



Data Appendix

“Technological Disruption in the US Labor Market”

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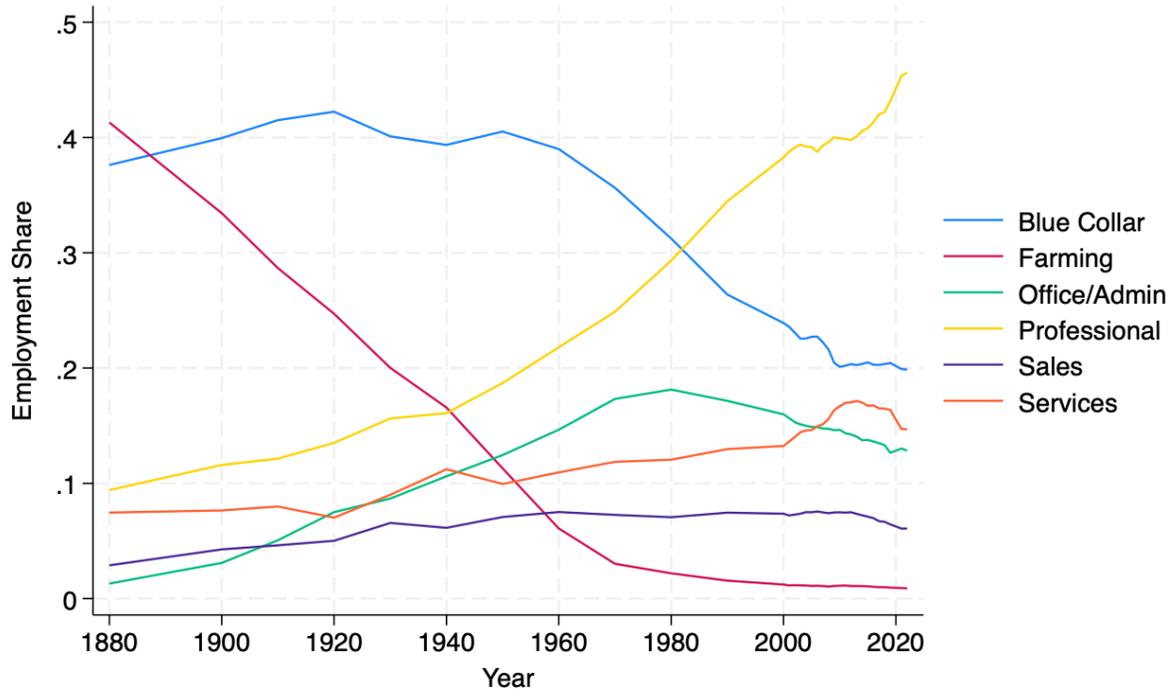
This appendix provides further description of our figures, data sources, and the harmonization of occupations used in our paper

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Extended Figure Notes

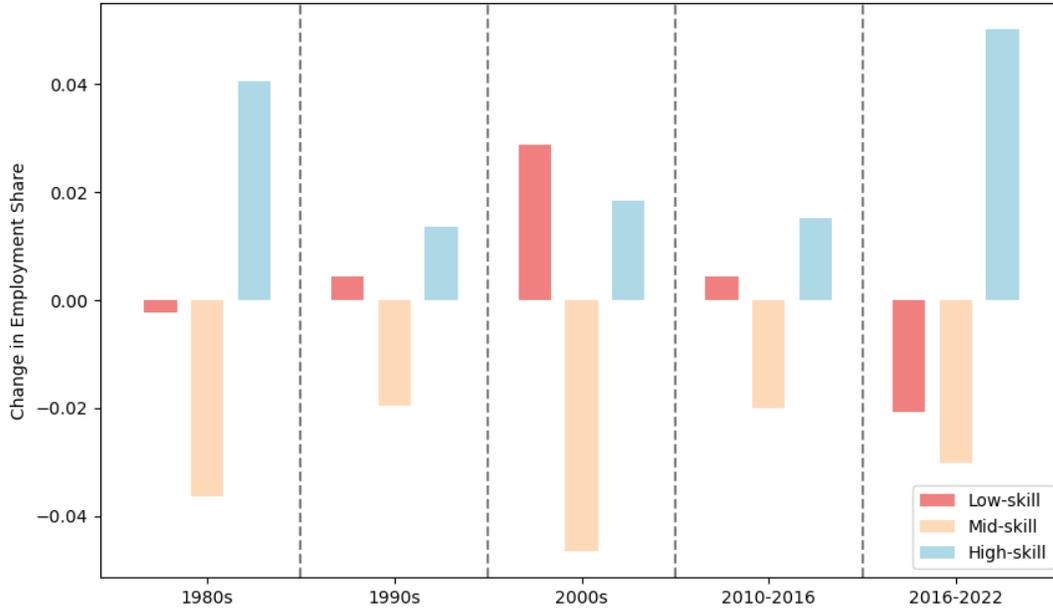
Figure 1



Notes: Calculations are based off of decadal US Census of Population data from 1880-2000 (except for 1890) and 2001-2022 American Community Survey (ACS) samples (except for 2020), sourced via IPUMS (Ruggles et al. 2024). Occupations are harmonized across decades to two-digit SOC codes using the IPUMS occ1950 encoding and methodology used in Autor and Dorn (2013), detailed methodology described in Data Appendix. Samples are restricted to workers aged 18-64 in non-institutional quarters who provide non-military occupational responses.

Description	Occupation Groups Included (SOC2)
Professional	Management (11), Business and Financial Operations (13), Computer and Mathematical (15), Architecture and Engineering (17), Life, Physical and Social Science (19), Community and Social Service (21), Legal (23), Education Instruction and Library (25), Arts, Design, Entertainment, Sports, and Media (27), Healthcare Practitioners and Technical (29)
Services	Healthcare Support (31), Protective Service (33), Food Preparation and Serving Related (35), Building and Grounds Cleaning and Maintenance Occupations (37), Personal Care and Service (39)
Sales	Sales and Related (41)
Office/Admin	Office and Administrative Support (43)
Farming	Farming, Fishing, and Forestry (45)
Blue Collar	Construction and Extraction (47), Installation, Maintenance, and Repair (49), Production (51), Transportation and Material Moving (53)

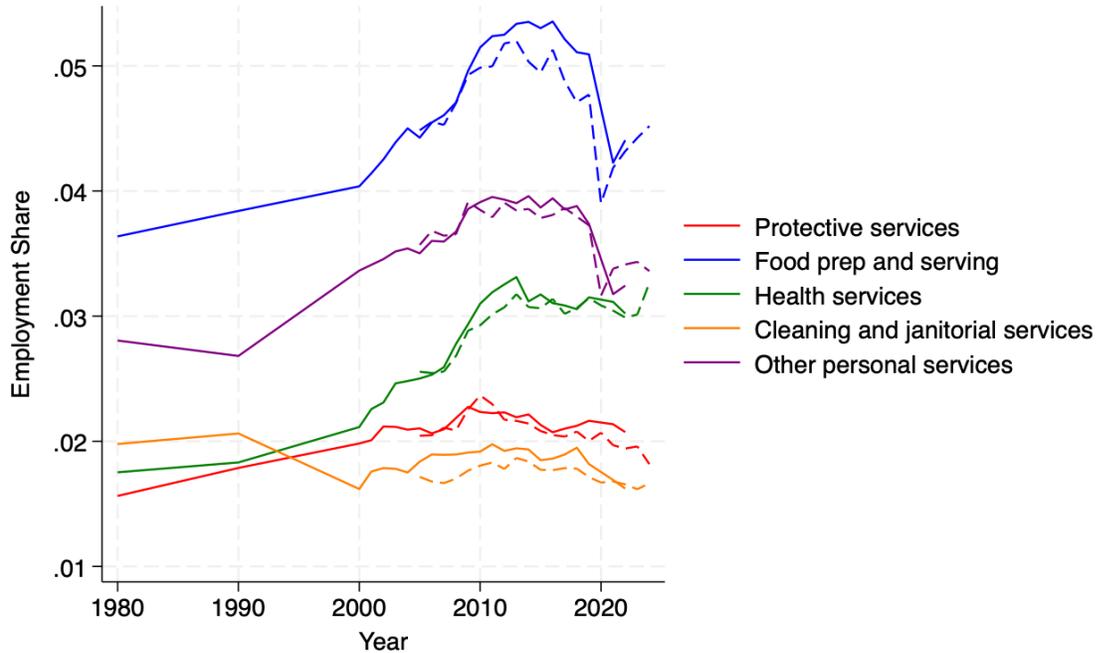
Figure 4



Notes: calculations are based off of the US Census of Population 1980 5% state sample, 1990 5% state sample, and 2000 5% sample and the American Community Survey (ACS) data from 2010 and 2022, sourced via IPUMS (Ruggles et al. 2024, Flood et al. 2023). Occupations are harmonized to two-digit SOC codes using the IPUMS occ1950 encoding and methodology used in Autor and Dorn (2013), detailed methodology described in Data Appendix. Samples are restricted to workers aged 18-64 in non-institutional quarters who provide non-military occupational responses.

Description	Occupation Groups Included (SOC2)
Low-skill	Healthcare Support (31), Protective Service (33), Food Preparation and Serving Related (35), Building and Grounds Cleaning and Maintenance Occupations (37), Personal Care and Service (39), Construction and Extraction (47), Transportation and Material Moving (53)
Middle-skill	Sales and Related (41), Office and Administrative Support (43), Maintenance, and Repair (49), Production (51)
High-skill	Management (11), Business and Financial Operations (13), Computer and Mathematical (15), Architecture and Engineering (17), Life, Physical and Social Science (19), Community and Social Service (21), Legal (23), Education Instruction and Library (25), Arts, Design, Entertainment, Sports, and Media (27), Healthcare Practitioners and Technical (29)

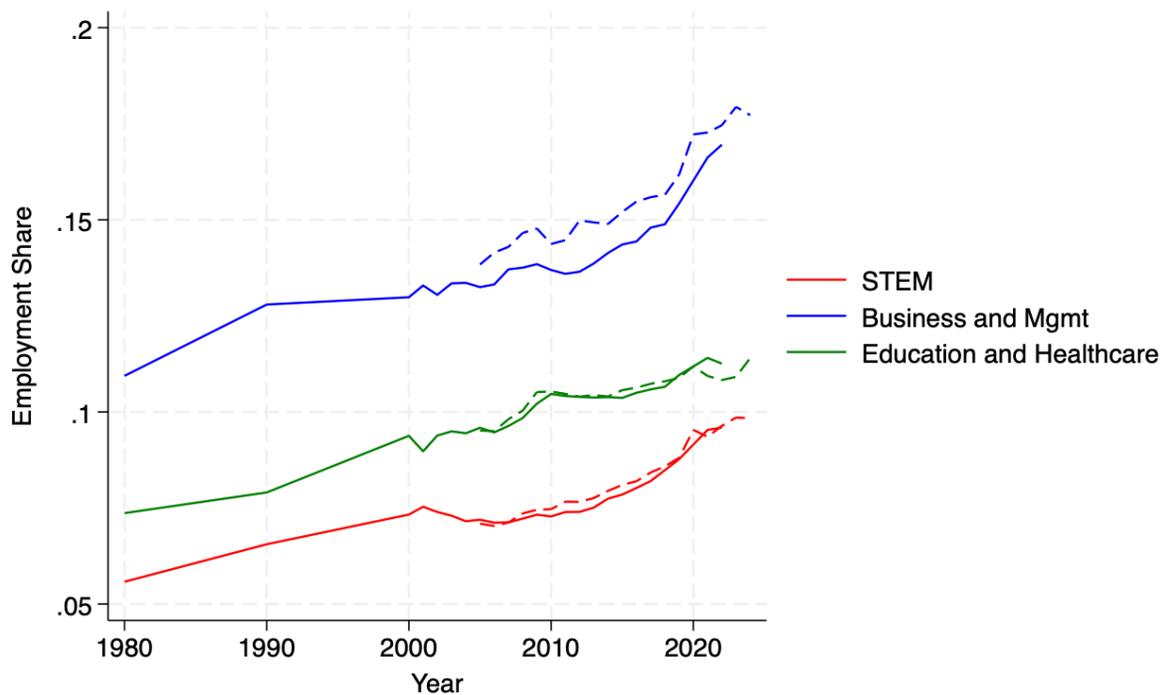
Figure 5



Notes: Solid lines represent ACS calculations; dashed lines represent CPS calculations. ACS calculations are based off of the US Census of Population 1980 5% state sample, 1990 5% state sample, and 2000 5% sample and the American Community Survey (ACS) data from 2001-2022 (except 2021). CPS calculations are based off of Current Population Survey (CPS) monthly data, aggregated by year, from 2005-2024. Both datasets sourced via IPUMS (Ruggles et al. 2024, Flood et al. 2023). Occupations are harmonized across decades using the IPUMS occ1990 encoding. Samples are restricted to workers aged 18-64 in non-institutional quarters who provide non-military occupational responses. CPS samples are additionally restricted to respondents who self-report as employed.

Description	Occupations Included (occ1990)
Protective Services	Supervisors of guards (415), Fire fighting, prevention, and inspection (417), Police, detectives, and private investigators (418), Other law enforcement: sheriffs, bailiffs, correctional institution officers (423), Crossing guards and bridge tenders (425), Guards, watchmen, doorkeepers (426), Protective services, n.e.c. (427)
Food prep and serving	Bartenders (434), Waiter/waitress (435), Cooks, variously defined (436), Food counter and fountain workers (438), Kitchen workers (439), Waiters assistant (443), Misc. food prep workers (444)
Health services	Dental assistants (445), Health aides, except nursing (446), Nursing aides, orderlies, and attendants (447)
Cleaning and janitorial services	Supervisors of cleaning and building service (448), Janitors (453), Elevator operators (454), Pest control operations (455)
Other personal services	Housekeepers, maids, butlers, stewards, and lodging quarters cleaners (405), Private household cleaners and servants (407), Supervisors of personal service jobs, n.e.c. (456), Barbers (457), Hairdressers and cosmetologists (458), Guides (461), Ushers (462), Public transportation attendants and inspectors (463), Baggage porters (464), Welfare service aides (465), Child care workers (468), Personal service occupations, n.e.c. (469)

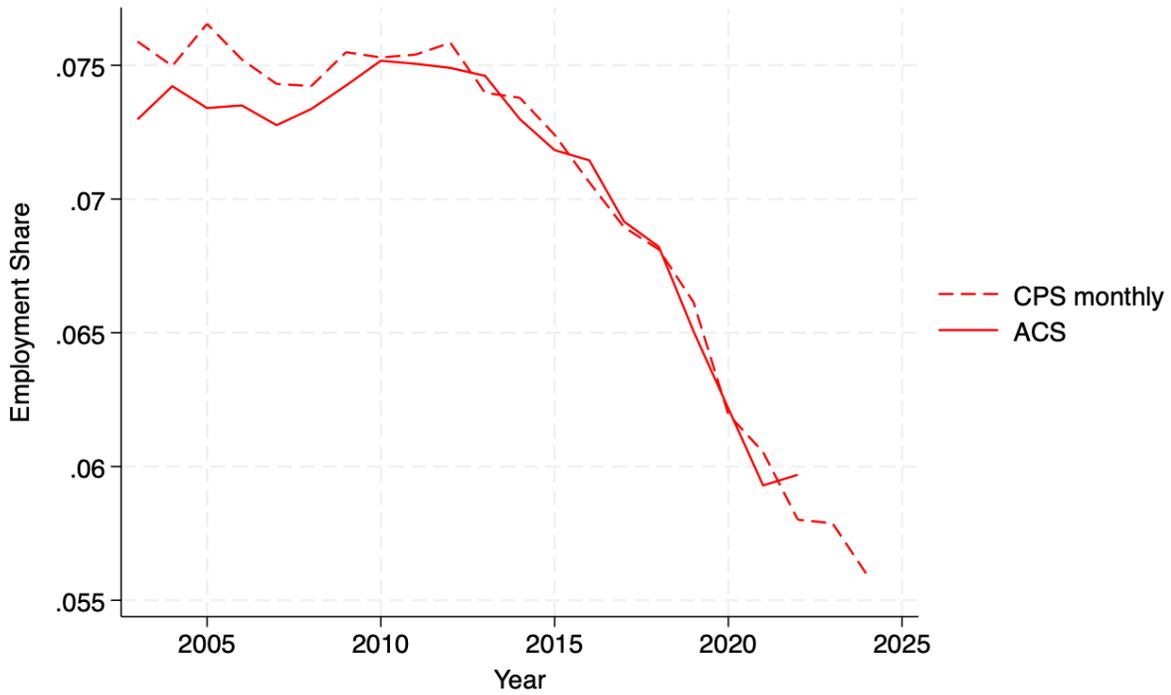
Figure 6



Notes: Solid lines represent ACS calculations; dashed lines represent CPS calculations. ACS calculations are based off of the US Census of Population 1980 5% state sample, 1990 5% state sample, and 2000 5% sample and the American Community Survey (ACS) data from 2001-2022 (except 2021). CPS calculations are based off of Current Population Survey (CPS) monthly data, aggregated by year, from 2005-2024. Both datasets sourced via IPUMS (Ruggles et al. 2024, Flood et al. 2023). Occupations are harmonized across decades using the IPUMS occ1990 encoding. Samples are restricted to workers aged 18-64 in non-institutional quarters who provide non-military occupational responses. CPS samples are additionally restricted to respondents who self-report as employed. See Appendix for exhaustive definition of each category.

Description	Occupations Included (occ1990)
STEM	Engineers, Architects, and Surveyors (43-59), Mathematical and Computer Scientists (64-68), Natural Scientists (69-83), Health Technologists and Technicians (203-208), Technologists and Technicians, Except Health (213-223), Science Technicians (224-225), Technicians, Except Health, Engineering, and Science (226-235)
Business and Mgmt	Executive, Administrative, and Managerial Occupations (3-22), Management Related Occupations (23-37)
Education and Healthcare	Health Diagnosing Occupations (84-89), Health Assessment and Treating Occupations (95-97), Therapists (98-106), Teachers, Postsecondary (113-154), Teachers, Except Postsecondary (155-163)

Figure 8



Notes: Calculations are based off of the American Community Survey (ACS) data from 2003-2022 (except 2021) and the Current Population Survey (CPS) monthly data, aggregated by year, from 2003-2024, sourced via IPUMS (Ruggles et al. 2024, Flood et al. 2023). Occupations are harmonized across decades using the IPUMS occ2010 encoding. Samples are restricted to workers aged 18-64 in non-institutional quarters who provide non-military occupational responses and self-report as employed. See Appendix for exhaustive list of occupations included.

Description	Occupations Included (occ2010)
Retail Sales	First-Line Supervisors of Sales Workers (4700), Cashiers (4720), Counter and Rental Clerks (4740), Parts Salespersons (4750), Retail Salespersons (4760)

Data Sources

The following sections describe the data sources and harmonization methods used to construct the longitudinal datasets which track employment shares in each occupation group from 1880 to the present. These are the underlying data used in Figures 1, 3, 4, 5, 7, and 9. We construct two longitudinal datasets, one based on the Census/ACS samples and one based on the CPS samples.

The Census/ACS dataset extends from 1880 to 2022 and contains employment share data decennially prior to 2000 and annually for the year 2000 and onward. 1890 data is not available, and we exclude the ACS sample from 2020 because the dataset from that year has issues due to interference from COVID. All data samples are sourced from the [Integrated Public Use Microdata Series \(IPUMS\) USA database](#).

Listed more exhaustively, ACS data for each year is drawn from the following samples:

- 1880: 10% with oversamples
- 1900: 5%
- 1910: 1%
- 1920: 1%
- 1930: 5%
- 1940: 1%
- 1950: 1%
- 1960: 5%
- 1970: 1% state (form 2)
- 1980: 5% state
- 1990: 5% state
- 2000: 5%
- 2001-2019: ACS 1-year sample
- 2021-2022: ACS 1-year sample

The CPS dataset extends from 1976 to 2024 and contains employment share data for each year. For each year, we construct an annual dataset by concatenating the 12 individual monthly samples for that year, to increase statistical power. The one exception is 2024, which is constructed by combining the 4 individual monthly samples from January through April. All data samples are sourced from the [Integrated Public Use Microdata Series \(IPUMS\) Current Population Survey \(CPS\) database](#).

Harmonization of Occupations

The Census, ACS, and CPS data use occupations codes and definitions which change approximately every 8-10 years, meaning that occupational data must be harmonized to be comparable across a long timeframe. However, since comparability decreases over longer timeframes, a harmonization scheme must balance between accuracy, consistency, and breadth.

Figures 1 and 3:

To create data that is longitudinally comparable from 1880 until the present, we develop a novel crosswalk to SOC2 and SOC3 codes by combining the occ1950 encoding developed by Ruggles et al (2024) and the occ1990dd crosswalk developed by Dorn (2013). Built off of a single unified encoding (occ1950), this crosswalk prioritizes consistency and breadth to create stable measures of occupation shares across time.

First, to create a consistent encoding across all years, we utilize the occ1950 encoding provided by IPUMS (Ruggles et al 2024, Flood et al 2023). The IPUMS database which we use to download the ACS and CPS data contains an occ1950 encoding, which is available for all samples used in this paper. That is, for each respondent in each sample, in addition to providing the original occupational response, the IPUMS database assigns the respondent to a code based off of the 1950 Census Bureau occupational classification system. This provides a consistent occupational encoding across the dataset.

Second, we apply the crosswalk developed by Dorn (2013) which crosswalks occ1950 codes to occ1990dd codes, a novel encoding system developed by Dorn.

Third, we apply the Dorn (2013) crosswalk from the 2000 Census Bureau occupational classification scheme (occ2000) to the 2000 5% dataset, which is available using both occ2000 and occsoc. Since we now have each occupational response provided as both an occ1990dd and an occsoc code, this creates a “Rosetta Stone”-esque crosswalk between occ1990dd and occsoc.

Fourth, the occsoc codes are grouped to the SOC2 and SOC3 level using our novel crosswalk occsoc_dso, which creates consistent 2-digit and 3-digit groupings across all of the occsoc definitions over time.

Finally, we reallocate all farm owners and labors from the SOC3 code 119 (Other Management Occupations) to 451 (Supervisors of Farming, Fishing, and Forestry Workers) and 452 (Agricultural Workers), respectively.

Combining these five steps, we crosswalk the occupation data consistently to SOC2 and SOC3 codes. In the majority of cases, occ1950 codes are able to be matched to a single SOC2 or SOC3 code. In the case where a single occ1950 code corresponds to multiple SOC2 or SOC3 codes, we use the 2000 5% dataset to allocate proportionally.

A table representation of the crosswalk is shown below. As shown, this crosswalking strategy causes not all SOC3 codes to be represented:

SOC3	Description	occ1950
111	Top Executives	Officials and administrators (n.e.c.), public administration; Officials, lodge, society, union, etc.; Postmasters; Managers, officials, and proprietors (n.e.c.)
112	Advertising, Marketing, Promotions, Public Relations, and Sales Managers	N/A
113	Operations Specialties Managers	Officials, lodge, society, union, etc.; Postmasters; Purchasing agents and buyers (n.e.c.); Managers, officials, and proprietors (n.e.c.)
119	Other Management Occupations	College presidents and deans; Funeral directors and embalmers; Managers and superintendents, building; Officials, lodge, society, union, etc.; Postmasters; Managers, officials, and proprietors (n.e.c.)
131	Business Operations Specialists	Economists; Buyers and department heads, store; Buyers and shippers, farm products; Inspectors, public administration; Officials, lodge, society, union, etc.; Postmasters; Purchasing agents and buyers (n.e.c.); Managers, officials, and proprietors (n.e.c.); Insurance agents and brokers
132	Financial Specialists	Accountants and auditors; Credit men; Inspectors, public administration; Real estate agents and brokers
151	Computer Occupations	N/A
152	Mathematical Science Occupations	Mathematicians; Statisticians and actuaries
171	Architects, Surveyors, and Cartographers	Architects; Surveyors; Chainmen, rodmen, and axmen, surveying
172	Engineers	Engineers, aeronautical; Engineers, chemical; Engineers, civil; Engineers, electrical; Engineers, industrial; Engineers, mechanical; Engineers, metallurgical, metallurgists; Engineers, mining; Engineers (n.e.c.); Professional, technical and kindred workers (n.e.c.)
173	Drafters, Engineering Technicians, and Mapping Technicians	Draftsmen; Surveyors; Chainmen, rodmen, and axmen, surveying
191	Life Scientists	Foresters and conservationists; Agricultural scientists; Biological scientists
192	Physical Scientists	Chemists; Geologists and geophysicists; Physicists; Miscellaneous natural scientists
193	Social Scientists and Related Workers	Farm and home management advisors; Economists; Psychologists; Miscellaneous social scientists
194	Life, Physical, and Social Science Technicians	Technicians, testing; Technicians (n.e.c.)
211	Counselors, Social Workers, and Other Community and Social Service Specialists	Social and welfare workers, except group
212	Religious Workers	Clergymen; Religious workers
231	Lawyers, Judges, and Related Workers	Lawyers and judges
232	Legal Support Workers	
251	Postsecondary Teachers	Agricultural sciences; Biological sciences; Chemistry; Economics; Engineering; Geology and geophysics; Mathematics; Medical sciences; Physics; Psychology; Statistics; Natural science (n.e.c.); Social sciences (n.e.c.); Non-scientific subjects; Subject not specified

252	Preschool, Elementary, Middle, Secondary, and Special Education Teachers	Teachers (n.e.c.)
253	Other Teachers and Instructors	N/A
254	Librarians, Curators, and Archivists	Librarians; Attendants and assistants, library
259	Other Educational Instruction and Library Occupations	N/A
271	Art and Design Workers	Artists and art teachers; Designers
272	Entertainers and Performers, Sports and Related Workers	Actors and actresses; Athletes; Dancers and dancing teachers; Entertainers (n.e.c.); Musicians and music teachers; Sports instructors and officials
273	Media and Communication Workers	Authors; Editors and reporters; Entertainers (n.e.c.)
274	Media and Communication Equipment Workers	Editors and reporters; Photographers; Radio operators; Telegraph operators
291	Healthcare Diagnosing or Treating Practitioners	Chiropractors; Dentists; Dietitians and nutritionists; Nurses, professional; Nurses, student professional; Optometrists; Osteopaths; Pharmacists; Physicians and surgeons; Therapists and healers (n.e.c.); Veterinarians; Midwives
292	Health Technologists and Technicians	Technicians, medical and dental; Opticians and lens grinders and polishers; Practical nurses
311	Home Health and Personal Care Aides; and Nursing Assistants, Orderlies, and Psychiatric Aides	Attendants, hospital and other institution
312	Occupational Therapy and Physical Therapist Assistants and Aides	Attendants, hospital and other institution
319	Other Healthcare Support Occupations	Attendants, physician's and dentist's office; Attendants, hospital and other institution
331	Supervisors of Protective Service Workers	Firemen, fire protection; Marshals and constables; Policemen and detectives; Sheriffs and bailiffs
332	Firefighting and Prevention Workers	Firemen, fire protection
333	Law Enforcement Workers	Marshals and constables; Policemen and detectives; Sheriffs and bailiffs
339	Other Protective Service Workers	Guards, watchmen, and doorkeepers; Watchmen (crossing) and bridge tenders
351	Supervisors of Food Preparation and Serving Workers	Cooks, except private household
352	Cooks and Food Preparation Workers	Cooks, except private household
353	Food and Beverage Serving Workers	Bartenders; Counter and fountain workers; Waiters and waitresses
359	Other Food Preparation and Serving Related Workers	Counter and fountain workers
371	Supervisors of Building and Grounds Cleaning and Maintenance Workers	N/A
372	Building Cleaning and Pest Control Workers	Housekeepers, private household; Bootblacks; Boarding and lodging house keepers; Charwomen and cleaners; Housekeepers and stewards, except private household; Janitors and sextons
373	Grounds Maintenance Workers	Gardeners, except farm and groundskeepers
391	Supervisors of Personal Care and Service Workers	Attendants, recreation and amusement

392	Animal Care and Service Workers	N/A
393	Entertainment Attendants and Related Workers	Motion picture projectionists; Attendants, recreation and amusement; Ushers, recreation and amusement
395	Personal Appearance Workers	Barbers, beauticians, and manicurists
396	Baggage Porters, Bellhops, and Concierges	Baggagemen, transportation; Porters
397	Tour and Travel Guides	N/A
399	Other Personal Care and Service Workers	Recreation and group workers; Attendants, hospital and other institution
39Z	nan	Private household workers (n.e.c.); Attendants, professional and personal service (n.e.c.); Elevator operators; Service workers, except private household (n.e.c.)
411	Supervisors of Sales Workers	Floormen and floor managers, store
412	Retail Sales Workers	Cashiers
413	Sales Representatives, Services	Ticket, station, and express agents; Advertising agents and salesmen; Stock and bond salesmen
414	Sales Representatives, Wholesale and Manufacturing	Agents (n.e.c.); Auctioneers; Hucksters and peddlers; Salesmen and sales clerks (n.e.c.)
419	Other Sales and Related Workers	Agents (n.e.c.); Auctioneers; Demonstrators; Hucksters and peddlers; Newsboys; Real estate agents and brokers; Salesmen and sales clerks (n.e.c.); Decorators and window dressers
431	Supervisors of Office and Administrative Support Workers	N/A
432	Communications Equipment Operators	Telephone operators
433	Financial Clerks	Bank tellers; Bookkeepers; Collectors, bill and account
434	Information and Record Clerks	Personnel and labor relations workers; Attendants and assistants, library; Ticket, station, and express agents; Clerical and kindred workers (n.e.c.); Inspectors (n.e.c.)
435	Material Recording, Scheduling, Dispatching, and Distributing Workers	Dispatchers and starters, vehicle; Mail carriers; Messengers and office boys; Shipping and receiving clerks; Telegraph messengers
436	Secretaries and Administrative Assistants	Stenographers, typists, and secretaries
439	Other Office and Administrative Support Workers	Express messengers and railway mail clerks; Office machine operators; Insurance agents and brokers
43Z	nan	Cashiers; Clerical and kindred workers (n.e.c.); Inspectors (n.e.c.)
451	Supervisors of Farming, Fishing, and Forestry Workers	Inspectors, scalers, and graders, log and lumber; Lumbermen, raftsmen, and woodchoppers; Farm managers
452	Agricultural Workers	Fruit, nut, and vegetable graders, and packers, except factory; Farm foremen; Farm laborers, wage workers; Farm laborers, unpaid family workers; Farm service laborers, self-employed; Farmers (owners and tenants)
453	Fishing and Hunting Workers	Fishermen and oystermen
454	Forest, Conservation, and Logging Workers	Inspectors, scalers, and graders, log and lumber; Lumbermen, raftsmen, and woodchoppers
471	Supervisors of Construction and Extraction Workers	N/A
472	Construction Trades Workers	Boilermakers; Brickmasons, stonemasons, and tile setters; Carpenters; Cement and concrete finishers; Electricians; Glaziers; Painters, construction and maintenance; Paperhangers; Plasterers; Plumbers and pipe fitters; Roofers and slaters; Structural metal workers; Tinsmiths, coppersmiths, and sheet metal workers; Apprentice bricklayers and masons; Apprentice

		carpenters; Apprentice electricians; Apprentice plumbers and pipe fitters; Apprentices, metalworking trades (n.e.c.); Asbestos and insulation workers
473	Helpers, Construction Trades	N/A
474	Other Construction and Related Workers	Apprentices, building trades (n.e.c.); Asbestos and insulation workers; Laborers (n.e.c.)
475	Extraction Workers	Blasters and powdermen
47Z	nan	Apprentices, building trades (n.e.c.)
491	Supervisors of Installation, Maintenance, and Repair Workers	N/A
492	Electrical and Electronic Equipment Mechanics, Installers, and Repairers	Electricians; Linemen and servicemen, telegraph, telephone, and power; Mechanics and repairmen, office machine; Mechanics and repairmen, radio and television; Apprentice electricians
493	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	Mechanics and repairmen, airplane; Mechanics and repairmen, automobile; Apprentice auto mechanics
499	Other Installation, Maintenance, and Repair Occupations	Jewelers, watchmakers, goldsmiths, and silversmiths; Linemen and servicemen, telegraph, telephone, and power; Loom fixers; Mechanics and repairmen, railroad and car shop; Mechanics and repairmen (n.e.c.); Millwrights; Piano and organ tuners and repairmen; Apprentice mechanics, except auto; Apprentices, other specified trades; Apprentices, trade not specified; Oilers and greaser, except auto
511	Supervisors of Production Workers	Foremen (n.e.c.)
512	Assemblers and Fabricators	Structural metal workers
513	Food Processing Workers	Bakers; Millers, grain, flour, feed, etc.; Meat cutters, except slaughter and packing house
514	Metal Workers and Plastic Workers	Blacksmiths; Forgemen and hammermen; Heat treaters, annealers, temperers; Job setters, metal; Machinists; Molders, metal; Pattern and model makers, except paper; Rollers and roll hands, metal; Stone cutters and stone carvers; Tinsmiths, coppersmiths, and sheet metal workers; Tool makers, and die makers and setters; Craftsmen and kindred workers (n.e.c.); Apprentice machinists and toolmakers; Apprentices, metalworking trades (n.e.c.); Filers, grinders, and polishers, metal; Furnacemen, smeltermen and pourers; Heaters, metal; Stationary firemen; Welders and flame cutters
515	Printing Workers	Bookbinders; Compositors and typesetters; Electrotypers and stereotypers; Photoengravers and lithographers; Pressmen and plate printers, printing; Apprentices, printing trades
516	Textile, Apparel, and Furnishings Workers	Furriers; Shoemakers and repairers, except factory; Tailors and tailoresses; Upholsterers; Dressmakers and seamstresses, except factory; Laundry and dry cleaning operatives; Milliners; Spinners, textile; Weavers, textile; Laundresses, private household
517	Woodworkers	Cabinetmakers; Sawyers
518	Plant and System Operators	Stationary engineers; Power station operators
519	Other Production Occupations	Engravers, except photoengravers; Jewelers, watchmakers, goldsmiths, and silversmiths; Millers, grain, flour, feed, etc.; Piano and organ tuners and repairmen; Dyers; Furnacemen, smeltermen and pourers; Heaters, metal; Painters, except construction or maintenance; Photographic process workers; Stationary firemen; Operative and kindred workers (n.e.c.)

532	Air Transportation Workers	Airplane pilots and navigators
533	Motor Vehicle Operators	Bus drivers; Deliverymen and routemen; Taxicab drivers and chauffers; Truck and tractor drivers; Teamsters
534	Rail Transportation Workers	Conductors, railroad; Locomotive engineers; Locomotive firemen; Brakemen, railroad; Conductors, bus and street railway; Motormen, street, subway, and elevated railway; Switchmen, railroad
535	Water Transportation Workers	Officers, pilots, pursers and engineers, ship; Sailors and deck hands
536	Other Transportation Workers	Attendants, auto service and parking; Boatmen, canalmen, and lock keepers
537	Material Moving Workers	Cranemen, derrickmen, and hoistmen; Excavating, grading, and road machinery operators; Deliverymen and routemen; Mine operatives and laborers; Motormen, mine, factory, logging camp, etc.; Truck and tractor drivers; Garage laborers and car washers and greasers; Longshoremen and stevedores; Teamsters; Laborers (n.e.c.)

Harmonization of Occupations (cont.)

Figure 9

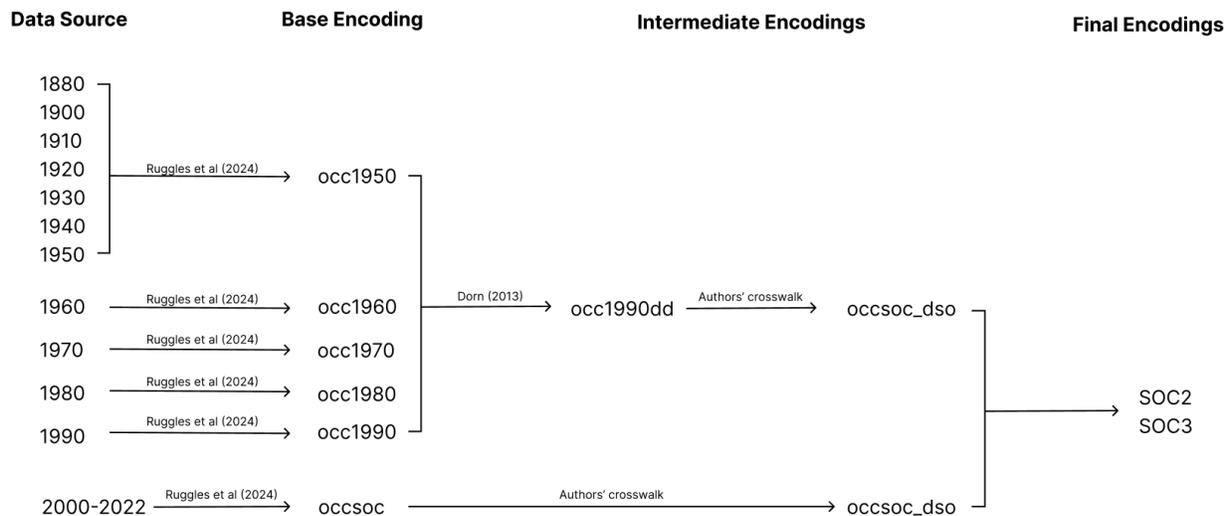
To measure churn at a SOC2 level from 1880 until the present, we use a different crosswalking method to aggregate to SOC2 and SOC3 codes, which prioritizes accuracy and breadth at the expense of some consistency.

For years 1880 through 1950, we use the same crosswalking approach as in **Figures 1 and 3**, based off of occ1950.

For years 1960 through 1990, we directly crosswalk the original occupation encoding to occ1990dd, using the crosswalks developed by Dorn (2013). We then crosswalk occ1990dd codes to SOC2 and SOC3 using the previously described method.

For years 2000 through 2022, we base our classification on the occsoc encoding, which we crosswalk to occsoc_dso and then to SOC2 and SOC3 level codes.

The crosswalking scheme is summarized in the below flowchart.



Finally, we make two manual adjustments. First we reallocate all farm owners and labors to SOC3 codes 451 (Supervisors of Farming, Fishing, and Forestry Workers) and 452 (Agricultural Workers), respectively. Second, whenever possible we reallocate supervisory roles out of 11 SOC2 codes. For example, for occ1970, we recode “Sales managers, except retail trade” from 112 (Advertising, Marketing, Promotions, Public Relations, and Sales Managers) to 411 (Supervisors of Sales Workers).

Because this crosswalking scheme uses the closest possible occupation code as the base encoding for the crosswalk (rather than defaulting to occ1950), its accuracy is higher since there

is less error due to incomparability over time. However, because it uses different crosswalks for different years, it creates more unstable measures of occupational shares over time.

Below is a full table detailing the correspondence between each occupation definition for each year to a corresponding SOC3 code.

SOC3	Description	occ1950	occ1960	occ1970	occ1980	occ1990
111	Top Executives	Officials and administrators (n.e.c.), public administration; Officials, lodge, society, union, etc.; Postmasters; Managers, officials, and proprietors (n.e.c.)	Officials and administrators, n.e.c., public administration; Officials, lodge, society, union, etc.; Postmasters; Managers, officials, and proprietors, n.e.c.	Research workers, n.s.; Assessors, controllers, and treasurers, local public administration; Officials and administrators, public administration, n.e.c.; Officials of lodges, societies, and unions; Postmasters and mail superintendents; Managers and administrators, n.e.c.; Managers and administrators, except farm -- allocated	Legislators; Chief executives and general administrators, public administration; Administrators and officials, public administration; Postmasters and mail superintendents; Managers and administrators, n.e.c.	Legislators; Chief executives and general administrators, public administration; Administrators and officials, public administration; Postmasters and mail superintendents; Managers and administrators, n.e.c.
112	Advertising, Marketing, Promotions, Public Relations, and Sales Managers	N/A	Public relations men and publicity writers	Public relations men and publicity writers; Sales managers and department heads, retail trade	Managers, marketing, advertising, and public relations; Public relations specialists	Managers, marketing, advertising, and public relations; Public relations specialists
113	Operations Specialties Managers	Officials, lodge, society, union, etc.; Postmasters; Purchasing agents and buyers (n.e.c.); Managers, officials, and proprietors (n.e.c.)	Officials, lodge, society, union, etc.; Postmasters; Purchasing agents and buyers, n.e.c.; Managers, officials, and proprietors, n.e.c.	Research workers, n.s.; Assessors, controllers, and treasurers, local public administration; Bank officers and financial managers; Credit men; Officials and administrators, public	Administrators and officials, public administration; Financial managers; Personnel and labor relations managers; Purchasing managers; Postmasters and mail superintendents; Managers and administrators, n.e.c.	Administrators and officials, public administration; Financial managers; Personnel and labor relations managers; Purchasing managers; Postmasters and mail superintendents; Managers and administrators, n.e.c.; Purchasing agents and buyers, n.e.c.; Production coordinators; Expeditors

				administration, n.e.c.; Officials of lodges, societies, and unions; Postmasters and mail superintendents; Purchasing agents and buyers, n.e.c.; Managers and administrators, n.e.c.; Managers and administrators, except farm -- allocated; Expeditors and production controllers	administrators, n.e.c.; Purchasing agents and buyers, n.e.c.; Production coordinators; Expeditors	
119	Other Management Occupations	College presidents and deans; Funeral directors and embalmers; Managers and superintendents, building; Officials, lodge, society, union, etc.; Postmasters; Managers, officials, and proprietors (n.e.c.)	College presidents and deans; Funeral directors and embalmers; Managers and superintendents, building; Officials, lodge, society, union, etc.; Postmasters; Managers, officials, and proprietors, n.e.c.	Research workers, n.s.; Assessors, controllers, and treasurers, local public administration; Funeral directors; Health administrators; Managers and superintendents, building; Officials and administrators, public administration, n.e.c.; Officials of lodges, societies, and unions; Postmasters and mail superintendents; School administrators, college; School administrators, elementary and secondary; Managers and administrators, n.e.c.; Managers and administrators,	Administrators and officials, public administration; Administrators, education and related fields; Managers, medicine and health; Managers, properties and real estate; Postmasters and mail superintendents; Funeral directors; Managers and administrators, n.e.c.	Administrators and officials, public administration; Administrators, education and related fields; Managers, medicine and health; Postmasters and mail superintendents; Managers, properties and real estate; Funeral directors; Managers and administrators, n.e.c.

				except farm -- allocated		
131	Business Operations Specialists	Economists; Buyers and department heads, store; Buyers and shippers, farm products; Inspectors, public administration; Officials, lodge, society, union, etc.; Postmasters; Purchasing agents and buyers (n.e.c.); Managers, officials, and proprietors (n.e.c.); Insurance agents and brokers	Economists; Buyers and department heads, store; Buyers and shippers, farm products; Inspectors, public administration; Officials, lodge, society, union, etc.; Postmasters; Purchasing agents and buyers, n.e.c.; Managers, officials, and proprietors, n.e.c.; Insurance adjusters, examiners, and investigators	Operations and systems researchers and analysts; Economists; Research workers, n.s.; Assessors, controllers, and treasurers, local public administration; Buyers and shippers, farm products; Buyers, wholesale and retail trade; Inspectors, except construction, public administration; Officials and administrators, public administration, n.e.c.; Officials of lodges, societies, and unions; Postmasters and mail superintendents; Purchasing agents and buyers, n.e.c.; Managers and administrators, n.e.c.; Managers and administrators, except farm -- allocated; Insurance adjusters, examiners, and investigators	Administrators and officials, public administration; Purchasing managers; Postmasters and mail superintendents; Managers and administrators, n.e.c.; Management analysts; Purchasing agents and buyers, farm products; Buyers, wholesale and retail trade, except farm products; Purchasing agents and buyers, n.e.c.; Business and promotion agents; Inspection and compliance officers, except construction; Management related occupations, n.e.c.; Operations and systems researchers and analysts; Economists; Insurance adjusters, examiners, and investigators	Administrators and officials, public administration; Purchasing managers; Postmasters and mail superintendents; Managers and administrators, n.e.c.; Management analysts; Purchasing agents and buyers, farm products; Buyers, wholesale and retail trade, except farm products; Purchasing agents and buyers, n.e.c.; Business and promotion agents; Inspectors and compliance officers, except construction; Management related occupations, n.e.c.; Operations and systems researchers and analysts; Economists; Insurance adjusters, examiners, and investigators
132	Financial Specialists	Accountants and auditors; Credit men; Inspectors, public administration; Real estate	Accountants and auditors; Credit men; Inspectors, public administration; Real estate	Accountants; Inspectors, except construction, public administration;	Accountants and auditors; Underwriters; Other financial officers; Inspection and compliance	Accountants and auditors; Underwriters; Other financial officers; Inspectors and compliance officers, except

		agents and brokers	agents and brokers	Real estate agents and brokers; Real estate appraisers	officers, except construction; Real estate sales occupations	construction; Real estate sales occupations
151	Computer Occupations	N/A	N/A	Computer programmers; Computer systems analysts; Computer specialists, n.e.c.; Computer and peripheral equipment operators; Tabulating machine operators	Computer systems analysts and scientists; Computer programmers; Supervisors, computer equipment operators; Computer operators; Peripheral equipment operators	Computer systems analysts and scientists; Computer programmers; Supervisors, computer equipment operators; Computer operators; Peripheral equipment operators
152	Mathematical Science Occupations	Mathematicians; Statisticians and actuaries	Mathematicians; Statisticians and actuaries	Actuaries; Mathematicians; Statisticians; Operations and systems researchers and analysts	Operations and systems researchers and analysts; Actuaries; Statisticians; Mathematical scientists, n.e.c.	Operations and systems researchers and analysts; Actuaries; Statisticians; Mathematical scientists, n.e.c.
171	Architects, Surveyors, and Cartographers	Architects; Surveyors; Chainmen, rodmen, and axmen, surveying	Architects; Surveyors; Chainmen, rodmen, and axmen, surveying	Architects; Surveyors	Architects; Surveyors and mapping scientists; Surveying and mapping technicians; Helpers, extractive occupations	Architects; Surveyors and mapping scientists; Surveying and mapping technicians; Helpers, surveyor
172	Engineers	Engineers, aeronautical; Engineers, chemical; Engineers, civil; Engineers, electrical; Engineers, industrial; Engineers, mechanical; Engineers, metallurgical, metallurgists; Engineers, mining; Engineers (n.e.c.); Professional, technical and kindred workers (n.e.c.)	Engineers, aeronautical; Engineers, chemical; Engineers, civil; Engineers, electrical; Engineers, industrial; Engineers, mechanical; Engineers, metallurgical, and metallurgists; Engineers, mining; Engineers, n.e.c.; Professional, technical, and kindred workers, n.e.c.	Aeronautical and astronautical engineers; Chemical engineers; Civil engineers; Electrical end electronic engineers; Industrial engineers; Mechanical engineers; Metallurgical and materials engineers; Mining engineers; Petroleum engineers; Engineers, n.e.c.;	Aerospace; Metallurgical and materials; Mining; Petroleum; Chemical; Nuclear; Civil; Agricultural; Electrical and electronic; Industrial; Mechanical; Marine and naval architects; Engineers, n.e.c.	Aerospace; Metallurgical and materials; Mining; Petroleum; Chemical; Nuclear; Civil; Agricultural; Electrical and electronic; Industrial; Mechanical; Marine and naval architects; Engineers, n.e.c.

				Professional, technical, and kindred workers -- allocated		
173	Drafters, Engineering Technicians, and Mapping Technicians	Draftsmen; Surveyors; Chainmen, rodmen, and axmen, surveying	Draftsmen; Surveyors; Technicians, electrical and electronic; Chainmen, rodmen, and axmen, surveying	Draftsmen; Electrical and electronic engineering technicians; Industrial engineering technicians; Mechanical engineering technicians; Surveyors; Engineering and science technicians, n.e.c.	Surveyors and mapping scientists; Electrical and electronic technicians; Industrial engineering technicians; Mechanical engineering technicians; Engineering technicians, n.e.c.; Drafting occupations; Surveying and mapping technicians; Helpers, extractive occupations	Surveyors and mapping scientists; Electrical and electronic technicians; Industrial engineering technicians; Mechanical engineering technicians, n.e.c.; Drafting occupations; Surveying and mapping technicians; Helpers, surveyor
191	Life Scientists	Foresters and conservationists; Agricultural scientists; Biological scientists	Foresters and conservationists; Agricultural scientists; Biological scientists	Foresters and conservationists; Agricultural scientists; Biological scientists; Marine scientists	Agricultural and food scientists; Biological and life scientists; Forestry and conservation scientists; Medical scientists	Agricultural and food scientists; Biological and life scientists; Forestry and conservation scientists; Medical scientists
192	Physical Scientists	Chemists; Geologists and geophysicists; Physicists; Miscellaneous natural scientists	Chemists; Geologists and geophysicists; Physicists; Miscellaneous natural scientists	Atmospheric and space scientists; Chemists; Geologists; Physicists and astronomers; Life and physical scientists, n.e.c.	Physicists and astronomers; Chemists, except biochemists; Atmospheric and space scientists; Geologists and geodesists; Physical scientists, n.e.c.	Physicists and astronomers; Chemists, except biochemists; Atmospheric and space scientists; Geologists and geodesists; Physical scientists, n.e.c.
193	Social Scientists and Related Workers	Farm and home management advisors; Economists; Psychologists; Miscellaneous social scientists	Farm and home management advisors; Economists; Psychologists; Miscellaneous social scientists	Farm management advisors; Home management advisors; Economists; Political scientists; Psychologists; Sociologists; Urban and regional planners; Social scientists, n.e.c.	Economists; Psychologists; Sociologists; Social scientists, n.e.c.; Urban planners	Economists; Psychologists; Sociologists; Social scientists, n.e.c.; Urban planners

194	Life, Physical, and Social Science Technicians	Technicians, testing; Technicians (n.e.c.)	Technicians, other engineering and physical sciences; Technicians, n.e.c.	Agriculture and biological technicians, except health; Chemical technicians; Mathematical technicians; Embalmers; Technicians, n.e.c.	Biological technicians; Chemical technicians; Science technicians, n.e.c.; Technicians, n.e.c.	Biological technicians; Chemical technicians; Science technicians n.e.c.; Technician, n.e.c.
211	Counselors, Social Workers, and Other Community and Social Service Specialists	Social and welfare workers, except group	Social and welfare workers, except group	Social workers; Vocational and educational counselors; Welfare service aides	Counselors, educational and vocational; Social workers; Welfare service aides	Counselors, educational and vocational; Social workers; Welfare service aides
212	Religious Workers	Clergymen; Religious workers	Clergymen; Religious workers	Clergymen; Religious workers, n.e.c.	Clergy; Religious workers, n.e.c.	Clergy; Religious workers, n.e.c.
231	Lawyers, Judges, and Related Workers	Lawyers and judges	Lawyers and judges	Judges; Lawyers	Lawyers; Judges	Lawyers; Judges
232	Legal Support Workers	N/A	N/A	N/A	Legal assistants	Legal assistants
251	Postsecondary Teachers	Agricultural sciences; Biological sciences; Chemistry; Economics; Engineering; Geology and geophysics; Mathematics; Medical sciences; Physics; Psychology; Statistics; Natural science (n.e.c.); Social sciences (n.e.c.); Non-scientific subjects; Subject not specified	Professors and instructors, agricultural sciences; Professors and instructors, biological sciences; Professors and instructors, chemistry; Professors and instructors, economics; Professors and instructors, engineering; Professors and instructors, geology and geophysics; Professors and instructors, mathematics; Professors and instructors, medical sciences; Professors and instructors, physics;	Agriculture teachers; Atmospheric, earth, marine, and space teachers; Biology teachers; Chemistry teachers; Physics teachers; Engineering teachers; Mathematics teachers; Health specialties teachers; Psychology teachers; Business and commerce teachers; Economics teachers; History teachers; Sociology teachers; Social science teachers, n.e.c.; Art,	Earth, environmental, and marine science teachers; Biological science teachers; Chemistry teachers; Physics teachers; Natural science teachers, n.e.c.; Psychology teachers; Economics teachers; History teachers; Political science teachers; Sociology teachers; Social science teachers, n.e.c.; Engineering teachers; Mathematical science teachers; Computer science teachers; Medical science teachers; Health specialties teachers; Business, commerce, and marketing teachers; Agriculture and forestry teachers; Art, drama, and music teachers; Physical education teachers; Education teachers; English teachers; Foreign language teachers; Law teachers; Social work teachers; Theology teachers; Trade and industrial teachers; Home economics teachers; Teachers, postsecondary,	Earth, environmental, and marine science teachers; Biological science teachers; Chemistry teachers; Physics teachers; Natural science teachers, n.e.c.; Psychology teachers; Economics teachers; History teachers; Political science teachers; Sociology teachers; Social science teachers, n.e.c.; Engineering teachers; Mathematical science teachers; Computer science teachers; Medical science teachers; Health specialties teachers; Business, commerce, and marketing teachers; Agriculture and forestry teachers; Art, drama, and music teachers; Physical education teachers; Education teachers; English teachers; Foreign language teachers; Law teachers; Social work teachers; Theology teachers; Trade and industrial teachers; Home economics teachers; Teachers, postsecondary,

			Professors and instructors, psychology; Professors and instructors, statistics; Professors and instructors, natural sciences, n.e.c.; Professors and instructors, social sciences, n.e.c.; Professors and instructors, nonscientific subjects; Professors and instructors, subject not specified	drama, and music teachers; Coaches and physical education teachers; Education teachers; English teachers; Foreign language teachers; Home economics teachers; Law teachers; Theology teachers; Trade, industrial, and technical teachers; Miscellaneous teachers, college and university; Teachers, college and university, subject not specified	forestry teachers; Art, drama, and music teachers; Physical education teachers; Education teachers; English teachers; Foreign language teachers; Law teachers; Social work teachers; Theology teachers; Trade and industrial teachers; Home economics teachers; Teachers, postsecondary, n.e.c.; Postsecondary teachers, subject n.s.	n.e.c.; Postsecondary teachers, subject n.s.
252	Preschool, Elementary, Middle, Secondary, and Special Education Teachers	Teachers (n.e.c.)	Teachers, elementary schools; Teachers, secondary schools	Elementary school teachers; Prekindergarten and kindergarten teachers; Secondary school teachers	Teachers, prekindergarten and kindergarten; Teachers, elementary school; Teachers, secondary school; Teachers, special education	Teachers, prekindergarten and kindergarten; Teachers, elementary school; Teachers, secondary school; Teachers, special education
253	Other Teachers and Instructors	N/A	Teachers, n.e.c.	Adult education teachers; Teachers, except college and university, n.e.c.	Teachers, n.e.c.	Teachers, n.e.c.
254	Librarians, Curators, and Archivists	Librarians; Attendants and assistants, library	Librarians; Attendants and assistants, library	Librarians; Archivists and curators; Library attendants and assistants	Librarians; Archivists and curators; Library clerks	Librarians; Archivists and curators; Library clerks
259	Other Educational Instruction and Library Occupations	N/A	Teachers, n.e.c.	Adult education teachers; Teachers, except college and university, n.e.c.; Teacher	Teachers, n.e.c.; Teachers' aides	Teachers, n.e.c.; Teachers' aides; Early childhood teachers' assistants

				aides, except school monitors		
271	Art and Design Workers	Artists and art teachers; Designers	Artists and art teachers; Designers	Designers; Painters and sculptors; Decorators and window dressers	Designers; Painters, sculptors, craft-artists, and artist printmakers	Designers; Painters, sculptors, craft-artists, and artist printmakers
272	Entertainers and Performers, Sports and Related Workers	Actors and actresses; Athletes; Dancers and dancing teachers; Entertainers (n.e.c.); Musicians and music teachers; Sports instructors and officials	Actors and actresses; Athletes; Dancers and dancing teachers; Entertainers, n.e.c.; Musicians and music teachers; Sports instructors and officials	Actors; Athletes and kindred workers; Dancers; Musicians and composers; Writers, artists, and entertainers, n.e.c.	Musicians and composers; Actors and directors; Dancers; Artists, performers, and related workers, n.e.c.; Athletes	Musicians and composers; Actors and directors; Dancers; Artists, performers, and related workers, n.e.c.; Athletes
273	Media and Communication Workers	Authors; Editors and reporters; Entertainers (n.e.c.)	Authors; Editors and reporters; Entertainers, n.e.c.; Public relations men and publicity writers	Authors; Editors and reporters; Public relations men and publicity writers; Radio and television announcers; Writers, artists, and entertainers, n.e.c.; Sales managers and department heads, retail trade	Managers, marketing, advertising, and public relations; Authors; Technical writers; Artists, performers, and related workers, n.e.c.; Editors and reporters; Public relations specialists; Announcers	Managers, marketing, advertising, and public relations; Authors; Technical writers; Artists, performers, and related workers, n.e.c.; Editors and reporters; Public relations specialists; Announcers
274	Media and Communication Equipment Workers	Editors and reporters; Photographers; Radio operators; Telegraph operators	Editors and reporters; Photographers; Radio operators; Telegraph operators	Radio operators; Editors and reporters; Photographers; Telegraph operators	Photographers; Editors and reporters; Broadcast equipment operators; Telegraphers; Communications equipment operators, n.e.c.	Photographers; Editors and reporters; Broadcast equipment operators; Communications equipment operators, n.e.c.
291	Healthcare Diagnosing or Treating Practitioners	Chiropractors; Dentists; Dietitians and nutritionists; Nurses, professional; Nurses, student professional; Optometrists; Osteopaths; Pharmacists;	Chiropractors; Dentists; Dietitians and nutritionists; Nurses, professional; Nurses, student professional; Optometrists; Osteopaths; Pharmacists;	Chiropractors; Dentists; Optometrists; Pharmacists; Physicians, medical and osteopathic; Podiatrists; Veterinarians; Health practitioners,	Physicians; Dentists; Veterinarians; Optometrists; Podiatrists; Health diagnosing practitioners, n.e.c.; Registered nurses; Pharmacists; Dietitians;	Physicians; Dentists; Veterinarians; Optometrists; Podiatrists; Health diagnosing practitioners, n.e.c.; Registered nurses; Pharmacists; Dietitians; Respiratory therapists; Occupational therapists; Physical therapists; Speech

		Physicians and surgeons; Therapists and healers (n.e.c.); Veterinarians; Midwives	Physicians and surgeons; Therapists and healers, n.e.c.; Veterinarians; Midwives	n.e.c.; Dietitians; Registered nurses; Therapists; Therapy assistants; Health trainees; Lay midwives	Inhalation therapists; Occupational therapists; Physical therapists; Speech therapists; Therapists, n.e.c.; Physicians' assistants	therapists; Therapists, n.e.c.; Physicians' assistants
292	Health Technologists and Technicians	Technicians, medical and dental; Opticians and lens grinders and polishers; Practical nurses	Technicians, medical and dental; Opticians, and lens grinders and polishers; Practical nurses	Clinical laboratory technologists and technicians; Dental hygienists; Health record technologists and technicians; Radiologic technologists and technicians; Health technologists and technicians, n.e.c.; Dental laboratory technicians; Opticians, and lens grinders and polishers; Practical nurses	Clinical laboratory technologists and technicians; Dental hygienists; Health record technologists and technicians; Radiologic technicians; Licensed practical nurses; Health technologists and technicians, n.e.c.; Optical goods workers; Dental laboratory and medical appliance technicians	Clinical laboratory technologists and technicians; Dental hygienists; Health record technologists and technicians; Radiologic technicians; Licensed practical nurses; Health technologists and technicians, n.e.c.; Optical goods workers; Dental laboratory and medical appliance technicians
311	Home Health and Personal Care Aides; and Nursing Assistants, Orderlies, and Psychiatric Aides	Attendants, hospital and other institution	Attendants, hospital and other institutions	Health aides, except nursing; Nursing aides, orderlies, and attendants	Health aides, except nursing; Nursing aides, orderlies, and attendants	Health aides, except nursing; Nursing aides, orderlies, and attendants
312	Occupational Therapy and Physical Therapist Assistants and Aides	Attendants, hospital and other institution	Attendants, hospital and other institutions	Health aides, except nursing; Nursing aides, orderlies, and attendants	Health aides, except nursing; Nursing aides, orderlies, and attendants	Health aides, except nursing; Nursing aides, orderlies, and attendants
319	Other Healthcare Support Occupations	Attendants, physician's and dentist's office; Attendants, hospital and other institution	Attendants, physician's and dentist's office; Attendants, hospital and other institutions	Dental assistants; Health aides, except nursing; Nursing aides, orderlies, and attendants	Dental assistants; Health aides, except nursing; Nursing aides, orderlies, and attendants	Dental assistants; Health aides, except nursing; Nursing aides, orderlies, and attendants
331	Supervisors of Protective Service Workers	Firemen, fire protection; Marshals and constables;	Firemen, fire protection; Marshals and constables;	Firemen, fire protection; Marshals and constables;	Administrators, protective service; Supervisors, firefighting and	Administrators, protective services; Supervisors, firefighting and fire prevention occupations;

		Policemen and detectives; Sheriffs and bailiffs	Policemen and detectives; Sheriffs and bailiffs	Policemen and detectives; Sheriffs and bailiffs	fire prevention occupations; Supervisors, police and detectives; Supervisors, guards; Fire inspection and fire prevention occupations; Firefighting occupations; Police and detectives, public service; Sheriffs, bailiffs, and other law enforcement officers; Correctional institution officers	Supervisors, police and detectives; Supervisors, guards; Fire inspection and fire prevention occupations; Firefighting occupations; Police and detectives, public service; Sheriffs, bailiffs, and other law enforcement officers; Correctional institution officers
332	Firefighting and Prevention Workers	Firemen, fire protection	Firemen, fire protection	Firemen, fire protection	Supervisors, firefighting and fire prevention occupations; Fire inspection and fire prevention occupations; Firefighting occupations	Supervisors, firefighting and fire prevention occupations; Fire inspection and fire prevention occupations; Firefighting occupations
333	Law Enforcement Workers	Marshals and constables; Policemen and detectives; Sheriffs and bailiffs	Marshals and constables; Policemen and detectives; Sheriffs and bailiffs	Marshals and constables; Policemen and detectives; Sheriffs and bailiffs	Administrators, protective service; Supervisors, police and detectives; Police and detectives, public service; Sheriffs, bailiffs, and other law enforcement officers; Correctional institution officers	Administrators, protective services; Supervisors, police and detectives; Police and detectives, public service; Sheriffs, bailiffs, and other law enforcement officers; Correctional institution officers
339	Other Protective Service Workers	Guards, watchmen, and doorkeepers; Watchmen (crossing) and bridge tenders	Guards, watchmen, and doorkeepers; Watchmen (crossing) and bridge tenders	Crossing guards and bridge tenders; Guards and watchmen	Crossing guards; Guards and police, except public service; Protective service occupations, n.e.c.	Crossing guards; Guards and police, except public service; Protective service occupations, n.e.c.
351	Supervisors of Food Preparation and Serving Workers	Cooks, except private household	Cooks, except private household	Cooks, except private household; Cooks, private household; Restaurant, cafeteria, and bar managers	Cooks, private household; Supervisors, food preparation and service occupations; Cooks, except short order; Short-order cooks	Cooks, private household; Supervisors, food preparation and service occupations; Cooks; Managers, food serving and lodging establishments

352	Cooks and Food Preparation Workers	Cooks, except private household	Cooks, except private household	Cooks, except private household; Cooks, private household	Cooks, private household; Cooks, except short order; Short-order cooks; Kitchen workers, food preparation	Cooks, private household; Cooks; Kitchen workers, food preparation
353	Food and Beverage Serving Workers	Bartenders; Counter and fountain workers; Waiters and waitresses	Bartenders; Counter and fountain workers; Kitchen workers, n.e.c., except private household; Waiters and waitresses	Bartenders; Busboys; Dishwashers; Food counter and fountain workers; Waiters; Food service workers, n.e.c., except private household	Bartenders; Waiters and waitresses; Food counter, fountain, and related occupations; Waiters'/waitresses' assistants; Miscellaneous food preparation occupations	Bartenders; Waiters and waitresses; Food counter, fountain and related occupations; Waiters'/waitresses' assistants; Miscellaneous food preparation occupations
359	Other Food Preparation and Serving Related Workers	Counter and fountain workers	Counter and fountain workers; Kitchen workers, n.e.c., except private household	Busboys; Dishwashers; Food counter and fountain workers; Food service workers, n.e.c., except private household	Food counter, fountain, and related occupations; Waiters'/waitresses' assistants; Miscellaneous food preparation occupations	Food counter, fountain and related occupations; Waiters'/waitresses' assistants; Miscellaneous food preparation occupations
371	Supervisors of Building and Grounds Cleaning and Maintenance Workers	N/A	N/A	N/A	Supervisors, cleaning and building service workers; Supervisors, related agricultural occupations	Supervisors, cleaning and building service workers; Supervisors, related agricultural occupations
372	Building Cleaning and Pest Control Workers	Housekeepers, private household; Bootblacks; Boarding and lodging house keepers; Charwomen and cleaners; Housekeepers and stewards, except private household; Janitors and sextons	Housekeepers, private household; Bootblacks; Boarding and lodging housekeepers; Chambermaids and maids, except private household; Charwomen and cleaners; Housekeepers and stewards, except private household; Janitors and sexton	Chambermaids and maids, except private household; Cleaners and charwomen; Janitors and sextons; Boarding and lodging house keepers; Bootblacks; Housekeepers, except private household; Housekeepers, private household; Maids and servants, private household	Housekeepers and butlers; Private household cleaners and servants; Maids and housemen; Janitors and cleaners; Pest control occupations	Housekeepers and butlers; Private household cleaners and servants; Maids and housemen; Janitors and cleaners; Pest control occupations

373	Grounds Maintenance Workers	Gardeners, except farm and groundskeepers	Gardeners, except farm, and groundskeepers	Gardeners and groundskeepers, except farm	Groundskeepers and gardeners, except farm	Groundskeepers and gardeners, except farm
391	Supervisors of Personal Care and Service Workers	Attendants, recreation and amusement	Attendants, recreation and amusement	Attendants, recreation and amusement	Supervisors, personal service occupations; Attendants, amusement and recreation facilities; Supervisors, motor vehicle operators	Supervisors, personal service occupations; Attendants, amusement and recreation facilities; Supervisors, motor vehicle operators; Supervisors, handlers, equipment cleaners, and laborers, n.e.c.; Managers, service organizations, n.e.c.
392	Animal Care and Service Workers	N/A	N/A	Animal caretakers, except farm	Animal caretakers, except farm	Animal caretakers, except farm
393	Entertainment Attendants and Related Workers	Motion picture projectionists; Attendants, recreation and amusement; Ushers, recreation and amusement	Motion picture projectionists; Attendants, recreation and amusement; Ushers, recreation and amusement	Motion picture projectionists; Attendants, recreation and amusement; Ushers, recreation and amusement	Attendants, amusement and recreation facilities; Ushers; Motion picture projectionists	Attendants, amusement and recreation facilities; Ushers; Motion picture projectionists
395	Personal Appearance Workers	Barbers, beauticians, and manicurists	Barbers; Hairdressers and cosmetologists	Barbers; Hairdressers and cosmetologists	Barbers; Hairdressers and cosmetologists	Barbers; Hairdressers and cosmetologists
396	Baggage Porters, Bellhops, and Concierges	Baggagemen, transportation; Porters	Baggagemen, transportation; Porters	Airline stewardesses; Baggage porters and bellhops	Public transportation attendants; Baggage porters and bellhops	Public transportation attendants; Baggage porters and bellhops
397	Tour and Travel Guides	N/A	N/A	N/A	Guides	Guides
399	Other Personal Care and Service Workers	Recreation and group workers; Attendants, hospital and other institution	Recreation and group workers; Baby sitters, private household; Attendants, hospital and other institutions	Recreation workers; Health aides, except nursing; Nursing aides, orderlies, and attendants; Child care workers, except private household; School monitors; Child care workers, private household	Recreation workers; Child care workers, private household; Health aides, except nursing; Nursing aides, orderlies, and attendants; Child care workers, except private household	Recreation workers; Child care workers, private household; Health aides, except nursing; Nursing aides, orderlies, and attendants; Family child care providers; Child care workers, n.e.c.
39Z	Funeral Service Workers and Other Personal Care and Service	Private household workers (n.e.c.); Attendants, professional and	Decorators and window dressers; Private household workers, n.e.c.;	Attendants, personal service, n.e.c.; Elevator operators; Personal service	Elevator operators; Personal service occupations, n.e.c.	Elevator operators; Personal service occupations, n.e.c.

	Workers (Constructed)	personal service (n.e.c.); Elevator operators; Service workers, except private household (n.e.c.)	Attendants, professional and personal service, n.e.c.; Elevator operators; Service workers, except private household, n.e.c.	apprentices; Service workers, except private household -- allocated; Private household workers -- allocated		
411	Supervisors of Sales Workers	Floormen and floor managers, store	Floor men and floor managers, store	Sales managers, except retail trade	Supervisors and proprietors, sales occupations	Supervisors and proprietors, sales occupations
412	Retail Sales Workers	Cashiers	Cashiers	Sales clerks, retail trade; Salesmen, retail trade; Cashiers; Counter clerks, except food	Sales workers, motor vehicles and boats; Sales workers, apparel; Sales workers, shoes; Sales workers, furniture and home furnishings; Sales workers, radio, TV, hi-fi, and appliances; Sales workers, hardware and building supplies; Sales workers, parts; Sales workers, other commodities; Sales counter clerks; Cashiers	Sales workers, motor vehicles and boats; Sales workers, apparel; Sales workers, shoes; Sales workers, furniture and home furnishings; Sales workers, radio, TV, hi-fi, and appliances; Sales workers, hardware and building supplies; Sales workers, parts; Sales workers, other commodities; Sales counter clerks; Cashiers
413	Sales Representatives, Services	Ticket, station, and express agents; Advertising agents and salesmen; Stock and bond salesmen	Ticket, station, and express agents; Advertising agents and salesmen; Insurance agents, brokers, and underwriters; Stock and bond salesmen	Advertising agents and salesmen; Insurance agents, brokers, and underwriters; Stock and bond salesmen; Sales clerks, retail trade; Salesmen, retail trade; Counter clerks, except food; Ticket, station, and express agents	Insurance sales occupations; Securities and financial services sales occupations; Advertising and related sales occupations; Sales workers, motor vehicles and boats; Sales workers, apparel; Sales workers, shoes; Sales workers, furniture and home furnishings; Sales workers, radio, TV, hi-fi, and appliances; Sales workers, hardware and building supplies; Sales workers, parts; Sales workers,	Insurance sales occupations; Securities and financial services sales occupations; Advertising and related sales occupations; Sales workers, motor vehicles and boats; Sales workers, apparel; Sales workers, shoes; Sales workers, furniture and home furnishings; Sales workers, radio, TV, hi-fi, and appliances; Sales workers, hardware and building supplies; Sales workers, parts; Sales workers, other commodities; Sales counter clerks; Transportation ticket and reservation agents

					other commodities; Sales counter clerks; Transportation ticket and reservation agents	
414	Sales Representatives, Wholesale and Manufacturing	Agents (n.e.c.); Auctioneers; Hucksters and peddlers; Salesmen and sales clerks (n.e.c.)	Agents, n.e.c.; Auctioneers; Hucksters and peddlers; Salesmen and sales clerks, n.e.c.	Auctioneers; Salesmen and sales clerks, n.e.c.; Sales representatives, manufacturing industries; Sales representatives, wholesale trade; Salesmen of services and construction; Sales workers -- allocated	Sales occupations, other business services; Sales representatives, mining, manufacturing, and wholesale; Auctioneers; Sales support occupations, n.e.c.	Sales occupations, other business services; Sales representatives, mining, manufacturing, and wholesale; Auctioneers; Sales support occupations, n.e.c.
419	Other Sales and Related Workers	Agents (n.e.c.); Auctioneers; Demonstrators; Hucksters and peddlers; Newsboys; Real estate agents and brokers; Salesmen and sales clerks (n.e.c.); Decorators and window dressers	Engineers, sales; Agents, n.e.c.; Auctioneers; Demonstrators; Hucksters and peddlers; Newsboys; Real estate agents and brokers; Salesmen and sales clerks, n.e.c.	Sales engineers; Auctioneers; Demonstrators; Hucksters and peddlers; Newsboys; Real estate agents and brokers; Salesmen and sales clerks, n.e.c.; Sales representatives, manufacturing industries; Sales representatives, wholesale trade; Salesmen of services and construction; Sales workers -- allocated; Real estate appraisers	Real estate sales occupations; Sales occupations, other business services; Sales engineers; Sales representatives, mining, manufacturing, and wholesale; Street and door-to-door sales workers; News vendors; Demonstrators, promoters and models, sales; Auctioneers; Sales support occupations, n.e.c.	Real estate sales occupations; Sales occupations, other business services; Sales engineers; Sales representatives, mining, manufacturing, and wholesale; Street and door-to-door sales workers; News vendors; Demonstrators, promoters and models, sales; Auctioneers; Sales support occupations, n.e.c.
431	Supervisors of Office and Administrative Support Workers	N/A	N/A	Clerical supervisors, n.e.c.; Office managers, n.e.c.	Supervisors, general office; Supervisors, financial records processing	Supervisors, general office; Supervisors, financial records processing
432	Communications Equipment Operators	Telephone operators	Telephone operators	Telephone operators	Chief communications operators; Telephone operators	Chief communications operators; Telephone operators
433	Financial Clerks	Bank tellers; Bookkeepers; Collectors, bill and account	Bank tellers; Bookkeepers; Collectors, bill and account;	Bank tellers; Billing clerks; Bookkeepers; Collectors, bill	Bookkeeping, accounting, and auditing clerks; Payroll and	Bookkeepers, accounting, and auditing clerks; Payroll and timekeeping clerks; Billing clerks; Cost and rate

			Payroll and timekeeping clerks; Stock clerks and storekeepers	and account; Bookkeeping and billing machine operators; Calculating machine operators; Payroll and timekeeping clerks; Stock clerks and storekeepers	timekeeping clerks; Billing clerks; Cost and rate clerks; Billing, posting, and calculating machine operators; Stock and inventory clerks; Bill and account collectors; Bank tellers	clerks; Billing, posting, and calculating machine operators; Stock and inventory clerks; Bill and account collectors; Bank tellers
434	Information and Record Clerks	Personnel and labor relations workers; Attendants and assistants, library; Ticket, station, and express agents; Clerical and kindred workers (n.e.c.); Inspectors (n.e.c.)	Personnel and labor relations workers; Attendants and assistants, library; File clerks; Receptionists; Ticket, station, and express agents; Clerical and kindred workers, n.e.c.; Inspectors, n.e.c.	Personnel and labor relations workers; Clerical assistants, social welfare; Enumerators and interviewers; Estimators and investigators, n.e.c.; File clerks; Library attendants and assistants; Receptionists; Ticket, station, and express agents; Miscellaneous clerical workers; Clerical workers, n.s.; Clerical and kindred workers -- allocated	Interviewers; Hotel clerks; Transportation ticket and reservation agents; Receptionists; Information clerks, n.e.c.; Classified-ad clerks; Correspondence clerks; Order clerks; Personnel clerks, except payroll and timekeeping; Library clerks; File clerks; Records clerks; Samplers; Material recording, scheduling, and distributing clerks, n.e.c.; Investigators and adjusters, except insurance; Eligibility clerks, social welfare; Administrative support occupations, n.e.c.	Interviewers; Hotel clerks; Transportation ticket and reservation agents; Receptionists; Information clerks, n.e.c.; Classified-ad clerks; Correspondence clerks; Order clerks; Personnel clerks, except payroll and timekeeping; Library clerks; File clerks; Records clerks; Material recording, scheduling, and distributing clerks, n.e.c.; Investigators and adjusters, except insurance; Eligibility clerks, social welfare; Administrative support occupations, n.e.c.
435	Material Recording, Scheduling, Dispatching, and Distributing Workers	Dispatchers and starters, vehicle; Mail carriers; Messengers and office boys; Shipping and receiving clerks; Telegraph messengers	Dispatchers and starters, vehicle; Mail carriers; Messengers and office boys; Postal clerks; Shipping and receiving clerks; Stock clerks and storekeepers; Telegraph messengers	Dispatchers and starters, vehicle; Expeditors and production controllers; Mail carriers, post office; Mail handlers, except post office; Messengers and office boys; Meter readers, utilities; Postal clerks; Shipping	Supervisors, distribution, scheduling, and adjusting clerks; Mail preparing and paper handling machine operators; Postal clerks, except mail carriers; Mail carriers, postal service; Messengers; Dispatchers;	Supervisors; distribution, scheduling, and adjusting clerks; Mail preparing and paper handling machine operators; Postal clerks except mail carriers; Mail carriers, postal service; Messengers; Dispatchers; Production coordinators; Traffic, shipping, and receiving clerks; Stock and inventory clerks; Meter readers; Weighers,

				and receiving clerks; Stock clerks and storekeepers; Telegraph messengers; Weighers	Production coordinators; Traffic, shipping, and receiving clerks; Stock and inventory clerks; Meter readers; Weighers, measurers, and checkers; Expeditors	measurers, checkers, and samplers; Expeditors
436	Secretaries and Administrative Assistants	Stenographers, typists, and secretaries	Secretaries; Stenographers	Secretaries, legal; Secretaries, medical; Secretaries, n.e.c.; Stenographers	Secretaries; Stenographers	Secretaries; Stenographers
439	Other Office and Administrative Support Workers	Express messengers and railway mail clerks; Office machine operators; Insurance agents and brokers	Express messengers and railway mail clerks; Insurance adjusters, examiners, and investigators; Office machine operators; Typists	Insurance adjusters, examiners, and investigators; Duplicating machine operators; Key punch operators; Office machine operators, n.e.c.; Proofreaders; Statistical clerks; Typists	Typists; Duplicating machine operators; Office machine operators, n.e.c.; Mail clerks, except postal service; Insurance adjusters, examiners, and investigators; General office clerks; Proofreaders; Data-entry keyers; Statistical clerks	Typists; Duplicating machine operators; Office machine operators, n.e.c.; Mail clerks, except postal service; Insurance adjusters, examiners, and investigators; General office clerks; Proofreaders; Data-entry keyers; Statistical clerks
43Z	Miscellaneous office and administrative support workers, desktop publishers, and financial clerks (Constructed)	Cashiers; Clerical and kindred workers (n.e.c.); Inspectors (n.e.c.)	Cashiers; Clerical and kindred workers, n.e.c.; Inspectors, n.e.c.	Cashiers; Clerical assistants, social welfare; Miscellaneous clerical workers; Clerical workers, n.s.; Clerical and kindred workers -- allocated	Cashiers; Samplers; Material recording, scheduling, and distributing clerks, n.e.c.; Administrative support occupations, n.e.c.	Cashiers; Material recording, scheduling, and distributing clerks, n.e.c.; Administrative support occupations, n.e.c.
451	Supervisors of Farming, Fishing, and Forestry Workers	Inspectors, scalers, and graders, log and lumber; Lumbermen, raftsmen, and woodchoppers; Farm managers	Inspectors, scalers, and graders, log and lumber; Lumbermen, raftsmen, and woodchoppers; Farm managers	Inspectors, scalers, and graders, log and lumber; Lumbermen, raftsmen, and woodchoppers; Farm managers; Farmers and farm managers -	Personnel, training, and labor relations specialists; Supervisors, forestry and logging workers; Forestry workers, except logging; Timber cutting and logging occupations;	Personnel, training, and labor relations specialists; Supervisors, forestry, and logging workers; Forestry workers except logging; Timber cutting and logging occupations; Managers, farms, except horticultural; Managers, horticultural specialty farms

				- allocated; Farm foremen	Managers, farms, except horticultural; Managers, horticultural specialty farms	
452	Agricultural Workers	Fruit, nut, and vegetable graders, and packers, except factory; Farm foremen; Farm laborers, wage workers; Farm laborers, unpaid family workers; Farm service laborers, self- employed; Farmers (owners and tenants)	Fruit, nut, and vegetable graders and packers, except factory; Farm foremen; Farm laborers, wage workers; Farm laborers, unpaid family workers; Farm service laborers, self- employed; Farmers (owners and tenants)	Farm laborers, wage workers; Farm laborers, unpaid family workers; Farm service laborers, self-employed; Farm laborers and farm foremen -- allocated; Farmers (owners and tenants)	Supervisors, farm workers; Farm workers; Nursery workers; Graders and sorters, agricultural products; Inspectors, agricultural products; Farmers, except horticultural; Horticultural specialty farmers	Supervisors, farm workers; Farm workers; Nursery workers; Graders and sorters, agricultural products; Inspectors, agricultural products; Farmers, except horticultural; Horticultural specialty farmers
453	Fishing and Hunting Workers	Fishermen and oystermen	Fishermen and oystermen	Fishermen and oystermen	Marine life cultivation workers; Fishers; Hunters and trappers	Marine life cultivation workers; Fishers; Hunters and trappers
454	Forest, Conservation, and Logging Workers	Inspectors, scalers, and graders, log and lumber; Lumbermen, raftsmen, and woodchoppers	Inspectors, scalers, and graders, log and lumber; Lumbermen, raftsmen, and woodchoppers	Inspectors, scalers, and graders, log and lumber; Lumbermen, raftsmen, and woodchoppers	Supervisors, forestry and logging workers; Forestry workers, except logging; Timber cutting and logging occupations	Supervisors, forestry, and logging workers; Forestry workers except logging; Timber cutting and logging occupations
471	Supervisors of Construction and Extraction Workers	N/A	N/A	N/A	Supervisors, brickmasons, stonemasons, and tile setters; Supervisors, carpenters and related workers; Supervisors, electricians and power transmission installers; Supervisors, painters, paperhangers, and plasterers; Supervisors, plumbers, pipefitters, and steamfitters; Supervisors, n.e.c.	Supervisors, brickmasons, stonemasons, and tile setters; Supervisors, carpenters and related workers; Supervisors, electricians and power transmission installers; Supervisors, painters, paperhangers, and plasterers; Supervisors, plumbers, pipefitters, and steamfitters; Supervisors, construction, n.e.c.

472	Construction Trades Workers	Boilermakers; Brickmasons, stonemasons, and tile setters; Carpenters; Cement and concrete finishers; Electricians; Glaziers; Painters, construction and maintenance; Paperhangers; Plasterers; Plumbers and pipe fitters; Roofers and slaters; Structural metal workers; Tinsmiths, coppersmiths, and sheet metal workers; Apprentice bricklayers and masons; Apprentice carpenters; Apprentice electricians; Apprentice plumbers and pipe fitters; Apprentices, metalworking trades (n.e.c.); Asbestos and insulation workers	Boilermakers; Brickmasons, stonemasons, and tile setters; Carpenters; Cement and concrete finishers; Electricians; Glaziers; Painters, construction and maintenance; Paperhangers; Plasterers; Plumbers and pipe fitters; Roofers and slaters; Structural metal workers; Tinsmiths, coppersmiths, and sheet metal workers; Apprentice bricklayers and masons; Apprentice carpenters; Apprentice electricians; Apprentice plumbers and pipe fitters; Apprentices, metalworking trades, n.e.c.; Asbestos and insulation workers; Carpenters' helpers, except logging and mining	Boilermakers; Brickmasons and stonemasons; Brickmason and stonemason apprentices; Bulldozer operators; Carpenters; Carpenter apprentices; Carpet installers; Cement and concrete finishers; Electricians; Electrician apprentices; Excavating, grading, and road machine operators, except bulldozer; Glaziers; Painters, construction and maintenance; Painter apprentices; Paperhangers; Plasterers; Plasterer apprentices; Plumbers and pipe fitters; Plumber and pipe fitter apprentices; Roofers and slaters; Sheetmetal workers and tinsmiths; Sheetmetal apprentices; Shipfitters; Structural metal craftsmen; Tile setters; Asbestos and insulation workers; Dry wall installers and lathers;	Brickmasons and stonemasons, except apprentices; Brickmason and stonemason apprentices; Tile setters, hard and soft; Carpet installers; Carpenters, except apprentices; Carpenter apprentices; Drywall installers; Electricians, except apprentices; Electrician apprentices; Painters, construction and maintenance; Paperhangers; Plasterers; Plumbers, pipefitters, and steamfitters, except apprentices; Plumber, pipefitter, and steamfitter apprentices; Concrete and terrazzo finishers; Glaziers; Insulation workers; Paving, surfacing, and tamping equipment operators; Roofers; Structural metal workers; Boilermakers; Lay-out workers; Sheet metal workers, except apprentices; Sheet metal worker apprentices; Operating engineers; Grader, dozer, and scraper operators; Construction laborers	Brickmasons and stonemasons; Brickmason and stonemason apprentices; Tile setters, hard and soft; Carpet installers; Carpenter apprentices; Drywall installers; Electricians; Electrician apprentices; Painters, construction and maintenance; Paperhangers; Plasterers; Plumbers, pipefitters, and steamfitters; Plumber, pipe fitter, and steamfitter apprentices; Concrete and terrazzo finishers; Glaziers; Insulation workers; Paving, surfacing, and tamping equipment operators; Roofers; Structural metal workers; Boilermakers; Lay-out workers; Sheet metal worker apprentices; Operating engineers; Grader, dozer, and scraper operators; Construction laborers
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				Carpenters' helpers; Construction laborers, except carpenters' helpers		
473	Helpers, Construction Trades	N/A	N/A	Chainmen, rodmen, and axemen, surveying	Helpers, surveyor	Helpers, construction trades
474	Other Construction and Related Workers	Apprentices, building trades (n.e.c.); Asbestos and insulation workers; Laborers (n.e.c.)	Apprentices, building trades, n.e.c.; Asbestos and insulation workers; Warehousemen, n.e.c.; Laborers, n.e.c.	Construction inspectors, public administration; Floor layers, except tile setters; Asbestos and insulation workers; Carpenters' helpers; Construction laborers, except carpenters' helpers; Freight and material handlers; Stockhandlers; Warehousemen, n.e.c.; Miscellaneous laborers; Laborers, n.s.; Laborers, except farm -- allocated	Construction inspectors; Elevator installers and repairers; Insulation workers; Sheetmetal duct installers; Construction trades, n.e.c.; Construction laborers; Stock handlers and baggers; Freight, stock, and material handlers, n.e.c.; Laborers, except construction	Construction inspectors; Elevator installers and repairers; Insulation workers; Sheetmetal duct installers; Construction trades, n.e.c.; Helpers, extractive occupations; Construction laborers; Stock handlers and baggers; Freight, stock, and material handlers, n.e.c.; Laborers, except construction
475	Extraction Workers	Blasters and powdermen	Blasters and powdermen	Blasters and powdermen; Drillers, earth	Drillers, earth; Drillers, oil well; Explosives workers; Mining occupations, n.e.c.	Drillers, earth; Drillers, oil well; Explosives workers; Mining occupations, n.e.c.
47Z	Miscellaneous Construction Workers (Constructed)	Apprentices, building trades (n.e.c.)	Apprentices, building trades, n.e.c.	Floor layers, except tile setters	Sheetmetal duct installers; Construction trades, n.e.c.	Sheetmetal duct installers; Construction trades, n.e.c.
491	Supervisors of Installation, Maintenance, and Repair Workers	N/A	N/A	N/A	Supervisors, mechanics and repairers	Supervisors, mechanics and repairers
492	Electrical and Electronic Equipment Mechanics, Installers, and Repairers	Electricians; Linemen and servicemen, telegraph, telephone, and power; Mechanics and	Electricians; Linemen and servicemen, telegraph, telephone, and power; Mechanics and	Electricians; Electrician apprentices; Electric power linemen and cablemen; Data processing	Electronic repairers, communications and industrial equipment; Data processing equipment	Electronic repairers, communications and industrial equipment; Data processing equipment repairers; Telephone line installers and repairers; Telephone installers and

		repairmen, office machine; Mechanics and repairmen, radio and television; Apprentice electricians	repairmen, office machine; Mechanics and repairmen, radio and television; Apprentice electricians	machine repairmen; Office machine; Radio and television; Telephone installers and repairmen; Telephone linemen and splicers	repairers; Telephone line installers and repairers; Telephone installers and repairers; Miscellaneous electrical and electronic equipment repairers; Office machine repairers; Electricians, except apprentices; Electrician apprentices; Electrical power installers and repairers	repairers; Misc. electrical and electronic equipment repairers; Office machine repairers; Electricians; Electrician apprentices; Electrical power installers and repairers
493	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	Mechanics and repairmen, airplane; Mechanics and repairmen, automobile; Apprentice auto mechanics	Mechanics and repairmen, airplane; Mechanics and repairmen, automobile; Apprentice auto mechanics	Aircraft; Automobile body repairmen; Automobile mechanics; Automobile mechanic apprentices; Farm implement; Heavy equipment and diesel mechanics	Automobile mechanics, except apprentices; Automobile mechanic apprentices; Bus, truck, and stationary engine mechanics; Aircraft engine mechanics; Small engine repairers; Automobile body and related repairers; Aircraft mechanics, except engine; Heavy equipment mechanics; Farm equipment mechanics	Automobile mechanics; Automobile mechanic apprentices; Bus, truck, and stationary engine mechanics; Aircraft engine mechanics; Small engine repairers; Automobile body and related repairers; Aircraft mechanics, except engine; Heavy equipment mechanics; Farm equipment mechanics
499	Other Installation, Maintenance, and Repair Occupations	Jewelers, watchmakers, goldsmiths, and silversmiths; Linemen and servicemen, telegraph, telephone, and power; Loom fixers; Mechanics and repairmen, railroad and car shop; Mechanics and	Jewelers, watchmakers, goldsmiths, and silversmiths; Linemen and servicemen, telegraph, telephone, and power; Loom fixers; Mechanics and repairmen, air conditioning, heating, and refrigeration;	Blacksmiths; Electric power linemen and cablemen; Jewelers and watchmakers; Air conditioning, heating, and refrigeration; Household appliance and accessory installers and mechanics;	Industrial machinery repairers; Machinery maintenance occupations; Household appliance and power tool repairers; Telephone line installers and repairers; Telephone line installers and repairers; Telephone installers and	Industrial machinery repairers; Machinery maintenance occupations; Household appliance and power tool repairers; Telephone line installers and repairers; Telephone installers and repairers; Heating, air conditioning, and refrigeration mechanics; Camera, watch, and musical instrument repairers; Locksmiths and safe repairers; Mechanical controls and valve

		<p>repairmen (n.e.c.); Millwrights; Piano and organ tuners and repairmen; Apprentice mechanics, except auto; Apprentices, other specified trades; Apprentices, trade not specified; Oilers and greaser, except auto</p>	<p>Mechanics and repairmen, railroad and car shop; Mechanics and repairmen, n.e.c.; Millwrights; Piano and organ tuners and repairmen; Apprentice mechanics, except auto; Apprentices, other specified trades; Apprentices, trade not specified; Oilers and greasers, except auto</p>	<p>Loom fixers; Railroad and car shop; Mechanic apprentices, except automobile; Miscellaneous mechanics and repairmen; Mechanics and repairmen, n.s.; Millwrights; Piano and organ tuners and repairmen; Telephone installers and repairmen; Telephone linemen and splicers; Craft apprentices, n.e.c.; Apprentices, craft not specified; Craftsmen and kindred workers, n.e.c.; Craftsmen and kindred workers -- allocated; Oilers and greasers, except auto</p>	<p>repairers; Heating, air conditioning, and refrigeration mechanics; Camera, watch, and musical instrument repairers; Locksmiths and safe repairers; Mechanical controls and valve repairers; Millwrights; Mechanics and repairers, n.e.c.; Mechanics and repairers, n.s.; Electrical power installers and repairers; Precious stones and metals workers; Helpers, mechanics and repairers; Helpers, construction trades</p>	<p>repairers; Millwrights; Mechanics and repairers, n.e.c.; Mechanics and repairers, n.s.; Electrical power installers and repairers; Precious stones and metals workers (jewelers); Helpers, mechanics and repairers</p>
511	Supervisors of Production Workers	Foremen (n.e.c.)	Foremen, n.e.c.	Foremen, n.e.c.	Supervisors, extractive occupations; Supervisors production occupations; Supervisors, handlers, equipment cleaners, and laborers, n.e.c.	Supervisors, extractive occupations; Supervisors, production occupations
512	Assemblers and Fabricators	Structural metal workers	Structural metal workers; Assemblers	Structural metal craftsmen; Assemblers	Structural metal workers; Precision assemblers, metal; Electrical and electronic equipment assemblers; Assemblers	Structural metal workers; Precision assemblers, metal; Electrical and electronic equipment assemblers; Assemblers
513	Food Processing Workers	Bakers; Millers, grain, flour,	Bakers; Millers, grain, flour,	Bakers; Millers, grain, flour, and	Butchers and meat cutters; Bakers;	Butchers and meat cutters; Bakers; Food batchmakers;

		feed, etc.; Meat cutters, except slaughter and packing house	feed, etc.; Meat cutters, except slaughter and packing house	feed; Cutting operatives, n.e.c.; Meat cutters and butchers, except manufacturing; Meat cutters and butchers, manufacturing	Food batchmakers; Roasting and baking machine operators, food; Crushing and grinding machine operators; Slicing and cutting machine operators	Roasting and baking machine operators, food; Crushing and grinding machine operators; Slicing and cutting machine operators
514	Metal Workers and Plastic Workers	Blacksmiths; Forgemen and hammermen; Heat treaters, annealers, temperers; Job setters, metal; Machinists; Molders, metal; Pattern and model makers, except paper; Rollers and roll hands, metal; Stone cutters and stone carvers; Tinsmiths, coppersmiths, and sheet metal workers; Tool makers, and die makers and setters; Craftsmen and kindred workers (n.e.c.); Apprentice machinists and toolmakers; Apprentices, metalworking trades (n.e.c.); Filers, grinders, and polishers, metal; Furnacemen, smeltermen and pourers; Heaters, metal; Stationary firemen; Welders and flame cutters	Blacksmiths; Forgemen and hammermen; Heat treaters, annealers, and temperers; Job setters, metal; Machinists; Molders, metal; Pattern and model makers, except paper; Rollers and roll hands, metal; Stone cutters and stone carvers; Tinsmiths, coppersmiths, and sheet metal workers; Toolmakers, and die makers and setters; Craftsmen and kindred workers, n.e.c.; Apprentice machinists and toolmakers; Apprentices, metalworking trades, n.e.c.; Filers, grinders, and polishers, metal; Furnacemen, smeltermen, and pourers; Heaters, metal; Stationary firemen; Welders and flame-cutters	Tool programmers, numerical control; Forgemen and hammermen; Heat treaters, annealers, and temperers; Job and die setters, metal; Machinists; Machinist apprentices; Molders, metal; Molder apprentices; Pattern and model makers, except paper; Rollers and finishers, metal; Sheetmetal workers and tinsmiths; Sheetmetal apprentices; Shipfitters; Tool and die makers; Tool and die maker apprentices; Filers, polishers, sanders, and buffers; Furnacemen, smeltermen, and pourers; Heaters, metal; Metal platers; Drill press operatives; Grinding machine operatives; Lathe and milling machine	Tool programmers, numerical control; Tool and die makers, except apprentices; Tool and die maker apprentices; Machinists, except apprentices; Machinist apprentices; Precision grinders, fitters, and tool sharpeners; Patternmakers and model makers, metal; Lay-out workers; Sheet metal workers, except apprentices; Sheet metal worker apprentices; Miscellaneous precision metal workers; Patternmakers and model makers, wood; Patternmakers, lay-out workers, and cutters; Sheet metal workers, except apprentices; Sheet metal worker apprentices; Miscellaneous precision metal workers; Patternmakers and model makers, wood; Patternmakers, lay-out workers, and cutters; Miscellaneous precision workers, n.e.c.; Lathe and turning machine set-up operators; Lathe and turning machine operators; Milling and planing machine operators; Punching and stamping press machine operators; Rolling machine operators; Drilling and boring machine operators; Grinding, abrading, buffing, and polishing machine operators; Forging machine operators; Molding and casting machine operators; Metal plating machine operators; Heat treating equipment operators; Extruding and forming machine operators; Compressing and compacting machine operators; Furnace, kiln, and oven operators, except food; Welders and cutters; Solderers and brazers	Tool programmers, numerical control; Tool and die maker apprentices; Machinists; Machinist apprentices; Precision grinders, filers, and tool sharpeners; Patternmakers and model makers, metal; Lay-out workers; Sheet metal worker apprentices; Miscellaneous precision metal workers; Patternmakers and model makers, wood; Patternmakers, lay-out workers, and cutters; Miscellaneous precision workers, n.e.c.; Lathe and turning machine set-up operators; Lathe and turning machine operators; Milling and planing machine operators; Punching and stamping press machine operators; Rolling machine operators; Drilling and boring machine operators; Grinding, abrading, buffing, and polishing machine operators; Forging machine operators; Molding and casting machine operators; Metal plating machine operators; Heat treating equipment operators; Extruding and forming machine operators; Compressing and compacting machine operators; Furnace, kiln, and oven operators, except food; Welders and cutters; Solderers and brazers

				operatives; Precision machine operatives, n.e.c.; Punch and stamping press operatives; Solderers; Stationary firemen; Welders and flame-cutters	machine operators; Grinding, abrading, buffing, and polishing machine operators; Forging machine operators; Molding and casting machine operators; Metal plating machine operators; Heat treating equipment operators; Extruding and forming machine operators; Compressing and compacting machine operators; Furnace, kiln, and oven operators, except food; Welders and cutters; Solderers and blazers	
515	Printing Workers	Bookbinders; Compositors and typesetters; Electrotypers and stereotypers; Photoengravers and lithographers; Pressmen and plate printers, printing; Apprentices, printing trades	Bookbinders; Compositors and typesetters; Electrotypers and stereotypers; Photoengravers and lithographers; Pressmen and plate printers, printing; Apprentices, printing trades	Bookbinders; Compositors and typesetters; Printing trades apprentices, except pressmen; Electrotypers and stereotypers; Photoengravers and lithographers; Pressmen and plate printers, printing; Pressman apprentices	Bookbinders; Printing machine operators; Photoengravers and lithographers; Typesetters and compositors; Miscellaneous printing machine operators	Bookbinders; Printing press operators; Photoengravers and lithographers; Typesetters and compositors; Miscellaneous printing machine operators
516	Textile, Apparel, and Furnishings Workers	Furriers; Shoemakers and repairers, except factory; Tailors and tailoresses; Upholsterers; Dressmakers and seamstresses, except factory; Laundry and dry cleaning operatives;	Furriers; Shoemakers and repairers, except factory; Tailors and tailoresses; Upholsterers; Dressmakers and seamstresses, except factory; Knitters, loopers, and toppers, textile;	Automobile accessories installers; Furriers; Shoe repairmen; Tailors; Upholsterers; Clothing ironers and pressers; Dressmakers and seamstresses, except factory;	Launderers and Ironers; Dressmakers; Tailors; Upholsterers; Shoe repairers; Misc. precision apparel and fabric workers; Winding and twisting machine operators; Knitting, looping, taping, and weaving	Launderers and ironers; Dressmakers; Tailors; Upholsterers; Shoe repairers; Miscellaneous precision apparel and fabric workers; Winding and twisting machine operators; Knitting, looping, taping, and weaving machine operators; Textile cutting machine operators; Textile sewing machine operators; Shoe machine operators;

		Milliners; Spinners, textile; Weavers, textile; Laundresses, private household	Laundry and dry cleaning operatives; Milliners; Sewers and stitchers, manufacturing; Spinners, textile; Weavers, textile; Laundresses, private household	Laundry and dry cleaning operatives, n.e.c.; Milliners; Sewers and stitchers; Shoemaking machine operatives; Carding, lapping, and combing operatives; Knitters, loopers, and toppers; Spinners, twistors, and winders; Weavers; Textile operatives, n.e.c.; Winding operatives, n.e.c.; Laundresses, private household	machine operators; Textile cutting machine operators; Textile sewing machine operators; Shoe machine operators; Pressing machine operators; Laundering and dry cleaning machine operators; Miscellaneous textile machine operators	Pressing machine operators; Laundering and dry cleaning machine operators; Miscellaneous textile machine operators
517	Woodworkers	Cabinetmakers; Sawyers	Cabinetmakers; Sawyers	Cabinetmakers; Furniture and wood finishers; Sawyers	Cabinet makers and bench carpenters; Furniture and wood finishers; Miscellaneous precision woodworkers; Wood lathe, routing, and planing machine operators; Sawing machine operators; Shaping and joining machine operators; Nailing and tacking machine operators; Misc. woodworking machine operators	Cabinet makers and bench carpenters; Furniture and wood finishers; Miscellaneous precision woodworkers; Wood lathe, routing, and planing machine operators; Sawing machine operators; Shaping and joining machine operators; Nailing and tacking machine operators; Miscellaneous woodworking machine operators
518	Plant and System Operators	Stationary engineers; Power station operators	Stationary engineers; Power station operators	Power station operators; Stationary engineers	Water and sewage treatment plant operators; Power plant operators; Stationary engineers; Miscellaneous	Water and sewage treatment plant operators; Power plant operators; Stationary engineers; Miscellaneous plant and system operators

					plant and system operators	
519	Other Production Occupations	Engravers, except photoengravers; Jewelers, watchmakers, goldsmiths, and silversmiths; Millers, grain, flour, feed, etc.; Piano and organ tuners and repairmen; Dyers; Furnacemen, smeltermen and pourers; Heaters, metal; Painters, except construction or maintenance; Photographic process workers; Stationary firemen; Operative and kindred workers (n.e.c.)	Engravers, except photoengravers; Jewelers, watchmakers, goldsmiths, and silversmiths; Millers, grain, flour, feed, etc.; Piano and organ tuners and repairmen; Checkers, examiners, and inspectors, manufacturing; Dyers; Furnacemen, smeltermen, and pourers; Graders and sorters, manufacturing; Heaters, metal; Packers and wrappers, n.e.c.; Painters, except construction and maintenance; Photographic process workers; Stationary firemen; Operatives and kindred workers, n.e.c.	Dental laboratory technicians; Engravers, except photoengravers; Inspectors, n.e.c.; Jewelers and watchmakers; Millers, grain, flour, and feed; Piano and organ tuners and repairmen; Sign painters and letterers; Stone cutters and stone carvers; Bottling and canning operatives; Checkers, examiners, and inspectors, manufacturing; Cutting operatives, n.e.c.; Dyers; Furnacemen, smeltermen, and pourers; Graders and sorters, manufacturing; Produce graders and packers, except factory and farm; Mixing operatives; Packers and wrappers, except meat and produce; Painters, manufactured articles; Photographic process workers; Riveters and fasteners; Stationary firemen; Miscellaneous	Camera, watch, and musical instrument repairers; Precious stones and metals workers; Engravers, metal; Apparel and fabric patternmakers; Hand molders and shapers, except jewelers; Dental laboratory and medical appliance technicians; Inspectors, testers, and graders; Adjusters and calibrators; Numerical control machine operators; Miscellaneous metal, plastic, stone, and glass working machine operators; Fabricating machine operators, n.e.c.; Adjusters and calibrators; Numerical control machine operators; Miscellaneous metal, plastic, stone, and glass working machine operators; Fabricating machine operators, n.e.c.; Miscellaneous metal and plastic processing machine operators; Cementing and gluing machine operators; Packaging and filling machine operators; Extruding and forming machine operators; Mixing and blending machine operators; Separating, filtering, and clarifying machine operators; Compressing and compacting machine operators; Painting and paint spraying machine operators; Washing, cleaning, and pickling machine operators; Folding machine operators; Furnace, kiln, and oven operators, except food; Crushing and grinding machine operators; Slicing and cutting machine operators; Photographic process machine operators; Miscellaneous machine operators, n.e.c.; Machine operators, n.s.; Hand cutting and trimming occupations; Hand molding, casting, and forming occupations; Hand painting, coating, and decorating occupations; Hand engraving and printing occupations;	Camera, watch, and musical instrument repairers; Precious stones and metals workers (jewelers); Engravers, metal; Hand molders and shapers, except jewelers; Dental laboratory and medical appliance technicians; Inspectors, testers, and graders; Adjusters and calibrators; Numerical control machine operators; Miscellaneous metal, plastic, stone, and glass working machine operators; Fabricating machine operators, n.e.c.; Miscellaneous metal and plastic processing machine operators; Cementing and gluing machine operators; Packaging and filling machine operators; Extruding and forming machine operators; Mixing and blending machine operators; Separating, filtering, and clarifying machine operators; Compressing and compacting machine operators; Painting and paint spraying machine operators; Hand engraving and printing occupations;

				machine operatives; Machine operatives, n.s.; Miscellaneous operatives; Operatives, n.s.; Operatives, except transport -- allocated	Washing, cleaning, and pickling machine operators; Folding machine operators; Furnace, kiln, and oven operators, except food; Crushing and grinding machine operators; Slicing and cutting machine operators; Photographic process machine operators; Miscellaneous machine operators; Machine operators, n.s.; Hand cutting and trimming occupations; Hand molding, casting, and forming occupations; Hand painting, coating, and decorating occupations; Hand engraving and printing occupations; Hand grinding and polishing occupations; Miscellaneous hand working occupations; Production inspectors, checkers, and examiners; Production testers; Production samplers and weighers; Graders and sorters, except agricultural; Production helpers; nan	Miscellaneous hand working occupations; Production inspectors, checkers, and examiners; Production testers; Production samplers and weighers; Graders and sorters, except agricultural; nan; Production helpers
532	Air Transportation Workers	Airplane pilots and navigators	Airplane pilots and navigators	Airplane pilots; Air traffic controllers; Flight engineers	Airplane pilots and navigators; Air traffic controllers	Airplane pilots and navigators; Air traffic controllers
533	Motor Vehicle Operators	Bus drivers; Deliverymen and routemen; Taxicab drivers	Bus drivers; Deliverymen and routemen; Taxicab drivers	Busdrivers; Deliverymen and routemen; Fork lift and	Truck drivers, heavy; Truck drivers, light; Driver-sales	Truck drivers; Driver-sales workers; Bus drivers; Taxicab drivers and chauffeurs; Motor

		and chauffers; Truck and tractor drivers; Teamsters	and chauffeurs; Truck and tractor drivers; Teamsters; Truck drivers' helpers	tow motor operatives; Taxicab drivers and chauffeurs; Truck drivers; Teamsters	workers; Bus drivers; Taxicab drivers and chauffeurs; Motor transportation occupations, n.e.c.; Industrial truck and tractor equipment operators	transportation occupations, n.e.c.; Industrial truck and tractor equipment operators
534	Rail Transportation Workers	Conductors, railroad; Locomotive engineers; Locomotive firemen; Brakemen, railroad; Conductors, bus and street railway; Motormen, street, subway, and elevated railway; Switchmen, railroad	Conductors, railroad; Locomotive engineers; Locomotive firemen; Brakemen, railroad; Conductors, bus and street railway; Motormen, street, subway, and elevated railway; Switchmen, railroad	Railroad conductors; Locomotive engineers; Locomotive firemen; Conductors and motormen, urban rail transit; Motormen in mines, factories, logging camps, etc.; Railroad brakemen; Railroad switchmen	Railroad conductors and yardmasters; Locomotive operating occupations; Railroad brake, signal, and switch operators; Rail vehicle operators, n.e.c.	Railroad conductors and yardmasters; Locomotive operating occupations; Railroad brake, signal, and switch operators; Rail vehicle operators, n.e.c.
535	Water Transportation Workers	Officers, pilots, pursers and engineers, ship; Sailors and deck hands	Officers, pilots, pursers, and engineers, ship; Sailors and deck hands	Officers, pilots, and pursers, ship; Sailors and deckhands; Boatmen and canalmen	Captains and other officers, fishing vessels; Ship captains and mates, except fishing boats; Sailors and deckhands; Marine engineers	Captains and other officers, fishing vessels; Ship captains and mates, except fishing boats; Sailors and deckhands; Marine engineers
536	Other Transportation Workers	Attendants, auto service and parking; Boatmen, canalmen, and lock keepers	Attendants, auto service and parking; Boatmen, canalmen, and lock keepers	Garage workers and gas station attendants; Parking attendants; Airline stewardesses	Public transportation attendants; Parking lot attendants; Bridge, lock, and lighthouse tenders; Garage and service station related occupations	Public transportation attendants; Parking lot attendants; Bridge, lock, and lighthouse tenders; Garage and service station related occupations
537	Material Moving Workers	Cranemen, derrickmen, and hoistmen; Excavating, grading, and road machinery operators; Deliverymen and routemen; Mine operatives and laborers; Motormen, mine, factory,	Cranemen, derrickmen, and hoistmen; Excavating, grading, and machinery operators; Deliverymen and routemen; Mine operatives and laborers, n.e.c.; Motormen,	Cranemen, derrickmen, and hoistmen; Meat wrappers, retail trade; Mine operatives, n.e.c.; Deliverymen and routemen; Fork lift and tow motor operatives; Truck drivers;	Mining machine operators; Truck drivers, heavy; Truck drivers, light; Driver-sales workers; Supervisors, material moving equipment operators; Longshore equipment operators; Hoist	Mining machine operators; Truck drivers; Driver-sales workers; Supervisors, material moving equipment operators; Longshore equipment operators; Hoist and winch operators; Crane and tower operators; Excavating and loading machine operators; Industrial truck and tractor equipment operators; Miscellaneous material

		logging camp, etc.; Truck and tractor drivers; Garage laborers and car washers and greasers; Longshoremen and stevedores; Teamsters; Laborers (n.e.c.)	mine, factory, logging camp, etc.; Truck and tractor drivers; Garage laborers, and car washers and greasers; Longshoremen and stevedores; Teamsters; Truck drivers' helpers; Warehousemen, n.e.c.; Laborers, n.e.c.	Transport equipment operatives -- allocated; Freight and material handlers; Garbage collectors; Longshoremen and stevedores; Stockhandlers; Teamsters; Vehicle washers and equipment cleaners; Warehousemen, n.e.c.; Miscellaneous laborers; Laborers, n.s.; Laborers, except farm -- allocated	and winch operators; Crane and tower operators; Excavating and loading machine operators; Industrial truck and tractor equipment operators; Misc. material moving equipment operators; Garbage collectors; Stevedores; Stock handlers and baggers; Machine feeders and offbearers; Freight, stock, and material handlers, n.e.c.; Vehicle washers and equipment cleaners; Hand packers and packagers; Laborers, except construction	moving equipment operators; Helpers, extractive occupations; Garbage collectors; Stevedores; Stock handlers and baggers; Machine feeders and offbearers; Freight, stock, and material handlers, n.e.c.; Vehicle washers and equipment cleaners; Hand packers and packagers; Laborers, except construction
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