

# ARTBA 2016 U.S. Highway, Street & Bridge Construction Salary & Hourly Wage Guide *Occupational Definitions*

## List of Occupation Titles, by Occupation Group

### **Management Occupations**

- Chief Executives
- General and Operations Managers
- Sales Managers
- Administrative Services Managers
- Financial Managers
- Industrial Production Managers
- Transportation, Storage, and Distribution Managers
- Human Resources Managers
- Construction Managers
- Architectural and Engineering Managers
- Property, Real Estate, and Community Association Managers
- Managers, All Other

### **Business and Financial Operations Occupations**

- Purchasing Agents, Except Wholesale, Retail, and Farm Products
- Compliance Officers
- Cost Estimators
- Human Resources Specialists
- Logisticians
- Management Analysts
- Compensation, Benefits, and Job Analysis Specialists
- Market Research Analysts and Marketing Specialists
- Business Operations Specialists, All Other
- Accountants and Auditors

### **Computer and Mathematical Occupations**

- Information Security Analysts
- Network and Computer Systems Administrators
- Computer Network Architects
- Computer User Support Specialists
- Computer Network Support Specialists

### **Architecture and Engineering Occupations**

- Surveyors
- Civil Engineers
- Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
- Industrial Engineers
- Engineers, All Other
- Architectural and Civil Drafters
- Civil Engineering Technicians
- Engineering Technicians, Except Drafters, All Other
- Surveying and Mapping Technicians



**Healthcare Practitioners and Technical Occupations**

Occupational Health and Safety Specialists  
Occupational Health and Safety Technicians

**Protective Service Occupations**

Security Guards  
Crossing Guards

**Building and Grounds Cleaning and Maintenance Occupations**

First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers  
Janitors and Cleaners, Except Maids and Housekeeping Cleaners  
Maids and Housekeeping Cleaners  
Landscaping and Groundskeeping Workers

**Sales and Related Occupations**

Sales Representatives, Services, All Other  
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products

**Office and Administrative Support Occupations**

First-Line Supervisors of Office and Administrative Support Workers  
Billing and Posting Clerks  
Bookkeeping, Accounting, and Auditing Clerks  
Payroll and Timekeeping Clerks  
Customer Service Representatives  
Human Resources Assistants, Except Payroll and Timekeeping  
Receptionists and Information Clerks  
Couriers and Messengers  
Dispatchers, Except Police, Fire, and Ambulance  
Production, Planning, and Expediting Clerks  
Stock Clerks and Order Fillers  
Weighers, Measurers, Checkers, and Samplers, Recordkeeping  
Executive Secretaries and Executive Administrative Assistants  
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive  
Office Clerks, General  
Office and Administrative Support Workers, All Other

**Construction and Extraction Occupations**

First-Line Supervisors of Construction Trades and Extraction Workers  
Boilermakers  
Brickmasons and Blockmasons  
Carpenters  
Cement Masons and Concrete Finishers  
Construction Laborers  
Paving, Surfacing, and Tamping Equipment Operators  
Pile-Driver Operators  
Operating Engineers and Other Construction Equipment Operators  
Electricians  
Insulation Workers, Mechanical  
Painters, Construction and Maintenance  
Pipelayers  
Plumbers, Pipefitters, and Steamfitters  
Reinforcing Iron and Rebar Workers



Structural Iron and Steel Workers  
Helpers--Carpenters  
Helpers--Pipefitters, Plumbers, Pipefitters, and Steamfitters  
Helpers, Construction Trades, All Other  
Construction and Building Inspectors  
Highway Maintenance Workers  
Segmental Pavers  
Construction and Related Workers, All Other  
Earth Drillers, Except Oil and Gas

**Installation, Maintenance, and Repair Occupations**

First-Line Supervisors of Mechanics, Installers, and Repairers  
Automotive Service Technicians and Mechanics  
Bus and Truck Mechanics and Diesel Engine Specialists  
Mobile Heavy Equipment Mechanics, Except Engines  
Industrial Machinery Mechanics  
Maintenance Workers, Machinery  
Millwrights  
Maintenance and Repair Workers, General  
Riggers  
Helpers--Installation, Maintenance, and Repair Workers  
Installation, Maintenance, and Repair Workers, All Other

**Production Occupations**

First-Line Supervisors of Production and Operating Workers  
Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic  
Welders, Cutters, Solderers, and Brazers  
Plant and System Operators, All Other  
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders  
Mixing and Blending Machine Setters, Operators, and Tenders  
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders  
Inspectors, Testers, Sorters, Samplers, and Weighers  
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders  
Production Workers, All Other

**Transportation and Material Moving Occupations**

First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand  
First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators  
Heavy and Tractor-Trailer Truck Drivers  
Light Truck or Delivery Services Drivers  
Motor Vehicle Operators, All Other  
Captains, Mates, and Pilots of Water Vessels  
Crane and Tower Operators  
Dredge Operators  
Excavating and Loading Machine and Dragline Operators  
Hoist and Winch Operators  
Industrial Truck and Tractor Operators  
Laborers and Freight, Stock, and Material Movers, Hand



Occupation Title, by Occupation Group	Definition
<i>Management Occupations</i>	
Chief Executives	Determine and formulate policies and provide overall direction of companies or private and public sector organizations within guidelines set up by a board of directors or similar governing body. Plan, direct, or coordinate operational activities at the highest level of management with the help of subordinate executives and staff managers.
General and Operations Managers	Plan, direct, or coordinate the operations of public or private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Excludes First-Line Supervisors.
Sales Managers	Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.
Administrative Services Managers	Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, facilities planning and maintenance, custodial operations, and other office support services. Excludes "Purchasing Managers".
Financial Managers	Plan, direct, or coordinate accounting, investing, banking, insurance, securities, and other financial activities of a branch, office, or department of an establishment.
Industrial Production Managers	Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.
Transportation, Storage, and Distribution Managers	Plan, direct, or coordinate transportation, storage, or distribution activities in accordance with organizational policies and applicable government laws or regulations. Includes logistics managers.
Human Resources Managers	Plan, direct, or coordinate human resources activities and staff of an organization. Excludes managers who primarily focus on compensation and benefits and training and development.
Construction Managers	Plan, direct, or coordinate, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its organization, scheduling, budgeting, and implementation. Includes managers in specialized construction fields, such as carpentry or plumbing.
Architectural and Engineering Managers	Plan, direct, or coordinate activities in such fields as architecture and engineering or research and development in these fields. Excludes "Natural Sciences Managers".
Property, Real Estate, and Community Association Managers	Plan, direct, or coordinate the selling, buying, leasing, or governance activities of commercial, industrial, or residential real estate properties. Includes managers of homeowner and condominium associations, rented or leased housing units, buildings, or land (including rights-of-way).



Occupation Title, by Occupation Group	Definition
Managers, All Other	All managers not listed separately.
<b><i>Business and Financial Operations Occupations</i></b>	
Purchasing Agents, Except Wholesale, Retail, and Farm Products	Purchase machinery, equipment, tools, parts, supplies, or services necessary for the operation of an establishment. Purchase raw or semi-finished materials for manufacturing. Excludes "Buyers and Purchasing Agents, Farm Products" and "Wholesale and Retail Buyers, Except Farm Products".
Compliance Officers	Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and perform other compliance and enforcement inspection and analysis activities not classified elsewhere. Excludes "Financial Examiners", "Tax Examiners and Collectors, and Revenue Agents", "Occupational Health and Safety Specialists", "Occupational Health and Safety Technicians", "Transportation Security Screeners", "Agricultural Inspectors", "Construction and Building Inspectors", and "Transportation Inspectors".
Cost Estimators	Prepare cost estimates for product manufacturing, construction projects, or services to aid management in bidding on or determining price of product or service. May specialize according to particular service performed or type of product manufactured.
Human Resources Specialists	Perform activities in the human resource area. Includes employment specialists who screen, recruit, interview, and place workers. Excludes "Compensation, Benefits, and Job Analysis Specialists" and "Training and Development Specialists".
Logisticians	Analyze and coordinate the logistical functions of a firm or organization. Responsible for the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery, and final disposal of resources. Excludes "Transportation, Storage, and Distribution Managers".
Management Analysts	Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively. Includes program analysts and management consultants. Excludes "Computer Systems Analysts" and "Operations Research Analysts".
Compensation, Benefits, and Job Analysis Specialists	Conduct programs of compensation and benefits and job analysis for employer. May specialize in specific areas, such as position classification and pension programs.
Market Research Analysts and Marketing Specialists	Research market conditions in local, regional, or national areas, or gather information to determine potential sales of a product or service, or create a marketing campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution.
Business Operations Specialists, All Other	All business operations specialists not listed separately.
Accountants and Auditors	Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others. Install or advise on systems of recording costs or other financial and budgetary data. Excludes "Tax Examiners and Collectors, and Revenue Agents".



Occupation Title, by Occupation Group	Definition
<b><i>Computer and Mathematical Occupations</i></b>	
Information Security Analysts	Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses. Excludes "Computer Network Architects".
Network and Computer Systems Administrators	Install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet systems or a segment of a network system. Monitor network to ensure network availability to all system users and may perform necessary maintenance to support network availability. May monitor and test Web site performance to ensure Web sites operate correctly and without interruption. May assist in network modeling, analysis, planning, and coordination between network and data communications hardware and software. May supervise computer user support specialists and computer network support specialists. May administer network security measures. Excludes "Information Security Analysts", "Computer User Support Specialists", and "Computer Network Support Specialists".
Computer Network Architects	Design and implement computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. Perform network modeling, analysis, and planning. May also design network and computer security measures. May research and recommend network and data communications hardware and software. Excludes "Information Security Analysts", "Network and Computer Systems Administrators", and "Computer Network Support Specialists".
Computer User Support Specialists	Provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, or via telephone or electronically. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems. Excludes "Network and Computer Systems Administrators".
Computer Network Support Specialists	Analyze, test, troubleshoot, and evaluate existing network systems, such as local area network (LAN), wide area network (WAN), and Internet systems or a segment of a network system. Perform network maintenance to ensure networks operate correctly with minimal interruption. Excludes "Network and Computer Systems Administrators" and "Computer Network Architects".
<b><i>Architecture and Engineering Occupations</i></b>	
Surveyors	Make exact measurements and determine property boundaries. Provide data relevant to the shape, contour, gravitation, location, elevation, or dimension of land or land features on or near the earth's surface for engineering, mapmaking, mining, land evaluation, construction, and other purposes.
Civil Engineers	Perform engineering duties in planning, designing, and overseeing construction and maintenance of building structures, and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, and water and sewage systems. Includes architectural, structural, traffic, ocean, and geo-technical engineers. Excludes "Hydrologists".



Occupation Title, by Occupation Group	Definition
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	Promote worksite or product safety by applying knowledge of industrial processes, mechanics, chemistry, psychology, and industrial health and safety laws. Includes industrial product safety engineers.
Industrial Engineers	Design, develop, test, and evaluate integrated systems for managing industrial production processes, including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination. Excludes "Health and Safety Engineers, Except Mining Safety Engineers and Inspectors".
Engineers, All Other	All engineers not listed separately.
Architectural and Civil Drafters	Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.
Civil Engineering Technicians	Apply theory and principles of civil engineering in planning, designing, and overseeing construction and maintenance of structures and facilities under the direction of engineering staff or physical scientists.
Engineering Technicians, Except Drafters, All Other	All engineering technicians, except drafters, not listed separately.
Surveying and Mapping Technicians	Perform surveying and mapping duties, usually under the direction of an engineer, surveyor, cartographer, or photogrammetrist to obtain data used for construction, mapmaking, boundary location, mining, or other purposes. May calculate mapmaking information and create maps from source data, such as surveying notes, aerial photography, satellite data, or other maps to show topographical features, political boundaries, and other features. May verify accuracy and completeness of maps. Excludes "Surveyors", "Cartographers and Photogrammetrists", and "Geoscientists, Except Hydrologists and Geographers".
<b><i>Healthcare Practitioners and Technical Occupations</i></b>	
Occupational Health and Safety Specialists	Review, evaluate, and analyze work environments and design programs and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors. May conduct inspections and enforce adherence to laws and regulations governing the health and safety of individuals. May be employed in the public or private sector. Includes environmental protection officers.
Occupational Health and Safety Technicians	Collect data on work environments for analysis by occupational health and safety specialists. Implement and conduct evaluation of programs designed to limit chemical, physical, biological, and ergonomic risks to workers.
<b><i>Protective Service Occupations</i></b>	
Security Guards	Guard, patrol, or monitor premises to prevent theft, violence, or infractions of rules. May operate x-ray and metal detector equipment. Excludes "Transportation Security Screeners".
Crossing Guards	Guide or control vehicular or pedestrian traffic at such places as streets, schools, railroad crossings, or construction sites.



Occupation Title, by Occupation Group	Definition
<b><i>Building and Grounds Cleaning and Maintenance Occupations</i></b>	
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	Directly supervise and coordinate activities of workers engaged in landscaping or groundskeeping activities. Work may involve reviewing contracts to ascertain service, machine, and workforce requirements; answering inquiries from potential customers regarding methods, material, and price ranges; and preparing estimates according to labor, material, and machine costs.
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	Keep buildings in clean and orderly condition. Perform heavy cleaning duties, such as cleaning floors, shampooing rugs, washing walls and glass, and removing rubbish. Duties may include tending furnace and boiler, performing routine maintenance activities, notifying management of need for repairs, and cleaning snow or debris from sidewalk.
Maids and Housekeeping Cleaners	Perform any combination of light cleaning duties to maintain private households or commercial establishments, such as hotels and hospitals, in a clean and orderly manner. Duties may include making beds, replenishing linens, cleaning rooms and halls, and vacuuming.
Landscaping and Groundskeeping Workers	Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units. Excludes "Farmworkers and Laborers, Crop, Nursery, and Greenhouse".
<b><i>Sales and Related Occupations</i></b>	
Sales Representatives, Services, All Other	All services sales representatives not listed separately.
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.
<b><i>Office and Administrative Support Occupations</i></b>	
First-Line Supervisors of Office and Administrative Support Workers	Directly supervise and coordinate the activities of clerical and administrative support workers.
Billing and Posting Clerks	Compile, compute, and record billing, accounting, statistical, and other numerical data for billing purposes. Prepare billing invoices for services rendered or for delivery or shipment of goods.
Bookkeeping, Accounting, and Auditing Clerks	Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers. Excludes "Payroll and Timekeeping Clerks".





Occupation Title, by Occupation Group	Definition
Payroll and Timekeeping Clerks	Compile and record employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions, or prepare paychecks. Excludes "Bookkeeping, Accounting, and Auditing Clerks".
Customer Service Representatives	Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints. Excludes individuals whose duties are primarily installation, sales, or repair.
Human Resources Assistants, Except Payroll and Timekeeping	Compile and keep personnel records. Record data for each employee, such as address, weekly earnings, absences, amount of sales or production, supervisory reports, and date of and reason for termination. May prepare reports for employment records, file employment records, or search employee files and furnish information to authorized persons.
Receptionists and Information Clerks	Answer inquiries and provide information to the general public, customers, visitors, and other interested parties regarding activities conducted at establishment and location of departments, offices, and employees within the organization. Excludes "Switchboard Operators, Including Answering Service".
Couriers and Messengers	Pick up and deliver messages, documents, packages, and other items between offices or departments within an establishment or directly to other business concerns, traveling by foot, bicycle, motorcycle, automobile, or public conveyance. Excludes "Light Truck or Delivery Services Drivers".
Dispatchers, Except Police, Fire, and Ambulance	Schedule and dispatch workers, work crews, equipment, or service vehicles for conveyance of materials, freight, or passengers, or for normal installation, service, or emergency repairs rendered outside the place of business. Duties may include using radio, telephone, or computer to transmit assignments and compiling statistics and reports on work progress.
Production, Planning, and Expediting Clerks	Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems. Excludes "Weighers, Measurers, Checkers, and Samplers, Recordkeeping".
Stock Clerks and Order Fillers	Receive, store, and issue sales floor merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. May mark prices on merchandise and set up sales displays. Excludes "Laborers and Freight, Stock, and Material Movers, Hand", and "Shipping, Receiving, and Traffic Clerks".
Weighers, Measurers, Checkers, and Samplers, Recordkeeping	Weigh, measure, and check materials, supplies, and equipment for the purpose of keeping relevant records. Duties are primarily clerical by nature. Includes workers who collect and keep record of samples of products or materials. Excludes "Inspectors, Testers, Sorters, Samplers, and Weighers".



Occupation Title, by Occupation Group	Definition
Executive Secretaries and Executive Administrative Assistants	Provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff. Excludes "Secretaries".
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Perform routine clerical and administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers. Excludes legal, medical, and executive secretaries.
Office Clerks, General	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, stenography, office machine operation, and filing.
Office and Administrative Support Workers, All Other	All office and administrative support workers not listed separately.
<b>Construction and Extraction Occupations</b>	
First-Line Supervisors of Construction Trades and Extraction Workers	Directly supervise and coordinate activities of construction or extraction workers.
Boilermakers	Construct, assemble, maintain, and repair stationary steam boilers and boiler house auxiliaries. Align structures or plate sections to assemble boiler frame tanks or vats, following blueprints. Work involves use of hand and power tools, plumb bobs, levels, wedges, dogs, or turnbuckles. Assist in testing assembled vessels. Direct cleaning of boilers and boiler furnaces. Inspect and repair boiler fittings, such as safety valves, regulators, automatic-control mechanisms, water columns, and auxiliary machines.
Brickmasons and Blockmasons	Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, with mortar and other substances to construct or repair walls, partitions, arches, sewers, and other structures. Excludes "Stonemasons". Installers of mortarless segmental concrete masonry wall units are classified in "Landscaping and Groundskeeping Workers".
Carpenters	Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways.



Occupation Title, by Occupation Group	Definition
Cement Masons and Concrete Finishers	Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints. Installers of mortarless segmental concrete masonry wall units are classified in "Landscaping and Groundskeeping Workers".
Construction Laborers	Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris and other waste materials. May assist other craft workers. Construction laborers who primarily assist a particular craft worker are classified under "Helpers, Construction Trades". Excludes "Hazardous Materials Removal Workers".
Paving, Surfacing, and Tamping Equipment Operators	Operate equipment used for applying concrete, asphalt, or other materials to road beds, parking lots, or airport runways and taxiways, or equipment used for tamping gravel, dirt, or other materials. Includes concrete and asphalt paving machine operators, form tampers, tamping machine operators, and stone spreader operators.
Pile-Driver Operators	Operate pile drivers mounted on skids, barges, crawler treads, or locomotive cranes to drive pilings for retaining walls, bulkheads, and foundations of structures, such as buildings, bridges, and piers.
Operating Engineers and Other Construction Equipment Operators	Operate one or several types of power construction equipment, such as motor graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or front-end loaders to excavate, move, and grade earth, erect structures, or pour concrete or other hard surface pavement. May repair and maintain equipment in addition to other duties. Excludes "Crane and Tower Operators" and "Extraction Workers".
Electricians	Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems. Excludes "Security and Fire Alarm Systems Installers".
Insulation Workers, Mechanical	Apply insulating materials to pipes or ductwork, or other mechanical systems in order to help control and maintain temperature.
Painters, Construction and Maintenance	Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency. Excludes "Paperhangers".
Pipelayers	Lay pipe for storm or sanitation sewers, drains, and water mains. Perform any combination of the following tasks: grade trenches or culverts, position pipe, or seal joints. Excludes "Welders, Cutters, Solderers, and Brazers".
Plumbers, Pipefitters, and Steamfitters	Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Includes sprinklerfitters.



Occupation Title, by Occupation Group	Definition
Reinforcing Iron and Rebar Workers	Position and secure steel bars or mesh in concrete forms in order to reinforce concrete. Use a variety of fasteners, rod-bending machines, blowtorches, and hand tools. Includes rod busters.
Structural Iron and Steel Workers	Raise, place, and unite iron or steel girders, columns, and other structural members to form completed structures or structural frameworks. May erect metal storage tanks and assemble prefabricated metal buildings. Excludes "Reinforcing Iron and Rebar Workers".
Helpers--Carpenters	Help carpenters by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist carpenters are classified under "Construction Laborers". Apprentice workers are classified with the appropriate skilled construction trade occupation.
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	Help plumbers, pipefitters, steamfitters, or pipelayers by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist plumbers, pipefitters, steamfitters, or pipelayers are classified under "Construction Laborers". Apprentice workers are classified with the appropriate skilled construction trade occupation.
Helpers, Construction Trades, All Other	All construction trades helpers not listed separately.
Construction and Building Inspectors	Inspect structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical systems or plumbing.
Highway Maintenance Workers	Maintain highways, municipal and rural roads, airport runways, and rights-of-way. Duties include patching broken or eroded pavement, repairing guard rails, highway markers, and snow fences. May also mow or clear brush from along road or plow snow from roadway. Excludes "Tree Trimmers and Pruners".
Segmental Pavers	Lay out, cut, and place segmental paving units. Includes installers of bedding and restraining materials for the paving units.
Construction and Related Workers, All Other	All construction and related workers not listed separately.
Earth Drillers, Except Oil and Gas	Operate a variety of drills such as rotary, churn, and pneumatic to tap sub-surface water and salt deposits, to remove core samples during mineral exploration or soil testing, and to facilitate the use of explosives in mining or construction. May use explosives. Includes horizontal and earth boring machine operators.
<b><i>Installation, Maintenance, and Repair Occupations</i></b>	
First-Line Supervisors of Mechanics, Installers, and Repairers	Directly supervise and coordinate the activities of mechanics, installers, and repairers. Excludes team or work leaders.
Automotive Service Technicians and Mechanics	Diagnose, adjust, repair, or overhaul automotive vehicles. Excludes "Automotive Body and Related Repairers", "Bus and Truck Mechanics and Diesel Engine Specialists", and "Electronic Equipment Installers and Repairers, Motor Vehicles".



Occupation Title, by Occupation Group	Definition
Bus and Truck Mechanics and Diesel Engine Specialists	Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.
Mobile Heavy Equipment Mechanics, Except Engines	Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors, used in construction, logging, and surface mining. Excludes "Rail Car Repairers" and "Bus and Truck Mechanics and Diesel Engine Specialists".
Industrial Machinery Mechanics	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems. Excludes "Millwrights", "Mobile Heavy Equipment Mechanics, Except Engines", and "Maintenance Workers, Machinery".
Maintenance Workers, Machinery	Lubricate machinery, change parts, or perform other routine machinery maintenance. Excludes "Maintenance and Repair Workers, General".
Millwrights	Install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings.
Maintenance and Repair Workers, General	Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs. Excludes "Maintenance Workers, Machinery".
Riggers	Set up or repair rigging for construction projects, manufacturing plants, logging yards, ships and shipyards, or for the entertainment industry.
Helpers--Installation, Maintenance, and Repair Workers	Help installation, maintenance, and repair workers in maintenance, parts replacement, and repair of vehicles, industrial machinery, and electrical and electronic equipment. Perform duties such as furnishing tools, materials, and supplies to other workers; cleaning work area, machines, and tools; and holding materials or tools for other workers.
Installation, Maintenance, and Repair Workers, All Other	All installation, maintenance, and repair workers not listed separately.
<b><i>Production Occupations</i></b>	
First-Line Supervisors of Production and Operating Workers	Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators. Excludes team or work leaders.
Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend milling or planing machines to mill, plane, shape, groove, or profile metal or plastic work pieces.
Welders, Cutters, Solderers, and Brazers	Use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.
Plant and System Operators, All Other	All plant and system operators not listed separately.



Occupation Title, by Occupation Group	Definition
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	Set up, operate, or tend machines to crush, grind, or polish materials, such as coal, glass, grain, stone, food, or rubber.
Mixing and Blending Machine Setters, Operators, and Tenders	Set up, operate, or tend machines to mix or blend materials, such as chemicals, tobacco, liquids, color pigments, or explosive ingredients. Excludes "Food Batchmakers"
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Set up, operate, or tend machines, such as glass forming machines, plodder machines, and tuber machines, to shape and form products, such as glassware, food, rubber, soap, brick, tile, clay, wax, tobacco, or cosmetics. Excludes "Paper Goods Machine Setters, Operators, and Tenders" and "Shoe Machine Operators and Tenders".
Inspectors, Testers, Sorters, Samplers, and Weighers	Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments and complex test equipment.
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	Set up, operate, or tend machines to coat or paint any of a wide variety of products including, glassware, cloth, ceramics, metal, plastic, paper, or wood, with lacquer, silver, copper, rubber, varnish, glaze, enamel, oil, or rust-proofing materials. Excludes "Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic" and "Painters, Transportation Equipment".
Production Workers, All Other	All production workers not listed separately.
<b><i>Transportation and Material Moving Occupations</i></b>	
First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	Directly supervise and coordinate the activities of helpers, laborers, or material movers.
First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	Directly supervise and coordinate activities of transportation and material-moving machine and vehicle operators and helpers.
Heavy and Tractor-Trailer Truck Drivers	Drive a tractor-trailer combination or a truck with a capacity of at least 26,000 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license.
Light Truck or Delivery Services Drivers	Drive a light vehicle, such as a truck or van, with a capacity of less than 26,000 pounds Gross Vehicle Weight (GVW), primarily to deliver or pick up merchandise or to deliver packages. May load and unload vehicle. Excludes "Couriers and Messengers" and "Driver/Sales Workers".
Motor Vehicle Operators, All Other	All motor vehicle operators not listed separately.
Captains, Mates, and Pilots of Water Vessels	Command or supervise operations of ships and water vessels, such as tugboats and ferryboats. Required to hold license issued by U.S. Coast Guard. Excludes "Motorboat Operators".



Occupation Title, by Occupation Group	Definition
Crane and Tower Operators	Operate mechanical boom and cable or tower and cable equipment to lift and move materials, machines, or products in many directions. Excludes "Excavating and Loading Machine and Dragline Operators".
Dredge Operators	Operate dredge to remove sand, gravel, or other materials in order to excavate and maintain navigable channels in waterways.
Excavating and Loading Machine and Dragline Operators	Operate or tend machinery equipped with scoops, shovels, or buckets, to excavate and load loose materials. Excludes "Dredge Operators".
Hoist and Winch Operators	Operate or tend hoists or winches to lift and pull loads using power-operated cable equipment. Excludes "Crane and Tower Operators".
Industrial Truck and Tractor Operators	Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location. Excludes "Logging Equipment Operators".
Laborers and Freight, Stock, and Material Movers, Hand	Manually move freight, stock, or other materials or perform other general labor. Includes all manual laborers not elsewhere classified. Excludes "Material Moving Workers" who use power equipment. Excludes "Construction Laborers" and "Helpers, Construction Trades".

*Occupation Title definitions are from the U.S. Department of Labor (DOL).*

