Group	Code	Title	Definition
major	11-0000	Management Occupations	
minor	11-1000	Top Executives	
broad	11-1010	Chief Executives	
detailed	11-1011	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.
broad	11-1020	General and Operations Managers	
detailed	11-1021	General and Operations Managers	Plan, direct, or coordinate the operations of public or private sector organizations, overseeing multiple departments or locations. 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. Usually manage through subordinate supervisors. Excludes First-Line Supervisors.
broad	11-1030	Legislators	· · · · ·
detailed	11-1031	Legislators	Develop, introduce or enact laws and statutes at the local, tribal, State, or Federal level. Includes only workers in elected positions.
minor	11-2000	Advertising, Marketing, Promotions, Public Relations, and Sales Managers	
broad	11-2010	Advertising and Promotions Managers	
detailed	11-2011	Advertising and Promotions Managers	Plan, direct, or coordinate advertising policies and programs or produce collateral materials, such as posters, contests, coupons, or give-aways, to create extra interest in the purchase of a product or service for a department, an entire organization, or on an account basis.
broad	11-2020	Marketing and Sales Managers	

detailed	11-2021	Marketing Managers	Plan, direct, or coordinate marketing policies and programs, such as determining the demand for products and services offered by a firm and its competitors, and identify potential customers. Develop pricing strategies with the goal of maximizing the firm's profits or share of the market while ensuring the firm's customers are satisfied. Oversee product development or monitor trends that indicate the need for new products and services.
detailed	11-2022	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.
broad	11-2030	Public Relations and Fundraising Managers	
detailed	11-2032	Public Relations Managers	Plan, direct, or coordinate activities designed to create or maintain a favorable public image or raise issue awareness for their organization or client.
detailed	11-2033	Fundraising Managers	Plan, direct, or coordinate activities to solicit and maintain funds for special projects or nonprofit organizations.
minor	11-3000	Operations Specialties Managers	
broad	11-3010	Administrative Services and Facilities Managers	
detailed	11-3012	Administrative Services Managers	Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, and other office support services. Medical records administrators are included in "Medical and Health Services Managers" (11-9111). Excludes "Facilities Managers" (11-3012) and "Purchasing Managers" (11-3061).
detailed	11-3013	Facilities Managers	Plan, direct, or coordinate operations and functionalities of facilities and buildings. May include surrounding grounds or multiple facilities of an organization's campus. Excludes "Administrative Services managers" (11-3011), "Property, Real Estate, and Community Association Managers" (11-9141), "First-line Supervisors of Building and Grounds Cleaning and Maintenance Workers" (37- 1010), "First-line Supervisors of Mechanics and Repairers"

			(49-1011), and "Maintenance and Repair Workers, General" (49-9071).
broad	11-3020	Computer and Information Systems Managers	
detailed	11-3021	Computer and Information Systems Managers	Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming. Excludes "Computer Occupations" (15-1111 through 15-1199).
broad	11-3030	Financial Managers	
detailed	11-3031	Financial Managers	Plan, direct, or coordinate accounting, investing, banking, insurance, securities, and other financial activities of a branch, office, or department of an establishment. Excludes "Financial Risk Specialists" (13-2054).
broad	11-3050	Industrial Production Managers	
detailed	11-3051	Industrial Production Managers	Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.
broad	11-3060	Purchasing Managers	
detailed	11-3061	Purchasing Managers	Plan, direct, or coordinate the activities of buyers, purchasing officers, and related workers involved in purchasing materials, products, and services. Includes wholesale or retail trade merchandising managers and procurement managers.
broad	11-3070	Transportation, Storage, and Distribution Managers	
detailed	11-3071	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.
broad	11-3110	Compensation and Benefits Managers	
detailed	11-3111	Compensation and Benefits Managers	Plan, direct, or coordinate compensation and benefits activities of an organization. Job analysis and position description managers are included in "Human Resource Managers" (11-3121).

broad	11-3120	Human Resources Managers	
detailed	11-3121	Human Resources Managers	Plan, direct, or coordinate human resources activities and staff of an organization. Excludes managers who primarily focus on compensation and benefits (11-3111) and training and development (11-3131).
broad	11-3130	Training and Development Managers	
detailed	11-3131	Training and Development Managers	Plan, direct, or coordinate the training and development activities and staff of an organization.
minor	11-9000	Other Management Occupations	
broad	11-9010	Farmers, Ranchers, and Other Agricultural Managers	
detailed	11-9013	Farmers, Ranchers, and Other Agricultural Managers	Plan, direct, or coordinate the management or operation of farms, ranches, greenhouses, aquacultural operations, nurseries, timber tracts, or other agricultural establishments. May hire, train, and supervise farm workers or contract for services to carry out the day-to- day activities of the managed operation. May engage in or supervise planting, cultivating, harvesting, and financial and marketing activities. Excludes "First-Line Supervisors of Farming, Fishing, and Forestry Workers" (45-1011).
broad	11-9020	Construction Managers	
detailed	11-9021	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.
broad	11-9030	Education and Childcare Administrators	
detailed	11-9031	Education and Childcare Administrators, Preschool and Day Care	Plan, direct, or coordinate academic or nonacademic activities of preschools or childcare centers and programs, including before- and after-school care. Excludes "Pre- kindergarten Teachers, Except Special Education" (25- 2011) and "Childcare Workers" (39-9011).
detailed	11-9032	Education Administrators, Kindergarten through Grade 12	Plan, direct, or coordinate the academic, administrative, or auxiliary activities of public or private kindergarten, elementary, or secondary level schools.

detailed	11-9033	Education Administrators, Postsecondary	Plan, direct, or coordinate instructional, student administration and services, and other research and educational activities at postsecondary institutions, including universities, colleges, and junior and community colleges.
detailed	11-9039	Education Administrators, All Other	All education administrators not listed separately.
broad	11-9040	Architectural and Engineering Managers	
detailed	11-9041	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" (11-9121).
broad	11-9050	Food Service Managers	
detailed	11-9051	Food Service Managers	Plan, direct, or coordinate activities of an organization or department that serves food and beverages. Excludes "Chefs and Head Cooks" (35-1011).
broad	11-9070	Entertainment and Recreation Managers	
detailed	11-9071	Gambling Managers	Plan, direct, or coordinate gambling operations in a casino. May formulate house rules.
detailed	11-9072	Entertainment and Recreation Managers, Except Gambling	Plan, direct, or coordinate entertainment and recreational activities and operations of a recreational facility, including cruise ships and parks.
broad	11-9080	Lodging Managers	
detailed	11-9081	Lodging Managers	Plan, direct, or coordinate activities of an organization or department that provides lodging and other accommodations. Excludes "Food Service Managers" (11- 9051) in lodging establishments.
broad	11-9110	Medical and Health Services Managers	
detailed	11-9111	Medical and Health Services Managers	Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.
broad	11-9120	Natural Sciences Managers	
detailed	11-9121	Natural Sciences Managers	Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields. Excludes "Architecture and Engineering Managers" (11-9041) and "Computer and Information Systems Managers" (11- 3021).
broad	11-9130	Postmasters and Mail Superintendents	

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detailed	11-9131	Postmasters and Mail Superintendents	Plan, direct, or coordinate operational, administrative, management, and supportive services of a U.S. post office; or coordinate activities of workers engaged in postal and related work in assigned post office.
broad	11-9140	Property, Real Estate, and Community Association Managers	
detailed	11-9141	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).
broad	11-9150	Social and Community Service Managers	
detailed	11-9151	Social and Community Service Managers	Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.
broad	11-9160	Emergency Management Directors	
detailed	11-9161	Emergency Management Directors	Plan and direct disaster response or crisis management activities, provide disaster preparedness training, and prepare emergency plans and procedures for natural (e.g., hurricanes, floods, earthquakes), wartime, or technological (e.g., nuclear power plant emergencies or hazardous materials spills) disasters or hostage situations.
broad	11-9170	Personal Service Managers	
detailed	11-9171	Funeral Home Managers	Plan, direct, or coordinate the services or resources of funeral homes. Includes activities such as determining prices for services or merchandise and managing the facilities of funeral homes. Excludes "Morticians, Undertakers, and Funeral Arrangers" (39-4031).
detailed	11-9179	Personal Service Managers, All Other	All personal service managers not listed separately. Excludes "Financial Specialists" (13-2000). Day Care Managers are included in Education and Childcare Administrators, Preschool and Day Care (11-9031).
broad	11-9190	Miscellaneous Managers	
detailed	11-9199	Managers, All Other	All managers not listed separately.
major	13-0000	Business and Financial Operations Occupations	

minor	13-1000	Business Operations Specialists	
broad	13-1010	Agents and Business Managers of Artists, Performers, and Athletes	
detailed	13-1011	Agents and Business Managers of Artists, Performers, and Athletes	Represent and promote artists, performers, and athletes in dealings with current or prospective employers. May handle contract negotiation and other business matters for clients.
broad	13-1020	Buyers and Purchasing Agents	
detailed	13-1021	Buyers and Purchasing Agents, Farm Products	Purchase farm products either for further processing or resale. Includes tree farm contractors, grain brokers and market operators, grain buyers, and tobacco buyers. May negotiate contracts.
detailed	13-1022	Wholesale and Retail Buyers, Except Farm Products	Buy merchandise or commodities, other than farm products, for resale to consumers at the wholesale or retail level, including both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products. May negotiate contracts. Includes assistant wholesale and retail buyers of nonfarm products. Excludes "Procurement Clerks" (43-3061).
detailed	13-1023	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. May negotiate contracts. Excludes "Buyers and Purchasing Agents, Farm Products" (13-1021) and "Wholesale and Retail Buyers, Except Farm Products" (13- 1022).
broad	13-1030	Claims Adjusters, Appraisers, Examiners, and Investigators	
detailed	13-1031	Claims Adjusters, Examiners, and Investigators	Review settled claims to determine that payments and settlements are made in accordance with company practices and procedures. Confer with legal counsel on claims requiring litigation. May also settle insurance claims. Excludes "Fire Inspectors and Investigators" (33- 2021).

detailed	13-1032	Insurance Appraisers, Auto Damage	Appraise automobile or other vehicle damage to determine repair costs for insurance claim settlement. Prepare insurance forms to indicate repair cost or cost estimates and recommendations. May seek agreement with automotive repair shop on repair costs.
broad	13-1040	Compliance Officers	
detailed	13-1041	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" (13-2061), "Tax Examiners and Collectors, and Revenue Agents" (13-2081), "Occupational Health and Safety Specialists" (29-9011), "Occupational Health and Safety Technicians" (29-9012), "Transportation Security Screeners" (33-9093), "Agricultural Inspectors" (45-2011), "Construction and Building Inspectors" (47-4011), and "Transportation Inspectors" (53-6051).
broad	13-1050	Cost Estimators	
detailed	13-1051	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.
broad	13-1070	Human Resources Workers	
detailed	13-1071	Human Resources Specialists	Recruit, screen, interview or place individuals within an organization. May perform other activities in multiple human resources areas. Excludes "Compensation, Benefits, and Job Analysis Specialists" (13-1141) and "Training and Development Specialists" (13-1151).
detailed	13-1074	Farm Labor Contractors	Recruit and hire seasonal or temporary agricultural laborers. May transport, house, and provide meals for workers.
detailed	13-1075	Labor Relations Specialists	Resolve disputes between workers and managers, negotiate collective bargaining agreements, or coordinate grievance procedures to handle employee complaints. Excludes equal employment opportunity (EEO) officers who are included in "Compliance Officers" (13-1041).
broad	13-1080	Logisticians and Project Management Specialists	

detailed	13-1081	Logisticians	Analyze and coordinate the ongoing 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" (11-3071) and "Project Management Specialists" (13-1082).
detailed	13-1082	Project Management Specialists	Analyze and coordinate the schedule, timeline, procurement, staffing, and budget of a product or service on a per project basis. Excludes "Management Occupations" (11-0000), "Logisticians" (13-1081), and "Meeting, Convention, and Event Planners" (13-1121).
broad	13-1110	Management Analysts	
detailed	13-1111	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" (15-1221) and "Operations Research Analysts" (15-2031).
broad	13-1120	Meeting, Convention, and Event Planners	
detailed	13-1121	Meeting, Convention, and Event Planners	Coordinate activities of staff, convention personnel, or clients to make arrangements for group meetings, events, or conventions.
broad	13-1130	Fundraisers	
detailed	13-1131	Fundraisers	Organize activities to raise funds or otherwise solicit and gather monetary donations or other gifts for an organization. May design and produce promotional materials. May also raise awareness of the organization's work, goals, and financial needs.
broad	13-1140	Compensation, Benefits, and Job Analysis Specialists	
detailed	13-1141	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.
broad	13-1150	Training and Development Specialists	

detailed	13-1151	Training and Development Specialists	Design or conduct work-related training and development programs to improve individual skills or organizational performance. May analyze organizational training needs or evaluate training effectiveness. Excludes "Career/ Technical Education Teachers, Postsecondary" (25-1194) and "Other Teachers and Instructors" (25-3000). Flight instructors are included with "Aircraft Pilots and Flight Engineers" (53-2010).
broad	13-1160	Market Research Analysts and Marketing Specialists	
detailed	13-1161	Market Research Analysts and Marketing Specialists	Research conditions in local, regional, national, or online markets. Gather information to determine potential sales of a product or service, or plan a marketing or advertising campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution. May employ search marketing tactics, analyze web metrics, and develop recommendations to increase search engine ranking and visibility to target markets. Excludes "Web or Digital Interface Designers" (15-1234), "Public relations Specialists" (27-3031), "Art Directors" (27-1011), and "Graphic Designers" (27-1024).
broad	13-1190	Miscellaneous Business Operations Specialists	
detailed	13-1191	Sustainability Analysts	Analyze the impacts of organizational processes and building(s) for environmental sustainability. Recommend ways to increase efficiency and reduce costs via environmental aspects such as waste stream management, building improvements, maintenance, and non-regulatory energy compliance. Excludes "Architecture and Engineering Occupations" (17-0000) and "Life, Physical, and Social Science Occupations" (19-0000).
detailed	13-1199	Business Operations Specialists, All Other	All business operations specialists not listed separately.
minor	13-2000	Financial Specialists	
broad	13-2010	Accountants and Auditors	
detailed	13-2011	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" (13-2081).
broad	13-2020	Property Appraisers and Assessors	

detailed	13-2021	Appraisers and Assessors of Real Estate	Appraise real estate, exclusively, and estimate its fair value. May assess taxes in accordance with prescribed schedules. Excludes "Appraisers of Personal and Business Property" (13-2022).
detailed	13-2022	Appraisers of Personal and Business Property	Appraise and estimate the fair value of personal property or tangible business property, such as jewelry, art, antiques, collectibles, and equipment. Includes workers who appraise both personal and business property as well as real estate. May also appraise land. Excludes "Claims Adjusters, Examiners, and Investigators" (13-1031), "Insurance Appraisers, Auto Damage" (13-1032), and "Tax Examiners and Collectors, and Revenue Agents (13-2081).
broad	13-2030	Budget Analysts	
detailed	13-2031	Budget Analysts	Examine budget estimates for completeness, accuracy, and conformance with procedures and regulations. Analyze budgeting and accounting reports. Excludes "Financial and Investment Analysts" (13-2051).
broad	13-2040	Credit Analysts	
detailed	13-2041	Credit Analysts	Analyze credit data and financial statements of individuals or firms to determine the degree of risk involved in extending credit or lending money. Prepare reports with credit information for use in decision making.
broad	13-2050	Financial Analysts and Advisors	
detailed	13-2051	Financial and Investment Analysts	Conduct quantitative analyses of information involving investment programs or financial data of public or private institutions, including valuation of businesses. Excludes "Budget Analysts" (13-2031) and "Securities, Commodities, and Financial Services Sales Agents" (41- 3031).
detailed	13-2052	Personal Financial Advisors	Advise clients on financial plans using knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate. Duties include assessing clients' assets, liabilities, cash flow, insurance coverage, tax status, and financial objectives. May also buy and sell financial assets for clients. Excludes "Securities, Commodities, and Financial Services Sales Agents" (41- 3031).
detailed	13-2053	Insurance Underwriters	Review individual applications for insurance to evaluate degree of risk involved and determine acceptance of applications.
detailed	13-2054	Financial Risk Specialists	Analyze and measure exposure to credit and market risk threatening the assets, earning capacity, or economic state of an organization. May make recommendations to limit risk.

broad	13-2060	Financial Examiners	
detailed	13-2061	Financial Examiners	Enforce or ensure compliance with laws and regulations governing financial and securities institutions and financial and real estate transactions. May examine, verify, or authenticate records.
broad	13-2070	Credit Counselors and Loan Officers	
detailed	13-2071	Credit Counselors	Advise and educate individuals or organizations on acquiring and managing debt. May provide guidance in determining the best type of loan and explaining loan requirements or restrictions. May help develop debt management plans or student financial aid packages. May advise on credit issues, or provide budget, mortgage, bankruptcy, or student financial aid counseling.
detailed	13-2072	Loan Officers	Evaluate, authorize, or recommend approval of commercial, real estate, or credit loans. Advise borrowers on financial status and payment methods. Includes mortgage loan officers and agents, collection analysts, loan servicing officers, loan underwriters, and payday loan officers.
broad	13-2080	Tax Examiners, Collectors and Preparers, and Revenue Agents	
detailed	13-2081	Tax Examiners and Collectors, and Revenue Agents	Determine tax liability or collect taxes from individuals or business firms according to prescribed laws and regulations.
detailed	13-2082	Tax Preparers	Prepare tax returns for individuals or small businesses. Excludes "Accountants and Auditors" (13-2011).
broad	13-2090	Miscellaneous Financial Specialists	
detailed	13-2099	Financial Specialists, All Other	All financial specialists not listed separately.
major	15-0000	Computer and Mathematical Occupations	
minor	15-1200	Computer Occupations	
broad	15-1210	Computer and Information Analysts	
detailed	15-1211	Computer Systems Analysts	Analyze science, engineering, business, and other data processing problems to develop and implement solutions to complex applications problems, system administration issues, or network concerns. Perform systems management and integration functions, improve existing computer systems, and review computer system

			capabilities, workflow, and schedule limitations. May analyze or recommend commercially available software.
detailed	15-1212	Information Security Analysts	Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. 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" (15-1244).
broad	15-1220	Computer and Information Research Scientists	· · · · ·
detailed	15-1221	Computer and Information Research Scientists	Conduct research into fundamental computer and information science as theorists, designers, or inventors. Develop solutions to problems in the field of computer hardware and software.
broad	15-1230	Computer Support Specialists	
detailed	15-1231	Computer Network Support Specialists	Analyze, test, troubleshoot, and evaluate existing network systems, such as local area networks (LAN), wide area networks (WAN), and data communications networks. Perform network maintenance to ensure networks operate correctly with minimal interruption. Excludes "Network and Computer Systems Administrators" (15- 1243) and "Computer Network Architects" (15-1244).
detailed	15-1232	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" (15- 1243).
broad	15-1240	Database and Network Administrators and Architects	

detailed	15-1241	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, including analysis of capacity needs for network infrastructures. May also design network and computer security measures. May research and recommend network and data communications hardware and software. Excludes "Information Security Analysts" (15-1222), "Network and Computer Systems Administrators" (15-1243), and "Computer Network Support Specialists" (15-1252).
detailed	15-1242	Database Administrators	Administer, test, and implement computer databases, applying knowledge of database management systems. Coordinate changes to computer databases. Identify, investigate, and resolve database performance issues, database capacity, and database scalability. May plan, coordinate, and implement security measures to safeguard computer databases. Excludes "Information Security Analysts" (15-1222) and "Database Integration Architects" (15-1242).
detailed	15-1243	Database Integration Architects	Design strategies for enterprise databases, data warehouse systems, and multidimensional networks and set standards for database operations, programming, query processes, and security. Model, design, and construct large relational databases or data warehouses. Create and optimize data models for warehouse infrastructure and workflow. Integrate new systems with existing warehouse structure and refine system performance and functionality. Excludes "Database Administrators" (15-1241).
detailed	15-1244	Network and Computer Systems Administrators	Install, configure, and maintain an organization's local area network (LAN), wide area network (WAN), data communications network, operating systems, and physical and virtual servers. Perform system monitoring and verify the integrity and availability of hardware, network, and server resources and systems. Review system and application logs and verify completion of scheduled jobs, including system backups. Analyze network and server resource consumption and control user access. Install and upgrade software and maintain software licenses. May assist in network modeling, analysis, planning, and coordination between network and data communications hardware and software. Excludes "Information Security Analysts"(15-1222), "Computer User Support Specialists"

			(15-1251), and "Computer Network Support Specialists" (15-1252).
broad	15-1250	Software and Web Developers, Programmers, and Testers	
detailed	15-1251	Computer Programmers	Create, modify, and test the code and scripts that allow computer applications to run. Work from specifications drawn up by software and web developers or other individuals. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information.
detailed	15-1252	Software Developers	Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, develop specifications, and performance requirements. May and maintain databases within an application area, working individually or coordinating database development as part of a team.
detailed	15-1253	Software Quality Assurance Analysts and Testers	Develop and execute software tests to identify software problems and their causes. Test system modifications to prepare for implementation. Document software and application defects using a bug tracking system and report defects to software or web developers. Create and maintain databases of known defects. May participate in software design reviews to provide input on functional requirements, operational characteristics, product designs, and schedules.

detailed	15-1254	Web Developers	Develop and implement websites, web applications, application databases, and interactive web interfaces. Evaluate code to ensure that it is properly structured, meets industry standards, and is compatible with browsers and devices. Optimize website performance, scalability, and server-side code and processes. May develop website infrastructure and integrate websites with other computer applications. Excludes "Special Effects Artists and Animators" (27-1014).
detailed	15-1255	Web or Digital Interface Designers	Design digital user interfaces or websites. Develop and test layouts, interfaces, functionality, and navigation menus to ensure compatibility and usability across browsers or devices. May use web framework applications as well as client-side code and processes. May evaluate web design following web and accessibility standards, and may analyze web use metrics and optimize websites for marketability and search engine ranking. May design and test interfaces that facilitate the human- computer interaction and maximize the usability of digital devices, websites, and software with a focus on aesthetics and design. May create graphics used in websites and manage website content and links. Excludes "Graphic Designers" (27-1024) and "Special Effects Artists and Animators" (27-1014).
broad	15-1290	Miscellaneous Computer Occupations	
detailed	15-1299	Computer Occupations, All Other	All computer occupations not listed separately. Excludes "Computer and Information Systems Managers" (11- 3021), "Computer Hardware Engineers" (17-2061), "Electrical and Electronics Engineers" (17-2070), "Computer Science Teachers, Postsecondary" (25-1021), "Special Effects Artists and Animators" (27-1014), "Graphic Designers" (27-1024), "Health Information Technology, Health Information Management, and Health Informatics Specialists and Analysts" (29-9021), and "Computer, Automated Teller, and Office Machine Repairers" (49-2011).
minor	15-2000	Mathematical Science Occupations	
broad	15-2010	Actuaries	
detailed	15-2011	Actuaries	Analyze statistical data, such as mortality, accident, sickness, disability, and retirement rates and construct probability tables to forecast risk and liability for payment of future benefits. May ascertain insurance rates required

			and cash reserves necessary to ensure payment of future benefits.
broad	15-2020	Mathematicians	
detailed	15-2021	Mathematicians	Conduct research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solve problems in various fields using mathematical methods.
broad	15-2030	Operations Research Analysts	
detailed	15-2031	Operations Research Analysts	Formulate and apply mathematical modeling and other optimizing methods to develop and interpret information that assists management with decision making, policy formulation, or other managerial functions. May collect and analyze data and develop decision support software, service, or products. May develop and supply optimal time, cost, or logistics networks for program evaluation, review, or implementation.
broad	15-2040	Statisticians	
detailed	15-2041	Statisticians	Develop or apply mathematical or statistical theory and methods to collect, organize, interpret, and summarize numerical data to provide usable information. May specialize in fields such as bio-statistics, agricultural statistics, business statistics, or economic statistics. Includes mathematical and survey statisticians. Excludes "Survey Researchers" (19-3022).
broad	15-2050	Data Scientists	
detailed	15-2051	Data Scientists	Develop and implement a set of techniques or analytics applications to transform raw data into meaningful information using data-oriented programming languages and visualization software. Apply data mining, data modeling, natural language processing, and machine learning to extract and analyze information from large structured and unstructured datasets. Visualize, interpret, and report data findings. May create dynamic data reports. Excludes "Statisticians" (15-2041), "Cartographers and Photogrammetrists" (17-1021), and "Health Information Technology, Health Information Management, and Health Informatics Specialists and Analysts" (29-9021).
broad	15-2090	Miscellaneous Mathematical Science Occupations	

detailed	15-2091	Mathematical Technicians	Apply standardized mathematical formulas, principles, and methodology to technological problems in engineering and physical sciences in relation to specific industrial and research objectives, processes, equipment, and products.
detailed	15-2099	Mathematical Science Occupations, All Other	All mathematical scientists not listed separately.
major	17-0000	Architecture and Engineering Occupations	
minor	17-1000	Architects, Surveyors, and Cartographers	
broad	17-1010	Architects, Except Naval	
detailed	17-1011	Architects, Except Landscape and Naval	Plan and design structures, such as private residences, office buildings, theaters, factories, and other structural property. Excludes "Landscape Architects" (17-1012) and "Marine Engineers and Naval Architects" (17-2121).
detailed	17-1012	Landscape Architects	Plan and design land areas for projects such as parks and other recreational facilities, airports, highways, hospitals, schools, land subdivisions, and commercial, industrial, and residential sites.
broad	17-1020	Surveyors, Cartographers, and Photogrammetrists	
detailed	17-1021	Cartographers and Photogrammetrists	Research, study, and prepare maps and other spatial data in digital or graphic form for one or more purposes, such as legal, social, political, educational, and design purposes. May work with Geographic Information Systems (GIS). May design and evaluate algorithms, data structures, and user interfaces for GIS and mapping systems. May collect, analyze, and interpret geographic information provided by geodetic surveys, aerial photographs, and satellite data.
detailed	17-1022	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.
minor	17-2000	Engineers	
broad	17-2010	Aerospace Engineers	
detailed	17-2011	Aerospace Engineers	Perform engineering duties in designing, constructing, and testing aircraft, missiles, and spacecraft. May conduct basic and applied research to evaluate adaptability of materials and equipment to aircraft design and manufacture. May recommend improvements in testing equipment and techniques.

broad	17-2020	Agricultural Engineers	
detailed	17-2021	Agricultural Engineers	Apply knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing of agricultural products.
broad	17-2030	Biomedical Engineers	
detailed	17-2031	Biomedical Engineers	Apply knowledge of engineering, biology, and biomechanical principles to the design, development, and evaluation of biological and health systems and products, such as artificial organs, prostheses, instrumentation, medical information systems, and heath management and care delivery systems.
broad	17-2040	Chemical Engineers	
detailed	17-2041	Chemical Engineers	Design chemical plant equipment and devise processes for manufacturing chemicals and products, such as gasoline, synthetic rubber, plastics, detergents, cement, paper, and pulp, by applying principles and technology of chemistry, physics, and engineering.
broad	17-2050	Civil Engineers	
detailed	17-2051	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, and geo-technical engineers. Excludes "Hydrologists" (19-2043).
broad	17-2060	Computer Hardware Engineers	
detailed	17-2061	Computer Hardware Engineers	Research, design, develop, or test computer or computer- related equipment for commercial, industrial, military, or scientific use. May supervise the manufacturing and installation of computer or computer-related equipment and components. Excludes "Software Developers" (15- 1232) and "Web Developers" (15-1233).
broad	17-2070	Electrical and Electronics Engineers	
detailed	17-2071	Electrical Engineers	Research, design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use. Excludes "Computer Hardware Engineers" (17-2061).

detailed	17-2072	Electronics Engineers, Except Computer	Research, design, develop, or test electronic components and systems for commercial, industrial, military, or scientific use employing knowledge of electronic theory and materials properties. Design electronic circuits and components for use in fields such as telecommunications, aerospace guidance and propulsion control, acoustics, or instruments and controls. Excludes "Computer Hardware Engineers" (17-2061).
broad	17-2080	Environmental Engineers	
detailed	17-2081	Environmental Engineers	Research, design, plan, or perform engineering duties in the prevention, control, and remediation of environmental hazards using various engineering disciplines. Work may include waste treatment, site remediation, or pollution control technology.
broad	17-2110	Industrial Engineers, Including Health and Safety	
detailed	17-2111	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.
detailed	17-2112	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" (17-2111).
broad	17-2120	Marine Engineers and Naval Architects	
detailed	17-2121	Marine Engineers and Naval Architects	Design, develop, and evaluate the operation of marine vessels, ship machinery, and related equipment, such as power supply and propulsion systems.
broad	17-2130	Materials Engineers	
detailed	17-2131	Materials Engineers	Evaluate materials and develop machinery and processes to manufacture materials for use in products that must meet specialized design and performance specifications. Develop new uses for known materials. Includes those engineers working with composite materials or specializing in one type of material, such as graphite, metal and metal alloys, ceramics and glass, plastics and polymers, and naturally occurring materials. Includes metallurgists and metallurgical engineers, ceramic engineers, and welding engineers.
	17-2140	Mechanical Engineers	

detailed	17-2141	Mechanical Engineers	Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of equipment such as centralized heat, gas, water, and steam systems.
broad	17-2150	Mining and Geological Engineers, Including Mining Safety Engineers	
detailed	17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	Conduct sub-surface surveys to identify the characteristics of potential land or mining development sites. May specify the ground support systems, processes and equipment for safe, economical, and environmentally sound extraction or underground construction activities. May inspect areas for unsafe geological conditions, equipment, and working conditions. May design, implement, and coordinate mine safety programs. Excludes "Petroleum Engineers" (17-2171).
broad	17-2160	Nuclear Engineers	
detailed	17-2161	Nuclear Engineers	Conduct research on nuclear engineering projects or apply principles and theory of nuclear science to problems concerned with release, control, and use of nuclear energy and nuclear waste disposal.
broad	17-2170	Petroleum Engineers	
detailed	17-2171	Petroleum Engineers	Devise methods to improve oil and gas extraction and production and determine the need for new or modified tool designs. Oversee drilling and offer technical advice.
broad	17-2190	Miscellaneous Engineers	
detailed	17-2199	Engineers, All Other	All engineers not listed separately. Excludes "Sales Engineers" (41-9031), "Locomotive Engineers" (53-4011), and "Ship Engineers" (53-5031).
minor	17-3000	Drafters, Engineering Technicians, and Mapping Technicians	
broad	17-3010	Drafters	
detailed	17-3011	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.
detailed	17-3012	Electrical and Electronics Drafters	Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment.

detailed	17-3013	Mechanical Drafters	Prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information.
detailed	17-3019	Drafters, All Other	All drafters not listed separately.
broad	17-3020	Engineering Technologists and Technicians, Except Drafters	
detailed	17-3021	Aerospace Engineering and Operations Technologists and Technicians	Operate, install, adjust, and maintain integrated computer/communications systems, consoles, simulators, and other data acquisition, test, and measurement instruments and equipment, which are used to launch, track, position, and evaluate air and space vehicles. May record and interpret test data.
detailed	17-3022	Civil Engineering Technologists and 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.
detailed	17-3023	Electrical and Electronic Engineering Technologists and Technicians	Apply electrical and electronic theory and related knowledge, usually under the direction of engineering staff, to design, build, repair, adjust, and modify electrical components, circuitry, controls, and machinery for subsequent evaluation and use by engineering staff in making engineering design decisions. Excludes "Broadcast Technicians" (27-4012).
detailed	17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians	Operate, test, maintain, or adjust unmanned, automated, servo-mechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment to observe or record visual information at sites such as oil rigs, crop fields, buildings, or for similar infrastructure, deep ocean exploration, or hazardous waste removal. May assist engineers in testing and designing robotics equipment.
detailed	17-3025	Environmental Engineering Technologists and Technicians	Apply theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental problems, including waste treatment and site remediation, under the direction of engineering staff or scientist. May assist in the development of environmental remediation devices.
detailed	17-3026	Industrial Engineering Technologists and Technicians	Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety

			of industries for purposes such as establishing standard production rates or improving efficiency.
detailed	17-3027	Mechanical Engineering Technologists and Technicians	Apply theory and principles of mechanical engineering to modify, develop, test, or adjust machinery and equipment under direction of engineering staff or physical scientists.
detailed	17-3028	Calibration Technologists and Technicians	Create and execute procedures and techniques for calibrating measurement devices, by applying knowledge of measurement science, mathematics, physics, and electronics, sometimes under the direction of engineering staff. Authenticate calibration traceability of measurement devices. Determine measurement standard suitability for calibrating measurement devices. Adapt equipment, measurement standards, and procedures to accomplish unique measurements. May perform corrective actions to address identified calibration problems.
detailed	17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	All engineering technicians, except drafters, not listed separately.
broad	17-3030	Surveying and Mapping Technicians	
detailed	17-3031	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" (17-1022), "Cartographers and Photogrammetrists" (17-1021), and "Geoscientists, Except Hydrologists and Geographers" (19-2042).
major	19-0000	Life, Physical, and Social Science Occupations	
minor	19-1000	Life Scientists	
broad	19-1010	Agricultural and Food Scientists	
detailed	19-1011	Animal Scientists	Conduct research in the genetics, nutrition, reproduction, growth, and development of domestic farm animals.

detailed	19-1012	Food Scientists and Technologists	Use chemistry, microbiology, engineering, and other sciences to study the principles underlying the processing and deterioration of foods; analyze food content to determine levels of vitamins, fat, sugar, and protein; discover new food sources; research ways to make processed foods safe, palatable, and healthful; and apply food science knowledge to determine best ways to process, package, preserve, store, and distribute food.
detailed	19-1013	Soil and Plant Scientists	Conduct research in breeding, physiology, production, yield, and management of crops and agricultural plants or trees, shrubs, and nursery stock, their growth in soils, and control of pests; or study the chemical, physical, biological, and mineralogical composition of soils as they relate to plant or crop growth. May classify and map soils and investigate effects of alternative practices on soil and crop productivity.
broad	19-1020	Biological Scientists	
detailed	19-1021	Biochemists and Biophysicists	Study the chemical composition or physical principles of living cells and organisms, their electrical and mechanical energy, and related phenomena. May conduct research to further understanding of the complex chemical combinations and reactions involved in metabolism, reproduction, growth, and heredity. May determine the effects of foods, drugs, serums, hormones, and other substances on tissues and vital processes of living organisms.
detailed	19-1022	Microbiologists	Investigate the growth, structure, development, and other characteristics of microscopic organisms, such as bacteria, algae, or fungi. Includes medical microbiologists who study the relationship between organisms and disease or the effects of antibiotics on microorganisms.
detailed	19-1023	Zoologists and Wildlife Biologists	Study the origins, behavior, diseases, genetics, and life processes of animals and wildlife. May specialize in wildlife research and management. May collect and analyze biological data to determine the environmental effects of present and potential use of land and water habitats.
detailed	19-1029	Biological Scientists, All Other	All biological scientists not listed separately.
broad	19-1030	Conservation Scientists and Foresters	

detailed	19-1031	Conservation Scientists	Manage, improve, and protect natural resources to maximize their use without damaging the environment. May conduct soil surveys and develop plans to eliminate soil erosion or to protect rangelands. May instruct farmers, agricultural production managers, or ranchers in best ways to use crop rotation, contour plowing, or terracing to conserve soil and water; in the number and kind of livestock and forage plants best suited to particular ranges; and in range and farm improvements, such as fencing and reservoirs for stock watering. Excludes "Zoologists and Wildlife Biologists" (19-1023) and "Foresters" (19-1032).
detailed	19-1032	Foresters	Manage public and private forested lands for economic, recreational, and conservation purposes. May inventory the type, amount, and location of standing timber, appraise the timber's worth, negotiate the purchase, and draw up contracts for procurement. May determine how to conserve wildlife habitats, creek beds, water quality, and soil stability, and how best to comply with environmental regulations. May devise plans for planting and growing new trees, monitor trees for healthy growth, and determine optimal harvesting schedules.
broad	19-1040	Medical Scientists	· · · · · · · · · · · · · · · · · · ·
detailed	19-1041	Epidemiologists	Investigate and describe the determinants and distribution of disease, disability, or health outcomes. May develop the means for prevention and control.
detailed	19-1042	Medical Scientists, Except Epidemiologists	Conduct research dealing with the understanding of human diseases and the improvement of human health. Engage in clinical investigation, research and development, or other related activities. Includes physicians, dentists, public health specialists, pharmacologists, and medical pathologists who primarily conduct research. Practitioners who primarily provide medical or dental care or dispense drugs are included in "Health Diagnosing and Treating Practitioners" (29-1000).
broad	19-1090	Miscellaneous Life Scientists	
detailed	19-1099	Life Scientists, All Other	All life scientists not listed separately.
minor	19-2000	Physical Scientists	
broad	19-2010	Astronomers and Physicists	
detailed	19-2011	Astronomers	Observe, research, and interpret astronomical phenomena to increase basic knowledge or apply such information to practical problems.

detailed	19-2012	Physicists	Conduct research into physical phenomena, develop theories on the basis of observation and experiments, and devise methods to apply physical laws and theories. Excludes "Biochemists and Biophysicists" (19-1021).
broad	19-2020	Atmospheric and Space Scientists	
detailed	19-2021	Atmospheric and Space Scientists	Investigate atmospheric phenomena and interpret meteorological data, gathered by surface and air stations, satellites, and radar to prepare reports and forecasts for public and other uses. Includes weather analysts and forecasters whose functions require the detailed knowledge of meteorology.
broad	19-2030	Chemists and Materials Scientists	
detailed	19-2031	Chemists	Conduct qualitative and quantitative chemical analyses or experiments in laboratories for quality or process control or to develop new products or knowledge. Excludes "Geoscientists, Except Hydrologists and Geographers" (19- 2042) and "Biochemists and Biophysicists" (19-1021).
detailed	19-2032	Materials Scientists	Research and study the structures and chemical properties of various natural and synthetic or composite materials, including metals, alloys, rubber, ceramics, semiconductors, polymers, and glass. Determine ways to strengthen or combine materials or develop new materials with new or specific properties for use in a variety of products and applications. Includes glass scientists, ceramic scientists, metallurgical scientists, and polymer scientists.
broad	19-2040	Environmental Scientists and Geoscientists	
detailed	19-2041	Environmental Scientists and Specialists, Including Health	Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or public health. Using knowledge of various scientific disciplines, may collect, synthesize, study, report, and recommend action based on data derived from measurements or observations of air, food, soil, water, and other sources. Excludes "Zoologists and Wildlife Biologists" (19-1023), "Conservation Scientists" (19-1031), "Forest and Conservation Technicians" (19-4071), "Occupational Health and Safety Specialists" (19-5011),"Fish and Game Wardens" (33-3031), and "Forest and Conservation Workers" (45-4011).

detailed	19-2042	Geoscientists, Except Hydrologists and Geographers	Study the composition, structure, and other physical aspects of the Earth. May use geological, physics, and mathematics knowledge in exploration for oil, gas, minerals, or underground water; or in waste disposal, land reclamation, or other environmental problems. May study the Earth's internal composition, atmospheres, oceans, and its magnetic, electrical, and gravitational forces. Includes mineralogists, paleontologists, stratigraphers, geodesists, and seismologists.
detailed	19-2043	Hydrologists	Research the distribution, circulation, and physical properties of underground and surface waters; and study the form and intensity of precipitation, its rate of infiltration into the soil, movement through the earth, and its return to the ocean and atmosphere.
broad	19-2090	Miscellaneous Physical Scientists	
detailed	19-2099	Physical Scientists, All Other	All physical scientists not listed separately.
minor	19-3000	Social Scientists and Related Workers	
broad	19-3010	Economists	
detailed	19-3011	Economists	Conduct research, prepare reports, or formulate plans to address economic problems related to the production and distribution of goods and services or monetary and fiscal policy. May collect and process economic and statistical data using sampling techniques and econometric methods. Excludes "Market Research Analysts and Marketing Specialists" (13-1161).
broad	19-3020	Survey Researchers	
detailed	19-3022	Survey Researchers	Plan, develop, or conduct surveys. May analyze and interpret the meaning of survey data, determine survey objectives, or suggest or test question wording. Includes social scientists who primarily design questionnaires or supervise survey teams. Excludes "Market Research Analysts and Marketing Specialists" (13-1161) and "Statisticians" (15-2041).
broad	19-3030	Psychologists	
detailed	19-3032	Industrial-Organizational Psychologists	Apply principles of psychology to human resources, administration, management, sales, and marketing problems. Activities may include policy planning; employee testing and selection, training and development; and organizational development and analysis. May work with management to organize the work setting to improve worker productivity.

detailed	19-3033	Clinical and Counseling Psychologists	Assess, diagnose, and treat mental and emotional disorders of individuals through observation, interview, and psychological tests. Help individuals with distress or maladjustment understand their problems through their knowledge of case history, interviews with patients, and theory. Provide individual or group counseling services to assist individuals in achieving more effective personal, social, educational, and vocational development and adjustment. May design behavior modification programs and consult with medical personnel regarding the best treatment for patients. Excludes "Psychiatrists" (29-1223).
detailed	19-3034	School Psychologists	Assess and diagnose educational and behavioral issues. Treat and investigate processes of learning and teaching and develop psychological principles and techniques applicable to educational and behavioral issues. May counsel students and consult with parents or school staff.
detailed	19-3039	Psychologists, All Other	All psychologists not listed separately.
broad	19-3040	Sociologists	
detailed	19-3041	Sociologists	Study human society and social behavior by examining the groups and social institutions that people form, as well as various social, religious, political, and business organizations. May study the behavior and interaction of groups, trace their origin and growth, and analyze the influence of group activities on individual members.
broad	19-3050	Urban and Regional Planners	
detailed	19-3051	Urban and Regional Planners	Develop comprehensive plans and programs for use of land and physical facilities of jurisdictions, such as towns, cities, counties, and metropolitan areas.
broad	19-3090	Miscellaneous Social Scientists and Related Workers	
detailed	19-3091	Anthropologists and Archeologists	Study the origin, development, and behavior of human beings. May study the way of life, language, or physical characteristics of people in various parts of the world. May engage in systematic recovery and examination of material evidence, such as tools or pottery remaining from past human cultures, in order to determine the history, customs, and living habits of earlier civilizations.

detailed	19-3092	Geographers	Study the nature and use of areas of the Earth's surface, relating and interpreting interactions of physical and cultural phenomena. Conduct research on physical aspects of a region, including land forms, climates, soils, plants, and animals, and conduct research on the spatial implications of human activities within a given area, including social characteristics, economic activities, and political organization, as well as researching interdependence between regions at scales ranging from local to global.
detailed	19-3093	Historians	Research, analyze, record, and interpret the past as recorded in sources, such as government and institutional records, newspapers and other periodicals, photographs, interviews, films, electronic media, and unpublished manuscripts, such as personal diaries and letters.
detailed	19-3094	Political Scientists	Study the origin, development, and operation of political systems. May study topics, such as public opinion, political decision-making, and ideology. May analyze the structure and operation of governments, as well as various political entities. May conduct public opinion surveys, analyze election results, or analyze public documents. Excludes "Survey Researchers" (19-3022).
detailed	19-3099	Social Scientists and Related Workers, All Other	All social scientists and related workers not listed separately.
minor	19-4000	Life, Physical, and Social Science Technicians	
broad	19-4010	Agricultural and Food Science Technicians	
detailed	19-4012	Agricultural Technicians	Work with agricultural scientists in plant, fiber and animal research or assist with animal breeding and nutrition. Set up or maintain laboratory equipment and collect samples from crops or animals. Prepare specimens or record data to assist scientists in biology or related life science experiments. Conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects.
detailed	19-4013	Food Science Technicians	Work with food scientists or technologists to perform standardized qualitative and quantitative tests to determine physical or chemical properties of food or beverage products. Includes technicians who assist in research and development of production technology, quality control, packaging, processing, and use of foods.
broad	19-4020	Biological Technicians	

detailed	19-4021	Biological Technicians	Assist biological and medical scientists. Set up, operate, and maintain laboratory instruments and equipment, monitor experiments, collect data and samples, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.
broad	19-4030	Chemical Technicians	
detailed	19-4031	Chemical Technicians	Conduct chemical and physical laboratory tests to assist scientists in making qualitative and quantitative analyses of solids, liquids, and gaseous materials for research and development of new products or processes, quality control, maintenance of environmental standards, and other work involving experimental, theoretical, or practical application of chemistry and related sciences.
broad	19-4040	Geoscience and Environmental Science Technicians	
detailed	19-4041	Geological Technicians, Except Hydrologic Technicians	Assist scientists or engineers in the use of electronic, sonic, or nuclear measuring instruments in both laboratory and production activities to obtain data indicating potential resources such as metallic ore, minerals, gas, coal, or petroleum. Analyze mud and drill cuttings. Chart pressure, temperature, and other characteristics of wells or bore holes. Investigate and collect information leading to the possible discovery of new metallic ore, minerals, gas, coal, or petroleum deposits.
detailed	19-4042	Hydrologic Technicians	Collect and organize data concerning the distribution, circulation of ground and surface water, as well data on its physical, chemical, and biological properties. They measure and report on flow rates, ground water levels, maintain field equipment, collect water samples, install and collect sampling equipment, and process samples for shipment to testing laboratories. May collect data on behalf of hydrologists, engineers, developers, government agencies, or agriculture. Excludes "Hydrologists" (19- 2043).
detailed	19-4043	Environmental Science and Protection Technicians, Including Health	Perform laboratory and field tests to monitor the environment and investigate sources of pollution, including those that affect health, under the direction of an environmental scientist, engineer, or other specialist. May collect samples of gases, soil, water, and other materials for testing.

detailed	19-4051	Nuclear Technicians	Assist nuclear physicists, nuclear engineers, or other scientists in laboratory, power generation, or electricity production activities. May operate, maintain, or provide quality control for nuclear testing and research equipment. May monitor radiation.
broad	19-4060	Social Science Research Assistants	
detailed	19-4061	Social Science Research Assistants	Assist social scientists in laboratory, survey, and other social science research. May help prepare findings for publication and assist in laboratory analysis, quality control, or data management. Excludes "Graduate Teaching Assistants" (25-1191).
broad	19-4070	Forest and Conservation Technicians	
detailed	19-4071	Forest and Conservation Technicians	Provide technical assistance regarding the conservation of soil, water, forests, or related natural resources. May compile data pertaining to size, content, condition, and other characteristics of forest tracts, under the direction of foresters; or train and lead forest workers in forest propagation, fire prevention and suppression. May assist conservation scientists in managing, improving, and protecting rangelands and wildlife habitats. Excludes "Conservation Scientists" (19-1031) and "Foresters" (19- 1032).
broad	19-4090	Miscellaneous Life, Physical, and Social Science Technicians	
detailed	19-4092	Forensic Science Technicians	Collect, identify, classify, and analyze physical evidence related to criminal investigations. Perform tests on weapons or substances, such as fiber, hair, and tissue to determine significance to investigation. May testify as expert witnesses on evidence or crime laboratory techniques. May serve as specialists in area of expertise, such as ballistics, fingerprinting, handwriting, or biochemistry.
detailed	19-4099	Life, Physical, and Social Science Technicians, All Other	All life, physical, and social science technicians not listed separately.
minor	19-5000	Occupational Health and Safety Specialists and Technicians	
broad	19-5010	Occupational Health and Safety Specialists and Technicians	

detailed	19-5011	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.
detailed	19-5012	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.
major	21-0000	Community and Social Service Occupations	
minor	21-1000	Counselors, Social Workers, and Other Community and Social Service Specialists	
broad	21-1010	Counselors	
detailed	21-1011	Substance Abuse and Behavioral Disorder Counselors	Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs. Excludes "Social Workers" (21-1021 through 21-1029), "Psychologists" (19- 3031 through 19-3039), and "Mental Health Counselors" (21-1014) providing these services.
detailed	21-1012	Educational, Guidance, and Career Counselors and Advisors	Advise and assist students and provide educational and vocational guidance services.
detailed	21-1013	Marriage and Family Therapists	Diagnose and treat mental and emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage and family systems. Apply psychotherapeutic and family systems theories and techniques in the delivery of services to individuals, couples, and families for the purpose of treating such diagnosed nervous and mental disorders. Excludes "Social Workers" (21-1021 through 21-1029) and "Psychologists" of all types (19-3031 through 19-3039).
detailed	21-1014	Mental Health Counselors	Counsel with emphasis on prevention. Work with individuals and groups to promote optimum mental and emotional health. May help individuals deal with issues associated with addictions and substance abuse; family, parenting, and marital problems; stress management; self- esteem; and aging. Excludes "Social Workers" (21-1021

			through 21-1029), "Psychiatrists" (29-1066), and "Psychologists" (19-3031 through 19-3039).
detailed	21-1015	Rehabilitation Counselors	Counsel individuals to maximize the independence and employability of persons coping with personal, social, and vocational difficulties that result from birth defects, illness, disease, accidents, ageing, or the stress of daily life. Coordinate activities for residents of care and treatment facilities. Assess client needs and design and implement rehabilitation programs that may include personal and vocational counseling, instruction, training, and job placement.
detailed	21-1019	Counselors, All Other	All counselors not listed separately.
broad	21-1020	Social Workers	
detailed	21-1021	Child, Family, and School Social Workers	Provide social services and assistance to improve the social and psychological functioning of children and their families and to maximize the family well-being and the academic functioning of children. May assist parents, arrange adoptions, and find foster homes for abandoned or abused children. In schools, they address such problems as teenage pregnancy, misbehavior, and truancy. May also advise teachers.
detailed	21-1022	Healthcare Social Workers	Provide individuals, families, and groups with the psychosocial support needed to cope with chronic, acute, or terminal illnesses. Services include advising family care givers, providing patient education and counseling, and making referrals for other services. May also provide care and case management or interventions designed to promote health, prevent disease, and address barriers to access to healthcare.
detailed	21-1023	Mental Health and Substance Abuse Social Workers	Assess and treat individuals with mental, emotional, or substance abuse problems, including abuse of alcohol, tobacco, and/or other drugs. Activities may include individual and group therapy, crisis intervention, case management, client advocacy, prevention, and education.
detailed	21-1029	Social Workers, All Other	All social workers not listed separately.
broad	21-1090	Miscellaneous Community and Social Service Specialists	

detailed	21-1091	Health Educators	Provide and manage health education programs that help individuals, families, and their communities maximize and maintain healthy lifestyles. Collect and analyze data to identify community needs prior to planning, implementing, monitoring, and evaluating programs designed to encourage healthy lifestyles, policies, and environments. May serve as resource to assist individuals, other health professionals, or the community, and may administer fiscal resources for health education programs. Excludes "Community Health Workers" (21-1094).
detailed	21-1092	Probation Officers and Correctional Treatment Specialists	Provide social services to assist in rehabilitation of law offenders in custody or on probation or parole. Make recommendations for actions involving formulation of rehabilitation plan and treatment of offender, including conditional release and education and employment stipulations.
detailed	21-1093	Social and Human Service Assistants	Assist in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care. Excludes "Rehabilitation Counselors" (21-1015), "Psychiatric Technicians" (29-2053), "Personal Care Aides" (39-9021), and "Eligibility Interviewers, Government Programs" (43-4061).
detailed	21-1094	Community Health Workers	Promotes health within a community by assisting individuals to adopt healthy behaviors. Serves as an advocate for the health needs of individuals by assisting community residents in effectively communicating with healthcare providers or social service agencies. Conducts outreach and implements programs that promote, maintain, and improve individual and overall community health. May deliver health related preventative services such as blood pressure, glaucoma, and hearing screenings. May also collect data to help identify community health needs. Excludes "Health Educators" (21-1091).
detailed	21-1099	Community and Social Service Specialists, All Other	All community and social service specialists not listed separately.
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minor	21-2000	Religious Workers	

detailed	21-2011	Clergy	Conduct religious worship and perform other spiritual functions associated with beliefs and practices of religious faith or denomination. Provide spiritual and moral guidance and assistance to members.
broad	21-2020	Directors, Religious Activities and Education	
detailed	21-2021	Directors, Religious Activities and Education	Coordinate or design programs and conduct outreach to promote the religious education or activities of a denominational group. May provide counseling, guidance, and leadership relative to marital, health, financial, and religious problems.
broad	21-2090	Miscellaneous Religious Workers	
detailed	21-2099	Religious Workers, All Other	All religious workers not listed separately.
major	23-0000	Legal Occupations	
minor	23-1000	Lawyers, Judges, and Related Workers	
broad	23-1010	Lawyers and Judicial Law Clerks	
detailed	23-1011	Lawyers	Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, or manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.
detailed	23-1012	Judicial Law Clerks	Assist judges in court or by conducting research or preparing legal documents. Excludes "Lawyers" (23-1011) and "Paralegals and Legal Assistants" (23-2011).
broad	23-1020	Judges, Magistrates, and Other Judicial Workers	
detailed	23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	Conduct hearings to recommend or make decisions on claims concerning government programs or other government-related matters. Determine liability, sanctions, or penalties, or recommend the acceptance or rejection of claims or settlements. Excludes "Arbitrators, Mediators, and Conciliators" (23-1022).
detailed	23-1022	Arbitrators, Mediators, and Conciliators	Facilitate negotiation and conflict resolution through dialogue. Resolve conflicts outside of the court system by mutual consent of parties involved.
detailed	23-1023	Judges, Magistrate Judges, and Magistrates	Arbitrate, advise, adjudicate, or administer justice in a court of law. May sentence defendant in criminal cases according to government statutes or sentencing guidelines. May determine liability of defendant in civil cases. May perform wedding ceremonies.

minor	23-2000	Legal Support Workers	
broad	23-2010	Paralegals and Legal Assistants	
detailed	23-2011	Paralegals and Legal Assistants	Assist lawyers by investigating facts, preparing legal documents, or researching legal precedent. Conduct research to support a legal proceeding, to formulate a defense, or to initiate legal action. Excludes "Legal Secretaries" (43-6012).
broad	23-2090	Miscellaneous Legal Support Workers	
detailed	23-2093	Title Examiners, Abstractors, and Searchers	Search real estate records, examine titles, or summarize pertinent legal or insurance documents or details for a variety of purposes. May compile lists of mortgages, contracts, and other instruments pertaining to titles by searching public and private records for law firms, real estate agencies, or title insurance companies. Excludes "Loan officers" (13-2072).
detailed	23-2099	Legal Support Workers, All Other	All legal support workers not listed separately.
major	25-0000	Educational Instruction and Library Occupations	
minor	25-1000	Postsecondary Teachers	
broad	25-1010	Business Teachers, Postsecondary	
detailed	25-1011	Business Teachers, Postsecondary	Teach courses in business administration and management, such as accounting, finance, human resources, labor and industrial relations, marketing, and operations research. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
broad	25-1020	Math and Computer Teachers, Postsecondary	
detailed	25-1021	Computer Science Teachers, Postsecondary	Teach courses in computer science. May specialize in a field of computer science, such as the design and function of computers or operations and research analysis. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1022	Mathematical Science Teachers, Postsecondary	Teach courses pertaining to mathematical concepts, statistics, and actuarial science and to the application of original and standardized mathematical techniques in solving specific problems and situations. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

broad	25-1030	Engineering and Architecture Teachers, Postsecondary	
detailed	25-1031	Architecture Teachers, Postsecondary	Teach courses in architecture and architectural design, such as architectural environmental design, interior architecture/design, and landscape architecture. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1032	Engineering Teachers, Postsecondary	Teach courses pertaining to the application of physical laws and principles of engineering for the development of machines, materials, instruments, processes, and services. Includes teachers of subjects such as chemical, civil, electrical, industrial, mechanical, mineral, and petroleum engineering. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Computer Science Teachers, Postsecondary" (25-1021).
broad	25-1040	Life Sciences Teachers, Postsecondary	
detailed	25-1041	Agricultural Sciences Teachers, Postsecondary	Teach courses in the agricultural sciences. Includes teachers of agronomy, dairy sciences, fisheries management, horticultural sciences, poultry sciences, range management, and agricultural soil conservation. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Forestry and Conservation Science Teachers, Postsecondary" (25-1043).
detailed	25-1042	Biological Science Teachers, Postsecondary	Teach courses in biological sciences. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1043	Forestry and Conservation Science Teachers, Postsecondary	Teach courses in forestry and conservation science. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Agricultural Science Teachers, Postsecondary" (25-1041) and "Environmental Science Teachers, Postsecondary" (25-1053).
broad	25-1050	Physical Sciences Teachers, Postsecondary	
detailed	25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	Teach courses in the physical sciences, except chemistry and physics. Includes both teachers primarily engaged in teaching, and those who do a combination of teaching and research.

detailed	25-1052	Chemistry Teachers, Postsecondary	Teach courses pertaining to the chemical and physical properties and compositional changes of substances. Work may include instruction in the methods of qualitative and quantitative chemical analysis. Includes both teachers primarily engaged in teaching, and those who do a combination of teaching and research. Excludes "Biological Science Teachers, Postsecondary" (25-1042) who teach biochemistry.
detailed	25-1053	Environmental Science Teachers, Postsecondary	Teach courses in environmental science. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1054	Physics Teachers, Postsecondary	Teach courses pertaining to the laws of matter and energy. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
broad	25-1060	Social Sciences Teachers, Postsecondary	
detailed	25-1061	Anthropology and Archeology Teachers, Postsecondary	Teach courses in anthropology or archeology. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	Teach courses pertaining to the culture and development of an area, an ethnic group, or any other group, such as Latin American studies, women's studies, or urban affairs. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1063	Economics Teachers, Postsecondary	Teach courses in economics. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1064	Geography Teachers, Postsecondary	Teach courses in geography. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1065	Political Science Teachers, Postsecondary	Teach courses in political science, international affairs, and international relations. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1066	Psychology Teachers, Postsecondary	Teach courses in psychology, such as child, clinical, and developmental psychology, and psychological counseling. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1067	Sociology Teachers, Postsecondary	Teach courses in sociology. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1069	Social Sciences Teachers, Postsecondary, All Other	All postsecondary social sciences teachers not listed separately.

broad	25-1070	Health Teachers, Postsecondary	
detailed	25-1071	Health Specialties Teachers, Postsecondary	Teach courses in health specialties, in fields such as dentistry, laboratory technology, medicine, pharmacy, public health, therapy, and veterinary medicine. Excludes "Nursing Instructors and Teachers, Postsecondary" (25- 1072) and "Biological Science Teachers, Postsecondary" (25-1042) who teach medical science.
detailed	25-1072	Nursing Instructors and Teachers, Postsecondary	Demonstrate and teach patient care in classroom and clinical units to nursing students. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
broad	25-1080	Education and Library Science Teachers, Postsecondary	
detailed	25-1081	Education Teachers, Postsecondary	Teach courses pertaining to education, such as counseling, curriculum, guidance, instruction, teacher education, and teaching English as a second language. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1082	Library Science Teachers, Postsecondary	Teach courses in library science. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
broad	25-1110	Law, Criminal Justice, and Social Work Teachers, Postsecondary	
detailed	25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	Teach courses in criminal justice, corrections, and law enforcement administration. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1112	Law Teachers, Postsecondary	Teach courses in law. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1113	Social Work Teachers, Postsecondary	Teach courses in social work. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
broad	25-1120	Communications, History, and Humanities Teachers, Postsecondary	
detailed	25-1121	Art, Drama, and Music Teachers, Postsecondary	Teach courses in drama, music, and the arts including fine and applied art, such as painting and sculpture, or design and crafts. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

detailed	25-1122	Communications Teachers, Postsecondary	Teach courses in communications, such as organizational communications, public relations, radio/television broadcasting, and journalism. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1123	English Language and Literature Teachers, Postsecondary	Teach courses in English language and literature, including linguistics and comparative literature. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1124	Foreign Language and Literature Teachers, Postsecondary	Teach languages and literature courses in languages other than English. Includes teachers of American Sign Language (ASL). Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1125	History Teachers, Postsecondary	Teach courses in human history and historiography. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1126	Philosophy and Religion Teachers, Postsecondary	Teach courses in philosophy, religion, and theology. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
broad	25-1190	Miscellaneous Postsecondary Teachers	
detailed	25-1192	Family and Consumer Sciences Teachers, Postsecondary	Teach courses in childcare, family relations, finance, nutrition, and related subjects pertaining to home management. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1193	Recreation and Fitness Studies Teachers, Postsecondary	Teach courses pertaining to recreation, leisure, and fitness studies, including exercise physiology and facilities management. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
detailed	25-1194	Career/Technical Education Teachers, Postsecondary	Teach vocational courses intended to provide occupational training below the baccalaureate level primarily to students who have graduated from or left high school in subjects such as construction, mechanics/repair, manufacturing, transportation, or cosmetology. Teaching takes place in public or private schools whose primary business is academic or vocational education. Excludes "Training and Development Specialists" (13-1151)", "Adult Basic, Adult Secondary and English as a Second Language Instructors" (25-3011) and postsecondary teachers classified elsewhere in the 25-

			1000 series. Flight Instructors are included with "Aircraft Pilots and Flight Engineers" (53-2010).
detailed	25-1199	Postsecondary Teachers, All Other	All postsecondary teachers not listed separately.
minor	25-2000	Pre-kindergarten, Kindergarten, Grade 1-12, and Special Education Teachers	
broad	25-2010	Pre-kindergarten and Kindergarten Teachers	
detailed	25-2011	Pre-kindergarten Teachers, Except Special Education	Instruct pre-school aged students in activities designed to promote social, physical, and intellectual growth needed for primary school. Instruction takes place in public or private schools or center-based facilities, such as a preschool or day-care center. May be required to hold State certification. Includes long-term substitute teachers. Excludes "Special Education Teachers, Pre-Kindergarten" (25-2051), "Substitute Teachers, Short-Term" (25-3031), and "Childcare Workers" (39-9011).
detailed	25-2012	Kindergarten Teachers, Except Special Education	Teach Kindergarten students a range of basic academic, social, and other formative skills in public or private schools or center-based facilities, such as a preschool. May be required to hold State certification. Includes long- term substitute teachers. Excludes "Special Education Teachers, Kindergarten" (25-2055) and "Substitute Teachers, Short-Term" (25-3031).
broad	25-2020	Grade 1-8 Teachers	
detailed	25-2024	Grade 1-8 Teachers, Except Special and Career/Technical Education	Teach grade 1-8 students in one or more subjects, in public or private schools. May be required to hold State certification. Includes long-term substitute teachers. Excludes "Career/Technical Education Teachers, Grade 1- 8" (25-2025), "Special Education Teachers, Grade 1-8" (25- 2056), and "Substitute Teachers, Short-Term" (25-3031).

detailed	25-2025	Career/Technical Education Teachers, Grade 1-8	Teach occupational, vocational, career, or technical subjects to grade 1-8 students in public or private schools. May be required to hold state certification. Includes long- term substitute teachers. Excludes "Substitute Teachers, Short-Term" (25-3031).
broad	25-2030	Grade 9-12 Teachers	
detailed	25-2031	Grade 9-12 Teachers, Except Special and Career/Technical Education	Teach grade 9-12 students in one or more subjects, in public or private schools. May be required to hold State certification. Includes long-term substitute teachers. Excludes "Career/Technical Education Teachers, Grade 9- 12" (25-2032), "Special Education Teachers, Grade 9-12" (25-2057), and "Substitute Teachers, Short-Term" (25- 3031).
detailed	25-2032	Career/Technical Education Teachers, Grade 9-12	Teach occupational, vocational, career, or technical subjects to grade 9-12 students in public or private schools. May be required to hold state certification. Includes long-term substitute teachers. Excludes "Substitute Teachers, Short-Term" (25-3031).
broad	25-2050	Special Education Teachers	
detailed	25-2051	Special Education Teachers, Pre-Kindergarten	Teach academic, career, and life skills to pre-school aged students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.
detailed	25-2055	Special Education Teachers, Kindergarten	Teach academic, career, and life skills to kindergarten students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.
detailed	25-2056	Special Education Teachers, Grade 1-8	Teach academic, career, and life skills to grade 1-8 students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.
detailed	25-2057	Special Education Teachers, Grade 9-12	Teach academic, career, and life skills to grade 9-12 students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities.

detailed	25-2059	Special Education Teachers, All Other	All special education teachers not listed separately.
minor	25-3000	Other Teachers and Instructors	
broad	25-3010	Adult Basic, Adult Secondary, and English as a Second Language Instructors	
detailed	25-3011	Adult Basic, Adult Secondary, and English as a Second Language Instructors	Teach or instruct out-of-school youths and adults in basic education, literacy, or English as a Second Language classes, or in classes for earning a high school equivalency. Teaching may or may not take place in a traditional educational institution.
broad	25-3020	Self-Enrichment Teachers	
detailed	25-3021	Self-Enrichment Teachers	Teach or instruct groups or individuals for the primary purpose of promoting self-enrichment or recreation, rather than for an occupational objective or degree, competition, or fitness. Teaching may or may not take place in a traditional educational institution. Excludes "Coaches and Scouts" (27-2022), "Exercise Trainers and Group Fitness Instructors" (39-9031), and "Aircraft Pilots and Flight Engineers" (53-2010).
broad	25-3030	Substitute Teachers, Short- Term	
detailed	25-3031	Substitute Teachers, Short- Term	Teach students in one or more subjects on a short-term basis as a temporary replacement for a regular classroom teacher. Excludes long-term substitute teachers who replace regular classroom teachers for an extended period of time (as defined by the local or state education agency) and who perform the duties of a regular teacher, such as lesson planning and assignment of course grades; these teachers are coded within the 25-1000 or 25-2000 minor groups.
broad	25-3040	Tutors	
detailed	25-3041	Tutors	Instruct individual or small groups of students in academic subjects to support formal class instruction or to prepare for standardized or admissions tests. Instruction may or may not take place in a traditional educational institution. Instructs students enrolled in or preparing to enroll in public or private preschool, primary, secondary, or postsecondary schools. Excludes "Postsecondary Teachers" (25-1000), "Pre-kindergarten, Kindergarten, Grade 1-12, and Special Education School Teachers" (25- 2000), "Adult Basic, Adult Secondary, and English as a

			Second Language Instructors" (25-3011), and "Self- Enrichment Teachers" (25-3021).
broad	25-3090	Miscellaneous Teachers and Instructors	
detailed	25-3099	Teachers and Instructors, All Other	All teachers and instructors not listed separately.
minor	25-4000	Librarians, Curators, and Archivists	
broad	25-4010	Archivists, Curators, and Museum Technicians	
detailed	25-4011	Archivists	Appraise, edit, and direct safekeeping of permanent records and historically valuable documents. Participate in research activities based on archival materials.
detailed	25-4012	Curators	Administer collections, such as artwork, collectibles, historic items, or scientific specimens of museums or other institutions. May conduct instructional, research, or public service activities of institution.
detailed	25-4013	Museum Technicians and Conservators	Restore, maintain, or prepare objects in museum collections for storage, research, or exhibit. May work with specimens such as fossils, skeletal parts, or botanicals; or artifacts, textiles, or art. May identify and record objects or install and arrange them in exhibits. Includes book or document conservators.
broad	25-4020	Librarians and Media Collections Specialists	
detailed	25-4022	Librarians and Media Collections Specialists	Administer and maintain libraries, or collections of information, for public or private access through reference or borrowing. Work in a variety of settings, such as educational institutions, museums, and corporations, and with various types of informational materials, such as books, periodicals, recordings, films, and databases. Tasks may include acquiring, cataloguing, and circulating library materials, and user services such as synthesizing information, instruction on how to access information, and setting up and operating a library's media equipment.
broad	25-4030	Library Technicians	

detailed	25-4031	Library Technicians	Assist librarians by helping readers in the use of library catalogs, databases, and indexes to locate books and other materials; and by answering questions that require only brief consultation of standard reference. Compile records; sort and shelve books or other media; remove or repair damaged books or other media; register patrons; and check materials in and out of the circulation process. Replace materials in shelving area (stacks) or files. Includes bookmobile drivers who assist with providing services in mobile libraries.
minor	25-9000	Other Educational Instruction and Library Occupations	
broad	25-9020	Farm and Home Management Educators	
detailed	25-9021	Farm and Home Management Educators	Instruct and advise individuals and families engaged in agriculture, agricultural-related processes, or home economics activities. Demonstrate procedures and apply research findings to advance agricultural and home management activities. May develop educational outreach programs. May instruct on either agricultural issues such as agricultural processes and techniques, pest management, and food safety, or on home management issues such as budgeting, nutrition, and child development. Excludes "Dietitians and Nutritionists" (29- 1031).
broad	25-9030	Instructional Coordinators	
detailed	25-9031	Instructional Coordinators	Develop instructional material, coordinate educational content, and incorporate current technology in specialized fields that provide guidelines to educators and instructors for developing curricula and conducting courses. May train and coach teachers. Includes educational consultants and specialists, and instructional material directors.
broad	25-9040	Teaching Assistants	
detailed	25-9042	Teaching Assistants, Preschool through Grade 12	Assist a preschool or grade K-12 teacher with instructional duties.
detailed	25-9043	Teaching Assistants, Postsecondary	Assist faculty or other instructional staff in postsecondary institutions by performing instructional support activities, such as developing teaching materials, preparing and giving examinations, and grading examinations or papers. Graduate students who teach one or more full courses should be classified in the 25-1000 series.

detailed	25-9049	Teaching Assistants, All Other	All teaching assistants not listed separately.
broad	25-9090	Miscellaneous Educational Instruction and Library Workers	
detailed	25-9099	Educational Instruction and Library Workers, All Other	All educational instruction and library workers not listed separately.
major	27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	
minor	27-1000	Art and Design Workers	
broad	27-1010	Artists and Related Workers	
detailed	27-1011	Art Directors	Formulate design concepts and presentation approaches for visual communications and advertising media, such as print, broadcasting, video, and film. Direct workers engaged in art work or layout design.
detailed	27-1012	Craft Artists	Create or reproduce hand-made objects for sale and exhibition using a variety of techniques, such as welding, weaving, pottery, and needlecraft.
detailed	27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	Create original artwork using any of a wide variety of media and techniques.
detailed	27-1014	Special Effects Artists and Animators	Create special effects or animations using film, video, computers, or other electronic tools and media for use in products or creations, such as computer games, movies, music videos, and commercials.
detailed	27-1019	Artists and Related Workers, All Other	All artists and related workers not listed separately.
broad	27-1020	Designers	
detailed	27-1021	Commercial and Industrial Designers	Develop and design manufactured products, such as cars, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.
detailed	27-1022	Fashion Designers	Design clothing and accessories. Create original designs or adapt fashion trends.
detailed	27-1023	Floral Designers	Design, cut, and arrange live, dried, or artificial flowers and foliage.
detailed	27-1024	Graphic Designers	Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects. Excludes "Web or Digital Interface Designers" (15-1234).

detailed	27-1025	Interior Designers	Plan, design, and furnish the internal space of buildings. Create physical layouts for internal spaces, formulate interior design which is practical, aesthetic, and conducive to intended purpose. May specialize in a particular field, style, or phase of interior design. Excludes "Merchandise Displayers and Window Trimmers" (27-1026).
detailed	27-1026	Merchandise Displayers and Window Trimmers	Plan and erect commercial displays, such as those in windows and interiors of retail stores and at trade exhibitions.
detailed	27-1027	Set and Exhibit Designers	Design special exhibits and movie, television, and theater sets. May study scripts, confer with directors, and conduct research to determine appropriate architectural styles.
detailed	27-1029	Designers, All Other	All designers not listed separately.
minor	27-2000	Entertainers and Performers, Sports and Related Workers	
broad	27-2010	Actors, Producers, and Directors	
detailed	27-2011	Actors	Play parts in stage, television, radio, video, motion picture productions, or other settings for entertainment, information, or instruction. Interpret serious or comic role by speech, gesture, and body movement to entertain or inform audience. May dance and sing.
detailed	27-2012	Producers and Directors	Produce or direct stage, television, radio, video, or motion picture productions for entertainment, information, or instruction. Responsible for creative decisions, such as interpretation of script, choice of actors or guests, set design, sound, special effects, and choreography.
broad	27-2020	Athletes, Coaches, Umpires, and Related Workers	
detailed	27-2021	Athletes and Sports Competitors	Compete in athletic events.
detailed	27-2022	Coaches and Scouts	Instruct or coach groups or individuals in the fundamentals of sports for the primary purpose of competition. Demonstrate techniques and methods of participation. May evaluate athletes' strengths and weaknesses as possible recruits or to improve the athletes' technique to prepare them for competition. Those required to hold teaching degrees should be reported in the appropriate teaching category. Excludes "Athletic Trainers" (29-9091).

detailed	27-2023	Umpires, Referees, and Other Sports Officials	Officiate at competitive athletic or sporting events. Detect infractions of rules and decide penalties according to established regulations. Includes all sporting officials, referees, and competition judges.
broad	27-2030	Dancers and Choreographers	
detailed	27-2031	Dancers	Perform dances. May perform on stage, for on-air broadcasting, or for video recording
detailed	27-2032	Choreographers	Create new dance routines. Rehearse performance of routines. May direct and stage presentations.
broad	27-2040	Musicians, Singers, and Related Workers	
detailed	27-2041	Music Directors and Composers	Conduct, direct, plan, and lead instrumental or vocal performances by musical artists or groups, such as orchestras, bands, choirs, and glee clubs. Includes arrangers, composers, choral directors, and orchestrators.
detailed	27-2042	Musicians and Singers	Play one or more musical instruments or sing. May perform on stage, for on-air broadcasting, or for sound or video recording.
broad	27-2090	Miscellaneous Entertainers and Performers, Sports and Related Workers	
detailed	27-2091	Disc Jockeys, Except Radio Disc Jockeys	Play pre-recorded music for live audiences at venues or events such as clubs, parties, or wedding receptions. May use techniques such as mixing, cutting, or sampling to manipulate recordings. May also perform as emcee (master of ceremonies). Radio disc jockeys are included in "Radio and Television Announcers" (27-3011). Excludes "Musicians and Singers" (27-2042), "Audio and Video Technicians" (27-4011), and "Sound Engineering Technicians" (27-4014).
detailed	27-2099	Entertainers and Performers, Sports and Related Workers, All Other	All entertainers and performers, sports and related workers not listed separately.
minor	27-3000	Media and Communication Workers	
broad	27-3010	Broadcast Announcers	
detailed	27-3011	Broadcast Announcers	Speak or read from scripted materials, such as news reports or commercial messages, on radio, television, internet, or other broadcast media. May announce artist or title of performance, identify station, or interview guests. Excludes "Broadcast News Analysts and Broadcast Reporters" (27-3021).

27-3020 **Broadcast News Analysts** broad and Broadcast Reporters detailed 27-3023 **Broadcast News Analysts** Analyze, interpret, and narrate news received from and Broadcast Reporters various sources. May interview sources for broadcast. Excludes "Writers, Authors, and Journalists" (27-3044). broad 27-3030 **Public Relations Specialists** detailed 27-3031 **Public Relations Specialists** Engage in promoting or creating an intended public image for individuals, groups, or organizations. May write or select material for release to various communications media. May specialize in using social media. broad 27-3040 Editors, Writers, Authors, and Journalists Plan, coordinate, revise, or edit written material. May detailed 27-3041 Editors review proposals and drafts for possible publication. **Technical Writers** detailed 27-3042 Write technical materials, such as equipment manuals, appendices, or operating and maintenance instructions. May assist in layout work. 27-3044 detailed Writers, Authors, and Originate and prepare written material, such as scripts, Journalists stories, grants, advertisements, and news reports, for publication or reporting in books, newspapers, magazines, radio, television, and other communications media. May collect and analyze facts by interview, investigation, or observation. Excludes "Broadcast News Analysts and Broadcast Reporters" (27-3023), "Public Relations Specialists" (27-3031), and "Technical Writers" (27-3042). broad 27-3090 Miscellaneous Media and **Communication Workers** detailed 27-3091 Interpreters and Interpret oral or sign language, or translate written text Translators from one language into another. Court Reporters and detailed 27-3092 Use verbatim methods and equipment to capture, store, retrieve, and transcribe pretrial and trial proceedings or **Simultaneous Captioners** other information. Includes stenocaptioners who operate computerized stenographic captioning equipment to provide captions of live or prerecorded broadcasts for hearing-impaired viewers. Media and Communication All media and communication workers not listed detailed 27-3099 Workers. All Other separately. minor 27-4000 Media and Communication **Equipment Workers** broad 27-4010 **Broadcast and Sound Engineering Technicians**

detailed	27-4011	Audio and Video Technicians	Set up, maintain, and dismantle audio and video equipment, such as microphones, sound speakers, connecting wires and cables, sound and mixing boards, video cameras, video monitors and servers, and related electronic equipment for live or recorded events, such as concerts, sports, meetings, conventions, presentations, and news conferences. Excludes "Sound Engineering Technicians" (27-4014) and "Lighting Technicians" (27- 4022).
detailed	27-4012	Broadcast Technicians	Set up, operate, and maintain the electronic equipment used to acquire, edit, and transmit audio and video for radio or television programs. Control and adjust incoming and outgoing broadcast signals to regulate sound volume, signal strength, and signal quality. Operate satellite, microwave, or other transmitter equipment to broadcast radio or television programs.
detailed	27-4014	Sound Engineering Technicians	Assemble and operate equipment to record, synchronize, mix, edit, or reproduce sound, including music, voices, or sound effects, for theater, film, television, sporting events, and other productions. Excludes "Audio and Video Technicians" (27-4011).
broad	27-4020	Photographers and Lighting Technicians	
detailed	27-4021	Photographers	Photograph people, landscapes, merchandise, or other subjects. May use lighting equipment to enhance a subject's appearance. May use photo editing software to produce finished images or prints. Includes commercial and industrial photographers, scientific photographers, and photojournalists. Excludes "Camera Operators, Television, Video, and Motion Picture" (27-4031).
detailed	27-4022	Lighting Technicians	Set up, maintain, and dismantle light fixtures, lighting control devices, and the associated lighting electrical and rigging equipment used for photography, television, film, video, and stage productions and other venues. May focus or operate light fixtures, or attach color filters or other lighting accessories.
broad	27-4030	Television, Video, and Motion Picture Camera Operators and Editors	
detailed	27-4031	Camera Operators, Television, Video, and Motion Picture	Operate television, video, or motion picture camera to record images or scenes for various purposes, such as TV and internet broadcasts, or commercial, video, or film production.

detailed	27-4032	Film and Video Editors	Edit moving images on film, video, or other media. May work with a producer or director to organize images for final production. May edit or synchronize soundtracks with images. Excludes "Sound Engineering Technicians" (27-4014).
broad	27-4090	Miscellaneous Media and Communication Equipment Workers	
detailed	27-4099	Media and Communication Equipment Workers, All Other	All media and communication equipment workers not listed separately.
major	29-0000	Healthcare Practitioners and Technical Occupations	
minor	29-1000	Healthcare Diagnosing or Treating Practitioners	
broad	29-1010	Chiropractors	
detailed	29-1011	Chiropractors	Assess, treat, and care for patients by manipulation of spine and musculoskeletal system. May provide spinal adjustment or address sacral or pelvic misalignment.
broad	29-1020	Dentists	
detailed	29-1021	Dentists, General	Examine, diagnose, and treat diseases, injuries, and malformations of teeth and gums. May treat diseases of nerve, pulp, and other dental tissues affecting oral hygiene and retention of teeth. May fit dental appliances or provide preventive care. Excludes "Prosthodontists" (29-1024), "Orthodontists" (29-1023), "Oral and Maxillofacial Surgeons" (29-1022) and "Dentists, All Other Specialists" (29-1029).
detailed	29-1022	Oral and Maxillofacial Surgeons	Perform surgery and related procedures on the hard and soft tissues of the oral and maxillofacial regions to treat diseases, injuries, or defects. May diagnose problems of the oral and maxillofacial regions. May perform surgery to improve function or appearance.
detailed	29-1023	Orthodontists	Examine, diagnose, and treat dental malocclusions and oral cavity anomalies. Design and fabricate appliances to realign teeth and jaws to produce and maintain normal function and to improve appearance.
detailed	29-1024	Prosthodontists	Diagnose, treat, rehabilitate, and design prosthesis that maintain the oral function, health, and appearance of patients with clinical conditions associated with missing or deficient teeth and/or oral and maxillofacial tissues. Construct and fit oral prosthesis to replace missing teeth and other oral structures, for example to correct natural and acquired deformation of mouth and jaws.

detailed	29-1029	Dentists, All Other Specialists	All dentists not listed separately.
broad	29-1030	Dietitians and Nutritionists	
detailed	29-1031	Dietitians and Nutritionists	Plan and conduct food service or nutritional programs to assist in the promotion of health and control of disease. May supervise activities of a department providing quantity food services, counsel individuals, or conduct nutritional research.
broad	29-1040	Optometrists	
detailed	29-1041	Optometrists	Diagnose, manage, and treat conditions and diseases of the human eye and visual system. Examine eyes and visual system, diagnose problems or impairments, prescribe corrective lenses, and provide treatment. May prescribe therapeutic drugs to treat specific eye conditions. Ophthalmologists are included in "Physicians and Surgeons, All Other" (29-1069).
broad	29-1050	Pharmacists	
detailed	29-1051	Pharmacists	Dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medications and their use. May advise physicians and other health practitioners on the selection, dosage, interactions, and side effects of medications.
broad	29-1070	Physician Assistants	
detailed	29-1071	Physician Assistants	Provide healthcare services typically performed by a physician, under the supervision of a physician. Conduct complete physicals, provide treatment, and counsel patients. May, in some cases, prescribe medication. Must graduate from an accredited educational program for physician assistants. Excludes "Emergency Medical Technicians and Paramedics" (29-2041), "Medical Assistants" (31-9092), "Registered Nurses" (29-1141), "Nurse Anesthetists" (29-1151), "Nurse Midwives" (29- 1161), "Nurse Practitioners" (29-1171), and "Surgical Assistants" (29-9093).
broad	29-1080	Podiatrists	
detailed	29-1081	Podiatrists	Diagnose and treat diseases and deformities of the human foot.
broad	29-1120	Therapists	
detailed	29-1122	Occupational Therapists	Assess, plan, organize, and participate in rehabilitative programs that help build or restore vocational, homemaking, and daily living skills, as well as general independence, to persons with disabilities or developmental delays.

detailed	29-1123	Physical Therapists	Assess, plan, organize, and participate in rehabilitative programs that improve mobility, relieve pain, increase strength, and improve or correct disabling conditions resulting from disease or injury.
detailed	29-1124	Radiation Therapists	Provide radiation therapy to patients as prescribed by a radiologist according to established practices and standards. Duties may include reviewing prescription and diagnosis; acting as liaison with physician and supportive care personnel; preparing equipment, such as immobilization, treatment, and protection devices; and maintaining records, reports, and files. May assist in dosimetry procedures and tumor localization.
detailed	29-1125	Recreational Therapists	Plan, direct, or coordinate medically-approved recreation programs for patients in hospitals, nursing homes, or other institutions. Activities include sports, trips, dramatics, social activities, and crafts. May assess a patient condition and recommend appropriate recreational activity. Excludes "Recreation Workers" (39- 9032).
detailed	29-1126	Respiratory Therapists	Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. Initiate and conduct therapeutic procedures; maintain patient records; and select, assemble, check, and operate equipment.
detailed	29-1127	Speech-Language Pathologists	Assess and treat persons with speech, language, voice, and fluency disorders. May select alternative communication systems and teach their use. May perform research related to speech and language problems.
detailed	29-1128	Exercise Physiologists	Assess, plan, or implement fitness programs that include exercise or physical activities such as those designed to improve cardiorespiratory function, body composition, muscular strength, muscular endurance, or flexibility. Excludes "Physical Therapists" (29-1123), "Athletic Trainers" (29-9091), and "Fitness Trainers and Aerobic Instructors" (39-9031).
detailed	29-1129	Therapists, All Other	All therapists not listed separately.
broad	29-1130	Veterinarians	
detailed	29-1131	Veterinarians	Diagnose, treat, or research diseases and injuries of animals. Includes veterinarians who conduct research and development, inspect livestock, or care for pets and companion animals.
broad	29-1140	Registered Nurses	

detailed	29-1141	Registered Nurses	Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Includes Clinical Nurse Specialists. Excludes "Nurse Anesthetists" (29-1151), "Nurse Midwives" (29-1161), and "Nurse Practitioners" (29-1171).
broad	29-1150	Nurse Anesthetists	
detailed	29-1151	Nurse Anesthetists	Administer anesthesia, monitor patient's vital signs, and oversee patient recovery from anesthesia. May assist anesthesiologists, surgeons, other physicians, or dentists. Must be registered nurses who have specialized graduate education.
broad	29-1160	Nurse Midwives	
detailed	29-1161	Nurse Midwives	Diagnose and coordinate all aspects of the birthing process, either independently or as part of a healthcare team. May provide well-woman gynecological care. Must have specialized, graduate nursing education.
broad	29-1170	Nurse Practitioners	
detailed	29-1171	Nurse Practitioners	Diagnose and treat acute, episodic, or chronic illness, independently or as part of a healthcare team. May focus on health promotion and disease prevention. May order, perform, or interpret diagnostic tests such as lab work and x rays. May prescribe medication. Must be registered nurses who have specialized graduate education.
broad	29-1180	Audiologists	
detailed	29-1181	Audiologists	Assess and treat persons with hearing and related disorders. May fit hearing aids and provide auditory training. May perform research related to hearing problems.
broad	29-1210	Physicians	
detailed	29-1211	Anesthesiologists	Physicians who administer anesthetics and analgesics prior to, during, or after surgery, or manage pain in addition to practicing critical care.
detailed	29-1212	Cardiologists	Physicians who diagnose, treat, manage and/or prevent diseases or conditions of the cardiovascular system. May further subspecialize in interventional procedures (e.g. balloon angioplasty and stent placement), echocardiography, or electrophysiology.
detailed	29-1213	Dermatologists	Physicians who diagnose and treat diseases relating to the skin, hair, and nails. May perform both medical and dermatological surgery functions.

detailed	29-1214	Emergency Medicine Physicians	Physicians who are tasked with immediate decision making and action to prevent death or any further disability in a pre-hospital setting and directing emergency medical staff and in an emergency department. Provide immediate recognition, evaluation, care, stabilization, and disposition of patients.
detailed	29-1215	Family Medicine Physicians	Physicians who diagnose, treat and provide preventative care to individuals and families across the lifespan. May refer patients to specialists when needed for further diagnosis or treatment. Excludes "General Internal Medicine Physicians" (29-1216) and "Pediatricians, General" (29-1221).
detailed	29-1216	General Internal Medicine Physicians	Physicians who diagnose and provide non-surgical treatment for a wide range of diseases and injuries of internal organ systems. Provide care mainly for adults and adolescents, and are based primarily in an outpatient care setting. Excludes "Family Medicine Physicians" (29-1215) and "Pediatricians, General" (29-1221).
detailed	29-1217	Neurologists	Physicians who diagnose, manage, and treat disorders and diseases of the brain, spinal cord, and peripheral nerves, with a primarily non-surgical focus.
detailed	29-1218	Obstetricians and Gynecologists	Physicians who provide medical care related to pregnancy or childbirth and those who diagnose, treat, and help prevent diseases of women, particularly those affecting the reproductive system. May also provide general care to women. May perform both medical and gynecological surgery functions.
detailed	29-1221	Pediatricians, General	Physicians who diagnose, treat and help prevent diseases and injuries that commonly occur in children. May refer patients to specialists when needed for further diagnosis or treatment. Excludes "Family Medicine Physicians" (29- 1215) and "General Internal Medicine Physicians" (29- 1216).
detailed	29-1222	Physicians, Pathologists	Physicians who diagnose diseases and conduct lab tests using organs, body tissues and fluids. Includes medical examiners.
detailed	29-1223	Psychiatrists	Physicians who diagnose, treat, and help prevent mental disorders. Excludes "Clinical and Counseling Psychologists" (19-3033) and "School Psychologists" (19- 3034).
detailed	29-1224	Radiologists	Physicians who diagnose and treat diseases and injuries using medical imaging techniques, such as x-rays, magnetic resonance imaging (MRI), nuclear medicine, and ultrasounds. May perform medical and minimally invasive procedures and tests. 55

detailed	29-1229	Physicians, All Other	All physicians not listed separately.
broad	29-1240	Surgeons	
detailed	29-1241	Ophthalmologists	Physicians who diagnose, manage, treat, and help prevent disorders, conditions and diseases of the eye and visual system. May perform both medical and surgery functions on the eye and visual system. May also provide vision services (glasses and contacts) for treatment. Excludes "Optometrist" (29-1041).
detailed	29-1242	Orthopaedic Surgeons	Physicians who diagnose, treat and prevent rheumatic and other diseases in the musculoskeletal system, with a primary surgical focus.
detailed	29-1243	Surgeons, Pediatric	All pediatric surgical specialties and subspecialties.
detailed	29-1249	Surgeons, All Other	All surgeons not listed separately. Excludes "Surgeons, Pediatric" (29-1243).
broad	29-1290	Miscellaneous Healthcare Diagnosing or Treating Practitioners	
detailed	29-1291	Acupuncturists	Provide treatment of symptoms and disorders by stimulating specific acupuncture points on the body using thin needles. May also use cups, nutritional supplements, therapeutic massage, acupressure and other alternative health therapies. Excludes "Chiropractors" (29-1011).
detailed	29-1292	Dental Hygienists	Administer oral hygiene care to patients. Assess patient oral hygiene problems or needs and maintain medical records. Advise patients on oral health maintenance and disease prevention. May provide advanced care such as providing fluoride treatment or administering topical anesthesia.
detailed	29-1299	Healthcare Diagnosing or Treating Practitioners, All Other	All health diagnosing and treating practitioners not listed separately.
minor	29-2000	Health Technologists and Technicians	
broad	29-2010	Clinical Laboratory Technologists and Technicians	
detailed	29-2011	Medical and Clinical Laboratory Technologists	Perform complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff.
detailed	29-2012	Medical and Clinical Laboratory Technicians	Perform routine medical laboratory tests for the diagnosis, treatment, and prevention of disease. May work under the supervision of a medical technologist.

broad	29-2030	Diagnostic Related Technologists and Technicians	
detailed	29-2031	Cardiovascular Technologists and Technicians	Conduct tests on pulmonary or cardiovascular systems of patients for diagnostic purposes. May conduct or assist in electrocardiograms, cardiac catheterizations, pulmonary functions, lung capacity, and similar tests.
detailed	29-2032	Diagnostic Medical Sonographers	Produce ultrasonic recordings of internal organs for use by physicians. Includes vascular technologists. Excludes "Cardiovascular Technologists and Technicians" (29-2031).
detailed	29-2033	Nuclear Medicine Technologists	Prepare, administer, and measure radioactive isotopes in therapeutic, diagnostic, and tracer studies using a variety of radioisotope equipment. Prepare stock solutions of radioactive materials and calculate doses to be administered by radiologists. Subject patients to radiation. Execute blood volume, red cell survival, and fat absorption studies following standard laboratory techniques.
detailed	29-2034	Radiologic Technologists	Take x rays and CAT scans or administer nonradioactive materials into patient's blood stream for diagnostic purposes. Includes technologists who specialize in other scanning modalities. Excludes "Diagnostic Medical Sonographers" (29-2032) and "Magnetic Resonance Imaging Technologists" (29-2035).
detailed	29-2035	Magnetic Resonance Imaging Technologists	Operate Magnetic Resonance Imaging (MRI) scanners. Monitor patient safety and comfort, and view images of area being scanned to ensure quality of pictures. May administer gadolinium contrast dosage intravenously. May interview patient, explain MRI procedures, and position patient on examining table. May enter into the computer data such as patient history, anatomical area to be scanned, orientation specified, and position of entry.
detailed	29-2036	Medical Dosimetrists	Generate treatment plans, develop dose calculations, communicate and supervise the treatment plan implementation, consult with members of radiation oncology team.
broad	29-2040	Emergency Medical Technicians and Paramedics	
detailed	29-2042	Emergency Medical Technicians	Assess injuries and illnesses, extricate trapped individuals, and administer basic emergency medical care. Transport injured or sick persons to medical facilities onboard ambulances. Excludes "Paramedics" (29-2043), "Firefighters" (33-2011), and "Ambulance Drivers and

			Attendants, Except Emergency Medical Technicians" (53- 3011).
detailed	29-2043	Paramedics	Administer basic or advanced emergency medical care, assess injuries and illnesses, and extricate trapped individuals. Paramedics function under medical oversight. May administer medication orally or intravenously, use equipment such as EKGs, or administer advanced life support to sick or injured individuals. Excludes "Emergency Medical Technicians" (29-2042) and "Ambulance Drivers and Attendants, Except Emergency Medical Technicians" (53-3011).
broad	29-2050	Health Practitioner Support Technologists and Technicians	
detailed	29-2051	Dietetic Technicians	Assist in the provision of food service and nutritional programs, under the supervision of a dietitian. May plan and produce meals based on established guidelines, teach principles of food and nutrition, or counsel individuals.
detailed	29-2052	Pharmacy Technicians	Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, and record amounts and dosages of medications according to prescription orders.
detailed	29-2053	Psychiatric Technicians	Care for individuals with mental or emotional conditions or disabilities, following the instructions of physicians or other health practitioners. Monitor patients' physical and emotional well-being and report to medical staff. May participate in rehabilitation and treatment programs, help with personal hygiene, and administer oral or injectable medications.
detailed	29-2055	Surgical Technologists	Assist in operations, under the supervision of surgeons, registered nurses, or other surgical personnel. May help set up operating room, prepare and transport patients for surgery, adjust lights and equipment, pass instruments and other supplies to surgeons and surgeon's assistants, hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments. Excludes "Surgical Assistants" (29-9093).

detailed	29-2056	Veterinary Technologists and Technicians	Perform medical tests in a laboratory environment for use in the treatment and diagnosis of diseases in animals. Prepare vaccines and serums for prevention of diseases. Prepare tissue samples, take blood samples, and execute laboratory tests, such as urinalysis and blood counts. Clean and sterilize instruments and materials and maintain equipment and machines. May assist a veterinarian during surgery.
detailed	29-2057	Ophthalmic Medical Technicians	Assist ophthalmologists by performing ophthalmic clinical functions. May administer eye exams, administer eye medications, and instruct the patient in care and use of corrective lenses.
broad	29-2060	Licensed Practical and Licensed Vocational Nurses	
detailed	29-2061	Licensed Practical and Licensed Vocational Nurses	Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.
broad	29-2070	Medical Registrar and Records Specialists	
detailed	29-2071	Medical Registrar and Records Specialists	Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards in a manner consistent with the healthcare industry's numerical coding system. Includes medical coders. Excludes "File Clerks" (43-4071).
broad	29-2080	Opticians, Dispensing	
detailed	29-2081	Opticians, Dispensing	Design, measure, fit, and adapt lenses and frames for client according to written optical prescription or specification. Assist client with inserting, removing, and caring for contact lenses. Assist client with selecting frames. Measure customer for size of eyeglasses and coordinate frames with facial and eye measurements and optical prescription. Prepare work order for optical laboratory containing instructions for grinding and mounting lenses in frames. Verify exactness of finished lens spectacles. Adjust frame and lens position to fit client. May shape or reshape frames. Includes contact lens opticians.

broad	29-2090	Miscellaneous Health Technologists and Technicians	
detailed	29-2091	Orthotists and Prosthetists	Design, measure, fit, and adapt orthopedic braces, appliances or prostheses, such as limbs or facial parts for patients with disabling conditions.
detailed	29-2092	Hearing Aid Specialists	Select and fit hearing aids for customers. Administer and interpret tests of hearing. Assess hearing instrument efficacy. Take ear impressions and prepare, design, and modify ear molds. Excludes "Audiologists" (29-1181).
detailed	29-2099	Health Technologists and Technicians, All Other	All health technologists and technicians not listed separately.
minor	29-9000	Other Healthcare Practitioners and Technical Occupations	
broad	29-9020	Health Information Technology, Health Information Management, and Health Informatics Specialists and Analysts	
detailed	29-9021	Health Information Technology, Health Information Management, and Health Informatics Specialists and Analysts	Apply knowledge of healthcare and information systems to assist in the design, development, and continued modification of computerized health care systems. Design, develop, select, test, implement, and evaluate new or modified informatics solutions, data structures, and decision-support mechanisms to support patients, health care professionals, and their information management and human-computer and human-technology interactions within health care contexts. May educate staff and assist in problem solving to promote the implementation of the health care information system.
broad	29-9090	Miscellaneous Health Practitioners and Technical Workers	
detailed	29-9091	Athletic Trainers	Evaluate and advise individuals to assist recovery from or avoid athletic-related injuries or illnesses, or maintain peak physical fitness. May provide first aid or emergency care.

detailed	29-9092	Genetic Counselors	Assess individual or family risk for a variety of inherited conditions, such as genetic disorders and birth defects. Provide information to other healthcare providers or to individuals and families concerned with the risk of inherited conditions. Advise individuals and families to support informed decision making and coping methods for those at risk. May help conduct research related to genetic conditions or genetic counseling.
detailed	29-9093	Surgical Assistants	Assist in operations, under the supervision of surgeons. May, in accordance with State laws, help surgeons to make incisions and close surgical sites, manipulate or remove tissues, implant surgical devices or drains, suction the surgical site, place catheters, clamp or cauterize vessels or tissue, and apply dressings to surgical site. Excludes "Registered Nurses" (29-1141) and "Surgical Technologists" (29-2055).
detailed	29-9099	Healthcare Practitioners and Technical Workers, All Other	All healthcare practitioners and technical workers not listed separately.
major	31-0000	Healthcare Support Occupations	
minor	31-1000	Home Health and Psychiatric Aides, Nursing Assistants, and Orderlies	
broad	31-1010	Home Health and Psychiatric Aides, Nursing Assistants, and Orderlies	
detailed	31-1011	Home Health Aides	Monitor the health status of an individual with disabilities and/or illness, and address their health-related needs (such as changing bandages, dressing wounds, or administering medication). Work is performed under the direction of off-site or intermittent on-site licensed nursing staff. Provide assistance with routine health care tasks or activities of daily living (such as feeding, bathing, toileting or ambulation). May also help with tasks such as preparing meals, doing light housekeeping and doing laundry depending on the patient's abilities.
detailed	31-1013	Psychiatric Aides	Assist mentally impaired or emotionally disturbed patients, working under direction of nursing and medical staff. May assist with daily living activities, lead patients in educational and recreational activities, or accompany patients to and from examinations and treatments. May restrain violent patients. Includes psychiatric orderlies.

detailed	31-1014	Nursing Assistants	Provide or assist with basic care or support under the direction of on- site licensed nursing staff. Perform duties such as monitoring of health status, feeding, bathing, dressing, grooming, toileting, or ambulation of patients in a health or nursing facility. May include medication administration and other health-related tasks. Includes nursing care attendants, nursing aides, and nursing attendants. Excludes "Home Health Aides" (31-1011), "Personal Care Aides" (39-9021), "Psychiatric Aides" (31-1013), and "Orderlies" (31-1015).
detailed	31-1015	Orderlies	Transport patients to areas such as operating rooms or x- ray rooms using wheelchairs, stretchers, or moveable beds. May maintain stocks of supplies or clean and transport equipment. Psychiatric orderlies are included in "Psychiatric Aides" (31-1013). Excludes "Nursing Assistants" (31-1014).
minor	31-2000	Occupational Therapy and Physical Therapist Assistants and Aides	
broad	31-2010	Occupational Therapy Assistants and Aides	
detailed	31-2011	Occupational Therapy Assistants	Assist occupational therapists in providing occupational therapy treatments and procedures. May, in accordance with State laws, assist in development of treatment plans, carry out routine functions, direct activity programs, and document the progress of treatments. Generally requires formal training.
detailed	31-2012	Occupational Therapy Aides	Under close supervision of an occupational therapist or occupational therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing patient and treatment room.
broad	31-2020	Physical Therapist Assistants and Aides	
detailed	31-2021	Physical Therapist Assistants	Assist physical therapists in providing physical therapy treatments and procedures. May, in accordance with State laws, assist in the development of treatment plans, carry out routine functions, document the progress of treatment, and modify specific treatments in accordance with patient status and within the scope of treatment plans established by a physical therapist. Generally requires formal training.

detailed	31-2022	Physical Therapist Aides	Under close supervision of a physical therapist or physical therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing the patient and the treatment area.
minor	31-9000	Other Healthcare Support Occupations	
broad	31-9010	Massage Therapists	
detailed	31-9011	Massage Therapists	Perform therapeutic massages of soft tissues and joints. May assist in the assessment of range of motion and muscle strength, or propose client therapy plans.
broad	31-9090	Miscellaneous Healthcare Support Occupations	
detailed	31-9091	Dental Assistants	Perform limited clinical duties under the direction of a dentist. Clinical duties may include equipment preparation and sterilization, preparing patients for treatment, assisting the dentist during treatment, and providing patients with instructions for oral healthcare procedures. May perform administrative duties such as scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes.
detailed	31-9092	Medical Assistants	Perform administrative and certain clinical duties under the direction of a physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician. Excludes "Physician Assistants" (29-1071).
detailed	31-9093	Medical Equipment Preparers	Prepare, sterilize, install, or clean laboratory or healthcare equipment. May perform routine laboratory tasks and operate or inspect equipment.
detailed	31-9094	Medical Transcriptionists	Transcribe medical reports recorded by physicians and other healthcare practitioners using various electronic devices, covering office visits, emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Transcribe dictated reports and translate abbreviations into fully understandable form. Edit as necessary and return reports in either printed or electronic form for review and signature, or correction.
detailed	31-9095	Pharmacy Aides	Record drugs delivered to the pharmacy, store incoming merchandise, and inform the supervisor of stock needs. May operate cash register and accept prescriptions for filling.

detailed	31-9096	Veterinary Assistants and Laboratory Animal Caretakers	Feed, water, and examine pets and other nonfarm animals for signs of illness, disease, or injury in laboratories and animal hospitals and clinics. Clean and disinfect cages and work areas, and sterilize laboratory and surgical equipment. May provide routine post-operative care, administer medication orally or topically, or prepare samples for laboratory examination under the supervision of veterinary or laboratory animal technologists or technicians, veterinarians, or scientists. Excludes "Nonfarm Animal Caretakers" (39-2021).
detailed	31-9097	Phlebotomists	Draw blood for tests, transfusions, donations, or research. May explain the procedure to patients and assist in the recovery of patients with adverse reactions.
detailed	31-9099	Healthcare Support Workers, All Other	All healthcare support workers not listed separately
major	33-0000	Protective Service Occupations	
minor	33-1000	Supervisors of Protective Service Workers	
broad	33-1010	First-Line Supervisors of Law Enforcement Workers	
detailed	33-1011	First-Line Supervisors of Correctional Officers	Directly supervise and coordinate activities of correctional officers and jailers.
detailed	33-1012	First-Line Supervisors of Police and Detectives	Directly supervise and coordinate activities of members of police force.
broad	33-1020	First-Line Supervisors of Fire Fighting and Prevention Workers	
detailed	33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	Directly supervise and coordinate activities of workers engaged in fire fighting and fire prevention and control.
broad	33-1090	Miscellaneous First-Line Supervisors, Protective Service Workers	
detailed	33-1091	First-Line Supervisors of Security Workers	Directly supervise and coordinate activities of security workers and security guards.
detailed	33-1099	First-Line Supervisors of Protective Service Workers, All Other	All protective service supervisors not listed separately above.
minor	33-2000	Fire Fighting and Prevention Workers	
broad	33-2010	Firefighters	

detailed	33-2011	Firefighters	Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.
broad	33-2020	Fire Inspectors	
detailed	33-2021	Fire Inspectors and Investigators	Inspect buildings to detect fire hazards and enforce local ordinances and State laws, or investigate and gather facts to determine cause of fires and explosions.
detailed	33-2022	Forest Fire Inspectors and Prevention Specialists	Enforce fire regulations, inspect forest for fire hazards and recommend forest fire prevention or control measures. May report forest fires and weather conditions.
minor	33-3000	Law Enforcement Workers	
broad	33-3010	Bailiffs, Correctional Officers, and Jailers	
detailed	33-3011	Bailiffs	Maintain order in courts of law.
detailed	33-3012	Correctional Officers and Jailers	Guard inmates in penal or rehabilitative institutions in accordance with established regulations and procedures. May guard prisoners in transit between jail, courtroom, prison, or other point. Includes deputy sheriffs and police who spend the majority of their time guarding prisoners in correctional institutions.
broad	33-3020	Detectives and Criminal Investigators	
detailed	33-3021	Detectives and Criminal Investigators	Conduct investigations related to suspected violations of Federal, State, or local laws to prevent or solve crimes. Excludes "Private Detectives and Investigators" (33-9021).
broad	33-3030	Fish and Game Wardens	
detailed	33-3031	Fish and Game Wardens	Patrol assigned area to prevent fish and game law violations. Investigate reports of damage to crops or property by wildlife. Compile biological data.
broad	33-3040	Parking Enforcement Workers	
detailed	33-3041	Parking Enforcement Workers	Patrol assigned area, such as public parking lot or city streets to issue tickets to overtime parking violators and illegally parked vehicles.
broad	33-3050	Police Officers	
detailed	33-3051	Police and Sheriff's Patrol Officers	Maintain order and protect life and property by enforcing local, tribal, State, or Federal laws and ordinances. Perform a combination of the following duties: patrol a specific area; direct traffic; issue traffic summonses; investigate accidents; apprehend and arrest suspects, or

			serve legal processes of courts. Includes police officers working at educational institutions.
detailed	33-3052	Transit and Railroad Police	Protect and police railroad and transit property, employees, or passengers.
minor	33-9000	Other Protective Service Workers	
broad	33-9010	Animal Control Workers	
detailed	33-9011	Animal Control Workers	Handle animals for the purpose of investigations of mistreatment, or control of abandoned, dangerous, or unattended animals.
broad	33-9020	Private Detectives and Investigators	
detailed	33-9021	Private Detectives and Investigators	Gather, analyze, compile and report information regarding individuals or organizations to clients, or detect occurrences of unlawful acts or infractions of rules in private establishment.
broad	33-9030	Security Guards and Gambling Surveillance Officers	
detailed	33-9031	Gambling Surveillance Officers and Gambling Investigators	Act as oversight and security agent for management and customers. Observe casino or casino hotel operation for irregular activities such as cheating or theft by either employees or patrons. May use one-way mirrors above the casino floor, cashier's cage, and from desk. Use of audio/video equipment is also common to observe operation of the business. Usually required to provide verbal and written reports of all violations and suspicious behavior to supervisor.
detailed	33-9032	Security Guards	Guard, patrol, or monitor premises to prevent theft, violence, or infractions of rules. May operate x-ray and metal detector equipment. Excludes "Police Officers" (33- 3050) and "Transportation Security Screeners" (33-9093).
broad	33-9090	Miscellaneous Protective Service Workers	
detailed	33-9091	Crossing Guards and Flaggers	Guide or control vehicular or pedestrian traffic at such places as streets, schools, railroad crossings, or construction sites.

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detailed	33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	Monitor recreational areas, such as pools, beaches, or ski slopes to provide assistance and protection to participants.
detailed	33-9093	Transportation Security Screeners	Conduct screening of passengers, baggage, or cargo to ensure compliance with Transportation Security Administration (TSA) regulations. May operate basic security equipment such as x-ray machines and hand wands at screening checkpoints.
detailed	33-9094	School Bus Monitors	Maintain order among students on a school bus. Duties include helping students safely board and exit and communicating behavioral problems. May perform pre- trip and post-trip inspections and prepare for and assist in emergency evacuations.
detailed	33-9099	Protective Service Workers, All Other	All protective service workers not listed separately.
major	35-0000	Food Preparation and Serving Related Occupations	
minor	35-1000	Supervisors of Food Preparation and Serving Workers	
broad	35-1010	Supervisors of Food Preparation and Serving Workers	
detailed	35-1011	Chefs and Head Cooks	Direct and may participate in the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts.
detailed	35-1012	First-Line Supervisors of Food Preparation and Serving Workers	Directly supervise and coordinate activities of workers engaged in preparing and serving food.
minor	35-2000	Cooks and Food Preparation Workers	
broad	35-2010	Cooks	
detailed	35-2011	Cooks, Fast Food	Prepare and cook food in a fast food restaurant with a limited menu. Duties of these cooks are limited to preparation of a few basic items and normally involve operating large-volume single-purpose cooking equipment.
detailed	35-2012	Cooks, Institution and Cafeteria	Prepare and cook large quantities of food for institutions, such as schools, hospitals, or cafeterias.
detailed	35-2013	Cooks, Private Household	Prepare meals in private homes. Includes personal chefs.

detailed	35-2014	Cooks, Restaurant	Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.
detailed	35-2015	Cooks, Short Order	Prepare and cook to order a variety of foods that require only a short preparation time. May take orders from customers and serve patrons at counters or tables. Excludes "Fast Food Cooks" (35-2011).
detailed	35-2019	Cooks, All Other	All cooks not listed separately.
broad	35-2020	Food Preparation Workers	
detailed	35-2021	Food Preparation Workers	Perform a variety of food preparation duties other than cooking, such as preparing cold foods and shellfish, slicing meat, and brewing coffee or tea.
minor	35-3000	Food and Beverage Serving Workers	
broad	35-3010	Bartenders	
detailed	35-3011	Bartenders	Mix and serve drinks to patrons, directly or through waitstaff.
broad	35-3020	Fast Food and Counter Workers	
detailed	35-3023	Fast Food and Counter Workers	Perform duties such as taking orders and serving food and beverages. Serve customers at counter or from a steam table. May take payment. May prepare food and beverages. Counter attendants who also wait tables are included in "Waiters and Waitresses" (35-3031)
broad	35-3030	Waiters and Waitresses	
detailed	35-3031	Waiters and Waitresses	Take orders and serve food and beverages to patrons at tables in dining establishment. Excludes "Counter Attendants, Cafeteria, Food Concession, and Coffee Shop" (35-3022).
broad	35-3040	Food Servers, Nonrestaurant	
detailed	35-3041	Food Servers, Nonrestaurant	Serve food to individuals outside of a restaurant environment, such as in hotel rooms, hospital rooms, residential care facilities, or cars. Excludes "Door-to-Door Sales Workers, News and Street Vendors, and Related Workers" (41-9091) and "Counter Attendants, Cafeteria, Food Concession, and Coffee Shop" (35-3022).
minor	35-9000	Other Food Preparation and Serving Related Workers	
broad	35-9010	Dining Room and Cafeteria Attendants and Bartender Helpers	

detailed	35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	Facilitate food service. Clean tables, remove dirty dishes, replace soiled table linens; set tables; replenish supply of clean linens, silverware, glassware, and dishes; supply service bar with food; and serve items such as water, condiments, and coffee to patrons.
broad	35-9020	Dishwashers	
detailed	35-9021	Dishwashers	Clean dishes, kitchen, food preparation equipment, or utensils.
broad	35-9030	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	
detailed	35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	Welcome patrons, seat them at tables or in lounge, and help ensure quality of facilities and service.
broad	35-9090	Miscellaneous Food Preparation and Serving Related Workers	
detailed	35-9099	Food Preparation and Serving Related Workers, All Other	All food preparation and serving related workers not listed separately.
major	37-0000	Building and Grounds Cleaning and Maintenance Occupations	
minor	37-1000	Supervisors of Building and Grounds Cleaning and Maintenance Workers	
broad	37-1010	First-Line Supervisors of Building and Grounds Cleaning and Maintenance Workers	
detailed	37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	Directly supervise and coordinate work activities of cleaning personnel in hotels, hospitals, offices, and other establishments.
detailed	37-1012	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.
minor	37-2000	Building Cleaning and Pest Control Workers	
broad	37-2010	Building Cleaning Workers	

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detailed	37-2011	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.
detailed	37-2012	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.
detailed	37-2019	Building Cleaning Workers, All Other	All building cleaning workers not listed separately.
broad	37-2020	Pest Control Workers	
detailed	37-2021	Pest Control Workers	Apply or release chemical solutions or toxic gases and set traps to kill or remove pests and vermin that infest buildings and surrounding areas.
minor	37-3000	Grounds Maintenance Workers	
broad	37-3010	Grounds Maintenance Workers	
detailed	37-3011	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" (45-2092).
detailed	37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation, or chemical application on trees, shrubs, lawns, or crops. Usually requires specific training and State or Federal certification. Crop dusters are included in "Commercial Pilots" (53-2012).

detailed	37-3013	Tree Trimmers and Pruners	Using sophisticated climbing and rigging techniques, cut
			away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks, or utilities, or
			to improve appearance, health, and value of tree. Prune
			or treat trees or shrubs using handsaws, hand pruners,
			clippers, and power pruners. Works off the ground in the
			tree canopy and may use truck-mounted lifts. Excludes workers who primarily perform duties of "Pesticide
			Handlers, Sprayers, and Applicators, Vegetation" (37-
			3012) and "Landscaping and Groundskeeping Workers" (37-3011).
detailed	37-3019	Grounds Maintenance Workers, All Other	All grounds maintenance workers not listed separately.
major	39-0000	Personal Care and Service Occupations	
minor	39-1000	Supervisors of Personal Care and Service Workers	
broad	39-1010	First-Line Supervisors of	
		Entertainment and	
		Recreation Workers	
detailed	39-1013	First-line Supervisors of Gambling Services Workers	Directly supervise and coordinate activities of workers in assigned gambling areas. May circulate among tables and observe operations and ensure that stations and games are covered for each shift. May verify and pay off jackpots. May reset slot machines after payoffs and make repairs or adjustments to slot machines or recommend removal of
			slot machines for repair. May plan and organize activities and services for guests in hotels/casinos.
detailed	39-1014	First-line Supervisors of	Directly supervise and coordinate activities of
		Entertainment and Recreation Workers, Except Gambling Services	entertainment and recreation related workers.
broad	39-1020	First-Line Supervisors of	
		Personal Service Workers	
detailed	39-1021	First-Line Supervisors of	Supervise and coordinate activities of personal service
		Personal Service Workers	workers.
minor	39-2000	Animal Care and Service Workers	
broad	39-2010	Animal Trainers	

detailed	39-2011	Animal Trainers	Train animals for riding, harness, security, performance, or obedience, or assisting persons with disabilities. Accustom animals to human voice and contact; and condition animals to respond to commands. Train animals according to prescribed standards for show or competition. May train animals to carry pack loads or work as part of pack team.
broad	39-2020	Nonfarm Animal Caretakers	
detailed	39-2021	Nonfarm Animal Caretakers	Feed, water, groom, bathe, exercise, or otherwise care for pets and other nonfarm animals, such as dogs, cats, ornamental fish or birds, zoo animals, and mice. Work in settings such as kennels, animal shelters, zoos, circuses, and aquariums. May keep records of feedings, treatments, and animals received or discharged. May clean, disinfect, and repair cages, pens, or fish tanks. Excludes "Veterinary Assistants and Laboratory Animal Caretakers" (31-9096).
minor	39-3000	Entertainment Attendants and Related Workers	
broad	39-3010	Gambling Services Workers	
detailed	39-3011	Gambling Dealers	Operate table games. Stand or sit behind table and operate games of chance by dispensing the appropriate number of cards or blocks to players, or operating other gambling equipment. Distribute winnings or collect players' money or chips. May compare the house's hand against players' hands.
detailed	39-3012	Gambling and Sports Book Writers and Runners	Post information enabling patrons to wager on various races and sporting events. Assist in the operation of games such as keno and bingo. May operate random number generating equipment and announce the numbers for patrons. Receive, verify, and record patrons' wagers. Scan and process winning tickets presented by patrons and payout winnings for those wagers.
detailed	39-3019	Gambling Service Workers, All Other	All gambling service workers not listed separately.
broad	39-3020	Motion Picture Projectionists	
detailed	39-3021	Motion Picture Projectionists	Set up and operate motion picture projection and related sound reproduction equipment.
broad	39-3030	Ushers, Lobby Attendants, and Ticket Takers	

detailed	39-3031	Ushers, Lobby Attendants, and Ticket Takers	Assist patrons at entertainment events by performing duties, such as collecting admission tickets and passes from patrons, assisting in finding seats, searching for lost articles, and locating such facilities as rest rooms and telephones.
broad	39-3090	Miscellaneous Entertainment Attendants and Related Workers	
detailed	39-3091	Amusement and Recreation Attendants	Perform a variety of attending duties at amusement or recreation facility. May schedule use of recreation facilities, maintain and provide equipment to participants of sporting events or recreational pursuits, or operate amusement concessions and rides.
detailed	39-3092	Costume Attendants	Select, fit, and take care of costumes for cast members, and aid entertainers. May assist with multiple costume changes during performances.
detailed	39-3093	Locker Room, Coatroom, and Dressing Room Attendants	Provide personal items to patrons or customers in locker rooms, dressing rooms, or coatrooms.
detailed	39-3099	Entertainment Attendants and Related Workers, All Other	All entertainment attendants and related workers not listed separately.
minor	39-4000	Funeral Service Workers	
broad	39-4010	Embalmers and Crematory Operators	
detailed	39-4011	Embalmers	Prepare bodies for interment in conformity with legal requirements.
detailed	39-4012	Crematory Operators	Operate crematory equipment to reduce human or animal remains to bone fragments in accordance with state and local regulations. Duties may include preparing the body for cremation and performing general maintenance on crematory equipment. May use traditional flame-based cremation, calcination, or alkaline hydrolysis.
broad	39-4020	Funeral Attendants	
detailed	39-4021	Funeral Attendants	Perform a variety of tasks during funeral, such as placing casket in parlor or chapel prior to service; arranging floral offerings or lights around casket; directing or escorting mourners; closing casket; and issuing and storing funeral equipment.
broad	39-4030	Morticians, Undertakers, and Funeral Arrangers	

detailed	39-4031	Morticians, Undertakers, and Funeral Arrangers	Perform various tasks to arrange and direct individual funeral services, such as coordinating transportation of body to mortuary, interviewing family or other authorized person to arrange details, selecting pallbearers, aiding with the selection of officials for religious rites, and providing transportation for mourners. Excludes "Funeral Home Managers" (11-9061).
minor	39-5000	Personal Appearance Workers	
broad	39-5010	Barbers, Hairdressers, Hairstylists and Cosmetologists	
detailed	39-5011	Barbers	Provide barbering services, such as cutting, trimming, shampooing, and styling hair, trimming beards, or giving shaves.
detailed	39-5012	Hairdressers, Hairstylists, and Cosmetologists	Provide beauty services, such as shampooing, cutting, coloring, and styling hair, and massaging and treating scalp. May apply makeup, dress wigs, perform hair removal, and provide nail and skin care services. Excludes "Makeup Artists, Theatrical and Performance (39-5091), "Manicurists and Pedicurists" (39-5092), and "Skincare Specialists" (39-5094).
broad	39-5090	Miscellaneous Personal Appearance Workers	
detailed	39-5091	Makeup Artists, Theatrical and Performance	Apply makeup to performers to reflect period, setting, and situation of their role.
detailed	39-5092	Manicurists and Pedicurists	Clean and shape customers' fingernails and toenails. May polish or decorate nails.
detailed	39-5093	Shampooers	Shampoo and rinse customers' hair.
detailed	39-5094	Skincare Specialists	Provide skincare treatments to face and body to enhance an individual's appearance. Includes electrologists and laser hair removal specialists.
minor	39-6000	Baggage Porters, Bellhops, and Concierges	
broad	39-6010	Baggage Porters, Bellhops, and Concierges	
detailed	39-6011	Baggage Porters and Bellhops	Handle baggage for travelers at transportation terminals or for guests at hotels or similar establishments.
detailed	39-6012	Concierges	Assist patrons at hotel, apartment, or office building with personal services. May take messages, arrange or give advice on transportation, business services or entertainment, or monitor guest requests for housekeeping and maintenance.
minor	39-7000	Tour and Travel Guides	

broad	39-7010	Tour and Travel Guides	
detailed	39-7011	Tour Guides and Escorts	Escort individuals or groups on sightseeing tours or through places of interest, such as industrial establishments, public buildings, and art galleries.
detailed	39-7012	Travel Guides	Plan, organize, and conduct long distance travel, tours, and expeditions for individuals and groups.
minor	39-9000	Other Personal Care and Service Workers	
broad	39-9010	Childcare Workers	
detailed	39-9011	Childcare Workers	Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play. Excludes "Preschool Teachers, Except Special Education" (25-2011) and "Teacher Assistants" (25-9041).
broad	39-9020	Personal Care Aides	
detailed	39-9021	Personal Care Aides	Provide personalized assistance to individuals with disabilities and/or illness who require help with personal care and activities of daily living support (e.g. feeding, bathing, dressing, grooming, toileting and ambulation). May also provide help with tasks such as preparing meals, doing light housekeeping and doing laundry. Work is performed in various settings depending on the needs of the care recipient and may include locations such as their home, place of work, out in the community, or at a daytime non-residential facility.
broad	39-9030	Recreation and Fitness Workers	
detailed	39-9031	Exercise Trainers and Group Fitness Instructors	Instruct or coach groups or individuals in exercise activities for the primary purpose of personal fitness. Demonstrate techniques and form, observe participants, and explain to them corrective measures necessary to improve their skills. Develop and implement individualized approaches to exercise. Excluded teachers classified in 25- 0000 Educational Instruction, Training, and Library Occupations. Excludes "Coaches and Scouts" (27-2022) and "Athletic Trainers" (29-9091).
detailed	39-9032	Recreation Workers	Conduct recreation activities with groups in public, private, or volunteer agencies or recreation facilities. Organize and promote activities, such as arts and crafts, sports, games, music, dramatics, social recreation, camping, and hobbies, taking into account the needs and interests of individual members.
broad	39-9040	Residential Advisors	

detailed	39-9041	Residential Advisors	Coordinate activities in resident facilities in secondary and college dormitories, group homes, or similar establishments. Order supplies and determine need for maintenance, repairs, and furnishings. May maintain household records and assign rooms. May assist residents with problem solving or refer them to counseling resources.
broad	39-9090	Miscellaneous Personal Care and Service Workers	
detailed	39-9099	Personal Care and Service Workers, All Other	All personal care and service workers not listed separately.
major	41-0000	Sales and Related Occupations	
minor	41-1000	Supervisors of Sales Workers	
broad	41-1010	First-Line Supervisors of Sales Workers	
detailed	41-1011	First-Line Supervisors of Retail Sales Workers	Directly supervise and coordinate activities of retail sales workers in an establishment or department. Duties may include management functions, such as purchasing, budgeting, accounting, and personnel work, in addition to supervisory duties.
detailed	41-1012	First-Line Supervisors of Non-Retail Sales Workers	Directly supervise and coordinate activities of sales workers other than retail sales workers. May perform duties, such as budgeting, accounting, and personnel work, in addition to supervisory duties.
minor	41-2000	Retail Sales Workers	
broad	41-2010	Cashiers	
detailed	41-2011	Cashiers	Receive and disburse money in establishments other than financial institutions. May use electronic scanners, cash registers, or related equipment. May process credit or debit card transactions and validate checks. Excludes "Gaming Change Persons and Booth Cashiers" (41-2012).
detailed	41-2012	Gambling Change Persons and Booth Cashiers	Exchange coins, tokens and chips for patrons' money. May issue payoffs and obtain customer's signature on receipt. May operate a booth in the slot machine area and furnish change persons with money bank at the start of the shift, or count and audit money in drawers. Excludes "Cashiers" (41-2011).
broad	41-2020	Counter and Rental Clerks and Parts Salespersons	

detailed	41-2021	Counter and Rental Clerks	Receive orders, generally in person, for repairs, rentals, and services. May describe available options, compute cost, and accept payment. Excludes "Counter Attendants, Cafeteria, Food Concession, and Coffee Shop" (35-3022), "Hotel, Motel, and Resort Desk Clerks" (43-4081), "Order Clerks" (43-4151), and "Reservation and Transportation Ticket Agents and Travel Clerks" (43-4181).
detailed	41-2022	Parts Salespersons	Sell spare and replacement parts and equipment in repair shop or parts store.
broad	41-2030	Retail Salespersons	
detailed	41-2031	Retail Salespersons	Sell merchandise, such as furniture, motor vehicles, appliances, or apparel to consumers. Excludes "Cashiers" (41-2011).
minor	41-3000	Sales Representatives, Services	
broad	41-3010	Advertising Sales Agents	
detailed	41-3011	Advertising Sales Agents	Sell or solicit advertising space, time, or media in publications, signage, TV, radio, or Internet establishments or public spaces.
broad	41-3020	Insurance Sales Agents	
detailed	41-3021	Insurance Sales Agents	Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as an independent broker, or be employed by an insurance company.
broad	41-3030	Securities, Commodities, and Financial Services Sales Agents	
detailed	41-3031	Securities, Commodities, and Financial Services Sales Agents	Buy and sell securities or commodities in investment and trading firms, or provide financial services to businesses and individuals. May advise customers about stocks, bonds, mutual funds, commodities, and market conditions.
broad	41-3040	Travel Agents	
detailed	41-3041	Travel Agents	Plan and sell transportation and accommodations for customers. Determine destination, modes of transportation, travel dates, costs, and accommodations required. May also describe, plan, and arrange itineraries and sell tour packages. May assist in resolving clients' travel problems.
broad	41-3090	Miscellaneous Sales Representatives, Services	

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detailed	41-3091	Sales Representatives of	Sell services to individuals or businesses. May describe
		Services, Except	options or resolve client problems. Excludes
		Advertising, Insurance,	"Telemarketers" (41-9041).
		Travel, and Financial	
		Services	
detailed	41-3099	Sales Representatives,	All services sales representatives not listed separately.
		Services, All Other	
minor	41-4000	Sales Representatives,	
		Wholesale and	
		Manufacturing	
broad	41-4010	Sales Representatives,	
		Wholesale and	
		Manufacturing	
detailed	41-4011	Sales Representatives,	Sell goods for wholesalers or manufacturers where
		Wholesale and	technical or scientific knowledge is required in such areas
		Manufacturing, Technical	as biology, engineering, chemistry, and electronics,
		and Scientific Products	normally obtained from at least 2 years of post-secondary
			education. Excludes "Sales Engineers" (41-9031).
detailed	41-4012	Sales Representatives,	Sell goods for wholesalers or manufacturers to businesses
		Wholesale and	or groups of individuals. Work requires substantial
		Manufacturing, Except	knowledge of items sold.
		Technical and Scientific	
		Products	
minor	41-9000	Other Sales and Related	
		Workers	
broad	41-9010	Models, Demonstrators,	
		and Product Promoters	
detailed	41-9011	Demonstrators and Product	Demonstrate merchandise and answer questions for the
		Promoters	purpose of creating public interest in buying the product.
			May sell demonstrated merchandise.
detailed	41-9012	Models	Model garments or other apparel and accessories for
			prospective buyers at fashion shows, private showings, or
			retail establishments. May pose for photos to be used in
			magazines or advertisements. May pose as subject for
			paintings, sculptures, and other types of artistic
			expression.
broad	41-9020	Real Estate Brokers and	
		Sales Agents	
detailed	41-9021	Real Estate Brokers	Operate real estate office, or work for commercial real
			estate firm, overseeing real estate transactions. Other
			duties usually include selling real estate or renting
			properties and arranging loans.

detailed	41-9022	Real Estate Sales Agents	Rent, buy, or sell property for clients. Perform duties, such as study property listings, interview prospective clients, accompany clients to property site, discuss conditions of sale, and draw up real estate contracts. Includes agents who represent buyer.
broad	41-9030	Sales Engineers	
detailed	41-9031	Sales Engineers	Sell business goods or services, the selling of which requires a technical background equivalent to a baccalaureate degree in engineering. Excludes "Engineers" (17-2011 through 17-2199) whose primary function is not marketing or sales.
broad	41-9040	Telemarketers	
detailed	41-9041	Telemarketers	Solicit donations or orders for goods or services over the telephone.
broad	41-9090	Miscellaneous Sales and Related Workers	
detailed	41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	Sell goods or services door-to-door or on the street.
detailed	41-9099	Sales and Related Workers, All Other	All sales and related workers not listed separately.
major	43-0000	Office and Administrative Support Occupations	
minor	43-1000	Supervisors of Office and Administrative Support Workers	
broad	43-1010	First-Line Supervisors of Office and Administrative Support Workers	
detailed	43-1011	First-Line Supervisors of Office and Administrative Support Workers	Directly supervise and coordinate the activities of clerical and administrative support workers.
minor	43-2000	Communications Equipment Operators	
broad	43-2010	Switchboard Operators, Including Answering Service	
detailed	43-2011	Switchboard Operators, Including Answering Service	Operate telephone business systems equipment or switchboards to relay incoming, outgoing, and interoffice calls. May supply information to callers and record messages.
broad	43-2020	Telephone Operators	

detailed	43-2021	Telephone Operators	Provide information by accessing alphabetical, geographical, or other directories. Assist customers with special billing requests, such as charges to a third party and credits or refunds for incorrectly dialed numbers or bad connections. May handle emergency calls and assist children or people with physical disabilities to make telephone calls.
broad	43-2090	Miscellaneous Communications Equipment Operators	
detailed	43-2099	Communications Equipment Operators, All Other	All communications equipment operators not listed separately.
minor	43-3000	Financial Clerks	
broad	43-3010	Bill and Account Collectors	
detailed	43-3011	Bill and Account Collectors	Locate and notify customers of delinquent accounts by mail, telephone, or personal visit to solicit payment. Duties include receiving payment and posting amount to customer's account; preparing statements to credit department if customer fails to respond; initiating repossession proceedings or service disconnection; and keeping records of collection and status of accounts.
broad	43-3020	Billing and Posting Clerks	
detailed	43-3021	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. Excludes "Medical Registrar and Records Specialists" (29-2071).
broad	43-3030	Bookkeeping, Accounting, and Auditing Clerks	
detailed	43-3031	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" (43-3051).
broad	43-3040	Gambling Cage Workers	

detailed	43-3041	Gambling Cage Workers	In a gambling establishment, conduct financial transactions for patrons. May reconcile daily summaries of transactions to balance books. Accept patron's credit application and verify credit references to provide check- cashing authorization or to establish house credit accounts. May sell gambling chips, tokens, or tickets to patrons, or to other workers for resale to patrons. May convert gambling chips, tokens, or tickets to currency upon patron's request. May use a cash register or computer to record transaction.
broad	43-3050	Payroll and Timekeeping Clerks	
detailed	43-3051	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" (43- 3031).
broad	43-3060	Procurement Clerks	
detailed	43-3061	Procurement Clerks	Compile information and records to draw up purchase orders for procurement of materials and services. Excludes "Wholesale and Retail Buyers, Except Farm Products" (13-1022).
broad	43-3070	Tellers	
detailed	43-3071	Tellers	Receive and pay out money. Keep records of money and negotiable instruments involved in a financial institution's various transactions.
broad	43-3090	Miscellaneous Financial Clerks	
detailed	43-3099	Financial Clerks, All Other	All financial clerks not listed separately.
minor	43-4000	Information and Record Clerks	
broad	43-4010	Brokerage Clerks	
detailed	43-4011	Brokerage Clerks	Perform duties related to the purchase, sale or holding of securities. Duties include writing orders for stock purchases or sales, computing transfer taxes, verifying stock transactions, accepting and delivering securities, tracking stock price fluctuations, computing equity, distributing dividends, and keeping records of daily transactions and holdings.
broad	43-4020	Correspondence Clerks	

detailed	43-4021	Correspondence Clerks	Compose letters or electronic correspondence in reply to requests for merchandise, damage claims, credit and other information, delinquent accounts, incorrect billings, or unsatisfactory services. Duties may include gathering data to formulate reply and preparing correspondence.
broad	43-4030	Court, Municipal, and License Clerks	
detailed	43-4031	Court, Municipal, and License Clerks	Perform clerical duties for courts of law, municipalities, or governmental licensing agencies and bureaus. May prepare docket of cases to be called; secure information for judges and court; prepare draft agendas or bylaws for town or city council; answer official correspondence; keep fiscal records and accounts; issue licenses or permits; and record data, administer tests, or collect fees. Clerks of Court are classified in "Managers, All Other" (11-9199).
broad	43-4040	Credit Authorizers, Checkers, and Clerks	
detailed	43-4041	Credit Authorizers, Checkers, and Clerks	Authorize credit charges against customers' accounts. Investigate history and credit standing of individuals or business establishments applying for credit. May interview applicants to obtain personal and financial data; determine credit worthiness; process applications; and notify customers of acceptance or rejection of credit.
broad	43-4050	Customer Service Representatives	
detailed	43-4051	Customer Service Representatives	Interact with customers to provide basic or scripted information in response to routine inquiries about products and services. May handle and resolve general complaints. Excludes individuals whose duties are primarily installation, sales, repair, and technical support.
broad	43-4060	Eligibility Interviewers, Government Programs	
detailed	43-4061	Eligibility Interviewers, Government Programs	Determine eligibility of persons applying to receive assistance from government programs and agency resources, such as welfare, unemployment benefits, social security, and public housing.
broad	43-4070	File Clerks	
detailed	43-4071	File Clerks	File correspondence, cards, invoices, receipts, and other records in alphabetical or numerical order or according to the filing system used. Locate and remove material from file when requested.
broad	43-4080	Hotel, Motel, and Resort Desk Clerks	

detailed	43-4081	Hotel, Motel, and Resort Desk Clerks	Accommodate hotel, motel, and resort patrons by registering and assigning rooms to guests, issuing room keys or cards, transmitting and receiving messages, keeping records of occupied rooms and guests' accounts, making and confirming reservations, and presenting statements to and collecting payments from departing guests.
broad	43-4110	Interviewers, Except Eligibility and Loan	
detailed	43-4111	Interviewers, Except Eligibility and Loan	Interview persons by telephone, mail, in person, or by other means for the purpose of completing forms, applications, or questionnaires. Ask specific questions, record answers, and assist persons with completing form. May sort, classify, and file forms.
broad	43-4120	Library Assistants, Clerical	
detailed	43-4121	Library Assistants, Clerical	Compile records, sort, shelve, issue, and receive library materials such as books, electronic media, pictures, cards, slides and microfilm. Locate library materials for loan and replace material in shelving area, stacks, or files according to identification number and title. Register patrons to permit them to borrow books, periodicals, and other library materials. Excludes "Library Technicians" (25- 4031).
broad	43-4130	Loan Interviewers and Clerks	
detailed	43-4131	Loan Interviewers and Clerks	Interview loan applicants to elicit information; investigate applicants' backgrounds and verify references; prepare loan request papers; and forward findings, reports, and documents to appraisal department. Review loan papers to ensure completeness, and complete transactions between loan establishment, borrowers, and sellers upon approval of loan.
broad	43-4140	New Accounts Clerks	
detailed	43-4141	New Accounts Clerks	Interview persons desiring to open accounts in financial institutions. Explain account services available to prospective customers and assist them in preparing applications.
broad	43-4150	Order Clerks	

detailed	43-4151	Order Clerks	Receive and process incoming orders for materials, merchandise, classified ads, or services such as repairs, installations, or rental of facilities. Generally receives orders via mail, phone, fax, or other electronic means. Duties include informing customers of receipt, prices, shipping dates, and delays; preparing contracts; and handling complaints. Excludes "Dispatchers, Except Police, Fire, and Ambulance" (43-5032) who both dispatch and take orders for services.
broad	43-4160	Human Resources Assistants, Except Payroll and Timekeeping	
detailed	43-4161	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.
broad	43-4170	Receptionists and Information Clerks	
detailed	43-4171	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" (43-2011).
broad	43-4180	Reservation and Transportation Ticket Agents and Travel Clerks	
detailed	43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	Make and confirm reservations for transportation or lodging, or sell transportation tickets. May check baggage and direct passengers to designated concourse, pier, or track; deliver tickets, contact individuals and groups to inform them of package tours; or provide tourists with travel or transportation information. Excludes "Travel Agents" (41-3041), "Hotel, Motel, and Resort Desk Clerks" (43-4081), and "Cashiers" (41-2011) who sell tickets for local transportation.
broad	43-4190	Miscellaneous Information and Record Clerks	
detailed	43-4199	Information and Record Clerks, All Other	All information and record clerks not listed separately.

minor	43-5000	Material Recording, Scheduling, Dispatching, and Distributing Workers	
broad	43-5010	Cargo and Freight Agents	
detailed	43-5011	Cargo and Freight Agents	Expedite and route movement of incoming and outgoing cargo and freight shipments in airline, train, and trucking terminals, and shipping docks. Take orders from customers and arrange pickup of freight and cargo for delivery to loading platform. Prepare and examine bills of lading to determine shipping charges and tariffs.
broad	43-5020	Couriers and Messengers	
detailed	43-5021	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" (53-3033).
broad	43-5030	Dispatchers	
detailed	43-5031	Police, Fire, and Ambulance Dispatchers	Operate radio, telephone, or computer equipment at emergency response centers. Receive reports from the public of crimes, disturbances, fires, and medical or police emergencies. Relay information to law enforcement and emergency response personnel. May maintain contact with caller until responders arrive.
detailed	43-5032	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.
broad	43-5040	Meter Readers, Utilities	
detailed	43-5041	Meter Readers, Utilities	Read meter and record consumption of electricity, gas, water, or steam.
broad	43-5050	Postal Service Workers	
detailed	43-5051	Postal Service Clerks	Perform any combination of tasks in a United States Postal Service (USPS) post office, such as receive letters and parcels; sell postage and revenue stamps, postal cards, and stamped envelopes; fill out and sell money orders; place mail in pigeon holes of mail rack or in bags; and examine mail for correct postage. Includes postal service clerks employed by USPS contractors.

detailed	43-5052	Postal Service Mail Carriers	Sort and deliver mail for the United States Postal Service (USPS). Deliver mail on established route by vehicle or on foot. Includes postal service mail carriers employed by USPS contractors.
detailed	43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	Prepare incoming and outgoing mail for distribution for the United States Postal Service (USPS). Examine, sort, and route mail. Load, operate, and occasionally adjust and repair mail processing, sorting, and canceling machinery. Keep records of shipments, pouches, and sacks; and other duties related to mail handling within the postal service. Includes postal service mail sorters and processors employed by USPS contractors. Excludes "Postal Service Clerks" (43-5051) and "Postal Service Mail Carriers" (43- 5052).
broad	43-5060	Production, Planning, and Expediting Clerks	
detailed	43-5061	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" (43-5111).
broad	43-5070	Shipping, Receiving, and Inventory Clerks	
detailed	43-5072	Shipping, Receiving, and Inventory Clerks	Verify and maintain records on incoming and outgoing shipments involving inventory. Duties include verifying and recording incoming merchandise or material; and arranging for the transportation of products. May prepare items for shipment. Excludes "Weighers, Measurers, Checkers, and Samplers, Recordkeeping" (43-5111), "Mail Clerks and Mail Machine Operators, except Postal Service" (43-9051), and "Stockers and Order Fillers" (53-7065).
broad	43-5110	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	
detailed	43-5111	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" (51-9061).
minor	43-6000	Secretaries and Administrative Assistants	
broad	43-6010	Secretaries and Administrative Assistants	
detailed	43-6011	Executive Secretaries and Executive Administrative Assistants	Provide high-level administrative support by conducting research, preparing statistical reports and handling information requests, as well as performing routine administrative functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff. Excludes "Secretaries" (43-6012 through 43-6014).
detailed	43-6012	Legal Secretaries and Administrative Assistants	Perform secretarial duties using legal terminology, procedures, and documents. Prepare legal papers and correspondence, such as summonses, complaints, motions, and subpoenas. May also assist with legal research.
detailed	43-6013	Medical Secretaries and Administrative Assistants	Perform secretarial duties using specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties may include scheduling appointments, billing patients, and compiling and recording medical charts, reports, and correspondence.
detailed	43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Perform routine 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 (43-6011 through 43-6013).
minor	43-9000	Other Office and Administrative Support Workers	
broad	43-9020	Data Entry and Information Processing Workers	
detailed	43-9021	Data Entry Keyers	Operate data entry device, such as keyboard or photo composing perforator. Duties may include verifying data and preparing materials for printing. Excludes "Word Processors and Typists" (43-9022).

detailed	43-9022	Word Processors and Typists	Use word processor, computer or typewriter to type letters, reports, forms, or other material from rough draft, corrected copy, or voice recording. May perform other clerical duties as assigned. Excludes "Data Entry Keyers" (43-9021), "Secretaries and Administrative Assistants" (43- 6011 through 43-6014), "Court Reporters" (23-2091), and "Medical Transcriptionists" (31-9094).
broad	43-9030	Desktop Publishers	
detailed	43-9031	Desktop Publishers	Format typescript and graphic elements using computer software to produce publication-ready material.
broad	43-9040	Insurance Claims and Policy Processing Clerks	
detailed	43-9041	Insurance Claims and Policy Processing Clerks	Process new insurance policies, modifications to existing policies, and claims forms. Obtain information from policyholders to verify the accuracy and completeness of information on claims forms, applications and related documents, and company records. Update existing policies and company records to reflect changes requested by policyholders and insurance company representatives. Excludes "Claims Adjusters, Examiners, and Investigators" (13-1031).
broad	43-9050	Mail Clerks and Mail Machine Operators, Except Postal Service	
detailed	43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	Prepare incoming and outgoing mail for distribution. Use hand or mail handling machines to time stamp, open, read, sort, and route incoming mail; and address, seal, stamp, fold, stuff, and affix postage to outgoing mail or packages. Duties may also include keeping necessary records and completed forms.
broad	43-9060	Office Clerks, General	
detailed	43-9061	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, office machine operation, and filing.
broad	43-9070	Office Machine Operators, Except Computer	

detailed	43-9071	Office Machine Operators, Except Computer	Operate one or more of a variety of office machines, such as photocopying, photographic, and duplicating machines, or other office machines. Excludes "Computer Operators" (43-9011), "Mail Clerks and Mail Machine Operators, Except Postal Service" (43-9051) and "Billing and Posting Clerks" (43-3021).
broad	43-9080	Proofreaders and Copy Markers	
detailed	43-9081	Proofreaders and Copy Markers	Read transcript or proof type setup to detect and mark for correction any grammatical, typographical, or compositional errors. Excludes workers whose primary duty is editing copy. Includes proofreaders of Braille.
broad	43-9110	Statistical Assistants	
detailed	43-9111	Statistical Assistants	Compile and compute data according to statistical formulas for use in statistical studies. May perform actuarial computations and compile charts and graphs for use by actuaries. Includes actuarial clerks.
broad	43-9190	Miscellaneous Office and Administrative Support Workers	
detailed	43-9199	Office and Administrative Support Workers, All Other	All office and administrative support workers not listed separately.
major	45-0000	Farming, Fishing, and Forestry Occupations	
minor	45-1000	Supervisors of Farming, Fishing, and Forestry Workers	
broad	45-1010	First-Line Supervisors of Farming, Fishing, and Forestry Workers	
detailed	45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	Directly supervise and coordinate the activities of agricultural, forestry, aquacultural, and related workers. Excludes "First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers" (37-1012).
minor	45-2000	Agricultural Workers	
broad	45-2010	Agricultural Inspectors	
detailed	45-2011	Agricultural Inspectors	Inspect agricultural commodities, processing equipment, and facilities, and fish and logging operations, to ensure compliance with regulations and laws governing health, quality, and safety.
broad	45-2020	Animal Breeders	

detailed	45-2021	Animal Breeders	Select and breed animals according to their genealogy, characteristics, and offspring. May require knowledge of artificial insemination techniques and equipment use. May involve keeping records on heats, birth intervals, or pedigree. Excludes "Nonfarm Animal Caretakers" (39- 2021) who may occasionally breed animals as part of their other caretaking duties. Excludes "Animal Scientists" (19- 1011) whose primary function is research.
broad	45-2040	Graders and Sorters, Agricultural Products	
detailed	45-2041	Graders and Sorters, Agricultural Products	Grade, sort, or classify unprocessed food and other agricultural products by size, weight, color, or condition. Excludes "Agricultural Inspectors" (45-2011).
broad	45-2090	Miscellaneous Agricultural Workers	
detailed	45-2091	Agricultural Equipment Operators	Drive and control equipment to support agricultural activities such as tilling soil, planting, cultivating, and harvesting crops, feeding and herding livestock, or removing animal waste. May perform tasks, such as crop baling or hay bucking. May operate stationary equipment to perform post-harvest tasks, such as husking, shelling, threshing, and ginning.
detailed	45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities. Excludes "Pesticide Handlers, Sprayers, and Applicators, Vegetation" (37- 3012), "Graders and Sorters, Agricultural Products" (45- 2041) and "Forest, Conservation, and Logging Workers" (45-4011 through 45-4029).
detailed	45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	Attend to live farm, ranch, open range or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, rabbits, finfish, shellfish, and bees. Duties may include feeding, watering, herding, grazing, milking, castrating, branding, de-beaking, weighing, catching, and loading animals. May maintain records on animals; examine animals to detect diseases and injuries; assist in birth deliveries; and administer medications, vaccinations, or insecticides as appropriate.

			May clean and maintain animal housing areas. Includes workers who shear wool from sheep, and collect eggs in hatcheries.
detailed	45-2099	Agricultural Workers, All Other	All agricultural workers not listed separately.
minor	45-3000	Fishing and Hunting Workers	
broad	45-3010	Fishers and Related Fishing Workers	
detailed	45-3011	Fishers and Related Fishing Workers	Use nets, fishing rods, traps, or other equipment to catch and gather aquatic animals or aquatic plants from rivers, lakes, or oceans. May haul catch onto ship. Aquacultural laborers who work on fish farms are included in "Farmworkers, Farm, Ranch, and Aquacultural Animals" (45-2093).
detailed	45-3021	Hunters and Trappers	Hunt and trap wild animals for human consumption, fur, feed, bait, or other purposes.
minor	45-4000	Forest, Conservation, and Logging Workers	
broad	45-4010	Forest and Conservation Workers	
detailed	45-4011	Forest and Conservation Workers	Under supervision, perform manual labor necessary to develop, maintain, or protect areas such as forests, forested areas, woodlands, wetlands, and rangelands through such activities as raising and transporting seedlings; combating insects, pests, and diseases harmful to plant life; and building structures to control water, erosion, and leaching of soil. Includes forester aides, seedling pullers, tree planters, and gatherers of non- timber forestry products such as pine straw.
broad	45-4020	Logging Workers	
detailed	45-4021	Fallers	Use axes or chainsaws to fell trees using knowledge of tree characteristics and cutting techniques to control direction of fall and minimize tree damage.

detailed	45-4022	Logging Equipment Operators	Drive logging tractor or wheeled vehicle equipped with one or more accessories, such as bulldozer blade, frontal shear, grapple, logging arch, cable winches, hoisting rack, or crane boom, to fell tree; to skid, load, unload, or stack logs; or to pull stumps or clear brush. Includes operating stand-alone logging machines, such as log chippers. Logging truck drivers are included in "Heavy and Tractor Trailer Truck Drivers" (53-3032).
detailed	45-4023	Log Graders and Scalers	Grade logs or estimate the marketable content or value of logs or pulpwood in sorting yards, millpond, log deck, or similar locations. Inspect logs for defects or measure logs to determine volume. Excludes "Buyers and Purchasing Agents, Farm Products" (13-1021).
detailed	45-4029	Logging Workers, All Other	All logging workers not listed separately.
major	47-0000	Construction and Extraction Occupations	
minor	47-1000	Supervisors of Construction and Extraction Workers	
broad	47-1010	First-Line Supervisors of Construction Trades and Extraction Workers	
detailed	47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	Directly supervise and coordinate activities of construction or extraction workers.
minor	47-2000	Construction Trades Workers	
broad	47-2010	Boilermakers	
detailed	47-2011	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.
broad	47-2020	Brickmasons, Blockmasons, and Stonemasons	

detailed	47-2021	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" (47-2022). Installers of mortarless segmental concrete masonry wall units are classified in "Landscaping and Groundskeeping Workers" (37-3011).
detailed	47-2022	Stonemasons	Build stone structures, such as piers, walls, and abutments. Lay walks, curbstones, or special types of masonry for vats, tanks, and floors.
broad	47-2030	Carpenters	
detailed	47-2031	Carpenters	Construct, erect, install, or repair structures and fixtures made of wood and comparable materials, 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.
broad	47-2040	Carpet, Floor, and Tile Installers and Finishers	
detailed	47-2041	Carpet Installers	Lay and install carpet from rolls or blocks on floors. Install padding and trim flooring materials. Excludes "Floor Layers, Except Carpet, Wood, and Hard Tiles" (47-2042).
detailed	47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	Apply blocks, strips, or sheets of shock-absorbing, sound- deadening, or decorative coverings to floors.
detailed	47-2043	Floor Sanders and Finishers	Scrape and sand wooden floors to smooth surfaces using floor scraper and floor sanding machine, and apply coats of finish.
detailed	47-2044	Tile and Stone Setters	Apply hard tile, stone, and comparable materials to walls, floors, ceilings, countertops, and roof decks.
broad	47-2050	Cement Masons, Concrete Finishers, and Terrazzo Workers	
detailed	47-2051	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" (37- 3011).

detailed	47-2053	Terrazzo Workers and Finishers	Apply a mixture of cement, sand, pigment, or marble chips to floors, stairways, and cabinet fixtures to fashion durable and decorative surfaces.
broad	47-2060	Construction Laborers	
detailed	47-2061	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" (47-3010). Excludes "Hazardous Materials Removal Workers" (47-4041).
broad	47-2070	Construction Equipment Operators	
detailed	47-2071	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.
detailed	47-2072	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.
detailed	47-2073	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" (53-7021) and "Extraction Workers" (47-5000).
broad	47-2080	Drywall Installers, Ceiling Tile Installers, and Tapers	

detailed	47-2081	Drywall and Ceiling Tile Installers	Apply plasterboard or other wallboard to ceilings or interior walls of buildings. Apply or mount acoustical tiles or blocks, strips, or sheets of shock-absorbing materials to ceilings and walls of buildings to reduce or reflect sound. Materials may be of decorative quality. Includes lathers who fasten wooden, metal, or rockboard lath to walls, ceilings or partitions of buildings to provide support base for plaster, fire-proofing, or acoustical material. Excludes "Carpet Installers" (47-2041), "Carpenters" (47-2031), and "Tile and Marble Setters" (47-2044).
detailed	47-2082	Tapers	Seal joints between plasterboard or other wallboard to prepare wall surface for painting or papering.
broad	47-2110	Electricians	
detailed	47-2111	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" (49-2098).
broad	47-2120	Glaziers	
detailed	47-2121	Glaziers	Install glass in windows, skylights, store fronts, and display cases, or on surfaces, such as building fronts, interior walls, ceilings, and tabletops.
broad	47-2130	Insulation Workers	
detailed	47-2131	Insulation Workers, Floor, Ceiling, and Wall	Line and cover structures with insulating materials. May work with batt, roll, or blown insulation materials.
detailed	47-2132	Insulation Workers, Mechanical	Apply insulating materials to pipes or ductwork, or other mechanical systems in order to help control and maintain temperature.
broad	47-2140	Painters and Paperhangers	
detailed	47-2141	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" (47-2142).
detailed	47-2142	Paperhangers	Cover interior walls or ceilings of rooms with decorative wallpaper or fabric, or attach advertising posters on surfaces such as walls and billboards. May remove old materials or prepare surfaces to be papered.
broad	47-2150	Pipelayers, Plumbers, Pipefitters, and Steamfitters	

detailed	47-2151	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" (51- 4121).
detailed	47-2152	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 sprinkler fitters.
broad	47-2160	Plasterers and Stucco Masons	
detailed	47-2161	Plasterers and Stucco Masons	Apply interior or exterior plaster, cement, stucco, or similar materials. May also set ornamental plaster.
broad	47-2170	Reinforcing Iron and Rebar Workers	
detailed	47-2171	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.
broad	47-2180	Roofers	
detailed	47-2181	Roofers	Cover roofs of structures with shingles, slate, asphalt, aluminum, wood, or related materials. May spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures.
broad	47-2210	Sheet Metal Workers	· · · ·
detailed	47-2211	Sheet Metal Workers	Fabricate, assemble, install, and repair sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. Work may involve any of the following: setting up and operating fabricating machines to cut, bend, and straighten sheet metal; shaping metal over anvils, blocks, or forms using hammer; operating soldering and welding equipment to join sheet metal parts; or inspecting, assembling, and smoothing seams and joints of burred surfaces. Includes sheet metal duct installers who install prefabricated sheet metal ducts used for heating, air conditioning, or other purposes.
broad	47-2220	Structural Iron and Steel Workers	
detailed	47-2221	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" (47-2171).
broad	47-2230	Solar Photovoltaic Installers	

detailed	47-2231	Solar Photovoltaic Installers	Assemble, install, or maintain solar photovoltaic (PV) systems on roofs or other structures in compliance with site assessment and schematics. May include measuring, cutting, assembling, and bolting structural framing and solar modules. May perform minor electrical work such as current checks. Excludes solar thermal installers who are included in "Plumbers, Pipefitters, and Steamfitters" (47-2152). Excludes solar PV electricians who are included in "Electricians" (47-2111).
minor	47-3000	Helpers, Construction Trades	
broad	47-3010	Helpers, Construction Trades	
detailed	47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	Help brickmasons, blockmasons, stonemasons, or tile and marble setters 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 brickmasons, blockmasons, and stonemasons or tile and marble setters are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).
detailed	47-3012	HelpersCarpenters	 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" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).
detailed	47-3013	HelpersElectricians	 Help electricians 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 electricians are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).

detailed	47-3014	HelpersPainters, Paperhangers, Plasterers,	Help painters, paperhangers, plasterers, or stucco masons by performing duties requiring less skill. Duties include
		and Stucco Masons	using, supplying or holding materials or tools, and cleaning work area and equipment. Construction laborers who do
			not primarily assist painters, paperhangers, plasterers, or stucco masons are classified under "Construction
			Laborers" (47-2061). Apprentice workers are classified
			with the appropriate skilled construction trade occupation
			(47-2011 through 47-2231).
detailed	47-3015	HelpersPipelayers,	Help plumbers, pipefitters, steamfitters, or pipelayers by
		Plumbers, Pipefitters, and Steamfitters	performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work
		Steamilters	area and equipment. Construction laborers who do not
			primarily assist plumbers, pipefitters, steamfitters, or
			pipelayers are classified under "Construction Laborers"
			(47-2061). Apprentice workers are classified with the
			appropriate skilled construction trade occupation (47-
detailed	47-3016	HelpersRoofers	2011 through 47-2231). Help roofers by performing duties requiring less skill.
uetalleu	47-5010		Duties include using, supplying or holding materials or
			tools, and cleaning work area and equipment.
			Construction laborers who do not primarily assist roofers
			are classified under "Construction Laborers" (47-2061).
			Apprentice workers are classified with the appropriate
			skilled construction trade occupation (47-2011 through 47-2231).
detailed	47-3019	Helpers, Construction Trades, All Other	All construction trades helpers not listed separately.
minor	47-4000	Other Construction and	
		Related Workers	
broad	47-4010	Construction and Building	
		Inspectors	
detailed	47-4011	Construction and Building	Inspect structures using engineering skills to determine
		Inspectors	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.
broad	47-4020	Elevator Installers and	, , , , , , , , , , , , , , , , , , , ,
		Repairers	
detailed	47-4021	Elevator Installers and	Assemble, install, repair, or maintain electric or hydraulic
		Repairers	freight or passenger elevators, escalators, or
broad	47-4030	Fence Erectors	dumbwaiters.
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detailed	47-4031	Fence Erectors	Erect and repair fences and fence gates, using hand and power tools.
broad	47-4040	Hazardous Materials Removal Workers	
detailed	47-4041	Hazardous Materials Removal Workers	Identify, remove, pack, transport, or dispose of hazardous materials, including asbestos, lead-based paint, waste oil, fuel, transmission fluid, radioactive materials, or contaminated soil. Specialized training and certification in hazardous materials handling or a confined entry permit are generally required. May operate earth-moving equipment or trucks.
broad	47-4050	Highway Maintenance Workers	
detailed	47-4051	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" (37-3013).
broad	47-4060	Rail-Track Laying and Maintenance Equipment Operators	
detailed	47-4061	Rail-Track Laying and Maintenance Equipment Operators	Lay, repair, and maintain track for standard or narrow- gauge railroad equipment used in regular railroad service or in plant yards, quarries, sand and gravel pits, and mines. Includes ballast cleaning machine operators and railroad bed tamping machine operators.
broad	47-4070	Septic Tank Servicers and Sewer Pipe Cleaners	
detailed	47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	Clean and repair septic tanks, sewer lines, or drains. May patch walls and partitions of tank, replace damaged drain tile, or repair breaks in underground piping.
broad	47-4090	Miscellaneous Construction and Related Workers	
detailed	47-4091	Segmental Pavers	Lay out, cut, and place segmental paving units. Includes installers of bedding and restraining materials for the paving units.
detailed	47-4099	Construction and Related Workers, All Other	All construction and related workers not listed separately.
minor	47-5000	Extraction Workers	
broad	47-5010	Derrick, Rotary Drill, and Service Unit Operators, Oil and Gas	

detailed	47-5011	Derrick Operators, Oil and Gas	Rig derrick equipment and operate pumps to circulate mud or fluid through drill hole.
detailed	47-5012	Rotary Drill Operators, Oil and Gas	Set up or operate a variety of drills to remove underground oil and gas, or remove core samples for testing during oil and gas exploration. Excludes "Earth Drillers, Except Oil and Gas" (47-5021).
detailed	47-5013	Service Unit Operators, Oil and Gas	Operate equipment to increase oil flow from producing wells or to remove stuck pipe, casing, tools, or other obstructions from drilling wells. Includes fishing-tool technicians.
broad	47-5020	Surface Mining Machine Operators	
detailed	47-5021	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. Includes horizontal and earth boring machine operators.
detailed	47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	Operate or tend machinery at surface mining site, equipped with scoops, shovels or buckets to excavate and load loose materials.
broad	47-5030	Explosives Workers, Ordnance Handling Experts, and Blasters	
detailed	47-5031	Explosives Workers, Ordnance Handling Experts, and Blasters	Place and detonate explosives to demolish structures or to loosen, remove, or displace earth, rock, or other materials. May perform specialized handling, storage, and accounting procedures.
broad	47-5040	Underground Mining Machine Operators	
detailed	47-5041	Continuous Mining Machine Operators	Operate self-propelled mining machines that rip coal, metal and nonmetal ores, rock, stone, or sand from the mine face and load it onto conveyors, shuttle cars, or trucks in a continuous operation.
detailed	47-5043	Roof Bolters, Mining	Operate machinery to install roof support bolts in underground mine.
detailed	47-5044	Loading and Moving Machine Operators, Underground Mining	Operate underground loading or moving machine to load or move core, ore, or rock using shuttle or mine car or conveyors. Equipment may include power shovels, hoisting engines equipped with cable-drawn scraper or scoop, or machines equipped with gathering arms and conveyor.

detailed	47-5049	Underground Mining Machine Operators, All Other	All underground mining machine operators not listed separately.
broad	47-5050	Rock Splitters, Quarry	
detailed	47-5051	Rock Splitters, Quarry	Separate blocks of rough dimension stone from quarry mass using jackhammers, wedges, or chop saws.
broad	47-5070	Roustabouts, Oil and Gas	
detailed	47-5071	Roustabouts, Oil and Gas	Assemble or repair oil field equipment using hand and power tools. Perform other tasks as needed.
broad	47-5080	HelpersExtraction Workers	
detailed	47-5081	HelpersExtraction Workers	Help extraction craft workers, such as earth drillers, blasters and explosives workers, derrick operators, and mining machine operators, by performing duties requiring less skill. Duties include supplying equipment or cleaning work area. Apprentice workers are classified with the appropriate skilled construction trade occupation (47- 2011 through 47-2231).
broad	47-5090	Miscellaneous Extraction Workers	
detailed	47-5099	Extraction Workers, All Other	All extraction workers not listed separately.
major	49-0000	Installation, Maintenance, and Repair Occupations	
minor	49-1000	Supervisors of Installation, Maintenance, and Repair Workers	
broad	49-1010	First-Line Supervisors of Mechanics, Installers, and Repairers	
detailed	49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	Directly supervise and coordinate the activities of mechanics, installers, and repairers. May also advise customers on recommended services. Excludes team or work leaders.
minor	49-2000	Electrical and Electronic Equipment Mechanics, Installers, and Repairers	
broad	49-2010	Computer, Automated Teller, and Office Machine Repairers	
detailed	49-2011	Computer, Automated Teller, and Office Machine Repairers	Repair, maintain, or install computers, word processing systems, automated teller machines, and electronic office machines, such as duplicating and fax machines.

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broad	49-2020	Radio and Telecommunications Equipment Installers and Repairers	
detailed	49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	Repair, install or maintain mobile or stationary radio transmitting, broadcasting, and receiving equipment, and two-way radio communications systems used in cellular telecommunications, mobile broadband, ship-to-shore, aircraft-to-ground communications, and radio equipment in service and emergency vehicles. May test and analyze network coverage.
detailed	49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	Install, set-up, rearrange, or remove switching, distribution, routing, and dialing equipment used in central offices or headends. Service or repair telephone, cable television, Internet, and other communications equipment on customers' property. May install communications equipment or communications wiring in buildings. Excludes "Telecommunications Line Installers and Repairers" (49-9052).
broad	49-2090	Miscellaneous Electrical and Electronic Equipment Mechanics, Installers, and Repairers	
detailed	49-2091	Avionics Technicians	Install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space vehicles.
detailed	49-2092	Electric Motor, Power Tool, and Related Repairers	Repair, maintain, or install electric motors, wiring, or switches.
detailed	49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	Install, adjust, or maintain mobile electronics communication equipment, including sound, sonar, security, navigation, and surveillance systems on trains, watercraft, or other mobile equipment. Excludes "Avionics Technicians" (49-2091) and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096).
detailed	49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	Repair, test, adjust, or install electronic equipment, such as industrial controls, transmitters, and antennas. Excludes "Avionics Technicians" (49-2091), "Electronic Equipment Installers and Repairers, Motor Vehicles" (49- 2096), and "Electrical and Electronics Installers and Repairers, Transportation Equipment" (49-2093).
detailed	49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	Inspect, test, repair, or maintain electrical equipment in generating stations, substations, and in-service relays.

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detailed	49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	Install, diagnose, or repair communications, sound, security, or navigation equipment in motor vehicles.
detailed	49-2097	Electronic Home Entertainment Equipment Installers and Repairers	Repair, adjust, or install audio or television receivers, stereo systems, camcorders, video systems, or other electronic home entertainment equipment.
detailed	49-2098	Security and Fire Alarm Systems Installers	Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes. Excludes "Electricians" (47-2111) who do a broad range of electrical wiring.
minor	49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	
broad	49-3010	Aircraft Mechanics and Service Technicians	
detailed	49-3011	Aircraft Mechanics and Service Technicians	Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems. Excludes "Avionics Technician" (49-2091).
broad	49-3020	Automotive Technicians and Repairers	
detailed	49-3021	Automotive Body and Related Repairers	Repair and refinish automotive vehicle bodies and straighten vehicle frames. Excludes "Painters, Transportation Equipment" (51-9122) and "Automotive Glass Installers and Repairers" (49-3022).
detailed	49-3022	Automotive Glass Installers and Repairers	Replace or repair broken windshields and window glass in motor vehicles.
detailed	49-3023	Automotive Service Technicians and Mechanics	Diagnose, adjust, repair, or overhaul automotive vehicles. Excludes "Automotive Body and Related Repairers" (49- 3021), "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031), and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096).
broad	49-3030	Bus and Truck Mechanics and Diesel Engine Specialists	
detailed	49-3031	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.
broad	49-3040	Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics	

detailed	49-3041	Farm Equipment Mechanics and Service Technicians	Diagnose, adjust, repair, or overhaul farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031).
detailed	49-3042	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 mining. Excludes "Rail Car Repairers" (49- 3043) and "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031).
detailed	49-3043	Rail Car Repairers	Diagnose, adjust, repair, or overhaul railroad rolling stock, mine cars, or mass transit rail cars. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031).
broad	49-3050	Small Engine Mechanics	
detailed	49-3051	Motorboat Mechanics and Service Technicians	Repair and adjust electrical and mechanical equipment of inboard or inboard-outboard boat engines. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49- 3031).
detailed	49-3052	Motorcycle Mechanics	Diagnose, adjust, repair, or overhaul motorcycles, scooters, mopeds, dirt bikes, or similar motorized vehicles.
detailed	49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	Diagnose, adjust, repair, or overhaul small engines used to power lawn mowers, chain saws, recreational sporting equipment and related equipment.
broad	49-3090	Miscellaneous Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	
detailed	49-3091	Bicycle Repairers	Repair and service bicycles.
detailed	49-3092	Recreational Vehicle Service Technicians	Diagnose, inspect, adjust, repair, or overhaul recreational vehicles including travel trailers. May specialize in maintaining gas, electrical, hydraulic, plumbing, or chassis/towing systems as well as repairing generators, appliances, and interior components. Includes workers who perform customized van conversions. Excludes "Automotive Service Technicians and Mechanics" (49- 3023) and "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031) who also work on recreation vehicles.
detailed	49-3093	Tire Repairers and Changers	Repair and replace tires.
minor	49-9000	Other Installation, Maintenance, and Repair Occupations	

broad	49-9010	Control and Valve Installers and Repairers	
detailed	49-9011	Mechanical Door Repairers	Install, service, or repair automatic door mechanisms and hydraulic doors. Includes garage door mechanics.
detailed	49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	Install, repair, and maintain mechanical regulating and controlling devices, such as electric meters, gas regulators, thermostats, safety and flow valves, and other mechanical governors.
broad	49-9020	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	
detailed	49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Install or repair heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.
broad	49-9030	Home Appliance Repairers	
detailed	49-9031	Home Appliance Repairers	Repair, adjust, or install all types of electric or gas household appliances, such as refrigerators, washers, dryers, and ovens.
broad	49-9040	Industrial Machinery Installation, Repair, and Maintenance Workers	
detailed	49-9043	Maintenance Workers, Machinery	Lubricate machinery, change parts, or perform other routine machinery maintenance. Excludes "Maintenance and Repair Workers, General" (49-9071).
detailed	49-9045	Refractory Materials Repairers, Except Brickmasons	Build or repair equipment such as furnaces, kilns, cupolas, boilers, converters, ladles, soaking pits and ovens, using refractory materials.
detailed	49-9046	Industrial Machinery Mechanics and Millwrights	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems. May also install, dismantle, or move machinery and heavy equipment according to plans. Excludes "Mobile Heavy Equipment Mechanics, Except Engines" (49-3042), and "Maintenance Workers, Machinery" (49-9043).
broad	49-9050	Line Installers and Repairers	
detailed	49-9051	Electrical Power-Line Installers and Repairers	Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy duty transmission towers. Excludes "Electrical and Electronics Repairers, Powerhouse, Substation, and Relay" (49-2095).
detailed	49-9052	Telecommunications Line Installers and Repairers	Install and repair telecommunications cable, including fiber optics.

broad	49-9060	Precision Instrument and Equipment Repairers	
detailed	49-9061	Camera and Photographic Equipment Repairers	Repair and adjust cameras and photographic equipment, including commercial video and motion picture camera equipment.
detailed	49-9062	Medical Equipment Repairers	Test, adjust, or repair biomedical or electromedical equipment.
detailed	49-9063	Musical Instrument Repairers and Tuners	Repair percussion, stringed, reed, or wind instruments. May specialize in one area, such as piano tuning. Excludes "Electronic Home Entertainment Equipment Installers and Repairers" (49-2097) who repair electrical and electronic musical instruments.
detailed	49-9064	Watch Repairers	Repair, clean, and adjust mechanisms of timing instruments, such as watches and clocks. Includes watchmakers, watch technicians, and mechanical timepiece repairers.
detailed	49-9069	Precision Instrument and Equipment Repairers, All Other	All precision instrument and equipment repairers not listed separately.
broad	49-9070	Maintenance and Repair Workers, General	
detailed	49-9071	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 a building in repair. Duties may involve pipe fitting; HVAC maintenance; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs. Excludes "Facilities Managers" (11-3012) and "Maintenance Workers, Machinery" (49- 9043).
broad	49-9080	Wind Turbine Service Technicians	
detailed	49-9081	Wind Turbine Service Technicians	Inspect, diagnose, adjust, or repair wind turbines. Perform maintenance on wind turbine equipment including resolving electrical, mechanical, and hydraulic malfunctions.
broad	49-9090	Miscellaneous Installation, Maintenance, and Repair Workers	
detailed	49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	Install, service, adjust, or repair coin, vending, or amusement machines including video games, juke boxes, pinball machines, or slot machines.

detailed	49-9092	Commercial Divers	Work below surface of water, using scuba gear to inspect, repair, remove, or install equipment and structures. May use a variety of power and hand tools, such as drills, sledgehammers, torches, and welding equipment. May conduct tests or experiments, rig explosives, or photograph structures or marine life. Excludes "Fishers and Related Fishing Workers" (45-3011), "Athletes and Sports Competitors" (27-2021), and "Police and Sheriff's Patrol Officers" (33-3051).
detailed	49-9093	Fabric Menders, Except Garment	Repair tears, holes, and other defects in fabrics, such as draperies, linens, parachutes, and tents.
detailed	49-9094	Locksmiths and Safe Repairers	Repair and open locks; make keys; change locks and safe combinations; and install and repair safes.
detailed	49-9095	Manufactured Building and Mobile Home Installers	Move or install mobile homes or prefabricated buildings.
detailed	49-9096	Riggers	Set up or repair rigging for construction projects, manufacturing plants, logging yards, ships and shipyards, or for the entertainment industry.
detailed	49-9097	Signal and Track Switch Repairers	Install, inspect, test, maintain, or repair electric gate crossings, signals, signal equipment, track switches, section lines, or intercommunications systems within a railroad system.
detailed	49-9098	HelpersInstallation, 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.
detailed	49-9099	Installation, Maintenance, and Repair Workers, All Other	All, installation, maintenance, and repair workers not listed separately.
major	51-0000	Production Occupations	
minor	51-1000	Supervisors of Production Workers	
broad	51-1010	First-Line Supervisors of Production and Operating Workers	
detailed	51-1011	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.
minor	51-2000	Assemblers and Fabricators	

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broad	51-2010	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	
detailed	51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	Assemble, fit, fasten, and install parts of airplanes, space vehicles, or missiles, such as tails, wings, fuselage, bulkheads, stabilizers, landing gear, rigging and control equipment, or heating and ventilating systems.
broad	51-2020	Electrical, Electronics, and Electromechanical Assemblers	
detailed	51-2021	Coil Winders, Tapers, and Finishers	Wind wire coils used in electrical components, such as resistors and transformers, and in electrical equipment and instruments, such as field cores, bobbins, armature cores, electrical motors, generators, and control equipment.
detailed	51-2022	Electrical and Electronic Equipment Assemblers	Assemble or modify electrical or electronic equipment, such as computers, test equipment telemetering systems, electric motors, and batteries.
detailed	51-2023	Electromechanical Equipment Assemblers	Assemble or modify electromechanical equipment or devices, such as servomechanisms, gyros, dynamometers, magnetic drums, tape drives, brakes, control linkage, actuators, and appliances.
broad	51-2030	Engine and Other Machine Assemblers	
detailed	51-2031	Engine and Other Machine Assemblers	Construct, assemble, or rebuild machines, such as engines, turbines, and similar equipment used in such industries as construction, extraction, textiles, and paper manufacturing.
broad	51-2040	Structural Metal Fabricators and Fitters	
detailed	51-2041	Structural Metal Fabricators and Fitters	Fabricate, position, align, and fit parts of structural metal products. Shipfitters are included in "Layout Workers, Metal and Plastic" (51-4192).
broad	51-2090	Miscellaneous Assemblers and Fabricators	
detailed	51-2091	Fiberglass Laminators and Fabricators	Laminate layers of fiberglass on molds to form boat decks and hulls, bodies for golf carts, automobiles, or other products.

detailed	51-2092	Team Assemblers	Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Includes team leaders who work as part of the team. Assemblers who continuously perform the same task are classified elsewhere in 51-2000.
detailed	51-2093	Timing Device Assemblers and Adjusters	Perform precision assembling, adjusting, or calibrating, within narrow tolerances, of timing devices such as digital clocks or timing devices with electrical or electronic components. Excludes watchmakers, which are included in "Watch Repairers" (49-9064).
detailed	51-2099	Assemblers and Fabricators, All Other	All assemblers and fabricators not listed separately.
minor	51-3000	Food Processing Workers	
broad	51-3010	Bakers	
detailed	51-3011	Bakers	Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods. Pastry chefs in restaurants and hotels are included with "Chefs and Head Cooks" (35-1011).
broad	51-3020	Butchers and Other Meat, Poultry, and Fish Processing Workers	
detailed	51-3021	Butchers and Meat Cutters	Cut, trim, or prepare consumer-sized portions of meat for use or sale in retail establishments.
detailed	51-3022	Meat, Poultry, and Fish Cutters and Trimmers	Use hand or hand tools to perform routine cutting and trimming of meat, poultry, and seafood.
detailed	51-3023	Slaughterers and Meat Packers	Work in slaughtering, meat packing, or wholesale establishments performing precision functions involving the preparation of meat. Work may include specialized slaughtering tasks, cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats. Excludes "Meat, Poultry, and Fish Cutters and Trimmers" (51-3022) who perform routine meat cutting.
broad	51-3090	Miscellaneous Food Processing Workers	
detailed	51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	Operate or tend food or tobacco roasting, baking, or drying equipment, including hearth ovens, kiln driers, roasters, char kilns, and vacuum drying equipment.

detailed	51-3092	Food Batchmakers	Set up and operate equipment that mixes or blends ingredients used in the manufacturing of food products. Includes candy makers and cheese makers.
detailed	51-3093	Food Cooking Machine Operators and Tenders	Operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers, to prepare food products. Excludes "Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders" (51-3091).
detailed	51-3099	Food Processing Workers, All Other	All food processing workers not listed separately
minor	51-4000	Metal Workers and Plastic Workers	
broad	51-4020	Forming Machine Setters, Operators, and Tenders, Metal and Plastic	
detailed	51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend machines to extrude or draw thermoplastic or metal materials into tubes, rods, hoses, wire, bars, or structural shapes.
detailed	51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend forging machines to taper, shape, or form metal or plastic parts.
detailed	51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend machines to roll steel or plastic forming bends, beads, knurls, rolls, or plate or to flatten, temper, or reduce gauge of material.
broad	51-4030	Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	
detailed	51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.
detailed	51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend drilling machines to drill, bore, ream, mill, or countersink metal or plastic work pieces.
detailed	51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend grinding and related tools that remove excess material or burrs from surfaces, sharpen edges or corners, or buff, hone, or polish metal or plastic work pieces.

detailed	51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend lathe and turning machines to turn, bore, thread, form, or face metal or plastic materials, such as wire, rod, or bar stock.
detailed	51-4035	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.
broad	51-4040	Machinists	
detailed	51-4041	Machinists	Set up and operate a variety of machine tools to produce precision parts and instruments out of metal. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures. Machinists who primarily program or operate computer numerically controlled (CNC) equipment are classified in "Computer Numerically Controlled Tool Programmers and Operators" (51-9160).
broad	51-4050	Metal Furnace Operators, Tenders, Pourers, and Casters	
detailed	51-4051	Metal-Refining Furnace Operators and Tenders	Operate or tend furnaces, such as gas, oil, coal, electric- arc or electric induction, open-hearth, or oxygen furnaces, to melt and refine metal before casting or to produce specified types of steel. Excludes "Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic" (51-4191).
detailed	51-4052	Pourers and Casters, Metal	Operate hand-controlled mechanisms to pour and regulate the flow of molten metal into molds to produce castings or ingots.
broad	51-4060	Model Makers and Patternmakers, Metal and Plastic	
detailed	51-4061	Model Makers, Metal and Plastic	Set up and operate machines, such as lathes, milling and engraving machines, and jig borers to make working models of metal or plastic objects. Includes template makers.
detailed	51-4062	Patternmakers, Metal and Plastic	Lay out, machine, fit, and assemble castings and parts to metal or plastic foundry patterns, core boxes, or match plates.

broad	51-4070	Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic	
detailed	51-4071	Foundry Mold and Coremakers	Make or form wax or sand cores or molds used in the production of metal castings in foundries. Excludes "Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic" (51-4072) and "Molders, Shapers, and Casters, Except Metal and Plastic" (51-9195).
detailed	51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend metal or plastic molding, casting, or coremaking machines to mold or cast metal or thermoplastic parts or products.
broad	51-4080	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	
detailed	51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend more than one type of cutting or forming machine tool or robot.
broad	51-4110	Tool and Die Makers	
detailed	51-4111	Tool and Die Makers	Analyze specifications, lay out metal stock, set up and operate machine tools, and fit and assemble parts to make and repair dies, cutting tools, jigs, fixtures, gauges, and machinists' hand tools.
broad	51-4120	Welding, Soldering, and Brazing Workers	
detailed	51-4121	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.
detailed	51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	Set up, operate, or tend welding, soldering, or brazing machines or robots that weld, braze, solder, or heat treat metal products, components, or assemblies. Includes workers who operate laser cutters or laser-beam machines.
broad	51-4190	Miscellaneous Metal Workers and Plastic Workers	
detailed	51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend heating equipment, such as heat- treating furnaces, flame-hardening machines, induction machines, soaking pits, or vacuum equipment to temper, harden, anneal, or heat-treat metal or plastic objects.

detailed	51-4192	Layout Workers, Metal and Plastic	Lay out reference points and dimensions on metal or plastic stock or workpieces, such as sheets, plates, tubes, structural shapes, castings, or machine parts, for further processing. Includes shipfitters.
detailed	51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend plating or coating machines to coat metal or plastic products with chromium, zinc, copper, cadmium, nickel, or other metal to protect or decorate surfaces. Includes electrolytic processes.
detailed	51-4194	Tool Grinders, Filers, and Sharpeners	Perform precision smoothing, sharpening, polishing, or grinding of metal objects.
detailed	51-4199	Metal Workers and Plastic Workers, All Other	All metal workers and plastic workers not listed separately.
minor	51-5100	Printing Workers	
broad	51-5110	Printing Workers	
detailed	51-5111	Prepress Technicians and Workers	Format and proof text and images submitted by designers and clients into finished pages that can be printed. Includes digital and photo typesetting. May produce printing plates.
detailed	51-5112	Printing Press Operators	Set up and operate digital, letterpress, lithographic, flexographic, gravure, or other printing machines. Includes short-run offset printing presses.
detailed	51-5113	Print Binding and Finishing Workers	Bind books and other publications or finish printed products by hand or machine. May set up binding and finishing machines.
minor	51-6000	Textile, Apparel, and Furnishings Workers	
broad	51-6010	Laundry and Dry-Cleaning Workers	
detailed	51-6011	Laundry and Dry-Cleaning Workers	Operate or tend washing or dry-cleaning machines to wash or dry-clean industrial or household articles, such as cloth garments, suede, leather, furs, blankets, draperies, linens, rugs, and carpets. Includes spotters and dyers of these articles.
broad	51-6020	Pressers, Textile, Garment, and Related Materials	
detailed	51-6021	Pressers, Textile, Garment, and Related Materials	Press or shape articles by hand or machine.
broad	51-6030	Sewing Machine Operators	
detailed	51-6031	Sewing Machine Operators	Operate or tend sewing machines to join, reinforce, decorate, or perform related sewing operations in the manufacture of garment or nongarment products.
broad	51-6040	Shoe and Leather Workers	

detailed	51-6041	Shoe and Leather Workers and Repairers	Construct, decorate, or repair leather and leather-like products, such as luggage, shoes, and saddles.
detailed	51-6042	Shoe Machine Operators and Tenders	Operate or tend a variety of machines to join, decorate, reinforce, or finish shoes and shoe parts.
broad	51-6050	Tailors, Dressmakers, and Sewers	
detailed	51-6051	Sewers, Hand	Sew, join, reinforce, or finish, usually with needle and thread, a variety of manufactured items. Includes weavers and stitchers. Excludes "Fabric Menders, Except Garment" (49-9093).
detailed	51-6052	Tailors, Dressmakers, and Custom Sewers	Design, make, alter, repair, or fit garments.
broad	51-6060	Textile Machine Setters, Operators, and Tenders	
detailed	51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	Operate or tend machines to bleach, shrink, wash, dye, or finish textiles or synthetic or glass fibers.
detailed	51-6062	Textile Cutting Machine Setters, Operators, and Tenders	Set up, operate, or tend machines that cut textiles.
detailed	51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	Set up, operate, or tend machines that knit, loop, weave, or draw in textiles. Excludes "Sewing Machine Operators" (51-6031).
detailed	51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Set up, operate, or tend machines that wind or twist textiles; or draw out and combine sliver, such as wool, hemp, or synthetic fibers. Includes slubber machine and drawing frame operators.
broad	51-6090	Miscellaneous Textile, Apparel, and Furnishings Workers	
detailed	51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	Set up, operate, or tend machines that extrude and form continuous filaments from synthetic materials, such as liquid polymer, rayon, and fiberglass.
detailed	51-6092	Fabric and Apparel Patternmakers	Draw and construct sets of precision master fabric patterns or layouts. May also mark and cut fabrics and apparel.
detailed	51-6093	Upholsterers	Make, repair, or replace upholstery for household furniture or transportation vehicles.
detailed	51-6099	Textile, Apparel, and Furnishings Workers, All Other	All textile, apparel, and furnishings workers not listed separately.
minor	51-7000	Woodworkers	

broad	51-7010	Cabinetmakers and Bench Carpenters	
detailed	51-7011	Cabinetmakers and Bench Carpenters	Cut, shape, and assemble wooden articles or set up and operate a variety of woodworking machines, such as power saws, jointers, and mortisers to surface, cut, or shape lumber or to fabricate parts for wood products. Excludes "Woodworking Machine Setters, Operators, and Tenders" (51-7040).
broad	51-7020	Furniture Finishers	
detailed	51-7021	Furniture Finishers	Shape, finish, and refinish damaged, worn, or used furniture or new high-grade furniture to specified color or finish.
broad	51-7030	Model Makers and Patternmakers, Wood	
detailed	51-7031	Model Makers, Wood	Construct full-size and scale wooden precision models of products. Includes wood jig builders and loft workers.
detailed	51-7032	Patternmakers, Wood	Plan, lay out, and construct wooden unit or sectional patterns used in forming sand molds for castings.
broad	51-7040	Woodworking Machine Setters, Operators, and Tenders	
detailed	51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	Set up, operate, or tend wood sawing machines. May operate computer numerically controlled (CNC) equipment. Includes lead sawyers. Workers who primarily program or operate CNC equipment are classified in "Computer Numerically Controlled Tool Programmers and Operators" (51-9160).
detailed	51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	Set up, operate, or tend woodworking machines, such as drill presses, lathes, shapers, routers, sanders, planers, and wood nailing machines. May operate computer numerically controlled (CNC) equipment. Workers who primarily program or operate CNC equipment are classified in "Computer Numerically Controlled Tool Programmers and Operators" (51-9160).
broad	51-7090	Miscellaneous Woodworkers	
detailed	51-7099	Woodworkers, All Other	All woodworkers not listed separately.
minor	51-8000	Plant and System Operators	
broad	51-8010	Power Plant Operators, Distributors, and Dispatchers	

detailed	51-8011	Nuclear Power Reactor Operators	Operate or control nuclear reactors. Move control rods, start and stop equipment, monitor and adjust controls, and record data in logs. Implement emergency procedures when needed. May respond to abnormalities, determine cause, and recommend corrective action.
detailed	51-8012	Power Distributors and Dispatchers	Coordinate, regulate, or distribute electricity or steam.
detailed	51-8013	Power Plant Operators	Control, operate, or maintain machinery to generate electric power. Includes auxiliary equipment operators. Excludes "Nuclear Power Reactor Operators" (51-8011).
broad	51-8020	Stationary Engineers and Boiler Operators	
detailed	51-8021	Stationary Engineers and Boiler Operators	Operate or maintain stationary engines, boilers, or other mechanical equipment to provide utilities for buildings or industrial processes. Operate equipment, such as steam engines, generators, motors, turbines, and steam boilers.
broad	51-8030	Water and Wastewater Treatment Plant and System Operators	
detailed	51-8031	Water and Wastewater Treatment Plant and System Operators	Operate or control an entire process or system of machines, often through the use of control boards, to transfer or treat water or wastewater.
broad	51-8090	Miscellaneous Plant and System Operators	
detailed	51-8091	Chemical Plant and System Operators	Control or operate entire chemical processes or system of machines.
detailed	51-8092	Gas Plant Operators	Distribute or process gas for utility companies and others by controlling compressors to maintain specified pressures on main pipelines.
detailed	51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	Operate or control petroleum refining or processing units. May specialize in controlling manifold and pumping systems, gauging or testing oil in storage tanks, or regulating the flow of oil into pipelines.
detailed	51-8099	Plant and System Operators, All Other	All plant and system operators not listed separately.
minor	51-9000	Other Production Occupations	
broad	51-9010	Chemical Processing Machine Setters, Operators, and Tenders	

detailed	51-9011	Chemical Equipment Operators and Tenders	Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam- jacketed kettles, and reactor vessels. Excludes "Chemical Plant and System Operators" (51-8091).
detailed	51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	Set up, operate, or tend continuous flow or vat-type equipment; filter presses; shaker screens; centrifuges; condenser tubes; precipitating, fermenting, or evaporating tanks; scrubbing towers; or batch stills. These machines extract, sort, or separate liquids, gases, or solids from other materials to recover a refined product. Includes dairy processing equipment operators. Excludes "Chemical Equipment Operators and Tenders" (51-9011).
broad	51-9020	Crushing, Grinding, Polishing, Mixing, and Blending Workers	
detailed	51-9021	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.
detailed	51-9022	Grinding and Polishing Workers, Hand	Grind, sand, or polish, using hand tools or hand-held power tools, a variety of metal, wood, stone, clay, plastic, or glass objects. Includes chippers, buffers, and finishers.
detailed	51-9023	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" (51-3092).
broad	51-9030	Cutting Workers	
detailed	51-9031	Cutters and Trimmers, Hand	Use hand tools or hand-held power tools to cut and trim a variety of manufactured items, such as carpet, fabric, stone, glass, or rubber.
detailed	51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	Set up, operate, or tend machines that cut or slice materials, such as glass, stone, cork, rubber, tobacco, food, paper, or insulating material. Excludes "Woodworking Machine Setters, Operators, and Tenders" (51-7040), "Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic" (51-4031), and "Textile Cutting Machine Setters, Operators, and Tenders" (51-6062).
broad	51-9040	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	

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detailed	51-9041	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" (51-9196) and "Shoe Machine Operators and Tenders" (51-6042).
broad	51-9050	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	
detailed	51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	Operate or tend heating equipment other than basic metal, plastic, or food processing equipment. Includes activities, such as annealing glass, drying lumber, curing rubber, removing moisture from materials, or boiling soap.
broad	51-9060	Inspectors, Testers, Sorters, Samplers, and Weighers	
detailed	51-9061	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.
broad	51-9070	Jewelers and Precious Stone and Metal Workers	
detailed	51-9071	Jewelers and Precious Stone and Metal Workers	Design, fabricate, adjust, repair, or appraise jewelry, gold, silver, other precious metals, or gems. Includes diamond polishers and gem cutters, and persons who perform precision casting and modeling of molds, casting metal in molds, or setting precious and semi-precious stones for jewelry and related products.
broad	51-9080	Dental and Ophthalmic Laboratory Technicians and Medical Appliance Technicians	
detailed	51-9081	Dental Laboratory Technicians	Construct and repair full or partial dentures or dental appliances. Excludes "Dental Assistants" (31-9091).
detailed	51-9082	Medical Appliance Technicians	Construct, fit, maintain, or repair medical supportive devices, such as braces, orthotics and prosthetic devices, joints, arch supports, and other surgical and medical appliances.
detailed	51-9083	Ophthalmic Laboratory Technicians	Cut, grind, and polish eyeglasses, contact lenses, or other precision optical elements. Assemble and mount lenses into frames or process other optical elements. Includes precision lens polishers or grinders, centerer-edgers, and

			lens mounters. Excludes "Opticians, Dispensing" (29-2081).
broad	51-9110	Packaging and Filling Machine Operators and Tenders	
detailed	51-9111	Packaging and Filling Machine Operators and Tenders	Operate or tend machines to prepare industrial or consumer products for storage or shipment. Includes cannery workers who pack food products.
broad	51-9120	Painting Workers	
detailed	51-9121	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" (51-4193) and "Painters, Transportation Equipment" (51-9122).
detailed	51-9122	Painters, Transportation Equipment	Operate or tend painting machines to paint surfaces of transportation equipment, such as automobiles, buses, trucks, trains, boats, and airplanes. Includes painters in auto body repair facilities.
detailed	51-9123	Painting, Coating, and Decorating Workers	Paint, coat, or decorate articles, such as furniture, glass, plateware, pottery, jewelry, toys, books, or leather. Excludes "Artists and Related Workers" (27-1010), "Designers" (27-1020), "Photographic Process Workers and Processing Machine Operators" (51-9151), and "Etchers and Engravers" (51-9194).
broad	51-9140	Semiconductor Processors	
detailed	51-9141	Semiconductor Processing Technicians	Perform any or all of the following functions in the manufacture of electronic semiconductors: load semiconductor material into furnace; saw formed ingots into segments; load individual segment into crystal growing chamber and monitor controls; locate crystal axis in ingot using x-ray equipment and saw ingots into wafers; and clean, polish, and load wafers into series of special purpose furnaces, chemical baths, and equipment used to form circuitry and change conductive properties.
broad	51-9150	Photographic Process Workers and Processing Machine Operators	

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detailed	51-9151	Photographic Process Workers and Processing Machine Operators	Perform work involved in developing and processing photographic images from film or digital media. May perform precision tasks such as editing photographic negatives and prints.
broad	51-9160	Computer Numerically Controlled Tool Programmers and Operators	
detailed	51-9161	Computer Numerically Controlled Tool Operators	Operate computer-controlled tools, machines, or robots to machine or process parts, tools, or other work pieces made of metal, plastic, wood, stone, or other materials. May also set up and maintain equipment.
detailed	51-9162	Computer Numerically Controlled Tool Programmers	Develop programs to control machining or processing of materials by automatic machine tools, equipment, or systems. May also set up, operate, or maintain equipment.
broad	51-9190	Miscellaneous Production Workers	
detailed	51-9191	Adhesive Bonding Machine Operators and Tenders	Operate or tend bonding machines that use adhesives to join items for further processing or to form a completed product. Processes include joining veneer sheets into plywood; gluing paper; or joining rubber and rubberized fabric parts, plastic, simulated leather, or other materials. Excludes "Shoe Machine Operators and Tenders" (51- 6042).
detailed	51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	Operate or tend machines to wash or clean products, such as barrels or kegs, glass items, tin plate, food, pulp, coal, plastic, or rubber, to remove impurities.
detailed	51-9193	Cooling and Freezing Equipment Operators and Tenders	Operate or tend equipment, such as cooling and freezing units, refrigerators, batch freezers, and freezing tunnels, to cool or freeze products, food, blood plasma, and chemicals.
detailed	51-9194	Etchers and Engravers	Engrave or etch metal, wood, rubber, or other materials. Includes such workers as etcher-circuit processors, pantograph engravers, and silk screen etchers. Photoengravers are included in "Prepress Technicians and Workers" (51-5111).
detailed	51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	Mold, shape, form, cast, or carve products such as food products, figurines, tile, pipes, and candles consisting of clay, glass, plaster, concrete, stone, or combinations of materials.

detailed	51-9196	Paper Goods Machine Setters, Operators, and Tenders	Set up, operate, or tend paper goods machines that perform a variety of functions, such as converting, sawing, corrugating, banding, wrapping, boxing, stitching, forming, or sealing paper or paperboard sheets into products.
detailed	51-9197	Tire Builders	Operate machines to build tires.
detailed	51-9198	HelpersProduction Workers	Help production workers by performing duties requiring less skill. Duties include supplying or holding materials or tools, and cleaning work area and equipment. Apprentice workers are classified in the appropriate production occupations (51-0000).
detailed	51-9199	Production Workers, All Other	All production workers not listed separately. Excludes "Packers and Packagers, Hand" (53-7064).
major	53-0000	Transportation and Material Moving Occupations	
minor	53-1000	Supervisors of Transportation and Material Moving Workers	
broad	53-1040	First-Line Supervisors of Transportation and Material-Moving Workers	
detailed	53-1041	Aircraft Cargo Handling Supervisors	Supervise and coordinate the activities of ground crew in the loading, unloading, securing, and staging of aircraft cargo or baggage. May determine the quantity and orientation of cargo and compute aircraft center of gravity. May accompany aircraft as member of flight crew and monitor and handle cargo in flight, and assist and brief passengers on safety and emergency procedures. Includes loadmasters.
detailed	53-1042	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	Directly supervise and coordinate the activities of helpers, laborers, or material movers, hand.
detailed	53-1043	First-Line Supervisors of Material-Moving Machine and Vehicle Operators	Directly supervise and coordinate activities of material- moving machine and vehicle operators and helpers.
detailed	53-1044	First Line Supervisors of Transportation Passenger Attendants	Supervise and coordinate activities of transportation passenger attendants.
detailed	53-1049	First Line Supervisors of Transportation Workers, All Other	All first-line supervisors of transportation workers not listed separately.
minor	53-2000	Air Transportation Workers	

broad	53-2010	Aircraft Pilots and Flight Engineers	
detailed	53-2011	Airline Pilots, Copilots, and Flight Engineers	Pilot and navigate the flight of fixed-wing aircraft, usually on scheduled air carrier routes, for the transport of passengers and cargo. Requires Federal Air Transport certificate and rating for specific aircraft type used. Includes regional, National, and international airline pilots and flight instructors of airline pilots. Excludes "Electro- Mechanical Technicians" (17-3024).
detailed	53-2012	Commercial Pilots	Pilot and navigate the flight of fixed-wing aircraft on nonscheduled air carrier routes, or helicopters. Requires Commercial Pilot certificate. Includes charter pilots with similar certification, and air ambulance and air tour pilots. Excludes regional, National, and international airline pilots. Excludes "Electro-Mechanical Technicians" (17- 3024).
broad	53-2020	Air Traffic Controllers and Airfield Operations Specialists	
detailed	53-2021	Air Traffic Controllers	Control air traffic on and within vicinity of airport and movement of air traffic between altitude sectors and control centers according to established procedures and policies. Authorize, regulate, and control commercial airline flights according to government or company regulations to expedite and ensure flight safety.
detailed	53-2022	Airfield Operations Specialists	Ensure the safe takeoff and landing of commercial and military aircraft. Duties include coordination between air- traffic control and maintenance personnel; dispatching; using airfield landing and navigational aids; implementing airfield safety procedures; monitoring and maintaining flight records; and applying knowledge of weather information.
broad	53-2030	Flight Attendants	
detailed	53-2031	Flight Attendants	Monitor safety of the aircraft cabin. Provide services to airline passengers, explain safety information, serve food and beverages, and respond to emergency incidents.
minor	53-3000	Motor Vehicle Operators	
broad	53-3010	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	
detailed	53-3011	Ambulance Drivers and Attendants, Except	Drive ambulance or assist ambulance driver in transporting sick, injured, or convalescent persons. Assist in lifting patients.

		Emergency Medical Technicians	
broad	53-3030	Driver/Sales Workers and Truck Drivers	
detailed	53-3031	Driver/Sales Workers	Drive truck or other vehicle over established routes or within an established territory and sell or deliver goods, such as food products, including restaurant take-out items, or pick up or deliver items such as commercial laundry. May also take orders, collect payment, or stock merchandise at point of delivery. Excludes "Coin, Vending, and Amusement Machine Servicers and Repairers" (49- 9091) and "Light Truck Drivers" (53-3033).
detailed	53-3032	Heavy and Tractor-Trailer Truck Drivers	Drive a tractor-trailer combination or a truck with a capacity of at least 26,001 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license. Includes tow truck drivers. Excludes "Refuse and Recyclable Material Collectors" (53-7081).
detailed	53-3033	Light Truck Drivers	Drive a light vehicle, such as a truck or van, with a capacity of less than 26,001 pounds Gross Vehicle Weight (GVW), primarily to pick up merchandise or packages from a distribution center and deliver. May load and unload vehicle. Excludes "Couriers and Messengers" (43-5021) and "Driver/Sales Workers" (53-3031).
broad	53-3050	Passenger Vehicle Drivers	
detailed	53-3051	Bus Drivers, School	Drive a school bus to transport students. Ensure adherence to safety rules. May assist students in boarding or exiting.
detailed	53-3052	Bus Drivers, Transit and Intercity	Drive bus or motor coach, including regular route operations, charters, and private carriage. May assist passengers with baggage. May collect fares or tickets.
detailed	53-3053	Shuttle Drivers and Chauffeurs	Drive a motor vehicle to transport passengers on a planned or scheduled basis. May collect a fare. Includes nonemergency medical transporters and hearse drivers. Excludes "Ambulance Drivers and Attendants, Except Emergency Medical Technicians" (53-3011) and "Taxi Drivers" (53-3023).
detailed	53-3054	Taxi Drivers	Drive a motor vehicle to transport passengers on an unplanned basis and charge a fare, usually based on a meter. Excludes "Shuttle Drivers and Chauffeurs" (53- 3024).
broad	53-3090	Miscellaneous Motor Vehicle Operators	

detailed	53-3099	Motor Vehicle Operators, All Other	All motor vehicle operators not listed separately.
minor	53-4000	Rail Transportation Workers	
broad	53-4010	Locomotive Engineers and Operators	
detailed	53-4011	Locomotive Engineers	Drive electric, diesel-electric, steam, or gas-turbine- electric locomotives to transport passengers or freight. Interpret train orders, electronic or manual signals, and railroad rules and regulations. Excludes "Engineers" (17- 2011 through 17-2199).
detailed	53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers	Drive switching or other locomotive or dinkey engines within railroad yard, industrial plant, quarry, construction project, or similar location.
broad	53-4020	Railroad Brake, Signal, and Switch Operators and Locomotive Firers	
detailed	53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers	Operate or monitor railroad track switches or locomotive instruments. May couple or uncouple rolling stock to make up or break up trains. Watch for and relay traffic signals. May inspect couplings, air hoses, journal boxes, and hand brakes. May watch for dragging equipment or obstacles on rights-of-way.
broad	53-4030	Railroad Conductors and Yardmasters	
detailed	53-4031	Railroad Conductors and Yardmasters	Coordinate activities of switch-engine crew within railroad yard, industrial plant, or similar location. Conductors coordinate activities of train crew on passenger or freight trains. Yardmasters review train schedules and switching orders and coordinate activities of workers engaged in railroad traffic operations, such as the makeup or breakup of trains and yard switching.
broad	53-4040	Subway and Streetcar Operators	
detailed	53-4041	Subway and Streetcar Operators	Operate subway or elevated suburban trains with no separate locomotive, or electric-powered streetcar, to transport passengers. May handle fares.
broad	53-4090	Miscellaneous Rail Transportation Workers	
detailed	53-4099	Rail Transportation Workers, All Other	All rail transportation workers not listed separately.
minor	53-5000	Water Transportation Workers	

broad	53-5010	Sailors and Marine Oilers	
detailed	53-5011	Sailors and Marine Oilers	Stand watch to look for obstructions in path of vessel, measure water depth, turn wheel on bridge, or use emergency equipment as directed by captain, mate, or pilot. Break out, rig, overhaul, and store cargo-handling gear, stationary rigging, and running gear. Perform a variety of maintenance tasks to preserve the painted surface of the ship and to maintain line and ship equipment. Must hold government-issued certification and tankerman certification when working aboard liquid- carrying vessels. Includes able seamen and ordinary seamen.
broad	53-5020	Ship and Boat Captains and Operators	
detailed	53-5021	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" (53-5022).
detailed	53-5022	Motorboat Operators	Operate small motor-driven boats. May assist in navigational activities.
broad	53-5030	Ship Engineers	
detailed	53-5031	Ship Engineers	Supervise and coordinate activities of crew engaged in operating and maintaining engines, boilers, deck machinery, and electrical, sanitary, and refrigeration equipment aboard ship. Excludes "Engineers" (17-2011 through 17-2199).
minor	53-6000	Other Transportation Workers	
broad	53-6010	Bridge and Lock Tenders	
detailed	53-6011	Bridge and Lock Tenders	Operate and tend bridges, canal locks, and lighthouses to permit marine passage on inland waterways, near shores, and at danger points in waterway passages. May supervise such operations. Includes drawbridge operators, lock operators, and slip bridge operators.
broad	53-6020	Parking Attendants	
detailed	53-6021	Parking Attendants	Park vehicles or issue tickets for customers in a parking lot or garage. May park or tend vehicles in similar environments such as a car dealership or rental car facility. May collect fee.
broad	53-6030	Transportation Service Attendants	

detailed	53-6031	Automotive and Watercraft Service Attendants	Service automobiles, buses, trucks, boats, and other automotive or marine vehicles with fuel, lubricants, and accessories. Collect payment for services and supplies. May lubricate vehicle, change motor oil, install antifreeze, or replace lights or other accessories, such as windshield wiper blades or fan belts. May repair or replace tires. Excludes "Cashiers" (41-2011).
detailed	53-6032	Aircraft Service Attendants	Service aircraft with fuel. May de-ice aircraft, refill water and cooling agents, empty sewage tanks, service air and oxygen systems, or clean and polish exterior.
broad	53-6040	Traffic Technicians	
detailed	53-6041	Traffic Technicians	Conduct field studies to determine traffic volume, speed, effectiveness of signals, adequacy of lighting, and other factors influencing traffic conditions, under direction of traffic engineer.
broad	53-6050	Transportation Inspectors	
detailed	53-6051	Transportation Inspectors	Inspect equipment or goods in connection with the safe transport of cargo or people. Includes rail transportation inspectors, such as freight inspectors; rail inspectors; and other inspectors of transportation vehicles, not elsewhere classified. Excludes "Transportation Security Screeners" (33-9093).
broad	53-6060	Transportation Passenger Attendants	
detailed	53-6061	Transportation Passenger Attendants	Provide services to ensure the safety of passengers aboard ships, buses, trains, or within the station or terminal. Perform duties such as explaining the use of safety equipment, serving meals or beverages, or answering questions related to travel. Excludes "Baggage Porters and Bellhops" (39-6011) and "Flight Attendants" (53-2031)
broad	53-6090	Miscellaneous Transportation Workers	
detailed	53-6099	Transportation Workers, All Other	All transportation workers not listed separately.
minor	53-7000	Material Moving Workers	
broad	53-7010	Conveyor Operators and Tenders	
detailed	53-7011	Conveyor Operators and Tenders	Control or tend conveyors or conveyor systems that move materials or products to and from stockpiles, processing stations, departments, or vehicles. May control speed and routing of materials or products.
broad	53-7020	Crane and Tower Operators	

detailed	53-7021	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" (53-7032).
broad	53-7030	Dredge Operators	
detailed	53-7031	Dredge Operators	Operate dredge to remove sand, gravel, or other materials in order to excavate and maintain navigable channels in waterways.
broad	53-7040	Hoist and Winch Operators	
detailed	53-7041	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" (53-7021).
broad	53-7050	Industrial Truck and Tractor Operators	
detailed	53-7051	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" (45-4022).
broad	53-7060	Laborers and Material Movers	
detailed	53-7061	Cleaners of Vehicles and Equipment	Wash or otherwise clean vehicles, machinery, and other equipment. Use such materials as water, cleaning agents, brushes, cloths, and hoses. Excludes "Janitors and Cleaners, Except Maids and Housekeeping Cleaners" (37- 2011).
detailed	53-7062	Laborers and Freight, Stock, and Material Movers, Hand	Manually move freight, stock, luggage, or other materials or perform other general labor. Includes all manual laborers not elsewhere classified. Excludes "Material Moving Workers" (53-7011 through 53-7199) who use power equipment. Excludes "Construction Laborers" (47- 2061) and "Helpers, Construction Trades (47-3011 through 47-3019).
detailed	53-7063	Machine Feeders and Offbearers	Feed materials into or remove materials from machines or equipment that is automatic or tended by other workers.
detailed	53-7064	Packers and Packagers, Hand	Pack or package by hand a wide variety of products and materials.
detailed	53-7065	Stockers and Order Fillers	Receive, store, and issue merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. May operate power equipment to fill orders. May mark prices on merchandise and set up sales displays. Excludes "Shipping, Receiving, and Inventory Clerks" (43- 5071), "Laborers and Freight, Stock, and Material Movers,

			Hand" (53-7062), and "Packers and Packagers, Hand" (53-7064).
broad	53-7070	Pumping Station Operators	
detailed	53-7071	Gas Compressor and Gas Pumping Station Operators	Operate steam, gas, electric motor, or internal combustion engine driven compressors. Transmit, compress, or recover gases, such as butane, nitrogen, hydrogen, and natural gas.
detailed	53-7072	Pump Operators, Except Wellhead Pumpers	Tend, control, or operate power-driven, stationary, or portable pumps and manifold systems to transfer gases, oil, other liquids, slurries, or powdered materials to and from various vessels and processes.
detailed	53-7073	Wellhead Pumpers	Operate power pumps and auxiliary equipment to produce flow of oil or gas from wells in oil field.
broad	53-7080	Refuse and Recyclable Material Collectors	
detailed	53-7081	Refuse and Recyclable Material Collectors	Collect and dump refuse or recyclable materials from containers into truck. May drive truck.
broad	53-7120	Tank Car, Truck, and Ship Loaders	
detailed	53-7121	Tank Car, Truck, and Ship Loaders	Load and unload chemicals and bulk solids, such as coal, sand, and grain into or from tank cars, trucks, or ships using material moving equipment. May perform a variety of other tasks relating to shipment of products. May gauge or sample shipping tanks and test them for leaks.
broad	53-7190	Miscellaneous Material Moving Workers	
detailed	53-7199	Material Moving Workers, All Other	All material moving workers not listed separately.
major	55-0000	Military Specific Occupations	
minor	55-1000	Military Officer Special and Tactical Operations Leaders	
broad	55-1010	Military Officer Special and Tactical Operations Leaders	

detailed	55-1011	Air Crew Officers	Perform and direct in-flight duties to ensure the successful
			completion of combat, reconnaissance, transport, and
			search and rescue missions. Duties include operating
			aircraft communications and radar equipment, such as
			establishing satellite linkages and jamming enemy
			communications capabilities; operating aircraft weapons
			and defensive systems; conducting pre-flight, in-flight, and
			post-flight inspections of onboard equipment; and
			directing cargo and personnel drops.
detailed	55-1012	Aircraft Launch and	Plan and direct the operation and maintenance of
		Recovery Officers	catapults, arresting gear, and associated mechanical,
			hydraulic, and control systems involved primarily in
			aircraft carrier takeoff and landing operations. Duties
			include supervision of readiness and safety of arresting
			gear, launching equipment, barricades, and visual landing
			aid systems; planning and coordinating the design,
			development, and testing of launch and recovery systems;
			preparing specifications for catapult and arresting gear
			installations; evaluating design proposals; determining
			handling equipment needed for new aircraft; preparing
			technical data and instructions for operation of landing
			aids; and training personnel in carrier takeoff and landing
			procedures.
detailed	55-1013	Armored Assault Vehicle	Direct the operation of tanks, light armor, and amphibious
		Officers	assault vehicle units during combat situations on land or
			in aquatic environments. Duties include directing crew
			members in the operation of targeting and firing systems;
			coordinating the operation of advanced onboard
			communications and navigation equipment; directing the
			transport of personnel and equipment during combat;
			formulating and implementing battle plans, including the
			tactical employment of armored vehicle units; and
			coordinating with infantry, artillery, and air support units.
detailed	55-1014	Artillery and Missile	Manage personnel and weapons operations to destroy
		Officers	enemy positions, aircraft, and vessels. Duties include
			planning, targeting, and coordinating the tactical
			deployment of field artillery and air defense artillery
			missile systems units; directing the establishment and
			operation of fire control communications systems;
			targeting and launching intercontinental ballistic missiles;
			directing the storage and handling of nuclear munitions
			and components; overseeing security of weapons storage
			and launch facilities; and managing maintenance of
			weapons systems.

detailed	55-1015	Command and Control Center Officers	Manage the operation of communications, detection, and weapons systems essential for controlling air, ground, and naval operations. Duties include managing critical communication links between air, naval, and ground forces; formulating and implementing emergency plans for natural and wartime disasters; coordinating emergency response teams and agencies; evaluating command center information and need for high-level military and government reporting; managing the operation of surveillance and detection systems; providing technical information and advice on capabilities and operational readiness; and directing operation of weapons targeting, firing, and launch computer systems.
detailed	55-1016	Infantry Officers	Direct, train, and lead infantry units in ground combat operations. Duties include directing deployment of infantry weapons, vehicles, and equipment; directing location, construction, and camouflage of infantry positions and equipment; managing field communications operations; coordinating with armor, artillery, and air support units; performing strategic and tactical planning, including battle plan development; and leading basic reconnaissance operations.
detailed	55-1017	Special Forces Officers	Lead elite teams that implement unconventional operations by air, land, or sea during combat or peacetime. These activities include offensive raids, demolitions, reconnaissance, search and rescue, and counterterrorism. In addition to their combat training, special forces officers often have specialized training in swimming, diving, parachuting, survival, emergency medicine, and foreign languages. Duties include directing advanced reconnaissance operations and evaluating intelligence information; recruiting, training, and equipping friendly forces; leading raids and invasions on enemy territories; training personnel to implement individual missions and contingency plans; performing strategic and tactical planning for politically sensitive missions; and operating sophisticated communications equipment.
detailed	55-1019	Military Officer Special and Tactical Operations Leaders, All Other	All military officer special and tactical operations leaders not listed separately.
minor	55-2000	First-Line Enlisted Military Supervisors	

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broad	55-2010	First-Line Enlisted Military Supervisors	
detailed	55-2011	First-Line Supervisors of Air Crew Members	Supervise and coordinate the activities of air crew members. Supervisors may also perform the same activities as the workers they supervise.
detailed	55-2012	First-Line Supervisors of Weapons Specialists/Crew Members	Supervise and coordinate the activities of weapons specialists/crew members. Supervisors may also perform the same activities as the workers they supervise.
detailed	55-2013	First-Line Supervisors of All Other Tactical Operations Specialists	Supervise and coordinate the activities of all other tactical operations specialists not classified separately above. Supervisors may also perform the same activities as the workers they supervise.
minor	55-3000	Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Member	
broad	55-3010	Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Member	
detailed	55-3011	Air Crew Members	Perform in-flight duties to ensure the successful completion of combat, reconnaissance, transport, and search and rescue missions. Duties include operating aircraft communications and detection equipment, including establishing satellite linkages and jamming enemy communications capabilities; conducting pre-flight, in-flight, and post-flight inspections of onboard equipment; operating and maintaining aircraft weapons and defensive systems; operating and maintaining aircraft in-flight refueling systems; executing aircraft safety and emergency procedures; computing and verifying passenger, cargo, fuel, and emergency and special equipment weight and balance data; and conducting cargo and personnel drops.
detailed	55-3012	Aircraft Launch and Recovery Specialists	Operate and maintain catapults, arresting gear, and associated mechanical, hydraulic, and control systems involved primarily in aircraft carrier takeoff and landing operations. Duties include installing and maintaining visual landing aids; testing and maintaining launch and recovery equipment using electric and mechanical test equipment and hand tools; activating airfield arresting systems, such as crash barriers and cables, during emergency landing situations; directing aircraft launch and recovery operations using hand or light signals; and

			maintaining logs of airplane launches, recoveries, and equipment maintenance.
detailed	55-3013	Armored Assault Vehicle Crew Members	Operate tanks, light armor, and amphibious assault vehicles during combat situations on land or in aquatic environments. Duties include driving armored vehicles which require specialized training; operating and maintaining targeting and firing systems; operating and maintaining advanced onboard communications and navigation equipment; transporting personnel and equipment in a combat environment; and operating and maintaining auxiliary weapons, including machine guns and grenade launchers.
detailed	55-3014	Artillery and Missile Crew Members	Target, fire, and maintain weapons used to destroy enemy positions, aircraft, and vessels. Field artillery crew members predominantly use guns, cannons, and howitzers in ground combat operations, while air defense artillery crew members predominantly use missiles and rockets. Naval artillery crew members predominantly use torpedoes and missiles launched from a ship or submarine. Duties include testing, inspecting, and storing ammunition, missiles, and torpedoes; conducting preventive and routine maintenance on weapons and related equipment; establishing and maintaining radio and wire communications; and operating weapons targeting, firing, and launch computer systems.
detailed	55-3015	Command and Control Center Specialists	Operate and monitor communications, detection, and weapons systems essential for controlling air, ground, and naval operations. Duties include maintaining and relaying critical communications between air, naval, and ground forces; implementing emergency plans for natural and wartime disasters; relaying command center information to high-level military and government decision makers; monitoring surveillance and detection systems, such as air defense; interpreting and evaluating tactical situations and making recommendations to superiors; and operating weapons targeting, firing, and launch computer systems.

detailed	55-3016	Infantry	Operate weapons and equipment in ground combat operations. Duties include operating and maintaining weapons, such as rifles, machine guns, mortars, and hand grenades; locating, constructing, and camouflaging infantry positions and equipment; evaluating terrain and recording topographical information; operating and maintaining field communications equipment; assessing need for and directing supporting fire; placing explosives and performing minesweeping activities on land; and participating in basic reconnaissance operations.
detailed	55-3018	Special Forces	Implement unconventional operations by air, land, or sea during combat or peacetime as members of elite teams. These activities include offensive raids, demolitions, reconnaissance, search and rescue, and counterterrorism. In addition to their combat training, special forces members often have specialized training in swimming, diving, parachuting, survival, emergency medicine, and foreign languages. Duties include conducting advanced reconnaissance operations and collecting intelligence information; recruiting, training, and equipping friendly forces; conducting raids and invasions on enemy territories; laying and detonating explosives for demolition targets; locating, identifying, defusing, and disposing of ordnance; and operating and maintaining sophisticated communications equipment.
detailed	55-3019	Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other	All military enlisted tactical operations and air/weapons specialists and crewmembers not listed separately.