

The Revised Handbook for Analyzing Jobs



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CHAPTER 8

SPECIFIC VOCATIONAL PREPARATION

Specific Vocational Preparation (SVP), a component of Worker Characteristics, is defined as the amount of lapsed time required by a typical worker to learn the techniques, acquire the information, and develop the facility needed for average performance in a specific job-worker situation. Lapsed time is not the same as work time. For example, 30 days is approximately 1 month of lapsed time and not six 5-day work weeks, and 3 months refers to 3 calendar months and not 90 work days.

This training may be acquired in a school, work, military, institutional, or vocational environment. It does not include the orientation time required of a fully qualified worker to become accustomed to the special conditions of any new job. Nor does it include that amount of time that a worker spends to learn the reasoning, language, and mathematical skills which are often learned in school and which are also necessary for a person to be able to function in society. Within job analysis, a difficulty factor is assigned to this latter component (General Educational Development); a time factor is not. Specific vocational training includes:

- a. vocational education (high school; commercial or shop training; technical school; art school; and that part of college training which is organized around a specific vocational objective);
- b. apprenticeship training (for apprenticeable jobs only);
- c. inplant training (organized classroom study provided by an employer);
- d. on-the-job training (serving as learner or trainee on the job under the instruction of a qualified worker);
- e. essential experience in other jobs (serving in less responsible jobs which lead to the higher grade job or serving in other jobs which qualify).

SCALE OF SPECIFIC VOCATIONAL PREPARATION

Level	Time ¹
1	Short demonstration only
2	Anything beyond short demonstration up to and including 1 month
3	Over 1 month up to and including 3 months
4	Over 3 months up to and including 6 months
5	Over 6 months up to and including 1 year
6	Over 1 year up to and including 2 years
7	Over 2 years up to and including 4 years
8	Over 4 years up to and including 10 years
9	Over 10 years

NOTE: The levels of this scale are mutually exclusive and do not overlap.

¹Time that applies to General Educational Development is not considered in estimating Specific Vocational Preparation.

A sample of job-worker situations for each SVP level has been placed on a scale. These situations have been provided to aid the analyst in rating the specific vocational preparation level for each job.

DEFINITIONS AND EXAMPLES OF SVP LEVELS

Level 1 Short demonstration only

- 1:1 Inserts corrected, typed word in copy prior to photostating. Cuts out misspelled words, using razor. Fastens corrected word to tape and inserts in cutout area.
- 1:2 Feeds eggs into machine that removes earth, straw, and other residue from egg surface prior to shipment. Places eggs in holder that carries them into machine for washing. Removes cleaned eggs from discharge trough and packs them in cases.
- 1:3 Plants seedling in predetermined forest areas. Carries plants wrapped in wet moss and digs holes of prescribed size, using mattock. Places seedling in hole and tamps dirt around plant with foot. Paces off specified distance to next site and repeats planting process.
- 1:4 Feeds cylindrical stock into one or more threading machines. Shovels, dumps, or inserts material in hopper of machine that automatically threads stock. Carries or wheels filled and empty containers to and from machine.
- 1:5 Examines paper winding on reel for defects, such as spots, holes, and wrinkles, and inserts strip of paper in roll to flag defects for removal at cutting and rewinding machine.
- 1:6 Assists operator in winding unfinished cloth into skeins by feeding and off bearing reeling machine. Lifts end of cloth roll and mounts roll in box or bar of reeling machine. Observes cloth being wound and guides it into even skeins on reel.
- 1:7 Fills glasses with tap beer and hands them to waiters who serve patrons. Inserts taps in unopened barrels.
- 1:8 Sets up pins in bowling alley and returns thrown balls to customer. Spots pins on pegs in floor or places them in rack which lowers pins into position. Returns balls to players by rolling them along inclined runway.
- 1:9 Feeds farm products, such as stripped hop vines, hay, and corn stalks, into machine that chops them and blows them into storage bin or silo. Pitches material onto feed conveyors. Rakes up spilled material.
- 1:10 Weighs and records weight of materials, such as cotton, sugarcane, paper, and tobacco, to keep production, receiving, or other records. Reads dial to ascertain weight of object and records weight on ticket or material or inserts ticket into automatic recorder that prints weight on ticket.

Level 2 Anything beyond short demonstration up to and including 30 days

- 2:1 Obtains credit information, such as status of installment accounts, on individuals from credit departments of business and service establishments, using telephone, facsimile, or written correspondence. Copies information onto form to provide current information for credit record on file.
- 2:2 Selects talking books for mailing to blind library patrons. Compares borrower's written request with list of available titles. Selects books, following borrower's request, or selects substitute titles, following such criteria as age, education, and interest of borrower.
- 2:3 Changes bills or coins of large denomination into smaller units for convenience of patrons at places of amusement, such as penny arcades, carnivals, and gambling establishments. Cashes checks that are endorsed and approved by management.
- 2:4 Lifts green-clay products, such as brick, roofing tile, or quarry floor tile, from press-conveyor belt and stacks them in specified pattern on kiln car, drier rack, or pallet.

- 2:5 Trims fat, skin, tendons, tissues, and ragged edges from meat cuts, such as loins, hams, sirloins, and chops, using meathook and knife. Trims fatback from hog bellies and cuts bellies into specified shapes, using knife. Trims meat and fat from bones and places trimmings and bones in separate containers.
- 2:6 Assists patrons at entertainment events in finding seats, searching for lost articles, and locating such facilities as rest rooms and telephones. Distributes programs to patrons.
- 2:7 Drives cars between parking lot and entrance to restaurant, department store, or other establishment rendering parking service to patrons.
- 2:8 Tests blood of poultry to ascertain presence of pullorum disease. Pricks vein in bird's wing, using needle. Collects blood on wire loop and drops blood into pullorum reactor. Examines blood for specks that indicate presence of pullorum disease.
- 2:9 Dips metal parts into molten solder to bond them together using any combination of following methods: (1) twists, crimps, or holds parts together and dips them in solder for specified time; (2) dips parts separately and solders them together, using soldering iron; (3) clamps workpiece onto fixture and depresses lever to lower workpiece into solder pot.

Level 3 Over 30 days up to and including 3 months

- 3:1 Attaches tickets to cut garment parts to identify parts cut from same layer of cloth and to identify parts that match in shade for assembly into one garment. Staples tickets to parts, using hand stapler. Positions ticket and garment part under head of stapling machine and depresses pedal of machine that staples ticket to part.
- 3:2 Drives truck over established route to collect coins and refill vending machines. Loads truck with supplies according to written or verbal instructions. Drives truck to establishment, collects coins, refills machine, and records amount of money collected. Reports malfunctioning machines to maintenance department for repairs.
- 3:3 Cares for animals under treatment for disease, injury, or for production of serums in animal hospital. Sterilizes surgical instruments and other equipment, such as rubber gloves and syringes, using germicides and autoclave. Administers anesthetics and medications under direction of veterinarian. Bathes and brushes animals and clips their hair and nails.
- 3:4 Attends to personal needs of handicapped children in school to receive specialized academic and physical training. Wheels handicapped children to classes, lunchrooms, and treatment rooms. Prepares children for physical therapy treatment, secures them in equipment, and lowers them into baths or pools, using hoists. Helps children to walk, board buses, put on braces, eat, dress, and perform other physical activities.
- 3:5 Receives articles, such as shoes and clothing, to be repaired or cleaned in personal service establishment. Quotes prices and prepares work ticket. Sends articles to work department. Returns finished articles to customer and collects amount due.
- 3:6 Tends variety of machine tools, such as lathes, drill presses, or milling machines, to machine metal workpieces according to production specifications. Positions workpiece in fixture or loads automatic feeding device. Starts machine, engages feed, and observes operation. Verifies conformance of machined workpieces to specifications, using fixed gauges, calipers, or micrometer.
- 3:7 Examines hairsprings for flatness and concentricity, using tweezers and loupe. Stretches spring to be sure it lies in one plane, spacing is uniform between coils, and spring is free from blemishes.
- 3:8 Plants, cultivates, and harvests trees, shrubs, and ornamental flowering plants in nursery. Mixes soil with other materials, such as sand and peat moss, to prepare plant beds and plants specified seeds, seedlings, or bulbs. Fumigates plants to kill insect pests. Grafts buds onto trees of different varieties as directed.

- 3:9 Interviews applicants for employment and processes application forms. Interviews applicants to obtain information, such as age, work experience, education, and occupational interest. Refers qualified applicants to employing official. Writes letters to references indicated on application or telephones agencies, such as credit bureaus and finance companies.
- 3:10 Types letters, reports, stencils, forms, addresses, or other straight copy materials from rough draft or corrected copy.

Level 4 Over 3 months up to and including 6 months

- 4:1 Verifies accuracy of loan applications and prepares file for each loan transaction. Compares original application with credit report. Prepares loan worksheet, insurance record, credit report, and application copy for each loan.
- 4:2 Operates machine to reproduce data or ruled forms on paper from type in flat impression bed or plates on revolving cylinder. Selects type or embossed plate and sets it up on cylinder of flat bed of machine. Loads paper in feed tray and makes adjustments to parts, such as inking rolls or ribbon and feeding mechanism. Starts machine which automatically pushes sheets under revolving cylinder or against flat impression bed of type where paper is printed.
- 4:3 Assists in care of hospital patients, under direction of nursing and medical staff. Bathes, dresses, and undresses patients. Transports patients to treatment units, using wheelchair, or assists them to walk. Drapes patients for examinations and treatments and performs such duties as holding instruments and adjusting lights. Takes and records temperature, pulse and respiration rates, and food and liquid intake and output as directed.
- 4:4 Tends one or more machines that wash commercial, industrial, or household articles, such as garments, blankets, curtains, draperies, fine linens, and rags. Loads or directs workers in loading machine with articles requiring identical treatment. Starts machine and turns valves to admit specified amounts of water, soap, detergent, bluing, and bleach.
- 4:5 Guards inmates in penal institution in accordance with established policies, regulations, and procedures. Observes conduct and behavior of inmates to prevent disturbances and escapes. Inspects locks, window bars, grilles, doors, and gates for signs of tampering. Guards and directs inmates during work assignments.
- 4:6 Controls furnace to relieve internal stresses in metal objects and to soften and refine grain structure. Charges objects directly onto furnace bed or packs them into boxes or tubes sealed with clay to prevent oxidation. Reduces heat and allows objects to cool in furnace or removes objects from furnace and allows them to cool in open air.
- 4:7 Drives gasoline- or diesel-powered tractor-trailer combination, usually over long distances, to transport and deliver goods, livestock, or materials in liquid, loose, or packaged form. Inspects truck and prepares report on truck condition before and after trips.
- 4:8 Installs circuit wiring in automobiles, truck trailers, and mobile homes for lights, ignition, and other electrical apparatus, following diagrams and color code. Cuts and locates openings in walls and ceiling for wire, light fixtures, outlet boxes, and fuse holders, using electric drill and router. Threads wires or cables through holes and secures them to frame. Installs fixtures and boxes. Connects terminals to power source to test operation of fixtures.
- 4:9 Pours liquid candy into chilled molds to form solid candy figures. Dumps or pours candy into warming pan and turns dial to heat product to pouring temperature. Stirs candy to facilitate melting and pours it into chilled mold.
- 4:10 Patrols assigned beat on foot, using motorcycle or patrol car, or on horseback to control traffic, prevent crime or disturbance of peace, and arrest violators. Disperses unruly crowds at public gatherings. Reports to scene of accidents, renders first aid to injured, and investigates causes and results of accident. Inspects public establishments requiring licenses to ensure compliance with rules and regulations. Issues tickets to traffic violators. Directs and routes traffic.

Level 5 Over 6 months up to and including 1 year

- 5:1 Performs routine tests in medical laboratory for use in treatment and diagnosis of disease. Prepares tissue samples for pathologist, takes blood samples, and prepares vaccines. Carries out such laboratory tests as urinalyses and blood counts, using microscopes, micrometers, and similar instruments. Makes quantitative and qualitative chemical and biological analyses of body specimens under supervision of medical technologist or pathologist.
- 5:2 Performs assigned duties in business organization, depending on nature of business, to gain knowledge and experience for promotion to management positions. Participates in work of such departments of business as credit, sales, engineering, advertising, accounting, traffic, warehousing, or personnel, performing various duties under close supervision. Observes techniques utilized by experienced workers, learns line and staff functions of each department, and becomes familiar with management policies and viewpoints as they affect each phase of business operations.
- 5:3 Takes dictation in shorthand of correspondence, reports, and other matters and transcribes dictated material, using typewriter. Performs a variety of clerical duties, such as tabulating and posting data in record books and preparing, issuing, and sending out receipts, bills, invoices, and checks, or works in a stenographic pool transcribing material from sound recordings.
- 5:4 Receives, stores, and issues supplies and equipment and compiles records of supply transactions aboard ship. Verifies that supplies received are listed on requisitions and invoices. Stores, issues, and inventories supplies and equipment. Compiles report of expenditures.
- 5:5 Sells men's furnishings, such as neckties, shirts, belts, hats, and accessories. Advises customer on coordination of accessories.
- 5:6 Operates barrel plating equipment to coat metal objects electrically with metal to build up, protect, or decorate surfaces. Places metal objects in mesh container and immerses them in cleaning solution. Places objects in perforated barrel, turns handle to lower barrel into plating solution and to close electrical contacts. Starts flow of electric current through plating solution, causing plating metal at anode to decompose and be deposited on objects in barrel.
- 5:7 Controls equipment to bleach pulp. Starts pump and adjusts controls to regulate flow of pulp to absorption towers, bleaching and soaking tanks, and pulp washers according to specified bleaching sequence. Opens valves to allow metered flow of such chemicals as liquid and gaseous chlorine, caustic soda, and peroxide into pulp. Starts agitators to mix pulp and chemicals. Adjusts controls to ensure that pulp bleaching meets specifications, following laboratory test reports.
- 5:8 Assembles and adjusts typewriters and office machines or subassemblies, using handtools and holding devices. Screws and bolts parts together, using screwdrivers, wrenches, and other handtools. Tests operation of machines and typewriters to detect loose and binding parts and to determine synchronization of related parts. Verifies tensions and clearances of parts, using tension scales and space and feeler gauges.
- 5:9 Performs any combination of the following duties on construction projects, usually working in utility capacity, transferring from one task where demands require worker with varied experience and ability to work without close supervision: Measures distances from grade stakes and drives stakes, stretches tight line, and positions blocks up under forms. Mixes concrete, using portable concrete mixer. Gives direction to workers engaged in dumping concrete into forms. Erects shoring and braces. Aids construction equipment operators to align and move equipment, such as cranes, power shovels, and backhoes, by verifying grades and signaling operators to adjust machines to conform to grade specifications.
- 5:10 Coats, decorates, glazes, retouches, or tints articles, such as fishing lures, toys, dolls, pottery, artificial flowers, greeting cards, and household appliances, using airbrush. Stirrs or shakes coating liquid and thinner to mix them to specified consistency. Pours liquid into airbrush container, couples spray gun to airhose, and starts compressor. Turns adjusting sleeve on nozzle of spray gun to regulate spray pattern and presses button on airbrush to spray coating over workpiece or to spray specified designs and decorations on workpiece.

Level 6 Over 1 year up to and including 2 years

- 6:1 Performs dental prophylactic treatments and instructs group and individuals in care of teeth and mouth. Removes calcareous deposits, accretions, and stains from teeth by scraping accumulation of tartar from teeth and beneath margins of gums, by using rotating brush, rubber cup, and cleaning compounds. Charts conditions of decay and disease for diagnosis and treatment by dentist. Lectures community organizations and other interested groups regarding oral hygiene, using motion pictures, charts, and other visual aids.
- 6:2 Keeps records of financial transactions of establishment. Verifies and enters details of transactions in account and cash journals from items, such as sales slips, invoices, check stubs, inventory records, and requisitions. Balances books and compiles reports to show statistics, such as cash receipts and expenditures, accounts payable and receivable, profit and loss, and other items. Calculates employee wages from plant records or timecards and makes up checks or withdraws cash from bank for payment of wages.
- 6:3 Sells insurance to new and present clients, recommending amount and type of coverage based on analysis of prospect's circumstances. Compiles lists of prospective clients to provide leads most likely to produce additional business. Explains features of policies offered. Calculates rates to be applied to policy for each prospect, using rate books.
- 6:4 Identifies stains in wool, synthetic, and silk garments and household fabrics and applies chemical solutions to remove them, determining spotting procedures on basis of type of fabric and nature of stain. Sprinkles chemical solvents over stain and pats area with brush or sponge until stain is removed. Sprays steam, water, or air over spot to flush out chemicals and dry garment.
- 6:5 Controls still, from central control board, to distill brandy, gin, or whiskey. Adjusts valves to control temperature and rate of flow of distilling materials through still and auxiliary equipment, such as stripping column, rectifier, condenser, and tribox. Observes gauges, dials, and charts to ensure that temperature and rate of flow of distillants are maintained according to formula. Determines proof of distilled liquor by ascertaining temperature and specific gravity of liquor, using thermometer and hydrometer.
- 6:6 Inspects wool to sort and grade it according to length of fiber, color, and degree of fineness, utilizing sight, touch, experience, and established specifications. Shakes fleece over screen-topped table to remove dust. Picks out foreign matter, such as burrs, sticks, strings, and cinders. Breaks fleece into pieces and inspects and sorts them according to quality.
- 6:7 Sets up and operates two or more types of machine tools, such as lathes, milling machines, boring machines, and grinders, to machine metal workpieces according to specifications, tooling instructions, standard charts, applying knowledge of machining methods. Reads blueprint or job order for product specifications, such as dimensions and tolerances, and tooling instructions, such as fixtures, feed rates, cutting speeds, depth of cut, and cutting tools to be used. Positions tool in toolholder. Moves controls to position tool and workpiece and to set specified feeds, speeds, and depth of cut. Starts machine. Observes operation and verifies conformance of machined workpiece to specifications, using measuring instruments, such as fixed gauges, calipers, and micrometers.
- 6:8 Arranges layout of work stations on assembly line, following written specifications and oral instructions, to prepare line for production of electronic components, such as printed circuit boards, transformer assemblies, and wiring harness and cables. Reads specifications including lists of materials and wiring diagrams to requisition equipment, such as piece parts, tools, test instruments, jigs, and fixtures for work stations. Positions equipment in specified arrangement at work stations.
- 6:9 Cuts, shapes, and polishes precious and synthetic gems. Positions rough stone in holder and holds stone against edge of revolving saw or lapidary slitter impregnated with diamond dust to cut and slit stone. Selects shaping wheel and applies abrasive compound. Holds lapidary stick against revolving shaping wheel and lapidary disk to shape stone and grind facets.
- 6:10 Alters women's ready-to-wear garments as instructed. Rips stitches from darts and seams of section to be altered. Operates sewing machine to sew ripped sections to customer's measurements. Sews sections of garment, such as hem, sleeve, or lining, using needle and thread.

Level 7 Over 2 years up to and including 4 years

- 7:1 Plans artistic, architectural, and structural features of any class of buildings and like structures. Sketches designs and details, using drawing instruments. Makes engineering computations to determine the strength of materials, beams, and trusses. Estimates quantities needed for project and computes cost.
- 7:2 Applies electronic theory, principles of electrical circuits, electrical testing procedures, engineering mathematics, physics, and related subjects to lay out, build, test, troubleshoot, repair, and modify developmental production and production electronic equipment, such as computers, missile-control instrumentation, and machine tool numerical controls. Assembles experimental circuitry or complete prototype model according to engineering instructions, technical manuals, and knowledge of electronic systems and components and their function. Writes technical reports and develops charts, graphs, and schematics for use by engineers in evaluating system.
- 7:3 Supervises and coordinates activities of clerical staff of an establishment. Prepares work schedules and expedites workflow. Reviews work performed, prepares employee ratings, and conducts employee benefit and insurance programs. Computes and compiles data and prepares records and reports. Studies and standardizes procedures to improve efficiency of department. Coordinates work operations of other departments. Estimates budget needs.
- 7:4 Commands ship to transport passengers, freight, and other cargo across oceans, bays, lakes, and in coastal waters. Sets course of ship, using navigational aids, such as charts, area plotting sheets, compass, and sextant. Determines geographical position of ship by use of loran or azimuths of celestial bodies. Calculates landfall by use of electronic sounding devices and by following contour lines on chart. Coordinates activities of crewmembers.
- 7:5 Supervises and coordinates activities of pantry, storeroom, and noncooking kitchen workers, and purchases or requisitions foodstuffs, kitchen supplies, and equipment. Inspects kitchens and storerooms to ensure that premises and equipment are clean and in order and that sufficient foodstuffs and supplies are on hand to ensure efficient service. Examines incoming purchases for quality. Coordinates activities of cleaning personnel and storage and supply workers.
- 7:6 Operates control panel to regulate temperature, pressure, rate of flow, and tank level in petroleum refining, processing, and treating units and petro-chemical units according to process schedules. Observes instruments and meters to verify specified conditions and records reading. Moves and adjusts dials, switches, valves, and levers on control panel to regulate and coordinate process variable, such as flow, temperature, pressures, and chemicals as specified. Records results of laboratory analysis.
- 7:7 Installs and repairs gas meters, regulators, ranges, heaters, and refrigerators in customer's establishment, using manometers, voltmeter, handtools, and pipe-threading tools. Measures, cuts, and threads pipe and connects it to feeder line and equipment or appliance. Tests and examines pipelines and equipment to locate leaks and faulty pipe connections and to determine pressure and flow of gas. Dismantles meters and regulators, and replaces defective pipes, thermocouples, thermostats, valves, and indicator spindles, using handtools.
- 7:8 Repairs or replaces upholstery in automobiles, buses, and trucks. Removes old upholstery from seats and door panels of vehicle. Measures new padding and covering materials, and cuts them to required dimensions. Adjusts or replaces seat springs and ties them in place. Sews covering material together, using sewing machine. Fits covering to seat frame. Repairs or replaces convertible tops.
- 7:9 Assembles, plants, and detonates charges of industrial explosives to loosen earth, rock, stumps, or to demolish structures facilitating removal. Examines mass, composition, structure, and location of object to be blasted; estimates amount and determines kind of explosive to be used. Assembles primer and places it with main charge in hole or near object to be blasted. Gives signal to clear area and detonates charge.

7:10 Develops exposed photographic film or sensitized paper in series of chemical and water baths to produce negative or positive prints. Mixes developing and fixing solutions, following formula. Immerses exposed film or photographic paper in developer solution to bring out latent image. Immerses negative or paper in stop-bath to arrest developer action, in hypo-solution to fix image, and in water to remove chemicals.

Level 8 Over 4 years up to and including 10 years

- 8:1 Conducts experiments on substances to develop and improve materials and products and to discover scientific facts. Combines organic compounds to make new substances or to duplicate substances found in nature. Carries out and participates in experiments designed to develop and improve, by chemical means, color, texture and strength, and lasting qualities of paint, rubber, wood, dye, petroleum, and other organic compounds and by-products. Develops new uses for chemical by-products and devises new procedures for preparing organic compounds.
- 8:2 Directs, coordinates, and participates in motion picture art work production concerned with design of sets, scenic effects, and costumes. Plans costuming of cast. Refers to technical literature to ensure that scenes and costumes depict accurate representation of given period or location. Coordinates efforts of departments to achieve harmonious color effects in production of color films.
- 8:3 Manages farm concerned with raising, harvesting, packing, and marketing farm products for corporations, cooperatives, and other owners. Analyzes market conditions to determine acreage allocations. Negotiates with bank officials to obtain credit from bank. Purchases farm machinery and equipment. Prepares financial and other management reports. Confers with purchasers and determines when and under what conditions to sell products.
- 8:4 Supervises and coordinates activities of cooks engaged in the preparation of desserts, pastries, confections, and ice cream. Plans production for pastry department according to menu or special requirements. Supplies recipes for and suggests methods and procedures to pastry workers. Fashions table and pastry decorations, such as statuary and ornaments, from sugar paste and icings.
- 8:5 Supervises and coordinates activities of workers engaged in operation of blast furnace to produce molten pig iron. Directs workers in charging furnace with specified amounts of raw materials, such as iron ore, coke, and limestone. Observes color of molten metal through tuyeres or reads pyrometer and orders changes in furnace temperature and pressure. Estimates amounts of ferro-silicon, manganese, and phosphorous to add to molten metal to obtain specified type of pig iron.
- 8:6 Inspects, tests, and adjusts new and reworked tools, dies, gauges, jigs, and fixtures for conformance to specifications, such as dimensions, tolerances, and hardness. Computes angles, radii, and other dimensions, using algebra, geometry, and trigonometry. Lays out center lines and reference points on parts. Measures angular dimensions, radii contours, clearances, thread lead, and other specifications, using precision measuring instruments.
- 8:7 Constructs and repairs dental appliances according to dentist's prescription. Fabricates full and partial dentures, using wax and plaster models, surveyors, tooth-color scales, articulators, and electric grinders and polishers. Constructs crowns, inlays, and wire frames by forming gold and platinum wire or by casting in mold in centrifugal casting furnace. Constructs porcelain teeth from impression, using powdered porcelain and water, electric furnaces, grinding wheels, and tooth-color scales.
- 8:8 Repairs and maintains electrical equipment in generating station or powerhouse. Tests defective equipment to determine cause of malfunction or failure, using voltmeters, ammeters, and related electrical testing apparatus. Repairs and replaces equipment, such as relays, switches, supervisory controls, and indicating and recording instruments. Tests and repairs switchboard and equipment circuitry, interpreting wiring diagrams to trace and connect numerous wires carrying current for independent functions.

- 8:9 Prepares flight schedules for airline. Reviews schedules and travel loads and determines need for schedule revision. Prepares advance schedules in accordance with known and estimated passenger travel patterns between designated points and availability of equipment. Studies company and inter-line schedules to coordinate flights and devise schedule patterns. Prepares request for route use, as directed by Schedule Committee, and assembles supporting material based on analysis of passenger loads and travel patterns.
- 8:10 Manages industrial organization. Determines and executes administrative policies through subordinate managers. Coordinates activities of departments, such as production, distribution, engineering, maintenance, personnel, and selling. Plans and directs marketing of product to develop new markets and maintain sales volume and competitive position in industry.

Level 9 Over 10 years

- 9:1 Supervises and coordinates activities of workers engaged in installation, maintenance, repair, servicing, enlargement, and relocation of water distribution and sewage facilities. Analyzes trends, such as population and industrial growth of area serviced, to determine adequacy of current facilities and to forecast future community demands for water and sewage facilities. Designs plans to meet and serve expanding community needs. Confers with administrative and technical personnel to coordinate departmental activities with organizational demands.
- 9:2 Provides leadership for professional staff and participates in development of academic policy and programs of college or university. Supervises department or division heads or deans of individual colleges. Determines scheduling of courses and recommends implementation of additional courses. Advises students on choice of major academic area and coordinates academic advising efforts of deans of colleges and faculty. Participates in activities of faculty committees, such as curriculum committee and faculty personnel committee.
- 9:3 Administers affairs of museum and conducts scientific research programs. Directs activities concerned with instructional, research, and public service objectives of institutions. Obtains, develops, and organizes new collections to build up and improve educational and research facilities. Organizes and conducts field parties engaged in scientific research, performing duties such as gathering scientific papers, selecting personnel, and securing financial support for expeditions.
- 9:4 Directs editorial activities of newspaper and negotiates with production, advertising, and circulation department heads. Appoints editorial heads and supervises work of their department in accordance with newspaper policy. Writes leading or policy editorials. Confers with editorial policy committee and negotiates with production, circulation, and advertising department heads to establish policies and reach decisions affecting publication.
- 9:5 Creates and writes musical compositions. Invents melodic, harmonic, and rhythmic structures to express ideas musically within circumscribed musical form, such as symphony, sonata, or opera. Translates melodies, harmonies, and rhythms into musical notes and records notes on scored music paper.
- 9:6 Directs engineering departments of petroleum production or pipeline company and advises management on engineering problems. Reviews engineering designs for neatness and accuracy. Directs engineering personnel in formulating plans, designs, costs estimates, and specifications for oil field or pipeline construction, maintenance, and modernization programs. Supervises engineering office workers computing budgets, compiling reports, and conducting special investigations and studies to evaluate efficiency of engineering programs.
- 9:7 Administers private, corporate, and probate trusts. Examines or drafts trust agreement to ensure compliance with legal requirements and terms creating trust. Locates, inventories, and evaluates assets of probated accounts. Directs realization of assets, liquidation of liabilities, payment of bills, preparation of Federal and State tax returns, and collection of earnings.
- 9:8 Directs and coordinates activities of municipal police department in accordance with authority delegated by board of police. Promulgates rules and regulations for department. Coordinates and administers daily police activities through subordinates. Directs activities of personnel engaged in preparing budget proposals, maintaining police records, and recruiting employees.

- 9:9 Plans, administers, and directs intercollegiate athletic activities in college or university. Interprets and participates in formulating extramural athletic policies. Directs athletic coaches and members of coaching staff. Prepares budget estimates. Assumes immediate responsibilities for receipts and expenditures of department and for production of income, such as scheduling sports events and controlling and managing ticket sales.
- 9:10 Develops and administers policies of organization in accordance with corporation character. Establishes operating objectives and policies for firm. Reviews progress and makes necessary changes in company plans. Directs preparation of major financial programs, such as pricing policies and salary and wage schedules, to ensure operating efficiency and adequate investment and dividend returns.

PROCEDURE FOR EVALUATING AND RECORDING SVP REQUIREMENTS

SVP is the amount of time required for a typical worker, taking the usual training available, to perform the duties of the job in a way to be accepted as a fully qualified worker. SVP is estimated by the analyst based upon an evaluation of the job. In making this evaluation, the analyst considers the employer's requirements shown in Item 11 of the JAR and the examples for the various levels of SVP. However, the entries in Item 11, Employer Requirements, are not to be used as a worktable for computing SVP. They are two separate and distinct entries which can complement each other, but are not intended to provide the same information. The information in Item 11 must be considered and may be the basis for SVP, provided it is reasonable.

NOTE: In calculating SVP for Item 9 of the JAR, count the average four-year college curriculum as equivalent to two years of specific vocational preparation, and count each year of graduate school as a year of specific vocational preparation. At the secondary level of vocational education, count two classroom hours as an hour of SVP. However, at the post-secondary level of vocational education, count each classroom hour as an hour of SVP.

If there is disagreement with the employer's training requirement, the analyst should follow the employer's requirement in Item 11 of the JAR with an asterisk and explain the disagreement in Item 18 (General Comments). The final SVP rating represents the analyst's judgment based on an assessment and evaluation of all pertinent data gathered.

Enter in Item 9 of the JAR, the SVP level that applies to the job.