerks

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### Nature of the Work

Organizations of all kinds—businesses, government agencies, unions, and colleges and universities—need to keep accurate records—financial as well as nonfinancial. Maintaining and updating records, ranging from personnel records to information on freight deliveries to securities transactions, is the job of record clerks. (Additional information about record clerks is provided in the separate statements in this section.)

Record clerks perform a wide variety of recordkeeping duties. Billing clerks prepare bills and invoices. Bookkeeping, accounting, and auditing clerks maintain financial data in computer and paper files. Brokerage clerks prepare and maintain the records generated when stocks, bonds, and other types of investments are traded. File clerks store and retrieve various kinds of office information for use by members of the staff. Library assistants check books in and out. Order clerks process incoming orders for goods and services. Payroll and timekeeping clerks compute wages for payroll records. Personnel clerks keep employee records current. Statement clerks prepare the monthly statements most customers receive from their bank.

Record clerks' duties may vary with the size of the firm. In a small business, for example, one bookkeeping clerk may handle all financial records and transactions, while in a large firm with many specialized clerks, one file clerk may be responsible for retrieving records from storage.

Computers have changed the duties of most record clerks. In the past, for example, clerks made calculations with adding machines and entered figures into ledgers and files. Now, many workers use financial software programs to enter and manipulate data. Computers enable clerks to access data within files more quickly than by leafing through stacks of paper. Despite increased automation, workers still keep backup paper records for research, auditing, and reference purposes.

Interaction with the public and coworkers is a basic part of the job of many record clerks. Payroll clerks, for example, may answer employees' questions concerning overdue pay; bookmobile drivers may help users find specific books; and order clerks may call customers to verify special mailing instructions.

### Working Conditions

With the exception of library clerks and bookmobile drivers, record clerks work in a typical office environment. Most work alongside the organization's other clerical workers, but some work in centralized units away from the front office of the establishment. Clerks who review detailed data may be required to sit for extended periods. Although they do not do much heavy lifting, file clerks and library assistants must frequently stoop, bend, reach, and spend a lot of time on their feet. Bookmobile drivers must face the difficulties of driving in various kinds of traffic and weather.

An increasing number of record clerks use video display terminals (VDT's) as part of their daily routine. Workers who spend a lot of time at VDT's may experience eyestrain and musculoskeletal strain, including repetitive motion injuries.

Most of these workers work regular business hours. Some, such as library assistants, may work evenings and weekends. Library assistants employed in school libraries generally work only during the school year. Accounting clerks may work longer hours to meet deadlines at the end of the fiscal year, during tax time, or when monthly and yearly accounting audits are performed. Billing, bookkeeping, and accounting clerks in hotels, restaurants, and stores may work overtime during peak holiday and vacation seasons. Brokerage clerks may have to work overtime if there is a high volume of stock market activity. Order clerks in retail establishments may work overtime when sales volume is high, especially around Christmas.

### Employment

Record clerks held about 3,761,000 jobs in 1990. The following tabulation indicates the employment in each occupation.

Total.....	100
Bookkeeping, accounting, and auditing clerks.....	61
Billing clerks and related workers.....	11
Order clerks, material, merchandise, and service.....	8
File clerks.....	7
Payroll and timekeeping clerks.....	5
Library assistants and bookmobile drivers.....	3
Personnel clerks, except payroll and timekeeping.....	3
Brokerage clerks and statement clerks.....	2

These workers are employed in virtually every industry. The largest number work for firms providing health, business, and other types of services. Large numbers also work in finance, insurance, and real estate; trade; manufacturing; and government.

### Training, Other Qualifications, and Advancement

Most record clerk jobs are entry level positions. Most employers require applicants to have at least a high school diploma or its equivalent. In some cases, more education is required. For example, order clerks in high-technology firms often need to understand scientific and mechanical processes, which may require some college education. Employers also prefer workers with office and computer experience, particularly word processing and spreadsheet programs, as well as good interpersonal skills. Work experience in a specific industry may also be an asset for accounting and other clerks.

High schools, business schools, and community colleges teach office skills. Business education programs typically include courses in typing (keyboarding), word processing, shorthand, records management, and office systems and procedures. Technical training needed for some specialized order clerk positions can be obtained in technical institutes and in 2- and 4-year colleges.

Some entrants are college graduates with degrees in business, finance, or the liberal arts. Although a degree is rarely required, many take entry level clerical positions to get into a company or into the finance and accounting field, with the hope of being promoted to

managerial or management support jobs. These workers may start at higher salaries and advance more rapidly than those without a degree.

Once hired, record clerks generally receive specific training on the job. Under the guidance of a supervisor or senior worker, new employees learn procedures to follow. Some formal classroom training may be necessary, such as training in operating specific software packages on a personal computer.

Record clerks must be careful, orderly, and detail oriented in order to avoid making errors as well as being able to recognize errors in data. These workers must also be honest, discreet, and trustworthy because they frequently come in contact with confidential material. Payroll clerks, billing clerks, and bookkeeping, accounting, and auditing clerks should have a strong aptitude for numbers. Because statement clerks have access to an individual's financial information, they must be bonded.

Workers usually advance by taking on more duties in the same occupation with higher pay. Others advance to closely related occupations. For example, some order clerks use their experience to move into a sales position. Others move into another clerical position, such as secretary, or advance to a supervisory position. With appropriate experience and education, some clerks may become accountants, brokers, or librarians.

### Job Outlook

Employment of record clerks is expected to grow more slowly than the average for all occupations through the year 2005. Despite continued growth in the volume of business transactions, rising productivity will cause a slowdown in employment growth.

The main factor affecting productivity in these occupations is the spread of office automation. Many of these jobs are "back office" clerical positions, which have already been heavily automated in many organizations. Productivity has increased significantly as more and more of these workers have begun to use word processors and personal computers instead of more time-consuming equipment such as typewriters, adding machines, and calculators. Use of equipment such as bar code readers, point-of-sale terminals, and optical scanners by other employees also reduces much of the data entry handled by record clerks. Managers and professionals increasingly use computers to access, create, and store data directly in the computer system. The growing use of local area networks is also facilitating electronic data interchange (EDI). EDI refers to the sending of data from computer to computer, without the need for clerks to reenter the data. To further eliminate duplicate functions, large companies may centralize their clerical operations in a low-cost geographical area.

In this large occupational group, the vast majority of job openings will arise from the need to replace those who transfer to other occupations or leave the labor force. New positions would more likely appear in new organizations than would be created in established ones.

### Earnings

Salaries of record clerks vary considerably. Region of the country, size of city, and type and size of establishment all influence salary levels. The level of industry or technical expertise required and the complexity and uniqueness of a clerk's responsibilities may also affect earnings. Average salaries vary by detailed occupation, as shown in the following tabulation.

Order clerks.....	\$21,900
Payroll and timekeeping clerks.....	19,100
Personnel clerks.....	18,500
Bookkeeping, accounting, and auditing clerks.....	17,600
Billing clerks.....	16,700
File clerks.....	14,700
Library assistants and bookmobile drivers.....	14,600

In the Federal Government in 1991, personnel clerks and file clerks with a high school diploma or 6 months of clerical experience started at \$12,531 and \$11,484, respectively. In 1990, the average salary for all personnel clerks was \$18,000 and for file clerks, \$14,600.

In addition to salary, record clerks receive the same package of benefits as other employees in the organization. In large and medium-size establishments, sick and annual leave, life and health insurance, and retirement plans are common.

### Related Occupations

Most record clerks today enter data into a computer system and perform basic analysis of the data. Other clerical workers who enter and manipulate data are bank tellers, statistical clerks, receiving clerks, medical record clerks, hotel and motel clerks, credit clerks, and reservation and transportation ticket agents.

### Sources of Additional Information

State employment service offices can provide information about job openings for record clerks. A brochure describing a career as a bookkeeper or accounting clerk is available upon request from:

• Association of Independent Colleges and Schools, 1 Dupont Circle NW, Suite 350, Washington, DC 20036.

Public libraries and libraries in academic institutions can provide information about job openings for library assistants and bookmobile drivers.

• The State Library of Ohio, Field Operations Department, can provide specific information on bookmobile drivers. The address is: 65 South Front St., Columbus, OH 43266-0334.

Information on careers in records and information management can be obtained from:

• Association of Record Managers and Administrators (ARMA), 4200 Somerset Dr., Suite 215, Prairie Village, KS, 66208. (Phone: 1-800-422-2762.)

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## Billing Clerks

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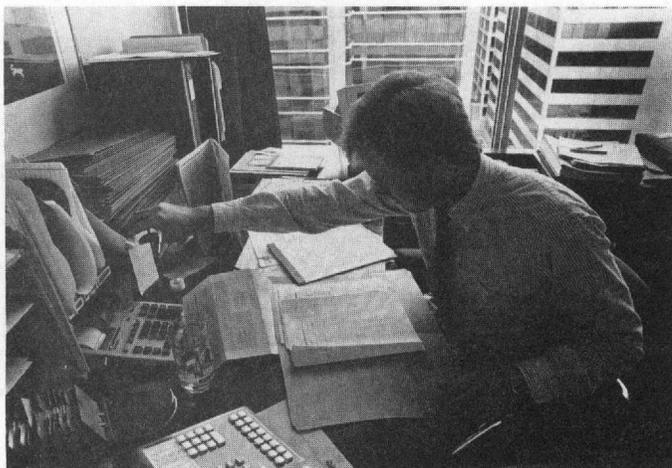
(D.O.T. 184.387-010; 210.382-022, -026, -066; 211.482-014, -018, .582-010; 214.267-010, .362-010, -014, -022, -026, -038, -042, .382-010, -014, -018, -022, -026, -030, .387-010, -014, -018, .462-010, .467-010, -014; 214.482-010, -014, -018, -022, .582-010, .587-010; 216.382-034, -050, -054, .482-014, -018, -022; 217.382-010; 241.267-026; and 249.367-034)

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### Nature of the Work

Billing clerks produce the bills and related documents that are used to settle customers' accounts. Billing, cost, and rate clerks keep the records, calculate the charges, and maintain the files of payments made for goods or services. Billing machine operators operate the machines that generate the bills, statements, and invoices.

Billing clerks review purchase orders, bills of lading, sales tickets, hospital records, or charge slips to calculate the total amount due from a customer. Calculating the charges for an individual's hospital stay may require a letter to an insurance company, but a clerk computing trucking rates for machine parts may simply consult a rate



*Detailed invoices of charges to a customer are prepared by billing clerks.*

book. After billing clerks review all the necessary information, they compute the charges using calculators, adding machines, or computers. They then prepare the itemized statements, bills, or invoices—the type depends on the organization's needs—used for billing and recordkeeping purposes. For example, the clerk might prepare a simple bill that only contains the amount due and the date and type of service. In another organization, the clerk would produce a detailed invoice that includes the codes for all goods and services provided. This latter form might list the items sold, credit terms, date of shipment or dates services were provided, a salesperson's or doctor's identification if necessary, and the sales total.

Once all the information has been entered, billing machine operators then run off the bill that will be sent to the customer. In a growing number of firms, workers using computers and advanced billing equipment calculate charges and prepare bills in one step. Specific computer packages prompt clerks to enter data from hand-written forms and manipulate the necessary entries of quantities, labor, and rates to be charged. Billing clerks verify the entry of information and check for computer errors before the bill is printed by the computer.

### Employment

Billing clerks held about 413,000 jobs in 1990. About 4 of every 10 workers were employed by banks and other financial institutions, insurance companies, and other organizations providing business and health services. About 1 of every 4 employees was found in wholesale and retail establishments, and a significant number worked in manufacturing, transportation, communications, and utilities. Approximately 1 in 6 billing clerks works part time.

### Job Outlook

Overall employment of billing clerks is expected to change little through the year 2005. Despite the lack of growth, many job openings will occur as billing clerks transfer to other occupations or leave the labor force.

A growing economy and a greater demand for billing services will result in more business transactions, but productivity increases will keep employment from rising. Employment of billing, cost, and rate clerks will rise, but not as fast as the increase in business transactions, as computers are increasingly used to manage account information. More unique and complex billing applications will increasingly require workers with greater technical expertise. Employment of machine operators will decline as more advanced machines and computers enable billing, cost, and rate clerks to perform the jobs formerly performed by billing machine operators.

(See introductory part of this section for information on training requirements and earnings.)

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## Bookkeeping, Accounting, and Auditing Clerks

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(D.O.T. 209.687-010; 210.362-010, .367-010, -014, .382-010, -014, -018, -030, -034, -038, -042, -046, -050, -054, -058, -062; 214.362-018; 216.362-010, -014, -022, -026, -034, .367-010, .382-010, -014, -018, -022, -026, -030, -038, -058, -070, -074, .387-010, .482-010, -026, .587-010, -014; 219.362-062, -066, .367-042, .387-018, .487-010, .587-010; and 249.367-038)

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### Nature of the Work

All money spent or received by an organization must be accurately recorded. Bookkeeping, accounting, and auditing clerks are an organization's financial recordkeepers. They compute, classify, record, and verify numerical data in order to develop and maintain financial records.

In smaller establishments, bookkeeping clerks handle all aspects of financial transactions. They record debits and credits, compare current and past balance sheets, summarize details of separate ledgers, and prepare reports for supervisory workers. They may also prepare bank deposits by compiling data from cashiers, verifying and balancing receipts, and sending the cash, checks, or other forms of payment to the bank.

In larger offices and accounting departments, accounting clerks are generally more specialized. For example, entry level accounting

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## Brokerage Clerks and Statement Clerks

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(D.O.T. 216.382-042, -046; 219.362-018, -054, -058, and .482-010)

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### Nature of the Work

Brokerage clerks and statement clerks are behind-the-scenes workers who produce the records associated with financial transactions.

Brokerage clerks, who work in the operations area of securities firms, perform many duties to facilitate the sale and purchase of stocks, bonds, commodities, and other kinds of investments. These clerks produce the necessary records of all transactions that occur in their area of the business.

Their specific job titles depend upon the type of work they do. Purchase-and-sale clerks match orders to buy with orders to sell. Their function is to balance and verify stock trades by comparing the records of the selling firm to those of the buying firm. Dividend clerks are responsible for ensuring timely payments of stock or cash dividends to clients of a particular brokerage firm. Transfer clerks examine stock certificates for adherence to banking regulations. Receive-and-deliver clerks are responsible for physically receiving and delivering stock certificates. They take securities from the vault of the brokerage firm and deliver them to customers, banks, and other brokerage firms. Margin clerks post accounts and monitor activity in customers' accounts. Their job is to ensure that customers make their payments and stay within legal boundaries concerning stock purchases.

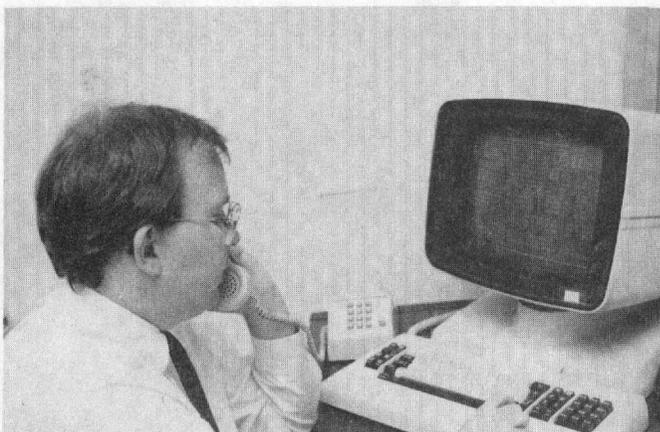
A significant and growing number of brokerage clerks use video display terminals (VDT's) in their work. Some use VDT's most of the time, while others use them only part of the time.

Statement clerks are responsible for assembling, verifying, and sending individual and commercial bank statements every month. How this is done depends on the particular bank.

In most modern banks, statement clerks, sometimes called statement operators, operate sophisticated, high-speed machines. These machines fold the computer-printed statement, collate it if it is more than one page, insert the statement and cancelled checks into an envelope, seal it, and weigh it for postage. Statement clerks load the machine with the statements, cancelled checks, and envelopes. They then monitor the equipment, correct jams, or call the repair personnel for more serious problems.

In banks that do not have such machines, statement clerks manually place the statements and cancelled checks in envelopes, seal them, and weigh them for postage. They may also be responsible for verifying signatures and checking for missing information on checks, placing cancelled checks into trays, and retrieving them to send with the statements.

In a small but growing number of banks, only the statement is printed and sent to the account holder. The cancelled checks are not returned; this is known as check truncation.



*Brokerage clerks are generally employed by firms involved in selling securities and commodities; most statement clerks are employed in banking institutions.*



*Auditing clerks verify records of transactions by checking documents for correct posting, mathematical accuracy, and proper coding.*

clerks post details of transactions, total accounts, and compute interest charges. They may also monitor loans and accounts payable and receivable to ensure that payments are up to date. More advanced clerks may total, balance, and reconcile billing vouchers; ensure completeness and accuracy of data on accounts; and code documents according to company procedures. They may also post transactions in journals and on computer files, and update these files when needed. They review computer printouts against manually maintained journals, and make necessary corrections. Senior workers review invoices and statements to make sure all information is accurate and complete, and may reconcile computer reports with operating reports.

Auditing clerks verify records of transactions posted by other workers. They check figures, postings, and documents for correct entry, mathematical accuracy, and proper codes. They also correct or note errors for accountants or other workers to adjust.

As more organizations computerize their financial records, more bookkeeping, accounting, and auditing clerks are working on video display terminals (VDT's). They increasingly post charges to accounts on computer spreadsheets and databases and do less posting to general ledgers. Information is entered into the computer from paper receipts or bills and then is stored on paper as computer print outs.

### Employment

Bookkeeping, accounting, and auditing clerks held about 2,276,000 jobs in 1990. Almost 1 of every 3 was in wholesale and retail trade. About one-fourth were in organizations providing business, health, educational, and social services. Approximately 1 in 4 bookkeeping, accounting, and auditing clerks works part time.

### Job Outlook

A decline is expected in the employment of bookkeeping, accounting, and auditing clerks through the year 2005. A growing economy will result in more financial transactions and other activities, and, therefore, more demand for accounting services. However, automation of office functions is expected to continue, with resulting productivity increases. Virtually all new jobs will be created in small, rapidly growing organizations. Large organizations are likely to continue the consolidation of departments that eliminates duplicate functions and reduces the demand for these clerks. Despite the lack of employment growth, job openings will be numerous because of the large size of the occupation. Opportunities for temporary work should continue to grow.

(See introductory part of this section for information on training requirements and earnings.)

Statement clerks are employed primarily in large banks. In smaller banks, their function is usually handled by a teller or a bookkeeping clerk, for example, who performs other duties during the rest of the month. Other small banks send their statement information to a large bank for processing, printing, and mailing.

### Employment

Brokerage clerks held about 60,000 jobs in 1990, and statement clerks held about 33,000. Brokerage clerks were employed in firms involved in the sales of securities and commodities. Almost all statement clerks were employed by banking institutions of some kind.

### Job Outlook

Employment of brokerage clerks and statement clerks is expected to grow more slowly than the average for all occupations through the year 2005 due to the impact of automation and changes in business practices. For example, computers now calculate the dividends due on stocks, something done for decades by brokerage clerks with adding machines and calculators. Securities themselves may be stored in computer form and traded using electronic data interchange (EDI). Although less paper will change hands, clerks will continue to enter and verify all transactions. Automated statement processing will grow as the increased volume of transactions justifies the cost of the necessary equipment. In addition, the further spread of check truncation is expected to hold down employment of statement clerks. Nonetheless, thousands of openings will arise every year to replace brokerage and statement clerks who transfer to other occupations or leave the labor force.

(See introductory part of this section for information on training requirements and earnings.)

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## File Clerks

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(D.O.T. 206.362-010, .367-014, and .387)

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### Nature of the Work

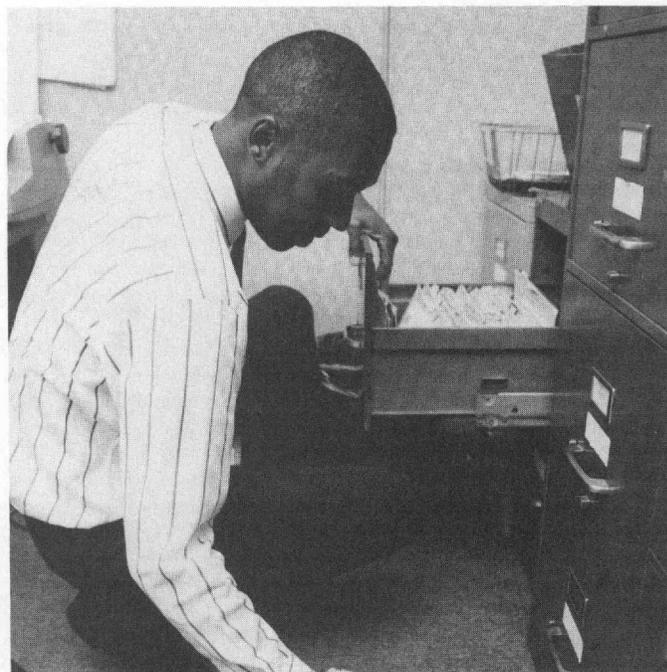
An organization's records need to be arranged so that information can be located quickly. This creates many job opportunities for file clerks, who classify, store, retrieve, and update office information on request.

File clerks examine incoming material and code it according to a numerical system, by letter of the alphabet, or by subject matter. They then store forms, letters, receipts, or reports in paper form or enter necessary information into other storage devices. Many file clerks still place paper files in file cabinets. Some clerks operate mechanized files that rotate to bring the needed records to them. Others film documents that are then stored on microforms (microfilm or microfiche). A small but growing number of file clerks operate equipment that scans paper files or film and stores the material on optical disks.

Records must be current to be useful. File clerks ensure that new information is added to the files in a timely manner and may destroy outdated file materials or transfer them to inactive storage. They also check files at regular intervals to make sure that all items are correctly sequenced and placed. Whenever records cannot be located, the file clerk searches for the missing material. As an organization's needs for information change, file clerks implement changes to the filing system established by supervisory personnel.

When records are requested, file clerks locate them and give them to the borrower. The document may be a sheet of paper stored in a drawer in a file cabinet or an image on microform. In the first example, the clerk manually retrieves the document and hands or forwards it to the borrower. In the latter example, the clerk retrieves the microform and displays it on a microform reader. If necessary, file clerks make copies of records and distribute them. They keep track of materials removed from the files and make sure that those given out are returned.

A growing number of file clerks are using computerized filing and retrieval systems. In these, information on the location of documents



*File clerks increasingly use computerized indexes to locate where certain documents are stored.*

is stored on a computer. To retrieve a document, the clerk enters the document's identification code, obtains the location, and retrieves the document.

In small offices, file clerks often have expanded responsibilities. These include typing (keyboarding), word processing, sorting mail, or operating copying machines. Those who work with automated filing systems may code, index, and put all incoming documents on microfilm, microfiche, or optical disk.

### Employment

File clerks held about 271,000 jobs in 1990. Many other clerical workers also perform filing in connection with their work. While file clerk jobs are found in nearly every sector of the economy, about 4 out of 5 file clerks are employed in services; finance, insurance, and real estate; and government. More than 1 out of every 10 is employed in temporary services and about 1 out of 3 works part time.

### Job Outlook

Employment of file clerks is expected to grow more slowly than the average for all occupations through the year 2005 as employers increasingly automate their recordkeeping systems. Many openings, nevertheless, will occur to replace workers who transfer to other occupations or leave the labor force.

Recordkeeping requirements are expected to rise in conjunction with a general increase in economic activity. Industries where the demand for file clerk services will be strong include offices of physicians, dentists, and other health professionals; legal services; and computer and data processing services. However, the expected growth in the volume of records should be partially offset by the greater use of automated and computerized systems that increase file clerks' productivity. In addition, the growing use of personal computers by professionals and managers will relieve file clerks of accessing the growing number of documents stored on computers.

Jobseekers who have typing (keyboarding) and other secretarial skills and are familiar with a wide range of office machines, personal computers in particular, should have better opportunities than less experienced applicants. File clerks should find many opportunities for temporary or part-time work, especially during peak business periods.

(See introductory part of this section for information on training requirements and earnings.)

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## Library Assistants and Bookmobile Drivers

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(D.O.T. 209.387-026; 222.587-014; 249.363-010, .365-010, .367-046, and .687-014)

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### Nature of the Work

Library assistants and bookmobile drivers keep library resources in orderly condition and make them readily available to a variety of users. They work under the direction of librarians.

Library assistants—sometimes referred to as library media assistants, library clerks, library aides, or circulation assistants—register patrons so they can borrow materials from the library. They record the borrower's name and address from an application and then issue a library card. Many library assistants now enter and update patron's records using microfilm machines or computers.

At the circulation desk, assistants lend and collect books, periodicals, video tapes, and other materials. When an item is borrowed, they stamp the due date on the material and record the patron's identification from his or her library card. They inspect returned materials for damage, check the due dates, and compute any fines that may be owed. They review records to compile a list of overdue materials and send out overdue notices. They also answer patrons' questions in person and on the telephone and refer those they cannot answer to a librarian.

Throughout the library, assistants sort returned books, publications, and other items and return them to their designated shelves, files, or storage areas. They locate materials to be loaned, either to a patron or to another library, and file cards in the card catalog. If any of the materials have been damaged, these workers repair them, if possible. For example, they use tape or paste to repair torn pages or book covers and other specialized processes to repair more valuable materials.

Some library assistants specialize in helping patrons with vision problems, including blindness. Sometimes referred to as talking-books library clerks or braille-and-talking-books clerks, they review the borrower's list of desired reading material. They select those materials or closely related substitutes from the library collection of large type or braille volumes, tape cassettes, and open-reel talking books. They do the necessary paperwork and give or mail them to the borrower.

To extend library services to as wide an audience as possible, many libraries operate bookmobiles. Bookmobile drivers drive vans stocked with books or drive light trucks that pull a book trailer to specific places on a regular schedule. At each shopping center, apartment complex, school, nursing home, or other stop, they open the library to the public. Depending on local conditions, they may drive alone or may be accompanied by a librarian or library technician.

When working alone, the drivers perform many of the same functions as a library assistant in a main or branch library. They answer

patrons' questions, receive and check out books, collect fines, and shelve materials. Sometimes they transport book collections, which are specifically prepared by librarians for lending to patrons in specialized institutions, such as juvenile centers, detention centers, or mental institutions. They must keep track of their mileage, the materials lent out, and the amount of fines collected. Drivers may also record requests for special items from the main library and arrange for the materials to be mailed or delivered to that patron during the next scheduled visit. Increasingly, drivers operate remote links to the computer system at the main library to reserve or locate books immediately. They access computer files by cellular phone, radio, or a computer terminal in the bookmobile.

Because bookmobile drivers may be the only link some people have to the library, much of their work is helping the public. They may assist handicapped or elderly patrons to the bookmobile or shovel snow to assure their safety. In some areas they are responsible for the maintenance of the vehicle and any photocopiers or other equipment in it.

The schedules of bookmobile drivers depend on the size of the area being served. Some of these workers go out on their routes every working day, while others do so only certain days of the week. On the other days, they perform library assistant duties at the library. Some now work evenings and weekends to give patrons as much access to the library as possible.

### Employment

Library assistants and bookmobile drivers held about 117,000 jobs in 1990. Almost one-half of these workers were employed by public libraries; most of the remainder worked in school libraries. Opportunities for flexible schedules are abundant; over one-half of these workers were on part-time schedules.

### Job Outlook

Employment of library assistants and bookmobile drivers is expected to grow more slowly than the average for all occupations through the year 2005. Nevertheless, thousands of library assistants and bookmobile drivers will be needed every year to replace those who transfer to other fields or leave the labor force.

The vast majority of library assistants and bookmobile drivers work in public or school libraries of some kind. Slow employment growth is expected due to the expected slow growth in funding for local governments and academic institutions of all types. Because so many are employed by public institutions, library assistants and bookmobile drivers are not directly affected by the ups and downs of the business cycle. Some of these workers may lose their jobs, however, if there are cuts in government budgets.

(See introductory part of this section for information on training requirements and earnings.)

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## Order Clerks

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(D.O.T. 209.387-018; 245.367-026; 249.367-042, -054; 295.367-018; and 659.462-010)

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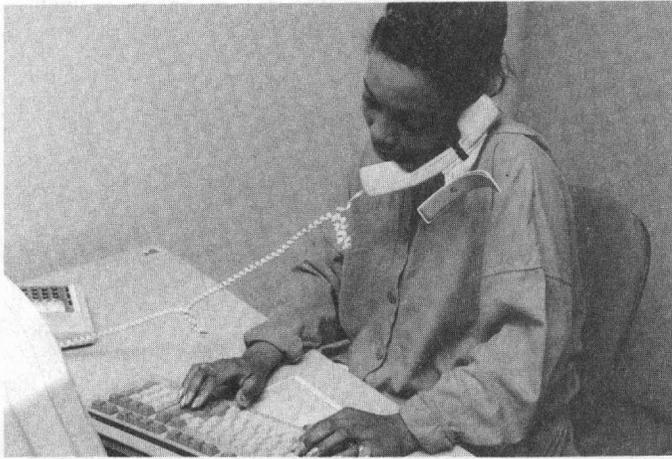
### Nature of the Work

Order clerks receive and process incoming orders for such items as spare parts for machines, consumer appliances, gas and electric power connections, film rentals, and articles of clothing. They are sometimes called customer-order clerks, customer service representatives, order processors, or order takers.

Orders for materials, merchandise, or services can come from within an organization or from outside it. In large companies with many work sites, such as automobile manufacturers, parts and equipment need to be ordered from the company's warehouses. "Inside order clerks" receive orders from other workers employed by the same company or from salespersons in the field. Many other order clerks, however, receive orders from other companies or from individuals. Order clerks in wholesale businesses, for instance, receive orders for merchandise from retail establishments that the retailer in



*Bookmobile drivers perform many of the same functions as library assistants in a main branch or library.*



*Demand for outside order clerks, who deal mainly with the public, should remain strong.*

turn sells to the public. A growing number of order clerks work in catalog sales, receiving orders from individual customers. Order clerks dealing primarily with the public sometimes are referred to as "outside order clerks."

Today, most order clerks record orders on video display terminals (VDT's) which are part of a larger computer system. Many clerks sit at these terminals and receive orders directly by telephone, entering the required information as the customer places the order. Some orders are received through the computer system; they are sent directly from the customer's terminal to the order clerk's terminal.

The computer provides the order clerk with ready access to information such as prices and inventory. Orders frequently depend on which products are in stock and which products are most appropriate for the customer's needs. Some order clerks, especially those in industrial settings, must be able to give price estimates for entire jobs, not just single parts. Others must be able to take special orders or give expected arrival dates.

Order clerks also receive orders by mail and facsimile machine. These clerks review the hand-written or typed orders for completeness and clarity. The clerk may complete missing information or contact the customer for the information. Similarly, if customers need additional information, such as prices, shipping dates, or anticipated delays, the order clerk contacts them. These orders may be processed by order clerks in small establishments or, in large organizations, entered into the computer system by data-entry clerks.

After an order has been verified and entered, the customer's final cost is calculated. The clerk then routes the order to the proper department—such as the warehouse—that actually sends out or delivers the item in question.

In many organizations, order clerks adjust inventory records. For example, after processing an order for bolts, the clerk verifies that the bolts were sent and subtracts the order from the inventory control form. Clerks also notify other departments when inventories are low or when orders would deplete supplies. They also compile data from completed orders to produce reports that managers use to assess the organization's sales and plan its future activities.

Some order clerks need to establish priorities in filling orders. For example, an order clerk in a blood bank may receive a request from a hospital for a certain type of blood. The clerk must first find out if the request is routine or of an emergency nature, and then take the appropriate action.

### **Employment**

Order clerks held about 291,000 jobs in 1990. Most worked for wholesale and retail establishments and manufacturing firms.

### **Job Outlook**

Little change in the employment of order clerks is expected through the year 2005 as office automation continues to increase the productivity of these workers. Nevertheless, thousands of jobs will be avail-

able each year due to the need to replace workers who transfer to another occupation or leave the labor force.

As the economy grows, more orders for goods and services will be placed. How this growing business activity relates to employment of order clerks depends in large measure on the setting. Demand for outside order clerks who deal mainly with the public should remain strong. The greater use of toll-free numbers that makes "home shopping" easier and more convenient will stimulate demand for these workers.

Demand for inside order clerks will be much weaker, however. The spread of electronic data interchange (EDI), a system that enables computers to communicate directly with each other, allows orders between establishments to be placed with little human intervention. Although currently limited to large organizations, it is expected that orders between computers of different companies and from home computers will increase.

Other automation should also depress the demand for order clerks. Sophisticated inventory control and automatic billing systems allow companies to track their inventory and accounts with much less help from order clerks. A growing number of companies are using facsimile machines to receive orders. Increasingly, data-entry keyers enter the information from "faxed" or mailed orders. Some companies, especially in the retail business, use voice recognition equipment to receive orders. Currently, this technology consists of an answering machine. However, experts believe that by the year 2005, "interactive" voice recognition equipment will carry on a conversation with the customer and take the order. To the extent that such equipment is perfected and marketed widely, it is expected to further reduce the demand for order clerks.

(See introductory part of this section for information on training requirements and earnings.)

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## **Payroll and Timekeeping Clerks**

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(D.O.T. 215.362-018, .367-022, .382-010, and .482-010)

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### **Nature of the Work**

Payroll and timekeeping clerks perform a vital function—ensuring that employees' paychecks are correct and paid on time. Employees frequently call on them to adjust monetary errors or incorrect amounts of vacation time. Their daily duties include researching these records as well as performing other clerical tasks.

Timekeeping clerks distribute and collect timecards each pay period. These workers review employee workcharts, timesheets, and timecards to ensure that information, such as the number of hours worked and sick and vacation days, is properly recorded, and that they contain the signatures of authorizing officials. For example, they may recalculate total hours on a timesheet that has many complex entries. They review computer reports listing timecards that cannot be processed because of errors and contact the employees or managers to resolve the problem. Timekeeping clerks also keep informed of new payroll policies and inform managers and other employees of procedural changes.

In the payroll department, payroll clerks screen the timecards for calculating, coding, or other errors. Then they compute pay by subtracting allotments like retirement, insurance, or savings from gross earnings. Increasingly, computers perform these calculations and alert payroll clerks to problems or errors in the data. For small organizations or for new employees whose records are not yet entered into a computer system, clerks may perform all the necessary calculations. In some small offices, payroll is processed by clerks or other employees in the accounting department.

Payroll clerks also maintain paper backup files for research and reference. They record changes in employee addresses; close out files when workers retire, resign, or transfer; and advise employees on income tax withholding. They issue and record adjustments to pay because of previous errors or raises. They prepare and mail earnings and tax withholding statements in early January for employees' use in preparing their income tax returns.



*Timekeeping clerks review employee records to ensure that information is accurate.*

### **Employment**

Payroll and timekeeping clerks held about 171,000 jobs in 1990. About 1 of every 3 worked in business, health, education, and social services. Over 1 in 4 worked in manufacturing, and approximately 1 of every 10 was in wholesale and retail trade or in government. Approximately 1 in 8 payroll and timekeeping clerks works part time.

### **Job Outlook**

Little or no change in employment of payroll and timekeeping clerks is expected through the year 2005. Employment is expected to decline in many manufacturing industries, where the number of employees, and therefore the number of payroll records, will decline. Employment in some fast-growing service industries, however, will increase slightly.

Automation will continue to make these workers more productive as new technology decreases calculation time. Automated timeclocks calculate employees' hours and balances formerly compiled by timekeepers. Also, timekeeping duties are more commonly being distributed to secretaries and general office clerks or being contracted out to organizations that specialize in these services.

(See introductory part of this section for information on training requirements and earnings.)

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## **Personnel Clerks**

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(D.O.T. 205.362-010, -014, -022, .367-062, .567-010; 209.362-026; 241.267-010; and 249.367-090)

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### **Nature of the Work**

When new employees begin work at many large companies and government agencies, they are greeted and briefed by personnel clerks. These clerks may explain the company's various employee benefits and pay rates, review rules and regulations, administer an oath of office, and see that the new employees report to their duty station.

Personnel clerks maintain the personnel records of the firm's employees. These records include information such as name, address, job title, earnings, fringe benefits, health and life insurance, and tax withholding. On a daily basis, they maintain records of and answer questions about employees' absences and supervisory reports on job performance. When an employee receives a promotion or switches health insurance plans, for example, the personnel clerk updates the appropriate form. A personnel clerk may also prepare a report for a manager elsewhere in the organization. A list of employees eligible for an award is one example.

Some personnel clerks in smaller organizations perform reception as well as other clerical duties. They answer telephone or letter inquiries from the public, send out announcements of job openings or job examinations, and issue application forms at a counter. When credit bureaus

and finance companies request confirmation of a person's employment, the personnel clerk provides authorized information from the employee's personnel records. Payroll departments and insurance companies may also be contacted to verify changes to records.

Some personnel clerks are also involved in hiring. As part of their job, they may screen job applicants to obtain information such as age, education, and work experience; administer aptitude, personality, and interest tests; explain the organization's employment policies and refer qualified applicants to the employing official; and request references from present or past employers. Personnel clerks inform job applicants, by telephone or letter, of their acceptance or rejection for employment.

Other personnel clerks are known as assignment clerks. Their role is to notify a firm's existing employees of position vacancies and to identify and assign—following the proper guidelines and procedures—qualified applicants. They keep track of vacancies throughout the organization and complete and distribute vacancy advertisement forms. The clerks review applications in response to the advertisement and verify the information using personnel records. After the selection is made, they notify all the applicants of their acceptance or rejection.

In some job settings, personnel clerks have more specific job titles. In temporary help agencies, for example, referral clerks handle calls from businesses or other organizations requesting temporary workers. After recording information regarding the job requirements, they locate registered workers who meet the requirements and are available for the scheduled work shift. The clerks then inform the selected workers of the available job. Some referral clerks specialize in referring specific types of workers, such as nurses.

Identification clerks are responsible for security matters at defense installations. They compile and record personal data about vendors, contractors, and civilian and military personnel and their dependents. Their job duties include interviewing applicants, corresponding with law enforcement authorities, and preparing badges, passes, and identification cards.

### **Employment**

Personnel clerks held about 129,000 jobs in 1990. While these workers are found in most industries, 1 of every 4 works for a government agency. Colleges and universities, hospitals, department stores, and banks also employ large numbers of personnel clerks.

### **Job Outlook**

Employment of personnel clerks is expected to grow about as fast as the average for all occupations through the year 2005. Contributing to the demand for personnel clerks is the increased workload associated with a growing work force and changing personnel practices brought about by changes in tax and immigration laws, the growing popularity of flexible benefit plans, and the growth of legislatively mandated benefits.

Despite increased workloads, automation of personnel departments will increase the productivity of personnel clerks and moderate their employment growth. The growing use of computers and electronic



*Some personnel clerks screen job applicants to obtain information such as age, education, and work experience.*

data interchange (EDI) in personnel or human resource departments means that a lot of data-entry work done by personnel clerks can be eliminated as employees themselves enter the data and send it to the personnel office. This is most feasible in large organizations with multiple personnel offices. In addition, as professionals in personnel offices increasingly use computers and other automated office equipment, there could be less work for personnel clerks. Nonetheless, many job openings are expected each year to replace workers who transfer to other jobs or leave the labor force.

(See introductory part of this section for information on training requirements and earnings.)

## Secretaries

(D.O.T. 201)

### Nature of the Work

Most organizations employ secretaries to perform and coordinate office activities and to ensure that information gets disseminated in a timely fashion to staff and clients. Managers, professionals, and other support staff rely on them to keep administrative operations under control. Their specific duties depend upon their level of responsibility and the type of firm in which they are employed.

Secretaries are responsible for a variety of administrative and clerical duties that are necessary to run and maintain organizations efficiently. They schedule appointments, give information to callers, organize and maintain files, fill out forms, and take dictation. They may also type letters, make travel arrangements, or contact clients. Secretaries also operate office equipment like facsimile machines, photocopiers, and telephones with voice mail capabilities.

In today's automated offices, secretaries increasingly use personal computers to run spreadsheet, word processing, data base management, desktop publishing, and graphics programs—tasks previously handled by managers and professionals. Secretaries sometimes work in clusters of three or four so that they can help each other. Because they are relieved from dictation and typing, for example, they can support several members of the professional staff.

Executive secretaries or administrative assistants perform fewer clerical tasks than lower level secretaries. As well as receiving visitors, arranging conference calls, and answering letters, they may handle more complex responsibilities such as doing research, preparing statistical reports, and supervising and training other clerical staff.

In addition to general administrative duties, some secretaries do highly specialized work. Knowledge of technical terminology and procedures is required for these positions. Further specialization in various types of law is common among legal secretaries. They prepare correspondence and legal papers such as summonses, complaints, motions, and subpoenas under the supervision of an attorney. They also may review legal journals and assist in other ways with legal research. Medical secretaries transcribe dictation, prepare correspondence, and assist physicians or medical scientists with reports, speeches, articles, and conference proceedings. They record simple medical histories, arrange for patients to be hospitalized, or order supplies. They may also need to know insurance rules, billing practices, and be familiar with hospital or laboratory procedures. Other technical secretaries assist engineers or scientists. They may prepare much of the correspondence, maintain the technical library, and gather and edit materials for scientific papers.

### Working Conditions

Secretaries usually work in offices with other professionals or in schools, hospitals, or doctors' offices. Their jobs often involve sitting for long periods. If they spend a lot of time typing, particularly at a video display terminal, they may encounter problems of eyestrain, stress and repetitive motion problems such as carpal tunnel syndrome.

Secretaries generally work a standard 40-hour week. In some cities, especially in the Northeast, the scheduled workweek is 37 hours or less.

Office work lends itself to alternative or flexible working arrangements, like telecommuting, and 1 secretary in 6 works part time. In addition, a significant number of secretaries work as temporaries. A few participate in job-sharing arrangements in which two people divide responsibility for a single job.

### Employment

Secretaries held 3,576,000 jobs in 1990, making this one of the largest occupations in the U.S. economy. The following tabulation shows the distribution of employment by secretarial specialty.

Legal secretaries.....	280,000
Medical secretaries.....	232,000
All other secretaries.....	3,064,000

Secretaries are employed in organizations of every description. About one-half of all secretaries are employed in firms providing services, ranging from education and health to legal and business services. Others work for firms that engage in manufacturing, construction, wholesale and retail trade, transportation, and communications. Banks, insurance companies, investment firms, and real estate firms are important employers, as are Federal, State, and local government agencies.

### Training, Other Qualifications, and Advancement

High school graduates may qualify for secretarial positions provided they have basic office skills. Today, however, knowledge of word processing, spreadsheet, and database management programs is increasingly important and most employers require it. Secretaries must be proficient in keyboarding and good at spelling, punctuation, grammar, and oral communication. Shorthand is necessary for some positions.

The skills needed for a secretarial job can be acquired in various ways. Formal training, especially for computer skills, may lead to higher paying jobs. Secretarial training ranges from high school vocational education programs that teach office practices, shorthand, and keyboarding skills to 1- to 2-year programs in secretarial science offered by business schools, vocational-technical institutes, and community colleges. Specialized training programs also are available for students planning to become medical or legal secretaries or office automation specialists.

Employers also look for communication and interpersonal skills, since secretaries must be tactful in their dealings with many different people. Discretion, judgment, organizational ability, and initiative are important for higher level secretarial positions.

As office automation continues to evolve, retraining and continuing education will remain an integral part of many jobs. Continuing changes in the office environment, for instance, have increased the demand for secretaries who are adaptable and versatile. Secretaries may have to attend classes to learn to operate new office equipment



*Well qualified and experienced secretaries will continue to be in great demand.*

such as word processing equipment, information storage systems, personal computers, or new updated software packages.

The majority of openings for secretaries are filled by people who have not been working. Although some of these entrants have been in school or between jobs, many have been full-time homemakers, and some transfer from another clerical job. The majority of entrants are between 25 and 54 years of age. Many positions are filled by persons who have completed some college coursework.

Testing and certification for entry-level office skills is available through the Office Proficiency Assessment and Certification (OPAC) program offered by Professional Secretaries International (PSI). As secretaries gain experience, they can earn the designation Certified Professional Secretary (CPS) by passing a series of examinations given by the Institute for Certifying Secretaries, a department of PSI. This designation is recognized by a growing number of employers as the mark of excellence for senior-level office professionals. Similarly, those without experience who want to be certified as a legal support professional may be certified as an Accredited Legal Secretary (ALS) by the Certifying Board of the National Association of Legal Secretaries. They also administer an examination to certify a legal secretary with 3 years' experience as a Professional Legal Secretary (PLS).

Advancement for secretaries generally comes about by promotion to a more responsible secretarial position. Qualified secretaries who broaden their knowledge of their company's operations may be promoted to other positions such as senior or executive secretary, clerical supervisor, or office manager.

Secretaries with word processing experience can advance to jobs as word processing trainers, supervisors, or managers within their own firms or in a secretarial or word processing service bureau. They also can get jobs with manufacturers of word processing or computer equipment in positions such as instructor or sales representative.

### Job Outlook

Employment of secretaries is expected to grow about as fast as the average for all occupations through the year 2005 in line with the general growth of the economy. Despite productivity gains made possible by office automation, there will continue to be strong demand for secretaries. Many employers currently complain of a shortage of first-rate secretaries. As a result, well-qualified and experienced secretaries will continue to be in great demand and should find many job opportunities.

In addition to job openings resulting from growth in demand for secretaries, an exceptionally large number of job openings will arise due to replacement needs. Every year several hundred thousand secretaries transfer to other occupations or leave the labor force. In this occupation, as in most, replacement needs are the main source of jobs.

Demand for secretaries will rise as the labor force grows and as more workers are employed in offices. The trend toward having secretaries assume more responsibilities traditionally reserved for managers and professionals also will stimulate demand.

Productivity, gained with the use of new office technologies, will moderate employment growth, however. In firms that have invested in electronic typewriters, word processors, or personal computers, secretaries can turn out significantly more work than when they used electric or manual typewriters. New office technologies such as electronic mail, facsimile machines, and voice message systems are used in a growing number of organizations. These and other sophisticated computer software capabilities are expected to be used more widely in the years ahead and may limit demand for secretaries.

Widespread use of automated equipment is already changing the workflow in many offices. Administrative duties are being reassigned and the functions of entire departments are being restructured. Large firms are experimenting with different methods of staffing their administrative support operations. In some cases, such traditional secretarial duties as typing or keyboarding, filing, copying, and accounting are being assigned to workers in other units or departments. In some law offices and physicians' offices, paralegals and medical assistants are taking over some tasks formerly done by secretaries. Professionals and managers increasingly do their own word processing rather than submit the work to secretaries and other support staff, as they did previously. In addition, there is a trend in many offices for

groups of professionals and managers to "share" secretaries, as opposed to the traditional practice of having one secretary work for only one professional or manager.

Developments in office technology are certain to continue, and they will bring about further changes in the secretary's work environment. However, many of a secretary's job duties are of a personal interactive nature—such as scheduling conferences, receiving clients, and transmitting staff instructions—and hence not easily automated. Because automated equipment cannot substitute for the personal skills that are essential to the job, the need for secretaries will continue to grow.

### Earnings

The average annual salary for all secretaries was \$24,100 in 1990. Salaries vary a great deal, however, reflecting differences in skill, experience, and level of responsibility, ranging from \$20,500 to \$32,900.

Salaries in different parts of the country also vary; earnings generally are lowest in southern cities and highest in northern and western cities. In 1990, for example, secretaries averaged \$25,400 a year in the Northeast, \$23,700 in the Midwest, \$25,000 in the West, and \$22,000 in the South.

In addition, salaries vary by industry. Salaries of secretaries tend to be highest in transportation, legal services, and public utilities and lowest in retail trade and finance, insurance, and real estate.

The starting salary for inexperienced secretaries in the Federal Government was \$15,200 a year in 1991. Secretaries employed by the Federal Government in 1990 averaged about \$20,500.

### Related Occupations

A number of other workers type, record information, and process paperwork. Among these are bookkeepers, receptionists, stenographers, personnel clerks, typists, legal assistants, medical assistants, and medical record technicians.

### Sources of Additional Information

For career information, contact:

• Professional Secretaries International, 10502 NW Ambassador Dr., Kansas City, MO 64195-0404. (Phone: 1-816-891-6600.)

Persons interested in careers as legal secretaries can request information from:

• National Association of Legal Secretaries (International), 2250 East 73rd St., Suite 550, Tulsa, OK 74136.

State employment offices can provide information about job openings for secretaries.

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## Stenographers and Court Reporters

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(D.O.T. 202.362 and 203.582-058)

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### Nature of the Work

Written accounts of spoken words are necessary for correspondence, records, or legal proof. These verbatim reports of speeches, conversations, legal proceedings, meetings, or other events are taken by stenographers and court reporters.

Stenographers and stenotype operators take dictation and then transcribe their notes on a typewriter or word processor. They may either take shorthand or use a stenotype machine, which prints shorthand symbols. General stenographers, including most beginners, take routine dictation and do other office tasks such as typing, filing, answering telephones, and operating office machines. Experienced and highly skilled stenographers take more difficult dictation. For example, they may sit in on staff meetings and provide word-for-word records or summary reports of the proceedings to the participants. They may also supervise other stenographers, typists, and clerical workers. Some experienced stenographers take dictation in foreign languages; others work as public stenographers serving traveling business people and others.

Technical stenographers must know the medical, legal, and engineering or scientific terminology used in a particular profession. One example is the medical transcriptionist, who listens to doctors' audio recordings and uses a typewriter or word processor to transcribe what he or she hears into the proper printed format. These reports are not always word-for-word; they may be edited for grammar or abbreviated words may be expanded. The transcriptionist must be a medical language specialist and be familiar with patient assessment, therapeutic procedures, diagnoses, and prognoses. In addition to transcribing letters, reports, and the like, they may have other clerical duties. (Medical secretaries and assistants may transcribe as part of their jobs. These occupations are covered elsewhere in the *Handbook*.)

Court reporters record all statements made in an official proceeding. They take down all statements at speeds of approximately 200 words per minute and present their record as the official transcript. Because there is only one person creating an official transcript, accuracy is vitally important.

Many reporters do freelance work recording out-of-court depositions for attorneys, proceedings of meetings and conventions, and other private activities. Still others record the proceedings in the U.S. Congress, in State and local governing bodies, and in government agencies at all levels.

Some reporters dictate notes on magnetic tapes that a typist can transcribe later. Others transcribe their notes with the help of note readers, persons skilled in reading back shorthand notes. Most commonly, reporters use stenotype machines that print phonetic symbols on computer tapes or disks. These are then loaded on a computer that prints the symbols in English. This is called Computer-Aided-Transcription. Stenotype machines that are directly linked to the computer are used for real-time captioning. That is, as the reporter types the symbols, they are instantly transcribed by the computer. This is used for closed captioning for the deaf or hearing-impaired on television, in courts, or in meetings.

### Working Conditions

Stenographers usually work in clean, well-lighted offices. Court reporters more often work in nonoffice settings, such as courts, legislatures, and conventions. Medical transcriptionists may also work in hospitals, doctors' offices, or outpatient service facilities. Although the work is not physically demanding, sitting in the same position for long periods can be tiring. In addition, pressure to be accurate and fast can be stressful.

Stenographers and court reporters can work a standard 40-hour week. Many court reporters, however, are self-employed and freelance their services, which may result in irregular hours. Others work part time or as temporaries.

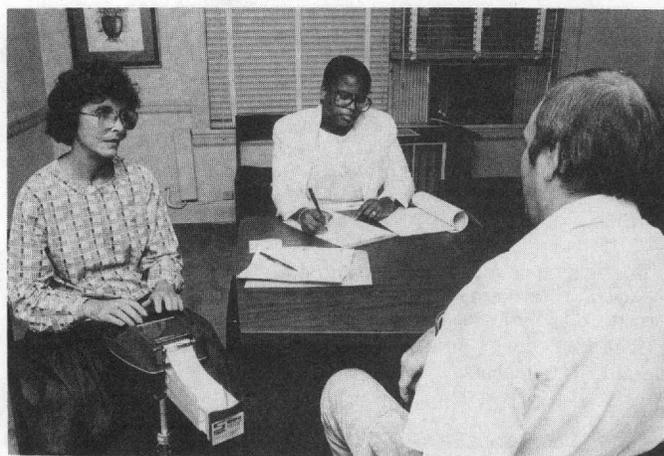
### Employment

Stenographers and court reporters held 132,000 jobs throughout the economy in 1990. Four of every 10 worked for government agencies, a reflection of the large number of court reporters working in courts, legislatures, and agencies in the executive branch.

### Training, Other Qualifications, and Advancement

Stenographic skills are taught in high schools, vocational schools, and proprietary business schools. More than 400 postsecondary schools and colleges offer 2- or 4-year training programs in court reporting. Ninety-nine of these programs have been approved by the National Court Reporters Association, and all of them teach computer-aided transcription.

Employers hire high school graduates and usually have no preference among the many different shorthand methods. For court reporters, however, the preference is for stenotype, not only because reporters can write faster using stenotype, but also because they can feed stenotype notes to a computer for high-speed transcription. The most important factors in hiring and promotion are speed and accuracy. To qualify for jobs in the Federal Government, stenographers must be able to take dictation at a minimum of 80 words per minute and type at least 40 words per minute. Workers must achieve higher rates to advance to more responsible positions. Although requirements vary in private firms, applicants with the best speed and accu-



*Self-employed court reporters may work irregular hours.*

racy will receive first consideration in hiring. Many court reporting jobs require more than 225 words of dictation per minute; court reporters in the Federal Government generally must take at least 175 words a minute.

Some States require each court reporter to be a Certified Court Reporter (CCR). A certification test is administered by a board of examiners in each State that has CCR laws. The National Court Reporters Association confers the designation Registered Professional Reporter (RPR) upon those who pass a two-part examination and participate in continuing education programs. The RPR designation is recognized as the mark of excellence in the profession.

Stenographers can advance to secretarial positions, especially if they develop their interpersonal skills such as the ability to communicate well. Stenographers who get the necessary education can become court reporters.

### Job Outlook

Employment of stenographers and court reporters is expected to decline. The widespread use of dictation machines has greatly reduced the need for office stenographers, and the traditional "steno pool" is practically a thing of the past. Audio recording equipment and the use of personal computers by managers and other professionals has greatly reduced the demand for these workers. Despite this decline, some job openings will arise each year due to the need to replace workers who leave the occupation.

Demand for skilled court reporters should remain strong, however, as State and Federal court systems expand to handle the rising number of criminal court cases and civil lawsuits. The trend to provide instantaneous written records of events for the deaf and hearing impaired also should strengthen demand for these workers. Another factor keeping demand strong is the growing number of conventions, conferences, and similar meetings, the proceedings of which must be recorded. Although many of these events are being videotaped, a written transcript must still be created for legal purposes and for convenience. Voice-activated transcription equipment, while under development, is not expected to be adaptable to court room settings until after the year 2005.

Competition for entry level jobs as a court reporter is increasing as more workers enter the field. Opportunities will be best for those who have earned certification by the National Court Reporters Association.

### Earnings

Stenographers in private industry averaged \$21,100 a year in 1990. Court reporters generally earn higher salaries than stenographic office workers. Regardless of specialty, earnings depend on speed, education, experience, and geographic location (earnings are generally higher in large cities than in rural areas).

Inexperienced clerk-stenographers in the Federal Government started at \$13,500 a year in 1991. The average annual salary for all clerk-stenographers employed by the Federal Government was about \$18,000 in 1990.

## Related Occupations

A number of other workers type, record information, and process paperwork. Among these are bookkeepers, receptionists, secretaries, personnel clerks, administrative assistants, medical assistants, and legal assistants.

## Sources of Additional Information

For information about shorthand reporting, contact:

• National Court Reporters Association, 8224 Old Courthouse Rd., Vienna, VA 22182.

Information on medical transcription is available from:

• American Association for Medical Transcriptionists, P.O. Box 576187, Modesto, CA 95357. (Phone: 1-800-982-2182.)

State employment offices can provide information about job openings for stenographers.

# Telephone, Telegraph, and Teletype Operators

(D.O.T. 235.222-010, .462-010, .562-014, .662-014, -018, -022, and -026; and 239.367-026)

## Nature of the Work

Although most telephone numbers are dialed directly, some still require the assistance of a telephone operator. Telephone company central office operators help customers with person-to-person or collect calls or with special billing requests, such as charging a call to a third number or giving customers credit or a refund for a wrong number or a bad connection. Operators also are called upon to handle emergency calls and assist children or adults with physical limitations.

Technological innovations have changed the responsibilities of central office operators. Electronic switching systems have eliminated the need for manual switching, and new systems automatically record information about the length and cost of calls into a computer that processes the billing statements. It is also now possible in many places to call other countries without the help of an operator. The task of responding to "intercept" calls (vacant, changed, or disconnected numbers) also is being automated, and a computerized recording explains the reason for the interception and gives the new number. The monitoring and computing of charges on calls from pay telephones also have an automated function formerly performed by operators.

Directory assistance operators answer inquiries by accessing computerized alphabetical and geographical directories. They generally no longer read numbers; this is done by a computerized recording.

Many organizations like hotels and medical centers employ operators to run private branch exchange (PBX) switchboards. These switchboard, or PBX operators, connect interoffice or house calls, answer and relay outside calls, connect outgoing calls, supply information to callers, and record charges. Many also act as receptionists or information clerks, relaying messages or announcing visitors. (Receptionists are described elsewhere in this section of the *Handbook*.)

Operators also work in other settings. Telephone-answering-service operators manage switchboards to provide answering service for clients. Communication-center operators handle airport authority communication systems. For example, they use the public address system to page passengers or visitors. They also monitor electronic equipment alarms.

Private-branch-exchange service advisors, sometimes called customer instructors or telephone usage counselors, train switchboard operators. Service observers monitor conversations between operators and customers to observe the operator's behavior, technical accuracy, and adherence to company policies.

## Working Conditions

The hours of PBX or switchboard operators generally are the same as those of other clerical workers in the firm. In some organizations, they work 40 hours a week during regular business hours. Operators

in hotels, hospitals, and other places where telephone service is needed on a 24-hour basis, work shifts, even on holidays and weekends. Telephone company operators generally work 32 1/2 to 37 1/2 hours a week. They also may work day, evening, or night shifts, which include weekends and holidays.

Some operators work split shifts—that is, they are on duty during the peak calling periods in the late morning and early evening and have time off in between. Telephone companies normally assign shifts by seniority, allowing the most experienced workers to choose when they will work. These operators, like all telephone company employees, may be subject to 24-hour call. In general, though, they work overtime only during emergencies.

Many telephone company operators work at video display terminals in pleasant, well-lighted, air-conditioned surroundings. But if the work site is not well designed, these operators may experience eye-strain and musculoskeletal strain.

The job of a telephone operator requires little physical exertion; during peak calling periods, however, the pace at the switchboard may be hectic. Telephone companies continually strive to increase operator efficiency, and this can create a tense work environment. An operator's work generally is quite repetitive and, in telephone companies, is closely supervised. Computerized pacing and monitoring by supervisors, combined with the rapid pace, may cause stress. Operators must sit for long periods and usually need supervisory approval to leave their work stations.

## Employment

Telephone operators held about 325,000 jobs in 1990. More than one-half worked as PBX operators in hotels, hospitals, department stores, or other organizations. The remainder worked in telephone companies. Roughly one-fifth of all operators worked part time, although relatively few of those employed by telephone companies were part-timers.

## Training, Other Qualifications, and Advancement

Telephone operators should be pleasant, courteous, and patient. A clear, pleasing voice and good hearing are important. In addition to being a good listener, prospective operators should have good reading, spelling, and arithmetic skills. Good eye-hand coordination and manual dexterity are useful, as is an ability to work well under pressure. Many employers require operators to pass a physical examination. Some employers require a high school diploma. High school courses in speech, office practices, and business math provide a helpful background.



*Employment of telephone operators is expected to decline.*

New operators are taught how to use the equipment and keep records of calls. In larger companies, this may include familiarization with computer terminals and recordkeeping programs. In telephone companies, classroom instruction lasts up to 3 weeks and is followed by on-the-job training. Classroom instruction covers the time zones and geography so that central office operators understand rates and know where major cities are located. Tapes are used to familiarize trainees with the dial tone, busy signal, and other telephone sounds and to improve diction and courtesy by giving them an opportunity to hear their own voices. Close supervision continues after training is completed.

PBX operators who handle routine calls usually have a somewhat shorter training period than telephone company operators. These workers usually are trained informally by experienced personnel, although, in some organizations, it may be done by a telephone company instructor.

After 1 or 2 years of experience, telephone company operators may be promoted to service assistant, aiding the supervisor by monitoring telephone conversations. Direct promotion to supervisor may also be possible in some companies. Some operators advance to other clerical jobs or to telephone craft jobs such as installer or repairer. Large firms may promote PBX operators to more responsible clerical positions; however, many small businesses have limited advancement opportunities.

### Job Outlook

Employment of telephone operators is expected to decline through the year 2005. Employment of operators in telephone companies is expected to decline sharply as automation continues to increase these workers' productivity.

The number of switchboard or PBX operators will also decline, but not as fast. As older switchboards that require operators to make connections are replaced by ones that route calls automatically, fewer operators will be needed. In addition, voice message systems are expected to proliferate as computers become smaller, cheaper, and more powerful. These systems record, store, play, and forward telephone messages—work currently performed by PBX operators. In those cases when callers need to speak to an operator, they may be helped by receptionists who have been trained to make telephone connections. However many firms may still keep switchboard operators for the "personal touch," which would somewhat limit the effects of new technology.

Employment prospects for telephone company operators are poor. Many telephone companies do not plan to replace operators who leave and some are laying off operators. Employment of these workers has been declining for the past 25 years as technological innovations have reduced labor requirements, and this trend is expected to continue.

Voice recognition technology, which gives computers the capacity to understand speech and to talk back, is expected to be in operation before 2005. This equipment will replace some directory assistance operators.

### Earnings

Telephone operators earned a median annual salary of \$16,600 in 1990. The middle 50 percent earned between \$12,600 and \$23,800. The bottom 10 percent earned less than \$10,100; the top 10 percent earned more than \$26,800 a year.

Telephone company operators generally earn more than switchboard operators. Operators employed by AT&T and the Bell Operating Companies and represented by the Communications Workers of America earned an average annual salary of \$25,500 in 1990.

Most telephone company operators are members of the Communications Workers of America or the International Brotherhood of Electrical Workers. For these operators, union contracts govern wage rates, wage increases, and the time required to advance from one step to the next (it normally takes 4 years to rise from the lowest paying, nonsupervisory operator position to the highest). Contracts also call for extra pay for work beyond the normal 6 1/2 to 7 1/2 hours a day or 5 days a week, for Sunday and holiday work, and for a pay differential for nightwork and split shifts. Many contracts provide for a 1-

week vacation with 6 months of service; 2 weeks for 1 to 6 years; 3 weeks for 7 to 14 years; 4 weeks for 15 to 24 years; and 5 weeks for 25 years and over. Holidays range from 9 to 11 days a year.

### Related Occupations

Other workers who provide information to the general public include customer service representatives, dispatchers, hotel clerks, information clerks, police aides, receptionists, reservation agents, and travel clerks.

### Sources of Additional Information

For more details about employment opportunities, contact a telephone company. For general information on the telephone industry and career opportunities in it, request copies of *Phonefacts* and *A Career in the Telephone Industry* from:

• United States Telephone Association, 900 19th St. NW., Suite 800, Washington, DC 20006.

For general information on the telephone industry contact:

• Communications Workers of America, Research Department, 1925 K St. NW., Washington, DC 20006.

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## Typists, Word Processors, and Data Entry Keyers

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(D.O.T. 203.362-010 and -022, .382-010, .582-022, -026, -030, -034, -054, -066, -070, and -078, and 209.382-010)

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### Nature of the Work

Many organizations process large amounts of information and data in the course of their daily operations. Typists, word processors, and data entry keyers often are responsible for ensuring that this work is handled smoothly and efficiently.

Typists and word processors usually set up and enter reports, letters, mailing labels, and other text material. Typists make neat, typed copies of materials written by other clerical, professional, or managerial workers. They may begin as entry level workers by typing headings on form letters, addressing envelopes, or preparing standard forms on electric or electronic typewriters. As they gain experience, they may begin to do routine typing, such as insurance policies, or to type from handwritten drafts. Often, they perform other office tasks as well: answering telephones, filing, and operating copiers, calculators, and other office machines.

More experienced typists do work that requires a higher degree of accuracy and independent judgment. Senior typists work from rough drafts that are difficult to read or that contain technical material. They may plan and type complicated statistical tables, combine and rearrange materials from different sources, or prepare master copies to be reproduced on copying machines.

Job titles of typists vary by duties performed and by work setting. For example, clerk typists combine typing with filing, sorting mail, answering telephones, and other general office work. Notereaders transcribe stenotyped notes of court proceedings into standard formats.

In some large organizations, word processing centers handle the transcription and typing for several departments. Most of an organization's typing is now done more quickly on automated word processing equipment. Word processors use this equipment to record, edit, store, and revise letters, memos, reports, statistical tables, forms, and other printed materials. Word processing or automated equipment—usually a personal computer or part of a larger computer system—normally includes a keyboard, a video display terminal, and a printer, and may have "add-on" capabilities such as optical character recognition readers. This way, information and instructions can be received through the machine.

Data entry keyers usually fill forms that appear on a computer screen or enter lists of items or numbers. They also may manipulate existing data, edit current information, or proofread new entries to a database. They may enter customers' personal information, orders for

supplies, or update membership lists. Usually this information is used internally by the company and may be reformatted before, say, use by a professional for an accounting report or by the billing department to send to a customer.

Keyers can enter data on a variety of typewriter-like equipment. Many keyers use a machine that converts the information they type to magnetic impulses on tapes or disks. The information is then read into the computer system from the tape or disk. Some keyers operate on-line terminals of the main computer system that transmit and receive data. Others use personal computers. In some offices, keyers also operate computer peripheral equipment such as printers and tape readers, act as tape librarians, and perform other clerical duties.

Some word processors and data entry keyers work in large, centralized word processing centers that are relatively isolated from other operational areas. Others, however, are located in departments that are physically dispersed throughout the organization, and they work fairly closely with other employees.

### Working Conditions

Typists, word processors, and data entry keyers usually work in clean offices. They sit for long periods and sometimes must contend with high noise levels caused by various office machines such as printers. These workers generally work a standard 40-hour week. In some cities, especially in the Northeast, the scheduled workweek is 37 hours or less.

Recent research on occupational health and safety has been concerned with the hazards to physical and mental health posed by new types of office equipment. Studies have found that word processors and data entry keyers who work full time on video terminals experience musculoskeletal strain, eye problems, and stress. Repetitive motion illnesses, such as carpal tunnel disease, may also affect typists, word processors, and data entry keyers.

Office work lends itself to alternative or flexible working arrangements; many typists, word processors, and data entry keyers hold temporary jobs and 1 in 5 works part time. Some of these part-time workers are self-employed freelancers; others take short-term jobs through temporary help agencies. Some workers "telecommute." That is, they work from their homes via personal computers linked by telephone lines to those in the main office. This enables them to type material at home and, almost instantly, produce printed copy in an office miles away. These home-based jobs often do not include the full range of fringe benefits that office workers enjoy, and they lack the advantages of social interaction on the job.

### Employment

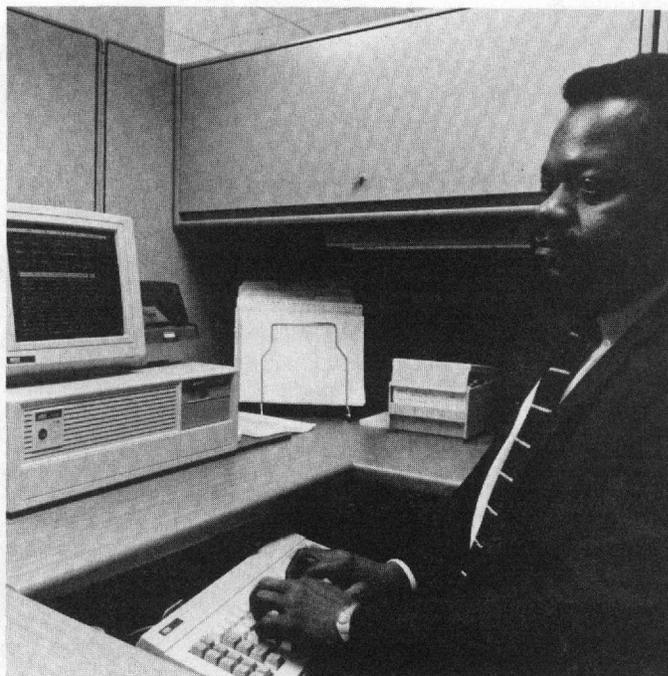
Typists, word processors, and data entry keyers held 1,448,000 jobs in 1990 and were employed in every sector of the economy. Four of every 10 held jobs in educational institutions, health care facilities, law offices, and firms that provide business services. Among the latter are temporary help agencies and word processing service bureaus. One in five worked in government agencies at various levels.

### Training, Other Qualifications, and Advancement

Employers generally hire high school graduates who can meet their requirements for keyboarding speed. Keyboarding skills can be learned in different ways—in high schools, community colleges, business schools, home study schools, or on one's own, using self-teaching aids such as books, records, and personal computers. Spelling, punctuation, and grammar skills are also important, as is familiarity with standard office equipment and procedures.

Increasingly, employers also expect applicants to have word processing or data entry training or experience. Many community colleges and business schools are beginning to teach students to use word processing, spreadsheet, and database management computer software packages.

People who become typists, word processors, or data entry keyers tend to come from outside the labor force; they are younger than average, and many probably have never worked before. The proportion of these workers who transfer to other occupations is higher than average, suggesting that this work serves as a steppingstone to higher paying, more responsible jobs. Large companies and government



*Employers generally hire high school graduates who meet their standards for keyboarding speed.*

agencies generally have training programs to help clerical employees upgrade their skills and advance to more responsible positions, including typist. It is common for typists, word processors, and data entry keyers to transfer to another clerical job, such as secretary, statistical clerk, or court reporter, or be promoted to a supervisory job in a word processing or data entry center.

### Job Outlook

Little or no change in employment of typists, word processors, and data entry keyers is expected through the year 2005 despite the "information explosion" and rapid growth in the volume of business transactions. This is an indication of the significant productivity improvements affecting office workers due to the widespread use of automated office equipment. Despite this decline, many thousands of openings will occur each year due to the need to replace workers who transfer to other occupations or leave the labor force.

The amount of text to be processed and data to be entered is tremendous and growing. However, technological advances and restructuring of work processes should enable fewer typists, word processors, and data entry keyers to handle this increased workload.

Technological advances, such as the installation of more powerful word processing equipment, have raised the productivity of typists, word processors, and data entry keyers significantly, allowing them to undertake amounts of work that would have been impossible in the past. Further automation of currently automated tasks is expected and should continue to reduce the amount of typing, word processing, and data entry to be done. For example, optical character recognition readers, which scan documents and enter their text and data into a computer, are being used in more and more workplaces. This technology is being improved and should be widely used in the 1990's. Researchers are also developing voice recognition technologies that enable people to enter text and data by simply speaking to a computer. It is expected that such machines will be perfected and available by 2005 and will greatly reduce the demand for typists, word processors, and data entry keyers. Bar code scanners are now used in many retail establishments; their use should continue to spread to smaller establishments as prices fall.

Data are being captured at the point of origin and entered into the system without human intervention. Such is the case in the banking industry with automatic teller machines. In addition, as more companies network computers and communication among them becomes easier through standardization, data will need to be entered only once.

After that, it can simply be sent from one computer to another, without the need for a data entry keyer to reenter it. This process is known as electronic data interchange.

With the proliferation of personal computers throughout the economy, other workers are performing work formerly done by typists, word processors, and data entry keyers. A growing number of professionals and managers are using desktop personal computers and executive work stations to enter data and information as they produce it.

Job prospects will be brightest for those typists, word processors, and data entry keyers with the best technical skills. In particular, the more computer software packages these workers know or expertise they have in combining word processing with graphics or spreadsheets, the better their job opportunities will be.

#### **Earnings**

Typists, word processors, and data entry keyers earned an average salary of \$16,700 in 1990. Typists and data entry keyers in metropolitan areas earned average annual salaries of about \$16,000, while word processors averaged \$18,800.

The salaries of these workers vary by industry. They tend to be highest in transportation and public utilities and lowest in retail trade

and finance, insurance, and real estate. Similarly, their salaries tend to vary by region of the country, with salaries in the West being the highest. Regardless of industry or region, typists generally receive higher salaries if they have word processing experience.

In the Federal Government in 1991, clerk-typists and data entry keyers without work experience each started at \$12,385 a year. In some metropolitan areas, higher salaries are paid because of shortages of qualified personnel. The average annual salary for all clerk-typists in the Federal Government in 1990 was about \$16,000, while that for data entry keyers was about \$17,000.

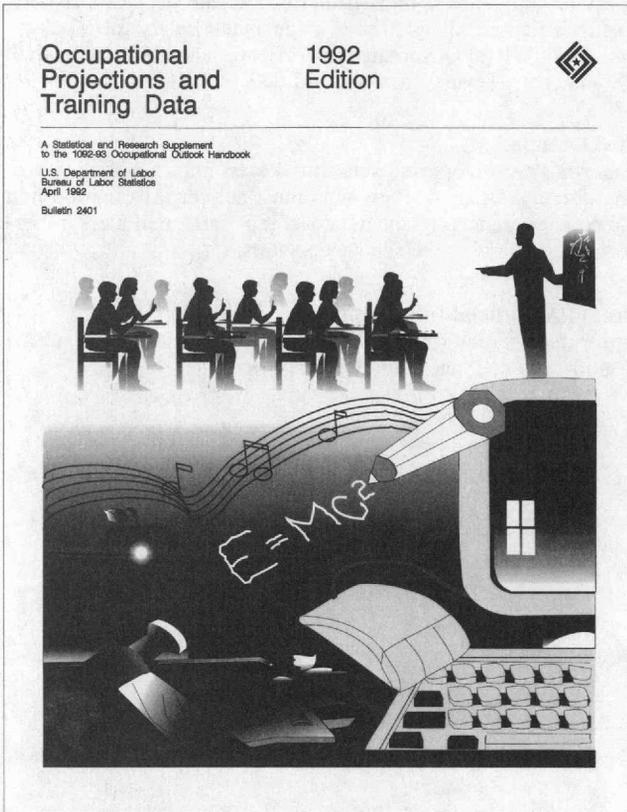
#### **Related Occupations**

Typists, word processors, and data entry keyers must transcribe information quickly. Other workers who must deliver information in a timely manner are stenographers, court reporters, mail clerks, messengers, dispatchers, and telephone operators.

#### **Sources of Additional Information**

For information about job opportunities in data entry, contact the nearest office of the State employment service.

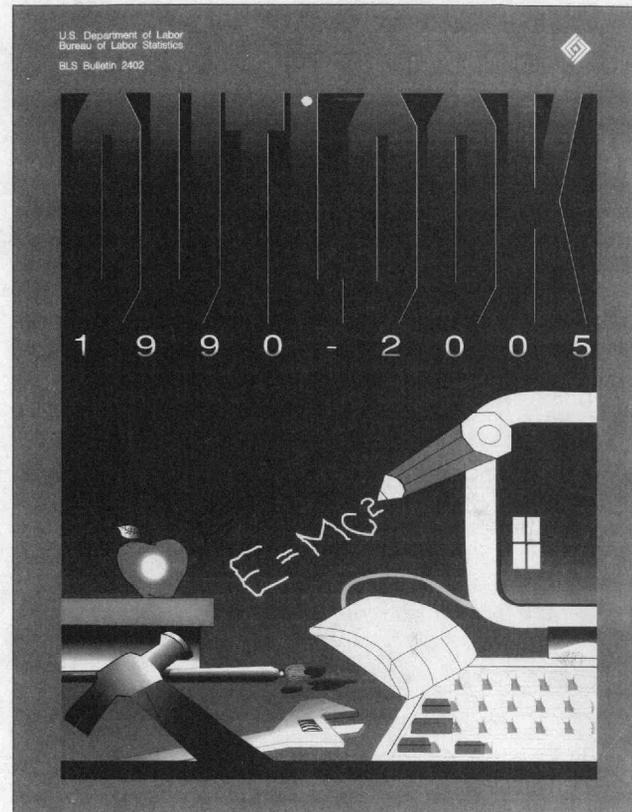
# Related Publications



BLS Bulletin 2401

## Occupational Projections and Training Data, 1992 Edition

This supplement to the *Occupational Outlook Handbook* provides the statistical and technical data supporting the information presented in the *Handbook*. Education and training planners, career counselors, and jobseekers can find valuable information that ranks occupations by employment growth, earnings, susceptibility to unemployment, separation rates, and part-time work.



BLS Bulletin 2402

## Outlook 1990-2005

Every 2 years, the Bureau of Labor Statistics produces detailed projections of the U.S. economy and labor force. This bulletin presents the Bureau's latest analyses of economic and industrial growth, the labor force, and trends in occupational employment into the 21st century. An overview article focuses on important issues raised by these projections.

### Note:

At press time, prices for these publications were not available. For prices and ordering information, contact any of the Bureau of Labor Statistics Regional Offices listed on the inside of the front cover, or the Division of Occupational Outlook, Bureau of Labor Statistics, Washington, DC 20212.