

**OASIS LABOR CATEGORIES
and
BUREAU OF LABOR STATISTICS
SERVICE OCCUPATIONAL CLASSIFICATIONS**

BACKGROUND:

OASIS labor categories have been mapped to the Office of Management and Budget's (OMB) Standard Occupational Classification (SOC) for which the Bureau of Labor Statistics (BLS) maintains compensation data. Labor categories are further defined as Junior, Journeyman, and Senior based on years of experience, education, and duties/responsibilities as follows:

- **JUNIOR:** A Junior labor category has up to 3 years experience and a BA/BS degree. A Junior labor category is responsible for assisting more senior positions and/or performing functional duties under the oversight of more senior positions.
- **JOURNEYMAN:** A Journeyman labor category has 3 to 10 years of experience and a BA/BS or MA/MS degree. A Journeyman labor category typically performs all functional duties independently.
- **SENIOR:** A Senior labor category has over 10 years of experience and a MA/MS degree. A Senior labor category typically works on high-visibility or mission critical aspects of a given program and performs all functional duties independently. A Senior labor category may oversee the efforts of less senior staff and/or be responsible for the efforts of all staff assigned to a specific job.
- **SUBJECT MATTER EXPERT (SME):** A Subject Matter Expert is an individual whose qualifications and/or particular expertise are exceptional and/or highly unique. Subject Matter Experts do not have specific experience/education qualifications, but are typically identified as recognized Industry leaders for a given area of expertise. Subject Matter Experts typically perform the following kinds of functions: Initiates, supervises, and/or develops requirements from a project's inception to conclusion for complex to extremely complex programs; Provides strategic advice, technical guidance and expertise to program and project staff; Provides detailed analysis, evaluation and recommendations for improvements, optimization development, and/or maintenance efforts for client-specific or mission critical challenges/issues; Consults with client to define need or problem supervises studies and leads surveys to collect and analyze data to provide advice and recommend solutions.

Contractors may deviate from the definitions above when responding to task order solicitations so long as the deviations are clearly identified in their task order proposal. For example, a Contractor might label an employee as "Senior", but the employee does not have a MA/MS degree. Likewise, a Contractor might label an employee as "Junior" even though the employee has more than 3 years experience. Deviations shall be clearly identified in proposals submitted in response to task order solicitations.

INDIVIDUAL LABOR CATEGORIES

The following individual labor categories correspond to a single SOC Number, Title, and Functional Description.

Labor ID #	Actuary
1	Junior Actuary
2	Journeyman Actuary
3	Senior Actuary
4	SME - Actuary
SOC No.	SOC Title and Functional Description
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.

Labor ID #	Administrative Professional
5	Junior Administrative Professional
6	Journeyman Administrative Professional
7	Senior Administrative Professional
8	SME – Administrative Professional
SOC No.	SOC Title and Functional Description
43-6011	Executive Secretaries and Executive Administrative Assistants - Provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings.

Labor ID #	Editor
9	Junior Editor
10	Journeyman Editor
11	Senior Editor
12	SME –Editor
SOC No.	SOC Title and Functional Descriptions (These SOCs are combined into one labor category)
27-3041	Editors - Plan, coordinate, or edit content of material for publication. May review proposals and drafts for possible publication. Includes technical editors.

Labor ID #	Investigator
13	Junior Investigator
14	Journeyman Investigator
15	Senior Investigator
16	SME - Investigator
SOC No.	SOC Title and Functional Description
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.

Labor ID #	Operations Research Analyst
17	Junior Operations Research Analyst
18	Journeyman Operations Research Analyst
19	Senior Operations Research Analyst
20	SME – Operations Research Analyst
SOC No.	SOC Title and Functional Description
15-2031	Operations Research Analyst - 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.

Labor ID #	Public Relations Specialist
21	Junior Public Relations Specialist
22	Journeyman Public Relations Specialist
23	Senior Public Relations Specialist
24	SME – Public Relations Specialist
SOC No.	SOC Title and Functional Description
27-3031	Public Relations Specialist - 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.

Labor ID #	Statistician
25	Junior Statistician
26	Journeyman Statistician
27	Senior Statistician
28	SME - Statistician
SOC No.	SOC Title and Functional Description
15-2041	Statistician - 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).
Labor ID #	Writer
29	Junior Writer
30	Journeyman Writer
31	Senior Writer
32	SME – Writer
SOC No.	SOC Title and Functional Descriptions (These SOC's are combined into one labor category)
27-3043	Writers and Authors - Originate and prepare written material, such as scripts, stories, advertisements, and other material.

GROUPED LABOR CATEGORIES

The following labor category groups correspond to groups of SOC Numbers, Titles, and Functional Descriptions. These labor category groups were established based upon BLS published data regarding direct labor compensation across multiple SOC numbers. The multiple SOC Numbers within each labor category group have similar salaries based upon the BLS data.

Labor ID #	Business and Financial Operations Specialist Group 1
33	Junior Business and Financial Operations Specialist Group 1
34	Journeyman Business and Financial Operations Specialist Group 1

35	Senior Business and Financial Operations Specialist Group 1
36	SME – Business and Financial Operations Specialist Group 1
SOC No.	SOC Titles and Functional Descriptions
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.
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, and loan underwriters.

Labor ID #	Business and Financial Operations Specialist Group 2
37	Junior Business and Financial Operations Specialist Group 2
38	Journeyman Business and Financial Operations Specialist Group 2
39	Senior Business and Financial Operations Specialist Group 2
40	SME - Business and Financial Operations Specialist Group 2
SOC No.	SOC Titles and Functional Descriptions
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" (15-1121) and "Operations Research Analysts" (15-2031).
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.
13-2051	Financial Analysts - Conduct quantitative analyses of information affecting investment programs of public or private institutions.

Labor ID #	Business and Financial Operations Specialist Group 3
41	Junior Business and Financial Operations Specialist Group 3
42	Journeyman Business and Financial Operations Specialist Group 3
43	Senior Business and Financial Operations Specialist Group 3
44	SME - Business and Financial Operations Specialist Group 3
SOC No.	SOC Titles and Functional Descriptions
13-1199	Business Operations Specialists, all other - All business operations specialists not listed separately.
13-1081	Logisticians - Analyze and coordinate the logistical functions of a firm or organization. Responsible for the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery, and final disposal of resources. Excludes "Transportation, Storage, and Distribution Managers" (11-3071).
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).
13-2053	Insurance Underwriters - Review individual applications for insurance to evaluate degree of risk involved and determine acceptance of applications.

Labor ID #	Business and Financial Operations Specialist Group 4
45	Junior Business and Financial Operations Specialist Group 4
46	Journeyman Business and Financial Operations Specialist Group 4
47	Senior Business and Financial Operations Specialist Group 4
48	SME - Business and Financial Operations Specialist Group 4
SOC No.	SOC Titles and Functional Descriptions
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.
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. Includes assistant wholesale and retail buyers of nonfarm products.
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. Excludes "Buyers and Purchasing Agents, Farm Products" (13-1021) and "Wholesale and Retail Buyers, Except Farm Products" (13-1022).
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).
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.
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).
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.
13-1071	Human Resources Specialists - Perform activities in the human resource area. Includes employment specialists who screen, recruit, interview, and place workers. Excludes "Compensation, Benefits, and Job Analysis Specialists" (13-1141) and "Training and Development Specialists" (13-1151).
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).
13-1121	Meeting, Convention, and Event Planners - Coordinate activities of staff, convention personnel, or clients to make arrangements for group meetings, events, or conventions.
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.
13-1151	Training and Development Specialists - Design and conduct training and development programs to improve individual and organizational performance. May analyze training needs.

13-1161	Market Research Analysts and Marketing Specialists - Research market conditions in local, regional, or national areas, or gather information to determine potential sales of a product or service, or create a marketing campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution.
13-2021	Appraisers and Assessors of Real Estate - Appraise real property and estimate its fair value. May assess taxes in accordance with prescribed schedules.
13-2031	Budget Analysts - Examine budget estimates for completeness, accuracy, and conformance with procedures and regulations. Analyze budgeting and accounting reports.
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, advise on credit issues, or provide budget, mortgage, and bankruptcy counseling.
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.
13-2082	Tax Preparers - Prepare tax returns for individuals or small businesses. Excludes "Accountants and Auditors" (13-2011).
13-2099	Financial Specialists, all other - All financial specialists not listed separately.

Labor ID #	Engineer Group 1
49	Junior Engineer Group 1
50	Journeyman Engineer Group 1
51	Senior Engineer Group 1
52	SME - Engineer Group 1
SOC No.	SOC Title and Functional Description
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.

Labor ID #	Engineer Group 2
53	Junior Engineer Group 2
54	Journeyman Engineer Group 2
55	Senior Engineer Group 2
56	SME - Engineer Group 2
SOC No.	SOC Titles and Functional Descriptions
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.

Labor ID #	Engineer Group 3
57	Junior Engineer Group 3
58	Journeyman Engineer Group 3
59	Senior Engineer Group 3
60	SME - Engineer Group 3
SOC No.	SOC Titles and Functional Descriptions
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.
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 health management and care

	delivery systems.
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.
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).
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).
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.

Labor ID #	Engineer Group 4
61	Junior Engineer Group 4
62	Journeyman Engineer Group 4
63	Senior Engineer Group 4
64	SME - Engineer Group 4
SOC No.	SOC Titles and Functional Descriptions
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, ocean, and geo-technical engineers. Excludes "Hydrologists" (19-2043).
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).
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).
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.
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.
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.
17-2141	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.
17-2199	Engineers, all other - All engineers not listed separately.

Labor ID #	Engineer Group 5
65	Junior Engineer Group 5
66	Journeyman Engineer Group 5
67	Senior Engineer Group 5
68	SME - Engineer Group 5
SOC No.	SOC Titles and Functional Descriptions
17-1021	Cartographers and Photogrammetrists - Collect, analyze, and interpret geographic information provided by geodetic surveys, aerial photographs, and satellite data. Research, study, and prepare maps and other spatial data in digital or graphic form for 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.
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.
17-2021	Agriculture 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.

Labor ID #	Manager Group 1
69	Junior Manager Group 1
70	Journeyman Manager Group 1
71	Senior Manager Group 1
72	SME - Manager Group 1
SOC No.	SOC Titles and Functional Descriptions
11-1021	General and Operations Managers - Plan, direct, or coordinate the operations of public or private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Excludes First-Line Supervisors.
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.
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.
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.
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.
11-9061	Funeral Service 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 Directors" (39-4031).

Labor ID #	Manager Group 2
73	Junior Manager Group 2
74	Journeyman Manager Group 2
75	Senior Manager Group 2
76	SME - Manager Group 2
SOC No.	SOC Titles and Functional Descriptions
11-2031	Public Relations and Fundraising Managers - Plan, direct, or coordinate activities designed to create or maintain a favorable public image or raise issue awareness for their organization or client; or if engaged in fundraising, plan, direct, or coordinate activities to solicit and maintain funds for special projects or nonprofit organizations.
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).
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).
11-9121	Natural Science 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).
11-9199	Managers, all other - All managers not listed separately.

Labor ID #	Manager Group 3
77	Junior Manager Group 3
78	Journeyman Manager Group 3
79	Senior Manager Group 3
80	SME - Manager Group 3
SOC No.	SOC Titles and Functional Descriptions
11-3011	Administrative Services Managers - Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, facilities planning and maintenance, custodial operations, and other office support services. Medical records administrators are included in "Medical and Health Services Managers" (11-9111). Excludes "Purchasing Managers" (11-3061).
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.
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.
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.
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).
11-3131	Training and Development Managers - Plan, direct, or coordinate the training and development activities and staff of an organization.
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).
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.
11-9033	Education Administrators, Postsecondary - Plan, direct, or coordinate research, instructional, student administration and services, and other educational activities at postsecondary institutions, including universities, colleges, and junior and community colleges.
11-9039	Education Administrators, All Other - All education administrators not listed separately.
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.
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.
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).

Labor ID #	Manager Group 4
81	Junior Manager Group 4
82	Journeyman Manager Group 4
83	Senior Manager Group 4
84	SME - Manager Group 4
SOC No.	SOC Titles and Functional Descriptions
11-9031	Education Administrators, Preschool and Childcare Center/Program - Plan, direct, or coordinate the academic and nonacademic activities of preschool and childcare centers or programs. Excludes "Preschool Teachers" (25-2011).
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).
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.
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.
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.

Labor ID #	Scientists and Science Technicians Group 1
85	Junior Scientists and Science Technicians Group 1
86	Journeyman Scientists and Science Technicians Group 1
87	Senior Scientists and Science Technicians Group 1
88	SME - Scientists and Science Technicians Group 1
SOC No.	SOC Title and Functional Description
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).
--	---

Labor ID #	Scientists and Science Technicians Group 2
89	Junior Scientists and Science Technicians Group 2
90	Journeyman Scientists and Science Technicians Group 2
91	Senior Scientists and Science Technicians Group 2
92	SME - Scientists and Science Technicians Group 2
SOC No.	SOC Titles and Functional Descriptions
19-1011	Animal Scientist - Conduct research in the genetics, nutrition, reproduction, growth, and development of domestic farm animals.
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.
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).
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, crystallographers, paleontologists, stratigraphers, geodesists, and seismologists.

Labor ID #	Scientists and Science Technicians Group 3
93	Junior Scientists and Science Technicians Group 3
94	Journeyman Scientists and Science Technicians Group 3
95	Senior Scientists and Science Technicians Group 3
96	SME - Scientists and Science Technicians Group 3
SOC No.	SOC Titles and Functional Descriptions
19-1023	Zoologist and Wildlife Biologist - 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.
19-1029	Biological Scientists, all other - All biological scientists not listed separately.
19-1099	Life Scientists, all other - All life scientists not listed separately.
19-2011	Astronomers - Observe, research, and interpret astronomical phenomena to increase basic knowledge or apply such information to practical problems.
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).
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 the health of the population. 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" (19-4093), "Fish and Game Wardens" (33-3031), and "Forest and Conservation Workers" (45-4011).
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.
19-2099	Physical Scientists, All Other - All physical scientists not listed separately.
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).
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.
19-3039	Psychologists, all other - All psychologists not listed separately.
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.
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.
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).
19-4041	Geological and Petroleum 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.
19-4051	Nuclear Technicians - Assist nuclear physicists, nuclear engineers, or other scientists in laboratory or production activities. May operate, maintain, or provide quality control for nuclear testing and research equipment. May monitor radiation.

Labor ID #	Scientists and Science Technicians Group 4
97	Junior Scientists and Science Technicians Group 4
98	Journeyman Scientists and Science Technicians Group 4
99	Senior Scientists and Science Technicians Group 4
100	SME - Scientists and Science Technicians Group 4
SOC No.	SOC Titles and Functional Descriptions
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.
19-1013	Soil and Plant Scientist - 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.
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.
19-1031	Conservation Scientist - 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).
19-1041	Epidemiologists - Investigate and describe the determinants and distribution of disease, disability, or health outcomes. May develop the means for prevention and control.
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.
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.
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).
19-3031	Clinical, Counseling, and School Psychologists - Diagnose and treat mental disorders; learning disabilities; and cognitive, behavioral, and emotional problems, using individual, child, family, and group therapies. May design and implement behavior modification programs.
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.
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.
19-3099	Social Scientists and Related Workers, all other - All social scientists and related workers not listed separately.
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).
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.

19-4099	Life, Physical, and Social Science Technicians, all other - All life, physical, and social science technicians not listed separately.
---------	---

Labor ID #	Scientists and Science Technicians Group 5
101	Junior Scientists and Science Technicians Group 5
102	Journeyman Scientists and Science Technicians Group 5
103	Senior Scientists and Science Technicians Group 5
104	SME - Scientists and Science Technicians Group 5
SOC No.	SOC Titles and Functional Descriptions
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.
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.
19-4011	Agricultural and Food Science Technicians - Work with agricultural and food scientists in food, fiber, and animal research, production, and processing; and assist with animal breeding and nutrition. Conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects. Includes technicians who assist food scientists or technologists in the research and development of production technology, quality control, packaging, processing, and use of foods.
19-4021	Biological Technicians - Assist biological and medical scientists in laboratories. Set up, operate, and maintain laboratory instruments and equipment, monitor experiments, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.
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.
19-4091	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.
19-4093	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).