Background on 'Remote Possible' Classifications

This article uses classifications of "remote possible" occupations identified by Dingel and Neiman (2020) as a starting point. Our classification narrowed the list by recognizing that some jobs performed remotely in 2020 may not be jobs that are well positioned to be remote indefinitely. In our analysis, jobs were classified as "remote possible" if a firm theoretically would hire a person to perform the role in a different physical location that would ordinarily be performed at the firm's location. Our analysis seeks to evaluate whether an occupation can be performed seamlessly in any location.

Many jobs require individuals to be onsite. Even at the height of the pandemic emergency, these jobs were not able to be performed remotely. Jobs like these – such as cooks, dentists, lab technicians, or production workers – are classified as "not remote possible."

Some jobs may appear to be "remote" but are not a seamless differentiation between a headquarters and remote location. For example, truck drivers are classified as "not remote possible." Clearly, a trucking company hires a truck driver and that person moves goods throughout the country, distant from the headquarters location. However, the responsibilities of a truck driver cannot be carried out at the headquarters location. Thus, the occupation is not classified as "remote possible" by our methodology.

The pandemic highlighted the fact that many jobs can be performed at home in a modern economy. However, in a post-pandemic world, some occupations that have been performed at home will return to the primary site of the employer. For example, it seems unlikely that teachers will take remote jobs in the future even though it was possible for teachers to work from home during the pandemic emergency. Health-care professionals are another example; telehealth services may be on the rise, but the bulk of health-care employees likely will be required to remain onsite.

Nevertheless, some occupations may be positioned to transition to a remote environment. For example, most business and financial jobs (such as accountants, budget analysts and financial advisors) can perform the same task remotely that might be accomplished in a physical office. Different employers may have different preferences for their workforces but, in theory, jobs like these may be performed anywhere.

Our analysis attempts to look beyond the pandemic to categorize occupations that might be done remotely for firms located elsewhere on a long-term basis. There, admittedly, is a large amount of subjectivity in this exercise. For clarity and transparency, the following list is the classification of "remote possible jobs" and "not remote possible jobs" used in the analysis for the article. These occupations are sorted by the Office of Management and Budget's Standard Occupational Classification (SOC) system. A full list and accompanying definitions of occupations included in the BLS's Occupational Employment and Wage Statistics can be found here.

Remote Possible Jobs

11-2021	Marketing Managers
11-2022	Sales Managers
11-2030	Public Relations and Fundraising Managers
11-3021	Computer and Information Systems Managers
11-3031	Financial Managers
11-3061	Purchasing Managers
11-3111	Compensation and Benefits Managers
11-3121	Human Resources Managers
11-3131	Training and Development Managers
11-9041	Architectural and Engineering Managers
13-1011	Agents and Business Managers of Artists, Performers, and Athletes
13-1020	Buyers and Purchasing Agents
13-1031	Claims Adjusters, Examiners, and Investigators
13-1041	Compliance Officers
13-1051	Cost Estimators
13-1071	Human Resources Specialists
13-1075	Labor Relations Specialists
13-1081	Logisticians
13-1111	Management Analysts
13-1131	Fundraisers
13-1141	Compensation, Benefits, and Job Analysis Specialists
13-1151	Training and Development Specialists
13-1161	Market Research Analysts and Marketing Specialists
13-1198	Project Management Specialists and Business Operations Specialists, All Other
13-2011	Accountants and Auditors
13-2031	Budget Analysts
13-2041	Credit Analysts
13-2052	Personal Financial Advisors
13-2053	Insurance Underwriters
13-2061	Financial Examiners
13-2071	Credit Counselors
13-2072	Loan Officers
13-2081	Tax Examiners and Collectors, and Revenue Agents
13-2082	Tax Preparers
	Financial and Investment Analysts, Financial Risk Specialists, and Financial Specialists, Al
13-2098	Other
15-1211	Computer Systems Analysts
15-1212	Information Security Analysts
15-1221	Computer and Information Research Scientists
15-1231	Computer Network Support Specialists
15-1232	Computer User Support Specialists
15-1241	Computer Network Architects
15-1244	Network and Computer Systems Administrators

15-1245	Database Administrators and Architects
15-1251	Computer Programmers
15-1256	Software Developers and Software Quality Assurance Analysts and Testers
15-1257	Web Developers and Digital Interface Designers
15-1299	Computer Occupations, All Other
15-2011	Actuaries
15-2021	Mathematicians
15-2031	Operations Research Analysts
15-2041	Statisticians
15-2098	Data Scientists and Mathematical Science Occupations, All Other
17-1011	Architects, Except Landscape and Naval
17-3011	Architectural and Civil Drafters
17-3012	Electrical and Electronics Drafters
17-3013	Mechanical Drafters
17-3019	Drafters, All Other
19-3011	Economists
19-3022	Survey Researchers
19-3032	Industrial-Organizational Psychologists
19-3039	Psychologists, All Other
19-3041	Sociologists
19-3093	Historians
19-3094	Political Scientists
19-4061	Social Science Research Assistants
27-1012	Craft Artists
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators
27-1014	Special Effects Artists and Animators
27-1019	Artists and Related Workers, All Other
27-1021	Commercial and Industrial Designers
27-1024	Graphic Designers
27-1027	Set and Exhibit Designers
27-1029	Designers, All Other
27-3031	Public Relations Specialists
27-3041	Editors
27-3042	Technical Writers
27-3043	Writers and Authors
27-4032	Film and Video Editors
41-2022	Parts Salespersons
41-3011	Advertising Sales Agents
41-3021	Insurance Sales Agents
41-3031	Securities, Commodities, and Financial Services Sales Agents
41-3041	Travel Agents
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel

41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific
41-4012	Products
41-9031	Sales Engineers
41-9041	Telemarketers
43-2011	Switchboard Operators, Including Answering Service
43-2021	Telephone Operators
43-2099	Communications Equipment Operators, All Other
43-3011	Bill and Account Collectors
43-3031	Bookkeeping, Accounting, and Auditing Clerks
43-4051	Customer Service Representatives
43-4111	Interviewers, Except Eligibility and Loan
43-5031	Public Safety Telecommunicators
43-5032	Dispatchers, Except Police, Fire, and Ambulance
43-9021	Data Entry Keyers
43-9022	Word Processors and Typists
43-9031	Desktop Publishers
43-9041	Insurance Claims and Policy Processing Clerks
43-9081	Proofreaders and Copy Markers
43-9111	Statistical Assistants

Not Remote Possible Jobs

11-1011	Chief Executives
11-1021	General and Operations Managers
11-1031	Legislators
11-3010	Administrative Services and Facilities Managers
11-3051	Industrial Production Managers
11-3071	Transportation, Storage, and Distribution Managers
11-9013	Farmers, Ranchers, and Other Agricultural Managers
11-9021	Construction Managers
11-9031	Education and Childcare Administrators, Preschool and Daycare
11-9032	Education Administrators, Kindergartenthrough Secondary
11-9033	Education Administrators, Postsecondary
11-9039	Education Administrators, All Other
11-9051	Food Service Managers
11-9071	Gambling Managers
11-9081	Lodging Managers
11-9111	Medical and Health Services Managers
11-9121	Natural Sciences Managers
11-9131	Postmasters and Mail Superintendents
11-9141	Property, Real Estate, and Community Association Managers
11-9151	Social and Community Service Managers

11-9161	Emergency Management Directors
11-9171	Funeral Home Managers
	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except
11-9198	Gambling; and Managers, All Other
13-1032	Insurance Appraisers, Auto Damage
13-1121	Meeting, Convention, and Event Planners
13-2020	Property Appraisers and Assessors
17-1012	Landscape Architects
17-1021	Cartographers and Photogrammetrists
17-1022	Surveyors
17-2011	Aerospace Engineers
17-2021	Agricultural Engineers
17-2031	Bioengineers and Biomedical Engineers
17-2041	Chemical Engineers
17-2051	Civil Engineers
17-2061	Computer Hardware Engineers
17-2071	Electrical Engineers
17-2072	Electronics Engineers, Except Computer
17-2081	Environmental Engineers
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors
17-2112	Industrial Engineers
17-2121	Marine Engineers and Naval Architects
17-2131	Materials Engineers
17-2141	Mechanical Engineers
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers
17-2161	Nuclear Engineers
17-2171	Petroleum Engineers
17-2199	Engineers, All Other
17-3021	Aerospace Engineering and Operations Technologists and Technicians
17-3022	Civil Engineering Technologists and Technicians
17-3023	Electrical and Electronic Engineering Technologists and Technicians
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians
17-3025	Environmental Engineering Technologists and Technicians
17-3026	Industrial Engineering Technologists and Technicians
17-3027	Mechanical Engineering Technologists and Technicians
17-3031	Surveying and Mapping Technicians
	Calibration Technologists and Technicians and Engineering Technologists and Technicians,
17-3098	Except Drafters, All Other
19-1011	Animal Scientists
19-1012	Food Scientists and Technologists
19-1013	Soil and Plant Scientists
19-1021	Biochemists and Biophysicists
19-1022	Microbiologists

19-1023	Zoologists and Wildlife Biologists
19-1029	Biological Scientists, All Other
19-1031	Conservation Scientists
19-1032	Foresters
19-1041	Epidemiologists
19-1042	Medical Scientists, Except Epidemiologists
19-1099	Life Scientists, All Other
19-2011	Astronomers
19-2012	Physicists
19-2021	Atmospheric and Space Scientists
19-2031	Chemists
19-2032	Materials Scientists
19-2041	Environmental Scientists and Specialists, Including Health
19-2042	Geoscientists, Except Hydrologists and Geographers
19-2043	Hydrologists
19-2099	Physical Scientists, All Other
19-3031	Clinical, Counseling, and School Psychologists
19-3051	Urban and Regional Planners
19-3091	Anthropologists and Archeologists
19-3092	Geographers
19-3099	Social Scientists and Related Workers, All Other
19-4010	Agricultural and Food Science Technicians
19-4021	Biological Technicians
19-4031	Chemical Technicians
19-4042	Environmental Science and Protection Technicians, Including Health
19-4045	Geological and Hydrologic Technicians
19-4051	Nuclear Technicians
19-4071	Forest and Conservation Technicians
19-4092	Forensic Science Technicians
19-4099	Life, Physical, and Social Science Technicians, All Other
19-5011	Occupational Health and Safety Specialists
19-5012	Occupational Health and Safety Technicians
21-1012	Educational, Guidance, and Career Counselors and Advisors
21-1013	Marriage and Family Therapists
21-1015	Rehabilitation Counselors
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors
21-1019	Counselors, All Other
21-1021	Child, Family, and School Social Workers
21-1022	Healthcare Social Workers
21-1023	Mental Health and Substance Abuse Social Workers
21-1029	Social Workers, All Other
21-1091	Health Education Specialists
21-1092	Probation Officers and Correctional Treatment Specialists

21-1093	Social and Human Service Assistants
21-1094	Community Health Workers
21-1099	Community and Social Service Specialists, All Other
21-2011	Clergy
21-2021	Directors, Religious Activities and Education
21-2099	Religious Workers, All Other
23-1011	Lawyers
23-1012	Judicial Law Clerks
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers
23-1022	Arbitrators, Mediators, and Conciliators
23-1023	Judges, Magistrate Judges, and Magistrates
23-2011	Paralegals and Legal Assistants
23-2093	Title Examiners, Abstractors, and Searchers
23-2099	Legal Support Workers, All Other
25-1011	Business Teachers, Postsecondary
25-1021	Computer Science Teachers, Postsecondary
25-1022	Mathematical Science Teachers, Postsecondary
25-1031	Architecture Teachers, Postsecondary
25-1032	Engineering Teachers, Postsecondary
25-1041	Agricultural Sciences Teachers, Postsecondary
25-1042	Biological Science Teachers, Postsecondary
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary
25-1052	Chemistry Teachers, Postsecondary
25-1053	Environmental Science Teachers, Postsecondary
25-1054	Physics Teachers, Postsecondary
25-1061	Anthropology and Archeology Teachers, Postsecondary
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary
25-1063	Economics Teachers, Postsecondary
25-1064	Geography Teachers, Postsecondary
25-1065	Political Science Teachers, Postsecondary
25-1066	Psychology Teachers, Postsecondary
25-1067	Sociology Teachers, Postsecondary
25-1069	Social Sciences Teachers, Postsecondary, All Other
25-1071	Health Specialties Teachers, Postsecondary
25-1072	Nursing Instructors and Teachers, Postsecondary
25-1081	Education Teachers, Postsecondary
25-1082	Library Science Teachers, Postsecondary
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary
25-1112	Law Teachers, Postsecondary
25-1113	Social Work Teachers, Postsecondary
25-1121	Art, Drama, and Music Teachers, Postsecondary
25-1122	Communications Teachers, Postsecondary
25-1123	English Language and Literature Teachers, Postsecondary

25-1124	Foreign Language and Literature Teachers, Postsecondary
25-1125	History Teachers, Postsecondary
25-1126	Philosophy and Religion Teachers, Postsecondary
25-1192	Family and Consumer Sciences Teachers, Postsecondary
25-1193	Recreation and Fitness Studies Teachers, Postsecondary
25-1194	Career/Technical Education Teachers, Postsecondary
25-1199	Postsecondary Teachers, All Other
25-2011	Preschool Teachers, Except Special Education
25-2012	Kindergarten Teachers, Except Special Education
25-2021	Elementary School Teachers, Except Special Education
25-2022	Middle School Teachers, Except Special and Career/Technical Education
25-2023	Career/Technical Education Teachers, Middle School
25-2031	Secondary School Teachers, Except Special and Career/Technical Education
25-2032	Career/Technical Education Teachers, Secondary School
25-2051	Special Education Teachers, Preschool
25-2052	Special Education Teachers, Kindergarten and Elementary School
25-2057	Special Education Teachers, Middle School
25-2058	Special Education Teachers, Secondary School
25-2059	Special Education Teachers, All Other
	Adult Basic Education, Adult Secondary Education, and English as a Second Language
25-3011	Instructors
25-3021	Self-Enrichment Teachers
25-3031	Substitute Teachers, Short-Term
25-3097	Tutors and Teachers and Instructors, All Other
25-4011	Archivists
25-4012	Curators
25-4013	Museum Technicians and Conservators
25-4022	Librarians and Media Collections Specialists
25-4031	Library Technicians
25-9021	Farm and Home Management Educators
25-9031	Instructional Coordinators
25-9044	Teaching Assistants, Postsecondary
25-9045	Teaching Assistants, Except Postsecondary
25-9099	Educational Instruction and Library Workers, All Other
27-1011	Art Directors
27-1022	Fashion Designers
27-1023	Floral Designers
27-1025	Interior Designers
27-1026	Merchandise Displayers and Window Trimmers
27-2011	Actors
27-2012	Producers and Directors
27-2021	Athletes and Sports Competitors
27-2022	Coaches and Scouts

27-2023	Umpires, Referees, and Other Sports Officials
27-2031	Dancers
27-2032	Choreographers
27-2041	Music Directors and Composers
27-2042	Musicians and Singers
27-2090	Miscellaneous Entertainers and Performers, Sports and Related Workers
27-3011	Broadcast Announcers and Radio Disc Jockeys
27-3023	News Analysts, Reporters, and Journalists
27-3091	Interpreters and Translators
27-3092	Court Reporters and Simultaneous Captioners
27-3099	Media and Communication Workers, All Other
27-4011	Audio and Video Technicians
27-4012	Broadcast Technicians
27-4014	Sound Engineering Technicians
27-4021	Photographers
27-4031	Camera Operators, Television, Video, and Film
27-4098	Lighting Technicians and Media and Communication Equipment Workers, All Other
29-1011	Chiropractors
29-1021	Dentists, General
29-1022	Oral and Maxillofacial Surgeons
29-1023	Orthodontists
29-1029	Dentists, All Other Specialists
29-1031	Dietitians and Nutritionists
29-1041	Optometrists
29-1051	Pharmacists
29-1071	Physician Assistants
29-1081	Podiatrists
29-1122	Occupational Therapists
29-1123	Physical Therapists
29-1124	Radiation Therapists
29-1125	Recreational Therapists
29-1126	RespiratoryTherapists
29-1127	Speech-Language Pathologists
29-1128	Exercise Physiologists
29-1129	Therapists, All Other
29-1131	Veterinarians
29-1141	Registered Nurses
29-1151	Nurse Anesthetists
29-1161	Nurse Midwives
29-1171	Nurse Practitioners
29-1181	Audiologists
29-1211	Anesthesiologists
29-1215	Family Medicine Physicians

29-1216	General Internal Medicine Physicians
29-1218	Obstetricians and Gynecologists
29-1221	Pediatricians, General
29-1223	Psychiatrists
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric
29-1248	Surgeons, Except Ophthalmologists
29-1292	Dental Hygienists
29-1298	Acupuncturists and Healthcare Diagnosing or Treating Practitioners, All Other
29-2010	Clinical Laboratory Technologists and Technicians
29-2031	Cardiovascular Technologists and Technicians
29-2032	Diagnostic Medical Sonographers
29-2033	Nuclear Medicine Technologists
29-2034	Radiologic Technologists and Technicians
29-2035	Magnetic Resonance Imaging Technologists
29-2040	Emergency Medical Technicians and Paramedics
29-2051	Dietetic Technicians
29-2052	PharmacyTechnicians
29-2053	Psychiatric Technicians
29-2055	Surgical Technologists
29-2056	Veterinary Technologists and Technicians
29-2057	Ophthalmic Medical Technicians
29-2061	Licensed Practical and Licensed Vocational Nurses
29-2081	Opticians, Dispensing
29-2091	Orthotists and Prosthetists
29-2092	Hearing Aid Specialists
	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and
29-2098	Technicians, All Other
29-9091	Athletic Trainers
29-9092	Genetic Counselors
29-9098	Health Information Technologists, Medical Registrars, Surgical Assistants, and Healthcare Practitioners and Technical Workers, All Other
31-1120	Home Health and Personal Care Aides
31-1131	Nursing Assistants
31-1132	Orderlies
31-1133	Psychiatric Aides
31-2011	Occupational Therapy Assistants
31-2012	Occupational Therapy Aides
31-2021	Physical Therapist Assistants
31-2022	Physical Therapist Aides
31-9011	Massage Therapists
31-9091	Dental Assistants
31-9092	Medical Assistants
31-9093	Medical Equipment Preparers

31-9094	Medical Transcriptionists
31-9095	Pharmacy Aides
31-9096	Veterinary Assistants and Laboratory Animal Caretakers
31-9097	Phlebotomists
31-9099	Healthcare Support Workers, All Other
33-1011	First-Line Supervisors of Correctional Officers
33-1012	First-Line Supervisors of Police and Detectives
33-1021	First-Line Supervisors of Firefighting and Prevention Workers
33-1090	Miscellaneous First-Line Supervisors, Protective Service Workers
33-2011	Firefighters
33-2021	Fire Inspectors and Investigators
33-2022	Forest Fire Inspectors and Prevention Specialists
33-3011	Bailiffs
33-3012	Correctional Officers and Jailers
33-3021	Detectives and Criminal Investigators
33-3031	Fish and Game Wardens
33-3041	Parking Enforcement Workers
33-3051	Police and Sheriff's Patrol Officers
33-3052	Transit and Railroad Police
33-9011	Animal Control Workers
33-9021	Private Detectives and Investigators
33-9031	Gambling Surveillance Officers and Gambling Investigators
33-9032	Security Guards
33-9091	Crossing Guards and Flaggers
33-9092	${\bf Lifeguards, Ski\ Patrol, and\ Other\ Recreational\ Protective\ Service\ Workers}$
33-9093	Transportation Security Screeners
33-9098	School Bus Monitors and Protective Service Workers, All Other
35-1011	Chefs and Head Cooks
35-1012	First-Line Supervisors of Food Preparation and Serving Workers
35-2011	Cooks, Fast Food
35-2012	Cooks, Institution and Cafeteria
35-2013	Cooks, Private Household
35-2014	Cooks, Restaurant
35-2015	Cooks, Short Order
35-2019	Cooks, All Other
35-2021	Food Preparation Workers
35-3011	Bartenders
35-3023	Fast Food and Counter Workers
35-3031	Waiters and Waitresses
35-3041	Food Servers, Nonrestaurant
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers
35-9021	Dishwashers
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop

35-9099	Food Preparation and Serving Related Workers, All Other
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners
37-2012	Maids and Housekeeping Cleaners
37-2019	Building Cleaning Workers, All Other
37-2021	Pest Control Workers
37-3011	Landscaping and Groundskeeping Workers
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation
37-3013	Tree Trimmers and Pruners
37-3019	Grounds Maintenance Workers, All Other
39-1013	First-Line Supervisors of Gambling Services Workers
	First-Line Supervisors of Personal Service and Entertainment and Recreation Workers,
39-1098	Except Gambling Services
39-2011	Animal Trainers
39-2021	Animal Caretakers
39-3011	Gambling Dealers
39-3012	Gambling and Sports Book Writers and Runners
39-3019	Gambling Service Workers, All Other
39-3021	Motion Picture Projectionists
39-3031	Ushers, Lobby Attendants, and Ticket Takers
39-3091	Amusement and Recreation Attendants
39-3092	Costume Attendants
39-3093	Locker Room, Coatroom, and Dressing Room Attendants
39-3099	Entertainment Attendants and Related Workers, All Other
39-4011	Embalmers
39-4021	Funeral Attendants
39-4031	Morticians, Undertakers, and Funeral Arrangers
39-5011	Barbers
39-5012	Hairdressers, Hairstylists, and Cosmetologists
39-5091	Makeup Artists, Theatrical and Performance
39-5092	Manicurists and Pedicurists
39-5093	Shampooers
39-5094	Skincare Specialists
39-6011	Baggage Porters and Bellhops
39-6012	Concierges
39-7010	Tour and Travel Guides
39-9011	Childcare Workers
39-9031	Exercise Trainers and Group Fitness Instructors
39-9032	Recreation Workers
39-9041	Residential Advisors
39-9098	Crematory Operators and Personal Care and Service Workers, All Other
41-1011	First-Line Supervisors of Retail Sales Workers

41-1012	First-Line Supervisors of Non-Retail Sales Workers
41-2011	Cashiers
41-2012	Gambling Change Persons and Booth Cashiers
41-2021	Counter and Rental Clerks
41-2031	Retail Salespersons
41-9011	Demonstrators and Product Promoters
41-9012	Models
41-9021	Real Estate Brokers
41-9022	Real Estate Sales Agents
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers
41-9099	Sales and Related Workers, All Other
43-1011	First-Line Supervisors of Office and Administrative Support Workers
43-3021	Billing and Posting Clerks
43-3041	Gambling Cage Workers
43-3051	Payroll and Timekeeping Clerks
43-3061	Procurement Clerks
43-3071	Tellers
43-3099	Financial Clerks, All Other
43-4011	Brokerage Clerks
43-4021	Correspondence Clerks
43-4031	Court, Municipal, and License Clerks
43-4041	Credit Authorizers, Checkers, and Clerks
43-4061	Eligibility Interviewers, Government Programs
43-4071	File Clerks
43-4081	Hotel, Motel, and Resort Desk Clerks
43-4121	Library Assistants, Clerical
43-4131	Loan Interviewers and Clerks
43-4141	New Accounts Clerks
43-4151	Order Clerks
43-4161	Human Resources Assistants, Except Payroll and Timekeeping
43-4171	Receptionists and Information Clerks
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks
43-4199	Information and Record Clerks, All Other
43-5011	Cargo and Freight Agents
43-5021	Couriers and Messengers
43-5041	Meter Readers, Utilities
43-5051	Postal Service Clerks
43-5052	Postal Service Mail Carriers
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators
43-5061	Production, Planning, and Expediting Clerks
43-5071	Shipping, Receiving, and Inventory Clerks
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping
43-6011	Executive Secretaries and Executive Administrative Assistants

43-6012	Legal Secretaries and Administrative Assistants
43-6013	Medical Secretaries and Administrative Assistants
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service
43-9061	Office Clerks, General
43-9071	Office Machine Operators, Except Computer
43-9199	Office and Administrative Support Workers, All Other
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers
45-2011	Agricultural Inspectors
45-2021	Animal Breeders
45-2041	Graders and Sorters, Agricultural Products
45-2091	Agricultural Equipment Operators
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals
45-2099	Agricultural Workers, All Other
45-4011	Forest and Conservation Workers
45-4021	Fallers
45-4022	Logging Equipment Operators
45-4023	Log Graders and Scalers
45-4029	Logging Workers, All Other
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers
47-2011	Boilermakers
47-2021	Brickmasons and Blockmasons
47-2022	Stonemasons
47-2031	Carpenters
47-2041	Carpet Installers
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles
47-2043	Floor Sanders and Finishers
47-2044	Tile and Stone Setters
47-2051	Cement Masons and Concrete Finishers
47-2053	Terrazzo Workers and Finishers
47-2061	Construction Laborers
47-2071	Paving, Surfacing, and Tamping Equipment Operators
47-2072	Pile Driver Operators
47-2073	Operating Engineers and Other Construction Equipment Operators
47-2081	Drywall and Ceiling Tile Installers
47-2082	Tapers
47-2111	Electricians
47-2121	Glaziers
47-2131	Insulation Workers, Floor, Ceiling, and Wall
47-2132	Insulation Workers, Mechanical
47-2141	Painters, Construction and Maintenance
47-2142	Paperhangers

47-2151	Pipelayers
47-2152	Plumbers, Pipefitters, and Steamfitters
47-2161	Plasterers and Stucco Masons
47-2171	Reinforcing Iron and Rebar Workers
47-2181	Roofers
47-2211	Sheet Metal Workers
47-2221	Structural Iron and Steel Workers
47-2231	Solar Photovoltaic Installers
47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters
47-3012	HelpersCarpenters
47-3013	HelpersElectricians
47-3014	HelpersPainters, Paperhangers, Plasterers, and Stucco Masons
47-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters
47-3016	HelpersRoofers
47-3019	Helpers, Construction Trades, All Other
47-4011	Construction and Building Inspectors
47-4021	Elevator and Escalator Installers and Repairers
47-4031	Fence Erectors
47-4041	Hazardous Materials Removal Workers
47-4051	Highway Maintenance Workers
47-4061	Rail-Track Laying and Maintenance Equipment Operators
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners
47-4090	Miscellaneous Construction and Related Workers
47-5011	Derrick Operators, Oil and Gas
47-5012	Rotary Drill Operators, Oil and Gas
47-5013	Service Unit Operators, Oil and Gas
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining
47-5041	Continuous Mining Machine Operators
47-5043	Roof Bolters, Mining
47-5044	Loading and Moving Machine Operators, Underground Mining
47-5051	Rock Splitters, Quarry
47-5071	Roustabouts, Oil and Gas
47-5081	HelpersExtraction Workers
	Earth Drillers, Except Oil and Gas; and Explosives Workers, Ordnance Handling Experts, and
47-5097	Blasters
47-5098	Underground Mining Machine Operators and Extraction Workers, All Other
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers
49-2011	Computer, Automated Teller, and Office Machine Repairers
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
49-2091	Avionics Technicians
49-2092	Electric Motor, Power Tool, and Related Repairers
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment

49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles
49-2097	Audiovisual Equipment Installers and Repairers
49-2098	Security and Fire Alarm Systems Installers
49-3011	Aircraft Mechanics and Service Technicians
49-3021	Automotive Body and Related Repairers
49-3022	Automotive Glass Installers and Repairers
49-3023	Automotive Service Technicians and Mechanics
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
49-3041	Farm Equipment Mechanics and Service Technicians
49-3042	Mobile Heavy Equipment Mechanics, Except Engines
49-3043	Rail Car Repairers
49-3051	Motorboat Mechanics and Service Technicians
49-3052	Motorcycle Mechanics
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics
49-3091	Bicycle Repairers
49-3092	Recreational Vehicle Service Technicians
49-3093	Tire Repairers and Changers
49-9011	Mechanical Door Repairers
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers
49-9031	Home Appliance Repairers
49-9041	Industrial Machinery Mechanics
49-9043	Maintenance Workers, Machinery
49-9044	Millwrights
49-9045	Refractory Materials Repairers, Except Brickmasons
49-9051	Electrical Power-Line Installers and Repairers
49-9052	Telecommunications Line Installers and Repairers
49-9061	Camera and Photographic Equipment Repairers
49-9062	Medical Equipment Repairers
49-9063	Musical Instrument Repairers and Tuners
49-9064	Watch and Clock Repairers
49-9069	Precision Instrument and Equipment Repairers, All Other
49-9071	Maintenance and Repair Workers, General
49-9081	Wind Turbine Service Technicians
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers
49-9092	Commercial Divers
49-9094	Locksmiths and Safe Repairers
49-9095	Manufactured Building and Mobile Home Installers
49-9096	Riggers
49-9097	Signal and Track Switch Repairers
49-9098	HelpersInstallation, Maintenance, and Repair Workers

49-9099	Installation, Maintenance, and Repair Workers, All Other
51-1011	First-Line Supervisors of Production and Operating Workers
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
51-2021	Coil Winders, Tapers, and Finishers
31-2021	Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and
51-2028	Finishers
51-2031	Engine and Other Machine Assemblers
51-2041	Structural Metal Fabricators and Fitters
51-2051	Fiberglass Laminators and Fabricators
51-2061	Timing Device Assemblers and Adjusters
51-2090	Miscellaneous Assemblers and Fabricators
51-3011	Bakers
51-3021	Butchers and Meat Cutters
51-3022	Meat, Poultry, and Fish Cutters and Trimmers
51-3023	Slaughterers and Meat Packers
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders
51-3092	Food Batchmakers
51-3093	Food Cooking Machine Operators and Tenders
51-3099	Food Processing Workers, All Other
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders,
51-4033	Metal and Plastic
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4041	Machinists
51-4051	Metal-Refining Furnace Operators and Tenders
51-4052	Pourers and Casters, Metal
51-4061	Model Makers, Metal and Plastic
51-4062	Patternmakers, Metal and Plastic
51-4071	Foundry Mold and Coremakers
	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and
51-4072	Plastic
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4111	Tool and Die Makers
51-4121	Welders, Cutters, Solderers, and Brazers
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
51-4192	Layout Workers, Metal and Plastic
51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic

51-4194	Tool Grinders, Filers, and Sharpeners
51-4199	Metal Workers and Plastic Workers, All Other
51-5111	Prepress Technicians and Workers
51-5112	Printing Press Operators
51-5113	Print Binding and Finishing Workers
51-6011	Laundry and Dry-Cleaning Workers
51-6021	Pressers, Textile, Garment, and Related Materials
51-6031	Sewing Machine Operators
51-6041	Shoe and Leather Workers and Repairers
51-6042	Shoe Machine Operators and Tenders
51-6051	Sewers, Hand
51-6052	Tailors, Dressmakers, and Custom Sewers
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders
51-6062	Textile Cutting Machine Setters, Operators, and Tenders
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
51-6092	Fabric and Apparel Patternmakers
51-6093	Upholsterers
51-6099	Textile, Apparel, and Furnishings Workers, All Other
51-7011	Cabinetmakers and Bench Carpenters
51-7021	Furniture Finishers
51-7031	Model Makers, Wood
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing
51-7099	Woodworkers, All Other
51-8011	Nuclear Power Reactor Operators
51-8012	Power Distributors and Dispatchers
51-8013	Power Plant Operators
51-8021	Stationary Engineers and Boiler Operators
51-8031	Water and Wastewater Treatment Plant and System Operators
51-8091	Chemical Plant and System Operators
51-8092	Gas Plant Operators
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers
51-8099	Plant and System Operators, All Other
51-9011	Chemical Equipment Operators and Tenders Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and
51-9012	Tenders
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders
51-9022	Grinding and Polishing Workers, Hand
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders
51-9031	Cutters and Trimmers, Hand
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders

51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
51-9071	Jewelers and Precious Stone and Metal Workers
51-9081	Dental Laboratory Technicians
51-9082	Medical Appliance Technicians
51-9083	Ophthalmic Laboratory Technicians
51-9111	Packaging and Filling Machine Operators and Tenders
51-9123	Painting, Coating, and Decorating Workers
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
51-9141	Semiconductor Processing Technicians
51-9151	Photographic Process Workers and Processing Machine Operators
51-9161	Computer Numerically Controlled Tool Operators
51-9162	Computer Numerically Controlled Tool Programmers
51-9191	Adhesive Bonding Machine Operators and Tenders
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders
51-9193	Cooling and Freezing Equipment Operators and Tenders
51-9194	Etchers and Engravers
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic
51-9196	Paper Goods Machine Setters, Operators, and Tenders
51-9197	Tire Builders
51-9198	HelpersProduction Workers
51-9199	Production Workers, All Other
53-1041	Aircraft Cargo Handling Supervisors
	First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft
53-1047	Cargo Handling Supervisors
53-2011	Airline Pilots, Copilots, and Flight Engineers
53-2012	Commercial Pilots
53-2021	Air Traffic Controllers
53-2022	Airfield Operations Specialists
53-2031	Flight Attendants
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians
53-3031	Driver/Sales Workers
53-3032	Heavy and Tractor-Trailer Truck Drivers
53-3033	Light Truck Drivers
53-3052	Bus Drivers, Transit and Intercity
53-3058	Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity
53-3099	Motor Vehicle Operators, All Other
53-4011	Locomotive Engineers
53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers
53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers
53-4031	Railroad Conductors and Yardmasters
53-4041	Subway and Streetcar Operators

53-4099	Rail Transportation Workers, All Other
53-5011	Sailors and Marine Oilers
53-5021	Captains, Mates, and Pilots of Water Vessels
53-5022	Motorboat Operators
53-5031	Ship Engineers
53-6011	Bridge and Lock Tenders
53-6021	Parking Attendants
53-6031	Automotive and Watercraft Service Attendants
53-6041	Traffic Technicians
53-6051	Transportation Inspectors
53-6061	Passenger Attendants
53-6098	Aircraft Service Attendants and Transportation Workers, All Other
53-7011	Conveyor Operators and Tenders
53-7021	Crane and Tower Operators
53-7031	Dredge Operators
53-7041	Hoist and Winch Operators
53-7051	Industrial Truck and Tractor Operators
53-7061	Cleaners of Vehicles and Equipment
53-7062	Laborers and Freight, Stock, and Material Movers, Hand
53-7063	Machine Feeders and Offbearers
53-7064	Packers and Packagers, Hand
53-7065	Stockers and Order Fillers
53-7071	Gas Compressor and Gas Pumping Station Operators
53-7072	Pump Operators, Except Wellhead Pumpers
53-7073	Wellhead Pumpers
53-7081	Refuse and Recyclable Material Collectors
53-7121	Tank Car, Truck, and Ship Loaders
53-7199	Material Moving Workers, All Other