

NORTHERN REGION AREA SKILLS GAP ANALYSIS

SPRING 2016



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INTRODUCTION

BACKGROUND

The purpose of the Skills Gap Analysis is to provide economic developers, workforce developers, and educators with information on projected workforce shortages (gaps) and to identify strategies to mitigate these shortages.

In 2015, Northeast Iowa Community College obtained access to EMSI Analyst through a statewide grant awarded to Iowa's community colleges through the Department of Labor.

Report data included is from the 3rd quarter data release from Economic Modeling Specialists International (EMSI), a leading provider of historical databases of economic, industry, occupation, demographic, and education completion data. EMSI's primary data sources for this skills gap analysis is the Bureau of Labor Statistics and the National Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS). Our own Institutional Research department also provided statistics.

DEFINITIONS

The term "Skills gap" has been used to refer to both:

- the available pool of prospective employees compared to the jobs available in a particular occupation, and
- the skills and abilities possessed by current or prospective employees compared to the requirements of available jobs

For clarity, we'll refer to the first challenge as the "Labor Skills Gap" and the second as the "Technical Skills Gap." This report covers the Labor Skills Gap.

Fundamentally, the goal of this report is to answer the following questions:

- Which occupations are projected to have the greatest number of openings by 2025 in the region?
- What is the difference in projected new jobs and projected completions with appropriate labor skills from local institutions of higher education?

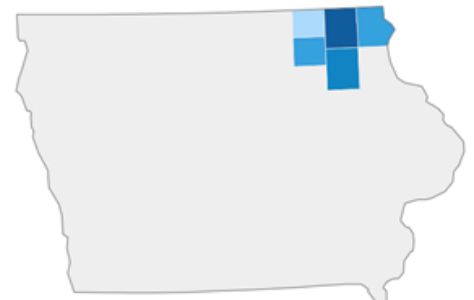
The terms:

- Working Age (or any reference to demographic age) - refer to the population from 15 to 69 years old.
- State - refer to the state of Iowa.
- NICC North (or any variation) - refer to the area that makes up the region of counties listed in the next section.

REGION

This analysis contains data for five counties:

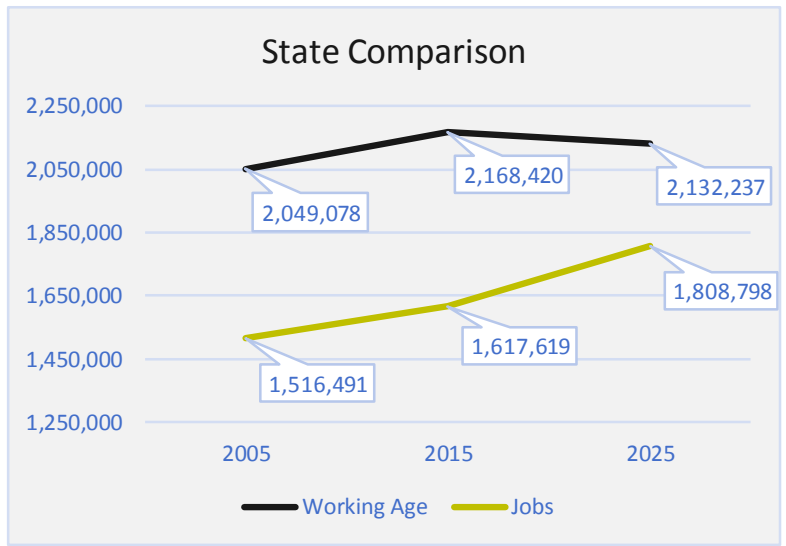
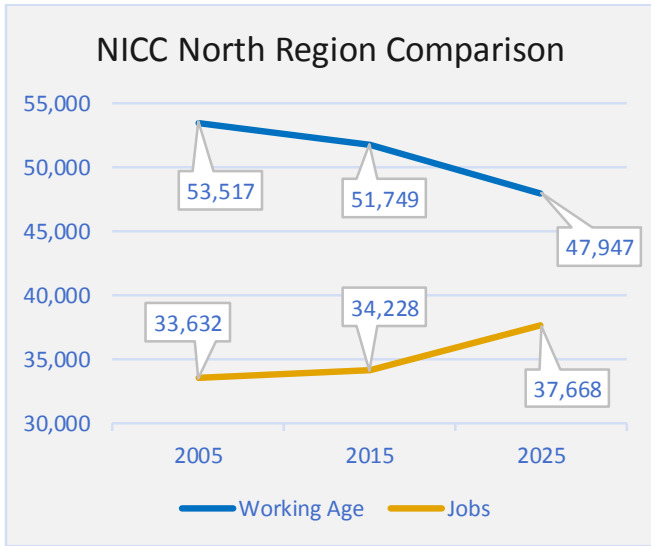
- Allamakee
- Chickasaw
- Fayette
- Howard
- Winneshiek



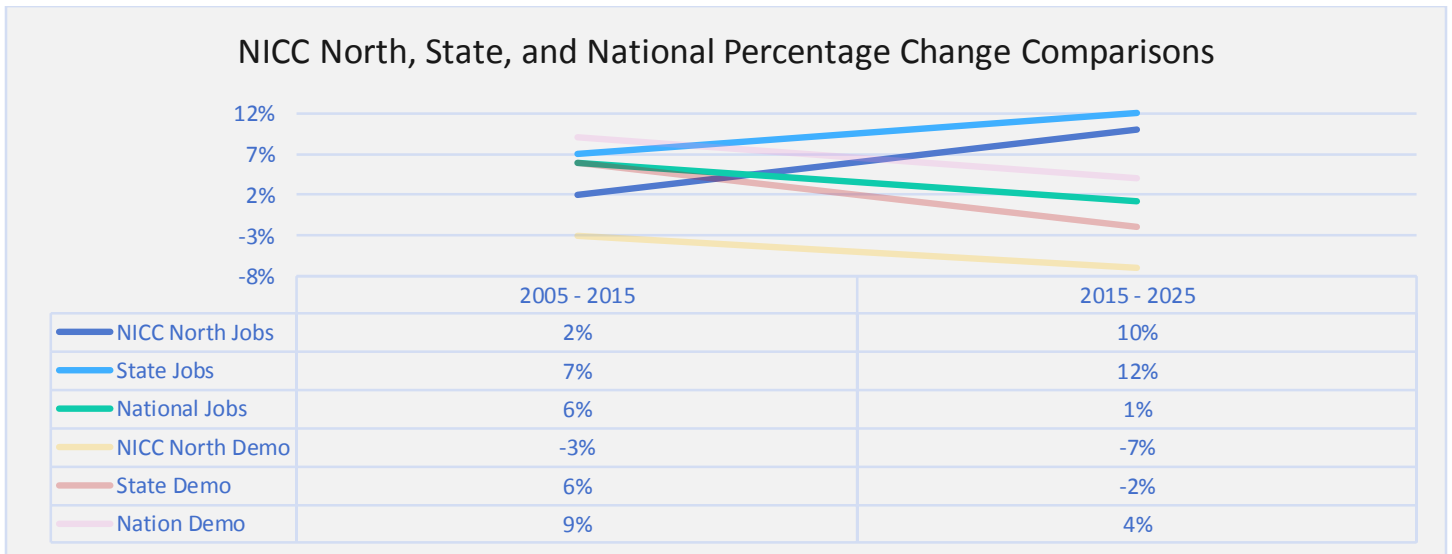
LABOR MARKET OVERVIEW

The following three graphs compare the Working Age Population to the total number of jobs in the same region.

▼ Jobs with more than 11 people employed.

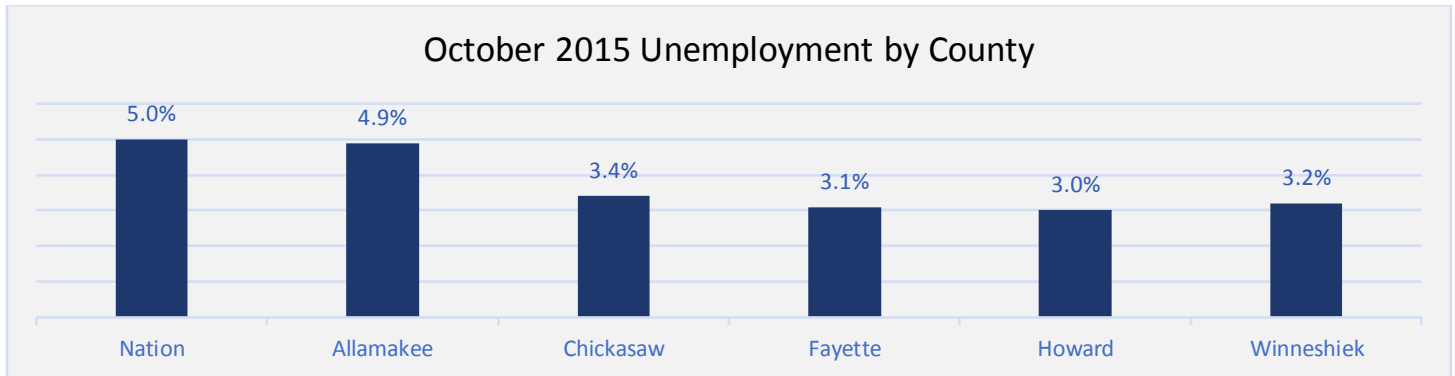


- The total number of jobs in the NICC North is projected to grow (10%) by 2025, a lesser rate when compared to growth for the State (12%), and the Nation (1%).
- The NICC North working age population is projected get younger in average age (-7%) from 2015-2025, as does the State (2%); however, nationally the working age population is projected to get older (4%).

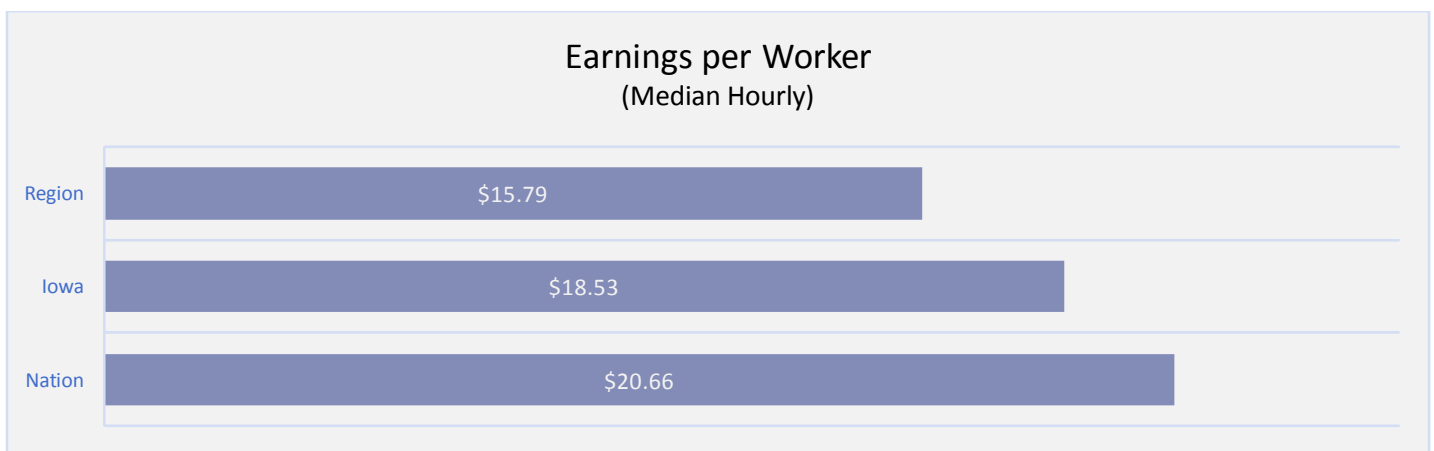


In 2005 there were 37% more people of working age population in the region compared to the number of total jobs (note: not the unemployment rate) and in 2025 there is projected to be only 21% more people of working age in the region, compared to the total jobs.

LABOR MARKET OVERVIEW (CONTINUED)



The unemployment rate in the region remains **lower** than the national average, significantly so, when Allamakee is given consideration as an outlier.



The region's median hourly earnings continue to lag behind the nation (**31%** less) and the State (**17%** less).

Hourly Median Income Explained:

Median expresses a "middle" value in a set of data. Average and median can appear the same, but extreme values can skew the data when using average; therefore it poorly represents the majority. For our purposes, median doesn't include the extreme incomes, like chief executives or less-than-minimum wage employees, because neither is representative of the majority of the population's earnings.

SKILL GAPS BY OCCUPATION

ORGANIZATIONAL METHOD

- ⚒ Openings represents replacement jobs and BLS employee growth estimates.
- ⚒ Occupations with a skills gap greater than 0.
 - ⚒ Skills gap is the difference between projected openings and graduates**.
- ⚒ Sorted by largest skills gap to smallest.
- ⚒ Growth, Replacements, Openings, Graduates, and Skills Gap all represent 2016-2025, 9-year estimates.

BY LARGEST SKILLS GAP:

OCCUPATIONS THAT PAY > \$16/HR AND TYPICALLY REQUIRE > HSED

Description	2016 Jobs	2025 Jobs	Openings	2016-2025 Expected Graduates	Skills Gap (Openings - Graduates)	Median Hourly Earnings
Welders, Cutters, Solderers, and Brazers	301	323	119	36	83	\$16.93
Electrical Power-Line Installers and Repairers	120	135	64	0	64	\$27.53
Police and Sheriff's Patrol Officers	166	177	60	0	60	\$20.87
Insurance Sales Agents	214	212	58	0	58	\$22.48
Industrial Machinery Mechanics	109	130	53	0	53	\$16.97
First-Line Supervisors of Office and Administrative Support Workers	156	171	51	0	51	\$19.25
First-Line Supervisors of Production and Operating Workers	227	235	47	0	47	\$20.64
Electrical and Electronic Equipment Assemblers	217	225	38	0	38	\$19.01
First-Line Supervisors of Mechanics, Installers, and Repairers	102	111	36	0	36	\$25.42
Parts Salespersons	80	91	31	0	31	\$17.27
Dental Assistants	86	97	29	0	29	\$18.21
Lawyers	70	86	28	0	28	\$27.57
Postal Service Mail Carriers	102	79	28	0	28	\$23.59
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	66	73	25	0	25	\$18.66
Business Operations Specialists, All Other	124	132	25	0	25	\$20.11
Water and Wastewater Treatment Plant and System Operators	65	67	24	0	24	\$16.88
Plumbers, Pipefitters, and Steamfitters	97	106	24	0	24	\$16.65
Dispatchers, Except Police, Fire, and Ambulance	52	59	22	0	22	\$17.05
Dental Hygienists	48	56	21	0	21	\$32.08
Fundraisers	60	69	21	0	21	\$18.51
Industrial Engineers	52	58	21	0	21	\$31.39
Physical Therapists	42	52	21	0	21	\$34.80
Mechanical Engineers	46	51	21	0	21	\$26.48
Market Research Analysts and Marketing Specialists	51	63	19	0	19	\$19.48

Description	2016 Jobs	2025 Jobs	Openings	2016-2025 Expected Graduates	Skills Gap (Openings - Graduates)	Median Hourly Earnings
First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	51	56	19	0	19	\$20.60
Production, Planning, and Expediting Clerks	51	57	19	0	19	\$17.73
Pharmacists	61	65	18	0	18	\$51.41
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	97	99	18	0	18	\$17.13
Clergy	76	74	18	0	18	\$19.18
Power Plant Operators	40	39	16	0	16	\$29.72
Information and Record Clerks, All Other	48	53	16	0	16	\$16.97
Purchasing Agents, Except Wholesale, Retail, and Farm Products	52	58	15	0	15	\$22.54
Directors, Religious Activities and Education	43	41	15	0	15	\$16.91
Life, Physical, and Social Science Technicians, All Other	34	35	14	0	14	\$16.73
Veterinarians	43	37	13	0	13	\$40.38
Automotive Service Technicians and Mechanics	251	251	67	54	13	\$16.26
Correctional Officers and Jailers	45	46	12	0	12	\$17.00
First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	30	34	12	0	12	\$25.02
First-Line Supervisors of Non-Retail Sales Workers	69	69	12	0	12	\$20.85
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	53	54	12	0	12	\$16.29

*See Appendix B for SOC Code and **full** occupation description.

** Graduates are based on 2014 completions for

^The total number of projected graduates is unduplicated; in the line by line occupational skills gaps, some projected graduates are counted for more than one occupation because they would qualify for multiple occupations.

DEFINITIONS

How does EMSI calculate projections?

If you use an EMSI product or service, chances are you've seen some of our labor market projections. We provide detailed job estimates, by industry and occupation, for each of the next 10 years from the current year.

A common question that we get from clients who see these figures is where do EMSI projections come from? The short answer is that we create our projections based on past trends carried forward, and published projections from state and federal sources. If you're after something a little more detailed, read on.

The first step in both our industry and occupation projections is our robust industry data. We first create simple short-, mid-, and long-term trend lines for every industry and county based on the historical data.

Those lines are then averaged and dampened to prevent extreme change. We then incorporate national industry projections (BLS national employment projections) as well as state and regional projections provided by state labor market organizations to adjust these numbers again.

Finally, we take aggregate geography and industry group figures for 10-year percentage change and make sure it matches the corresponding published geography and industry numbers.

EMSI projections will not match the BLS or any other individual state projections at the most detailed level. This can be explained in a variety of ways:

Differences in Coverage

EMSI has broken out our labor market data into four different classes of worker that allow our clients to dig into specific elements of their economy. In most states, the first two classes of workers (QCEW Employees and Non-QCEW Employees) are most closely comparable to the industry projections from the published sources. We don't expect our self-employment and proprietors projections to match BLS and state-level projections.

We Don't Use BLS/State Occupation Projections

(except for our Annual Job Openings estimates)

Our occupation projections are based off of our industry numbers with our projected, regionalized staffing pattern applied to the figures. As a result, the occupation projections will necessarily differ from BLS occupation numbers.

Differences in Methodology

EMSI uses a combination of BLS, state, and internal projection methods. This will naturally differ from the BLS and state projections alone.

Release Lag

EMSI projections are based on the most recent available data and published projections, but the BLS and states release only long-term projections on a two-year basis. EMSI's internal projections are more heavily weighted as state/national projections age.

Occupation Data

EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry.

Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Industry Data

EMSI industry data have various sources depending on the class of worker. (1) For QCEW Employees, EMSI primarily uses the QCEW (Quarterly Census of Employment and Wages), with supplemental estimates from County Business Patterns and Current Employment Statistics. (2) Non-QCEW employee data are based on a number of sources including QCEW, Current Employment Statistics, County Business Patterns, BEA State and Local Personal Income reports, the National Industry-Occupation Employment Matrix (NIOEM), the American Community Survey, and Railroad Retirement Board statistics. (3) Self-Employed and Extended Proprietor classes of worker data are primarily based on the American Community Survey, Nonemployer Statistics, and BEA State and Local Personal Income Reports. Projections for QCEW and Non-QCEW Employees are informed by NIOEM and long-term industry projections published by individual states.

State Data Sources

This report uses state data from the following agencies: Illinois Department of Employment Security, Employment Projections; Iowa Workforce Development; Wisconsin Department of Workforce Development, Bureau of Workforce Information

Class of Worker Explained

EMSI creates data for four distinct job types, or Classes of Worker (CoW): QCEW, Non-QCEW, Self-Employed, and Extended Proprietors. For simplicity, our basic Class of Worker option in Analyst is broken into two groups: Employees (a combo of QCEW and Non-QCEW), and Self-Employed.

COMPLETE LIST OF REPORT SOURCES

U.S. DEPARTMENT OF COMMERCE

BUREAU OF ECONOMIC ANALYSIS

- State Personal Income and Employment (SPI)
- Local Area Personal Income and Employment (LPI)
- National Income and Product Accounts (NIPA)
- Annual Input-Output (I-O) Accounts
- Benchmark Input-Output (I-O) Accounts
- GDP by State

U.S. CENSUS BUREAU

- American Community Survey (ACS)
- County Business Patterns (CBP)
- ZIP Code Business Patterns (ZBP)
- Nonemployer Statistics (NES)
- Quarterly Workforce Indicators (QWI)
- OnTheMap (OTM)
- TIGER/Line File (with additions by DM Solutions Group)
- Population Estimates program
- U.S. National and State Population Projections
- Census 2000 & 2010 Summary Files
- Census of Government —
 - State and Local Government Finances by State
- Journey-to-Work (JtW)
- Consumer Expenditures Survey (CEX)
- Current Population Survey (CPS)

OTHER SOURCES

PRIVATE SOURCES

- Job postings from CareerBuilder
- Infogroup business-level data

STATE SOURCES

- State and sub-state [where available] industry projections produced by all 50 individual states.

U.S. DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS

- Quarterly Census of Employment and Wages (QCEW)
- Current Employment Statistics (CES)
- Current Population Survey (CPS)
- Local Area Unemployment Statistics (LAUS)
- National Industry-Occupation Employment Matrix (10-year, current/projected)
- Occupational Employment Statistics (OES)
- Occupational Education and Training Projections

EMPLOYMENT AND TRAINING ADMINISTRATION

- Characteristics of the Insured Unemployed
- National O*NET Consortium, O*NET Production Database

U.S. DEPARTMENT OF EDUCATION, NATIONAL CENTER FOR EDUCATION STATISTICS

- Integrated Postsecondary Education Data System (IPEDS)
- Office of Educational Research and Improvement for the CIP – SOC crosswalk, Classification of Instructional Programs Crosswalk to Standard Occupational Classification

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, NATIONAL CENTER FOR HEALTH STATISTICS

- Health, United States

U.S. POSTAL SERVICE

- Address Information Systems (AIS) Products, Delivery Statistics
- AIS Products, 5-Digit ZIP Product
- AIS Products, City State Product

U.S. RAILROAD RETIREMENT BOARD

- Annual Railroad Retirement Act and Railroad Unemployment Insurance Act Statistical Tables

U.S. DEPARTMENT OF ENERGY

OAK RIDGE NATIONAL LABORATORY

- County-to-County Distance Matrix (Skim Tree)

APPENDIX B – COMPLETE SKILLS GAP

Annual Openings and Skills Gap are based on 2016 through 2025 projections.

Any wage or earning reference is at the hourly rate.

Entry Wages are equivalent to the 25th Percentile Wage Earnings aiming to be the wage employees just entering the industry could expect.

Median Wages are calculated by taking the value(s) in the middle of a data set to represent an average wage experienced employees could expect.

Any Grads reference is from 2014 IPEDS reporting.

SOC	Description	2016 Jobs	Annual Openings	NICC North Grads	Non NICC Grads	Skills Gap	Entry Wage	Median Wage	Typical Required Education
41-2031	Retail Salespersons	927	52	0	0	467	\$7.89	\$10.39	< HS/HSED
41-2011	Cashiers	962	49	0	0	441	\$7.73	\$8.90	< HS/HSED
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	863	42	0	0	376	\$7.81	\$8.74	< HS/HSED
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	765	38	0	0	346	\$8.76	\$12.27	< HS/HSED
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	570	27	0	0	241	\$9.19	\$12.62	< HS/HSED
35-3031	Waiters and Waitresses	462	27	0	0	241	\$7.65	\$8.46	< HS/HSED
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	738	24	0	0	218	\$7.96	\$10.89	< HS/HSED
37-3011	Landscaping and Groundskeeping Workers	317	16	0	0	146	\$7.23	\$9.05	< HS/HSED
43-9061	Office Clerks, General	854	29	13	0	142	\$8.21	\$12.81	HS/HSED
51-2092	Team Assemblers	533	14	0	0	129	\$10.02	\$14.15	HS/HSED
49-9071	Maintenance and Repair Workers, General	426	14	0	0	127	\$9.38	\$15.91	HS/HSED
39-9021	Personal Care Aides	390	13	0	0	119	\$8.62	\$10.23	< HS/HSED
43-4051	Customer Service Representatives	291	12	0	0	106	\$9.03	\$14.15	HS/HSED
43-5081	Stock Clerks and Order Fillers	346	12	0	0	105	\$7.88	\$9.75	< HS/HSED
41-1011	First-Line Supervisors of Retail Sales Workers	352	11	0	0	103	\$10.41	\$14.31	HS/HSED
43-3071	Tellers	230	10	0	0	93	\$8.24	\$11.83	HS/HSED
35-3011	Bartenders	169	10	0	0	90	\$7.66	\$8.56	< HS/HSED
37-2012	Maids and Housekeeping Cleaners	328	10	0	0	88	\$7.54	\$9.13	< HS/HSED
51-4121	Welders, Cutters, Solderers, and Brazers	301	13	4	0	83	\$13.00	\$16.93	HS/HSED
35-2012	Cooks, Institution and Cafeteria	273	9	0	0	82	\$7.63	\$10.03	< HS/HSED

SOC	Description	2016 Jobs	Annual Openings	NICC North Grads	Non NICC Grads	Skills Gap	Entry Wage	Median Wage	Typical Required Education
43-6014	Secretaries and Administrative Assistants, Except Legal/Medical/Executive	984	22	13	0	80	\$8.34	\$12.52	HS/HSED
43-4121	Library Assistants, Clerical	139	8	0	0	75	\$7.56	\$8.57	HS/HSED
31-1011	Home Health Aides	151	8	0	0	74	\$8.43	\$10.13	< HS/HSED
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Services	85	8	0	0	71	\$7.58	\$8.46	HS/HSED
51-2099	Assemblers and Fabricators, All Other	334	7	0	0	65	\$9.49	\$13.46	HS/HSED
35-2014	Cooks, Restaurant	220	7	0	0	65	\$7.68	\$9.07	< HS/HSED
49-9051	Electrical Power-Line Installers and Repairers	120	7	0	0	64	\$17.68	\$27.53	HS/HSED
25-4031	Library Technicians	98	7	0	0	64	\$8.05	\$10.86	Postsecondary's
33-3051	Police and Sheriff's Patrol Officers	166	7	0	0	60	\$14.62	\$20.87	HS/HSED
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	162	7	0	0	59	\$7.98	\$10.69	HS/HSED
41-3021	Insurance Sales Agents	214	6	0	0	58	\$13.20	\$22.48	HS/HSED
39-3091	Amusement and Recreation Attendants	52	6	0	0	55	\$7.57	\$8.84	< HS/HSED
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	121	6	0	0	54	\$7.99	\$10.26	< HS/HSED
51-9111	Packaging and Filling Machine Operators and Tenders	226	6	0	0	54	\$9.08	\$13.00	HS/HSED
35-3041	Food Servers, Nonrestaurant	114	6	0	0	53	\$7.36	\$8.95	< HS/HSED
49-9041	Industrial Machinery Mechanics	109	6	0	0	53	\$11.52	\$16.97	HS/HSED
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	80	6	0	0	52	\$8.66	\$10.32	< HS/HSED
43-1011	First-Line Supervisors of Office and Administrative Support Workers	156	6	0	0	51	\$11.52	\$19.25	HS/HSED
53-7064	Packers and Packagers, Hand	152	5	0	0	49	\$7.73	\$9.38	< HS/HSED
51-1011	First-Line Supervisors of Production and Operating Workers	227	5	0	0	47	\$14.84	\$20.64	Postsecondary's
33-9032	Security Guards	118	5	0	0	45	\$8.57	\$10.68	HS/HSED
43-5071	Shipping, Receiving, and Traffic Clerks	114	5	0	0	41	\$10.20	\$14.07	HS/HSED
35-2021	Food Preparation Workers	100	4	0	0	40	\$7.73	\$9.66	< HS/HSED
43-9199	Office and Administrative Support Workers, All Other	98	4	0	0	40	\$7.90	\$11.94	HS/HSED
39-9041	Residential Advisors	54	4	0	0	38	\$7.63	\$10.35	HS/HSED
51-2022	Electrical and Electronic Equipment Assemblers	217	4	0	0	38	\$16.10	\$19.01	HS/HSED
35-9021	Dishwashers	67	4	0	0	37	\$7.67	\$8.54	< HS/HSED
51-9199	Production Workers, All Other	117	4	0	0	36	\$10.34	\$14.09	HS/HSED
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	102	4	0	0	36	\$16.22	\$25.42	HS/HSED
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	64	4	0	0	35	\$7.72	\$8.80	< HS/HSED

SOC	Description	2016 Jobs	Annual Openings	NICC North Grads	Non NICC Grads	Skills Gap	Entry Wage	Median Wage	Typical Required Education
39-9032	Recreation Workers	114	4	0	0	33	\$7.74	\$10.64	Bachelor's
25-9041	Teacher Assistants	539	18	14	0	32	\$7.64	\$9.26	College (no degree)
41-2022	Parts Salespersons	80	3	0	0	31	\$10.24	\$17.27	< HS/HSED
31-9091	Dental Assistants	86	3	0	0	29	\$14.56	\$18.21	Postsecondary's
23-1011	Lawyers	70	3	0	0	28	\$19.03	\$27.57	Doctoral/Professional
43-5052	Postal Service Mail Carriers	102	3	0	0	28	\$19.13	\$23.59	HS/HSED
51-3092	Food Batchmakers	88	3	0	0	27	\$7.80	\$14.62	HS/HSED
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	66	3	0	0	25	\$14.46	\$18.66	Postsecondary's
13-1199	Business Operations Specialists, All Other	124	3	0	0	25	\$11.91	\$20.11	HS/HSED
25-3099	Teachers and Instructors, All Other	84	3	0	0	25	\$9.14	\$13.14	Bachelor's
53-7061	Cleaners of Vehicles and Equipment	87	3	0	0	24	\$7.90	\$10.47	< HS/HSED
51-4081	Multiple Machine Tool Setters, Operators, and Tenders	111	3	0	0	24	\$10.08	\$13.42	HS/HSED
51-8031	Water and Wastewater Treatment Plant and System Operators	65	3	0	0	24	\$11.97	\$16.88	HS/HSED
47-2152	Plumbers, Pipefitters, and Steamfitters	97	3	0	0	24	\$12.15	\$16.65	HS/HSED
43-4111	Interviewers, Except Eligibility and Loan	94	2	0	0	22	\$9.57	\$12.26	HS/HSED
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	103	2	0	0	22	\$8.52	\$10.56	< HS/HSED
51-6011	Laundry and Dry-Cleaning Workers	62	2	0	0	22	\$8.37	\$10.80	< HS/HSED
43-5032	Dispatchers, Except Police, Fire, and Ambulance	52	2	0	0	22	\$10.57	\$17.05	HS/HSED
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	27	2	0	0	22	\$7.56	\$8.48	< HS/HSED
29-2021	Dental Hygienists	48	2	0	0	21	\$17.73	\$32.08	Associate's
13-1131	Fundraisers	60	2	0	0	21	\$12.56	\$18.51	Bachelor's
17-2112	Industrial Engineers	52	2	0	0	21	\$22.63	\$31.39	Bachelor's
29-1123	Physical Therapists	42	2	0	0	21	\$27.64	\$34.80	Doctoral/Professional
17-2141	Mechanical Engineers	46	2	0	0	21	\$18.06	\$26.48	Bachelor's
25-3021	Self-Enrichment Education Teachers	52	2	0	0	20	\$9.45	\$15.07	HS/HSED
11-9051	Food Service Managers	94	2	0	0	20	\$10.05	\$14.31	HS/HSED
51-7011	Cabinetmakers and Bench Carpenters	43	2	0	0	20	\$13.28	\$14.91	HS/HSED
49-3093	Tire Repairers and Changers	40	2	0	0	19	\$8.20	\$10.52	HS/HSED
13-1161	Market Research Analysts and Marketing Specialists	51	2	0	0	19	\$12.65	\$19.48	Bachelor's
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	51	2	0	0	19	\$13.38	\$20.60	HS/HSED

SOC	Description	2016 Jobs	Annual Openings	NICC North Grads	Non NICC Grads	Skills Gap	Entry Wage	Median Wage	Typical Required Education
43-5061	Production, Planning, and Expediting Clerks	51	2	0	0	19	\$11.78	\$17.73	HS/HSED
19-4011	Agricultural and Food Science Technicians	49	2	0	0	19	\$9.45	\$11.29	Associate's
51-3021	Butchers and Meat Cutters	85	2	0	0	18	\$8.44	\$11.95	< HS/HSED
51-9198	Helpers--Production Workers	53	2	0	0	18	\$7.53	\$10.10	< HS/HSED
51-3099	Food Processing Workers, All Other	73	2	0	0	18	\$9.77	\$13.35	< HS/HSED
29-2052	Pharmacy Technicians	85	2	0	0	18	\$9.98	\$13.70	HS/HSED
29-1051	Pharmacists	61	2	0	0	18	\$45.02	\$51.41	Doctoral/Professional
43-4081	Hotel, Motel, and Resort Desk Clerks	43	2	0	0	18	\$7.82	\$9.05	HS/HSED
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders	97	2	0	0	18	\$11.86	\$17.13	HS/HSED
21-2011	Clergy	76	2	0	0	18	\$9.80	\$19.18	Bachelor's
25-4021	Librarians	64	2	0	0	17	\$9.96	\$14.34	Master's
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	48	2	0	0	16	\$9.82	\$13.69	HS/HSED
51-8013	Power Plant Operators	40	2	0	0	16	\$16.77	\$29.72	HS/HSED
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related	61	2	0	0	16	\$6.43	\$7.75	HS/HSED
43-4199	Information and Record Clerks, All Other	48	2	0	0	16	\$10.79	\$16.97	HS/HSED
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	52	2	0	0	15	\$14.47	\$22.54	HS/HSED
21-2021	Directors, Religious Activities and Education	43	2	0	0	15	\$8.39	\$16.91	Bachelor's
51-3023	Slaughterers and Meat Packers	71	2	0	0	15	\$9.25	\$11.47	< HS/HSED
49-2011	Computer, Automated Teller, and Office Machine Repairers	42	2	0	0	14	\$9.56	\$12.93	College (no degree)
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	37	2	0	0	14	\$14.03	\$15.78	HS/HSED
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	38	2	0	0	14	\$10.17	\$14.32	HS/HSED
39-5011	Barbers	24	2	0	0	14	\$6.53	\$7.41	Postsecondary's
19-4099	Life, Physical, and Social Science Technicians, All Other	34	2	0	0	14	\$12.55	\$16.73	Associate's
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	54	2	0	0	14	\$10.64	\$14.24	HS/HSED
41-3011	Advertising Sales Agents	26	2	0	0	14	\$8.94	\$14.10	HS/HSED
29-1131	Veterinarians	43	1	0	0	13	\$34.01	\$40.38	Doctoral/Professional
41-2021	Counter and Rental Clerks	27	1	0	0	13	\$8.10	\$9.99	< HS/HSED
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	50	1	0	0	13	\$11.74	\$15.07	HS/HSED
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	48	1	0	0	13	\$10.86	\$13.17	< HS/HSED

SOC	Description	2016 Jobs	Annual Openings	NICC North Grads	Non NICC Grads	Skills Gap	Entry Wage	Median Wage	Typical Required Education
49-3023	Automotive Service Technicians and Mechanics	251	7	6	0	13	\$10.08	\$16.26	HS/HSED
51-2041	Structural Metal Fabricators and Fitters	16	1	0	0	13	\$11.34	\$15.31	HS/HSED
49-3021	Automotive Body and Related Repairers	47	1	0	0	12	\$10.53	\$15.18	HS/HSED
39-2011	Animal Trainers	26	1	0	0	12	\$11.93	\$12.89	HS/HSED
33-3012	Correctional Officers and Jailers	45	1	0	0	12	\$11.89	\$17.00	HS/HSED
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	30	1	0	0	12	\$13.97	\$25.02	HS/HSED
41-1012	First-Line Supervisors of Non-Retail Sales Workers	69	1	0	0	12	\$14.37	\$20.85	HS/HSED
33-9099	Protective Service Workers, All Other	15	1	0	0	12	\$8.82	\$11.48	HS/HSED
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	53	1	0	0	12	\$8.88	\$16.29	HS/HSED
45-2099	Agricultural Workers, All Other	26	1	0	0	12	\$11.64	\$13.94	< HS/HSED
33-2011	Firefighters	40	1	0	0	12	\$7.58	\$8.58	Postsecondary's
49-9099	Installation, Maintenance, and Repair Workers, All Other	36	1	0	0	12	\$10.29	\$13.97	HS/HSED
43-5031	Police, Fire, and Ambulance Dispatchers	37	1	0	0	11	\$11.83	\$15.95	HS/HSED
39-2021	Nonfarm Animal Caretakers	58	1	0	0	11	\$9.53	\$10.99	< HS/HSED
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders	46	1	0	0	11	\$9.42	\$12.92	HS/HSED
47-2051	Cement Masons and Concrete Finishers	107	4	4	0	-3	\$11.82	\$15.20	< HS/HSED
47-2141	Painters, Construction and Maintenance	111	3	4	0	-8	\$11.93	\$15.23	< HS/HSED
47-2073	Operating Engineers and Other Construction Equipment Operators	229	8	10	0	-15	\$13.15	\$19.82	HS/HSED
47-2021	Brickmasons and Blockmasons	36	2	4	0	-17	\$14.16	\$19.54	HS/HSED
47-2031	Carpenters	235	6	8	0	-18	\$11.10	\$14.26	HS/HSED
47-2181	Roofers	57	1	4	0	-24	\$11.11	\$14.35	< HS/HSED
47-2211	Sheet Metal Workers	27	1	4	0	-24	\$9.59	\$13.73	HS/HSED
15-1121	Computer Systems Analysts	37	2	0	5	-30	\$17.71	\$22.92	Bachelor's
47-4051	Highway Maintenance Workers	126	2	6	0	-32	\$13.95	\$19.59	HS/HSED
15-1142	Network and Computer Systems Administrators	48	1	0	5	-33	\$18.02	\$26.64	Bachelor's
27-1024	Graphic Designers	35	1	0	5	-34	\$10.00	\$12.85	Bachelor's
43-4171	Receptionists and Information Clerks	215	8	13	0	-45	\$8.10	\$11.09	HS/HSED
53-3032	Heavy and Tractor-Trailer Truck Drivers	982	29	34	0	-46	\$11.78	\$15.36	Postsecondary's
43-3031	Bookkeeping, Accounting, and Auditing Clerks	637	12	17	0	-47	\$8.34	\$13.70	HS/HSED
11-9013	Farmers, Ranchers, and Other Agricultural Managers	1511	37	42	2	-66	\$8.72	\$12.41	HS/HSED

SOC	Description	2016 Jobs	Annual Openings	NICC North Grads	Non NICC Grads	Skills Gap	Entry Wage	Median Wage	Typical Required Education
51-4041	Machinists	196	6	14	0	-68	\$12.98	\$17.57	HS/HSED
39-5012	Hairdressers, Hairstylists, and Cosmetologists	195	6	6	8	-71	\$7.92	\$8.95	Postsecondary's
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	136	5	0	13	-75	\$8.52	\$13.40	HS/HSED
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	54	2	11	0	-79	\$15.14	\$27.24	HS/HSED
43-6013	Medical Secretaries	102	3	13	0	-87	\$8.60	\$13.74	HS/HSED
43-6011	Executive Secretaries and Executive Administrative Assistants	205	3	13	0	-92	\$11.36	\$15.83	HS/HSED
15-1151	Computer User Support Specialists	134	5	0	16	-98	\$11.64	\$18.64	College (no degree)
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	59	3	14	0	-100	\$12.16	\$18.01	HS/HSED
25-2011	Preschool Teachers, Except Special Education	86	5	14	3	-111	\$7.73	\$10.84	Associate's
43-3021	Billing and Posting Clerks	122	3	17	0	-122	\$11.12	\$15.19	HS/HSED
29-2041	Emergency Medical Technicians and Paramedics	126	3	17	0	-123	\$8.96	\$13.04	Postsecondary's
15-1132	Software Developers, Applications	50	2	0	16	-125	\$18.45	\$27.03	Bachelor's
11-9033	Education Administrators, Postsecondary	102	4	0	18	-126	\$20.65	\$34.45	Master's
43-3051	Payroll and Timekeeping Clerks	31	1	17	0	-141	\$13.04	\$17.22	HS/HSED
11-9032	Education Administrators, Elementary and Secondary School	64	2	0	18	-142	\$26.86	\$40.20	Master's
11-9031	Education Administrators, Preschool and Childcare Center/Program	28	1	0	18	-151	\$10.24	\$13.02	Bachelor's
47-2111	Electricians	182	8	32	0	-218	\$11.92	\$19.12	HS/HSED
11-9111	Medical and Health Services Managers	91	3	0	28	-226	\$22.13	\$28.86	Bachelor's
47-2061	Construction Laborers	516	19	46	0	-239	\$10.29	\$14.24	< HS/HSED
29-2071	Medical Records and Health Information Technicians	35	1	28	0	-241	\$10.43	\$13.63	Postsecondary's
49-3041	Farm Equipment Mechanics and Service Technicians	187	8	36	0	-249	\$13.42	\$20.20	HS/HSED
45-2091	Agricultural Equipment Operators	158	8	36	0	-250	\$11.23	\$13.43	< HS/HSED
53-3033	Light Truck or Delivery Services Drivers	231	6	34	0	-251	\$8.29	\$13.65	HS/HSED
31-9092	Medical Assistants	116	4	32	0	-251	\$9.87	\$13.15	Postsecondary's
53-3022	Bus Drivers, School or Special Client	207	4	34	0	-267	\$7.83	\$11.55	HS/HSED
53-7051	Industrial Truck and Tractor Operators	80	3	34	0	-281	\$9.85	\$13.35	< HS/HSED
53-3041	Taxi Drivers and Chauffeurs	43	3	34	0	-282	\$8.80	\$10.83	< HS/HSED
53-3031	Driver/Sales Workers	92	2	34	0	-285	\$8.08	\$10.56	HS/HSED
27-2022	Coaches and Scouts	335	16	0	49	-297	\$8.35	\$9.48	Bachelor's
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	49	2	36	0	-306	\$13.63	\$16.97	HS/HSED
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	60	2	36	0	-307	\$14.30	\$18.34	HS/HSED

SOC	Description	2016 Jobs	Annual Openings	NICC North Grads	Non NICC Grads	Skills Gap	Entry Wage	Median Wage	Typical Required Education
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	155	4	40	0	-321	\$14.42	\$20.52	HS/HSED
29-2061	Licensed Practical and Licensed Vocational Nurses	218	10	47	0	-329	\$14.50	\$16.98	Postsecondary's
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	448	15	56	0	-369	\$16.61	\$23.35	HS/HSED
39-9031	Fitness Trainers and Aerobics Instructors	44	2	0	49	-419	\$8.24	\$10.11	HS/HSED
41-3099	Sales Representatives, Services, All Other	85	5	56	0	-462	\$8.69	\$11.38	HS/HSED
41-4011	Sales Representatives, Wholesale and Manufacturing	69	3	56	0	-480	\$12.88	\$27.52	Bachelor's
25-2022	Middle School Teachers, Except Special and Career/Technical Education	143	5	0	61	-503	\$14.83	\$22.65	Bachelor's
13-1071	Human Resources Specialists	61	2	9	69	-687	\$13.76	\$20.72	Bachelor's
31-1014	Nursing Assistants	794	25	107	0	-735	\$9.01	\$10.53	Postsecondary's
11-3031	Financial Managers	113	3	0	100	-873	\$20.06	\$38.44	Bachelor's
13-2072	Loan Officers	94	2	0	100	-883	\$19.86	\$28.99	Bachelor's
21-1093	Social and Human Service Assistants	91	3	0	116	-1014	\$9.86	\$14.94	HS/HSED
21-1012	Educational, Guidance, School, and Vocational Counselors	99	3	0	116	-1017	\$12.87	\$25.30	Master's
39-9011	Childcare Workers	445	17	14	129	-1134	\$7.43	\$8.40	HS/HSED
21-1021	Child, Family, and School Social Workers	41	1	6	126	-1176	\$11.42	\$24.90	Bachelor's
13-2011	Accountants and Auditors	188	7	8	132	-1196	\$13.96	\$22.43	Bachelor's
25-2021	Elementary School Teachers, Except Special Education	471	16	0	165	-1340	\$13.22	\$21.60	Bachelor's
29-1141	Registered Nurses	500	13	47	120	-1388	\$17.99	\$23.01	Associate's
25-1099	Postsecondary Teachers	681	22	0	184	-1461	\$15.26	\$26.30	Doctoral/Professional
25-3098	Substitute Teachers	307	7	0	220	-1916	\$8.93	\$10.72	Bachelor's
25-2031	Secondary School Teachers, Except Special /Career/Technical Education	353	12	0	324	-2809	\$14.48	\$21.97	Bachelor's
11-3051	Industrial Production Managers	92	3	9	375	-3432	\$20.52	\$33.14	Bachelor's
13-1051	Cost Estimators	37	2	9	375	-3434	\$15.65	\$21.68	Bachelor's
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	38	1	9	375	-3444	\$10.12	\$15.24	HS/HSED
39-1021	First-Line Supervisors of Personal Service Workers	28	1	9	375	-3444	\$8.54	\$11.37	HS/HSED
11-9021	Construction Managers	94	3	13	375	-3469	\$16.28	\$23.04	Bachelor's
11-3071	Transportation, Storage, and Distribution Managers	53	2	9	441	-4034	\$14.60	\$24.38	HS/HSED
11-3011	Administrative Services Managers	44	1	9	441	-4039	\$19.52	\$29.34	Bachelor's
11-2022	Sales Managers	43	2	9	443	-4052	\$20.14	\$39.20	Bachelor's
11-1021	General and Operations Managers	472	14	9	557	-4966	\$11.27	\$29.36	Bachelor's

APPENDIX C – SOC TITLE AND DESCRIPTION

Job Descriptions

SOC	SOC Title	Description
41-2031	Retail Salespersons	Sell merchandise, such as furniture, motor vehicles, appliances, or apparel to consumers.
41-2011	Cashiers	Receive and disburse money in establishments other than financial institutions. May use electronic scanners, cash registers, or related equipment. May process credit or debit card transactions and validate checks.
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	Perform duties which combine preparing and serving food and nonalcoholic beverages.
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	Work in nursery facilities or at customer location planting, cultivating, harvesting, and transplanting trees, shrubs, or plants.
43-9061	Office Clerks, General	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, stenography, office machine operation, and filing.
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	Manually move freight, stock, or other materials or perform other general labor. Includes all manual laborers not elsewhere classified.
35-3031	Waiters and Waitresses	Take orders and serve food and beverages to patrons at tables in dining establishment.
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	Keep buildings in clean and orderly condition. Perform heavy cleaning duties, such as cleaning floors, shampooing rugs, washing walls and glass, and removing rubbish. Duties may include tending furnace and boiler, performing routine maintenance activities, notifying management of need for repairs, and cleaning snow or debris from sidewalk.
37-3011	Landscaping and Groundskeeping Workers	Landscaping and groundskeeping workers perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units.
51-2092	Team Assemblers	Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Includes team leaders who work as part of the team.
49-9071	Maintenance and Repair Workers, General	Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs.
39-9021	Personal Care Aides	Assist the elderly, convalescents, or persons with disabilities with daily living activities at the person's home or in a care facility. Duties performed at a place of residence may include keeping house (making beds, doing laundry, washing dishes) and preparing meals. May provide assistance at non-residential care facilities. May advise families, the elderly, convalescents, and persons with disabilities regarding such things as nutrition, cleanliness, and household activities.
43-4051	Customer Service Representatives	Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints.
43-5081	Stock Clerks and Order Fillers	Receive, store, and issue sales floor merchandise. Stock shelves, racks, cases, bins, and tables with merchandise and arrange merchandise displays to attract customers. May periodically take physical count of stock or check and mark merchandise.
41-1011	First-Line Supervisors of Retail Sales Workers	Directly supervise and coordinate activities of retail sales workers in an establishment or department. Duties may include management functions, such as purchasing, budgeting, accounting, and personnel work, in addition to supervisory duties.

SOC	SOC Title	Description
43-3071	Tellers	Receive and pay out money. Keep records of money and negotiable instruments involved in a financial institution's various transactions.
35-3011	Bartenders	Mix and serve drinks to patrons, directly or through waitstaff.
37-2012	Maids and Housekeeping Cleaners	Perform any combination of light cleaning duties to maintain private households or commercial establishments, such as hotels and hospitals, in a clean and orderly manner. Duties may include making beds, replenishing linens, cleaning rooms and halls, and vacuuming.
51-4121	Welders, Cutters, Solderers, and Brazers	Use hand-welding or flame-cutting equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.
35-2012	Cooks, Institution and Cafeteria	Prepare and cook large quantities of food for institutions, such as schools, hospitals, or cafeterias.
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Perform routine clerical and administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers.
43-4121	Library Assistants, Clerical	Compile records, sort, shelve, issue, and receive library materials such as books, electronic media, pictures, cards, slides and microfilm. Locate library materials for loan and replace material in shelving area, stacks, or files according to identification number and title. Register patrons to permit them to borrow books, periodicals, and other library materials.
31-1011	Home Health Aides	Provide routine individualized healthcare such as changing bandages and dressing wounds, and applying topical medications to the elderly, convalescents, or persons with disabilities at the patient's home or in a care facility. Monitor or report changes in health status. May also provide personal care such as bathing, dressing, and grooming of patient.
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	Monitor recreational areas, such as pools, beaches, or ski slopes to provide assistance and protection to participants.
51-2099	Assemblers and Fabricators, All Other	Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Includes team leaders who work as part of the team.
35-2014	Cooks, Restaurant	Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.
49-9051	Electrical Power-Line Installers and Repairers	Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy duty transmission towers.
25-4031	Library Technicians	Assist librarians by helping readers in the use of library catalogs, databases, and indexes to locate books and other materials; and by answering questions that require only brief consultation of standard reference. Compile records; sort and shelve books or other media; remove or repair damaged books or other media; register patrons; and check materials in and out of the circulation process. Replace materials in shelving area (stacks) or files. Includes bookmobile drivers who assist with providing services in mobile libraries.
33-3051	Police and Sheriff's Patrol Officers	Patrol assigned area to enforce laws and ordinances, regulate traffic, control crowds, prevent crime, and arrest violators.
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	Directly supervise and coordinate activities of workers engaged in preparing and serving food.
41-3021	Insurance Sales Agents	Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as an independent broker, or be employed by an insurance company.
51-4041	Machinists	Set up and operate a variety of machine tools to produce precision parts and instruments. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.
39-3091	Amusement and Recreation Attendants	Perform variety of attending duties at amusement or recreation facility. May schedule use of recreation facilities, maintain and provide equipment to participants of sporting events or recreational pursuits, or operate amusement concessions and rides.

SOC	SOC Title	Description
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	Attend to live farm, ranch, or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, finfish, shellfish, and bees. Attend to animals produced for animal products, such as meat, fur, skins, feathers, eggs, milk, and honey. Duties may include feeding, watering, herding, grazing, castrating, branding, de-beaking, weighing, catching, and loading animals. May maintain records on animals; examine animals to detect diseases and injuries; assist in birth deliveries; and administer medications, vaccinations, or insecticides as appropriate. May clean and maintain animal housing areas. Includes workers who shear wool from sheep, and collect eggs in hatcheries.
51-9111	Packaging and Filling Machine Operators and Tenders	Operate or tend machines to prepare industrial or consumer products for storage or shipment. Includes cannery workers who pack food products.
35-3041	Food Servers, Nonrestaurant	Serve food to individuals outside of a restaurant environment, such as in hotel rooms, hospital rooms, residential care facilities, or cars.
49-9041	Industrial Machinery Mechanics	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems.
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	Serve food to diners at counter or from a steam table.
43-1011	First-Line Supervisors of Office and Administrative Support Workers	Directly supervise and coordinate the activities of clerical and administrative support workers.
53-7064	Packers and Packagers, Hand	Pack or package by hand a wide variety of products and materials.
51-1011	First-Line Supervisors of Production and Operating Workers	Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators.
33-9032	Security Guards	Guard, patrol, or monitor premises to prevent theft, violence, or infractions of rules. May operate x-ray and metal detector equipment.
43-5071	Shipping, Receiving, and Traffic Clerks	Verify and maintain records on incoming and outgoing shipments. Prepare items for shipment. Duties include assembling, addressing, stamping, and shipping merchandise or material; receiving, unpacking, verifying and recording incoming merchandise or material; and arranging for the transportation of products.
35-2021	Food Preparation Workers	Perform a variety of food preparation duties other than cooking, such as preparing cold foods and shellfish, slicing meat, and brewing coffee or tea.
43-9199	Office and Administrative Support Workers, All Other	Compile and compute data according to statistical formulas for use in statistical studies. May perform actuarial computations and compile charts and graphs for use by actuaries. Includes actuarial clerks.
39-9041	Residential Advisors	Coordinate activities in residential facilities in secondary and college dormitories, group homes, or similar establishments. Order supplies and determine need for maintenance, repairs, and furnishings. May maintain household records and assign rooms. May assist residents with problem solving or refer them to counseling resources.
51-2022	Electrical and Electronic Equipment Assemblers	Assemble or modify electrical or electronic equipment, such as computers, test equipment telemetering systems, electric motors, and batteries.
35-9021	Dishwashers	Clean dishes, kitchen, food preparation equipment, or utensils.
51-9199	Production Workers, All Other	Prepare and sort materials or products for recycling. Identify and remove hazardous substances. Dismantle components of products such as appliances.
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	Directly supervise and coordinate the activities of mechanics, installers, and repairers.
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	Facilitate food service. Clean tables, remove dirty dishes, replace soiled table linens; set tables; replenish supply of clean linens, silverware, glassware, and dishes; supply service bar with food; and serve items such as water, condiments, and coffee to patrons.
39-9032	Recreation Workers	Conduct recreation activities with groups in public, private, or volunteer agencies or recreation facilities. Organize and promote activities, such as arts and crafts, sports, games, music, dramatics, social recreation, camping, and hobbies, taking into account the needs and interests of individual members.

SOC	SOC Title	Description
25-9041	Teacher Assistants	Perform duties that are instructional in nature or deliver direct services to students or parents. Serve in a position for which a teacher has ultimate responsibility for the design and implementation of educational programs and services.
41-2022	Parts Salespersons	Sell spare and replacement parts and equipment in repair shop or parts store.
31-9091	Dental Assistants	Assist dentist, set up equipment, prepare patient for treatment, and keep records.
23-1011	Lawyers	Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, or manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.
43-5052	Postal Service Mail Carriers	Sort mail for delivery. Deliver mail on established route by vehicle or on foot.
51-3092	Food Batchmakers	Set up and operate equipment that mixes or blends ingredients used in the manufacturing of food products. Includes candy makers and cheese makers.
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Install, service, or repair heating and air conditioning systems in residences or commercial establishments.
13-1199	Business Operations Specialists, All Other	Conduct energy audits of buildings, building systems, or process systems. May also conduct investment grade audits of buildings or systems.
25-3099	Teachers and Instructors, All Other	Provide non-classroom, academic instruction to students on an individual or small-group basis for proactive or remedial purposes.
53-7061	Cleaners of Vehicles and Equipment	Wash or otherwise clean vehicles, machinery, and other equipment. Use such materials as water, cleaning agents, brushes, cloths, and hoses.
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend more than one type of cutting or forming machine tool or robot.
51-8031	Water and Wastewater Treatment Plant and System Operators	Operate or control an entire process or system of machines, often through the use of control boards, to transfer or treat water or wastewater.
43-4111	Interviewers, Except Eligibility and Loan	Interview persons by telephone, mail, in person, or by other means for the purpose of completing forms, applications, or questionnaires. Ask specific questions, record answers, and assist persons with completing form. May sort, classify, and file forms.
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	Use hand or hand tools to perform routine cutting and trimming of meat, poultry, and seafood.
51-6011	Laundry and Dry-Cleaning Workers	Operate or tend washing or dry-cleaning machines to wash or dry-clean industrial or household articles, such as cloth garments, suede, leather, furs, blankets, draperies, linens, rugs, and carpets. Includes spotters and dyers of these articles.
43-5032	Dispatchers, Except Police, Fire, and Ambulance	Schedule and dispatch workers, work crews, equipment, or service vehicles for conveyance of materials, freight, or passengers, or for normal installation, service, or emergency repairs rendered outside the place of business. Duties may include using radio, telephone, or computer to transmit assignments and compiling statistics and reports on work progress.
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	Welcome patrons, seat them at tables or in lounge, and help ensure quality of facilities and service.
29-2021	Dental Hygienists	Clean teeth and examine oral areas, head, and neck for signs of oral disease. May educate patients on oral hygiene, take and develop x rays, or apply fluoride or sealants.
13-1131	Fundraisers	Organize activities to raise funds or otherwise solicit and gather monetary donations or other gifts for an organization. May design and produce promotional materials. May also raise awareness of the organization's work, goals, and financial needs.
17-2112	Industrial Engineers	Design, develop, test, and evaluate integrated systems for managing industrial production processes, including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination.
29-1123	Physical Therapists	Assess, plan, organize, and participate in rehabilitative programs that improve mobility, relieve pain, increase strength, and improve or correct disabling conditions resulting from disease or injury.
17-2141	Mechanical Engineers	Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of equipment such as centralized heat, gas, water, and steam systems.

SOC	SOC Title	Description
25-3021	Self-Enrichment Education Teachers	Teach or instruct courses other than those that normally lead to an occupational objective or degree. Courses may include self-improvement, nonvocational, and nonacademic subjects. Teaching may or may not take place in a traditional educational institution.
11-9051	Food Service Managers	Plan, direct, or coordinate activities of an organization or department that serves food and beverages.
51-7011	Cabinetmakers and Bench Carpenters	Cut, shape, and assemble wooden articles or set up and operate a variety of woodworking machines, such as power saws, jointers, and mortisers to surface, cut, or shape lumber or to fabricate parts for wood products.
49-3093	Tire Repairers and Changers	Repair and replace tires.
13-1161	Market Research Analysts and Marketing Specialists	Research market conditions in local, regional, or national areas, or gather information to determine potential sales of a product or service, or create a marketing campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution.
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	Directly supervise and coordinate activities of transportation and material-moving machine and vehicle operators and helpers.
43-5061	Production, Planning, and Expediting Clerks	Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems.
19-4011	Agricultural and Food Science Technicians	Set up or maintain laboratory equipment and collect samples from crops or animals. Prepare specimens or record data to assist scientists in biology or related life science experiments.
51-3021	Butchers and Meat Cutters	Cut, trim, or prepare consumer-sized portions of meat for use or sale in retail establishments.
51-9198	Helpers--Production Workers	Help production workers by performing duties requiring less skill. Duties include supplying or holding materials or tools, and cleaning work area and equipment.
51-3099	Food Processing Workers, All Other	Operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers, to prepare food products.
29-2052	Pharmacy Technicians	Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, and record amounts and dosages of medications according to prescription orders.
29-1051	Pharmacists	Dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medications and their use. May advise physicians and other health practitioners on the selection, dosage, interactions, and side effects of medications.
43-4081	Hotel, Motel, and Resort Desk Clerks	Accommodate hotel, motel, and resort patrons by registering and assigning rooms to guests, issuing room keys or cards, transmitting and receiving messages, keeping records of occupied rooms and guests' accounts, making and confirming reservations, and presenting statements to and collecting payments from departing guests.
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.
21-2011	Clergy	Conduct religious worship and perform other spiritual functions associated with beliefs and practices of religious faith or denomination. Provide spiritual and moral guidance and assistance to members.
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.
25-4021	Librarians	Administer libraries and perform related library services. Work in a variety of settings, including public libraries, educational institutions, museums, corporations, government agencies, law firms, non-profit organizations, and healthcare providers. Tasks may include selecting, acquiring, cataloguing, classifying, circulating, and maintaining library materials; and furnishing reference, bibliographical, and readers' advisory services. May perform in-depth, strategic research, and synthesize, analyze, edit, and filter information. May set up or work with databases and information systems to catalogue and access information.

SOC	SOC Title	Description
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	Set up, operate, or tend machines to mix or blend materials, such as chemicals, tobacco, liquids, color pigments, or explosive ingredients.
51-8013	Power Plant Operators	Control, operate, or maintain machinery to generate electric power. Includes auxiliary equipment operators.
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	Sell goods or services door-to-door or on the street.
43-4199	Information and Record Clerks, All Other	Answer inquiries and provide information to the general public, customers, visitors, and other interested parties regarding activities conducted at establishment and location of departments, offices, and employees within the organization.
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	Purchase machinery, equipment, tools, parts, supplies, or services necessary for the operation of an establishment. Purchase raw or semi-finished materials for manufacturing.
21-2021	Directors, Religious Activities and Education	Plan, direct, or coordinate programs designed to promote the religious education or activities of a denominational group. May provide counseling and guidance relative to marital, health, financial, and religious problems.
51-3023	Slaughterers and Meat Packers	Work in slaughtering, meat packing, or wholesale establishments performing precision functions involving the preparation of meat. Work may include specialized slaughtering tasks, cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats.
49-2011	Computer, Automated Teller, and Office Machine Repairers	Repair, maintain, or install computers, word processing systems, automated teller machines, and electronic office machines, such as duplicating and fax machines.
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	Set up, operate, or tend continuous flow or vat-type equipment; filter presses; shaker screens; centrifuges; condenser tubes; precipitating, fermenting, or evaporating tanks; scrubbing towers; or batch stills. These machines extract, sort, or separate liquids, gases, or solids from other materials to recover a refined product. Includes dairy processing equipment operators.
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	Set up, operate, or tend machines to coat or paint any of a wide variety of products, including glassware, cloth, ceramics, metal, plastic, paper, or wood, with lacquer, silver, copper, rubber, varnish, glaze, enamel, oil, or rust-proofing materials.
39-5011	Barbers	Provide barbering services, such as cutting, trimming, shampooing, and styling hair, trimming beards, or giving shaves.
19-4099	Life, Physical, and Social Science Technicians, All Other	Conduct tests to determine quality of raw materials, bulk intermediate and finished products. May conduct stability sample tests.
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend grinding and related tools that remove excess material or burrs from surfaces, sharpen edges or corners, or buff, hone, or polish metal or plastic work pieces.
41-3011	Advertising Sales Agents	Sell or solicit advertising space, time, or media in publications, signage, TV, radio, or the Internet. Includes individuals who obtain leases for outdoor advertising sites or persuade retailers to use sales promotion display items.
29-1131	Veterinarians	Diagnose, treat, or research diseases and injuries of animals. Includes veterinarians who conduct research and development, inspect livestock, or care for pets and companion animals.
41-2021	Counter and Rental Clerks	Receive orders, generally in person, for repairs, rentals, and services. May describe available options, compute costs, and accept payment.
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	Set up, operate, or tend machines to crush, grind, or polish materials, such as coal, glass, grain, stone, food, or rubber.
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	Operate or tend food or tobacco roasting, baking, or drying equipment, including hearth ovens, kiln driers, roasters, char kilns, and vacuum drying equipment.

SOC	SOC Title	Description
49-3023	Automotive Service Technicians and Mechanics	Repair automobiles, trucks, buses, and other vehicles. Master mechanics repair virtually any part on the vehicle or specialize in the transmission system.
51-2041	Structural Metal Fabricators and Fitters	Fabricate, position, align, and fit parts of structural metal products.
49-3021	Automotive Body and Related Repairers	Repair and refinish automotive vehicle bodies and straighten vehicle frames.
39-2011	Animal Trainers	Train animals for riding, harness, security, performance, or obedience, or assisting persons with disabilities. Accustom animals to human voice and contact; and condition animals to respond to commands. Train animals according to prescribed standards for show or competition. May train animals to carry pack loads or work as part of pack team.
33-3012	Correctional Officers and Jailers	Guard inmates in penal or rehabilitative institutions in accordance with established regulations and procedures. May guard prisoners in transit between jail, courtroom, prison, or other point. Includes deputy sheriffs and police who spend the majority of their time guarding prisoners in correctional institutions.
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	Directly supervise and coordinate the activities of helpers, laborers, or material movers.
41-1012	First-Line Supervisors of Non-Retail Sales Workers	Directly supervise and coordinate activities of sales workers other than retail sales workers. May perform duties such as budgeting, accounting, and personnel work, in addition to supervisory duties.
33-9099	Protective Service Workers, All Other	Implement procedures and systems to prevent merchandise loss. Conduct audits and investigations of employee activity. May assist in developing policies, procedures, and systems for safeguarding assets.
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend metal or plastic molding, casting, or coremaking machines to mold or cast metal or thermoplastic parts or products.
45-2099	Agricultural Workers, All Other	Attend to live farm, ranch, or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, finfish, shellfish, and bees. Attend to animals produced for animal products, such as meat, fur, skins, feathers, eggs, milk, and honey. Duties may include feeding, watering, herding, grazing, castrating, branding, de-beaking, weighing, catching, and loading animals. May maintain records on animals; examine animals to detect diseases and injuries; assist in birth deliveries; and administer medications, vaccinations, or insecticides as appropriate. May clean and maintain animal housing areas. Includes workers who shear wool from sheep, and collect eggs in hatcheries.
33-2011	Firefighters	Control and extinguish municipal fires, protect life and property and conduct rescue efforts.
49-9099	Installation, Maintenance, and Repair Workers, All Other	Perform technical activities at power plants or individual installations necessary for the generation of power from geothermal energy sources. Monitor and control operating activities at geothermal power generation facilities and perform maintenance and repairs as necessary. Install, test, and maintain residential and commercial geothermal heat pumps.
43-5031	Police, Fire, and Ambulance Dispatchers	Operate radio, telephone, or computer equipment at emergency response centers. Receive reports from the public of crimes, disturbances, fires, and medical or police emergencies. Relay information to law enforcement and emergency response personnel. May maintain contact with caller until responders arrive.
39-2021	Nonfarm Animal Caretakers	Feed, water, groom, bathe, exercise, or otherwise care for pets and other nonfarm animals, such as dogs, cats, ornamental fish or birds, zoo animals, and mice. Work in settings such as kennels, animal shelters, zoos, circuses, and aquariums. May keep records of feedings, treatments, and animals received or discharged. May clean, disinfect, and repair cages, pens, or fish tanks.
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend machines to extrude or draw thermoplastic or metal materials into tubes, rods, hoses, wire, bars, or structural shapes.
47-2051	Cement Masons and Concrete Finishers	Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints.

SOC	SOC Title	Description
47-2141	Painters, Construction and Maintenance	Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency.
47-2152	Plumbers, Pipefitters, and Steamfitters	Lay out, assemble, install, or maintain pipe systems, pipe supports, or related hydraulic or pneumatic equipment for steam, hot water, heating, cooling, lubricating, sprinkling, or industrial production or processing systems.
47-2073	Operating Engineers and Other Construction Equipment Operators	Operate one or several types of power construction equipment, such as motor graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or front-end loaders to excavate, move, and grade earth, erect structures, or pour concrete or other hard surface pavement. May repair and maintain equipment in addition to other duties.
47-2021	Brickmasons and Blockmasons	Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, with mortar and other substances to construct or repair walls, partitions, arches, sewers, and other structures.
47-2031	Carpenters	Construct, erect, install, and repair structures and fixtures of wood, plywood, and wallboard, using carpenter's hand tools and power tools.
47-2181	Roofers	Cover roofs of structures with shingles, slate, asphalt, aluminum, wood, or related materials. May spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures.
47-2211	Sheet Metal Workers	Fabricate, assemble, install, and repair sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. Work may involve any of the following: setting up and operating fabricating machines to cut, bend, and straighten sheet metal; shaping metal over anvils, blocks, or forms using hammer; operating soldering and welding equipment to join sheet metal parts; or inspecting, assembling, and smoothing seams and joints of burred surfaces. Includes sheet metal duct installers who install prefabricated sheet metal ducts used for heating, air conditioning, or other purposes.
15-1121	Computer Systems Analysts	Analyze science, engineering, business, and other data processing problems to implement and improve computer systems. Analyze user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations. May analyze or recommend commercially available software.
47-4051	Highway Maintenance Workers	Maintain highways, municipal and rural roads, airport runways, and rights-of-way. Duties include patching broken or eroded pavement, repairing guard rails, highway markers, and snow fences. May also mow or clear brush from along road or plow snow from roadway.
15-1142	Network and Computer Systems Administrators	Install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet systems or a segment of a network system. Monitor network to ensure network availability to all system users and may perform necessary maintenance to support network availability. May monitor and test Web site performance to ensure Web sites operate correctly and without interruption. May assist in network modeling, analysis, planning, and coordination between network and data communications hardware and software. May supervise computer user support specialists and computer network support specialists. May administer network security measures.
27-1024	Graphic Designers	Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.
43-4171	Receptionists and Information Clerks	Answer inquiries and provide information to the general public, customers, visitors, and other interested parties regarding activities conducted at establishment and location of departments, offices, and employees within the organization.
53-3032	Heavy and Tractor-Trailer Truck Drivers	Drive a tractor-trailer combination or a truck with a capacity of at least 26,000 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license.
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.
11-9013	Farmers, Ranchers, and Other Agricultural Managers	Plan, organize, direct, control, and coordinate activities of workers engaged in propagating, cultivating, and harvesting horticultural specialties, such as trees, shrubs, flowers, mushrooms, and other plants.
39-5012	Hairdressers, Hairstylists, and Cosmetologists	Provide beauty services, such as shampooing, cutting, coloring, and styling hair, and massaging and treating scalp. May apply makeup, dress wigs, perform hair removal, and provide nail and skin care services.

SOC	SOC Title	Description
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments and complex test equipment.
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	Directly supervise and coordinate activities of logging workers.
43-6013	Medical Secretaries	Perform secretarial duties using specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties may include scheduling appointments, billing patients, and compiling and recording medical charts, reports, and correspondence.
43-6011	Executive Secretaries and Executive Administrative Assistants	Provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff.
15-1151	Computer User Support Specialists	Provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, or via telephone or electronically. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems.
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.
25-2011	Preschool Teachers, Except Special Education	Instruct preschool-aged children in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility. May be required to hold State certification.
43-3021	Billing and Posting Clerks	Prepare and distribute bank statements to customers, answer inquiries, and reconcile discrepancies in records and accounts.
29-2041	Emergency Medical Technicians and Paramedics	Assess injuries, administer emergency medical care, and extricate trapped individuals. Transport injured or sick persons to medical facilities.
15-1132	Software Developers, Applications	Develop, create, and modify general computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design software or customize software for client use with the aim of optimizing operational efficiency. May analyze and design databases within an application area, working individually or coordinating database development as part of a team. May supervise computer programmers.
11-9033	Education Administrators, Postsecondary	Plan, direct, or coordinate research, instructional, student administration and services, and other educational activities at postsecondary institutions, including universities, colleges, and junior and community colleges.
43-3051	Payroll and Timekeeping Clerks	Compile and record employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions, or prepare paychecks.
11-9032	Education Administrators, Elementary and Secondary School	Plan, direct, or coordinate the academic, administrative, or auxiliary activities of public or private elementary or secondary level schools.
11-9031	Education Administrators, Preschool and Childcare Center/Program	Plan, direct, or coordinate the academic and nonacademic activities of preschool and childcare centers or programs.
11-9111	Medical and Health Services Managers	Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.
47-2061	Construction Laborers	Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris and other waste materials. May assist other craft workers.
29-2071	Medical Records and Health Information Technicians	Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards in a manner consistent with the healthcare industry's numerical coding system.
49-3041	Farm Equipment Mechanics and Service Technicians	Diagnose, adjust, repair, or overhaul farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.

SOC	SOC Title	Description
45-2091	Agricultural Equipment Operators	Drive and control farm equipment to till soil and to plant, cultivate, and harvest crops. May perform tasks, such as crop baling or hay bucking. May operate stationary equipment to perform post-harvest tasks, such as husking, shelling, threshing, and ginning.
53-3033	Light Truck or Delivery Services Drivers	Drive a light vehicle, such as a truck or van, with a capacity of less than 26,000 pounds Gross Vehicle Weight (GVW), primarily to deliver or pick up merchandise or to deliver packages. May load and unload vehicle.
31-9092	Medical Assistants	Perform administrative and certain clinical duties under the direction of a physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician.
47-2111	Electricians	Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.
53-3022	Bus Drivers, School or Special Client	Transport students or special clients, such as the elderly or persons with disabilities. Ensure adherence to safety rules. May assist passengers in boarding or exiting.
53-7051	Industrial Truck and Tractor Operators	Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location.
53-3041	Taxi Drivers and Chauffeurs	Drive automobiles, vans, or limousines to transport passengers. May occasionally carry cargo. Includes hearse drivers.
53-3031	Driver/Sales Workers	Drive truck or other vehicle over established routes or within an established territory and sell or deliver goods, such as food products, including restaurant take-out items, or pick up or deliver items such as commercial laundry. May also take orders, collect payment, or stock merchandise at point of delivery. Includes newspaper delivery drivers.
27-2022	Coaches and Scouts	Instruct or coach groups or individuals in the fundamentals of sports. Demonstrate techniques and methods of participation. May evaluate athletes' strengths and weaknesses as possible recruits or to improve the athletes' technique to prepare them for competition. Those required to hold teaching degrees should be reported in the appropriate teaching category.
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors, used in construction, logging, and surface mining.
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	Directly supervise and coordinate activities of construction or extraction workers.
29-2061	Licensed Practical and Licensed Vocational Nurses	Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.
39-9031	Fitness Trainers and Aerobics Instructors	Instruct or coach groups or individuals in exercise activities. Demonstrate techniques and form, observe participants, and explain to them corrective measures necessary to improve their skills.
41-3099	Sales Representatives, Services, All Other	Buy or sell energy products on the behalf of residential or commercial customers or utilities. Negotiate and oversee contracts for energy sales.
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics, normally obtained from at least 2 years of post-secondary education.
25-2022	Middle School Teachers, Except Special and Career/Technical Education	Teach students in one or more subjects in public or private schools at the middle, intermediate, or junior high level, which falls between elementary and senior high school as defined by applicable laws and regulations.
13-1071	Human Resources Specialists	Perform activities in the human resource area. Includes employment specialists who screen, recruit, interview, and place workers.

SOC	SOC Title	Description
31-1014	Nursing Assistants	Provide basic patient care under direction of nursing staff. Perform duties such as feed, bathe, dress, groom, or move patients, or change linens. May transfer or transport patients. Includes nursing care attendants, nursing aides, and nursing attendants.
11-3031	Financial Managers	Direct financial activities, such as planning, procurement, and investments for all or part of an organization.
13-2072	Loan Officers	Evaluate, authorize, or recommend approval of commercial, real estate, or credit loans. Advise borrowers on financial status and payment methods. Includes mortgage loan officers and agents, collection analysts, loan servicing officers, and loan underwriters.
21-1093	Social and Human Service Assistants	Assist in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care.
21-1012	Educational, Guidance, School, and Vocational Counselors	Counsel individuals and provide group educational and vocational guidance services.
39-9011	Childcare Workers	Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play.
21-1021	Child, Family, and School Social Workers	Provide social services and assistance to improve the social and psychological functioning of children and their families and to maximize the family well-being and the academic functioning of children. May assist parents, arrange adoptions, and find foster homes for abandoned or abused children. In schools, they address such problems as teenage pregnancy, misbehavior, and truancy. May also advise teachers.
13-2011	Accountants and Auditors	Analyze financial information and prepare financial reports to determine or maintain record of assets, liabilities, profit and loss, tax liability, or other financial activities within an organization.
25-2021	Elementary School Teachers, Except Special Education	Teach students basic academic, social, and other formative skills in public or private schools at the elementary level.
29-1141	Registered Nurses	Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required.
25-1099	Postsecondary Teachers	Teach courses pertaining to education, such as counseling, curriculum, guidance, instruction, teacher education, and teaching English as a second language. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-3098	Substitute Teachers	Teach or instruct out-of-school youths and adults in remedial education classes, preparatory classes for the General Educational Development test, literacy, or English as a Second Language. Teaching may or may not take place in a traditional educational institution.
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Teach students in one or more subjects, such as English, mathematics, or social studies at the secondary level in public or private schools. May be designated according to subject matter specialty.
11-3051	Industrial Production Managers	Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.
13-1051	Cost Estimators	Prepare cost estimates for product manufacturing, construction projects, or services to aid management in bidding on or determining price of product or service. May specialize according to particular service performed or type of product manufactured.
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	Directly supervise and coordinate work activities of cleaning personnel in hotels, hospitals, offices, and other establishments.
39-1021	First-Line Supervisors of Personal Service Workers	Directly supervise and coordinate activities of personal service workers, such as flight attendants, hairdressers, or caddies.
11-9021	Construction Managers	Plan, direct, or coordinate, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its

SOC	SOC Title	Description
		organization, scheduling, budgeting, and implementation. Includes managers in specialized construction fields, such as carpentry or plumbing.
11-3071	Transportation, Storage, and Distribution Managers	Plan, direct, or coordinate the transportation operations within an organization or the activities of organizations that provide transportation services.
11-3011	Administrative Services Managers	Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, facilities planning and maintenance, custodial operations, and other office support services.
11-2022	Sales Managers	Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.
11-1021	General and Operations Managers	Plan, direct, or coordinate the operations of public or private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services.