2019 PREVAILING WAGE STUDY COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

DEPARTMENT OF COMMERCE CENTRAL STATISTICS DIVISION

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Department of Commerce

COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS P.O. Box 5795 CHRB, Saipan, MP 96950 Tel. (670) 664-3044 · Fax (670) 664-3067 commerce.gov.mp

A MESSAGE FROM THE SECRETARY

Tirow and Hafa Adai!

On behalf of our Honorable Governor Ralph DLG. Torres and Lt. Governor Arnold I. Palacios, I am pleased to release the 2019 Prevailing Wage Study (PWS) Survey Documentation Report.

I hope that you find this report useful for whatever purposes you may need it for.

This report contains the 2019 PWS Survey Methodology, Summary of Wage Statistics by Employer Size, by Major Titles of the Standard Occupation Classification (SOC) and Major Industries. The report also includes several Appendix reports containing SOC Detailed Titles for the Occupations found in the CNMI Economy that the survey covered, a sample of the Form ETA 9165, a copy of the 2019 PWS questionnaire and the SOC Six-Digit Detailed Titles and Definitions.

This report could not have been possible without the diligent work and months of collaborations between our CNMI Department of Commerce's Central Statistics Division, the US Department of Labor's National Prevailing Wage Center, and DataTalks – I want to Thank everyone involved in completing this important report.

I also want to thank our CNMI businesses and the public sector agencies who contributed their data that made this report possible.

Olomwaay,

MARK O. RABAULIMAN

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INTRODUCTION

This report documents the results of the 2019 Prevailing Wage Study (PWS) in the Commonwealth of the Northern Mariana Islands. The hourly wage rates by SOC Detailed Titles produced from this Study to meet the requirements of the Northern Mariana Islands U.S. Workforce Act of 2018 are now available online and were published in July 2019. This report documents the methodology of the 2019 PWS and shows the hourly wage statistics that can be used when applying for PERM, H-1B and H-2B visas. In addition, it summarizes hourly wage by employer size, by SOC Major Titles, and Major Industries. If you are primarily looking for the hourly wage and related statistics for visa application purposes, you can go directly to Appendix A. It is important to note that the hourly wage amounts in selected titles in this report differ from the amounts for the same titles released in May 2019 due to a formula error. The body of the report describes the methodology, summarizes the results of the PWS, and discusses the error and the differences in hourly wages in selected titles in this report and the one released in May 2019.

There are six appendices to this report. Appendix A contains the SOC Detailed Titles Hourly Wage Statistics for the 554 Detailed Titles found in the CNMI economy in 2019. Appendix B shows a sample of a completed Form ETA 9165 to help employers when completing this form. Appendix C is a copy of the 2019 PWS questionnaire. Appendix D shows the hourly wage statistics by the SOC Major, Minor, Broad and Detailed Titles, which the source for Appendix A. Appendix E lists the Detailed Titles whose hourly wages in this report differ from those released in May 2019. Appendix F lists all SOC Six-Digit Codes, Detailed Titles and Definitions.

BACKGROUND

The 2019 PWS is the fourth round of the Prevailing Wage Study in the CNMI. This round is different from the previous ones in that it was conducted primarily to meet the requirements of the Northern Mariana Islands U.S. Workforce Act of 2018. The prior rounds were conducted to meet the prevailing wage requirement for H2B visa applications, and for the CNMI workforce assessment needs. The initial funding for the 2019 PWS was provided for by the Saipan Chamber of Commerce rather than by the CNMI Government, which funded the prior rounds. The <u>first Prevailing Wage and Workforce Assessment Study was done in 2011</u>, the <u>second was in 2014</u>, and the <u>third was in 2016</u>. Note that the name of the Study, Prevailing Wage Study, changed from the Prevailing Wage and Workforce Assessment Study (PWWAS). The reason for the name change was that the 2019 PWS did not include the workforce assessment variables that were included in the prior studies.

The Study began in March 2019 with the aim of producing prevailing wage rates in June/July for the CW visa applications. When it became clear at the beginning of 2019 that the 2016 PWWAS wage rates could not be used for purpose of CW in 2019, the CNMI business community headed by the Saipan Chamber of Commerce, mobilized resources to produce new prevailing wage rates for the CNMI 2019 at the shortest amount of time.

THE PURPOSE OF THE STUDY

The main purpose of this Study remains the same as in prior studies: to determine the types of occupations that exist and measure occupation-specific hourly wage rate for each of the identified occupations in the CNMI's economy. Unlike prior rounds, however, the 2019 PWS included only six variables: SOC Detailed Title, SOC Detailed Code, NAICS Code, NAICS Industry, Total Pay for last Pay Period, Total Hours Worked. The reason for reducing the number of variables was because of the urgency and the short period of time given to produce the prevailing wage rates to meet the 2019 CW visa applications by the CNMI employers.

THE TARGET POPULATION

As in the prior studies, the target population of the 2019 Study was all employees in the CNMI, including employees in both the private and the public sectors.

THE REFERENCE PERIOD

The data collection reference period for the 2019 Prevailing Wage Survey was during the months of March-April 2019. The five employee fields above were collected for one complete pay period processed by an employer during this period

THE METHODOLOGY

CENSUS OF EMPLOYERS

Based on discussions between the U.S. Department of Labor, the CNMI Department of Commerce, the CNMI Department of Labor, and the consultants hired to conduct the prevailing wages study, it was agreed that all CNMI employers in the private and the public sectors be included in the 2019 PWS to ensure that a maximum number of occupations, at the SOC Detailed Titles, meet the statistical requirement that the hourly wage rate for each Detailed Title is derived from at least 3 employers and at least 30 employees.

DATA COLLECTION, PROCESSING, AND TABULATION

The 2019 PWS was carried out by consultants Hive Analytics and DataTalks for the CNMI Department of Commerce, Central Statistics Division (Commerce CSD) and The Saipan Chamber of Commerce. The Saipan Chamber of Commerce who provided funding for the 2019 PWS entered into a Memorandum of Understanding with the CNMI Department of Commerce under which the consultants collected, processed, analyzed and stored the employers survey data at the Central Statistics Division (CSD) under the CNMI Statistical Act.

Under the CNMI Public Law 7-35, Commerce CSD is the CNMI Government's office authorized to conduct censuses and surveys on behalf of the CNMI Government; it is the lead agency in conducting surveys in the CNMI and was the lead agency in the three prior rounds of the PWWAS.

Two office clerks were hired to assist the CSD staff and the consultants in tracking the survey progress, reviewing employer data submissions, doing employer callbacks for clarifications and obtaining missing data.

A tracking log was created and used to track employers' data submission via email. The log was compared against the list of employer emails sent out and against the list of employers who participated in the 2016 PWWAS.

PWS Email Sent Out and Participation Solicitation

The CNMI Business License Office, CNMI Department of Finance, provided a list of employers and email addresses for the 2019 PWS. This original list contained 5,195 entries, however, it contained many errors, such as missing email and/or multiple entries. It could not be determined from the list which of the businesses were employers and which ones did not have employees. It is also possible, as was true in the lists obtained in the past, that some of the businesses included in the list were no longer active. The original list was cleaned up resulting in a shorter list of 2,754 business that had email addresses and that might have employees. The email soliciting participation in the 2019 PWS was sent to these 2,754 email addresses. The consultants and the Chamber of Commerce also actively asked employers in the business community to participate in the 2019 PWS via their membership meetings and in various media outlets.

Email Responses Logged-in and Questionnaire Review

Each employer (email recipient) was asked to complete the 2019 PWS questionnaire in Excel format and send it to the CNMI Department of Commerce, Central Statistics Division (CSD). The CSD dedicated an email address just for the 2019 PWS data collection purpose. A CSD staff monitored the dedicated email, responded to employer submissions, and logged in each submission. Of the 2,754 emails sent out, 946 responded with data submissions.

Upon receiving, acknowledging, and logging in the employer submission, the CSD staff reviewed each data submission for completeness. If the submission was complete, it was moved into a folder that contained completed questionnaires and readied to be merged with a clean, single dataset for the Study. A Submission that contained incomplete employee data was followed-up and completed by the clerks. Some employers submitted data in pdf format. When the number of employees was small, clerks keyed in these data into Excel and merged them to the comprehensive dataset, but when the number of employees was large, the clerks worked with the employer to re-submit the data in Excel format. The SOC and NAICS codes were determined by employers. When codes were in error, the clerks worked with employers to resolve the errors. Upon resolution, the clean employer data was moved into the folder that contains clean data and readied to be combined with the Study clean dataset.

Occupational and wage data from the CNMI government employees were obtained from the CNMI Department of Finance. Data from the autonomous public agencies were obtained with the assistance of the office clerks and CSD staff.

PWS Final Dataset and Tabulations

The cleaned employers' data were merged into a single dataset which was then used to produce the statistics for the Study. Excel's Power Query, Data Model, Power Pivot, and DAX were used in the data processing and tabulations.

CONFIDENTIALITY AND PROTECTION OF COLLECTED DATA

Like in the first two survey rounds, the data collection process for the 2019 PWS adhered to the confidentiality and data protection clauses in the CNMI Statistical Act and procedures and practices implemented by CNMI Department of Commerce's Central Statistics Division. The CNMI Code, Public Law 7-35, also known as the CNMI Statistical Act authorizes, and requires Commerce CSD to establish procedures and practices to ensure maximum confidentiality and protection of all data it collects under the Act. As standard procedure, PWS and clerks were trained on data confidentiality and protection practices and were sworn-in, with "The Oath of Office", as temporary government employees under Commerce CSD, to uphold data confidentiality and protection.

Completed questionnaires are kept in a secure room that is accessed only by sworn-in CSD only employees. The rooms used for the review, coding, and data entry processes are also secured. Only authorized employees are allowed entry into these rooms.

Individual data items on the questionnaire are used to derive aggregated statistical information only. No one can obtain individual business forms or records from Commerce CSD; CSD is not authorized to release any individual form and/or record to anyone, including the "owner" of the form/record and CSD is liable for any breach of confidentiality.

THE 2019 PWS QUESTIONNAIRE

The data fields needed to obtain occupation-specific hourly wage rates are contained in the 2019 PWS Questionnaire, attached as Appendix C.

A copy of the instruction and rational document on each of the items in the PWS may be obtained from Commerce CSD. This brief document was included in the email sent out to each of the potential employers in the CNM.

The Questionnaire was designed to collect data at the level of an individual employee position. Individual employee names and other characteristics were not included.

THE RESULTS OF THE 2019 PWS

EMPLOYERS AND EMPLOYEES

It was difficult to accurately determine the actual number of employers for the reference period, not only for the 2019 PWS, but also in past studies. It appears no office is keeping and maintaining a list of current employers in the CNMI. The Business License Office keeps track of licenses it issues, but it does not collect the number of employees in its business license application form. The number of employees per employer is reported to the Office of Tax and Revenue via the quarterly tax withholding, but that office does not publish a list of employers and it has been difficult to get a clean list of current employers from this source.

For comparison, the possible number of employers was 2,908 in 2011, 2,146 in 2016, and 2,754 in 2019. The number differed a lot, depending on the source and perhaps the query specification used by each source.

The actual number of total employees at the time of the study was also hard to determine. One source is the individual employee tax withholdings submitted by employers each quarter to the Office of Tax and Revenue, however, it's difficult to get reliable figures from this source. The 2019 PWS did not obtain a figure for the total employees for the reference period. For 2011, the figure obtained from this source was 21,399 and in 2016 it was 32,061. These figures differ a lot probably due to the query specification that the Tax and Revenue used at the time of the request.

In 2019 PWS, of the 2,754 emails sent out, 946 businesses/employers responded. The low response rate of 34% is due in a large part to the denominator of 2,754. The actual number of employers is likely much lower (perhaps about 1,300 to 1,500) which would result in a higher response rate. In 2011, a field census of all employers, counted 1,341 employers out of the 2,908 in the list from the Tax and Revenue Office. The rest (1,567) in that list were no longer in business, had no employees, or could not be located or were out-of-scope. In 2016 PWWAS, 1,485 employers were visited and only 1,187 of these had employees. The rest did not (or no longer) have employees or had closed down.

NUMBER OF EMPLOYERS AND EMPLOYEES USED IN PRODUCING HOURLY WAGE STATISTICS

The 2019 PWS clean dataset contains 937 total employers and 19,621 total employees used in producing the hourly wage statistics prevailing at the time. The CNMI's overall mean hourly wage was \$12.74 while the median was \$8.65.

HOURLY WAGE STATISTICS BY EMPLOYER SIZE

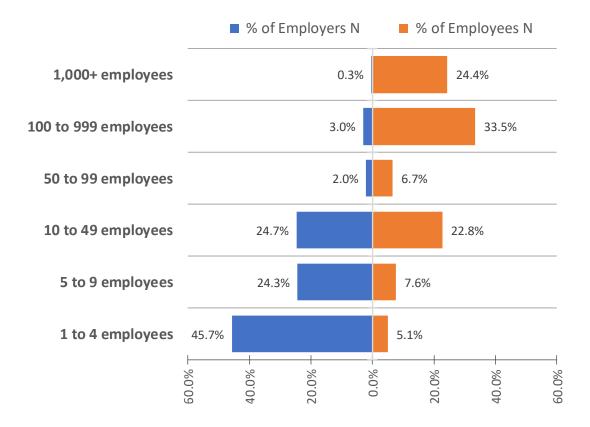
The majority the CNMI employers are small employers. About 46% of total employers had less than 5 employees and employed about 5% of total employees in the CNMI in 2019; 70% had less than 10 employees with about 13% of total employees; and about 95% had less than 50 employees with about 36% of total employees. Only about 5% of all employers had 50 or more employees but employed about 64% of total employees.

Table 1. Hourly Wage Statistics by Employer Size: 2019 PWS, CNMI

			Cummu-			Cummu-		
		% of	lative %		% of	lative %	Hourly	Hourly
	Emplo	Emplo	Emplo	Emplo	Emplo	Emplo	Wage Rate	Wage Rate
Employer Size	yers N	yers N	yers N	yees N	yees N	yees N	Mean	Median
1 to 4 employees	428	45.7%	45.7%	991	5.1%	5.1%	\$9.60	\$7.25
5 to 9 employees	228	24.3%	70.0%	1,500	7.6%	12.7%	\$10.49	\$7.50
10 to 49 employees	231	24.7%	94.7%	4,468	22.8%	35.5%	\$10.36	\$7.55
50 to 99 employees	19	2.0%	96.7%	1,306	6.7%	42.1%	\$10.14	\$7.68
100 to 999 employees	28	3.0%	99.7%	6,574	33.5%	75.6%	\$13.41	\$8.39
1,000+ employees	3	0.3%	100.0%	4,782	24.4%	100.0%	\$16.10	\$12.61
Grand Total	937	100.0%		19,621	100.0%	-	\$12.74	\$8.65

The hourly wage rate was directly related to employer size. It was lowest (\$8.60) in employers with less than 5 employees and highest (\$16.10) in employers with 1,000 or more employees. See Table 1 for detail.

Chart 1. % of Employers N vs % of Employees N: CNMI, 2019



HOURLY WAGE STATISTICS BY SOC MAJOR TITLES

Percentage of Total Employers by SOC Major Titles

About 69% of all employers in the 2019 PWS reported titles in Management; about 40% reported titles in Office and Administrative Support; 34% reported titles in Installation, Maintenance, and Repair, 32% in Business and Financial Operations, etc. See Chart 2 below for details on the percentages of employers in Major Titles. For the number of persons for each of the Major Titles, see Table 2 on page 8.

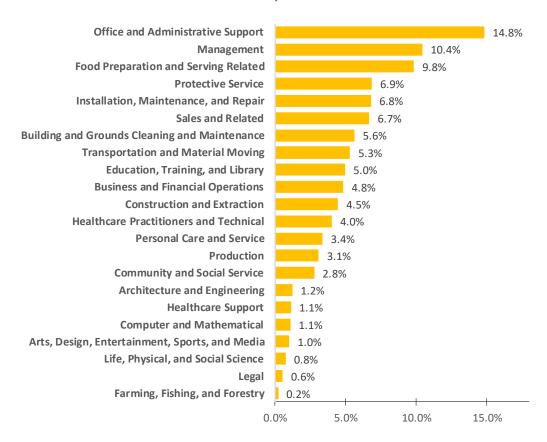
Chart 2. Percentage of Total Employers by SOC Major Titles: CNMI, 2019



Percentage of Total Employees by SOC Major Titles

The Office and Administrative Support Major Titles had the highest percentage, about 14.8%, of total employees in the 2019 PWS; followed by Management, 10.4%; Food Preparation and Serving Related Titles 9.8%, etc. See Chart 3 for detail on the relative share of each of the Major Titles. For the number of persons for each of the Major Titles, see Table 2 on page 8.

Chart 3. Percentage of Total Employees by SOC Major Titles: CNMI, 2019



Mean Hourly Wage by SOC Major Titles

The Legal Titles had the highest mean hourly wage of \$30.80 in the 2019 PWS; followed by Healthcare Practitioners and Technical Titles, \$29.86; Management Titles, \$21.77; Architecture and Engineering, \$19.05, etc. Please see Chart 3 below that ranks Major Titles by mean hourly wage.

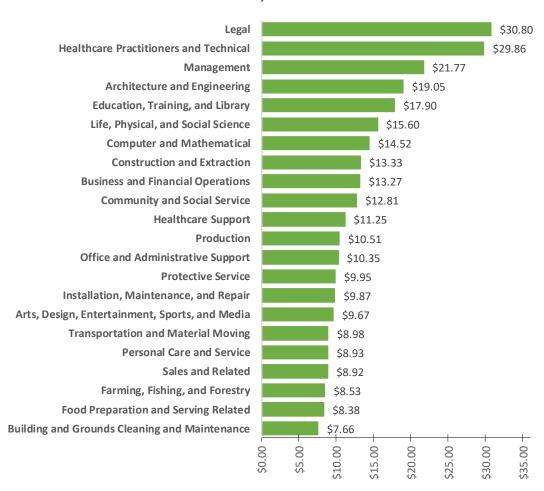


Chart 4. Mean Hourly Wage by SOC Major Titles: CNMI, 2019

Table 2. Hourly Wage Statistics by SOC Major Occupation Titles: CNMI, 2019

Note: Employers N means Employers count; Employees N means employees count

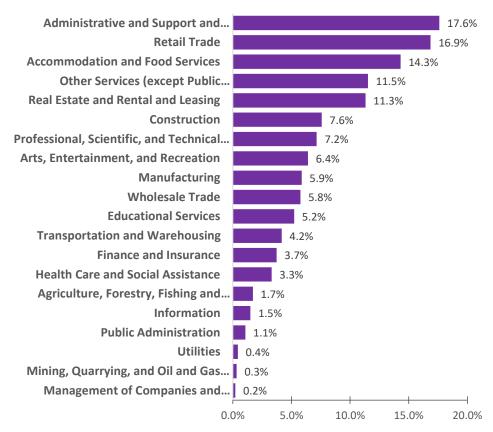
			Hourly	Hourly
			Wage	Wage
	Emplo-	Emplo-	Rate	Rate
SOC Major Titles	yers N	yees N	Mean	Median
Architecture and Engineering Occupations	57	243	\$19.05	\$16.56
Arts, Design, Entertainment, Sports, and Media Occupations	75	202	\$9.67	\$8.25
Building and Grounds Cleaning and Maintenance Occupations	171	1,106	\$7.66	\$7.25
Business and Financial Operations Occupations	296	950	\$13.27	\$11.81
Community and Social Service Occupations	20	547	\$12.81	\$11.96
Computer and Mathematical Occupations	64	215	\$14.52	\$13.47
Construction and Extraction Occupations	94	876	\$13.33	\$8.00
Education, Training, and Library Occupations	43	973	\$17.90	\$17.70
Farming, Fishing, and Forestry Occupations	20	46	\$8.53	\$7.25
Food Preparation and Serving Related Occupations	143	1,930	\$8.38	\$7.35
Healthcare Practitioners and Technical Occupations	33	790	\$29.86	\$16.07
Healthcare Support Occupations	40	222	\$11.25	\$8.84
Installation, Maintenance, and Repair Occupations	322	1,333	\$9.87	\$7.79
Legal Occupations	20	110	\$30.80	\$25.60
Life, Physical, and Social Science Occupations	13	150	\$15.60	\$12.87
Management Occupations	644	2,050	\$21.77	\$17.35
Office and Administrative Support Occupations	374	2,910	\$10.35	\$8.55
Personal Care and Service Occupations	128	661	\$8.93	\$7.25
Production Occupations	143	609	\$10.51	\$7.50
Protective Service Occupations	51	1,345	\$9.95	\$9.52
Sales and Related Occupations	250	1,311	\$8.92	\$7.50
Transportation and Material Moving Occupations	156	1,042	\$8.98	\$7.67
Grand Total	937	19,621	\$12.74	\$8.65

HOURLY WAGE STATISTICS BY MAJOR INDUSTRIES

Percentage of Total Employers by Major Industries

About 18% of all employers in the 2019 PWS reported titles in the Administrative and Support and Waste Management and Remediation Services Industry; about 17% reported titles in the Retail Trade Industry; about 14% in the Accommodation and Food Services Industry, etc. See Chart 5 below for details on the percentages of total employers in Major Titles. For the number of persons for each of the Major Industries, see Table 3 on page 12.

Chart 5. Percentage of Total Employers by Major Industries: CNMI, 2019



Percentage of Total Employees by Major Industries

The Accommodation and Food Services Industry had the highest percentage, about 19.0%, of total employees in the 2019 PWS; followed by Public Administration, 18.0%; Administrative and Support and Waste Management and Remediation Services, 9.5%; Retail Trade, 8.7%, etc. See Chart 6 for detail on the relative share of each of the Major Industries. For the number of persons for each of the Major Titles, see Table 3 on page 12.

Accommodation and Food Services 19.0% **Public Administration** 18.0% Administrative and Support and... 9.5% **Retail Trade** 8.7% **Health Care and Social Assistance** 8.2% **Educational Services** 7.4% Construction 5.8% **Transportation and Warehousing** 4.6% **Wholesale Trade** 2.7% Real Estate and Rental and Leasing 2.7% Manufacturing 2.6% Other Services (except Public... 2.6% Arts, Entertainment, and Recreation 2.5% Professional, Scientific, and Technical... 1.8% Information 1.6% **Finance and Insurance** 1.2% Mining, Quarrying, and Oil and Gas... 0.7% Management of Companies and... 0.2% Agriculture, Forestry, Fishing and... 0.1% **Utilities** 0.1%

0.0%

5.0%

10.0%

15.0%

20.0%

Chart 6. Percentage of Total Employees by Major Industries: CNMI, 2019

Mean Hourly Wage by Major Industries

The Health Care and Social Assistance Industry had the highest mean hourly wage of \$22.23 in the 2019 PWS; followed by Management of Companies and Enterprises, \$18.01; Educational Services, \$17.98; Finance and Insurance, \$15.55. etc. Please see Chart 7 below that ranks Major Industries by mean hourly wage.



Chart 7. Hourly Wage by Major Industries: CNMI, 2019

Table 3. Hourly Wages Statistics by Major Industries: CNMI, 2019

Note: Employers N means Employers count; Employees N means employees count

			Hourly Wage	Hourly Wage
	Emplo-	Emplo-	Rate	Rate
Major Industry	yers N	yees N	Mean	Median
Accommodation and Food Services	134	3,733	\$10.79	\$7.55
Administrative and Support and Waste Management and Remediation Services	165	1,869	\$8.59	\$7.25
Agriculture, Forestry, Fishing and Hunting	16	29	\$7.16	\$7.25
Arts, Entertainment, and Recreation	60	481	\$9.11	\$7.30
Construction	71	1,140	\$14.28	\$8.00
Educational Services	49	1,452	\$17.93	\$16.01
Finance and Insurance	35	229	\$15.55	\$10.76
Health Care and Social Assistance	31	1,604	\$22.23	\$14.36
Information	14	321	\$15.55	\$11.95
Management of Companies and Enterprises	2	35	\$18.01	\$8.17
Manufacturing	55	506	\$8.57	\$7.45
Mining, Quarrying, and Oil and Gas Extraction	3	144	\$9.66	\$8.00
Other Services (except Public Administration)	108	502	\$8.70	\$7.25
Professional, Scientific, and Technical Services	67	356	\$15.22	\$10.04
Public Administration	10	3,528	\$14.32	\$12.00
Real Estate and Rental and Leasing	106	524	\$10.00	\$7.50
Retail Trade	158	1,705	\$9.07	\$7.50
Transportation and Warehousing	39	906	\$10.65	\$8.35
Utilities	4	20	\$11.28	\$8.25
Wholesale Trade	54	537	\$9.79	\$7.50
Grand Total	937	19,621	\$12.74	\$8.65

HOURLY WAGE STATISTICS BY SOC DETAILED TITLES

The 19,621 employees in the 2019 PWS were classified into 554 different SOC Detailed Titles (or the SOC six-digit level). The hourly wage and related statistics for these Detailed Titles are appended to this report as Appendix A. An important guideline requirement for deriving the prevailing wage rate is that the hourly wage amount must be derived from a minimum of 3 different employers and 30 different employees, hereon referred to as the 3-30 rule. Based on this guideline only 132 Detailed Titles met this rule in the 2019 PWS. A work-around, when the 3-30 rule is not satisfied at the Detailed Title level, is to move up the SOC aggregation levels and find the level where the rule is met, then, use the hourly wage statistics from that level as proxy for the Detailed Title. This approach, however, is acceptable up to the Minor Title and is not acceptable on the Major Title, except for the title 45-3031 - Fishing and Hunting Workers. When using this approach, 503 of 554 Titles in the 2019 PWS have hourly wage statistics that can be used when applying for visas. Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI in Appendix A shows the number of employers, number of employees, the mean and the median hourly wage rates for each of the Detailed Titles that can used when applying for visas. Please see Appendix A for details. Note that when the 3-30 rule is not met at the Minor Title, then the 2019 PWS cannot be used as the source for prevailing wage rate when applying for H-2 and PERM visas.

DIFFERENCES IN THE HOURLY WAGE AMOUNTS THIS REPORT AND THOSE RELEASED IN MAY 2019 FOR SELECTED TITLES

It is important to note that the hourly wage statistics in some selected occupation titles in this report differ from the amounts reported in May 2019. The formulas calculating the number of employers, the number of employees, and the hourly wages were correct, so the hourly wages calculation was not the problem. The

differences exist because of errors in the a formula used, back in May 2019, to determine whether the 3-30 rule was met or not met, and where the rule was not met, to move up the SOC aggregation levels and pick a proxy hourly wage rate at the SOC aggregation level where the 3-30 rule was met. When producing this report, a separate independent formula was used to determine whether the 3-30 rule was met or not met, and where the rule is not met, to move up the SOC aggregation levels and pick the proxy hourly wage rate, resulting in the revelation of the now known differences between the two sets of figures. In reconciling the differences, the errors in the May 2019 formula were found. The problem is, because of the May 2019 formula error, some titles that could have used hourly wages from the 2019 PWs ended up using figures from OES. As stated earlier, the 2019 PWS found 554 SOC Detailed Titles in the CNMI. Comparing the 2019 PWS released in May 2019 (or the published CW-1 prevailing wages) to the amounts in this report, 354 of the 554 titles have wage amounts that remain the same. These 354 titles covered 17,086 (or 89%) of the 19,261 total positions in the 2019 PWS.

However, due to the May error, 200 of the 554 titles in the CNMI ended up with OES sourced wages that could have used wage amounts sourced from the 2019 PWS. These 200 titles are listed in Appendix E. Based on the 2019 PWS, the number of employees under these 200 titles was 2,175 out of the 19,261 total employees reported (or about 11%). The impact of the May error is that some employers that have applied for CW-1 visa under any of these 200 titles may have gotten a wage rate sourced from OES which is higher than what could have been gotten from the 2019 PWS. However, not all OES sourced wage amounts are higher than the 2019 PWS's. In some (relatively fewer) cases, OES amount is lower. The size of the potential negative impact the error imposed on employers depends on the number of CW-1 that have been issued under any of these 200 titles. Based on CW-1 prevailing wage certifications to-date, since July of 2019, 459 positions under 96 of the 200 titles have been certified by the Prevailing Wage Center, USDOL. The average amount of the prevailing wages for these 456 certified positions is \$17.30, all sourced from OES. If these same 459 positions used the 2019 PWS updated amounts in this report, the average hourly wage would be \$11.75, a difference of \$5.54.

CHALLENGES AND LIMITATIONS

CHALLENGES

Hourly Wage Statistics Release Schedule Initially it was planned that hourly wage statistics by Detailed Titles were to be released as the number of employers and employees met the 3-30 rule and that certain industries were to be prioritized so that employers will have access to wage statistics to submit applications as soon as possible. Hence, in May 2019, the first 84 detailed titles that met the 3-30 rule were released by the CNMI Governor. By that time when the study team looked at the number of employers and employees received and the number of detailed titles found, it became apparent that the eventual number of titles that would meet the 3-30 rule would not be too different from the 2016. It was also concluded that it was difficult to meet the 3-30 rule within an industry; that to meet this rule requires going across industries. Given the time constraint, it was decided that it was better to focus on getting the maximum employer participation in the study, close the data collection phase, and produce final wage statistics for all employers. It was also realized that releasing the hourly wage statistics in phases would result in different hourly wage rate amounts for an occupation title when additional employees of the same title were received/added to the dataset and that these different amounts may cause confusion. Hence, the May released figures were the only ones prior to the final figures released in July.

Slow Responses from Some of Employers Not all employers willingly participated in the survey contributing to delays in the data collection period.

Incomplete and/or Inaccurate Business Directory Information A large amount of the employers' directory data provided to the Study was no longer correct: many employers in the list did not have email addresses and many were invalid or no longer active. This issue may have caused some none-participation.

LIMITATIONS

Not all employers participated and those that did not were more like employers with fewer employees (less than 5). Also, not all employer submissions were used in deriving hourly wage statistics due to poor quality of submissions. Although only a small percentage, a few employers reported employee pay on a monthly or biweekly basis that translated into hourly wage rates below the current minimum wage of \$7.25. Employee records with hourly wage below \$3.05 were excluded in the production of hourly wage statistics.

APPENDICES

As mentioned in the beginning of this report, there are six appendices to this report. Appendix A contains the SOC Detailed Titles Hourly Wage Statistics for the 554 Detailed Titles found in the CNMI economy in 2019. Appendix B shows a sample of a completed Form ETA 9165 to help employers when completing this form. Appendix C is a copy of the 2019 PWS questionnaire. Appendix D shows the hourly wage statistics by the SOC Major, Minor, Broad and Detailed Titles; Appendix D is the source for Appendix A. Appendix E lists the 200 titles whose amounts in this report differ from those released in May 2019. Appendix F lists the SOC Six-Digit Codes, Detailed Titles and Definitions.

APPENDIX A: HOURLY WAGE STATISTICS BY SOC DETAILED TITLES

This appendix contains the hourly wage statistics produced from the 2019 PWS to meet the prevailing wage requirements when applying for PERM, H-1B, and H-2B. When completing Form ETA-9165, the guideline requires that the mean hourly wage for the occupation title in the application form must have been derived from at least three (3) different employers and from at least thirty (30) different employees (or the 3-30 rule defined earlier). In Table A1, Employers N, which is the count of unique employers, was derived using the DISTINCTCOUNT() function in the Data Analysis Expression (DAX) in MS Excel to ensure that the count for employers is unique and avoids duplicate counting. Only 132 of the 554 Detailed Titles in the 2019 PWS met the 3-30 rule. In those Detailed Titles where this rule was not met, wage statistics from a higher level of aggregation (the Broad, Minor, or Major) were used as proxies. For example, the number of employers (110), the number of employees (181), the mean hourly wage (\$16.13), and the median hourly wage (\$12.50) for the Detailed Title 112011 - Advertising and Promotions Managers, in row 4 in Table A1 below, comes from the SOC Minor (3digit) Title: 112000 - Advertising, Marketing, Promotions, Public Relations, and Sales Managers, found in Appendix D. Note, however, that when the 3-30 rule is not met at the Minor Title, then the 2019 PWS cannot be used as the source for prevailing wage rate when applying for H-2 and PERM visas, in which case, hourly wage statistics will have to come from a different source. The only exception is for the title 45-3031 - Fishing and Hunting Workers.

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

		- Francis	Fmmla	Hourly	Hourly	The 3-30 rule is
Row#	SOC Detailed Title	Emplo vers N	Emplo yees N	Wage Mean	Wage Median	Met at SOC Level
1	111011 - Chief Executives	129	279	\$36.27	\$25.78	Detailed (6-digit)
2	111021 - General and Operations Managers	459	648	\$17.63	\$13.55	Detailed (6-digit)
3	111031 - Legislators	521	950	\$23.05	\$16.00	Minor (3-digit)
4	112011 - Advertising and Promotions Managers	110	181	\$16.13	\$12.50	Minor (3-digit)
5	112021 - Marketing Managers	48	74	\$18.26	\$14.21	Detailed (6-digit)
6	112022 - Sales Managers	72	96	\$14.44	\$11.52	Detailed (6-digit)
7	112032 - Public Relations Managers	110	181	\$16.13	\$12.50	Minor (3-digit)
8	113012 - Administrative Services Managers	60	121	\$17.94	\$17.15	Detailed (6-digit)
9	113013 - Facilities Managers	61	123	\$18.12	\$17.15	Broad (5-digit)
10	113021 - Computer and Information Systems Managers	21	35	\$26.44	\$24.04	Detailed (6-digit)
11	113031 - Financial Managers	47	75	\$25.64	\$23.98	Detailed (6-digit)
12	113051 - Industrial Production Managers	151	341	\$21.06	\$19.53	Minor (3-digit)
13	113061 - Purchasing Managers	151	341	\$21.06	\$19.53	Minor (3-digit)
14	113071 - Transportation, Storage, and Distribution Managers	151	341	\$21.06	\$19.53	Minor (3-digit)
15	113111 - Compensation and Benefits Managers	151	341	\$21.06	\$19.53	Minor (3-digit)
16	113121 - Human Resources Managers	35	43	\$21.69	\$19.62	Detailed (6-digit)
17	113131 - Training and Development Managers	151	341	\$21.06	\$19.53	Minor (3-digit)
18	119013 - Farmers, Ranchers, and Other Agricultural Managers	139	577	\$21.88	\$19.23	Minor (3-digit)
19	119021 - Construction Managers	21	31	\$32.25	\$23.75	Detailed (6-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

Row#	SOC Detailed Title	Emplo yers N	Emplo yees N	Hourly Wage Mean	Hourly Wage Median	The 3-30 rule is Met at SOC Level
20	119031 - Education and Childcare Administrators,	14	102	\$31.27	\$30.10	Broad (5-digit)
	Preschool and Daycare			**	700.20	, ,
21	119032 - Education Administrators, Kindergarten through Secondary	8	52	\$34.76	\$31.86	Detailed (6-digit)
22	119033 - Education Administrators, Postsecondary	6	38	\$30.24	\$27.00	Detailed (6-digit)
23	119039 - Education Administrators, All Other	14	102	\$31.27	\$30.10	Broad (5-digit)
24	119041 - Architectural and Engineering Managers	139	577	\$21.88	\$19.23	Minor (3-digit)
25	119051 - Food Service Managers	39	88	\$17.20	\$13.18	Detailed (6-digit)
26	119071 - Gambling Managers	4	62	\$21.72	\$19.23	Detailed (6-digit)
27	119072 - Entertainment and Recreation Managers, Except Gambling	7	69	\$21.22	\$17.20	Broad (5-digit)
28	119081 - Lodging Managers	139	577	\$21.88	\$19.23	Minor (3-digit)
29	119111 - Medical and Health Services Managers	5	78	\$23.22	\$24.04	Detailed (6-digit)
30	119121 - Natural Sciences Managers	139	577	\$21.88	\$19.23	Minor (3-digit)
31	119141 - Property, Real Estate, and Community Association Managers	139	577	\$21.88	\$19.23	Minor (3-digit)
32	119151 - Social and Community Service Managers	139	577	\$21.88	\$19.23	Minor (3-digit)
33	119161 - Emergency Management Directors	139	577	\$21.88	\$19.23	Minor (3-digit)
34	119171 - Funeral Home Managers	139	577	\$21.88	\$19.23	Minor (3-digit)
35	119179 - Personal Service Managers, All Other	139	577	\$21.88	\$19.23	Minor (3-digit)
36	119199 - Managers, All Other	42	98	\$18.77	\$15.73	Detailed (6-digit)
37	131022 - Wholesale and Retail Buyers, Except Farm Products	22	31	\$9.22	\$8.00	Broad (5-digit)
38	131023 - Purchasing Agents, Except Wholesale, Retail, and Farm Products	22	31	\$9.22	\$8.00	Broad (5-digit)
39	131031 - Claims Adjusters, Examiners, and Investigators	85	306	\$13.87	\$12.45	Minor (3-digit)
40	131041 - Compliance Officers	12	93	\$14.03	\$13.02	Detailed (6-digit)
41	131051 - Cost Estimators	85	306	\$13.87	\$12.45	Minor (3-digit)
42	131071 - Human Resources Specialists	35	88	\$14.28	\$13.67	Detailed (6-digit)
43	131081 - Logisticians	85	306	\$13.87	\$12.45	Minor (3-digit)
44	131082 - Project Management Specialists	85	306	\$13.87	\$12.45	Minor (3-digit)
45	131111 - Management Analysts	85	306	\$13.87	\$12.45	Minor (3-digit)
46	131121 - Meeting, Convention, and Event Planners	85	306	\$13.87	\$12.45	Minor (3-digit)
47	131141 - Compensation, Benefits, and Job Analysis Specialists	85	306	\$13.87	\$12.45	Minor (3-digit)
48	131151 - Training and Development Specialists	85	306	\$13.87	\$12.45	Minor (3-digit)
49	131161 - Market Research Analysts and Marketing Specialists	85	306	\$13.87	\$12.45	Minor (3-digit)
50	131199 - Business Operations Specialists, All Other	85	306	\$13.87	\$12.45	Minor (3-digit)
51	132011 - Accountants and Auditors	250	478	\$12.86	\$11.05	Detailed (6-digit)
52	132022 - Appraisers of Personal and Business Property	262	645	\$12.98	\$11.25	Minor (3-digit)
53	132023 - Appraisers and Assessors of Real Estate	262	645	\$12.98	\$11.25	Minor (3-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

				Hourly	Hourly	The 3-30 rule is
		Emplo	Emplo	Wage	Wage	Met at SOC
Row #	SOC Detailed Title	yers N	yees N	Mean	Median	Level
54	132031 - Budget Analysts	262	645	\$12.98	\$11.25	Minor (3-digit)
55	132041 - Credit Analysts	262	645	\$12.98	\$11.25	Minor (3-digit)
56	132051 - Financial and Investment Analysts	19	54	\$12.78	\$11.54	Broad (5-digit)
57	132052 - Personal Financial Advisors	19	54	\$12.78	\$11.54	Broad (5-digit)
58	132053 - Insurance Underwriters	13	38	\$10.56	\$10.01	Detailed (6-digit)
59	132054 - Financial Risk Specialists	19	54	\$12.78	\$11.54	Broad (5-digit)
60	132061 - Financial Examiners	262	645	\$12.98	\$11.25	Minor (3-digit)
61	132071 - Credit Counselors	262	645	\$12.98	\$11.25	Minor (3-digit)
62	132072 - Loan Officers	262	645	\$12.98	\$11.25	Minor (3-digit)
63	132081 - Tax Examiners and Collectors, and Revenue Agents	5	70	\$10.96	\$9.25	Broad (5-digit)
64	132082 - Tax Preparers	5	70	\$10.96	\$9.25	Broad (5-digit)
65	132099 - Financial Specialists, All Other	262	645	\$12.98	\$11.25	Minor (3-digit)
66	151211 - Computer Systems Analysts	64	190	\$14.48	\$13.41	Minor (3-digit)
67	151212 - Information Security Analysts	64	190	\$14.48	\$13.41	Minor (3-digit)
68	151231 - Computer Network Support Specialists	28	59	\$12.35	\$11.11	Broad (5-digit)
69	151232 - Computer User Support Specialists	19	38	\$10.64	\$8.43	Detailed (6-digit)
70	151241 - Computer Network Architects	15	54	\$17.18	\$17.14	Broad (5-digit)
71	151242 - Database Administrators	15	54	\$17.18	\$17.14	Broad (5-digit)
72	151244 - Network and Computer Systems Administrators	13	33	\$17.13	\$17.45	Detailed (6-digit)
73	151251 - Computer Programmers	64	190	\$14.48	\$13.41	Minor (3-digit)
74	151252 - Software Developers	64	190	\$14.48	\$13.41	Minor (3-digit)
75	151254 - Web Developers	64	190	\$14.48	\$13.41	Minor (3-digit)
76	151255 - Web and Digital Interface Designers	64	190	\$14.48	\$13.41	Minor (3-digit)
77	151299 - Computer Occupations, All Other	64	190	\$14.48	\$13.41	Minor (3-digit)
78	152041 - Statisticians					Not Met
79	171011 - Architects, Except Landscape and Naval					Not Met
80	171012 - Landscape Architects					Not Met
81	171021 - Cartographers and Photogrammetrists					Not Met
82	171022 - Surveyors					Not Met
83	172021 - Agricultural Engineers	36	83	\$21.84	\$20.02	Minor (3-digit)
84	172051 - Civil Engineers	17	36	\$24.20	\$21.80	Detailed (6-digit)
85	172061 - Computer Hardware Engineers	36	83	\$21.84	\$20.02	Minor (3-digit)
86	172071 - Electrical Engineers	36	83	\$21.84	\$20.02	Minor (3-digit)
87	172072 - Electronics Engineers, Except Computer	36	83	\$21.84	\$20.02	Minor (3-digit)
88	172081 - Environmental Engineers	36	83	\$21.84	\$20.02	Minor (3-digit)
89	172111 - Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	36	83	\$21.84	\$20.02	Minor (3-digit)
90	172121 - Marine Engineers and Naval Architects	36	83	\$21.84	\$20.02	Minor (3-digit)
91	172141 - Mechanical Engineers	36	83	\$21.84	\$20.02	Minor (3-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

		F 1	F 1	Hourly	Hourly	The 3-30 rule is
Row#	SOC Detailed Title	Emplo	Emplo	Wage	Wage Median	Met at SOC
92	172199 - Engineers, All Other	yers N 36	yees N 83	Mean \$21.84	\$20.02	Level Minor (3-digit)
93	173011 - Architectural and Civil Drafters	37	149	\$17.63	\$15.33	Minor (3-digit)
94	173012 - Electrical and Electronics Drafters	37	149	\$17.63	\$15.33	Minor (3-digit)
95	173019 - Drafters, All Other	37	149	\$17.63	\$15.33	Minor (3-digit)
96	173022 - Civil Engineering Technologists and Technicians	23	108	\$19.37	\$17.55	Broad (5-digit)
97	173023 - Electrical and Electronic Engineering Technologists and Technicians	10	48	\$25.86	\$28.95	Detailed (6-digit)
98	173024 - Electro-Mechanical and Mechatronics Technologists and Technicians	23	108	\$19.37	\$17.55	Broad (5-digit)
99	173027 - Mechanical Engineering Technologists and Technicians	23	108	\$19.37	\$17.55	Broad (5-digit)
100	173028 - Calibration Technologists and Technicians	23	108	\$19.37	\$17.55	Broad (5-digit)
101	173029 - Engineering Technologists and Technicians, Except Drafters, All Other	23	108	\$19.37	\$17.55	Broad (5-digit)
102	173031 - Surveying and Mapping Technicians	37	149	\$17.63	\$15.33	Minor (3-digit)
103	191012 - Food Scientists and Technologists	5	73	\$15.34	\$12.40	Minor (3-digit)
104	191013 - Soil and Plant Scientists	5	73	\$15.34	\$12.40	Minor (3-digit)
105	191021 - Biochemists and Biophysicists	5	73	\$15.34	\$12.40	Minor (3-digit)
106	191022 - Microbiologists	5	73	\$15.34	\$12.40	Minor (3-digit)
107	191023 - Zoologists and Wildlife Biologists	5	73	\$15.34	\$12.40	Minor (3-digit)
108	191031 - Conservation Scientists	5	73	\$15.34	\$12.40	Minor (3-digit)
109	191032 - Foresters	5	73	\$15.34	\$12.40	Minor (3-digit)
110	191041 - Epidemiologists	5	73	\$15.34	\$12.40	Minor (3-digit)
111	192031 - Chemists					Not Met
112	192041 - Environmental Scientists and Specialists, Including Health					Not Met
113	193011 - Economists					Not Met
114	193033 - Clinical and Counseling Psychologists					Not Met
115	193039 - Psychologists, All Other					Not Met
116	193051 - Urban and Regional Planners					Not Met
117	193091 - Anthropologists and Archeologists					Not Met
118	193093 - Historians			 ¢12.50	 ć14 25	Not Met
119	194021 - Biological Technicians	8	51	\$12.50	\$11.25	Minor (3-digit)
120	194042 - Environmental Science and Protection Technicians, Including Health	8	51	\$12.50	\$11.25	Minor (3-digit)
121	194061 - Social Science Research Assistants	8	51	\$12.50	\$11.25	Minor (3-digit)
122	194071 - Forest and Conservation Technicians	8	51	\$12.50	\$11.25	Minor (3-digit)
123	194099 - Life, Physical, and Social Science Technicians, All Other	8	51	\$12.50	\$11.25	Minor (3-digit)
124	195011 - Occupational Health and Safety Specialists	6	51	\$10.65	\$8.65	Detailed (6-digit)
125	195012 - Occupational Health and Safety Technicians	9	57	\$11.11	\$10.00	Broad (5-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

		Emplo	Emplo	Hourly Wage	Hourly Wage	The 3-30 rule is Met at SOC
Row #	SOC Detailed Title 211011 - Substance Abuse and Behavioral Disorder	yers N	yees N 76	Mean	Median \$18.51	Level Broad (5-digit)
120	Counselors	9	76	\$18.47	\$10.51	broad (5-digit)
127	211012 - Educational, Guidance, and Career Counselors and Advisors	4	44	\$18.81	\$18.58	Detailed (6-digit)
128	211013 - Marriage and Family Therapists	9	76	\$18.47	\$18.51	Broad (5-digit)
129	211014 - Mental Health Counselors	9	76	\$18.47	\$18.51	Broad (5-digit)
130	211019 - Counselors, All Other	9	76	\$18.47	\$18.51	Broad (5-digit)
131	211021 - Child, Family, and School Social Workers	6	32	\$13.37	\$11.34	Detailed (6-digit)
132	211022 - Healthcare Social Workers	6	87	\$14.14	\$12.98	Broad (5-digit)
133	211023 - Mental Health and Substance Abuse Social Workers	6	87	\$14.14	\$12.98	Broad (5-digit)
134	211029 - Social Workers, All Other	6	87	\$14.14	\$12.98	Broad (5-digit)
135	211091 - Health Education Specialists	7	357	\$11.55	\$11.06	Broad (5-digit)
136	211092 - Probation Officers and Correctional Treatment Specialists	7	357	\$11.55	\$11.06	Broad (5-digit)
137	211093 - Social and Human Service Assistants	4	51	\$13.54	\$11.79	Detailed (6-digit)
138	211094 - Community Health Workers	4	100	\$12.77	\$12.00	Detailed (6-digit)
139	211099 - Community and Social Service Specialists, All Other	7	357	\$11.55	\$11.06	Broad (5-digit)
140	212011 - Clergy					Not Met
141	212021 - Directors, Religious Activities and Education					Not Met
142	212099 - Religious Workers, All Other					Not Met
143	231011 - Lawyers	16	50	\$42.11	\$34.18	Detailed (6-digit)
144	231012 - Judicial Law Clerks	16	63	\$37.55	\$30.29	Broad (5-digit)
145	231023 - Judges, Magistrate Judges, and Magistrates	16	71	\$39.99	\$32.81	Minor (3-digit)
146	232011 - Paralegals and Legal Assistants	10	33	\$13.82	\$12.40	Detailed (6-digit)
147	232093 - Title Examiners, Abstractors, and Searchers	10	39	\$14.06	\$12.40	Minor (3-digit)
148	251011 - Business Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
149	251021 - Computer Science Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
150	251022 - Mathematical Science Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
151	251042 - Biological Science Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
152	251052 - Chemistry Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
153	251066 - Psychology Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
154	251069 - Social Sciences Teachers, Postsecondary, All Other	8	56	\$23.64	\$22.46	Minor (3-digit)
155	251072 - Nursing Instructors and Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
156	251081 - Education Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
157	251121 - Art, Drama, and Music Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
158	251123 - English Language and Literature Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
159	251193 - Recreation and Fitness Studies Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

Row#	SOC Detailed Title	Emplo yers N	Emplo yees N	Hourly Wage Mean	Hourly Wage Median	The 3-30 rule is Met at SOC Level
160	251194 - Career/Technical Education Teachers, Postsecondary	8	56	\$23.64	\$22.46	Minor (3-digit)
161	251199 - Postsecondary Teachers, All Other	8	56	\$23.64	\$22.46	Minor (3-digit)
162	252011 - Preschool Teachers, Except Special Education	12	43	\$15.87	\$16.01	Broad (5-digit)
163	252012 - Kindergarten Teachers, Except Special Education	12	43	\$15.87	\$16.01	Broad (5-digit)
164	252021 - Elementary School Teachers, Except Special Education	11	283	\$19.73	\$20.07	Detailed (6-digit)
165	252022 - Middle School Teachers, Except Special and Career/Technical Education	6	89	\$19.11	\$20.07	Detailed (6-digit)
166	252023 - Career/Technical Education Teachers, Middle School	11	373	\$19.58	\$20.07	Broad (5-digit)
167	252031 - Secondary School Teachers, Except Special and Career/Technical Education	6	141	\$20.94	\$20.07	Detailed (6-digit)
168	252032 - Career/Technical Education Teachers, Secondary School	6	142	\$20.95	\$20.07	Broad (5-digit)
169	252051 - Special Education Teachers, Preschool	4	42	\$22.56	\$22.16	Broad (5-digit)
170	252056 - Special Education Teachers, Elementary School	4	42	\$22.56	\$22.16	Broad (5-digit)
171	252057 - Special Education Teachers, Middle School	4	42	\$22.56	\$22.16	Broad (5-digit)
172	252058 - Special Education Teachers, Secondary School	4	42	\$22.56	\$22.16	Broad (5-digit)
173	253011 - Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	18	100	\$15.27	\$13.20	Minor (3-digit)
174	253021 - Self-Enrichment Teachers	18	100	\$15.27	\$13.20	Minor (3-digit)
175	253031 - Substitute Teachers, Short-Term	18	100	\$15.27	\$13.20	Minor (3-digit)
176	253041 - Tutors	18	100	\$15.27	\$13.20	Minor (3-digit)
177	253099 - Teachers and Instructors, All Other	7	81	\$15.45	\$13.20	Detailed (6-digit)
178	254011 - Archivists					Not Met
179	254022 - Librarians and Media Collections Specialists					Not Met
180	254031 - Library Technicians					Not Met
181	259021 - Farm and Home Management Educators	11	186	\$11.77	\$10.18	Minor (3-digit)
182	259031 - Instructional Coordinators	11	186	\$11.77	\$10.18	Minor (3-digit)
183	259042 - Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education	9	156	\$10.39	\$9.69	Detailed (6-digit)
184	259049 - Teaching Assistants, All Other	10	158	\$10.35	\$9.69	Broad (5-digit)
185	271011 - Art Directors	41	94	\$8.67	\$8.00	Minor (3-digit)
186	271012 - Craft Artists	41	94	\$8.67	\$8.00	Minor (3-digit)
187	271013 - Fine Artists, Including Painters, Sculptors, and Illustrators	41	94	\$8.67	\$8.00	Minor (3-digit)
188	271019 - Artists and Related Workers, All Other	41	94	\$8.67	\$8.00	Minor (3-digit)
189	271023 - Floral Designers	39	89	\$8.48	\$8.00	Broad (5-digit)
190	271024 - Graphic Designers	28	42	\$8.16	\$7.94	Detailed (6-digit)
191	271025 - Interior Designers	39	89	\$8.48	\$8.00	Broad (5-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

D#	COC Detailed Tible	Emplo	Emplo	Hourly Wage	Hourly Wage	The 3-30 rule is Met at SOC
Row #	SOC Detailed Title 271026 - Merchandise Displayers and Window Trimmers	yers N 16	yees N 42	Mean \$8.87	Median \$9.10	Level Detailed (6-digit)
193	272012 - Producers and Directors	19	49	\$9.91	\$8.07	Minor (3-digit)
194	272022 - Coaches and Scouts	19	49	\$9.91	\$8.07	Minor (3-digit)
195	272023 - Umpires, Referees, and Other Sports Officials	19	49	\$9.91	\$8.07	Minor (3-digit)
196	272031 - Dancers	19	49	\$9.91	\$8.07	Minor (3-digit)
197	272032 - Choreographers	19	49	\$9.91	\$8.07	Minor (3-digit)
198	272042 - Musicians and Singers	19	49	\$9.91	\$8.07	Minor (3-digit)
199	272099 - Entertainers and Performers, Sports and Related Workers, All Other	19	49	\$9.91	\$8.07	Minor (3-digit)
200	273011 - Broadcast Announcers and Radio Disc Jockeys	18	49	\$11.40	\$9.80	Minor (3-digit)
201	273023 - News Analysts, Reporters, and Journalists	18	49	\$11.40	\$9.80	Minor (3-digit)
202	273031 - Public Relations Specialists	18	49	\$11.40	\$9.80	Minor (3-digit)
203	273041 - Editors	18	49	\$11.40	\$9.80	Minor (3-digit)
204	273042 - Technical Writers	18	49	\$11.40	\$9.80	Minor (3-digit)
205	273091 - Interpreters and Translators	18	49	\$11.40	\$9.80	Minor (3-digit)
206	274021 - Photographers					Not Met
207	291021 - Dentists, General	25	493	\$40.33	\$21.21	Minor (3-digit)
208	291023 - Orthodontists	25	493	\$40.33	\$21.21	Minor (3-digit)
209	291029 - Dentists, All Other Specialists	25	493	\$40.33	\$21.21	Minor (3-digit)
210	291031 - Dietitians and Nutritionists	25	493	\$40.33	\$21.21	Minor (3-digit)
211	291041 - Optometrists	25	493	\$40.33	\$21.21	Minor (3-digit)
212	291051 - Pharmacists	25	493	\$40.33	\$21.21	Minor (3-digit)
213	291071 - Physician Assistants	25	493	\$40.33	\$21.21	Minor (3-digit)
214	291081 - Podiatrists	25	493	\$40.33	\$21.21	Minor (3-digit)
215	291122 - Occupational Therapists	9	31	\$18.38	\$18.60	Broad (5-digit)
216	291123 - Physical Therapists	9	31	\$18.38	\$18.60	Broad (5-digit)
217	291126 - Respiratory Therapists	9	31	\$18.38	\$18.60	Broad (5-digit)
218	291129 - Therapists, All Other	9	31	\$18.38	\$18.60	Broad (5-digit)
219	291131 - Veterinarians	25	493	\$40.33	\$21.21	Minor (3-digit)
220	291141 - Registered Nurses	9	280	\$17.06	\$16.78	Detailed (6-digit)
221	291151 - Nurse Anesthetists	25	493	\$40.33	\$21.21	Minor (3-digit)
222	291161 - Nurse Midwives	25	493	\$40.33	\$21.21	Minor (3-digit)
223	291171 - Nurse Practitioners	25	493	\$40.33	\$21.21	Minor (3-digit)
224	291181 - Audiologists	25	493	\$40.33	\$21.21	Minor (3-digit)
225	291211 - Anesthesiologists	6	66	\$108.8 0	\$104.81	Broad (5-digit)
226	291212 - Cardiologists	6	66	\$108.8 0	\$104.81	Broad (5-digit)
227	291215 - Family Medicine Physicians	6	66	\$108.8 0	\$104.81	Broad (5-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

Row#	SOC Detailed Title	Emplo yers N	Emplo yees N	Hourly Wage Mean	Hourly Wage Median	The 3-30 rule is Met at SOC Level
228	291216 - General Internal Medicine Physicians	6	66	\$108.8 0	\$104.81	Broad (5-digit)
229	291218 - Obstetricians and Gynecologists	6	66	\$108.8 0	\$104.81	Broad (5-digit)
230	291221 - Pediatricians, General	25	493	\$40.33	\$21.21	Minor (3-digit)
231	291223 - Psychiatrists	25	493	\$40.33	\$21.21	Minor (3-digit)
232	291241 - Ophthalmologists, Except Pediatric	25	493	\$40.33	\$21.21	Minor (3-digit)
233	291242 - Orthopedic Surgeons, Except Pediatric	25	493	\$40.33	\$21.21	Minor (3-digit)
234	291292 - Dental Hygienists	25	493	\$40.33	\$21.21	Minor (3-digit)
235	292012 - Medical and Clinical Laboratory Technicians	13	238	\$12.81	\$12.26	Minor (3-digit)
236	292031 - Cardiovascular Technologists and Technicians	13	238	\$12.81	\$12.26	Minor (3-digit)
237	292032 - Diagnostic Medical Sonographers	13	238	\$12.81	\$12.26	Minor (3-digit)
238	292034 - Radiologic Technologists and Technicians	13	238	\$12.81	\$12.26	Minor (3-digit)
239	292042 - Emergency Medical Technicians	13	238	\$12.81	\$12.26	Minor (3-digit)
240	292051 - Dietetic Technicians	6	51	\$13.76	\$13.67	Broad (5-digit)
241	292052 - Pharmacy Technicians	6	51	\$13.76	\$13.67	Broad (5-digit)
242	292053 - Psychiatric Technicians	6	51	\$13.76	\$13.67	Broad (5-digit)
243	292056 - Veterinary Technologists and Technicians	6	51	\$13.76	\$13.67	Broad (5-digit)
244	292057 - Ophthalmic Medical Technicians	6	51	\$13.76	\$13.67	Broad (5-digit)
245	292061 - Licensed Practical and Licensed Vocational Nurses	4	44	\$14.52	\$13.58	Detailed (6-digit)
246	292072 - Medical Records Specialists	7	44	\$10.34	\$9.86	Detailed (6-digit)
247	292081 - Opticians, Dispensing	13	238	\$12.81	\$12.26	Minor (3-digit)
248	292099 - Health Technologists and Technicians, All Other	13	238	\$12.81	\$12.26	Minor (3-digit)
249	299021 - Health Information Technologists and Medical Registrars					Not Met
250	311121 - Home Health Aides	14	66	\$9.38	\$8.54	Minor (3-digit)
251	311122 - Personal Care Aides	14	66	\$9.38	\$8.54	Minor (3-digit)
252	311131 - Nursing Assistants	8	58	\$9.48	\$8.87	Detailed (6-digit)
253	311133 - Psychiatric Aides	8	60	\$9.62	\$9.44	Broad (5-digit)
254	312011 - Occupational Therapy Assistants					Not Met
255	312012 - Occupational Therapy Aides					Not Met
256	312021 - Physical Therapist Assistants					Not Met
257	319011 - Massage Therapists	20	55	\$7.74	\$7.25	Detailed (6-digit)
258	319091 - Dental Assistants	13	97	\$14.39	\$10.58	Broad (5-digit)
259	319092 - Medical Assistants	13	97	\$14.39	\$10.58	Broad (5-digit)
260	319093 - Medical Equipment Preparers	13	97	\$14.39	\$10.58	Broad (5-digit)
261	319094 - Medical Transcriptionists	13	97	\$14.39	\$10.58	Broad (5-digit)
262	319095 - Pharmacy Aides	13	97	\$14.39	\$10.58	Broad (5-digit)
263	319096 - Veterinary Assistants and Laboratory Animal Caretakers	13	97	\$14.39	\$10.58	Broad (5-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

				Hourly	Hourly	The 3-30 rule is
		Emplo	Emplo	Wage	Wage	Met at SOC
Row#	SOC Detailed Title	yers N	yees N	Mean	Median	Level
264	319097 - Phlebotomists	13	97	\$14.39	\$10.58	Broad (5-digit)
265	319099 - Healthcare Support Workers, All Other	13	97	\$14.39	\$10.58	Broad (5-digit)
266	331011 - First-Line Supervisors of Correctional Officers	6	92	\$15.93	\$15.35	Minor (3-digit)
267	331012 - First-Line Supervisors of Police and Detectives	6	92	\$15.93	\$15.35	Minor (3-digit)
268	331021 - First-Line Supervisors of Firefighting and Prevention Workers	6	92	\$15.93	\$15.35	Minor (3-digit)
269	331091 - First-Line Supervisors of Security Workers	6	92	\$15.93	\$15.35	Minor (3-digit)
270	331099 - First-Line Supervisors of Protective Service Workers, All Other	6	92	\$15.93	\$15.35	Minor (3-digit)
271	332011 - Firefighters					Not Met
272	333011 - Bailiffs					Not Met
273	333012 - Correctional Officers and Jailers					Not Met
274	333021 - Detectives and Criminal Investigators					Not Met
275	333031 - Fish and Game Wardens					Not Met
276	333051 - Police and Sheriff's Patrol Officers					Not Met
277	339011 - Animal Control Workers	50	618	\$7.72	\$7.25	Minor (3-digit)
278	339031 - Gambling Surveillance Officers and Gambling Investigators	4	32	\$12.42	\$13.23	Detailed (6-digit)
279	339032 - Security Guards	40	464	\$7.39	\$7.25	Detailed (6-digit)
280	339092 - Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	9	112	\$7.63	\$7.31	Detailed (6-digit)
281	339093 - Transportation Security Screeners	10	117	\$7.67	\$7.29	Broad (5-digit)
282	339099 - Protective Service Workers, All Other	10	117	\$7.67	\$7.29	Broad (5-digit)
283	351011 - Chefs and Head Cooks	32	106	\$13.87	\$11.62	Detailed (6-digit)
284	351012 - First-Line Supervisors of Food Preparation and Serving Workers	38	164	\$9.14	\$8.54	Detailed (6-digit)
285	352011 - Cooks, Fast Food	9	37	\$7.46	\$7.25	Detailed (6-digit)
286	352012 - Cooks, Institution and Cafeteria	14	67	\$8.62	\$8.15	Detailed (6-digit)
287	352013 - Cooks, Private Household	94	512	\$7.93	\$7.35	Broad (5-digit)
288	352014 - Cooks, Restaurant	65	365	\$7.92	\$7.32	Detailed (6-digit)
289	352015 - Cooks, Short Order	94	512	\$7.93	\$7.35	Broad (5-digit)
290	352019 - Cooks, All Other	94	512	\$7.93	\$7.35	Broad (5-digit)
291	352021 - Food Preparation Workers	36	129	\$8.39	\$7.46	Detailed (6-digit)
292	352022 - Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	36	130	\$8.38	\$7.45	Broad (5-digit)
293	353011 - Bartenders	17	46	\$8.23	\$7.35	Detailed (6-digit)
294	353023 - Fast Food and Counter Workers	23	185	\$7.41	\$7.25	Detailed (6-digit)
295	353031 - Waiters and Waitresses	72	479	\$8.11	\$7.30	Detailed (6-digit)
296	353041 - Food Servers, Nonrestaurant	8	102	\$7.35	\$7.25	Detailed (6-digit)
297	359011 - Dining Room and Cafeteria Attendants and Bartender Helpers	35	206	\$8.12	\$7.25	Minor (3-digit)
298	359021 - Dishwashers	16	62	\$7.63	\$7.25	Detailed (6-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

		Emplo	Emplo	Hourly Wage	Hourly Wage	The 3-30 rule is Met at SOC
Row #	SOC Detailed Title	yers N	yees N	Mean	Median	Level Minor (3-digit)
299	359031 - Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	35	206	\$8.12	\$7.25	ivilitor (5-digit)
300	359099 - Food Preparation and Serving Related Workers, All Other	17	102	\$7.54	\$7.25	Detailed (6-digit)
301	371011 - First-Line Supervisors of Housekeeping and Janitorial Workers	17	52	\$9.35	\$8.50	Detailed (6-digit)
302	371012 - First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	22	72	\$9.62	\$8.59	Broad (5-digit)
303	372011 - Janitors and Cleaners, Except Maids and Housekeeping Cleaners	96	251	\$7.69	\$7.25	Detailed (6-digit)
304	372012 - Maids and Housekeeping Cleaners	58	605	\$7.33	\$7.25	Detailed (6-digit)
305	372019 - Building Cleaning Workers, All Other	143	863	\$7.44	\$7.25	Broad (5-digit)
306	372021 - Pest Control Workers	144	865	\$7.44	\$7.25	Minor (3-digit)
307	373011 - Landscaping and Groundskeeping Workers	35	132	\$7.51	\$7.30	Detailed (6-digit)
308	373012 - Pesticide Handlers, Sprayers, and Applicators, Vegetation	44	169	\$7.93	\$7.35	Broad (5-digit)
309	373019 - Grounds Maintenance Workers, All Other	9	32	\$9.52	\$8.68	Detailed (6-digit)
310	391013 - First-Line Supervisors of Gambling Services Workers	16	50	\$11.63	\$9.75	Broad (5-digit)
311	391014 - First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services	16	50	\$11.63	\$9.75	Broad (5-digit)
312	392011 - Animal Trainers					Not Met
313	392021 - Animal Caretakers					Not Met
314	393011 - Gambling Dealers	12	156	\$8.14	\$7.25	Minor (3-digit)
315	393012 - Gambling and Sports Book Writers and Runners	12	156	\$8.14	\$7.25	Minor (3-digit)
316	393019 - Gambling Service Workers, All Other	12	156	\$8.14	\$7.25	Minor (3-digit)
317	393031 - Ushers, Lobby Attendants, and Ticket Takers	12	156	\$8.14	\$7.25	Minor (3-digit)
318	393091 - Amusement and Recreation Attendants	10	41	\$7.41	\$7.25	Detailed (6-digit)
319	393092 - Costume Attendants	11	56	\$7.41	\$7.25	Broad (5-digit)
320	393099 - Entertainment Attendants and Related Workers, All Other	11	56	\$7.41	\$7.25	Broad (5-digit)
321	394021 - Funeral Attendants					Not Met
322	395011 - Barbers	31	75	\$7.45	\$7.25	Broad (5-digit)
323	395012 - Hairdressers, Hairstylists, and Cosmetologists	29	64	\$7.49	\$7.25	Detailed (6-digit)
324	395092 - Manicurists and Pedicurists	32	80	\$7.44	\$7.25	Minor (3-digit)
325	395094 - Skincare Specialists	32	80	\$7.44	\$7.25	Minor (3-digit)
326	396011 - Baggage Porters and Bellhops	8	68	\$7.79	\$7.30	Broad (5-digit)
327	396012 - Concierges	6	47	\$7.98	\$7.49	Detailed (6-digit)
328	397011 - Tour Guides and Escorts	42	186	\$9.48	\$7.25	Detailed (6-digit)
329	397012 - Travel Guides	16	38	\$9.11	\$7.50	Detailed (6-digit)
330	399011 - Childcare Workers	10	49	\$7.27	\$7.25	Detailed (6-digit)
331	399031 - Exercise Trainers and Group Fitness Instructors	19	75	\$9.60	\$7.25	Minor (3-digit)
332	399032 - Recreation Workers	19	75	\$9.60	\$7.25	Minor (3-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

Row#	SOC Detailed Title	Emplo yers N	Emplo yees N	Hourly Wage Mean	Hourly Wage Median	The 3-30 rule is Met at SOC Level
333	399041 - Residential Advisors	19	75	\$9.60	\$7.25	Minor (3-digit)
334	399099 - Personal Care and Service Workers, All Other	19	75	\$9.60	\$7.25	Minor (3-digit)
335	411011 - First-Line Supervisors of Retail Sales Workers	42	109	\$9.46	\$8.00	Detailed (6-digit)
336	411012 - First-Line Supervisors of Non-Retail Sales Workers	50	120	\$9.36	\$8.00	Broad (5-digit)
337	412011 - Cashiers	88	326	\$8.60	\$7.25	Detailed (6-digit)
338	412012 - Gambling Change Persons and Booth Cashiers	10	41	\$7.81	\$7.25	Detailed (6-digit)
339	412021 - Counter and Rental Clerks	11	37	\$7.31	\$7.25	Detailed (6-digit)
340	412022 - Parts Salespersons	15	49	\$7.70	\$7.25	Broad (5-digit)
341	412031 - Retail Salespersons	54	467	\$8.57	\$7.80	Detailed (6-digit)
342	413011 - Advertising Sales Agents	48	132	\$9.78	\$9.85	Minor (3-digit)
343	413021 - Insurance Sales Agents	48	132	\$9.78	\$9.85	Minor (3-digit)
344	413041 - Travel Agents	48	132	\$9.78	\$9.85	Minor (3-digit)
345	413091 - Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	27	92	\$10.01	\$11.54	Detailed (6-digit)
346	414011 - Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	47	115	\$10.77	\$7.35	Broad (5-digit)
347	414012 - Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	41	88	\$9.27	\$7.25	Detailed (6-digit)
348	419011 - Demonstrators and Product Promoters	19	61	\$8.93	\$7.70	Minor (3-digit)
349	419022 - Real Estate Sales Agents	19	61	\$8.93	\$7.70	Minor (3-digit)
350	419031 - Sales Engineers	19	61	\$8.93	\$7.70	Minor (3-digit)
351	419041 - Telemarketers	19	61	\$8.93	\$7.70	Minor (3-digit)
352	419091 - Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	11	32	\$8.54	\$7.70	Broad (5-digit)
353	419099 - Sales and Related Workers, All Other	11	32	\$8.54	\$7.70	Broad (5-digit)
354	431011 - First-Line Supervisors of Office and Administrative Support Workers	47	105	\$12.41	\$12.02	Detailed (6-digit)
355	432011 - Switchboard Operators, Including Answering Service	7	43	\$9.62	\$9.71	Minor (3-digit)
356	432021 - Telephone Operators	7	43	\$9.62	\$9.71	Minor (3-digit)
357	432099 - Communications Equipment Operators, All Other	7	43	\$9.62	\$9.71	Minor (3-digit)
358	433011 - Bill and Account Collectors	163	446	\$10.40	\$8.25	Minor (3-digit)
359	433021 - Billing and Posting Clerks	26	42	\$10.97	\$9.69	Detailed (6-digit)
360	433031 - Bookkeeping, Accounting, and Auditing Clerks	120	221	\$9.87	\$8.00	Detailed (6-digit)
361	433041 - Gambling Cage Workers	13	79	\$9.29	\$7.25	Detailed (6-digit)
362	433051 - Payroll and Timekeeping Clerks	163	446	\$10.40	\$8.25	Minor (3-digit)
363	433061 - Procurement Clerks	19	48	\$12.79	\$12.20	Detailed (6-digit)
364	433071 - Tellers	4	31	\$12.39	\$11.00	Detailed (6-digit)
365	433099 - Financial Clerks, All Other	163	446	\$10.40	\$8.25	Minor (3-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

		Emplo	Emplo	Hourly Wage	Hourly Wage	The 3-30 rule is Met at SOC
Row #	SOC Detailed Title	yers N	yees N	Mean	Median	Level
366	434021 - Correspondence Clerks	114	750	\$9.64	\$8.00	Minor (3-digit)
367	434031 - Court, Municipal, and License Clerks	114	750	\$9.64	\$8.00	Minor (3-digit)
368	434041 - Credit Authorizers, Checkers, and Clerks	114	750	\$9.64	\$8.00	Minor (3-digit)
369	434051 - Customer Service Representatives	47	240	\$9.26	\$8.00	Detailed (6-digit)
370	434061 - Eligibility Interviewers, Government Programs	114	750	\$9.64	\$8.00	Minor (3-digit)
371	434071 - File Clerks	114	750	\$9.64	\$8.00	Minor (3-digit)
372	434081 - Hotel, Motel, and Resort Desk Clerks	20	128	\$7.72	\$7.50	Detailed (6-digit)
373	434121 - Library Assistants, Clerical	114	750	\$9.64	\$8.00	Minor (3-digit)
374	434131 - Loan Interviewers and Clerks	114	750	\$9.64	\$8.00	Minor (3-digit)
375	434141 - New Accounts Clerks	114	750	\$9.64	\$8.00	Minor (3-digit)
376	434151 - Order Clerks	114	750	\$9.64	\$8.00	Minor (3-digit)
377	434161 - Human Resources Assistants, Except Payroll and Timekeeping	114	750	\$9.64	\$8.00	Minor (3-digit)
378	434171 - Receptionists and Information Clerks	17	37	\$9.01	\$7.75	Detailed (6-digit)
379	434181 - Reservation and Transportation Ticket Agents and Travel Clerks	21	151	\$8.22	\$7.45	Detailed (6-digit)
380	434199 - Information and Record Clerks, All Other	114	750	\$9.64	\$8.00	Minor (3-digit)
381	435011 - Cargo and Freight Agents	12	101	\$8.03	\$7.25	Detailed (6-digit)
382	435021 - Couriers and Messengers	74	301	\$9.02	\$7.55	Minor (3-digit)
383	435031 - Public Safety Telecommunicators	74	301	\$9.02	\$7.55	Minor (3-digit)
384	435032 - Dispatchers, Except Police, Fire, and Ambulance	74	301	\$9.02	\$7.55	Minor (3-digit)
385	435041 - Meter Readers, Utilities	74	301	\$9.02	\$7.55	Minor (3-digit)
386	435051 - Postal Service Clerks	74	301	\$9.02	\$7.55	Minor (3-digit)
387	435052 - Postal Service Mail Carriers	74	301	\$9.02	\$7.55	Minor (3-digit)
388	435061 - Production, Planning, and Expediting Clerks	74	301	\$9.02	\$7.55	Minor (3-digit)
389	435071 - Shipping, Receiving, and Inventory Clerks	38	111	\$9.24	\$7.50	Detailed (6-digit)
390	435111 - Weighers, Measurers, Checkers, and Samplers, Recordkeeping	74	301	\$9.02	\$7.55	Minor (3-digit)
391	436011 - Executive Secretaries and Executive Administrative Assistants	49	245	\$13.94	\$11.89	Detailed (6-digit)
392	436012 - Legal Secretaries and Administrative Assistants	110	420	\$12.48	\$11.00	Broad (5-digit)
393	436013 - Medical Secretaries and Administrative Assistants	110	420	\$12.48	\$11.00	Broad (5-digit)
394	436014 - Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	64	148	\$10.25	\$9.00	Detailed (6-digit)
395	439011 - Computer Operators	110	420	\$12.48	\$11.00	Minor (3-digit)
396	439021 - Data Entry Keyers	100	664	\$10.76	\$9.00	Minor (3-digit)
397	439022 - Word Processors and Typists	100	664	\$10.76	\$9.00	Minor (3-digit)
398	439041 - Insurance Claims and Policy Processing Clerks	100	664	\$10.76	\$9.00	Minor (3-digit)
399	439061 - Office Clerks, General	80	600	\$10.56	\$9.00	Detailed (6-digit)
400	439071 - Office Machine Operators, Except Computer	100	664	\$10.76	\$9.00	Minor (3-digit)
401	439081 - Proofreaders and Copy Markers	100	664	\$10.76	\$9.00	Minor (3-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

Row#	SOC Detailed Title	Emplo yers N	Emplo yees N	Hourly Wage Mean	Hourly Wage Median	The 3-30 rule is Met at SOC Level
402	439111 - Statistical Assistants	100	664	\$10.76	\$9.00	Minor (3-digit)
403	439199 - Office and Administrative Support Workers, All Other	16	42	\$13.06	\$11.22	Detailed (6-digit)
404	451011 - First-Line Supervisors of Farming, Fishing, and Forestry Workers					Not Met
405	452092 - Farmworkers and Laborers, Crop, Nursery, and Greenhouse					Not Met
406	452093 - Farmworkers, Farm, Ranch, and Aquacultural Animals					Not Met
407	452099 - Agricultural Workers, All Other					Not Met
408	453031 - Fishing and Hunting Workers	20	46	\$8.35	\$7.25	Major (2-digit)
409	454011 - Forest and Conservation Workers					Not Met
410	471011 - First-Line Supervisors of Construction Trades and Extraction Workers					Not Met
411	472021 - Brickmasons and Blockmasons	76	728	\$13.83	\$7.95	Minor (3-digit)
412	472031 - Carpenters	23	252	\$20.34	\$25.97	Detailed (6-digit)
413	472041 - Carpet Installers	76	728	\$13.83	\$7.95	Minor (3-digit)
414	472044 - Tile and Stone Setters	76	728	\$13.83	\$7.95	Minor (3-digit)
415	472051 - Cement Masons and Concrete Finishers	18	93	\$7.76	\$7.30	Detailed (6-digit)
416	472061 - Construction Laborers	18	108	\$8.09	\$7.25	Detailed (6-digit)
417	472073- Operating Engineers and Other Construction Equipment Operators	12	93	\$9.05	\$8.39	Detailed (6-digit)
418	472111 - Electricians	37	78	\$9.60	\$7.61	Detailed (6-digit)
419	472141 - Painters, Construction and Maintenance	6	56	\$24.10	\$26.89	Detailed (6-digit)
420	472152 - Plumbers, Pipefitters, and Steamfitters	76	728	\$13.83	\$7.95	Minor (3-digit)
421	472171 - Reinforcing Iron and Rebar Workers	76	728	\$13.83	\$7.95	Minor (3-digit)
422	472211 - Sheet Metal Workers	76	728	\$13.83	\$7.95	Minor (3-digit)
423	472221 - Structural Iron and Steel Workers	76	728	\$13.83	\$7.95	Minor (3-digit)
424	472231 - Solar Photovoltaic Installers	76	728	\$13.83	\$7.95	Minor (3-digit)
425	473012 - HelpersCarpenters	12	94	\$9.76	\$8.39	Broad (5-digit)
426	473019 - Helpers, Construction Trades, All Other	11	91	\$9.82	\$8.39	Detailed (6-digit)
427	474011 - Construction and Building Inspectors	10	34	\$13.55	\$12.56	Minor (3-digit)
428	474021 - Elevator and Escalator Installers and Repairers	10	34	\$13.55	\$12.56	Minor (3-digit)
429	474051 - Highway Maintenance Workers	10	34	\$13.55	\$12.56	Minor (3-digit)
430	474071 - Septic Tank Servicers and Sewer Pipe Cleaners	10	34	\$13.55	\$12.56	Minor (3-digit)
431	474099 - Construction and Related Workers, All Other	10	34	\$13.55	\$12.56	Minor (3-digit)
432	475022 - Excavating and Loading Machine and Dragline Operators, Surface Mining					Not Met
433	475051 - Rock Splitters, Quarry					Not Met
434	475081 - HelpersExtraction Workers					Not Met
435	491011 - First-Line Supervisors of Mechanics, Installers, and Repairers	27	45	\$16.64	\$12.72	Detailed (6-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

Day: #	SOC Detailed Title	Emplo	Emplo	Hourly Wage	Hourly Wage	The 3-30 rule is Met at SOC
Row # 436	492011 - Computer, Automated Teller, and Office	yers N 29	yees N 53	Mean \$10.93	Median \$8.00	Level Minor (3-digit)
437	Machine Repairers 492021 - Radio, Cellular, and Tower Equipment Installers and Repairers	29	53	\$10.93	\$8.00	Minor (3-digit)
438	492022 - Telecommunications Equipment Installers and Repairers, Except Line Installers	29	53	\$10.93	\$8.00	Minor (3-digit)
439	492091 - Avionics Technicians	29	53	\$10.93	\$8.00	Minor (3-digit)
440	492092 - Electric Motor, Power Tool, and Related Repairers	29	53	\$10.93	\$8.00	Minor (3-digit)
441	492093 - Electrical and Electronics Installers and Repairers, Transportation Equipment	29	53	\$10.93	\$8.00	Minor (3-digit)
442	492094 - Electrical and Electronics Repairers, Commercial and Industrial Equipment	29	53	\$10.93	\$8.00	Minor (3-digit)
443	492096 - Electronic Equipment Installers and Repairers, Motor Vehicles	29	53	\$10.93	\$8.00	Minor (3-digit)
444	492097 - Audiovisual Equipment Installers and Repairers	29	53	\$10.93	\$8.00	Minor (3-digit)
445	492098 - Security and Fire Alarm Systems Installers	29	53	\$10.93	\$8.00	Minor (3-digit)
446	493011 - Aircraft Mechanics and Service Technicians	8	38	\$15.63	\$12.98	Detailed (6-digit)
447	493021 - Automotive Body and Related Repairers	53	86	\$8.06	\$7.32	Broad (5-digit)
448	493022 - Automotive Glass Installers and Repairers	53	86	\$8.06	\$7.32	Broad (5-digit)
449	493023 - Automotive Service Technicians and Mechanics	41	59	\$7.98	\$7.25	Detailed (6-digit)
450	493031 - Bus and Truck Mechanics and Diesel Engine Specialists	19	44	\$10.19	\$8.21	Detailed (6-digit)
451	493042 - Mobile Heavy Equipment Mechanics, Except Engines	14	51	\$8.73	\$8.00	Detailed (6-digit)
452	493051 - Motorboat Mechanics and Service Technicians	93	242	\$9.77	\$8.00	Minor (3-digit)
453	493053 - Outdoor Power Equipment and Other Small Engine Mechanics	93	242	\$9.77	\$8.00	Minor (3-digit)
454	493093 - Tire Repairers and Changers	93	242	\$9.77	\$8.00	Minor (3-digit)
455	499011 - Mechanical Door Repairers	252	993	\$9.54	\$7.67	Minor (3-digit)
456	499021 - Heating, Air Conditioning, and Refrigeration Mechanics and Installers	35	77	\$8.08	\$7.65	Detailed (6-digit)
457	499041 - Industrial Machinery Mechanics	16	36	\$10.85	\$8.58	Broad (5-digit)
458	499043 - Maintenance Workers, Machinery	16	36	\$10.85	\$8.58	Broad (5-digit)
459	499051 - Electrical Power-Line Installers and Repairers	4	61	\$19.91	\$16.84	Broad (5-digit)
460	499052 - Telecommunications Line Installers and Repairers	4	61	\$19.91	\$16.84	Broad (5-digit)
461	499061 - Camera and Photographic Equipment Repairers	252	993	\$9.54	\$7.67	Minor (3-digit)
462	499062 - Medical Equipment Repairers	252	993	\$9.54	\$7.67	Minor (3-digit)
463	499071 - Maintenance and Repair Workers, General	186	642	\$8.33	\$7.50	Detailed (6-digit)
464	499081 - Wind Turbine Service Technicians	252	993	\$9.54	\$7.67	Minor (3-digit)
465	499091 - Coin, Vending, and Amusement Machine Servicers and Repairers	46	162	\$10.61	\$10.12	Broad (5-digit)
466	499092 - Commercial Divers	46	162	\$10.61	\$10.12	Broad (5-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

Row#	SOC Detailed Title	Emplo yers N	Emplo yees N	Hourly Wage Mean	Hourly Wage Median	The 3-30 rule is Met at SOC Level
467	499096 - Riggers	46	162	\$10.61	\$10.12	Broad (5-digit)
468	499097 - Signal and Track Switch Repairers	46	162	\$10.61	\$10.12	Broad (5-digit)
469	499098 - HelpersInstallation, Maintenance, and Repair Workers	20	119	\$11.04	\$10.58	Detailed (6-digit)
470	499099 - Installation, Maintenance, and Repair Workers, All Other	46	162	\$10.61	\$10.12	Broad (5-digit)
471	511011 - First-Line Supervisors of Production and Operating Workers					Not Met
472	512031 - Engine and Other Machine Assemblers					Not Met
473	512041 - Structural Metal Fabricators and Fitters					Not Met
474	512051 - Fiberglass Laminators and Fabricators					Not Met
475	512099 - Assemblers and Fabricators, All Other					Not Met
476	513011 - Bakers	19	78	\$7.55	\$7.48	Detailed (6-digit)
477	513021 - Butchers and Meat Cutters	36	112	\$7.59	\$7.40	Minor (3-digit)
478	513022 - Meat, Poultry, and Fish Cutters and Trimmers	36	112	\$7.59	\$7.40	Minor (3-digit)
479	513023 - Slaughterers and Meat Packers	36	112	\$7.59	\$7.40	Minor (3-digit)
480	513092 - Food Batchmakers	36	112	\$7.59	\$7.40	Minor (3-digit)
481	513093 - Food Cooking Machine Operators and Tenders	36	112	\$7.59	\$7.40	Minor (3-digit)
482	513099 - Food Processing Workers, All Other	36	112	\$7.59	\$7.40	Minor (3-digit)
483	514034 - Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	24	114	\$16.04	\$8.98	Minor (3-digit)
484	514041 - Machinists	24	114	\$16.04	\$8.98	Minor (3-digit)
485	514121 - Welders, Cutters, Solderers, and Brazers	19	89	\$18.02	\$10.50	Detailed (6-digit)
486	514122 - Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	21	93	\$17.62	\$10.50	Broad (5-digit)
487	515111 - Prepress Technicians and Workers					Not Met
488	515112 - Printing Press Operators					Not Met
489	515113 - Print Binding and Finishing Workers					Not Met
490	516011 - Laundry and Dry-Cleaning Workers	20	94	\$7.45	\$7.25	Detailed (6-digit)
491	516031 - Sewing Machine Operators	41	133	\$7.43	\$7.25	Minor (3-digit)
492	516051 - Sewers, Hand	41	133	\$7.43	\$7.25	Minor (3-digit)
493	516052 - Tailors, Dressmakers, and Custom Sewers	41	133	\$7.43	\$7.25	Minor (3-digit)
494	516092 - Fabric and Apparel Patternmakers	41	133	\$7.43	\$7.25	Minor (3-digit)
495	516093 - Upholsterers	41	133	\$7.43	\$7.25	Minor (3-digit)
496	517011 - Cabinetmakers and Bench Carpenters					Not Met
497	518013 - Power Plant Operators	5	38	\$13.63	\$13.18	Detailed (6-digit)
498	518031 - Water and Wastewater Treatment Plant and System Operators	12	63	\$15.68	\$13.60	Minor (3-digit)
499	518092 - Gas Plant Operators	12	63	\$15.68	\$13.60	Minor (3-digit)
500	518093 - Petroleum Pump System Operators, Refinery Operators, and Gaugers	12	63	\$15.68	\$13.60	Minor (3-digit)
501	518099 - Plant and System Operators, All Other	12	63	\$15.68	\$13.60	Minor (3-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

				Hourly	Hourly	The 3-30 rule is
		Emplo	Emplo	Wage	Wage	Met at SOC
Row #	SOC Detailed Title	yers N	yees N	Mean	Median	Level
502	519021 - Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	38	123	\$8.29	\$7.50	Minor (3-digit)
503	519023 - Mixing and Blending Machine Setters, Operators, and Tenders	38	123	\$8.29	\$7.50	Minor (3-digit)
504	519051 - Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	38	123	\$8.29	\$7.50	Minor (3-digit)
505	519061 - Inspectors, Testers, Sorters, Samplers, and Weighers	38	123	\$8.29	\$7.50	Minor (3-digit)
506	519071 - Jewelers and Precious Stone and Metal Workers	38	123	\$8.29	\$7.50	Minor (3-digit)
507	519081 - Dental Laboratory Technicians	38	123	\$8.29	\$7.50	Minor (3-digit)
508	519111 - Packaging and Filling Machine Operators and Tenders	38	123	\$8.29	\$7.50	Minor (3-digit)
509	519123 - Painting, Coating, and Decorating Workers	38	123	\$8.29	\$7.50	Minor (3-digit)
510	519124 - Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	38	123	\$8.29	\$7.50	Minor (3-digit)
511	519192 - Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	20	73	\$7.63	\$7.28	Broad (5-digit)
512	519193 - Cooling and Freezing Equipment Operators and Tenders	20	73	\$7.63	\$7.28	Broad (5-digit)
513	519194 - Etchers and Engravers	20	73	\$7.63	\$7.28	Broad (5-digit)
514	519195 - Molders, Shapers, and Casters, Except Metal and Plastic	20	73	\$7.63	\$7.28	Broad (5-digit)
515	519198 - HelpersProduction Workers	12	42	\$7.45	\$7.25	Detailed (6-digit)
516	519199 - Production Workers, All Other	20	73	\$7.63	\$7.28	Broad (5-digit)
517	531041 - Aircraft Cargo Handling Supervisors	7	32	\$11.77	\$10.63	Detailed (6-digit)
518	531042 - First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	28	78	\$11.39	\$9.88	Broad (5-digit)
519	531043 - First-Line Supervisors of Material-Moving Machine and Vehicle Operators	28	78	\$11.39	\$9.88	Broad (5-digit)
520	531044 - First-Line Supervisors of Passenger Attendants	28	78	\$11.39	\$9.88	Broad (5-digit)
521	531049 - First-Line Supervisors of Transportation Workers, All Other	28	78	\$11.39	\$9.88	Broad (5-digit)
522	532011 - Airline Pilots, Copilots, and Flight Engineers	6	57	\$13.47	\$9.78	Minor (3-digit)
523	532012 - Commercial Pilots	6	57	\$13.47	\$9.78	Minor (3-digit)
524	532021 - Air Traffic Controllers	6	57	\$13.47	\$9.78	Minor (3-digit)
525	532022 - Airfield Operations Specialists	6	57	\$13.47	\$9.78	Minor (3-digit)
526	533011 - Ambulance Drivers and Attendants, Except Emergency Medical Technicians	79	466	\$8.38	\$7.61	Minor (3-digit)
527	533031 - Driver/Sales Workers	34	125	\$7.65	\$7.25	Detailed (6-digit)
528	533032 - Heavy and Tractor-Trailer Truck Drivers	17	113	\$8.11	\$7.77	Detailed (6-digit)
529	533033 - Light Truck Drivers	13	63	\$7.53	\$7.50	Detailed (6-digit)
530	533051 - Bus Drivers, School	17	157	\$9.51	\$7.95	Broad (5-digit)
531	533052 - Bus Drivers, Transit and Intercity	8	88	\$9.25	\$7.76	Detailed (6-digit)
532	533053 - Shuttle Drivers and Chauffeurs	17	157	\$9.51	\$7.95	Broad (5-digit)

Table A1. Hourly Wage Statistics for PERM, H-1B, and H-2B Visas: 2019, CNMI

Row #	SOC Detailed Title	Emplo yers N	Emplo yees N	Hourly Wage Mean	Hourly Wage Median	The 3-30 rule is Met at SOC Level
533	533054 - Taxi Drivers	17	157	\$9.51	\$7.95	Broad (5-digit)
534	533099 - Motor Vehicle Operators, All Other	79	466	\$8.38	\$7.61	Minor (3-digit)
535	535011 - Sailors and Marine Oilers	26	63	\$10.83	\$9.51	Minor (3-digit)
536	535021 - Captains, Mates, and Pilots of Water Vessels	19	42	\$11.78	\$12.65	Detailed (6-digit)
537	535022 - Motorboat Operators	23	49	\$11.63	\$12.00	Broad (5-digit)
538	536021 - Parking Attendants	17	73	\$7.49	\$7.25	Minor (3-digit)
539	536031 - Automotive and Watercraft Service Attendants	7	38	\$7.35	\$7.25	Detailed (6-digit)
540	536041 - Traffic Technicians	17	73	\$7.49	\$7.25	Minor (3-digit)
541	536061 - Passenger Attendants	17	73	\$7.49	\$7.25	Minor (3-digit)
542	536099 - Transportation Workers, All Other	17	73	\$7.49	\$7.25	Minor (3-digit)
543	537011 - Conveyor Operators and Tenders	80	473	\$8.18	\$7.26	Minor (3-digit)
544	537021 - Crane and Tower Operators	80	473	\$8.18	\$7.26	Minor (3-digit)
545	537041 - Hoist and Winch Operators		473	\$8.18	\$7.26	Minor (3-digit)
546	537051 - Industrial Truck and Tractor Operators	80	473	\$8.18	\$7.26	Minor (3-digit)
547	537061 - Cleaners of Vehicles and Equipment	10	71	\$7.49	\$7.25	Detailed (6-digit)
548	537062 - Laborers and Freight, Stock, and Material Movers, Hand	5	61	\$9.21	\$9.05	Detailed (6-digit)
549	537063 - Machine Feeders and Offbearers	61	338	\$8.07	\$7.25	Broad (5-digit)
550	537064 - Packers and Packagers, Hand	61	338	\$8.07	\$7.25	Broad (5-digit)
551	537065 - Stockers and Order Fillers	47	182	\$7.93	\$7.25	Detailed (6-digit)
552	537072 - Pump Operators, Except Wellhead Pumpers	80	473	\$8.18	\$7.26	Minor (3-digit)
553	537081 - Refuse and Recyclable Material Collectors	6	33	\$7.51	\$7.30	Detailed (6-digit)
554	537199 - Material Moving Workers, All Other	80	473	\$8.18	\$7.26	Minor (3-digit)
	Grand Total	937	19,621	\$12.74	\$8.65	

APPENDIX B: SAMPLE ETA FORM 9165

This appendix presents a sample of the Form ETA-9165 completed using the 2019 PWS as the source of survey data. The sample uses the detailed occupation title **Barber**, SOC six-digit code **395011**. Please note on the sample form that Parts A, B, and F are not filled out. These are employer-specific and self-explanatory. The sample form is filled out on Parts C, D, and E. The sample entries are specified below and are highlighted in yellow in the sample form.

Part C:

- C.1 Enter: "2019 Prevailing Wage Study, CNMI".
- C.2. Only mark yes to this if your company has an active bargaining agreement covering the position on this application.
- C.3. Currently there is no professional sports league active in the CNMI so this would be usually "No". But be sure to confirm for your company.
- C.4. Check "No".
- C.5. Enter "Central Statistics Division, CNMI Department of Commerce".
- C.6. Enter "Director"
- C.6.a Enter "Andrew".
- C.6.b Enter "Justin".
- C.7. Check "Yes".
- C.8. Check "Yes".

All entries on Part C are standard and should be the same on each ETA form.

Part D:

- D.1 Enter the "detailed SOC occupation title" (for example, "513011 Barber").
- D.2 Enter the "detailed SOC occupation definition"
- D.3 Enter "Commonwealth of the Northern Mariana Islands".
- D.4 Check "No".
- D.4.a & b Leave blank.

Note: D.1 and D.2 entries are specific to type of occupation title being applied for while D.3 & D.4 entries are standard and should be the same on each ETA form.

Part E:

- E.1 Enter "2,754".
- E.2 Check "All employers employing workers in occupation(s).
- E.3.a & b Leave blank.
- E.4 Enter "2,754".
- E.5 Check "Yes".
- E.6 Check "Yes".
- E.7 Check "Yes".
- E.7.a \$7.55 (this figure is from Table A1, row # 476, Hourly Wage Mean column).
- E.7.b Check "hourly".
- E.8 Leave blank.
- E.9 Enter 19 (this figure is from Table A1, row # 476, Employers N column).
- E.10 Check "Yes".
- E.11 Check "Yes".

Note: Items D.7 & D.9 are specific to the occupation title being applied for and are obtained from Appendix A, Table A1. The rest of the items under this part are standard and should be the same on each form.

This sample is being provided with the sole purpose of assisting employers complete the Form ETA 9165, but in no way serve as an assurance that the application will be approved. Approval of a worker visa application rests on the NPWC.

OMB Approval: 1205-0509 Expiration Date: 05/31/2022

Employer-Provided Survey Attestations to Accompany H-2B Prevailing Wage Determination Request Based on a Non-OES Survey Form ETA-9165



U.S. Department of Labor

This form is for use with Non-Occupational Employment Statistics (Non-OES) surveys. Please read and review the Form ETA-9165 form instructions carefully before completing this form and print legibly. A copy of the instructions can be found at https://www.foreignlaborcert.doleta.gov/. Those items marked with an asterisk (*) are required and must be completed. Items marked with the section symbol (§) are conditional and are to be completed if the required if the condition is met.

A. Employer Point-of-Contact	Information											
Contact's Last (family) Name	· *	2. First (given) Nar	ne *		3. Middle Na	me(s) {	ş					
4. Telephone Number *		5. Extension §		6. Fax Nu	ımber §							
7. E-Mail Address *			1									
B. Employer Information												
Legal business name *												
2. Trade name/Doing Business As (DBA), if applicable §												
3. Telephone number * 4. Extension §												
5. Federal Employer Identification	on Number (FEIN f	from IRS) *	6. NAIC	S code (m	ust be at least 4-0	digits) *						
C. Employer-Provided Survey	nformation											
 Survey name or title * 2019 Prevaling Wage 	Study, CNMI											
2. Is there a collective bargainin	g agreement (CB	A) applicable to the j	ob opportu	unity? *			Yes		No			
3. Are professional sports league	e's rules or regula	tions applicable to th	e job oppo	ortunity? *			Yes		No			
4. Is the surveyor an H-2B empl	-	•	-	•			Yes		No			
5. Enter the complete name of t		. ,	_		•							
Central Statistics I	•											
6. Enter the name of the official Director, Central S	-		-	-	•	ce						
a. Contact's Last (family) Name Andrew	*		b. First (gi	ven) Name Stin	e *							
7. Is the survey based on wages	paid 24 months o	or less before the dat	e of surve	y submiss	ion to ETA? *		Yes		No			
8. Is this the most recent edition	of the survey? (If	this is the only editio	n, answer	"yes".) *			Yes		No			

OMB Approval: 1205-0509 Expiration Date: 05/31/2022

Employer-Provided Survey Attestations to Accompany H-2B Prevailing Wage Determination Request Based on a Non-OES Survey Form ETA-9165



U.S. Department of Labor

D.Relationship to job opportunity listed on the Form ETA-9141

1. Title(s) of the job(s) included in the survey * Enter "The detailed SOC occupation title" (example, "513011 - Bakers")		
Duties of the job(s) included in the survey (attach additional sheets as necessary) *		
Enter the detailed SOC occupation definition		
Enter the detailed 500 occupation definition		
3. Identify the area of intended employment covered by the survey. *		
(Please refer to the instructions for the definition of area of intended employment)		
Commonwealth of the Northern Mariana Isla	nds	
4. Was the survey expanded to include workers beyond the area of intended employment? *	□ Yes	☑ No
4a. If yes to question 4, provide the geographic area surveyed §	1	
4b. If use to question 4, indicate the reason/s) the survey uses expended beyond the area of intended	amala, mant	
4b. If yes to question 4, indicate the reason(s) the survey was expanded beyond the area of intended (check all that apply) §	employment	
☐ to meet the 30 worker minimum. §		
☐ to meet the 3 employer minimum. §		
. Survey Methodology		
 For the geographic area surveyed, provide the universe (number) of employers determined to emp Occupation, including employers who were not surveyed. * 2.754 	loy workers in th	e
For the geographic area surveyed, provide the sources used to determine the universe (number) of	of employers who	0
employ workers in the occupation: *		
CNMI Department of Finance		
3. For the geographic area surveyed, did the surveyor attempt to contact: ? * (Choose only one)		
☑ All employers employing workers in occupation(s) ☐ A sample of employers in the geographic	area	
3a. If a sample, was the sample randomly selected? §	☐ Yes	□ No
3b. If a sample, provide a brief summary of the procedures used to randomize the sample: §	10	
1. The total number of employers from whom the surveyor attempted to solicit a survey response: * 2	.754	

OMB Approval: 1205-0509 Expiration Date: 05/31/2022

Employer-Provided Survey Attestations to Accompany H-2B Prevailing Wage Determination Request Based on a Non-OES Survey Form ETA-9165



U.S. Department of Labor

For each responding employer, the survey inclu occupation regardless of skill level or experience			+	☐ Yes	□ No
6. The survey includes data collected across indus	stries that emplo	by workers in the occupati	ion. *	☐ Yes	□ No
7. The survey reflects the mean wage for all works	ers it covers. *			☐ Yes	□ No
7a.The mean wage is § \$\frac{1}{55}\$		ırly Wage Mean column	١,		oose only one) § Week Month
8. The survey reflects the median wage for all wor		☐ Yes	☑ No		
8a.The median wage is §				8b. Per: (Cho	oose only one) §
\$				☐ Hour ☐	Week 🛭 Month
9. The hourly, weekly, or monthly wage reported fr	rom the survey:		·		
a. Is based on data provided by how many emplo (Minimum of 3 employers) from row #476, Emp column, Table A1		linimum of 30	upation in the workers)		
 The hourly, weekly, or monthly wage rate repo wages paid to workers, including base rate of deadheading pay, guaranteed pay, hazard pa portal-to-portal rate, production bonus, and tip 	pay, commission, incentive pay	ons, cost-of-living allowanc		☑ Yes	□ No
11. Does the survey include wages from workers status? *	in the occupation	on regardless of immigration	on	☐ Yes	□ No
F. Employer Declaration I declare under penalty of perjury that I have read and rev therein is true and accurate. I understand that to knowingly thereto or to aid, abet, or counsel another to do so is a fed	y furnish materiall	y false information in the prepa	aration of	this form and a	any supplement
Last (family) Name *	2. First (giver	· ,	•	lle Name(s) {	
4. Title *					
5. Signature*			6. Date	Signed*	

G. Public Burden Statement (1205-0509)

Persons are not required to respond to this collection of information unless it displays a currently valid OMB control number. The respondent's reply to these reporting requirements is required to obtain the benefits of temporary employment certification (Immigration and Nationality Act, Section 101). Public reporting burden for this collection of information is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate to the Office of Foreign Labor Certification • U.S. Department of Labor • Box 12-200 • 200 Constitution Ave., NW, • Washington, DC 20210. **Do NOT send the completed application to this address.**

APPENDIX C: 2019 PWS QUESTIONNAIRE

COMMERCE OF THE PARTY OF THE PA

2019 CNMI Prevailing Wage

Employer Information

	Email of POC	
	Phone Number of POC	
	Point of Contact Phone Number of (POC)	
lation	Total Employee Count	
Limpioyer innomination	Village in which the business Total Employee operates	
	Island in which the business operates	
	Company NAICS Number	
	Company Name	

COMMERCE ON NV dries

2019 CNMI Prevailing Wage

Employee Information

	Total Pay for Last Total Hours Worked in the Last Pay Period Pay Period		
	Total Pay for Last Pay Period		
Limproj ve milominadon	Position Title		
	NAIC Code		
	Standard Occupational Classification (SOC) Code		

APPENDIX D:

EMPLOYERS N, EMPLOYEES N, AND HOURLY WAGE RATE BY SOC MAJOR, MINOR, BROAD, AND DETAILED TITLES: CNMI, 2019

7 111030 - Legislators D* 8 111001 - Legislators D* 9 112000 - Advertising, Marketing, Promotions, Public Relations, and Sales Managers 110 10 112010 - Advertising and Promotions Managers D* 11 112011 - Advertising and Promotions Managers D* 12 112020 - Marketing and Sales Managers 105 13 112021 - Marketing Managers 48 14 112022 - Sales Managers 72 15 112030 - Public Relations and Fundraising Managers 8 16 112032 - Public Relations Managers 8 17 113000 - Operations Specialties Managers 151 3 18 113010 - Administrative Services and Facilities Managers 61 1 19 113012 - Administrative Services Managers 60 1 20 113013 - Facilities Managers D* D 21 113020 - Computer and Information Systems Managers 21	9 \$36.27 9 \$36.27 8 \$17.63 8 \$17.63 3 D*** 1 \$16.13 * D***	\$17.36 \$16.00 \$25.78 \$25.78 \$13.55 D*** D*** \$12.50 D*** \$12.50 \$14.21 \$11.52 D*** D***
3 111010 - Chief Executives 129 2 4 111011 - Chief Executives 129 2 5 111020 - General and Operations Managers 459 6 6 111021 - General and Operations Managers 459 6 7 111030 - Legislators D* 1 8 111031 - Legislators D* 1 9 112000 - Advertising, Marketing, Promotions, Public Relations, and Sales Managers 110 1 10 112010 - Advertising and Promotions Managers D* D 11 112011 - Advertising and Promotions Managers D* D 12 112020 - Marketing and Sales Managers 105 1 13 112021 - Marketing Managers 48 1 14 112022 - Sales Managers 48 1 15 112030 - Public Relations and Fundraising Managers 8 1 16 112032 - Public Relations Managers 8 1 18 113000 - Operations Specialties Managers 61 1 19 113012 - Administrative Services and Facilities Managers 60 1 20 </td <td>9 \$36.27 9 \$36.27 8 \$17.63 8 \$17.63 3 D*** 1 \$16.13 * D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***</td> <td>\$25.78 \$25.78 \$13.55 \$13.55 D*** D*** \$12.50 D*** \$12.50 \$14.21 \$11.52 D***</td>	9 \$36.27 9 \$36.27 8 \$17.63 8 \$17.63 3 D*** 1 \$16.13 * D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***	\$25.78 \$25.78 \$13.55 \$13.55 D*** D*** \$12.50 D*** \$12.50 \$14.21 \$11.52 D***
4 111011 - Chief Executives 129 2 5 111020 - General and Operations Managers 459 66 6 111031 - General and Operations Managers 459 6 7 111030 - Legislators 0* 1 8 11031 - Legislators 0* 1 9 112000 - Advertising, Marketing, Promotions, Public Relations, and Sales Managers 110 1 10 112010 - Advertising and Promotions Managers 0* 0 11 112011 - Advertising and Promotions Managers 0* 0 12 112020 - Marketing and Sales Managers 105 1 13 112021 - Marketing Managers 48 1 14 112022 - Sales Managers 72 5 15 112030 - Public Relations and Fundraising Managers 8 1 16 112032 - Public Relations Amanagers 8 1 17 113000 - Operations Specialties Managers 151 3 18 113010 - Administrative Services and Facilities Managers 61 1 20 113013 - Facilities Managers 0* 1 <td< td=""><td>9 \$36.27 8 \$17.63 8 \$17.63 3 D*** 1 \$16.13 * D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***</td><td>\$25.78 \$13.55 \$13.55 D*** D*** \$12.50 D*** \$12.50 \$14.21 \$11.52 D***</td></td<>	9 \$36.27 8 \$17.63 8 \$17.63 3 D*** 1 \$16.13 * D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***	\$25.78 \$13.55 \$13.55 D*** D*** \$12.50 D*** \$12.50 \$14.21 \$11.52 D***
5 111020 - General and Operations Managers 459 6 6 111021 - General and Operations Managers 459 6 7 111030 - Legislators D* 1 8 111031 - Legislators D* 1 9 112000 - Advertising, Marketing, Promotions, Public Relations, and Sales Managers 110 1 10 112010 - Advertising and Promotions Managers D* D 11 112011 - Advertising and Promotions Managers 105 1 12 112020 - Marketing and Sales Managers 105 1 13 112021 - Marketing Managers 48 1 14 112022 - Sales Managers 8 1 15 112030 - Public Relations and Fundraising Managers 8 1 16 112030 - Public Relations Amagers 8 1 17 113000 - Operations Specialties Managers 8 1 18 113010 - Administrative Services and Facilities Managers 61 1 20 113012 - Administrative Services Managers 60 1 21 113002 - Computer and Information Systems Managers 21	8 \$17.63 8 \$17.63 3 D*** 1 \$16.13 * D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***	\$13.55 \$13.55 D*** D*** \$12.50 D*** \$12.50 \$14.21 \$11.52 D***
6 111021 - General and Operations Managers 459 66 7 111030 - Legislators D* 1 8 111031 - Legislators D* 1 9 112000 - Advertising, Marketing, Promotions, Public Relations, and Sales Managers 110 1 10 112010 - Advertising and Promotions Managers D* D 11 112011 - Advertising and Promotions Managers D* D 12 112020 - Marketing and Sales Managers 105 1 13 112021 - Marketing Managers 48 1 14 112022 - Sales Managers 72 9 15 112030 - Public Relations and Fundraising Managers 8 1 16 112032 - Public Relations Managers 8 1 17 113000 - Operations Specialties Managers 151 3 18 113010 - Administrative Services and Facilities Managers 61 1 20 113013 - Facilities Managers 0 1 21 113012 - Computer and Information Systems Managers 21 1	8 \$17.63 3 D*** 3 D*** 1 \$16.13 * D*** * D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***	\$13.55 D*** D*** \$12.50 D*** \$12.50 \$14.21 \$11.52 D***
7 111030 - Legislators D* 8 111031 - Legislators D* 9 112000 - Advertising, Marketing, Promotions, Public Relations, and Sales Managers 110 10 112010 - Advertising and Promotions Managers D* 11 112011 - Advertising and Promotions Managers D* 12 112020 - Marketing and Sales Managers 105 1 13 112021 - Marketing Managers 48 14 112022 - Sales Managers 72 1 15 112030 - Public Relations and Fundraising Managers 8 1 16 112032 - Public Relations Managers 8 1 17 113000 - Operations Specialties Managers 8 1 18 113010 - Administrative Services and Facilities Managers 61 1 19 113012 - Administrative Services Managers 60 1 20 113013 - Facilities Managers 0* 0* 21 113020 - Computer and Information Systems Managers 21	3 D*** 3 D*** 1 \$16.13 * D*** * D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***	D*** D*** \$12.50 D*** D*** \$12.50 \$14.21 \$11.52 D***
8 111031 - Legislators D* 1 9 112000 - Advertising, Marketing, Promotions, Public Relations, and Sales Managers 110 11 10 112010 - Advertising and Promotions Managers D* D 11 112011 - Advertising and Promotions Managers D* D 12 112020 - Marketing and Sales Managers 105 1 13 112021 - Marketing Managers 48 1 14 112022 - Sales Managers 72 1 15 112030 - Public Relations and Fundraising Managers 8 1 16 112032 - Public Relations Managers 8 1 17 113000 - Operations Specialties Managers 151 3 18 113010 - Administrative Services and Facilities Managers 61 1 19 113012 - Administrative Services Managers 60 1 20 113013 - Facilities Managers D* D 21 113002 - Computer and Information Systems Managers 21	3 D*** 1 \$16.13 * D*** * D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***	D*** \$12.50 D*** D*** \$12.50 \$12.50 \$14.21 \$11.52 D***
112000 - Advertising, Marketing, Promotions, Public Relations, and Sales Managers 112010 - Advertising and Promotions Managers 112011 - Advertising and Promotions Managers 112011 - Advertising and Promotions Managers 113012 - Marketing and Sales Managers 114011 - Advertising and Promotions Managers 115012 - Marketing Managers 116012 - Sales Managers 117012 - Public Relations and Fundraising Managers 118010 - Operations Specialties Managers 119012 - Administrative Services and Facilities Managers 12013 - Administrative Services Managers 12014 - Administrative Services Managers 12015 - Administrative Services Managers 12016 - Administrative Services Managers 12017 - Administrative Services Managers 12018 - Administrative Services Managers 12019 - Administrative Services Managers 12020 - Administrative Services Managers 12031 - Administrative Services Managers 12041 - Administrative Services Managers 1205 - Administrative Services Managers 1206 - Administrative Services Managers 1207 - Administrative Services Managers 1208 - Administrative Services Managers 1209 - Administrative Services Managers 1210	1 \$16.13 * D*** * D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***	\$12.50 D*** D*** \$12.50 \$14.21 \$11.52 D***
10 112010 - Advertising and Promotions Managers D* D 11 112011 - Advertising and Promotions Managers D* D 12 112020 - Marketing and Sales Managers 105 1 13 112021 - Marketing Managers 48 1 14 112022 - Sales Managers 72 9 15 112030 - Public Relations and Fundraising Managers 8 1 16 112032 - Public Relations Managers 8 1 17 113000 - Operations Specialties Managers 8 1 18 113010 - Administrative Services and Facilities Managers 61 1 19 113012 - Administrative Services Managers 60 1 20 113013 - Facilities Managers D* D 21 113020 - Computer and Information Systems Managers 21 3	* D*** * D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***	D*** D*** \$12.50 \$14.21 \$11.52 D***
11 112011 - Advertising and Promotions Managers D* D* 12 112020 - Marketing and Sales Managers 105 1* 13 112021 - Marketing Managers 48 14 112022 - Sales Managers 72 9 15 112030 - Public Relations and Fundraising Managers 8 9 16 112032 - Public Relations Managers 8 9 17 113000 - Operations Specialties Managers 8 9 18 113010 - Administrative Services and Facilities Managers 61 11 19 113012 - Administrative Services Managers 60 11 20 113013 - Facilities Managers 0* 0* 21 113020 - Computer and Information Systems Managers 21	* D*** 0 \$16.10 4 \$18.26 6 \$14.44 8 D***	D*** \$12.50 \$14.21 \$11.52 D***
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15	8 D***	D***
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113000 - Operations Specialties Managers 113010 - Administrative Services and Facilities Managers 113012 - Administrative Services Managers 113013 - Facilities Managers 113013 - Facilities Managers 113020 - Computer and Information Systems Managers 121	0 0***	D***
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113012 - Administrative Services Managers 113013 - Facilities Managers 113020 - Computer and Information Systems Managers 21	1 \$21.06	\$19.53
113013 - Facilities Managers D* D* D* D* 113020 - Computer and Information Systems Managers 21 113020 - Computer and Information Systems Managers	3 \$18.12	\$17.15
21 113020 - Computer and Information Systems Managers 21 21	1 \$17.94	\$17.15
	* D***	D***
112021 Computer and Information Systems Managers	5 \$26.44	\$24.04
22 113021 - Computer and Information Systems Managers 21 21	5 \$26.44	\$24.04
23 113030 - Financial Managers 47	5 \$25.64	\$23.98
24 113031 - Financial Managers 47	5 \$25.64	\$23.98
25 113050 - Industrial Production Managers 5	9 D***	D***
26 113051 - Industrial Production Managers 5	9 D***	D***
27 113060 - Purchasing Managers 22	3 D***	D***
28 113061 - Purchasing Managers 22	3 D***	D***
29 113070 - Transportation, Storage, and Distribution Managers 22	9 D***	D***
113071 - Transportation, Storage, and Distribution Managers 22	9 D***	D***
31 113110 - Compensation and Benefits Managers D* D* D*	* D***	D***
113111 - Compensation and Benefits Managers D* D*	* D***	D***
	3 \$21.69	\$19.62
	3 \$21.69	\$19.62
35 113130 - Training and Development Managers 3 D		D***
113131 - Training and Development Managers 3 D		D***
37 119000 - Other Management Occupations 139 5	* D***	\$19.23
38 119010 - Farmers, Ranchers, and Other Agricultural Managers 4	i	

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	•
39				119013 - Farmers, Ranchers, and Other Agricultural Managers	4	5	D***	D***
40			119020 -	Construction Managers	21	31	\$32.25	\$23.75
41				119021 - Construction Managers	21	31	\$32.25	\$23.75
42			119030 -	Education and Childcare Administrators	14	102	\$31.27	\$30.10
43				119031 - Education and Childcare Administrators, Preschool and Daycare	3	11	D***	D***
44				119032 - Education Administrators, Kindergarten through Secondary	8	52	\$34.76	\$31.86
45				119033 - Education Administrators, Postsecondary	6	38	\$30.24	\$27.00
46				119039 - Education Administrators, All Other	D*	D**	D***	D***
47			119040 -	Architectural and Engineering Managers	13	18	D***	D***
48				119041 - Architectural and Engineering Managers	13	18	D***	D***
49			119050 -	Food Service Managers	39	88	\$17.20	\$13.18
50				119051 - Food Service Managers	39	88	\$17.20	\$13.18
51			119070 -	Entertainment and Recreation Managers	7	69	\$21.22	\$17.20
52				119071 - Gambling Managers	4	62	\$21.72	\$19.23
53				119072 - Entertainment and Recreation Managers, Except Gambling	4	7	D***	D***
54			119080 -	Lodging Managers	12	26	D***	D***
55				119081 - Lodging Managers	12	26	D***	D***
56			119110 -	Medical and Health Services Managers	5	78	\$23.22	\$24.04
57				119111 - Medical and Health Services Managers	5	78	\$23.22	\$24.04
58			119120 -	Natural Sciences Managers	D*	D**	D***	D***
59				119121 - Natural Sciences Managers	D*	D**	D***	D***
60			119140 -	Property, Real Estate, and Community Association Managers	11	15	D***	D***
61				119141 - Property, Real Estate, and Community Association Managers	11	15	D***	D***
62			119150 -	Social and Community Service Managers	9	16	D***	D***
63				119151 - Social and Community Service Managers	9	16	D***	D***
64			119160 -	Emergency Management Directors	4	23	D***	D***
65				119161 - Emergency Management Directors	4	23	D***	D***
66			119170 -	Personal Service Managers	4	D**	D***	D***
67				119171 - Funeral Home Managers	D*	D**	D***	D***
68				119179 - Personal Service Managers, All Other	3	D**	D***	D***
69			119190 -	Miscellaneous Managers	42	98	\$18.77	\$15.73
70				119199 - Managers, All Other	42	98	\$18.77	
71	130000 -	Business a	nd Financi	ial Operations Occupations	296	951	\$13.27	\$11.81
72				Operations Specialists	85	306	\$13.87	
73				Buyers and Purchasing Agents	22	31	\$9.22	
74				131022 - Wholesale and Retail Buyers, Except Farm Products	8	11	D***	D***
75				131023 - Purchasing Agents, Except Wholesale, Retail, and Farm Products	14	20	D***	D***
76			131030 -	Claims Adjusters, Appraisers, Examiners, and Investigators	5			D***
70			131030 -	Ciamis rajusters, repraisers, Examiners, and investigators	!	!	D	

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
77				131031 - Claims Adjusters, Examiners, and Investigators	5	8	D***	D***
78			131040 -	Compliance Officers	12	93	\$14.03	\$13.02
79				131041 - Compliance Officers	12	93	\$14.03	\$13.02
80			131050 -	Cost Estimators	7	8	D***	D***
81				131051 - Cost Estimators	7	8	D***	D***
82			131070 -	Human Resources Workers	35	88	\$14.28	\$13.67
83				131071 - Human Resources Specialists	35	88	\$14.28	\$13.67
84			131080 -	Logisticians and Project Management Specialists	7	18	D***	D***
85				131081 - Logisticians	6	17	D***	D***
86				131082 - Project Management Specialists	D*	D**	D***	D***
87			131110 -	Management Analysts	11	11	D***	D***
88				131111 - Management Analysts	11	11	D***	D***
89			131120 -	Meeting, Convention, and Event Planners	D*	D**	D***	D***
90				131121 - Meeting, Convention, and Event Planners	D*	D**	D***	D***
91			131140 -	Compensation, Benefits, and Job Analysis Specialists	D*	D**	D***	D***
92				131141 - Compensation, Benefits, and Job Analysis Specialists	D*	D**	D***	D***
93			131150 -	Training and Development Specialists	9	10	D***	D***
94				131151 - Training and Development Specialists	9	10	D***	D***
95			131160 -	Market Research Analysts and Marketing Specialists	16	21	D***	D***
96				131161 - Market Research Analysts and Marketing Specialists	16	21	D***	D***
97			131190 -	Miscellaneous Business Operations Specialists	3	16	D***	D***
98				131199 - Business Operations Specialists, All Other	3	16	D***	D***
99		132000 -	Financial S	Specialists Special State	262	645	\$12.98	\$11.25
100			132010 -	Accountants and Auditors	250	478	\$12.86	\$11.05
101				132011 - Accountants and Auditors	250	478	\$12.86	\$11.05
102			132020 -	Property Appraisers and Assessors	5	9	D***	D***
103				132022 - Appraisers of Personal and Business Property	4	8	D***	D***
104				132023 - Appraisers and Assessors of Real Estate	D*	D**	D***	D***
105			132030 -	Budget Analysts	7	21	D***	D***
106				132031 - Budget Analysts	7	21	D***	D***
107			132040 -	Credit Analysts	D*	D**	D***	D***
108				132041 - Credit Analysts	D*	D**	D***	D***
109			132050 -	Financial Analysts and Advisors	19	54	\$12.78	\$11.54
110				132051 - Financial and Investment Analysts	6	13	D***	D***
111				132052 - Personal Financial Advisors	D*	D**	D***	D***
112				132053 - Insurance Underwriters	13	38	\$10.56	\$10.01
113				132054 - Financial Risk Specialists	D*	D**	D***	D***
114			132060 -	Financial Examiners	D*	D**	D***	D***

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Wage Rate
115				132061 - Financial Examiners	D*	D**	D***	D***
116			132070 -	Credit Counselors and Loan Officers	D*	5	D***	D***
117				132071 - Credit Counselors	D*	D**	D***	D***
118				132072 - Loan Officers	D*	D**	D***	D***
119			132080 -	Tax Examiners, Collectors and Preparers, and Revenue Agents	5	70	\$10.96	\$9.25
120				132081 - Tax Examiners and Collectors, and Revenue Agents	D*	66	D***	D***
121				132082 - Tax Preparers	4	D**	D***	D***
122			132090 -	Miscellaneous Financial Specialists	D*	D**	D***	D***
123				132099 - Financial Specialists, All Other	D*	D**	D***	D***
124	150000 - 0	Computer	and Math	ematical Occupations	64	215	\$14.52	\$13.47
125		151000 -	Untitled G	roup: 15	64	190	\$14.48	\$13.41
126			151210 -	Computer and Information Analysts	15	21	D***	D***
127				151211 - Computer Systems Analysts	10	14	D***	D***
128				151212 - Information Security Analysts	5	7	D***	D***
129			151230 -	Computer Support Specialists	28	59	\$12.35	\$11.11
130				151231 - Computer Network Support Specialists	12	21	D***	D***
131				151232 - Computer User Support Specialists	19	38	\$10.64	\$8.43
132			151240 -	Database and Network Administrators and Architects	15	54	\$17.18	\$17.14
133				151241 - Computer Network Architects	D*	D**	D***	D***
134				151242 - Database Administrators	6	17	D***	D***
135				151244 - Network and Computer Systems Administrators	13	33	\$17.13	\$17.45
136			151250 -	Software and Web Developers, Programmers, and Testers	21	27	D***	D***
137				151251 - Computer Programmers	14	18	D***	D***
138				151252 - Software Developers	D*	D**	D***	D***
139				151254 - Web Developers	4	D**	D***	D***
140				151255 - Web and Digital Interface Designers	4	D**	D***	D***
141				Miscellaneous Computer Occupations	9	29	D***	D***
142				151299 - Computer Occupations, All Other	9	29	D***	D***
143		152000 -	Mathemat	cical Science Occupations	5	25	D***	D***
144			152040 -	Statisticians	5	25	D***	D***
145				152041 - Statisticians	5	25	D***	D***
146	170000 - /	Architectu	re and Eng	gineering Occupations	57	243	\$19.05	\$16.56
147		171000 -	Architects	, Surveyors, and Cartographers	6	11	D***	D***
148			171010 -	Architects, Except Naval	4	5	D***	D***
149				171011 - Architects, Except Landscape and Naval	3	D**	D***	D***
150				171012 - Landscape Architects	D*	D**	D***	D***
151			171020 -	Surveyors, Cartographers, and Photogrammetrists	D*	6	D***	D***
152				171021 - Cartographers and Photogrammetrists	D*	D**	D***	D***
153				171022 - Surveyors	D*	D**	D***	D***

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate V	Hourly Wage Rate Median
154		172000 -	Engineers		36	83	\$21.84	\$20.02
155				Agricultural Engineers	D*	D**	D***	D***
156				172021 - Agricultural Engineers	D*	D**	D***	D***
157			172050 -	Civil Engineers	17	36	\$24.20	\$21.80
158				172051 - Civil Engineers	17	36	\$24.20	\$21.80
159			172060 -	Computer Hardware Engineers	D*	D**	D***	D***
160				172061 - Computer Hardware Engineers	D*	D**	D***	D***
161			172070 -	Electrical and Electronics Engineers	12	20	D***	D***
162				172071 - Electrical Engineers	11	17	D***	D***
163				172072 - Electronics Engineers, Except Computer	3	D**	D***	D***
164			172080 -	Environmental Engineers	3	D**	D***	D***
165				172081 - Environmental Engineers	3	D**	D***	D***
166			172110 -	Industrial Engineers, Including Health and Safety	3	D**	D***	D***
167				172111 - Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	3	D**	D***	D***
168			172120 -	Marine Engineers and Naval Architects	D*	D**	D***	D***
169				172121 - Marine Engineers and Naval Architects	D*	D**	D***	D***
170			172140 -	Mechanical Engineers	4	8	D***	D***
171				172141 - Mechanical Engineers	4	8	D***	D***
172			172190 -	Miscellaneous Engineers	D*	7	D***	D***
173				172199 - Engineers, All Other	D*	7	D***	D***
174		173000 -	Drafters, E	ngineering Technicians, and Mapping Technicians	37	149	\$17.63	\$15.33
175			173010 -	Drafters	19	27	D***	D***
176				173011 - Architectural and Civil Drafters	14	18	D***	D***
177				173012 - Electrical and Electronics Drafters	3	5	D***	D***
178				173019 - Drafters, All Other	D*	D**	D***	D***
179			173020 -	Engineering Technologists and Technicians, Except Drafters	23	108	\$19.37	\$17.55
180				173022 - Civil Engineering Technologists and Technicians	8	30	\$14.18	\$12.82
181				173023 - Electrical and Electronic Engineering Technologists and Technicians	10	48	\$25.86	\$28.95
182				173024 - Electro-Mechanical and Mechatronics Technologists and Technicians	D*	15	D***	D***
183				173027 - Mechanical Engineering Technologists and Technicians	D*	D**	D***	D***
184				173028 - Calibration Technologists and Technicians	D*	D**	D***	D***
185				173029 - Engineering Technologists and Technicians, Except Drafters, All Other	4	13	D***	D***
186			173030 - 3	Surveying and Mapping Technicians	3	14	D***	D***
187				173031 - Surveying and Mapping Technicians	3	14	D***	D***
188	190000 -	Life, Physic	cal, and So	cial Science Occupations	17	207	\$14.37	\$11.54
189		191000 -	Life Scient	ists	5	73	\$15.34	\$12.40
190			191010 -	Agricultural and Food Scientists	3	37	\$10.80	\$9.05
191				191012 - Food Scientists and Technologists	D*	D**	D***	D***

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	•
192				191013 - Soil and Plant Scientists	D*	36	D***	D***
193			191020 -	Biological Scientists	3	19	D***	D***
194				191021 - Biochemists and Biophysicists	D*	5	D***	D***
195				191022 - Microbiologists	D*	D**	D***	D***
196				191023 - Zoologists and Wildlife Biologists	D*	10	D***	D***
197			191030 -	Conservation Scientists and Foresters	D*	11	D***	D***
198				191031 - Conservation Scientists	D*	D**	D***	D***
199				191032 - Foresters	D*	8	D***	D***
200			191040 -	Medical Scientists	D*	6	D***	D***
201				191041 - Epidemiologists	D*	6	D***	D***
202		192000 -	Physical So		5	D**	D***	D***
203			192030 -	Chemists and Materials Scientists	D*	D**	D***	D***
204				192031 - Chemists	D*	D**	D***	D***
205			192040 -	Environmental Scientists and Geoscientists	4	D**	D***	D***
206				192041 - Environmental Scientists and Specialists, Including Health	4	D**	D***	D***
207		193000 -	Social Scie	ntists and Related Workers	4	22	D***	D***
208			193010 -	Economists	D*	D**	D***	D***
209				193011 - Economists	D*	D**	D***	D***
210			193030 -	Psychologists	3	7	D***	D***
211				193033 - Clinical and Counseling Psychologists	3	D**	D***	D***
212				193039 - Psychologists, All Other	D*	D**	D***	D***
213			193050 -	Urban and Regional Planners	D*	11	D***	D***
214				193051 - Urban and Regional Planners	D*	11	D***	D***
215			193090 -	Miscellaneous Social Scientists and Related Workers	D*	D**	D***	D***
216				193091 - Anthropologists and Archeologists	D*	D**	D***	D***
217				193093 - Historians	D*	D**	D***	D***
218		194000 -	Life, Physi	cal, and Social Science Technicians	8	51	\$12.50	\$11.25
219			194020 -	Biological Technicians	D*	D**	D***	D***
220				194021 - Biological Technicians	D*	D**	D***	D***
221			194040 -	Environmental Science and Geoscience Technicians	4	8	D***	D***
222				194042 - Environmental Science and Protection Technicians, Including Health	4	8	D***	D***
223			194060 -	Social Science Research Assistants	D*	D**	D***	D***
224				194061 - Social Science Research Assistants	D*	D**	D***	D***
225			194070 -	Forest and Conservation Technicians	D*	35	D***	D***
226				194071 - Forest and Conservation Technicians	D*	35	D***	D***
227			194090 -	Miscellaneous Life, Physical, and Social Science Technicians	D*	D**	D***	D***
228				194099 - Life, Physical, and Social Science Technicians, All Other	D*	D**	D***	D***
229		195000 -	Occupatio	nal Health and Safety Specialists and Technicians	9	57	\$11.11	\$10.00

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Wage Rate
230			195010 -	Occupational Health and Safety Specialists and Technicians	9	57	\$11.11	\$10.00
231				195011 - Occupational Health and Safety Specialists	6	51	\$10.65	\$8.65
232				195012 - Occupational Health and Safety Technicians	3	6	D***	D***
233	210000 -	Communit	y and Soci	al Service Occupations	20	547	\$12.81	\$11.96
234		211000 -	Counselor	s, Social Workers, and Other Community and Social Service Specialists	13	520	\$12.99	\$12.00
235			211010 -	Counselors	9	76	\$18.47	\$18.51
236				211011 - Substance Abuse and Behavioral Disorder Counselors	4	22	D***	D***
237				211012 - Educational, Guidance, and Career Counselors and Advisors	4	44	\$18.81	\$18.58
238				211013 - Marriage and Family Therapists	D*	D**	D***	D***
239				211014 - Mental Health Counselors	D*	6	D***	D***
240				211019 - Counselors, All Other	D*	D**	D***	D***
241			211020 - 3	Social Workers	6	87	\$14.14	\$12.98
242				211021 - Child, Family, and School Social Workers	6	32	\$13.37	\$11.34
243				211022 - Healthcare Social Workers	3	30	\$14.79	\$12.98
244				211023 - Mental Health and Substance Abuse Social Workers	D*	D**	D***	D***
245				211029 - Social Workers, All Other	D*	22	D***	D***
246			211090 -	Miscellaneous Community and Social Service Specialists	7	357	\$11.55	\$11.06
247				211091 - Health Education Specialists	D*	16	D***	D***
248				211092 - Probation Officers and Correctional Treatment Specialists	D*	17	D***	D***
249				211093 - Social and Human Service Assistants	4	51	\$13.54	\$11.79
250				211094 - Community Health Workers	4	100	\$12.77	\$12.00
251				211099 - Community and Social Service Specialists, All Other	3	173	\$9.65	\$9.00
252		212000 -	Religious V	Norkers	7	27	D***	D***
253			212010 -	Clergy	5	17	D***	D***
254				212011 - Clergy	5	17	D***	D***
255			212020 -	Directors, Religious Activities and Education	D*	D**	D***	D***
256				212021 - Directors, Religious Activities and Education	D*	D**	D***	D***
257			212090 -	Miscellaneous Religious Workers	D*	7	D***	D***
258				212099 - Religious Workers, All Other	D*	7	D***	D***
259	230000 -	Legal Occu	pations	,	20	110	\$30.80	\$25.60
260			•	udges, and Related Workers	16	71	\$39.99	
261				Lawyers and Judicial Law Clerks	16	63	\$37.55	
262				231011 - Lawyers	16	50	!	\$34.18
263				231012 - Judicial Law Clerks	D*	13	1	D***
264			231020 -	Judges, Magistrates, and Other Judicial Workers	D*	8		D***
265			231020	231023 - Judges, Magistrate Judges, and Magistrates	D*	8		D***
266		232000 -	Legal Sunn	port Workers	10	<u> </u>	!	_
267		232000 -		Paralegals and Legal Assistants	10		!	
267			232010 -	232011 - Paralegals and Legal Assistants				
208				202011 - Granegara una Legari i constanto	10	33	\$13.82	\$12.40

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	_
269			232090 -	Miscellaneous Legal Support Workers	D*	6	D***	D***
270				232093 - Title Examiners, Abstractors, and Searchers	D*	6	D***	D***
271	250000 -	Education	al Instructi	on and Library Occupations	43	973	\$17.90	\$17.70
272		251000 -	Postsecon	dary Teachers	8	56	\$23.64	\$22.46
273			251010 -	Business Teachers, Postsecondary	D*	D**	D***	D***
274				251011 - Business Teachers, Postsecondary	D*	D**	D***	D***
275			251020 -	Math and Computer Science Teachers, Postsecondary	D*	D**	D***	D***
276				251021 - Computer Science Teachers, Postsecondary	D*	D**	D***	D***
277				251022 - Mathematical Science Teachers, Postsecondary	D*	D**	D***	D***
278			251040 -	Life Sciences Teachers, Postsecondary	D*	D**	D***	D***
279				251042 - Biological Science Teachers, Postsecondary	D*	D**	D***	D***
280			251050 -	Physical Sciences Teachers, Postsecondary	D*	D**	D***	D***
281				251052 - Chemistry Teachers, Postsecondary	D*	D**	D***	D***
282			251060 - 3	Social Sciences Teachers, Postsecondary	D*	5	D***	D***
283				251066 - Psychology Teachers, Postsecondary	D*	D**	D***	D***
284				251069 - Social Sciences Teachers, Postsecondary, All Other	D*	D**	D***	D***
285			251070 -	Health Teachers, Postsecondary	3	D**	D***	D***
286				251072 - Nursing Instructors and Teachers, Postsecondary	3	D**	D***	D***
287			251080 -	Education and Library Science Teachers, Postsecondary	D*	7	D***	D***
288				251081 - Education Teachers, Postsecondary	D*	7	D***	D***
289			251120	Arts, Communications, History, and Humanities Teachers, Postsecondary	4	11	D***	D***
290				251121 - Art, Drama, and Music Teachers, Postsecondary	3	D**	D***	D***
291				251123 - English Language and Literature Teachers, Postsecondary	D*	8	D***	D***
292			251190 -	Miscellaneous Postsecondary Teachers	3	21	D***	D***
293				251193 - Recreation and Fitness Studies Teachers, Postsecondary	D*	D**	D***	D***
294				251194 - Career/Technical Education Teachers, Postsecondary	D*	17	D***	D***
295				251199 - Postsecondary Teachers, All Other	D*	D**	D***	D***
296		252000 -	Preschool,	Elementary, Middle, Secondary, and Special Education Teachers	20	600	\$19.85	\$20.07
297			252010 -	Preschool and Kindergarten Teachers	12	43	\$15.87	\$16.01
298				252011 - Preschool Teachers, Except Special Education	9	14	D***	D***
299				252012 - Kindergarten Teachers, Except Special Education	5	29	D***	D***
300			252020 -	Elementary and Middle School Teachers	11	373	\$19.58	\$20.07
301				252021 - Elementary School Teachers, Except Special Education	11	283	\$19.73	\$20.07
302				252022 - Middle School Teachers, Except Special and Career/Technical Education	6	89	\$19.11	\$20.07
303				252023 - Career/Technical Education Teachers, Middle School	D*	D**	D***	D***
304			252030 - :	Secondary School Teachers	6	142	\$20.95	\$20.07
305				252031 - Secondary School Teachers, Except Special and Career/Technical Education	6	141	\$20.94	\$20.07
306				252032 - Career/Technical Education Teachers, Secondary School	D*	D**	D***	D***

	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
307			252050 - 3	Special Education Teachers	4	42	\$22.56	\$22.16
308				252051 - Special Education Teachers, Preschool	D*	D**	D***	D***
309				252056 - Special Education Teachers, Elementary School	D*	23	D***	D***
310				252057 - Special Education Teachers, Middle School	D*	7	D***	D***
311	_			252058 - Special Education Teachers, Secondary School	D*	11	D***	D***
312		253000 -	Other Tead	chers and Instructors	18	100	\$15.27	\$13.20
313			253010 - /	Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	D*	D**	D***	D***
314				253011 - Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	D*	D**	D***	D***
315			253020 - 3	Self-Enrichment Teachers	10	15	D***	D***
316				253021 - Self-Enrichment Teachers	10	15	D***	D***
317			253030 - 3	Substitute Teachers, Short-Term	D*	D**	D***	D***
318				253031 - Substitute Teachers, Short-Term	D*	D**	D***	D***
319			253040 -	Tutors	D*	D**	D***	D***
320				253041 - Tutors	D*	D**	D***	D***
321			253090 -	Miscellaneous Teachers and Instructors	7	81	\$15.45	\$13.20
322				253099 - Teachers and Instructors, All Other	7	81	\$15.45	\$13.20
323		254000 -	Librarians,	Curators, and Archivists	3	31	\$15.02	\$13.67
324			254010	Archivists, Curators, and Museum Technicians	D*	13	D***	D***
325				254011 - Archivists	D*	13	D***	D***
326			254020 -	Librarians and Media Collections Specialists	D*	15	D***	D***
327				254022 - Librarians and Media Collections Specialists	D*	15	D***	D***
328			254030 -	Library Technicians	D*	D**	D***	D***
329				254031 - Library Technicians	D*	D**	D***	D***
330		259000 -	Other Edu	cational Instruction and Library Occupations	11	186	\$11.77	\$10.18
331			259020 -	Farm and Home Management Educators	D*	16	D***	D***
332				259021 - Farm and Home Management Educators	D*	16	D***	D***
333			259030 -	Instructional Coordinators	D*	12	D***	D***
334				259031 - Instructional Coordinators	D*	12	D***	D***
335			259040 -	Teaching Assistants	10	158	\$10.35	\$9.69
336				259042 - Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education	9	156	\$10.39	\$9.69
337				259049 - Teaching Assistants, All Other	D*	D**	D***	D***
	.70000 - A	Arts, Desig	n, Enterta	inment, Sports, and Media Occupations	75	198	\$9.61	\$8.20
339				esign Workers	41	94	\$8.67	\$8.00
340				Artists and Related Workers	5	5	D***	D***
341				271011 - Art Directors	D*	D**	D***	D***
342				271012 - Craft Artists	D*	D**	D***	D***
343				271013 - Fine Artists, Including Painters, Sculptors, and Illustrators	D*	D**	D***	D***
344				271019 - Artists and Related Workers, All Other	D*	D**	D***	D***

346 \$271020 Designers 39 89 \$8.48 \$8.40	Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
271024	345			271020 -		39	89	\$8.48	\$8.00
271025 - Interior Designers D* D**	346					3	D**	D***	D***
272002 - Merchandise Displayers and Window Trimmers 16	347				· · · ·	28			•
272000 - Entertainers and Performers, Sports and Related Workers	348					D*	D**	_	_
272010 - Actors, Producers, and Directors	349				271026 - Merchandise Displayers and Window Trimmers	16	42	\$8.87	\$9.10
272012 - Producers and Directors D* D**	350		272000 -		· ·	i			-
272020 - Athletes, Coaches, Umpires, and Related Workers 5 12 0	351			272010		D*	D**	D***	D***
272022 - Coaches and Scouts S 8 D*** D*** 355 272023 - Umpries, Referees, and Other Sports Officials D** D*** D***	352				272012 - Producers and Directors	D*	D**	D***	D***
272023 - Umpires, Referees, and Other Sports Officials	353			272020	Athletes, Coaches, Umpires, and Related Workers	6	12	D***	D***
3	354					5	8	D***	_
272031 - Dancers D* 12 D***	355				272023 - Umpires, Referees, and Other Sports Officials	D*	D**	D***	D***
272032 - Choreographers D* D* D* D** D** D** D** D** D** D**	356			272030 -	Dancers and Choreographers	3	14	D***	D***
272040 - Musicians, Singers, and Related Workers 9 20 D*** D***	357					D*	12	D***	D***
272042 - Musicians and Singers 9 20 0 *** 0 **	358				272032 - Choreographers	D*	D**	D***	D***
361 272090 - Miscellaneous Entertainers and Performers, Sports and Related Workers D** D*** D*** 362 272009 - Entertainers and Performers, Sports and Related Workers, All Other D** D*** D*** 363 273000 - Media and Communication Workers 18 49 \$1.1.0 \$9.80 364 273010 - Broadcast Announcers and Radio Disc Jockeys D** 5 D*** D*** 365 273020 - News Analysts, Reporters and Journalists D** 12 D*** D*** 366 273030 - News Analysts, Reporters, and Journalists D** 12 D*** D*** 367 273032 - News Analysts, Reporters, and Journalists D** 12 D*** D*** 368 273030 - Public Relations Specialists 3 12 D*** D*** 369 273031 - Public Relations Specialists 3 12 D*** D*** 370 273040 - Writers and Editors 3 12 D*** D*** 371 273041 - Editors 3 D*** D*** D***	359			272040 -		9	20	D***	D***
362 272099 - Entertainers and Performers, Sports and Related Workers, All Other D** D*** D*** 363 273000 - Media and Communication Workers 18 49 \$11.40 \$9.80 364 273010 - Broadcast Announcers and Radio Disc Jockeys D* 5 D**** D**** 365 273011 - Broadcast Announcers and Radio Disc Jockeys D* 5 D**** D**** 366 273020 - News Analysts, Reporters and Journalists D* 12 D**** D**** 367 273030 - Public Relations Specialists D* 12 D**** D**** 368 273031 - Public Relations Specialists 3 12 D**** D**** 369 273031 - Public Relations Specialists 3 12 D**** D**** 370 273040 - Writers and Editors 3 12 D**** D**** 371 273041 - Editors 3 D*** D**** D**** 373 273090 - Miscellaneous Media and Communication Workers 11 15 D**** D**** 374 273090 - Miscellaneous Media and Communication Equipment Workers 5	360				272042 - Musicians and Singers	9	20	D***	D***
363 273000 - Media and Communication Workers 18 49 \$11.40 \$9.80 364 273010 - Broadcast Announcers and Radio Disc Jockeys D* 5 D**** D**** 365 273020 - News Analysts, Reporters and Journalists D* 12 D**** D**** 366 273020 - News Analysts, Reporters, and Journalists D* 12 D**** D**** 367 273032 - News Analysts, Reporters, and Journalists D* 12 D**** D**** 368 273030 - Public Relations Specialists 3 12 D**** D**** 369 273031 - Public Relations Specialists 3 12 D**** D**** 370 273040 - Writers and Editors 3 12 D**** D**** 371 273041 - Editors 3 D*** D*** D**** 372 273042 - Technical Writers D** D*** D*** 373 273090 - Miscellaneous Media and Communication Workers 11 15 D**** D**** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D**** </td <td>361</td> <td></td> <td></td> <td>272090 -</td> <td>Miscellaneous Entertainers and Performers, Sports and Related Workers</td> <td>D*</td> <td>D**</td> <td>D***</td> <td>D***</td>	361			272090 -	Miscellaneous Entertainers and Performers, Sports and Related Workers	D*	D**	D***	D***
273010 - Broadcast Announcers and Radio Disc Jockeys D* S D*** D***	362				272099 - Entertainers and Performers, Sports and Related Workers, All Other	D*	D**	D***	D***
365 273011 - Broadcast Announcers and Radio Disc Jockeys D* 5 D*** D*** 366 273020 - News Analysts, Reporters and Journalists D* 12 D*** D*** 367 273023 - News Analysts, Reporters, and Journalists D* 12 D*** D*** 368 273030 - Public Relations Specialists 3 12 D*** D*** 369 273040 - Writers and Editors 3 12 D*** D*** 370 273040 - Writers and Editors 3 D*** D*** 371 273042 - Technical Writers 3 D*** D*** 372 273042 - Technical Writers D*** D*** D*** 373 273090 - Miscellaneous Media and Communication Workers 11 15 D*** D*** 374 273091 - Interpreters and Translators 11 15 D*** D*** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D*** 376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers	363		273000 -	Media and	Communication Workers	18	49	\$11.40	\$9.80
366 273020 - News Analysts, Reporters and Journalists D* 12 D*** D*** 367 273023 - News Analysts, Reporters, and Journalists D* 12 D*** D*** 368 273030 - Public Relations Specialists 3 12 D*** D*** 369 273040 - Public Relations Specialists 3 12 D*** D*** 370 273040 - Writers and Editors 4 5 D*** D*** 371 273041 - Editors 3 D** D*** D*** 372 273042 - Technical Writers D** D*** D*** 373 273090 - Miscellaneous Media and Communication Workers 11 15 D*** D*** 374 273091 - Interpreters and Translators 11 15 D*** D*** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D*** 376 274020 - Photographers 5 6 D*** D*** 379 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 380	364			273010 -	Broadcast Announcers and Radio Disc Jockeys	D*	5	D***	D***
367 273023 - News Analysts, Reporters, and Journalists D* 12 D*** D*** 368 273030 - Public Relations Specialists 3 12 D*** D*** 369 273040 - Writers and Editors 3 12 D*** D*** 370 273040 - Writers and Editors 4 5 D*** D*** 371 273041 - Editors 3 D** D*** D*** D*** 372 273092 - Miscellanceus Media and Communication Workers 11 15 D*** D*** 373 273090 - Miscellanceus Media and Communication Workers 11 15 D*** D*** 374 273091 - Interpreters and Translators 11 15 D*** D*** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D*** 376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 <t< td=""><td>365</td><td></td><td></td><td></td><td>273011 - Broadcast Announcers and Radio Disc Jockeys</td><td>D*</td><td>5</td><td>D***</td><td>D***</td></t<>	365				273011 - Broadcast Announcers and Radio Disc Jockeys	D*	5	D***	D***
368 273030 - Public Relations Specialists 3 12 D*** D*** 369 273031 - Public Relations Specialists 3 12 D*** D*** 370 273040 - Writers and Editors 4 5 D*** D*** 371 273041 - Editors 3 D** D*** D*** 372 273092 - Technical Writers D** D*** D*** D*** 373 273090 - Miscellaneous Media and Communication Workers 11 15 D*** D*** 374 273091 - Interpreters and Translators 11 15 D*** D*** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D*** 376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 531.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380	366			273020 -	News Analysts, Reporters and Journalists	D*	12	D***	D***
369 273031 - Public Relations Specialists 3 12 D*** D*** 370 273040 - Writers and Editors 4 5 D*** D*** 371 273041 - Editors 3 D** D*** D*** 372 273042 - Technical Writers D* D** D*** D*** 373 273090 - Miscellaneous Media and Communication Workers 11 15 D*** D*** 374 273091 - Interpreters and Translators 11 15 D*** D*** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D*** 376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - De	367				273023 - News Analysts, Reporters, and Journalists	D*	12	D***	D***
369 273031 - Public Relations Specialists 3 12 D*** D*** 370 273040 - Writers and Editors 4 5 D*** D*** 371 273041 - Editors 3 D** D*** D*** 372 273042 - Technical Writers D* D** D*** D*** 373 273090 - Miscellaneous Media and Communication Workers 11 15 D*** D*** 374 273091 - Interpreters and Translators 11 15 D*** D*** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D*** 376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - De	368			273030 -	Public Relations Specialists	3	12	D***	D***
273041 - Editors 3 D** D***	369					3	12	D***	D***
372 273042 - Technical Writers D* D** D*** D*** 373 273090 - Miscellaneous Media and Communication Workers 11 15 D*** D*** 374 273091 - Interpreters and Translators 11 15 D*** D*** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D*** 376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - Dentists, General 5 10 D***	370			273040 - '	Writers and Editors	4	5	D***	D***
373 273090 - Miscellaneous Media and Communication Workers 11 15 D*** D*** 374 273091 - Interpreters and Translators 11 15 D*** D*** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D*** 376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - Dentists, General 5 10 D*** D***	371				273041 - Editors	3	D**	D***	D***
374 273091 - Interpreters and Translators 11 15 D*** D*** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D*** 376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - Dentists, General 5 10 D*** D***	372				273042 - Technical Writers	D*	D**	D***	D***
374 273091 - Interpreters and Translators 11 15 D*** D*** 375 274000 - Media and Communication Equipment Workers 5 6 D*** D*** 376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - Dentists, General 5 10 D*** D***	373			273090 -	Miscellaneous Media and Communication Workers	11	15	D***	D***
376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - Dentists, General 5 10 D*** D***	374				273091 - Interpreters and Translators	11	15	D***	D***
376 274020 - Photographers 5 6 D*** D*** 377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - Dentists, General 5 10 D*** D***	375		274000 -	Media and	l Communication Equipment Workers	5	6	D***	D***
377 274021 - Photographers 5 6 D*** D*** 378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - Dentists, General 5 10 D*** D***								D***	D***
378 290000 - Healthcare Practitioners and Technical Occupations 27 733 \$31.32 \$17.00 379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - Dentists, General 5 10 D*** D***								D***	D***
379 291000 - Healthcare Diagnosing or Treating Practitioners 25 493 \$40.33 \$21.21 380 291020 - Dentists 6 12 D*** D*** 381 291021 - Dentists, General 5 10 D*** D***		290000 -	Healthcare	Practition				\$31.32	\$17.00
380 291020 - Dentists 6 12 D*** D*** 381 291021 - Dentists, General 5 10 D*** D***					·				
381 291021 - Dentists, General 5 10 D*** D***									-
				- 3 - 0				D***	_
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Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	-
383				291029 - Dentists, All Other Specialists	D*	D**	D***	D***
384			291030 -	Dietitians and Nutritionists	D*	6	D***	D***
385				291031 - Dietitians and Nutritionists	D*	6	D***	D***
386			291040 -	Optometrists	D*	D**	D***	D***
387				291041 - Optometrists	D*	D**	D***	D***
388			291050 -	Pharmacists	3	8	D***	D***
389				291051 - Pharmacists	3	8	D***	D***
390			291070 -	Physician Assistants	3	21	D***	D***
391				291071 - Physician Assistants	3	21	D***	D***
392			291080 -	Podiatrists	D*	D**	D***	D***
393				291081 - Podiatrists	D*	D**	D***	D***
394			291120 -	Therapists	9	31	\$18.38	\$18.60
395				291122 - Occupational Therapists	D*	D**	D***	D***
396				291123 - Physical Therapists	7	18	D***	D***
397				291126 - Respiratory Therapists	D*	10	D***	D***
398				291129 - Therapists, All Other	D*	D**	D***	D***
399			291130 -	Veterinarians	D*	D**	D***	D***
400				291131 - Veterinarians	D*	D**	D***	D***
401			291140 -	Registered Nurses	9	280	\$17.06	\$16.78
402				291141 - Registered Nurses	9	280	\$17.06	\$16.78
403			291150 -	Nurse Anesthetists	D*	D**	D***	D***
404				291151 - Nurse Anesthetists	D*	D**	D***	D***
405			291160 -	Nurse Midwives	3	11	D***	D***
406				291161 - Nurse Midwives	3	11	D***	D***
407			291170 -	Nurse Practitioners	4			D***
408				291171 - Nurse Practitioners	4	17	D***	D***
409			291180 -	Audiologists	D*	D**	D***	D***
410				291181 - Audiologists	D*	D**	D***	D***
411			291210 -	Physicians	6	66	\$108.80	\$104.81
412				291211 - Anesthesiologists	D*	6	D***	D***
413				291212 - Cardiologists	D*	46	D***	D***
414				291215 - Family Medicine Physicians	D*	D**	D***	D***
415				291216 - General Internal Medicine Physicians	3	D**	D***	D***
416				291218 - Obstetricians and Gynecologists	D*	8	D***	D***
417			291220 -	Untitled Group: 29	D*	16	D***	D***
418				291221 - Pediatricians, General	D*	12	D***	D***
419				291223 - Psychiatrists	D*	D**	D***	D***
420			291240 -	Surgeons	3	9	D***	D***

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
421				291241 - Ophthalmologists, Except Pediatric	D*	D**	D***	D***
422				291242 - Orthopedic Surgeons, Except Pediatric	D*	8	D***	D***
423			291290 -	Miscellaneous Healthcare Diagnosing or Treating Practitioners	5	9	D***	D***
424				291292 - Dental Hygienists	5	9	D***	D***
425		292000 -	Health Ted	chnologists and Technicians	13	238	\$12.81	\$12.26
426			292010 -	Clinical Laboratory Technologists and Technicians	3	28	D***	D***
427				292012 - Medical and Clinical Laboratory Technicians	3	28	D***	D***
428			292030 -	Diagnostic Related Technologists and Technicians	4	18	D***	D***
429				292031 - Cardiovascular Technologists and Technicians	D*	D**	D***	D***
430				292032 - Diagnostic Medical Sonographers	D*	8	D***	D***
431				292034 - Radiologic Technologists and Technicians	4	8	D***	D***
432			292040 -	Emergency Medical Technicians and Paramedics	D*	17	D***	D***
433				292042 - Emergency Medical Technicians	D*	17	D***	D***
434			292050 -	Health Practitioner Support Technologists and Technicians	6	51	\$13.76	\$13.67
435				292051 - Dietetic Technicians	D*	D**	D***	D***
436				292052 - Pharmacy Technicians	3	29	D***	D***
437				292053 - Psychiatric Technicians	3	9	D***	D***
438				292056 - Veterinary Technologists and Technicians	D*	5	D***	D***
439				292057 - Ophthalmic Medical Technicians	D*	7	D***	D***
440			292060 -	Licensed Practical and Licensed Vocational Nurses	4	44	\$14.52	\$13.58
441				292061 - Licensed Practical and Licensed Vocational Nurses	4	44	\$14.52	\$13.58
442			292070 -	Medical Records Specialists	7	44	\$10.34	\$9.86
443				292072 - Medical Records Specialists	7	44	\$10.34	\$9.86
444			292080 -	Opticians, Dispensing	D*	D**	D***	D***
445				292081 - Opticians, Dispensing	D*	D**	D***	D***
446			292090 -	Miscellaneous Health Technologists and Technicians	D*	34	D***	D***
447				292099 - Health Technologists and Technicians, All Other	D*	34	D***	D***
448		299000 -	Other Hea	Ilthcare Practitioners and Technical Occupations	D*	D**	D***	D***
449				Health Information Technologists and Medical Registrars	D*	D**	D***	D***
450				299021 - Health Information Technologists and Medical Registrars	D*	D**	D***	D***
	310000 -	Healthcare	Support (Occupations	41	223	\$11.23	\$8.80
452		311000 -	• • •	<u> </u>	14	66	\$9.38	\$8.54
453				Home Health and Personal Care Aides	6		D***	D***
454			311120	311121 - Home Health Aides	1 4	5	D***	D***
455				311122 - Personal Care Aides	D*	D**	D***	D***
456			311130 -	Nursing Assistants, Orderlies, and Psychiatric Aides	. 8	60	\$9.62	\$9.44
457			311130 -	311131 - Nursing Assistants	8	58	\$9.48	\$8.87
457 458				311133 - Psychiatric Aides	D*	D**	\$9.48 D***	58.87 D***
458				522255 - Systillatio rides	, D.	D	D	D

Majo		Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
459	312000 -		nal Therapy and Physical Therapist Assistants and Aides	5	5	D***	D***
460		312010 -	Occupational Therapy Assistants and Aides	D*	D**	D***	D***
461			312011 - Occupational Therapy Assistants	D*	D**	D***	D***
462			312012 - Occupational Therapy Aides	D*	D**	D***	D***
463		312020 -	Physical Therapist Assistants and Aides	3	D**	D***	D***
464			312021 - Physical Therapist Assistants	3	D**	D***	D***
465	319000 -		Ithcare Support Occupations	33	152	\$11.98	\$8.65
466		319010 -	Massage Therapists	20	55	\$7.74	\$7.25
467			319011 - Massage Therapists	20	55	\$7.74	\$7.25
468		319090 -	Miscellaneous Healthcare Support Occupations	13	97	\$14.39	\$10.58
469			319091 - Dental Assistants	7	27	D***	D***
470			319092 - Medical Assistants	7	19	D***	D***
471			319093 - Medical Equipment Preparers	D*	D**	D***	D***
472			319094 - Medical Transcriptionists	D*	6	D***	D***
473			319095 - Pharmacy Aides	D*	16	D***	D***
474			319096 - Veterinary Assistants and Laboratory Animal Caretakers	D*	D**	D***	D***
475			319097 - Phlebotomists	3	22	D***	D***
476			319099 - Healthcare Support Workers, All Other	4	5	D***	D***
477 33000	00 - Protective	Service O	ccupations	51	1,345	\$9.95	\$9.52
478	331000 -	Supervisor	rs of Protective Service Workers	6	92	\$15.93	\$15.35
479		331010 -	First-Line Supervisors of Law Enforcement Workers	D*	70	D***	D***
480			331011 - First-Line Supervisors of Correctional Officers	D*	18	D***	D***
481			331012 - First-Line Supervisors of Police and Detectives	D*	52	D***	D***
482		331020 -	First-Line Supervisors of Firefighting and Prevention Workers	D*	D**	D***	D***
483			331021 - First-Line Supervisors of Firefighting and Prevention Workers	D*	D**	D***	D***
484		331090 -	Miscellaneous First-Line Supervisors, Protective Service Workers	6	19	D***	D***
485			331091 - First-Line Supervisors of Security Workers	D*	8	D***	D***
486			331099 - First-Line Supervisors of Protective Service Workers, All Other	4	11	D***	D***
487	332000 -	Firefightin	g and Prevention Workers	D*	183	D***	D***
488		332010 -	Firefighters	D*	183	D***	D***
489			332011 - Firefighters	D*	183	D***	D***
490	333000 -	Law Enfor	cement Workers	D*	452	D***	D***
491		333010 -	Bailiffs, Correctional Officers, and Jailers	D*	88	D***	D***
492			333011 - Bailiffs	D*	D**	D***	D***
493			333012 - Correctional Officers and Jailers	D*	87	D***	D***
494		333020 -	Detectives and Criminal Investigators	D*	91	D***	D***
495			333021 - Detectives and Criminal Investigators	D*	91	D***	D***
496		333030 -	Fish and Game Wardens	D*	16	D***	D***
497			333031 - Fish and Game Wardens	D*	16	D***	D***

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
498			333050 -	Police Officers	D*	257	D***	D***
499				333051 - Police and Sheriff's Patrol Officers	D*	257	D***	D***
500		339000 -	Other Prot	ective Service Workers	50	618	\$7.72	\$7.25
501			339010 - /	Animal Control Workers	D*	5	D***	D***
502				339011 - Animal Control Workers	D*	5	D***	D***
503			339030 - 3	Security Guards and Gambling Surveillance Officers	41	496	\$7.71	\$7.25
504				339031 - Gambling Surveillance Officers and Gambling Investigators	4	32	\$12.42	\$13.23
505				339032 - Security Guards	40	464	\$7.39	\$7.25
506			339090 -	Miscellaneous Protective Service Workers	10	117	\$7.67	\$7.29
507				339092 - Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	9	112	\$7.63	\$7.31
508				339093 - Transportation Security Screeners	D*	D**	D***	D***
509				339099 - Protective Service Workers, All Other	D*	D**	D***	D***
510	350000 -			d Serving Related Occupations	143	1,930	\$8.38	
511		351000 -		s of Food Preparation and Serving Workers	54	270	\$10.99	\$9.02
512			351010 - 3	Supervisors of Food Preparation and Serving Workers	54	270	\$10.99	\$9.02
513				351011 - Chefs and Head Cooks	32	106	\$13.87	\$11.62
514				351012 - First-Line Supervisors of Food Preparation and Serving Workers	38	164	\$9.14	\$8.54
515		352000 -	Cooks and	Food Preparation Workers	109	642	\$8.02	\$7.36
516			352010 -	Cooks	94	512	\$7.93	\$7.35
517				352011 - Cooks, Fast Food	9	37	\$7.46	\$7.25
518				352012 - Cooks, Institution and Cafeteria	14	67	\$8.62	\$8.15
519				352013 - Cooks, Private Household	D*	D**	D***	D***
520				352014 - Cooks, Restaurant	65	365	\$7.92	\$7.32
521				352015 - Cooks, Short Order	3	30		\$7.39
522				352019 - Cooks, All Other	6	12	D***	D***
523			352020 -	Food Preparation Workers	36	130	\$8.38	\$7.45
524				352021 - Food Preparation Workers	36	129	\$8.39	\$7.46
525				352022 - Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	D*	D**	D***	D***
526		353000 -		Beverage Serving Workers	97	812	\$7.86	\$7.25
527			353010 -	Bartenders	17	46	\$8.23	\$7.35
528				353011 - Bartenders	17	46	\$8.23	\$7.35
529			353020 -	Fast Food and Counter Workers	23	185	\$7.41	\$7.25
530				353023 - Fast Food and Counter Workers	23	185	\$7.41	\$7.25
531			353030 - 1	Waiters and Waitresses	72	479	\$8.11	\$7.30
532				353031 - Waiters and Waitresses	72	479	\$8.11	\$7.30
533			353040 -	Food Servers, Nonrestaurant	8	102	\$7.35	\$7.25
534				353041 - Food Servers, Nonrestaurant	8	102	\$7.35	\$7.25
535		359000 -	Other Foo	d Preparation and Serving Related Workers	35	206	\$8.12	\$7.25
536			359010 -	Dining Room and Cafeteria Attendants and Bartender Helpers	3	12	D***	D***

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
537				359011 - Dining Room and Cafeteria Attendants and Bartender Helpers	3	12	D***	D***
538			359020 -	Dishwashers	16	62	\$7.63	\$7.25
539				359021 - Dishwashers	16	62	\$7.63	\$7.25
540			359030 -	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	6	30	\$11.14	\$9.35
541				359031 - Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	6	30	\$11.14	\$9.35
542			359090 -	Miscellaneous Food Preparation and Serving Related Workers	17	102	\$7.54	\$7.25
543				359099 - Food Preparation and Serving Related Workers, All Other	17	102	\$7.54	\$7.25
544	370000 -	Building a	nd Ground	s Cleaning and Maintenance Occupations	171	1,106	\$7.66	\$7.25
545		371000 -	Superviso	rs of Building and Grounds Cleaning and Maintenance Workers	22	72	\$9.62	\$8.59
546			371010 -	First-Line Supervisors of Building and Grounds Cleaning and Maintenance Workers	22	72	\$9.62	\$8.59
547				371011 - First-Line Supervisors of Housekeeping and Janitorial Workers	17	52	\$9.35	\$8.50
548				371012 - First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	11	20	D***	D***
549		372000 -	Building C	leaning and Pest Control Workers	144	865	\$7.44	\$7.25
550			372010 -	Building Cleaning Workers	143	863	\$7.44	\$7.25
551				372011 - Janitors and Cleaners, Except Maids and Housekeeping Cleaners	96	251	\$7.69	\$7.25
552				372012 - Maids and Housekeeping Cleaners	58	605	\$7.33	\$7.25
553				372019 - Building Cleaning Workers, All Other	6	7	D***	D***
554			372020 -	Pest Control Workers	D*	D**	D***	D***
555				372021 - Pest Control Workers	D*	D**	D***	D***
556		373000 -	Grounds N	Naintenance Workers	44	169	\$7.93	\$7.35
557			373010 -	Grounds Maintenance Workers	44	169	\$7.93	\$7.35
558				373011 - Landscaping and Groundskeeping Workers	35	132	\$7.51	\$7.30
559				373012 - Pesticide Handlers, Sprayers, and Applicators, Vegetation	3	5	D***	D***
560				373019 - Grounds Maintenance Workers, All Other	9	32	\$9.52	\$8.68
561	390000 -	Personal C	Care and Se	ervice Occupations	125	658	\$8.88	\$7.25
562		391000 -	Superviso	rs of Personal Care and Service Workers	16	50	\$11.63	\$9.75
563			391010 -	First-Line Supervisors of Entertainment and Recreation Workers	16	50	\$11.63	\$9.75
564				391013 - First-Line Supervisors of Gambling Services Workers	7	28	D***	D***
565				391014 - First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services	10	22	D***	D***
566		392000 -	Animal Ca	re and Service Workers	D*	D**	D***	D***
567			392010 -	Animal Trainers	D*	D**	D***	D***
568				392011 - Animal Trainers	D*	D**	D***	D***
569			392020 -	Animal Caretakers	D*	D**	D***	D***
570				392021 - Animal Caretakers	D*	D**	D***	D***
571		393000 -	Entertainn	nent Attendants and Related Workers	12	156	\$8.14	\$7.25
572			393010 -	Gambling Services Workers	D*	94	D***	D***
573				393011 - Gambling Dealers	D*	84	D***	D***
574				393012 - Gambling and Sports Book Writers and Runners	D*	7	D***	D***

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Wage Rate
575				393019 - Gambling Service Workers, All Other	D*	D**	D***	D***
576			393030 -	Ushers, Lobby Attendants, and Ticket Takers	D*	6	D***	D***
577				393031 - Ushers, Lobby Attendants, and Ticket Takers	D*	6	D***	D***
578			393090 -	Miscellaneous Entertainment Attendants and Related Workers	11	56	\$7.41	\$7.25
579				393091 - Amusement and Recreation Attendants	10	41	\$7.41	\$7.25
580				393092 - Costume Attendants	D*	7	D***	D***
581				393099 - Entertainment Attendants and Related Workers, All Other	D*	8	D***	D***
582		394000 -	Funeral Se	rvice Workers	D*	D**	D***	D***
583			394020 -	Funeral Attendants	D*	D**	D***	D***
584				394021 - Funeral Attendants	D*	D**	D***	D***
585		395000 -	Personal A	Appearance Workers	32	80	\$7.44	\$7.25
586			395010 -	Barbers, Hairdressers, Hairstylists and Cosmetologists	31	75	\$7.45	\$7.25
587				395011 - Barbers	5	11	D***	D***
588				395012 - Hairdressers, Hairstylists, and Cosmetologists	29	64	\$7.49	\$7.25
589			395090 -	Miscellaneous Personal Appearance Workers	3	5	D***	D***
590				395092 - Manicurists and Pedicurists	3	D**	D***	D***
591				395094 - Skincare Specialists	D*	D**	D***	D***
592		396000 -	Baggage P	orters, Bellhops, and Concierges	8	68	\$7.79	\$7.30
593				Baggage Porters, Bellhops, and Concierges	8	68	\$7.79	\$7.30
594				396011 - Baggage Porters and Bellhops	4	21	D***	D***
595				396012 - Concierges	6	47	\$7.98	\$7.49
596		397000 -	Tour and T	Fravel Guides	53	224	\$9.41	\$7.25
597			397010 -	Tour and Travel Guides	53	224	\$9.41	\$7.25
598				397011 - Tour Guides and Escorts	42	186	\$9.48	\$7.25
599				397012 - Travel Guides	16	38	\$9.11	\$7.50
600		399000 -	Other Pers	sonal Care and Service Workers	19	75	\$9.60	\$7.25
601			399010 -	Childcare Workers	10	49	\$7.27	\$7.25
602				399011 - Childcare Workers	10	49	\$7.27	\$7.25
603			399030 -	Recreation and Fitness Workers	7	20	D***	D***
604				399031 - Exercise Trainers and Group Fitness Instructors	D*	11	D***	D***
605				399032 - Recreation Workers	5	9	D***	D***
606			399040 -	Residential Advisors	D*	D**	D***	D***
607				399041 - Residential Advisors	D*	D**	D***	D***
608			399090 -	Miscellaneous Personal Care and Service Workers	D*	D**	D***	D***
609			223030	399099 - Personal Care and Service Workers, All Other	D*	D**	D***	D***
	410000 -	Sales and	Related Oc	· · · · · · · · · · · · · · · · · · ·	250	_	\$8.92	
611				rs of Sales Workers	50	120	\$9.36	
612		111000		First-Line Supervisors of Sales Workers	50			
UIZ			411010 -	This Line Supervisors of Sules vvolkers	! 30	! 120	اد.ور	70.00

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	•
613				411011 - First-Line Supervisors of Retail Sales Workers	42	109	\$9.46	\$8.00
614				411012 - First-Line Supervisors of Non-Retail Sales Workers	9	11	D***	D***
615		412000 -		s Workers	153	883	\$8.49	
616			412010 -		96	367	\$8.51	\$7.25
617				412011 - Cashiers	88	326	\$8.60	\$7.25
618			112222	412012 - Gambling Change Persons and Booth Cashiers	10	41	\$7.81	\$7.25
619			412020 -	Counter and Rental Clerks and Parts Salespersons	15	49	\$7.70 ·	\$7.25
620				412021 - Counter and Rental Clerks	11	37	\$7.31	\$7.25
621				412022 - Parts Salespersons	5	12	D***	D***
622			412030 -	Retail Salespersons	54	467	\$8.57	\$7.80
623				412031 - Retail Salespersons	54	467	\$8.57	\$7.80
624				resentatives, Services	48	132	\$9.78	
625			413010 -	Advertising Sales Agents	5	10	D***	D***
626				413011 - Advertising Sales Agents	5	!		D***
627			413020 -	Insurance Sales Agents	7	11	D***	D***
628				413021 - Insurance Sales Agents	7	11	D***	D***
629			413040 -	Travel Agents	9	19	D***	D***
630				413041 - Travel Agents	9	19	D***	D***
631			413090 -	Miscellaneous Sales Representatives, Services	27	92	\$10.01	\$11.54
632				413091 - Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	27	92	\$10.01	\$11.54
633		414000 - 3	Sales Repr	esentatives, Wholesale and Manufacturing	47	115	\$10.77	\$7.35
634			414010 -	Sales Representatives, Wholesale and Manufacturing	47	115	\$10.77	\$7.35
635				414011 - Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	10	27	D***	D***
636				414012 - Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	41	88	\$9.27	\$7.25
637		419000 - (Other Sale	es and Related Workers	19	61	\$8.93	\$7.70
638			419010 -	Models, Demonstrators, and Product Promoters	3	10	D***	D***
639				419011 - Demonstrators and Product Promoters	3	10	D***	D***
640			419020 -	Real Estate Brokers and Sales Agents	4	6	D***	D***
641				419022 - Real Estate Sales Agents	4	6	D***	D***
642			419030 -	Sales Engineers	D*	D**	D***	D***
643				419031 - Sales Engineers	D*	D**	D***	D***
644			419040 -	Telemarketers	D*	10	D***	D***
645				419041 - Telemarketers	D*	10	D***	D***
646			419090 -	Miscellaneous Sales and Related Workers	11	32	\$8.54	\$7.70
647				419091 - Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	D*	D**	D***	D***
648				419099 - Sales and Related Workers, All Other	11	28	D***	D***
649	430000 -	Office and	Administr	rative Support Occupations	355	2,732	\$10.51	\$8.81
650		431000 - 3	Superviso	rs of Office and Administrative Support Workers	47	105	\$12.41	\$12.02

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
651			431010 -	First-Line Supervisors of Office and Administrative Support Workers	47	105	\$12.41	\$12.02
652				431011 - First-Line Supervisors of Office and Administrative Support Workers	47	105	\$12.41	\$12.02
653		432000 -		cations Equipment Operators	7	43	\$9.62	\$9.71
654			432010 -	Switchboard Operators, Including Answering Service	3	9	D***	D***
655				432011 - Switchboard Operators, Including Answering Service	3		D***	D***
656			432020 -	Telephone Operators	3	30	\$9.54	\$9.71
657				432021 - Telephone Operators	3	30	\$9.54	\$9.71
658			432090 -	Miscellaneous Communications Equipment Operators	D*	D**	D***	D***
659				432099 - Communications Equipment Operators, All Other	D*	D**	D***	D***
660		433000 -			163	446	\$10.40	\$8.25
661			433010 -	Bill and Account Collectors	6	12	D***	D***
662				433011 - Bill and Account Collectors	6	12	D***	D***
663			433020 -	Billing and Posting Clerks	26	42	\$10.97	\$9.69
664				433021 - Billing and Posting Clerks	26	42	\$10.97	\$9.69
665			433030 -	Bookkeeping, Accounting, and Auditing Clerks	120	221	\$9.87	\$8.00
666				433031 - Bookkeeping, Accounting, and Auditing Clerks	120	221	\$9.87	\$8.00
667			433040 -	Gambling Cage Workers	13	79	\$9.29	\$7.25
668				433041 - Gambling Cage Workers	13	79	\$9.29	\$7.25
669			433050 -	Payroll and Timekeeping Clerks	8	10	D***	D***
670				433051 - Payroll and Timekeeping Clerks	8	10	D***	D***
671			433060 -	Procurement Clerks	19	48	\$12.79	\$12.20
672				433061 - Procurement Clerks	19	48	\$12.79	\$12.20
673			433070 -	Tellers	4	31	\$12.39	\$11.00
674				433071 - Tellers	4	31	\$12.39	\$11.00
675			433090 -	Miscellaneous Financial Clerks	D*	D**	D***	D***
676				433099 - Financial Clerks, All Other	D*	D**	D***	D***
677		434000 -	Informatio	on and Record Clerks	114	750	\$9.64	\$8.00
678			434020 -	Correspondence Clerks	D*	D**	D***	D***
679				434021 - Correspondence Clerks	D*	D**	D***	D***
680			434030 -	Court, Municipal, and License Clerks	4	28	D***	D***
681				434031 - Court, Municipal, and License Clerks	4	28	D***	D***
682			434040 -	Credit Authorizers, Checkers, and Clerks	D*	D**	D***	D***
683				434041 - Credit Authorizers, Checkers, and Clerks	D*	D**	D***	D***
684			434050 -	Customer Service Representatives	47	240	\$9.26	\$8.00
685				434051 - Customer Service Representatives	47	240	\$9.26	\$8.00
686			434060 -	Eligibility Interviewers, Government Programs	3	99	\$14.37	\$14.42
687				434061 - Eligibility Interviewers, Government Programs	3	99	\$14.37	\$14.42
688			434070 -	File Clerks	D*	5		D***
000			.5 1576		i	i		

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Median
689				434071 - File Clerks	D*	5	D***	D***
690			434080 -	Hotel, Motel, and Resort Desk Clerks	20	128	\$7.72	\$7.50
691				434081 - Hotel, Motel, and Resort Desk Clerks	20	128	\$7.72	\$7.50
692			434120 -	Library Assistants, Clerical	D*	18	D***	D***
693				434121 - Library Assistants, Clerical	D*	18		D***
694			434130 -	Loan Interviewers and Clerks	D*	D**	D***	D***
695				434131 - Loan Interviewers and Clerks	D*	D**	D***	D***
696			434140 -	New Accounts Clerks	D*	8	}	D***
697				434141 - New Accounts Clerks	D*	8	D***	D***
698			434150 -	Order Clerks	D*	D**	D***	D***
699				434151 - Order Clerks	D*	D**	D***	D***
700			434160 -	Human Resources Assistants, Except Payroll and Timekeeping	16	26	D***	D***
701				434161 - Human Resources Assistants, Except Payroll and Timekeeping	16	26	D***	D***
702			434170 -	Receptionists and Information Clerks	17	37	\$9.01	\$7.75
703				434171 - Receptionists and Information Clerks	17	37	\$9.01	\$7.75
704			434180 -	Reservation and Transportation Ticket Agents and Travel Clerks	21	151	\$8.22	\$7.45
705				434181 - Reservation and Transportation Ticket Agents and Travel Clerks	21	151	\$8.22	\$7.45
706			434190 -	Miscellaneous Information and Record Clerks	D*	D**	D***	_
707				434199 - Information and Record Clerks, All Other	D*	D**	D***	D***
708		435000 -		ecording, Scheduling, Dispatching, and Distributing Workers	74	301	\$9.02	\$7.55
709			435010 -	Cargo and Freight Agents	12	101	\$8.03	\$7.25
710				435011 - Cargo and Freight Agents	12	101	\$8.03	\$7.25
711			435020 -	Couriers and Messengers	14	25	D***	D***
712				435021 - Couriers and Messengers	14			D***
713			435030 -	Dispatchers	7	29		D***
714				435031 - Public Safety Telecommunicators	D*	16	D***	D***
715			10-010	435032 - Dispatchers, Except Police, Fire, and Ambulance	6	13	D***	D***
716			435040 -	Meter Readers, Utilities	D*	16	D***	D***
717			105050	435041 - Meter Readers, Utilities	D*	16		D***
718			435050 -	Postal Service Workers	3	5	D***	D***
719				435051 - Postal Service Clerks 435052 - Postal Service Mail Carriers	D*	D**	D***	D***
720			425060		3	D**	D***	D***
721			435060 -	Production, Planning, and Expediting Clerks	10		D***	D***
722			425070	435061 - Production, Planning, and Expediting Clerks	10	<u>.</u>	<u> </u>	D***
723			4350/0 -	Shipping, Receiving, and Inventory Clerks	38	111		
724			425442	435071 - Shipping, Receiving, and Inventory Clerks	38	111		
725			435110 -	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	D*	D**	D***	D***
726				435111 - Weighers, Measurers, Checkers, and Samplers, Recordkeeping	D*	D**	D***	D***

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
727		436000 -	Other Offi	ce and Administrative Support Workers	D*	D**	D***	D***
728			439010 -	Computer Operators	D*	D**	D***	D***
729				439011 - Computer Operators	D*	D**	D***	D***
730		436000 -	Secretarie:	s and Administrative Assistants	110	420	\$12.48	\$11.00
731			436010 -	Secretaries and Administrative Assistants	110	420	\$12.48	\$11.00
732				436011 - Executive Secretaries and Executive Administrative Assistants	49	245	\$13.94	\$11.89
733				436012 - Legal Secretaries and Administrative Assistants	8	12	D***	D***
734				436013 - Medical Secretaries and Administrative Assistants	4	15	D***	D***
735				436014 - Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	64	148	\$10.25	\$9.00
736		439000 -	Other Offi	ce and Administrative Support Workers	100	664	\$10.76	\$9.00
737			439020 -	Data Entry and Information Processing Workers	10	15	D***	D***
738				439021 - Data Entry Keyers	8	12	D***	D***
739				439022 - Word Processors and Typists	D*	D**	D***	D***
740			439040 -	Insurance Claims and Policy Processing Clerks	D*	D**	D***	D***
741				439041 - Insurance Claims and Policy Processing Clerks	D*	D**	D***	D***
742			439060 -	Office Clerks, General	80	600	\$10.56	\$9.00
743				439061 - Office Clerks, General	80	600	\$10.56	\$9.00
744			439070 -	Office Machine Operators, Except Computer	D*	D**	D***	D***
745				439071 - Office Machine Operators, Except Computer	D*	D**	D***	D***
746			439080 -	Proofreaders and Copy Markers	D*	D**	D***	D***
747				439081 - Proofreaders and Copy Markers	D*	D**	D***	D***
748			439110 -	Statistical Assistants	D*	D**	D***	D***
749			.000	439111 - Statistical Assistants	D*	D**	D***	D***
750			439190 -	Miscellaneous Office and Administrative Support Workers	16		\$13.06	\$11.22
751			.00_00	439199 - Office and Administrative Support Workers, All Other	16	42	\$13.06	\$11.22
	450000 -	Farming, F	ishing, and	d Forestry Occupations	20	46	\$8.53	\$7.25
753	.55555			rs of Farming, Fishing, and Forestry Workers	D*	14	D***	D***
754			·	First-Line Supervisors of Farming, Fishing, and Forestry Workers	D*	14	D***	D***
755			10 20 20	451011 - First-Line Supervisors of Farming, Fishing, and Forestry Workers	D*	14	D***	D***
756		452000 -	Agricultura	al Workers	11	16	D***	D***
757				Miscellaneous Agricultural Workers	11	16	D***	D***
758			10 200 0	452092 - Farmworkers and Laborers, Crop, Nursery, and Greenhouse	9	13	D***	D***
759				452093 - Farmworkers, Farm, Ranch, and Aquacultural Animals	D*	D**	D***	D***
760				452099 - Agricultural Workers, All Other	D*	D**	D***	D***
761		453000 -	Fishing and	d Hunting Workers	8	12	D***	D***
762				Fishing and Hunting Workers	8	12	D***	D***
763			.55550	453031 - Fishing and Hunting Workers	8	12	D***	D***
764		454000	Forest Co	nservation, and Logging Workers	D*	D**	D***	D***
/ U 4		-13-1000 -	1 01 031, 00	inscribation, and Logonia Workers	0	"	l o i	U

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Wage Rate
765			454010 -	Forest and Conservation Workers	D*	D**	D***	D***
766				454011 - Forest and Conservation Workers	D*	D**	D***	D***
767	470000 -			traction Occupations	95	892	\$13.30	-
768		471000 -	•	rs of Construction and Extraction Workers	15	17	D***	D***
769			471010 -	First-Line Supervisors of Construction Trades and Extraction Workers	15	17	D***	D***
770				471011 - First-Line Supervisors of Construction Trades and Extraction Workers	15	17	D***	D***
771		472000 -	Constructi	on Trades Workers	76	728	\$13.83	
772			472020 -	Brickmasons, Blockmasons, and Stonemasons	D*	D**	D***	D***
773				472021 - Brickmasons and Blockmasons	D*	D**	D***	D***
774			472030 -	Carpenters	23	252	\$20.34	\$25.97
775				472031 - Carpenters	23	252	\$20.34	\$25.97
776			472040 -	Carpet, Floor, and Tile Installers and Finishers	D*	D**	D***	D***
777				472041 - Carpet Installers	D*	D**	D***	D***
778				472044 - Tile and Stone Setters	D*	D**	D***	D***
779			472050 -	Cement Masons, Concrete Finishers, and Terrazzo Workers	18	93	\$7.76	\$7.30
780				472051 - Cement Masons and Concrete Finishers	18	93	\$7.76	\$7.30
781			472060 -	Construction Laborers	18	108	\$8.09	\$7.25
782				472061 - Construction Laborers	18	108	\$8.09	\$7.25
783			472070 -	Construction Equipment Operators	12	93	\$9.05	\$8.39
784				472073 - Operating Engineers and Other Construction Equipment Operators	12	93	\$9.05	\$8.39
785			472110 -	Electricians	37	78		
786				472111 - Electricians	37	78	\$9.60	-
787			472140 -	Painters and Paperhangers	6	56	\$24.10	
788				472141 - Painters, Construction and Maintenance	6	!	-	-
789			472150 -	Pipelayers, Plumbers, Pipefitters, and Steamfitters	13	19	D***	D***
790				472152 - Plumbers, Pipefitters, and Steamfitters	13	19	D***	D***
791			472170 -	Reinforcing Iron and Rebar Workers	D*	D**	D***	D***
792				472171 - Reinforcing Iron and Rebar Workers	D*	D**	D***	D***
793			472210 -	Sheet Metal Workers	7	9	D***	D***
794			.,	472211 - Sheet Metal Workers	7	9	D***	D***
795			472220 -	Structural Iron and Steel Workers	D*	8	D***	D***
796			1,2220	472221 - Structural Iron and Steel Workers	D*	8	D***	D***
797			472230 -	Solar Photovoltaic Installers	D*	5	D***	D***
798			472230	472231 - Solar Photovoltaic Installers	D*	5	D***	D***
799		473000 -	Helners C	Construction Trades	12	94	\$9.76	
800		473000		Helpers, Construction Trades	12	94	\$9.76	
801			4/3010 -	473012 - HelpersCarpenters	D*	D**	59.76 D***	D***
801				473012 - Helpers, Construction Trades, All Other	11	91	\$9.82	_
002				7.3023 TELECTO, Constituction Trudes, Am Other	į 11	91	33.02	۶٥.۵۶

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	
803		474000 -	Other Con	struction and Related Workers	10	34	\$13.55	\$12.56
804			474010 -	Construction and Building Inspectors	4	25	D***	D***
805				474011 - Construction and Building Inspectors	4	25	D***	D***
806			474020 -	Elevator and Escalator Installers and Repairers	D*	D**	D***	D***
807				474021 - Elevator and Escalator Installers and Repairers	D*	D**	D***	D***
808			474050 -	Highway Maintenance Workers	D*	D**	D***	D***
809				474051 - Highway Maintenance Workers	D*	D**	D***	D***
810			474070 - 3	Septic Tank Servicers and Sewer Pipe Cleaners	3	5	D***	D***
811				474071 - Septic Tank Servicers and Sewer Pipe Cleaners	3	5	D***	D***
812			474090 -	Miscellaneous Construction and Related Workers	D*	D**	D***	D***
813				474099 - Construction and Related Workers, All Other	D*	D**	D***	D***
814		475000 -	Extraction	Workers	5	19	D***	D***
815			475020 - 3	Surface Mining Machine Operators and Earth Drillers	4	16	D***	D***
816				475022 - Excavating and Loading Machine and Dragline Operators, Surface Mining	4	16	D***	D***
817			475050 -	Rock Splitters, Quarry	D*	D**	D***	D***
818				475051 - Rock Splitters, Quarry	D*	D**	D***	D***
819			475080 -	HelpersExtraction Workers	D*	D**	D***	D***
820				475081 - HelpersExtraction Workers	D*	D**	D***	D***
821	490000 -	Installatio	n, Mainten	ance, and Repair Occupations	322	1,333	\$9.87	\$7.79
822		491000 -	Supervisor	s of Installation, Maintenance, and Repair Workers	27	45	\$16.64	\$12.72
823			491010 -	First-Line Supervisors of Mechanics, Installers, and Repairers	27	45	\$16.64	\$12.72
824				491011 - First-Line Supervisors of Mechanics, Installers, and Repairers	27	45	\$16.64	\$12.72
825		492000 -	Electrical a	nd Electronic Equipment Mechanics, Installers, and Repairers	29	53	\$10.93	\$8.00
826			492010 -	Computer, Automated Teller, and Office Machine Repairers	7	9	D***	D***
827				492011 - Computer, Automated Teller, and Office Machine Repairers	7	9	D***	D***
828			492020 -	Radio and Telecommunications Equipment Installers and Repairers	4	16	D***	D***
829				492021 - Radio, Cellular, and Tower Equipment Installers and Repairers	D*	5	D***	D***
830				492022 - Telecommunications Equipment Installers and Repairers, Except Line Installers	3	11	D***	D***
831			492090 -	Miscellaneous Electrical and Electronic Equipment Mechanics, Installers, and Repairers	19	28	D***	D***
832				492091 - Avionics Technicians	D*	D**	D***	D***
833				492092 - Electric Motor, Power Tool, and Related Repairers	D*	D**	D***	D***
834				492093 - Electrical and Electronics Installers and Repairers, Transportation Equipment	D*	D**	D***	D***
835				492094 - Electrical and Electronics Repairers, Commercial and Industrial Equipment	6	10	D***	D***
836				492096 - Electronic Equipment Installers and Repairers, Motor Vehicles	5	9	D***	D***
837				492097 - Audiovisual Equipment Installers and Repairers	D*	D**	D***	D***
838				492098 - Security and Fire Alarm Systems Installers	D*	D**	D***	D***
839		493000 -	Vehicle an	d Mobile Equipment Mechanics, Installers, and Repairers	93	242	\$9.77	\$8.00
840			493010 - /	Aircraft Mechanics and Service Technicians	8	38	\$15.63	\$12.98

	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
841				493011 - Aircraft Mechanics and Service Technicians	8	38	\$15.63	\$12.98
842			493020 -	Automotive Technicians and Repairers	53	86	\$8.06	\$7.32
843				493021 - Automotive Body and Related Repairers	17	23	D***	D***
844				493022 - Automotive Glass Installers and Repairers	3	D**	D***	D***
845				493023 - Automotive Service Technicians and Mechanics	41	59	\$7.98	\$7.25
846			493030 -	Bus and Truck Mechanics and Diesel Engine Specialists	19	44	\$10.19	\$8.21
847				493031 - Bus and Truck Mechanics and Diesel Engine Specialists	19	44	\$10.19	\$8.21
848			493040 -	Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics	14	51	\$8.73	\$8.00
849				493042 - Mobile Heavy Equipment Mechanics, Except Engines	14	51	\$8.73	\$8.00
850			493050 -	Small Engine Mechanics	6	13	D***	D***
851				493051 - Motorboat Mechanics and Service Technicians	4	9	D***	D***
852				493053 - Outdoor Power Equipment and Other Small Engine Mechanics	D*	D**	D***	D***
853			493090 -	Miscellaneous Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	6	10	D***	D***
854				493093 - Tire Repairers and Changers	6	10	D***	D***
855	4	499000 -	Other Inst	allation, Maintenance, and Repair Occupations	252	993	\$9.54	\$7.67
856				Control and Valve Installers and Repairers	D*	D**	D***	D***
857				499011 - Mechanical Door Repairers	D*	D**	D***	D***
858			499020 -	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	35	77	\$8.08	\$7.65
859				499021 - Heating, Air Conditioning, and Refrigeration Mechanics and Installers	35	77	\$8.08	\$7.65
860			499040 -	Industrial Machinery Installation, Repair, and Maintenance Workers	16	36	\$10.85	\$8.58
861				499041 - Industrial Machinery Mechanics	6	23	D***	D***
862				499043 - Maintenance Workers, Machinery	10	13	D***	D***
863			499050 -	Line Installers and Repairers	4	61	\$19.91	\$16.84
864				499051 - Electrical Power-Line Installers and Repairers	3			\$18.53
865				499052 - Telecommunications Line Installers and Repairers	D*	14	D***	D***
866			499060 -	Precision Instrument and Equipment Repairers	5	11	D***	D***
867				499061 - Camera and Photographic Equipment Repairers	D*	D**	D***	D***
868				499062 - Medical Equipment Repairers	4	10	D***	D***
869			499070 -	Maintenance and Repair Workers, General	186	642	\$8.33	\$7.50
870				499071 - Maintenance and Repair Workers, General	186	642	\$8.33	\$7.50
871			499080 -	Wind Turbine Service Technicians	D*	D**	D***	D***
872				499081 - Wind Turbine Service Technicians	D*	D**	D***	D***
873			499090 -	Miscellaneous Installation, Maintenance, and Repair Workers	46	162	\$10.61	\$10.12
874				499091 - Coin, Vending, and Amusement Machine Servicers and Repairers	5	9	D***	D***
875				499092 - Commercial Divers	14	20	D***	D***
876				499096 - Riggers	D*	D**	D***	D***
877				499097 - Signal and Track Switch Repairers	3	D**	D***	D***
878				499098 - HelpersInstallation, Maintenance, and Repair Workers	20	119	\$11.04	\$10.58
879				499099 - Installation, Maintenance, and Repair Workers, All Other	D*	7	D***	D***

Section Sect	Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
STATES S	880	510000 -	Production	n Occupati	ons	143	609		-
Statistics Sta	881		511000 -			8	20	ii	
State Stat	882			511010 -		8	20	D***	_
	883				511011 - First-Line Supervisors of Production and Operating Workers	8	20	D***	D***
S12031	884		512000 -			8	25	D***	D***
Standard	885			512030 -	Engine and Other Machine Assemblers	D*	D**	D***	D***
S12061 - Structural Metal Fabricators and Fitters	886				512031 - Engine and Other Machine Assemblers	D*	D**	D***	D***
S12050 - Fiberglass Laminators and Fabricators 3 D** D*** D*** D***	887			512040 -	Structural Metal Fabricators and Fitters	D*	D**	D***	D***
S12051 - Fiberglass Laminators and Fabricators 3 D** D*** D***	888				512041 - Structural Metal Fabricators and Fitters	D*	D**	D***	D***
	889			512050 -	Fiberglass Laminators and Fabricators	3	D**	D***	D***
S12099 - Assemblers and Fabricators, All Other 36 112 57.59 57.40	890				512051 - Fiberglass Laminators and Fabricators	3	D**	D***	D***
Signature Sign	891			512090 -	Miscellaneous Assemblers and Fabricators	4	20	D***	D***
State	892				512099 - Assemblers and Fabricators, All Other	4	20	D***	D***
895 513011 - Bakers 19 78 \$7.55 \$7.48 896 513020 - Butchers and Other Meat, Poultry, and Fish Processing Workers 18 29 D**** D**** 897 \$13021 - Butchers and Meat Cutters 16 25 D*** D*** 898 \$13022 - Meat, Poultry, and Fish Cutters and Trimmers D* D*** D*** D*** 899 \$13023 - Slaughterers and Meat Packers D* D***	893		513000 -	Food Proc	essing Workers	36	112	\$7.59	\$7.40
Sign	894			513010 -	Bakers	19	78	\$7.55	\$7.48
	895				513011 - Bakers	19	78	\$7.55	\$7.48
Signature Sign	896			513020 -	Butchers and Other Meat, Poultry, and Fish Processing Workers	18	29	D***	D***
898 513022 - Meat, Poultry, and Fish Cutters and Trimmers D* D*** D*** D*** 899 513092 - Slaughterers and Meat Packers D* D*** D*** <td< td=""><td>897</td><td></td><td></td><td></td><td></td><td>16</td><td>25</td><td>D***</td><td>D***</td></td<>	897					16	25	D***	D***
S13093 - Slaughterers and Meat Packers D* D** D*** D***					513022 - Meat, Poultry, and Fish Cutters and Trimmers			D***	D***
901					513023 - Slaughterers and Meat Packers	D*	D**	D***	D***
901	900			513090 -	Miscellaneous Food Processing Workers	4	5	D***	D***
902 514000 - Metal Workers and Plastic Workers 905 514030 - Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic 906 514040 - Machinists 907 514040 - Machinists 908 514041 - Machinists 909 514041 - Welding, Soldering, and Brazing Workers 909 909 514120 - Welding, Soldering, and Brazing Workers 911 912 515000 - Untitled Group: 31 515110 - Printing Workers 915 915 915 915 915 915 915 915 915 915	901					D*	D**	D***	D***
904 514000 - Metal Workers and Plastic Workers 24 114 \$16.04 \$8.98 905 514030 - Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic D* D*** D**** D*** D*** D*** D*** D*** D**** D*** D**** D*** D**** D**** D**** D***					513093 - Food Cooking Machine Operators and Tenders	D*	D**	D***	D***
905 514030 - Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic D* D*** D*	903				513099 - Food Processing Workers, All Other	D*	D**	D***	D***
S14034 - Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic D* D** D*** D	904		514000 -	Metal Wo	rkers and Plastic Workers	24	114	\$16.04	\$8.98
S14034 - Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic D* D** D*** D	905			514030 -	Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	D*	D**		
908 514041 - Machinists 7 20 D*** D*** 909 514120 - Welding, Soldering, and Brazing Workers 21 93 \$17.62 \$10.50 910 514121 - Welders, Cutters, Solderers, and Brazers 19 89 \$18.02 \$10.50 911 514122 - Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders D* D*** D*** 912 515000 - Untitled Group: 31 6 15 D*** D*** 913 515110 - Printing Workers 6 15 D*** D*** 914 515111 - Prepress Technicians and Workers D* D*** D*** 915 515112 - Printing Press Operators 6 10 D*** D*** 916 515113 - Print Binding and Finishing Workers D* D*** D*** D***	906					D*	D**	D***	D***
908 514041 - Machinists 7 20 D*** D*** 909 514120 - Welding, Soldering, and Brazing Workers 21 93 \$17.62 \$10.50 910 514121 - Welders, Cutters, Solderers, and Brazers 19 89 \$18.02 \$10.50 911 514122 - Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders D* D*** D*** 912 515000 - Untitled Group: 31 6 15 D*** D*** 913 515110 - Printing Workers 6 15 D*** D*** 914 515111 - Prepress Technicians and Workers D* D*** D*** 915 515112 - Printing Press Operators 6 10 D*** D*** 916 515113 - Print Binding and Finishing Workers D* D*** D*** D***	907			514040 -	Machinists	7	20	D***	D***
909 514120 - Welding, Soldering, and Brazing Workers 21 93 \$17.62 \$10.50 910 514121 - Welders, Cutters, Solderers, and Brazers 19 89 \$18.02 \$10.50 911 514122 - Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders D* D*** D*** 912 515000 - Untitled Group: 31 6 15 D*** D*** 913 515110 - Printing Workers 6 15 D*** D*** 914 515111 - Prepress Technicians and Workers D* D** D*** 915 515112 - Printing Press Operators 6 10 D*** D*** 916 515113 - Print Binding and Finishing Workers D* D** D*** D***					514041 - Machinists	7		D***	D***
910 514121 - Welders, Cutters, Solderers, and Brazers 19 89 \$18.02 \$10.50 911 514122 - Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders D* D*** D*** 912 515000 - Untitled Group: 31 6 15 D*** D*** 913 515110 - Printing Workers 6 15 D*** D*** 914 515111 - Prepress Technicians and Workers D* D*** D*** 915 515112 - Printing Press Operators 6 10 D*** D*** 916 515113 - Print Binding and Finishing Workers D* D*** D*** D***				514120 -	Welding, Soldering, and Brazing Workers	21		\$17.62	\$10.50
911 514122 - Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders D* D** D*** 912 515000 - Untitled Group: 31 6 15 D*** D*** 913 515110 - Printing Workers 6 15 D*** D*** 914 515111 - Prepress Technicians and Workers D* D*** D*** 915 515112 - Printing Press Operators 6 10 D*** D*** 916 515113 - Print Binding and Finishing Workers D* D*** D*** D***									
912 515000 - Untitled Group: 31 6 15 D*** D*** 913 515110 - Printing Workers 6 15 D*** D*** 914 515111 - Prepress Technicians and Workers D* D** D*** D*** 915 515112 - Printing Press Operators 6 10 D*** D*** 916 515113 - Print Binding and Finishing Workers D* D** D***						<u>. </u>			
913 515110 - Printing Workers 6 15 D*** D*** 914 515111 - Prepress Technicians and Workers D* D** D*** D*** 915 515112 - Printing Press Operators 6 10 D*** D*** 916 515113 - Print Binding and Finishing Workers D* D** D***			515000 -	Untitled G	roup: 31		15	D***	D***
914 515111 - Prepress Technicians and Workers D* D*** D*** 915 515112 - Printing Press Operators 6 10 D*** D*** 916 515113 - Print Binding and Finishing Workers D* D*** D***					· · · · · · · · · · · · · · · · · · ·			D***	
915 515112 - Printing Press Operators 6 10 D*** D*** 916 515113 - Print Binding and Finishing Workers D* D*** D***				2-3-10		<u> </u>	į	_	_
916 D** D*** D*** D***					·	6	<u> </u>	<u> </u>	
						D*		_	_
			516000 -	Textile. An		<u> </u>	_	_	

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	Hourly Wage Rate Median
918				Laundry and Dry-Cleaning Workers	20	94	\$7.45	\$7.25
919				516011 - Laundry and Dry-Cleaning Workers	20	94	\$7.45	\$7.25
920				Sewing Machine Operators	4	12	D***	D***
921				516031 - Sewing Machine Operators	4	12	D***	D***
922				Tailors, Dressmakers, and Sewers	15	20	D***	D***
923				516051 - Sewers, Hand	3	D**	D***	D***
924				516052 - Tailors, Dressmakers, and Custom Sewers	14	17	D***	D***
925				Miscellaneous Textile, Apparel, and Furnishings Workers	5	7	D***	D***
926				516092 - Fabric and Apparel Patternmakers	D*	D**	D***	D***
927				516093 - Upholsterers	4	5	D***	D***
928		517000 -	Woodwork		D*	D**	D***	D***
929				Cabinetmakers and Bench Carpenters	D*	D**	D***	D***
930				517011 - Cabinetmakers and Bench Carpenters	D*	D**	D***	D***
931		518000 -	Plant and S	System Operators	12	63	\$15.68	\$13.60
932				Power Plant Operators, Distributors, and Dispatchers	5	38	\$13.63	\$13.18
933				518013 - Power Plant Operators	5	38	\$13.63	\$13.18
934			518030 - \	Water and Wastewater Treatment Plant and System Operators	5	19	D***	D***
935				518031 - Water and Wastewater Treatment Plant and System Operators	5	19	D***	D***
936			518090 - I	Miscellaneous Plant and System Operators	3	6	D***	D***
937				518092 - Gas Plant Operators	D*	D**	D***	D***
938				518093 - Petroleum Pump System Operators, Refinery Operators, and Gaugers	D*	D**	D***	D***
939				518099 - Plant and System Operators, All Other	D*	D**	D***	D***
940		519000 -	Other Proc	duction Occupations	38	123	\$8.29	\$7.50
941			519020 - 0	Crushing, Grinding, Polishing, Mixing, and Blending Workers	D*	12	D***	D***
942				519021 - Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	D*	9	D***	D***
943				519023 - Mixing and Blending Machine Setters, Operators, and Tenders	D*	D**	D***	D***
944			519050 - I	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	D*	D**	D***	D***
945				519051 - Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	D*	D**	D***	D***
946			519060 - I	Inspectors, Testers, Sorters, Samplers, and Weighers	D*	16	D***	D***
947				519061 - Inspectors, Testers, Sorters, Samplers, and Weighers	D*	16	D***	D***
948			519070 - J	Jewelers and Precious Stone and Metal Workers	4	6	D***	D***
949				519071 - Jewelers and Precious Stone and Metal Workers	4	6	D***	D***
950			519080 - I	Dental and Ophthalmic Laboratory Technicians and Medical Appliance Technicians	D*	D**	D***	D***
951				519081 - Dental Laboratory Technicians	D*	D**	D***	D***
952			519110 - I	Packaging and Filling Machine Operators and Tenders	D*	D**	D***	D***
953				519111 - Packaging and Filling Machine Operators and Tenders	D*	D**	D***	D***
954			519120 - I	Painting Workers	9	12	D***	D***
955				519123 - Painting, Coating, and Decorating Workers	D*	D**	D***	D***

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate Mean	_
956				519124 - Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	8	11	D***	D***
957			519190 -	Miscellaneous Production Workers	20	73	\$7.63	\$7.28
958				519192 - Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	D*	D**	D***	D***
959				519193 - Cooling and Freezing Equipment Operators and Tenders	3	D**	D***	D***
960				519194 - Etchers and Engravers	D*	D**	D***	D***
961				519195 - Molders, Shapers, and Casters, Except Metal and Plastic	D*	6	D***	D***
962				519198 - HelpersProduction Workers	12	42	\$7.45	\$7.25
963				519199 - Production Workers, All Other	3	20	D***	
	530000 -			Material Moving Occupations	180	1,210	\$8.81	\$7.54
965		531000 -		s of Transportation and Material Moving Workers	28	78	\$11.39	-
966			531040 -	First-Line Supervisors of Transportation and Material Moving Workers	28	78	\$11.39	\$9.88
967				531041 - Aircraft Cargo Handling Supervisors	7	32	\$11.77	\$10.63
968				531042 - First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	18	30	\$10.45	\$9.18
969				531043 - First-Line Supervisors of Material-Moving Machine and Vehicle Operators	6	9	D***	D***
970				531044 - First-Line Supervisors of Passenger Attendants	D*	D**	D***	D***
971				531049 - First-Line Supervisors of Transportation Workers, All Other	3	5	D***	D***
972		532000 -	Air Transp	ortation Workers	6	57	\$13.47	\$9.78
973			532010 -	Aircraft Pilots and Flight Engineers	3	34	\$14.96	\$13.27
974				532011 - Airline Pilots, Copilots, and Flight Engineers	3	7	D***	D***
975				532012 - Commercial Pilots	D*	27	D***	D***
976			532020 -	Air Traffic Controllers and Airfield Operations Specialists	3	23	D***	D***
977				532021 - Air Traffic Controllers	D*	9	D***	D***
978				532022 - Airfield Operations Specialists	D*	14	D***	D***
979		533000 -	Motor Vel	nicle Operators	79	466	\$8.38	\$7.61
980			533010 -	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	D*	7	D***	D***
981				533011 - Ambulance Drivers and Attendants, Except Emergency Medical Technicians	D*	7	D***	D***
982			533030 -	Driver/Sales Workers and Truck Drivers	61	301	\$7.80	\$7.52
983				533031 - Driver/Sales Workers	34	125	\$7.65	\$7.25
984				533032 - Heavy and Tractor-Trailer Truck Drivers	17	113	\$8.11	\$7.77
985				533033 - Light Truck Drivers	13	63	\$7.53	\$7.50
986			533050 -	Passenger Vehicle Drivers	17	157	\$9.51	\$7.95
987				533051 - Bus Drivers, School	D*	42	D***	D***
988				533052 - Bus Drivers, Transit and Intercity	8	88	\$9.25	\$7.76
989				533053 - Shuttle Drivers and Chauffeurs	3	7	D***	D***
990				533054 - Taxi Drivers	4	20	D***	D***
991			533090 -	Miscellaneous Motor Vehicle Operators	D*	D**	D***	D***
992				533099 - Motor Vehicle Operators, All Other	D*	D**	D***	D***
993		535000 -	Water Tra	nsportation Workers	26	63	\$10.83	\$9.51
994			535010 -	Sailors and Marine Oilers	6	14	D***	D***

Row#	Major- Title	Minor- Title	Broad- Title	SOC-Title	Employers N	Employees N	Hourly Wage Rate \ Mean	Hourly Nage Rate Median
995				535011 - Sailors and Marine Oilers	6	14	D***	D***
996			535020 -	Ship and Boat Captains and Operators	23	49	\$11.63	\$12.00
997				535021 - Captains, Mates, and Pilots of Water Vessels	19	42	\$11.78	\$12.65
998				535022 - Motorboat Operators	5	7	D***	D***
999		536000 -		nsportation Workers	17	73	\$7.49	\$7.25
1,000			536020 -	Parking Attendants	5	23	D***	D***
1,001				536021 - Parking Attendants	5	23	D***	D***
1,002			536030 -	Transportation Service Attendants	7	38	\$7.35	\$7.25
1,003				536031 - Automotive and Watercraft Service Attendants	7	38	\$7.35	\$7.25
1,004			536040 -	Traffic Technicians	D*	D**	D***	D***
1,005				536041 - Traffic Technicians	D*	D**	D***	D***
1,006			536060 -	Passenger Attendants	D*	D**	D***	D***
1,007				536061 - Passenger Attendants	D*	D**	D***	D***
1,008			536090 -	Miscellaneous Transportation Workers	3	D**	D***	D***
1,009				536099 - Transportation Workers, All Other	3	D**	D***	D***
1,010		537000 -	Material N	Noving Workers	80	473	\$8.18	\$7.26
1,011			537010 -	Conveyor Operators and Tenders	D*	5	D***	D***
1,012				537011 - Conveyor Operators and Tenders	D*	5	D***	D***
1,013			537020 -	Crane and Tower Operators	5	11	D***	D***
1,014				537021 - Crane and Tower Operators	5	11	D***	D***
1,015			537040 -	Hoist and Winch Operators	D*	D**	D***	D***
1,016				537041 - Hoist and Winch Operators	D*	D**	D***	D***
1,017			537050 -	Industrial Truck and Tractor Operators	5	14	D***	D***
1,018				537051 - Industrial Truck and Tractor Operators	5	14	D***	D***
1,019			537060 -	Laborers and Material Movers	61	338	\$8.07	\$7.25
1,020				537061 - Cleaners of Vehicles and Equipment	10	71	\$7.49	\$7.25
1,021				537062 - Laborers and Freight, Stock, and Material Movers, Hand	5	61	\$9.21	\$9.05
1,022				537063 - Machine Feeders and Offbearers	D*	D**	D***	D***
1,023				537064 - Packers and Packagers, Hand	8	23	D***	D***
1,024				537065 - Stockers and Order Fillers	47	182	\$7.93	\$7.25
1,025			537070 -	Pumping Station Operators	3	42	\$7.33	\$7.25
1,026				537072 - Pump Operators, Except Wellhead Pumpers	3	42	\$7.33	\$7.25
1,027			537080 -	Refuse and Recyclable Material Collectors	6	33	\$7.51	\$7.30
1,028				537081 - Refuse and Recyclable Material Collectors	6	33	\$7.51	\$7.30
1,029			537190 -	Miscellaneous Material Moving Workers	6	29	D***	D***
1,030				537199 - Material Moving Workers, All Other	6	29	D***	D***
1,031	Grand To	tal			937	19,621	\$12.74	\$8.65

APPENDIX E: CNMI DETAILED TITLES WHOSE HOURLY WAGE AMOUNTS IN THIS REPORT DIFFER FROM THOSE RELEASED IN MAY 2019

1	112032 - Public Relations Managers		
2	113051 - Industrial Production Managers		
3	113061 - Purchasing Managers		
4	113071 - Transportation, Storage, and Distribution Managers		
5	113131 - Training and Development Managers		
6	119013 - Farmers, Ranchers, and Other Agricultural Managers		
7	119031 - Education and Childcare Administrators, Preschool and Daycare		
8	119041 - Architectural and Engineering Managers		
9	119081 - Lodging Managers		
10	119141 - Property, Real Estate, and Community Association Managers		
11	119151 - Social and Community Service Managers		
12	119161 - Emergency Management Directors		
13	119171 - Funeral Home Managers		
14	131022 - Wholesale and Retail Buyers, Except Farm Products		
15	131023 - Purchasing Agents, Except Wholesale, Retail, and Farm Products		
16	131031 - Claims Adjusters, Examiners, and Investigators		
17	131051 - Cost Estimators		
18	131081 - Logisticians		
19	131111 - Management Analysts		
20	131151 - Training and Development Specialists		
21	131161 - Market Research Analysts and Marketing Specialists		
22	131199 - Business Operations Specialists, All Other		
23	132022 - Appraisers of Personal and Business Property		
24	132023 - Appraisers and Assessors of Real Estate		
25	132031 - Budget Analysts		
26	132051 - Financial and Investment Analysts		
27	132082 - Tax Preparers		
28	151211 - Computer Systems Analysts		
29	151212 - Information Security Analysts		
30	151231 - Computer Network Support Specialists		
31	151242 - Database Administrators		
32	151251 - Computer Programmers		
33	151252 - Software Developers		
34	151254 - Web Developers		

35	151255 - Web and Digital Interface Designers		
36	151299 - Computer Occupations, All Other		
37	172071 - Electrical Engineers		
38	172072 - Electronics Engineers, Except Computer		
39	172081 - Environmental Engineers		
40	172111 - Health and Safety Engineers, Except Mining Safety Engineers and Inspectors		
41	172141 - Mechanical Engineers		
42	173011 - Architectural and Civil Drafters		
43	173012 - Electrical and Electronics Drafters		
44	173019 - Drafters, All Other		
45	173029 - Engineering Technologists and Technicians, Except Drafters, All Other		
46	173031 - Surveying and Mapping Technicians		
47	191021 - Biochemists and Biophysicists		
48	191022 - Microbiologists		
49	191023 - Zoologists and Wildlife Biologists		
50	194042 - Environmental Science and Protection Technicians, Including Health		
51	195012 - Occupational Health and Safety Technicians		
52	211011 - Substance Abuse and Behavioral Disorder Counselors		
53	251072 - Nursing Instructors and Teachers, Postsecondary		
54	251121 - Art, Drama, and Music Teachers, Postsecondary		
55	251123 - English Language and Literature Teachers, Postsecondary		
56	251193 - Recreation and Fitness Studies Teachers, Postsecondary		
57	251194 - Career/Technical Education Teachers, Postsecondary		
58	251199 - Postsecondary Teachers, All Other		
59	252011 - Preschool Teachers, Except Special Education		
60	252012 - Kindergarten Teachers, Except Special Education		
61	253021 - Self-Enrichment Teachers		
62	271011 - Art Directors		
63	271012 - Craft Artists		
64	271013 - Fine Artists, Including Painters, Sculptors, and Illustrators		
65	271019 - Artists and Related Workers, All Other		
66	271023 - Floral Designers		
67	272022 - Coaches and Scouts		
68	272023 - Umpires, Referees, and Other Sports Officials		
69	272031 - Dancers		
70	272032 - Choreographers		
71	272042 - Musicians and Singers		
72	273031 - Public Relations Specialists		
73	273041 - Editors		

	272042 Task wisel Weiters		
74	273042 - Technical Writers		
75	273091 - Interpreters and Translators		
76	291021 - Dentists, General		
77	291023 - Orthodontists		
78	291029 - Dentists, All Other Specialists		
79	291051 - Pharmacists		
80	291071 - Physician Assistants		
81	291123 - Physical Therapists		
82	291161 - Nurse Midwives		
83	291171 - Nurse Practitioners		
84	291216 - General Internal Medicine Physicians		
85	291241 - Ophthalmologists, Except Pediatric		
86	291242 - Orthopedic Surgeons, Except Pediatric		
87	291292 - Dental Hygienists		
88	292012 - Medical and Clinical Laboratory Technicians		
89	292031 - Cardiovascular Technologists and Technicians		
90	292032 - Diagnostic Medical Sonographers		
91	292034 - Radiologic Technologists and Technicians		
92	292052 - Pharmacy Technicians		
93	292053 - Psychiatric Technicians		
94	311121 - Home Health Aides		
95	311122 - Personal Care Aides		
96	319091 - Dental Assistants		
97	319092 - Medical Assistants		
98	319097 - Phlebotomists		
99	319099 - Healthcare Support Workers, All Other		
100	331091 - First-Line Supervisors of Security Workers		
101	331099 - First-Line Supervisors of Protective Service Workers, All Other		
102	352019 - Cooks, All Other		
103	359011 - Dining Room and Cafeteria Attendants and Bartender Helpers		
104	371012 - First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers		
105	372019 - Building Cleaning Workers, All Other		
106	373012 - Pesticide Handlers, Sprayers, and Applicators, Vegetation		
107	391013 - First-Line Supervisors of Gambling Services Workers		
108	391014 - First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services		
109	395011 - Barbers		
110	395092 - Manicurists and Pedicurists		
111	395094 - Skincare Specialists		
112	396011 - Baggage Porters and Bellhops		

113	399031 - Exercise Trainers and Group Fitness Instructors		
114	399032 - Recreation Workers		
115	411012 - First-Line Supervisors of Non-Retail Sales Workers		
116	412022 - Parts Salespersons		
117	413011 - Advertising Sales Agents		
118	413021 - Insurance Sales Agents		
119	413041 - Travel Agents		
120	414011 - Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products		
121	419011 - Demonstrators and Product Promoters		
122	419022 - Real Estate Sales Agents		
123	419099 - Sales and Related Workers, All Other		
124	432011 - Switchboard Operators, Including Answering Service		
125	433011 - Bill and Account Collectors		
126	433051 - Payroll and Timekeeping Clerks		
127	434031 - Court, Municipal, and License Clerks		
128	434161 - Human Resources Assistants, Except Payroll and Timekeeping		
129	435021 - Couriers and Messengers		
130	435031 - Public Safety Telecommunicators		
131	435032 - Dispatchers, Except Police, Fire, and Ambulance		
132	435051 - Postal Service Clerks		
133	435052 - Postal Service Mail Carriers		
134	435061 - Production, Planning, and Expediting Clerks		
135	436012 - Legal Secretaries and Administrative Assistants		
136	436013 - Medical Secretaries and Administrative Assistants		
137	439021 - Data Entry Keyers		
138	439022 - Word Processors and Typists		
139	472152 - Plumbers, Pipefitters, and Steamfitters		
140	472211 - Sheet Metal Workers		
141	474011 - Construction and Building Inspectors		
142	474071 - Septic Tank Servicers and Sewer Pipe Cleaners		
143	492011 - Computer, Automated Teller, and Office Machine Repairers		
144	492021 - Radio, Cellular, and Tower Equipment Installers and Repairers		
145	492022 - Telecommunications Equipment Installers and Repairers, Except Line Installers		
146	492091 - Avionics Technicians		
147	492092 - Electric Motor, Power Tool, and Related Repairers		
148	492093 - Electrical and Electronics Installers and Repairers, Transportation Equipment		
149	492094 - Electrical and Electronics Repairers, Commercial and Industrial Equipment		
150	492096 - Electronic Equipment Installers and Repairers, Motor Vehicles		
151	492097 - Audiovisual Equipment Installers and Repairers		

152	492098 - Security and Fire Alarm Systems Installers		
153	493021 - Automotive Body and Related Repairers		
154	493022 - Automotive Glass Installers and Repairers		
155	493051 - Motorboat Mechanics and Service Technicians		
156	493053 - Outdoor Power Equipment and Other Small Engine Mechanics		
157	493093 - Tire Repairers and Changers		
158	499041 - Industrial Machinery Mechanics		
159	499043 - Maintenance Workers, Machinery		
160	499061 - Camera and Photographic Equipment Repairers		
161	499062 - Medical Equipment Repairers		
162	499091 - Coin, Vending, and Amusement Machine Servicers and Repairers		
163	499092 - Commercial Divers		
164	499097 - Signal and Track Switch Repairers		
165	513021 - Butchers and Meat Cutters		
166	513022 - Meat, Poultry, and Fish Cutters and Trimmers		
167	513023 - Slaughterers and Meat Packers		
168	513092 - Food Batchmakers		
169	513093 - Food Cooking Machine Operators and Tenders		
170	513099 - Food Processing Workers, All Other		
171	514041 - Machinists		
172	516031 - Sewing Machine Operators		
173	516051 - Sewers, Hand		
174	516052 - Tailors, Dressmakers, and Custom Sewers		
175	516092 - Fabric and Apparel Patternmakers		
176	516093 - Upholsterers		
177	518031 - Water and Wastewater Treatment Plant and System Operators		
178	518092 - Gas Plant Operators		
179	518093 - Petroleum Pump System Operators, Refinery Operators, and Gaugers		
180	518099 - Plant and System Operators, All Other		
181	519071 - Jewelers and Precious Stone and Metal Workers		
182	519123 - Painting, Coating, and Decorating Workers		
183	519124 - Coating, Painting, and Spraying Machine Setters, Operators, and Tenders		
184	519193 - Cooling and Freezing Equipment Operators and Tenders		
185	519199 - Production Workers, All Other		
186	531043 - First-Line Supervisors of Material-Moving Machine and Vehicle Operators		
187	531049 - First-Line Supervisors of Transportation Workers, All Other		
188	532011 - Airline Pilots, Copilots, and Flight Engineers		
189	532021 - Air Traffic Controllers		
190	532022 - Airfield Operations Specialists		

191	533053 - Shuttle Drivers and Chauffeurs		
192	533054 - Taxi Drivers		
193	535011 - Sailors and Marine Oilers		
194	535022 - Motorboat Operators		
195	536021 - Parking Attendants		
196	536099 - Transportation Workers, All Other		
197	537021 - Crane and Tower Operators		
198	537051 - Industrial Truck and Tractor Operators		
199	537064 - Packers and Packagers, Hand		
200	537199 - Material Moving Workers, All Other		

APPENDIX F SOC DETAILED CODES, TITLES, AND DEFINITIONS

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
11-1011	Chief Executives	Determine and formulate policies and provide overall direction of companies or private and public sector organizations within guidelines set up by a board of directors or similar governing body. Plan, direct, or coordinate operational activities at the highest level of management with the help of subordinate executives and staff managers.
11-1021	General and Operations Managers	Plan, direct, or coordinate the operations of public or private sector organizations, overseeing multiple departments or locations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services. Usually manage through subordinate supervisors. Excludes First-Line Supervisors.
11-1031	Legislators	Develop, introduce, or enact laws and statutes at the local, tribal, state, or federal level. Includes only workers in elected positions.
11-2011	Advertising and Promotions Managers	Plan, direct, or coordinate advertising policies and programs or produce collateral materials, such as posters, contests, coupons, or giveaways, to create extra interest in the purchase of a product or service for a department, an entire organization, or on an account basis.
11-2021	Marketing Managers	Plan, direct, or coordinate marketing policies and programs, such as determining the demand for products and services offered by a firm and its competitors, and identify potential customers. Develop pricing strategies with the goal of maximizing the firm's profits or share of the market while ensuring the firm's customers are satisfied. Oversee product development or monitor trends that indicate the need for new products and services.
11-2022	Sales Managers	Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.
11-2032	Public Relations Managers	Plan, direct, or coordinate activities designed to create or maintain a favorable public image or raise issue awareness for their organization or client.
11-2033	Fundraising Managers	Plan, direct, or coordinate activities to solicit and maintain funds for special projects or nonprofit organizations.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
11-3012	Administrative Services Managers	Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, and other office support services. Medical records administrators are included in "Medical and Health Services Managers" (11-9111). Excludes "Facilities Managers" (11-3013) and "Purchasing Managers" (11-3061).
11-3013	Facilities Managers	Plan, direct, or coordinate operations and functionalities of facilities and buildings. May include surrounding grounds or multiple facilities of an organization's campus. Excludes "Administrative Services Managers" (11-3012), "Property, Real Estate, and Community Association Managers" (11-9141), "First-Line Supervisors of Building and Grounds Cleaning and Maintenance Workers" (37-1010), "First-Line Supervisors of Mechanics and Repairers" (49-1011), and "Maintenance and Repair Workers, General" (49-9071).
11-3021	Computer and Information Systems Managers	Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming. Excludes "Computer Occupations" (15-1211 through 15-1299).
11-3031	Financial Managers	Plan, direct, or coordinate accounting, investing, banking, insurance, securities, and other financial activities of a branch, office, or department of an establishment. Excludes "Financial Risk Specialists" (13-2054).
11-3051	Industrial Production Managers	Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.
11-3061	Purchasing Managers	Plan, direct, or coordinate the activities of buyers, purchasing officers, and related workers involved in purchasing materials, products, and services. Includes wholesale or retail trade merchandising managers and procurement managers.
11-3071	Transportation, Storage, and Distribution Managers	Plan, direct, or coordinate transportation, storage, or distribution activities in accordance with organizational policies and applicable government laws or regulations. Includes logistics managers.
11-3111	Compensation and Benefits Managers	Plan, direct, or coordinate compensation and benefits activities of an organization. Job analysis and position description managers are included in "Human Resources Managers" (11-3121).
11-3121	Human Resources Managers	Plan, direct, or coordinate human resources activities and staff of an organization. Excludes managers who primarily focus on compensation and benefits (11-3111) and training and development (11-3131).
11-3131	Training and Development Managers	Plan, direct, or coordinate the training and development activities and staff of an organization.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
11-9013	Farmers, Ranchers, and Other Agricultural Managers	Plan, direct, or coordinate the management or operation of farms, ranches, greenhouses, aquacultural operations, nurseries, timber tracts, or other agricultural establishments. May hire, train, and supervise farm workers or contract for services to carry out the day-to-day activities of the managed operation. May engage in or supervise planting, cultivating, harvesting, and financial and marketing activities. Excludes "First-Line Supervisors of Farming, Fishing, and Forestry Workers" (45-1011).
11-9021	Construction Managers	Plan, direct, or coordinate, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its organization, scheduling, budgeting, and implementation. Includes managers in specialized construction fields, such as carpentry or plumbing.
11-9031	Education and Childcare Administrators, Preschool and Daycare	Plan, direct, or coordinate academic or nonacademic activities of preschools or childcare centers and programs, including before- and after-school care. Excludes "Preschool Teachers, Except Special Education" (25-2011) and "Childcare Workers" (39-9011).
11-9032	Education Administrators, Kindergarten through Secondary	Plan, direct, or coordinate the academic, administrative, or auxiliary activities of kindergarten, elementary, or secondary schools.
11-9033	Education Administrators, Postsecondary	Plan, direct, or coordinate student instruction, administration, and services, as well as other research and educational activities, at postsecondary institutions, including universities, colleges, and junior and community colleges.
11-9039	Education Administrators, All Other	All education administrators not listed separately.
11-9041	Architectural and Engineering Managers	Plan, direct, or coordinate activities in such fields as architecture and engineering or research and development in these fields. Excludes "Natural Sciences Managers" (11-9121).
11-9051	Food Service Managers	Plan, direct, or coordinate activities of an organization or department that serves food and beverages. Excludes "Chefs and Head Cooks" (35-1011).
11-9071	Gambling Managers	Plan, direct, or coordinate gambling operations in a casino. May formulate house rules.
11-9072	Entertainment and Recreation Managers, Except Gambling	Plan, direct, or coordinate entertainment and recreational activities and operations of a recreational facility, including cruise ships and parks.
11-9081	Lodging Managers	Plan, direct, or coordinate activities of an organization or department that provides lodging and other accommodations. Excludes "Food Service Managers" (11-9051) in lodging establishments.
11-9111	Medical and Health Services Managers	Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
11-9121	Natural Sciences Managers	Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields. Excludes "Computer and Information Systems Managers" (11-3021) and "Architecture and Engineering Managers" (11-9041).
11-9131	Postmasters and Mail Superintendents	Plan, direct, or coordinate operational, administrative, management, and support services of a U.S. post office; or coordinate activities of workers engaged in postal and related work in assigned post office.
11-9141	Property, Real Estate, and Community Association Managers	Plan, direct, or coordinate the selling, buying, leasing, or governance activities of commercial, industrial, or residential real estate properties. Includes managers of homeowner and condominium associations, rented or leased housing units, buildings, or land (including rights-of-way).
11-9151	Social and Community Service Managers	Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.
11-9161	Emergency Management Directors	Plan and direct disaster response or crisis management activities, provide disaster preparedness training, and prepare emergency plans and procedures for natural (e.g., hurricanes, floods, earthquakes), wartime, or technological (e.g., nuclear power plant emergencies or hazardous materials spills) disasters or hostage situations.
11-9171	Funeral Home Managers	Plan, direct, or coordinate the services or resources of funeral homes. Includes activities such as determining prices for services or merchandise and managing the facilities of funeral homes. Excludes "Morticians, Undertakers, and Funeral Arrangers" (39-4031).
11-9179	Personal Service Managers, All Other	All personal service managers not listed separately. Excludes "Financial Specialists" (13-2000). Daycare Managers are included in Education and Childcare Administrators, Preschool and Daycare (11-9031).
11-9199	Managers, All Other	All managers not listed separately.
13-1011	Agents and Business Managers of Artists, Performers, and Athletes	Represent and promote artists, performers, and athletes in dealings with current or prospective employers. May handle contract negotiation and other business matters for clients.
13-1021	Buyers and Purchasing Agents, Farm Products	Purchase farm products either for further processing or resale. Includes tree farm contractors, grain brokers and market operators, grain buyers, and tobacco buyers. May negotiate contracts.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
13-1022	Wholesale and Retail Buyers, Except Farm Products	Buy merchandise or commodities, other than farm products, for resale to consumers at the wholesale or retail level, including both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products. May negotiate contracts. Includes assistant wholesale and retail buyers of nonfarm products. Excludes "Procurement Clerks" (43-3061).
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 semifinished materials for manufacturing. May negotiate contracts. Excludes "Buyers and Purchasing Agents, Farm Products" (13-1021) and "Wholesale and Retail Buyers, Except Farm Products" (13-1022).
13-1031	Claims Adjusters, Examiners, and Investigators	Review settled claims to determine that payments and settlements are made in accordance with company practices and procedures. Confer with legal counsel on claims requiring litigation. May also settle insurance claims. Excludes "Fire Inspectors and Investigators" (33-2021).
13-1032	Insurance Appraisers, Auto Damage	Appraise automobile or other vehicle damage to determine repair costs for insurance claim settlement. Prepare insurance forms to indicate repair cost or cost estimates and recommendations. May seek agreement with automotive repair shop on repair costs.
13-1041	Compliance Officers	Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and perform other compliance and enforcement inspection and analysis activities not classified elsewhere. Excludes "Financial Examiners" (13-2061), "Tax Examiners and Collectors, and Revenue Agents" (13-2081), "Occupational Health and Safety Specialists" (19-5011), "Occupational Health and Safety Technicians" (19-5012), "Transportation Security Screeners" (33-9093), "Agricultural Inspectors" (45-2011), "Construction and Building Inspectors" (47-4011), and "Transportation Inspectors" (53-6051).
13-1051	Cost Estimators	Prepare cost estimates for product manufacturing, construction projects, or services to aid management in bidding on or determining price of product or service. May specialize according to particular service performed or type of product manufactured.
13-1071	Human Resources Specialists	Recruit, screen, interview, or place individuals within an organization. May perform other activities in multiple human resources areas. Excludes "Compensation, Benefits, and Job Analysis Specialists" (13-1141) and "Training and Development Specialists" (13-1151).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
13-1074	Farm Labor Contractors	Recruit and hire seasonal or temporary agricultural laborers. May transport, house, and provide meals for workers.
13-1075	Labor Relations Specialists	Resolve disputes between workers and managers, negotiate collective bargaining agreements, or coordinate grievance procedures to handle employee complaints. Excludes equal employment opportunity (EEO) officers, who are included in "Compliance Officers" (13-1041).
13-1081	Logisticians	Analyze and coordinate the ongoing logistical functions of a firm or organization. Responsible for the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery, and final disposal of resources. Excludes "Transportation, Storage, and Distribution Managers" (11-3071) and "Project Management Specialists" (13-1082).
13-1082	Project Management Specialists	Analyze and coordinate the schedule, timeline, procurement, staffing, and budget of a product or service on a per project basis. Lead and guide the work of technical staff. May serve as a point of contact for the client or customer. Excludes "Management Occupations" (11-0000), "Logisticians" (13-1081), "Meeting, Convention, and Event Planners" (13-1121), and "Production, Planning, and Expediting Clerks" (43-5061).
13-1111	Management Analysts	Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively. Includes program analysts and management consultants. Excludes "Computer Systems Analysts" (15-1211) and "Operations Research Analysts" (15-2031).
13-1121	Meeting, Convention, and Event Planners	Coordinate activities of staff, convention personnel, or clients to make arrangements for group meetings, events, or conventions.
13-1131	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.
13-1141	Compensation, Benefits, and Job Analysis Specialists	Conduct programs of compensation and benefits and job analysis for employer. May specialize in specific areas, such as position classification and pension programs.
13-1151	Training and Development Specialists	Design or conduct work-related training and development programs to improve individual skills or organizational performance. May analyze organizational training needs or evaluate training effectiveness. Excludes "Career/Technical Education Teachers, Postsecondary" (25-1194) and "Other Teachers and Instructors" (25-3000). Flight instructors are included with "Aircraft Pilots and Flight Engineers" (53-2010).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
13-1161	Market Research Analysts and Marketing Specialists	Research conditions in local, regional, national, or online markets. Gather information to determine potential sales of a product or service, or plan a marketing or advertising campaign. May gather information on competitors, prices, sales, and methods of marketing and distribution. May employ search marketing tactics, analyze web metrics, and develop recommendations to increase search engine ranking and visibility to target markets. Excludes "Web and Digital Interface Designers" (15-1255), "Art Directors" (27-1011), "Graphic Designers" (27-1024), and "Public Relations Specialists" (27-3031).
13-1199	Business Operations Specialists, All Other	All business operations specialists not listed separately.
13-2011	Accountants and Auditors	Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others. Install or advise on systems of recording costs or other financial and budgetary data. Excludes "Tax Examiners and Collectors, and Revenue Agents" (13-2081).
13-2022	Appraisers of Personal and Business Property	Appraise and estimate the fair value of tangible personal or business property, such as jewelry, art, antiques, collectibles, and equipment. Includes workers who appraise both personal and business property as well as real estate. May also appraise land. Excludes "Claims Adjusters, Examiners, and Investigators" (13-1031), "Insurance Appraisers, Auto Damage" (13-1032), "Appraisers and Assessors of Real Estate" (13-2023), and "Tax Examiners and Collectors, and Revenue Agents" (13-2081).
13-2023	Appraisers and Assessors of Real Estate	Appraise real estate, exclusively, and estimate its fair value. May assess taxes in accordance with prescribed schedules. Excludes "Appraisers of Personal and Business Property" (13-2022).
13-2031	Budget Analysts	Examine budget estimates for completeness, accuracy, and conformance with procedures and regulations. Analyze budgeting and accounting reports. Excludes "Financial and Investment Analysts" (13-2051).
13-2041	Credit Analysts	Analyze credit data and financial statements of individuals or firms to determine the degree of risk involved in extending credit or lending money. Prepare reports with credit information for use in decisionmaking. Excludes "Financial Risk Specialists" (13-2054).
13-2051	Financial and Investment Analysts	Conduct quantitative analyses of information involving investment programs or financial data of public or private institutions, including valuation of businesses. Excludes "Budget Analysts" (13-2031), "Financial Risk Specialists" (13-2054), and "Securities, Commodities, and Financial Services Sales Agents" (41-3031).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
13-2052	Personal Financial Advisors	Advise clients on financial plans using knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate. Duties include assessing clients' assets, liabilities, cash flow, insurance coverage, tax status, and financial objectives. May also buy and sell financial assets for clients. Excludes "Securities, Commodities, and Financial Services Sales Agents" (41-3031).
13-2053	Insurance Underwriters	Review individual applications for insurance to evaluate degree of risk involved and determine acceptance of applications.
13-2054	Financial Risk Specialists	Analyze and measure exposure to credit and market risk threatening the assets, earning capacity, or economic state of an organization. May make recommendations to limit risk. Excludes "Credit Analysts" (13-2041).
13-2061	Financial Examiners	Enforce or ensure compliance with laws and regulations governing financial and securities institutions and financial and real estate transactions. May examine, verify, or authenticate records.
13-2071	Credit Counselors	Advise and educate individuals or organizations on acquiring and managing debt. May provide guidance in determining the best type of loan and explain loan requirements or restrictions. May help develop debt management plans or student financial aid packages. May advise on credit issues, or provide budget, mortgage, bankruptcy, or student financial aid counseling.
13-2072	Loan Officers	Evaluate, authorize, or recommend approval of commercial, real estate, or credit loans. Advise borrowers on financial status and payment methods. Includes mortgage loan officers and agents, collection analysts, loan servicing officers, loan underwriters, and payday loan officers.
13-2081	Tax Examiners and Collectors, and Revenue Agents	Determine tax liability or collect taxes from individuals or business firms according to prescribed laws and regulations.
13-2082	Tax Preparers	Prepare tax returns for individuals or small businesses. Excludes "Accountants and Auditors" (13-2011).
13-2099	Financial Specialists, All Other	All financial specialists not listed separately.
15-1211	Computer Systems Analysts	Analyze science, engineering, business, and other data processing problems to develop and implement solutions to complex applications problems, system administration issues, or network concerns. Perform systems management and integration functions, improve existing computer systems, and review computer system capabilities, workflow, and schedule limitations. May analyze or recommend commercially available software.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
15-1212	Information Security Analysts	Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses. Excludes "Computer Network Architects" (15-1241).
15-1221	Computer and Information Research Scientists	Conduct research into fundamental computer and information science as theorists, designers, or inventors. Develop solutions to problems in the field of computer hardware and software.
15-1231	Computer Network Support Specialists	Analyze, test, troubleshoot, and evaluate existing network systems, such as local area networks (LAN), wide area networks (WAN), cloud networks, servers, and other data communications networks. Perform network maintenance to ensure networks operate correctly with minimal interruption. Excludes "Computer Network Architects" (15-1241) and "Network and Computer Systems Administrators" (15-1244).
15-1232	Computer User Support Specialists	Provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, via telephone, or electronically. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems. Excludes "Network and Computer Systems Administrators" (15-1244).
15-1241	Computer Network Architects	Design and implement computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. Perform network modeling, analysis, and planning, including analysis of capacity needs for network infrastructures. May also design network and computer security measures. May research and recommend network and data communications hardware and software. Excludes "Information Security Analysts" (15-1212), "Computer Network Support Specialists" (15-1231), and "Network and Computer Systems Administrators" (15-1244).
15-1242	Database Administrators	Administer, test, and implement computer databases, applying knowledge of database management systems. Coordinate changes to computer databases. Identify, investigate, and resolve database performance issues, database capacity, and database scalability. May plan, coordinate, and implement security measures to safeguard computer databases. Excludes "Information Security Analysts" (15-1212) and "Database Architects" (15-1243).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
15-1243	Database Architects	Design strategies for enterprise databases, data warehouse systems, and multidimensional networks. Set standards for database operations, programming, query processes, and security. Model, design, and construct large relational databases or data warehouses. Create and optimize data models for warehouse infrastructure and workflow. Integrate new systems with existing warehouse structure and refine system performance and functionality. Excludes "Database Administrators" (15-1242).
15-1244	Network and Computer Systems Administrators	Install, configure, and maintain an organization's local area network (LAN), wide area network (WAN), data communications network, operating systems, and physical and virtual servers. Perform system monitoring and verify the integrity and availability of hardware, network, and server resources and systems. Review system and application logs and verify completion of scheduled jobs, including system backups. Analyze network and server resource consumption and control user access. Install and upgrade software and maintain software licenses. May assist in network modeling, analysis, planning, and coordination between network and data communications hardware and software. Excludes "Information Security Analysts" (15-1212), "Computer Network Support Specialists" (15-1231), and "Computer User Support Specialists" (15-1232).
15-1251	Computer Programmers	Create, modify, and test the code and scripts that allow computer applications to run. Work from specifications drawn up by software and web developers or other individuals. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information.
15-1252	Software Developers	Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, and develop specifications and performance requirements. May maintain databases within an application area, working individually or coordinating database development as part of a team.
15-1253	Software Quality Assurance Analysts and Testers	Develop and execute software tests to identify software problems and their causes. Test system modifications to prepare for implementation. Document software and application defects using a bug tracking system and report defects to software or web developers. Create and maintain databases of known defects. May participate in software design reviews to provide input on functional requirements, operational characteristics, product designs, and schedules.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
15-1254	Web Developers	Develop and implement websites, web applications, application databases, and interactive web interfaces. Evaluate code to ensure that it is properly structured, meets industry standards, and is compatible with browsers and devices. Optimize website performance, scalability, and server-side code and processes. May develop website infrastructure and integrate websites with other computer applications. Excludes "Special Effects Artists and Animators" (27-1014).
15-1255	Web and Digital Interface Designers	Design digital user interfaces or websites. Develop and test layouts, interfaces, functionality, and navigation menus to ensure compatibility and usability across browsers or devices. May use web framework applications as well as client-side code and processes. May evaluate web design following web and accessibility standards, and may analyze web use metrics and optimize websites for marketability and search engine ranking. May design and test interfaces that facilitate the human-computer interaction and maximize the usability of digital devices, websites, and software with a focus on aesthetics and design. May create graphics used in websites and manage website content and links. Excludes "Special Effects Artists and Animators" (27-1014) and "Graphic Designers" (27-1024).
15-1299	Computer Occupations, All Other	All computer occupations not listed separately. Excludes "Computer and Information Systems Managers" (11-3021), "Computer Hardware Engineers" (17-2061), "Electrical and Electronics Engineers" (17-2070), "Computer Science Teachers, Postsecondary" (25-1021), "Special Effects Artists and Animators" (27-1014), "Graphic Designers" (27-1024), "Health Information Technologists and Medical Registrars" (29-9021), and "Computer, Automated Teller, and Office Machine Repairers" (49-2011).
15-2011	Actuaries	Analyze statistical data, such as mortality, accident, sickness, disability, and retirement rates and construct probability tables to forecast risk and liability for payment of future benefits. May ascertain insurance rates required and cash reserves necessary to ensure payment of future benefits.
15-2021	Mathematicians	Conduct research in fundamental mathematics or in application of mathematical techniques to science, management, and other fields. Solve problems in various fields using mathematical methods.
15-2031	Operations Research Analysts	Formulate and apply mathematical modeling and other optimizing methods to develop and interpret information that assists management with decisionmaking, policy formulation, or other managerial functions. May collect and analyze data and develop decision support software, services, or products. May develop and supply optimal time, cost, or logistics networks for program evaluation, review, or implementation.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
15-2041	Statisticians	Develop or apply mathematical or statistical theory and methods to collect, organize, interpret, and summarize numerical data to provide usable information. May specialize in fields such as biostatistics, agricultural statistics, business statistics, or economic statistics. Includes mathematical and survey statisticians. Excludes "Survey Researchers" (19-3022).
15-2051	Data Scientists	Develop and implement a set of techniques or analytics applications to transform raw data into meaningful information using data-oriented programming languages and visualization software. Apply data mining, data modeling, natural language processing, and machine learning to extract and analyze information from large structured and unstructured datasets. Visualize, interpret, and report data findings. May create dynamic data reports. Excludes "Statisticians" (15-2041), "Cartographers and Photogrammetrists" (17-1021), and "Health Information Technologists and Medical Registrars" (29-9021).
15-2099	Mathematical Science Occupations, All Other	All mathematical scientists not listed separately.
17-1011	Architects, Except Landscape and Naval	Plan and design structures, such as private residences, office buildings, theaters, factories, and other structural property. Excludes "Landscape Architects" (17-1012) and "Marine Engineers and Naval Architects" (17-2121).
17-1012	Landscape Architects	Plan and design land areas for projects such as parks and other recreational facilities, airports, highways, hospitals, schools, land subdivisions, and commercial, industrial, and residential sites.
17-1021	Cartographers and Photogrammetrists	Research, study, and prepare maps and other spatial data in digital or graphic form for one or more purposes, such as legal, social, political, educational, and design purposes. May work with Geographic Information Systems (GIS). May design and evaluate algorithms, data structures, and user interfaces for GIS and mapping systems. May collect, analyze, and interpret geographic information provided by geodetic surveys, aerial photographs, and satellite data.
17-1022	Surveyors	Make exact measurements and determine property boundaries. Provide data relevant to the shape, contour, gravitation, location, elevation, or dimension of land or land features on or near the earth's surface for engineering, mapmaking, mining, land evaluation, construction, and other purposes.
17-2011	Aerospace Engineers	Perform engineering duties in designing, constructing, and testing aircraft, missiles, and spacecraft. May conduct basic and applied research to evaluate adaptability of materials and equipment to aircraft design and manufacture. May recommend improvements in testing equipment and techniques.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
17-2021	Agricultural Engineers	Apply knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing of agricultural products.
17-2031	Bioengineers and Biomedical Engineers	Apply knowledge of engineering, biology, chemistry, computer science, and biomechanical principles to the design, development, and evaluation of biological, agricultural, and health systems and products, such as artificial organs, prostheses, instrumentation, medical information systems, and health management and care delivery systems.
17-2041	Chemical Engineers	Design chemical plant equipment and devise processes for manufacturing chemicals and products, such as gasoline, synthetic rubber, plastics, detergents, cement, paper, and pulp, by applying principles and technology of chemistry, physics, and engineering.
17-2051	Civil Engineers	Perform engineering duties in planning, designing, and overseeing construction and maintenance of building structures and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, and water and sewage systems. Includes architectural, structural, traffic, and geotechnical engineers. Excludes "Hydrologists" (19-2043).
17-2061	Computer Hardware Engineers	Research, design, develop, or test computer or computer-related equipment for commercial, industrial, military, or scientific use. May supervise the manufacturing and installation of computer or computer-related equipment and components. Excludes "Software Developers" (15-1252) and "Web Developers" (15-1254).
17-2071	Electrical Engineers	Research, design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use. Excludes "Computer Hardware Engineers" (17-2061).
17-2072	Electronics Engineers, Except Computer	Research, design, develop, or test electronic components and systems for commercial, industrial, military, or scientific use employing knowledge of electronic theory and materials properties. Design electronic circuits and components for use in fields such as telecommunications, aerospace guidance and propulsion control, acoustics, or instruments and controls. Excludes "Computer Hardware Engineers" (17-2061).
17-2081	Environmental Engineers	Research, design, plan, or perform engineering duties in the prevention, control, and remediation of environmental hazards using various engineering disciplines. Work may include waste treatment, site remediation, or pollution control technology.
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	Promote worksite or product safety by applying knowledge of industrial processes, mechanics, chemistry, psychology, and industrial health and safety laws. Includes industrial product safety engineers.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
17-2112	Industrial Engineers	Design, develop, test, and evaluate integrated systems for managing industrial production processes, including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination. Excludes "Health and Safety Engineers, Except Mining Safety Engineers and Inspectors" (17-2111).
17-2121	Marine Engineers and Naval Architects	Design, develop, and evaluate the operation of marine vessels, ship machinery, and related equipment, such as power supply and propulsion systems.
17-2131	Materials Engineers	Evaluate materials and develop machinery and processes to manufacture materials for use in products that must meet specialized design and performance specifications. Develop new uses for known materials. Includes those engineers working with composite materials or specializing in one type of material, such as graphite, metal and metal alloys, ceramics and glass, plastics and polymers, and naturally occurring materials. Includes metallurgists and metallurgical engineers, ceramic engineers, and welding engineers.
17-2141	Mechanical Engineers	Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of equipment such as centralized heat, gas, water, and steam systems.
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	Conduct subsurface surveys to identify the characteristics of potential land or mining development sites. May specify the ground support systems, processes, and equipment for safe, economical, and environmentally sound extraction or underground construction activities. May inspect areas for unsafe geological conditions, equipment, and working conditions. May design, implement, and coordinate mine safety programs. Excludes "Petroleum Engineers" (17-2171).
17-2161	Nuclear Engineers	Conduct research on nuclear engineering projects or apply principles and theory of nuclear science to problems concerned with release, control, and use of nuclear energy and nuclear waste disposal.
17-2171	Petroleum Engineers	Devise methods to improve oil and gas extraction and production and determine the need for new or modified tool designs. Oversee drilling and offer technical advice.
17-2199	Engineers, All Other	All engineers not listed separately. Excludes "Sales Engineers" (41-9031), "Locomotive Engineers" (53-4011), and "Ship Engineers" (53-5031).
17-3011	Architectural and Civil Drafters	Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
17-3012	Electrical and Electronics Drafters	Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment.
17-3013	Mechanical Drafters	Prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information.
17-3019	Drafters, All Other	All drafters not listed separately.
17-3021	Aerospace Engineering and Operations Technologists and Technicians	Operate, install, adjust, and maintain integrated computer/communications systems, consoles, simulators, and other data acquisition, test, and measurement instruments and equipment, which are used to launch, track, position, and evaluate air and space vehicles. May record and interpret test data.
17-3022	Civil Engineering Technologists and Technicians	Apply theory and principles of civil engineering in planning, designing, and overseeing construction and maintenance of structures and facilities under the direction of engineering staff or physical scientists.
17-3023	Electrical and Electronic Engineering Technologists and Technicians	Apply electrical and electronic theory and related knowledge, usually under the direction of engineering staff, to design, build, repair, adjust, and modify electrical components, circuitry, controls, and machinery for subsequent evaluation and use by engineering staff in making engineering design decisions. Excludes "Broadcast Technicians" (27-4012).
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians	Operate, test, maintain, or adjust unmanned, automated, servomechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment to observe or record visual information at sites such as oil rigs, crop fields, buildings, or for similar infrastructure, deep ocean exploration, or hazardous waste removal. May assist engineers in testing and designing robotics equipment.
17-3025	Environmental Engineering Technologists and Technicians	Apply theory and principles of environmental engineering to modify, test, and operate equipment and devices used in the prevention, control, and remediation of environmental problems, including waste treatment and site remediation, under the direction of engineering staff or scientists. May assist in the development of environmental remediation devices.
17-3026	Industrial Engineering Technologists and Technicians	Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff. May perform time and motion studies on worker operations in a variety of industries for purposes such as establishing standard production rates or improving efficiency.
17-3027	Mechanical Engineering Technologists and Technicians	Apply theory and principles of mechanical engineering to modify, develop, test, or adjust machinery and equipment under direction of engineering staff or physical scientists.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
17-3028	Calibration Technologists and Technicians	Execute or adapt procedures and techniques for calibrating measurement devices, by applying knowledge of measurement science, mathematics, physics, chemistry, and electronics, sometimes under the direction of engineering staff. Determine measurement standard suitability for calibrating measurement devices. May perform preventive maintenance on equipment. May perform corrective actions to address identified calibration problems. Excludes "Medical Equipment Preparers" (31-9093) and "Timing Device Assemblers and Adjusters" (51-2061).
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	All engineering technologists and technicians, except drafters, not listed separately.
17-3031	Surveying and Mapping Technicians	Perform surveying and mapping duties, usually under the direction of an engineer, surveyor, cartographer, or photogrammetrist, to obtain data used for construction, mapmaking, boundary location, mining, or other purposes. May calculate mapmaking information and create maps from source data, such as surveying notes, aerial photography, satellite data, or other maps to show topographical features, political boundaries, and other features. May verify accuracy and completeness of maps. Excludes "Cartographers and Photogrammetrists" (17-1021), "Surveyors" (17-1022), and "Geoscientists, Except Hydrologists and Geographers" (19-2042).
19-1011	Animal Scientists	Conduct research in the genetics, nutrition, reproduction, growth, and development of domestic farm animals.
19-1012	Food Scientists and Technologists	Use chemistry, microbiology, engineering, and other sciences to study the principles underlying the processing and deterioration of foods; analyze food content to determine levels of vitamins, fat, sugar, and protein; discover new food sources; research ways to make processed foods safe, palatable, and healthful; and apply food science knowledge to determine best ways to process, package, preserve, store, and distribute food.
19-1013	Soil and Plant Scientists	Conduct research in breeding, physiology, production, yield, and management of crops and agricultural plants or trees, shrubs, and nursery stock, their growth in soils, and control of pests; or study the chemical, physical, biological, and mineralogical composition of soils as they relate to plant or crop growth. May classify and map soils and investigate effects of alternative practices on soil and crop productivity.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
19-1021	Biochemists and Biophysicists	Study the chemical composition or physical principles of living cells and organisms, their electrical and mechanical energy, and related phenomena. May conduct research to further understanding of the complex chemical combinations and reactions involved in metabolism, reproduction, growth, and heredity. May determine the effects of foods, drugs, serums, hormones, and other substances on tissues and vital processes of living organisms.
19-1022	Microbiologists	Investigate the growth, structure, development, and other characteristics of microscopic organisms, such as bacteria, algae, or fungi. Includes medical microbiologists who study the relationship between organisms and disease or the effects of antibiotics on microorganisms.
19-1023	Zoologists and Wildlife Biologists	Study the origins, behavior, diseases, genetics, and life processes of animals and wildlife. May specialize in wildlife research and management. May collect and analyze biological data to determine the environmental effects of present and potential use of land and water habitats.
19-1029	Biological Scientists, All Other	All biological scientists not listed separately.
19-1031	Conservation Scientists	Manage, improve, and protect natural resources to maximize their use without damaging the environment. May conduct soil surveys and develop plans to eliminate soil erosion or to protect rangelands. May instruct farmers, agricultural production managers, or ranchers in best ways to use crop rotation, contour plowing, or terracing to conserve soil and water; in the number and kind of livestock and forage plants best suited to particular ranges; and in range and farm improvements, such as fencing and reservoirs for stock watering. Excludes "Zoologists and Wildlife Biologists" (19-1023) and "Foresters" (19-1032).
19-1032	Foresters	Manage public and private forested lands for economic, recreational, and conservation purposes. May inventory the type, amount, and location of standing timber, appraise the timber's worth, negotiate the purchase, and draw up contracts for procurement. May determine how to conserve wildlife habitats, creek beds, water quality, and soil stability, and how best to comply with environmental regulations. May devise plans for planting and growing new trees, monitor trees for healthy growth, and determine optimal harvesting schedules.
19-1041	Epidemiologists	Investigate and describe the determinants and distribution of disease, disability, or health outcomes. May develop the means for prevention and control.
19-1042	Medical Scientists, Except Epidemiologists	Conduct research dealing with the understanding of human diseases and the improvement of human health. Engage in clinical investigation, research and development, or other related activities. Includes physicians, dentists, pharmacologists, and medical pathologists who primarily conduct research. Practitioners who primarily provide medical or dental care or dispense drugs are included in "Healthcare Diagnosing or Treating Practitioners" (29-1000).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
19-1099	Life Scientists, All Other	All life scientists not listed separately.
19-2011	Astronomers	Observe, research, and interpret astronomical phenomena to increase basic knowledge or apply such information to practical problems.
19-2012	Physicists	Conduct research into physical phenomena, develop theories on the basis of observation and experiments, and devise methods to apply physical laws and theories. Excludes "Biochemists and Biophysicists" (19-1021).
19-2021	Atmospheric and Space Scientists	Investigate atmospheric phenomena and interpret meteorological data, gathered by surface and air stations, satellites, and radar to prepare reports and forecasts for public and other uses. Includes weather analysts and forecasters whose functions require the detailed knowledge of meteorology.
19-2031	Chemists	Conduct qualitative and quantitative chemical analyses or experiments in laboratories for quality or process control or to develop new products or knowledge. Excludes "Biochemists and Biophysicists" (19-1021) and "Geoscientists, Except Hydrologists and Geographers" (19-2042).
19-2032	Materials Scientists	Research and study the structures and chemical properties of various natural and synthetic or composite materials, including metals, alloys, rubber, ceramics, semiconductors, polymers, and glass. Determine ways to strengthen or combine materials or develop new materials with new or specific properties for use in a variety of products and applications. Includes glass scientists, ceramic scientists, metallurgical scientists, and polymer scientists.
19-2041	Environmental Scientists and Specialists, Including Health	Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or public health. Using knowledge of various scientific disciplines, may collect, synthesize, study, report, and recommend action based on data derived from measurements or observations of air, food, soil, water, and other sources. Excludes "Zoologists and Wildlife Biologists" (19-1023), "Conservation Scientists" (19-1031), "Forest and Conservation Technicians" (19-4071), "Occupational Health and Safety Specialists" (19-5011), "Fish and Game Wardens" (33-3031), and "Forest and Conservation Workers" (45-4011).
19-2042	Geoscientists, Except Hydrologists and Geographers	Study the composition, structure, and other physical aspects of the Earth. May use geological, physics, and mathematics knowledge in exploration for oil, gas, minerals, or underground water; or in waste disposal, land reclamation, or other environmental problems. May study the Earth's internal composition, atmospheres, and oceans, and its magnetic, electrical, and gravitational forces. Includes mineralogists, paleontologists, stratigraphers, geodesists, and seismologists.

Table F1. SOC Detailed Codes, Titles, and Definitions

the form and intensity of precipitation and its rate of infiltration into the soil, movement through the and return to the ocean and atmosphere. 19-2099 Physical Scientists, All Other All physical scientists not listed separately. 19-3011 Economists Conduct research, prepare reports, or formulate plans to address economic problems related to the production and distribution of goods and services or monetary and fiscal policy. May collect and production and statistical data using sampling techniques and econometric methods. Excludes "Market Research Analysts and Marketing Specialists" (13-1161). 19-3022 Survey Researchers Plan, develop, or conduct surveys. May analyze and interpret the meaning of survey data, determine objectives, or suggest or test question wording. Includes social scientists who primarily design questionnaires or supervise survey teams. Excludes "Market Research Analysts and Marketing Special (13-1161) and "Statisticians" (15-2041). 19-3032 Industrial-Organizational Psychologists Apply principles of psychology to human resources, administration, management, sales, and marketing problems. Activities may include policy planning; employee testing and selection, training, and	OC 6-digit	SOC Detailed Title	SOC Definition
19-3011 Economists Conduct research, prepare reports, or formulate plans to address economic problems related to the production and distribution of goods and services or monetary and fiscal policy. May collect and production and statistical data using sampling techniques and econometric methods. Excludes "Market Research Analysts and Marketing Specialists" (13-1161). 19-3022 Survey Researchers Plan, develop, or conduct surveys. May analyze and interpret the meaning of survey data, determine objectives, or suggest or test question wording. Includes social scientists who primarily design questionnaires or supervise survey teams. Excludes "Market Research Analysts and Marketing Special (13-1161) and "Statisticians" (15-2041). 19-3032 Industrial-Organizational Psychologists Apply principles of psychology to human resources, administration, management, sales, and marketing problems. Activities may include policy planning; employee testing and selection, training, and development; and organizational development and analysis. May work with management to organizational	19-2043 F	Hydrologists	Research the distribution, circulation, and physical properties of underground and surface waters; and study the form and intensity of precipitation and its rate of infiltration into the soil, movement through the earth, and return to the ocean and atmosphere.
production and distribution of goods and services or monetary and fiscal policy. May collect and production and statistical data using sampling techniques and econometric methods. Excludes "Market Research Analysts and Marketing Specialists" (13-1161). 19-3022 Survey Researchers Plan, develop, or conduct surveys. May analyze and interpret the meaning of survey data, determine objectives, or suggest or test question wording. Includes social scientists who primarily design questionnaires or supervise survey teams. Excludes "Market Research Analysts and Marketing Special (13-1161) and "Statisticians" (15-2041). 19-3032 Industrial-Organizational Psychologists Apply principles of psychology to human resources, administration, management, sales, and marketing problems. Activities may include policy planning; employee testing and selection, training, and development; and organizational development and analysis. May work with management to organizational	19-2099	Physical Scientists, All Other	All physical scientists not listed separately.
objectives, or suggest or test question wording. Includes social scientists who primarily design questionnaires or supervise survey teams. Excludes "Market Research Analysts and Marketing Special (13-1161) and "Statisticians" (15-2041). 19-3032 Industrial-Organizational Psychologists Apply principles of psychology to human resources, administration, management, sales, and marketing problems. Activities may include policy planning; employee testing and selection, training, and development; and organizational development and analysis. May work with management to organizational	19-3011 E	Economists	production and distribution of goods and services or monetary and fiscal policy. May collect and process economic and statistical data using sampling techniques and econometric methods. Excludes "Market
Psychologists problems. Activities may include policy planning; employee testing and selection, training, and development; and organizational development and analysis. May work with management to organiz	19-3022	Survey Researchers	questionnaires or supervise survey teams. Excludes "Market Research Analysts and Marketing Specialists"
		_	development; and organizational development and analysis. May work with management to organize the
and psychological tests. Help individuals with distress or maladjustment understand their problems t their knowledge of case history, interviews with patients, and theory. Provide individual or group cou services to assist individuals in achieving more effective personal, social, educational, and vocational	19-3033	Clinical and Counseling Psychologists	Assess, diagnose, and treat mental and emotional disorders of individuals through observation, interview, and psychological tests. Help individuals with distress or maladjustment understand their problems through their knowledge of case history, interviews with patients, and theory. Provide individual or group counseling services to assist individuals in achieving more effective personal, social, educational, and vocational development and adjustment. May design behavior modification programs and consult with medical personnel regarding the best treatment for patients. Excludes "Psychiatrists" (29-1223).
behavioral, or developmental issues that adversely impact educational functioning in a school. May a	19-3034 S	School Psychologists	Diagnose and implement individual or schoolwide interventions or strategies to address educational, behavioral, or developmental issues that adversely impact educational functioning in a school. May address student learning and behavioral problems and counsel students or families. May design and implement performance plans, and evaluate performance. May consult with other school-based personnel.
19-3039 Psychologists, All Other All psychologists not listed separately.	19-3039	Psychologists, All Other	All psychologists not listed separately.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
19-3041	Sociologists	Study human society and social behavior by examining the groups and social institutions that people form, as well as various social, religious, political, and business organizations. May study the behavior and interaction of groups, trace their origin and growth, and analyze the influence of group activities on individual members.
19-3051	Urban and Regional Planners	Develop comprehensive plans and programs for use of land and physical facilities of jurisdictions, such as towns, cities, counties, and metropolitan areas.
19-3091	Anthropologists and Archeologists	Study the origin, development, and behavior of human beings. May study the way of life, language, or physical characteristics of people in various parts of the world. May engage in systematic recovery and examination of material evidence, such as tools or pottery remaining from past human cultures, in order to determine the history, customs, and living habits of earlier civilizations.
19-3092	Geographers	Study the nature and use of areas of the Earth's surface, relating and interpreting interactions of physical and cultural phenomena. Conduct research on physical aspects of a region, including land forms, climates, soils, plants, and animals, and conduct research on the spatial implications of human activities within a given area, including social characteristics, economic activities, and political organization, as well as researching interdependence between regions at scales ranging from local to global.
19-3093	Historians	Research, analyze, record, and interpret the past as recorded in sources, such as government and institutional records, newspapers and other periodicals, photographs, interviews, films, electronic media, and unpublished manuscripts, such as personal diaries and letters.
19-3094	Political Scientists	Study the origin, development, and operation of political systems. May study topics, such as public opinion, political decisionmaking, and ideology. May analyze the structure and operation of governments, as well as various political entities. May conduct public opinion surveys, analyze election results, or analyze public documents. Excludes "Survey Researchers" (19-3022).
19-3099	Social Scientists and Related Workers, All Other	All social scientists and related workers not listed separately.
19-4012	Agricultural Technicians	Work with agricultural scientists in plant, fiber, and animal research, or assist with animal breeding and nutrition. Set up or maintain laboratory equipment and collect samples from crops or animals. Prepare specimens or record data to assist scientists in biology or related life science experiments. Conduct tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
19-4013	Food Science Technicians	Work with food scientists or technologists to perform standardized qualitative and quantitative tests to determine physical or chemical properties of food or beverage products. Includes technicians who assist in research and development of production technology, quality control, packaging, processing, and use of foods.
19-4021	Biological Technicians	Assist biological and medical scientists. Set up, operate, and maintain laboratory instruments and equipment, monitor experiments, collect data and samples, make observations, and calculate and record results. May analyze organic substances, such as blood, food, and drugs.
19-4031	Chemical Technicians	Conduct chemical and physical laboratory tests to assist scientists in making qualitative and quantitative analyses of solids, liquids, and gaseous materials for research and development of new products or processes, quality control, maintenance of environmental standards, and other work involving experimental, theoretical, or practical application of chemistry and related sciences.
19-4042	Environmental Science and Protection Technicians, Including Health	Perform laboratory and field tests to monitor the environment and investigate sources of pollution, including those that affect health, under the direction of an environmental scientist, engineer, or other specialist. May collect samples of gases, soil, water, and other materials for testing.
19-4043	Geological Technicians, Except Hydrologic Technicians	Assist scientists or engineers in the use of electronic, sonic, or nuclear measuring instruments in laboratory, exploration, and production activities to obtain data indicating resources such as metallic ore, minerals, gas, coal, or petroleum. Analyze mud and drill cuttings. Chart pressure, temperature, and other characteristics of wells or bore holes.
19-4044	Hydrologic Technicians	Collect and organize data concerning the distribution and circulation of ground and surface water, and data on its physical, chemical, and biological properties. Measure and report on flow rates and ground water levels, maintain field equipment, collect water samples, install and collect sampling equipment, and process samples for shipment to testing laboratories. May collect data on behalf of hydrologists, engineers, developers, government agencies, or agriculture. Excludes "Hydrologists" (19-2043).
19-4051	Nuclear Technicians	Assist nuclear physicists, nuclear engineers, or other scientists in laboratory, power generation, or electricity production activities. May operate, maintain, or provide quality control for nuclear testing and research equipment. May monitor radiation.
19-4061	Social Science Research Assistants	Assist social scientists in laboratory, survey, and other social science research. May help prepare findings for publication and assist in laboratory analysis, quality control, or data management. Excludes "Teaching Assistants, Postsecondary" (25-9044).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
19-4071	Forest and Conservation Technicians	Provide technical assistance regarding the conservation of soil, water, forests, or related natural resources. May compile data pertaining to size, content, condition, and other characteristics of forest tracts under the direction of foresters, or train and lead forest workers in forest propagation and fire prevention and suppression. May assist conservation scientists in managing, improving, and protecting rangelands and wildlife habitats. Excludes "Conservation Scientists" (19-1031) and "Foresters" (19-1032).
19-4092	Forensic Science Technicians	Collect, identify, classify, and analyze physical evidence related to criminal investigations. Perform tests on weapons or substances, such as fiber, hair, and tissue to determine significance to investigation. May testify as expert witnesses on evidence or crime laboratory techniques. May serve as specialists in area of expertise, such as ballistics, fingerprinting, handwriting, or biochemistry.
19-4099	Life, Physical, and Social Science Technicians, All Other	All life, physical, and social science technicians not listed separately.
19-5011	Occupational Health and Safety Specialists	Review, evaluate, and analyze work environments and design programs and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors. May conduct inspections and enforce adherence to laws and regulations governing the health and safety of individuals. May be employed in the public or private sector.
19-5012	Occupational Health and Safety Technicians	Collect data on work environments for analysis by occupational health and safety specialists. Implement and conduct evaluation of programs designed to limit chemical, physical, biological, and ergonomic risks to workers.
21-1011	Substance Abuse and Behavioral Disorder Counselors	Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs. Excludes "Psychologists" (19-3032 through 19-3039), "Mental Health Counselors" (21-1014), and "Social Workers" (21-1021 through 21-1029) providing these services.
21-1012	Educational, Guidance, and Career Counselors and Advisors	Advise and assist students and provide educational and vocational guidance services.
21-1013	Marriage and Family Therapists	Diagnose and treat mental and emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage and family systems. Apply psychotherapeutic and family systems theories and techniques in the delivery of services to individuals, couples, and families for the purpose of treating such diagnosed nervous and mental disorders. Excludes "Psychologists" (19-3032 through 19-3039) and "Social Workers" (21-1020).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
21-1014	Mental Health Counselors	Counsel and advise individuals and groups to promote optimum mental and emotional health, with an emphasis on prevention. May help individuals deal with a broad range of mental health issues, such as those associated with addictions and substance abuse; family, parenting, and marital problems; stress management; self-esteem; or aging. Excludes "Psychologists" (19-3030), "Social Workers" (21-1020), and "Psychiatrists" (29-1223).
21-1015	Rehabilitation Counselors	Counsel individuals to maximize the independence and employability of persons coping with personal, social, and vocational difficulties that result from birth defects, illness, disease, accidents, aging, or the stress of daily life. Coordinate activities for residents of care and treatment facilities. Assess client needs and design and implement rehabilitation programs that may include personal and vocational counseling, training, and job placement. Excludes "Occupational Therapists" (29-1122).
21-1019	Counselors, All Other	All counselors not listed separately.
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.
21-1022	Healthcare Social Workers	Provide individuals, families, and groups with the psychosocial support needed to cope with chronic, acute, or terminal illnesses. Services include advising family caregivers. Provide patients with information and counseling, and make referrals for other services. May also provide case and care management or interventions designed to promote health, prevent disease, and address barriers to access to healthcare.
21-1023	Mental Health and Substance Abuse Social Workers	Assess and treat individuals with mental, emotional, or substance abuse problems, including abuse of alcohol, tobacco, and/or other drugs. Activities may include individual and group therapy, crisis intervention, case management, client advocacy, prevention, and education.
21-1029	Social Workers, All Other	All social workers not listed separately.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
21-1091	Health Education Specialists	Provide and manage health education programs that help individuals, families, and their communities maximize and maintain healthy lifestyles. Use data to identify community needs prior to planning, implementing, monitoring, and evaluating programs designed to encourage healthy lifestyles, policies, and environments. May link health systems, health providers, insurers, and patients to address individual and population health needs. May serve as resource to assist individuals, other health professionals, or the community, and may administer fiscal resources for health education programs. Excludes "Community Health Workers" (21-1094).
21-1092	Probation Officers and Correctional Treatment Specialists	Provide social services to assist in rehabilitation of law offenders in custody or on probation or parole. Make recommendations for actions involving formulation of rehabilitation plan and treatment of offender, including conditional release and education and employment stipulations.
21-1093	Social and Human Service Assistants	Assist other social and human service providers in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care. Excludes "Rehabilitation Counselors" (21-1015), "Psychiatric Technicians" (29-2053), "Personal Care Aides" (31-1122), and "Eligibility Interviewers, Government Programs" (43-4061).
21-1094	Community Health Workers	Promote health within a community by assisting individuals to adopt healthy behaviors. Serve as an advocate for the health needs of individuals by assisting community residents in effectively communicating with healthcare providers or social service agencies. Act as liaison or advocate and implement programs that promote, maintain, and improve individual and overall community health. May deliver health-related preventive services such as blood pressure, glaucoma, and hearing screenings. May collect data to help identify community health needs. Excludes "Health Education Specialists" (21-1091).
21-1099	Community and Social Service Specialists, All Other	All community and social service specialists not listed separately.
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.
21-2021	Directors, Religious Activities and Education	Coordinate or design programs and conduct outreach to promote the religious education or activities of a denominational group. May provide counseling, guidance, and leadership relative to marital, health, financial, and religious problems.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
21-2099	Religious Workers, All Other	All religious workers not listed separately.
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.
23-1012	Judicial Law Clerks	Assist judges in court or by conducting research or preparing legal documents. Excludes "Lawyers" (23-1011) and "Paralegals and Legal Assistants" (23-2011).
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	Conduct hearings to recommend or make decisions on claims concerning government programs or other government-related matters. Determine liability, sanctions, or penalties, or recommend the acceptance or rejection of claims or settlements. Excludes "Arbitrators, Mediators, and Conciliators" (23-1022).
23-1022	Arbitrators, Mediators, and Conciliators	Facilitate negotiation and conflict resolution through dialogue. Resolve conflicts outside of the court system by mutual consent of parties involved.
23-1023	Judges, Magistrate Judges, and Magistrates	Arbitrate, advise, adjudicate, or administer justice in a court of law. May sentence defendant in criminal cases according to government statutes or sentencing guidelines. May determine liability of defendant in civil cases. May perform wedding ceremonies.
23-2011	Paralegals and Legal Assistants	Assist lawyers by investigating facts, preparing legal documents, or researching legal precedent. Conduct research to support a legal proceeding, to formulate a defense, or to initiate legal action. Excludes "Legal Secretaries and Administrative Assistants" (43-6012).
23-2093	Title Examiners, Abstractors, and Searchers	Search real estate records, examine titles, or summarize pertinent legal or insurance documents or details for a variety of purposes. May compile lists of mortgages, contracts, and other instruments pertaining to titles by searching public and private records for law firms, real estate agencies, or title insurance companies. Excludes "Loan Officers" (13-2072).
23-2099	Legal Support Workers, All Other	All legal support workers not listed separately.
25-1011	Business Teachers, Postsecondary	Teach courses in business administration and management, such as accounting, finance, human resources, labor and industrial relations, marketing, and operations research. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1021	Computer Science Teachers, Postsecondary	Teach courses in computer science. May specialize in a field of computer science, such as the design and function of computers or operations and research analysis. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
25-1022	Mathematical Science Teachers, Postsecondary	Teach courses pertaining to mathematical concepts, statistics, and actuarial science and to the application of original and standardized mathematical techniques in solving specific problems and situations. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1031	Architecture Teachers, Postsecondary	Teach courses in architecture and architectural design, such as architectural environmental design, interior architecture/design, and landscape architecture. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1032	Engineering Teachers, Postsecondary	Teach courses pertaining to the application of physical laws and principles of engineering for the development of machines, materials, instruments, processes, and services. Includes teachers of subjects such as chemical, civil, electrical, industrial, mechanical, mineral, and petroleum engineering. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Computer Science Teachers, Postsecondary" (25-1021).
25-1041	Agricultural Sciences Teachers, Postsecondary	Teach courses in the agricultural sciences. Includes teachers of agronomy, dairy sciences, fisheries management, horticultural sciences, poultry sciences, range management, and agricultural soil conservation. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Forestry and Conservation Science Teachers, Postsecondary" (25-1043).
25-1042	Biological Science Teachers, Postsecondary	Teach courses in biological sciences. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1043	Forestry and Conservation Science Teachers, Postsecondary	Teach courses in forestry and conservation science. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Agricultural Science Teachers, Postsecondary" (25-1041) and "Environmental Science Teachers, Postsecondary" (25-1053).
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	Teach courses in the physical sciences, except chemistry and physics. Includes both teachers primarily engaged in teaching, and those who do a combination of teaching and research.
25-1052	Chemistry Teachers, Postsecondary	Teach courses pertaining to the chemical and physical properties and compositional changes of substances. Work may include providing instruction in the methods of qualitative and quantitative chemical analysis. Includes both teachers primarily engaged in teaching, and those who do a combination of teaching and research. Excludes "Biological Science Teachers, Postsecondary" (25-1042) who teach biochemistry.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
25-1053	Environmental Science Teachers, Postsecondary	Teach courses in environmental science. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research. Excludes "Forestry and Conservation Science Teachers, Postsecondary" (25-1043).
25-1054	Physics Teachers, Postsecondary	Teach courses pertaining to the laws of matter and energy. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1061	Anthropology and Archeology Teachers, Postsecondary	Teach courses in anthropology or archeology. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1062	Area, Ethnic, and Cultural Studies Teachers, Postsecondary	Teach courses pertaining to the culture and development of an area, an ethnic group, or any other group, such as Latin American studies, women's studies, or urban affairs. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1063	Economics Teachers, Postsecondary	Teach courses in economics. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1064	Geography Teachers, Postsecondary	Teach courses in geography. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1065	Political Science Teachers, Postsecondary	Teach courses in political science, international affairs, and international relations. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1066	Psychology Teachers, Postsecondary	Teach courses in psychology, such as child, clinical, and developmental psychology, and psychological counseling. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1067	Sociology Teachers, Postsecondary	Teach courses in sociology. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1069	Social Sciences Teachers, Postsecondary, All Other	All postsecondary social sciences teachers not listed separately.
25-1071	Health Specialties Teachers, Postsecondary	Teach courses in health specialties, in fields such as dentistry, laboratory technology, medicine, pharmacy, public health, therapy, and veterinary medicine. Excludes "Biological Science Teachers, Postsecondary" (25-1042) and "Nursing Instructors and Teachers, Postsecondary" (25-1072) who teach medical science.
25-1072	Nursing Instructors and Teachers, Postsecondary	Demonstrate and teach patient care in classroom and clinical units to nursing students. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
25-1081	Education Teachers, Postsecondary	Teach courses pertaining to education, such as counseling, curriculum, guidance, instruction, teacher education, and teaching English as a second language. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1082	Library Science Teachers, Postsecondary	Teach courses in library science. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	Teach courses in criminal justice, corrections, and law enforcement administration. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1112	Law Teachers, Postsecondary	Teach courses in law. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1113	Social Work Teachers, Postsecondary	Teach courses in social work. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1121	Art, Drama, and Music Teachers, Postsecondary	Teach courses in drama, music, and the arts including fine and applied art, such as painting and sculpture, or design and crafts. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1122	Communications Teachers, Postsecondary	Teach courses in communications, such as organizational communications, public relations, radio/television broadcasting, and journalism. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1123	English Language and Literature Teachers, Postsecondary	Teach courses in English language and literature, including linguistics and comparative literature. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1124	Foreign Language and Literature Teachers, Postsecondary	Teach languages and literature courses in languages other than English. Includes teachers of American Sign Language (ASL). Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1125	History Teachers, Postsecondary	Teach courses in human history and historiography. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1126	Philosophy and Religion Teachers, Postsecondary	Teach courses in philosophy, religion, and theology. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1192	Family and Consumer Sciences Teachers, Postsecondary	Teach courses in childcare, family relations, finance, nutrition, and related subjects pertaining to home management. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
25-1193	Recreation and Fitness Studies Teachers, Postsecondary	Teach courses pertaining to recreation, leisure, and fitness studies, including exercise physiology and facilities management. Includes both teachers primarily engaged in teaching and those who do a combination of teaching and research.
25-1194	Career/Technical Education Teachers, Postsecondary	Teach vocational courses intended to provide occupational training below the baccalaureate level in subjects such as construction, mechanics/repair, manufacturing, transportation, or cosmetology, primarily to students who have graduated from or left high school. Teaching takes place in public or private schools whose primary business is academic or vocational education. Excludes "Training and Development Specialists" (13-1151), "Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors" (25-3011), and postsecondary teachers classified elsewhere in the 25-1000 minor group. Flight instructors are included with "Aircraft Pilots and Flight Engineers" (53-2010).
25-1199	Postsecondary Teachers, All Other	All postsecondary teachers not listed separately.
25-2011	Preschool Teachers, Except Special Education	Instruct preschool-aged students, following curricula or lesson plans, in activities designed to promote social, physical, and intellectual growth. Excludes "Special Education Teachers" (25-2050), "Substitute Teachers, Short-Term" (25-3031), and "Childcare Workers" (39-9011).
25-2012	Kindergarten Teachers, Except Special Education	Teach academic and social skills to kindergarten students. Excludes "Special Education Teachers" (25-2050) and "Substitute Teachers, Short-Term" (25-3031).
25-2021	Elementary School Teachers, Except Special Education	Teach academic and social skills to students at the elementary school level. Excludes "Special Education Teachers" (25-2050) and "Substitute Teachers, Short-Term" (25-3031).
25-2022	Middle School Teachers, Except Special and Career/Technical Education	Teach one or more subjects to students at the middle, intermediate, or junior high school level. Excludes "Career/Technical Education Teachers, Middle School" (25-2023), "Special Education Teachers" (25-2050), and "Substitute Teachers, Short Term" (25-3031).
25-2023	Career/Technical Education Teachers, Middle School	Teach occupational, vocational, career, or technical subjects to students at the middle, intermediate, or junior high school level. Excludes "Special Education Teachers" (25-2050) and "Substitute Teachers, Short-Term" (25-3031).
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	Teach one or more subjects to students at the secondary school level. Excludes "Career/Technical Education Teachers, Secondary School" (25-2032), "Special Education Teachers" (25-2050), and "Substitute Teachers, Short-Term" (25-3031).
25-2032	Career/Technical Education Teachers, Secondary School	Teach occupational, vocational, career, or technical subjects to students at the secondary school level. Excludes "Special Education Teachers" (25-2050), and "Substitute Teachers, Short-Term" (25-3031).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
25-2051	Special Education Teachers, Preschool	Teach academic, social, and life skills to preschool-aged students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities. Excludes "Substitute Teachers, Short-Term" (25-3031).
25-2055	Special Education Teachers, Kindergarten	Teach academic, social, and life skills to kindergarten students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities. Excludes "Substitute Teachers, Short-Term" (25-3031).
25-2056	Special Education Teachers, Elementary School	Teach academic, social, and life skills to elementary school students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities. Excludes "Substitute Teachers, Short-Term" (25-3031).
25-2057	Special Education Teachers, Middle School	Teach academic, social, and life skills to middle school students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities. Excludes "Substitute Teachers, Short-Term" (25-3031).
25-2058	Special Education Teachers, Secondary School	Teach academic, social, and life skills to secondary school students with learning, emotional, or physical disabilities. Includes teachers who specialize and work with students who are blind or have visual impairments; students who are deaf or have hearing impairments; and students with intellectual disabilities. Excludes "Substitute Teachers, Short-Term" (25-3031).
25-2059	Special Education Teachers, All Other	All special education teachers not listed separately.
25-3011	Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	Teach or instruct out-of-school youths and adults in basic education, literacy, or English as a Second Language classes, or in classes for earning a high school equivalency credential.
25-3021	Self-Enrichment Teachers	Teach or instruct individuals or groups for the primary purpose of self-enrichment or recreation, rather than for an occupational objective, educational attainment, competition, or fitness. Excludes "Coaches and Scouts" (27-2022) and "Exercise Trainers and Group Fitness Instructors" (39-9031). Flight instructors are included with "Aircraft Pilots and Flight Engineers" (53-2010).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
25-3031	Substitute Teachers, Short-Term	Teach students on a short-term basis as a temporary replacement for a regular classroom teacher, typically using the regular teacher's lesson plan. Excludes long-term substitute teachers who perform all the duties of a regular teacher; these teachers are coded within the 25-1000 or 25-2000 minor groups.
25-3041	Tutors	Instruct individual students or small groups of students in academic subjects to support formal class instruction or to prepare students for standardized or admissions tests. Excludes "Postsecondary Teachers" (25-1000), "Elementary, Middle, Secondary, and Special Education Teachers" (25-2000), "Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors" (25-3011), and "Self-Enrichment Teachers" (25-3021).
25-3099	Teachers and Instructors, All Other	All teachers and instructors not listed separately.
25-4011	Archivists	Appraise, edit, and direct safekeeping of permanent records and historically valuable documents. Participate in research activities based on archival materials.
25-4012	Curators	Administer collections, such as artwork, collectibles, historic items, or scientific specimens of museums or other institutions. May conduct instructional, research, or public service activities of institution.
25-4013	Museum Technicians and Conservators	Restore, maintain, or prepare objects in museum collections for storage, research, or exhibit. May work with specimens such as fossils, skeletal parts, or botanicals; or artifacts, textiles, or art. May identify and record objects or install and arrange them in exhibits. Includes book or document conservators.
25-4022	Librarians and Media Collections Specialists	Administer and maintain libraries or collections of information, for public or private access through reference or borrowing. Work in a variety of settings, such as educational institutions, museums, and corporations, and with various types of informational materials, such as books, periodicals, recordings, films, and databases. Tasks may include acquiring, cataloging, and circulating library materials, and user services such as locating and organizing information, providing instruction on how to access information, and setting up and operating a library's media equipment.
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.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
25-9021	Farm and Home Management Educators	Instruct and advise individuals and families engaged in agriculture, agricultural-related processes, or home management activities. Demonstrate procedures and apply research findings to advance agricultural and home management activities. May develop educational outreach programs. May instruct on either agricultural issues such as agricultural processes and techniques, pest management, and food safety, or on home management issues such as budgeting, nutrition, and child development. Excludes "Dietitians and Nutritionists" (29-1031).
25-9031	Instructional Coordinators	Develop instructional material, coordinate educational content, and incorporate current technology into instruction in order to provide guidelines to educators and instructors for developing curricula and conducting courses. May train and coach teachers. Includes educational consultants and specialists, and instructional material directors.
25-9042	Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education	Assist a preschool, elementary, middle, or secondary school teacher with instructional duties. Serve in a position for which a teacher has primary responsibility for the design and implementation of educational programs and services. Excludes "Teaching Assistants, Special Education" (25-9043).
25-9043	Teaching Assistants, Special Education	Assist a preschool, elementary, middle, or secondary school teacher to provide academic, social, or life skills to students who have learning, emotional, or physical disabilities. Serve in a position for which a teacher has primary responsibility for the design and implementation of educational programs and services.
25-9044	Teaching Assistants, Postsecondary	Assist faculty or other instructional staff in postsecondary institutions by performing instructional support activities, such as developing teaching materials, leading discussion groups, preparing and giving examinations, and grading examinations or papers. Graduate students who teach one or more full courses should be classified in the 25-1000 minor group.
25-9049	Teaching Assistants, All Other	All teaching assistants not listed separately.
25-9099	Educational Instruction and Library Workers, All Other	All educational instruction and library workers not listed separately.
27-1011	Art Directors	Formulate design concepts and presentation approaches for visual productions and media, such as print, broadcasting, video, and film. Direct workers engaged in artwork or layout design. Excludes "Set and Exhibit Designers" (27-1027).
27-1012	Craft Artists	Create or reproduce handmade objects for sale and exhibition using a variety of techniques, such as welding, weaving, pottery, and needlecraft.
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	Create original artwork using any of a wide variety of media and techniques.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
27-1014	Special Effects Artists and Animators	Create special effects or animations using film, video, computers, or other electronic tools and media for use in products, such as computer games, movies, music videos, and commercials.
27-1019	Artists and Related Workers, All Other	All artists and related workers not listed separately.
27-1021	Commercial and Industrial Designers	Design and develop manufactured products, such as cars, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials to create the most functional and appealing product design.
27-1022	Fashion Designers	Design clothing and accessories. Create original designs or adapt fashion trends.
27-1023	Floral Designers	Design, cut, and arrange live, dried, or artificial flowers and foliage.
27-1024	Graphic Designers	Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects. Excludes "Web and Digital Interface Designers" (15-1255).
27-1025	Interior Designers	Plan, design, and furnish the internal space of rooms or buildings. Design interior environments or create physical layouts that are practical, aesthetic, and conducive to the intended purposes. May specialize in a particular field, style, or phase of interior design. Excludes "Merchandise Displayers and Window Trimmers" (27-1026).
27-1026	Merchandise Displayers and Window Trimmers	Plan and erect commercial displays, such as those in windows and interiors of retail stores and at trade exhibitions.
27-1027	Set and Exhibit Designers	Design special exhibits and sets for film, video, television, and theater productions. May study scripts, confer with directors, and conduct research to determine appropriate architectural styles.
27-1029	Designers, All Other	All designers not listed separately.
27-2011	Actors	Play parts in stage, television, radio, video, or film productions, or other settings for entertainment, information, or instruction. Interpret serious or comic role by speech, gesture, and body movement to entertain or inform audience. May dance and sing.
27-2012	Producers and Directors	Produce or direct stage, television, radio, video, or film productions for entertainment, information, or instruction. Responsible for creative decisions, such as interpretation of script, choice of actors or guests, set design, sound, special effects, and choreography.
27-2021	Athletes and Sports Competitors	Compete in athletic events.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
27-2022	Coaches and Scouts	Instruct or coach groups or individuals in the fundamentals of sports for the primary purpose of competition. Demonstrate techniques and methods of participation. May evaluate athletes' strengths and weaknesses as possible recruits or to improve the athletes' technique to prepare them for competition. Those required to hold teaching certifications should be reported in the appropriate teaching category. Excludes "Athletic Trainers" (29-9091).
27-2023	Umpires, Referees, and Other Sports Officials	Officiate at competitive athletic or sporting events. Detect infractions of rules and decide penalties according to established regulations. Includes all sporting officials, referees, and competition judges.
27-2031	Dancers	Perform dances. May perform on stage, for broadcasting, or for video recording.
27-2032	Choreographers	Create new dance routines. Rehearse performance of routines. May direct and stage presentations.
27-2041	Music Directors and Composers	Conduct, direct, plan, and lead instrumental or vocal performances by musical artists or groups, such as orchestras, bands, choirs, and glee clubs; or create original works of music.
27-2042	Musicians and Singers	Play one or more musical instruments or sing. May perform on stage, for broadcasting, or for sound or video recording.
27-2091	Disc Jockeys, Except Radio	Play prerecorded music for live audiences at venues or events such as clubs, parties, or wedding receptions. May use techniques such as mixing, cutting, or sampling to manipulate recordings. May also perform as emcee (master of ceremonies). Radio disc jockeys are included in "Broadcast Announcers and Radio Disc Jockeys" (27-3011). Excludes "Musicians and Singers" (27-2042), "Audio and Video Technicians" (27-4011), and "Sound Engineering Technicians" (27-4014).
27-2099	Entertainers and Performers, Sports and Related Workers, All Other	All entertainers and performers, sports and related workers not listed separately.
27-3011	Broadcast Announcers and Radio Disc Jockeys	Speak or read from scripted materials, such as news reports or commercial messages, on radio, television, or other communications media. May play and queue music, announce artist or title of performance, identify station, or interview guests. Excludes "News Analysts, Reporters, and Journalists" (27-3023).
27-3023	News Analysts, Reporters, and Journalists	Narrate or write news stories, reviews, or commentary for print, broadcast, or other communications media such as newspapers, magazines, radio, or television. May collect and analyze information through interview, investigation, or observation.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
27-3031	Public Relations Specialists	Promote or create an intended public image for individuals, groups, or organizations. May write or select material for release to various communications media. May specialize in using social media.
27-3041	Editors	Plan, coordinate, revise, or edit written material. May review proposals and drafts for possible publication.
27-3042	Technical Writers	Write technical materials, such as equipment manuals, appendices, or operating and maintenance instructions. May assist in layout work.
27-3043	Writers and Authors	Originate and prepare written material, such as scripts, stories, advertisements, and other material. Excludes "News Analysts, Reporters, and Journalists" (27-3023), "Public Relations Specialists" (27-3031), and "Technical Writers" (27-3042).
27-3091	Interpreters and Translators	Interpret oral or sign language, or translate written text from one language into another.
27-3092	Court Reporters and Simultaneous Captioners	Use verbatim methods and equipment to capture, store, retrieve, and transcribe pretrial and trial proceedings or other information. Includes stenocaptioners who operate computerized stenographic captioning equipment to provide captions of live or prerecorded broadcasts for hearing-impaired viewers.
27-3099	Media and Communication Workers, All Other	All media and communication workers not listed separately.
27-4011	Audio and Video Technicians	Set up, maintain, and dismantle audio and video equipment, such as microphones, sound speakers, connecting wires and cables, sound and mixing boards, video cameras, video monitors and servers, and related electronic equipment for live or recorded events, such as concerts, meetings, conventions, presentations, podcasts, news conferences, and sporting events. Excludes "Sound Engineering Technicians" (27-4014), "Lighting Technicians" (27-4015), and "Audiovisual Equipment Installers and Repairers" (49-2097).
27-4012	Broadcast Technicians	Set up, operate, and maintain the electronic equipment used to acquire, edit, and transmit audio and video for radio or television programs. Control and adjust incoming and outgoing broadcast signals to regulate sound volume, signal strength, and signal clarity. Operate satellite, microwave, or other transmitter equipment to broadcast radio or television programs.
27-4014	Sound Engineering Technicians	Assemble and operate equipment to record, synchronize, mix, edit, or reproduce sound, including music, voices, or sound effects, for theater, video, film, television, podcasts, sporting events, and other productions. Excludes "Audio and Video Technicians" (27-4011).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
27-4015	Lighting Technicians	Set up, maintain, and dismantle light fixtures, lighting control devices, and the associated lighting electrical and rigging equipment used for photography, television, film, video, and live productions. May focus or operate light fixtures, or attach color filters or other lighting accessories. Excludes "Audio and Video Technicians" (27-4011).
27-4021	Photographers	Photograph people, landscapes, merchandise, or other subjects. May use lighting equipment to enhance a subject's appearance. May use editing software to produce finished images and prints. Includes commercial and industrial photographers, scientific photographers, and photojournalists. Excludes "Camera Operators, Television, Video, and Film" (27-4031).
27-4031	Camera Operators, Television, Video, and Film	Operate television, video, or film camera to record images or scenes for television, video, or film productions.
27-4032	Film and Video Editors	Edit moving images on film, video, or other media. May work with a producer or director to organize images for final production. May edit or synchronize soundtracks with images. Excludes "Sound Engineering Technicians" (27-4014).
27-4099	Media and Communication Equipment Workers, All Other	All media and communication equipment workers not listed separately.
29-1011	Chiropractors	Assess, treat, and care for patients by manipulation of spine and musculoskeletal system. May provide spinal adjustment or address sacral or pelvic misalignment.
29-1021	Dentists, General	Examine, diagnose, and treat diseases, injuries, and malformations of teeth and gums. May treat diseases of nerve, pulp, and other dental tissues affecting oral hygiene and retention of teeth. May fit dental appliances or provide preventive care. Excludes "Oral and Maxillofacial Surgeons" (29-1022), "Orthodontists" (29-1023), "Prosthodontists" (29-1024), and "Dentists, All Other Specialists" (29-1029).
29-1022	Oral and Maxillofacial Surgeons	Perform surgery and related procedures on the hard and soft tissues of the oral and maxillofacial regions to treat diseases, injuries, or defects. May diagnose problems of the oral and maxillofacial regions. May perform surgery to improve function or appearance.
29-1023	Orthodontists	Examine, diagnose, and treat dental malocclusions and oral cavity anomalies. Design and fabricate appliances to realign teeth and jaws to produce and maintain normal function and to improve appearance.
29-1024	Prosthodontists	Diagnose, treat, rehabilitate, design, and fit prostheses that maintain oral function, health, and appearance for patients with clinical conditions associated with teeth, oral and maxillofacial tissues, or the jaw.
29-1029	Dentists, All Other Specialists	All dentists not listed separately.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
29-1031	Dietitians and Nutritionists	Plan and conduct food service or nutritional programs to assist in the promotion of health and control of disease. May supervise activities of a department providing quantity food services, counsel individuals, or conduct nutritional research.
29-1041	Optometrists	Diagnose, manage, and treat conditions and diseases of the human eye and visual system. Examine eyes and visual system, diagnose problems or impairments, prescribe corrective lenses, and provide treatment. May prescribe therapeutic drugs to treat specific eye conditions. Ophthalmologists are included in "Ophthalmologists, Except Pediatric" (29-1241).
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.
29-1071	Physician Assistants	Provide healthcare services typically performed by a physician, under the supervision of a physician. Conduct complete physicals, provide treatment, and counsel patients. May, in some cases, prescribe medication. Must graduate from an accredited educational program for physician assistants. Excludes "Registered Nurses" (29-1141), "Nurse Anesthetists" (29-1151), "Nurse Midwives" (29-1161), "Nurse Practitioners" (29-1171), "Emergency Medical Technicians" (29-2042), "Paramedics" (29-2043), "Surgical Assistants" (29-9093), and "Medical Assistants" (31-9092).
29-1081	Podiatrists	Diagnose and treat diseases and deformities of the human foot.
29-1122	Occupational Therapists	Assess, plan, and organize rehabilitative programs that help build or restore vocational, homemaking, and daily living skills, as well as general independence, to persons with disabilities or developmental delays. Use therapeutic techniques, adapt the individual's environment, teach skills, and modify specific tasks that present barriers to the individual. Excludes "Rehabilitation Counselors" (21-1015).
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.
29-1124	Radiation Therapists	Provide radiation therapy to patients as prescribed by a radiation oncologist according to established practices and standards. Duties may include reviewing prescription and diagnosis; acting as liaison with physician and supportive care personnel; preparing equipment, such as immobilization, treatment, and protection devices; and maintaining records, reports, and files. May assist in dosimetry procedures and tumor localization.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
29-1125	Recreational Therapists	Plan, direct, or coordinate medically-approved recreation programs for patients in hospitals, nursing homes, or other institutions. Activities include sports, trips, dramatics, social activities, and crafts. May assess a patient condition and recommend appropriate recreational activity. Excludes "Recreation Workers" (39-9032).
29-1126	Respiratory Therapists	Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. Initiate and conduct therapeutic procedures; maintain patient records; and select, assemble, check, and operate equipment.
29-1127	Speech-Language Pathologists	Assess and treat persons with speech, language, voice, and fluency disorders. May select alternative communication systems and teach their use. May perform research related to speech and language problems.
29-1128	Exercise Physiologists	Assess, plan, or implement fitness programs that include exercise or physical activities such as those designed to improve cardiorespiratory function, body composition, muscular strength, muscular endurance, or flexibility. Excludes "Physical Therapists" (29-1123), "Athletic Trainers" (29-9091), and "Exercise Trainers and Group Fitness Instructors" (39-9031).
29-1129	Therapists, All Other	All therapists not listed separately.
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.
29-1141	Registered Nurses	Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Includes Clinical Nurse Specialists. Excludes "Nurse Anesthetists" (29-1151), "Nurse Midwives" (29-1161), and "Nurse Practitioners" (29-1171).
29-1151	Nurse Anesthetists	Administer anesthesia, monitor patient's vital signs, and oversee patient recovery from anesthesia. May assist anesthesiologists, surgeons, other physicians, or dentists. Must be registered nurses who have specialized graduate education.
29-1161	Nurse Midwives	Diagnose and coordinate all aspects of the birthing process, either independently or as part of a healthcare team. May provide well-woman gynecological care. Must have specialized, graduate nursing education.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
29-1171	Nurse Practitioners	Diagnose and treat acute, episodic, or chronic illness, independently or as part of a healthcare team. May focus on health promotion and disease prevention. May order, perform, or interpret diagnostic tests such as lab work and x rays. May prescribe medication. Must be registered nurses who have specialized graduate education.
29-1181	Audiologists	Assess and treat persons with hearing and related disorders. May fit hearing aids and provide auditory training. May perform research related to hearing problems.
29-1211	Anesthesiologists	Administer anesthetics and analgesics for pain management prior to, during, or after surgery.
29-1212	Cardiologists	Diagnose, treat, manage, and prevent diseases or conditions of the cardiovascular system. May further subspecialize in interventional procedures (e.g., balloon angioplasty and stent placement), echocardiography, or electrophysiology.
29-1213	Dermatologists	Diagnose and treat diseases relating to the skin, hair, and nails. May perform both medical and dermatological surgery functions.
29-1214	Emergency Medicine Physicians	Make immediate medical decisions and act to prevent death or further disability. Provide immediate recognition, evaluation, care, stabilization, and disposition of patients. May direct emergency medical staff in an emergency department.
29-1215	Family Medicine Physicians	Diagnose, treat, and provide preventive care to individuals and families across the lifespan. May refer patients to specialists when needed for further diagnosis or treatment. Excludes "General Internal Medicine Physicians" (29-1216) and "Pediatricians, General" (29-1221).
29-1216	General Internal Medicine Physicians	Diagnose and provide nonsurgical treatment for a wide range of diseases and injuries of internal organ systems. Provide care mainly for adults and adolescents, and are based primarily in an outpatient care setting. Excludes "Family Medicine Physicians" (29-1215) and "Pediatricians, General" (29-1221).
29-1217	Neurologists	Diagnose, manage, and treat disorders and diseases of the brain, spinal cord, and peripheral nerves, with a primarily nonsurgical focus.
29-1218	Obstetricians and Gynecologists	Provide medical care related to pregnancy or childbirth. Diagnose, treat, and help prevent diseases of women, particularly those affecting the reproductive system. May also provide general care to women. May perform both medical and gynecological surgery functions.
29-1221	Pediatricians, General	Diagnose, treat, and help prevent diseases and injuries in children. May refer patients to specialists for further diagnosis or treatment, as needed. Excludes "Family Medicine Physicians" (29-1215) and "General Internal Medicine Physicians" (29-1216).
29-1222	Physicians, Pathologists	Diagnose diseases and conduct lab tests using organs, body tissues, and fluids. Includes medical examiners.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
29-1223	Psychiatrists	Diagnose, treat, and help prevent mental disorders. Excludes "Clinical and Counseling Psychologists" (19-3033) and "School Psychologists" (19-3034).
29-1224	Radiologists	Diagnose and treat diseases and injuries using medical imaging techniques, such as x rays, magnetic resonance imaging (MRI), nuclear medicine, and ultrasounds. May perform minimally invasive medical procedures and tests.
29-1229	Physicians, All Other	All physicians not listed separately.
29-1241	Ophthalmologists, Except Pediatric	Diagnose and perform surgery to treat and help prevent disorders and diseases of the eye. May also provide vision services for treatment including glasses and contacts. Excludes "Optometrists" (29-1041) and "Pediatric Surgeons" (29-1243).
29-1242	Orthopedic Surgeons, Except Pediatric	Diagnose and perform surgery to treat and prevent rheumatic and other diseases in the musculoskeletal system. Excludes "Pediatric Surgeons" (29-1243).
29-1243	Pediatric Surgeons	Diagnose and perform surgery to treat fetal abnormalities and birth defects, diseases, and injuries in fetuses, premature and newborn infants, children, and adolescents. Includes all pediatric surgical specialties and subspecialties. Excludes "Oral and Maxillofacial Surgeons" (29-1022), "Ophthalmologists, Except Pediatric" (29-1241), and "Orthopedic Surgeons, Except Pediatric" (29-1242).
29-1249	Surgeons, All Other	All surgeons not listed separately. Excludes "Oral and Maxillofacial Surgeons" (29-1022).
29-1291	Acupuncturists	Diagnose, treat, and prevent disorders by stimulating specific acupuncture points within the body using acupuncture needles. May also use cups, nutritional supplements, therapeutic massage, acupressure, and other alternative health therapies. Excludes "Chiropractors" (29-1011).
29-1292	Dental Hygienists	Administer oral hygiene care to patients. Assess patient oral hygiene problems or needs and maintain health records. Advise patients on oral health maintenance and disease prevention. May provide advanced care such as providing fluoride treatment or administering topical anesthesia.
29-1299	Healthcare Diagnosing or Treating Practitioners, All Other	All healthcare diagnosing or treating practitioners not listed separately.
29-2011	Medical and Clinical Laboratory Technologists	Perform complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff.
29-2012	Medical and Clinical Laboratory Technicians	Perform routine medical laboratory tests for the diagnosis, treatment, and prevention of disease. May work under the supervision of a medical technologist.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
29-2031	Cardiovascular Technologists and Technicians	Conduct tests on pulmonary or cardiovascular systems of patients for diagnostic, therapeutic, or research purposes. May conduct or assist in electrocardiograms, cardiac catheterizations, pulmonary functions, lung capacity, and similar tests.
29-2032	Diagnostic Medical Sonographers	Produce ultrasonic recordings of internal organs for use by physicians. Includes vascular technologists. Excludes "Cardiovascular Technologists and Technicians" (29-2031).
29-2033	Nuclear Medicine Technologists	Prepare, administer, and measure radioactive isotopes in therapeutic, diagnostic, and tracer studies using a variety of radioisotope equipment. Prepare stock solutions of radioactive materials and calculate doses to be administered by radiologists. Subject patients to radiation. Execute blood volume, red cell survival, and fat absorption studies following standard laboratory techniques.
29-2034	Radiologic Technologists and Technicians	Take x-rays and CAT scans or administer nonradioactive materials into patient's bloodstream for diagnostic or research purposes. Includes radiologic technologists and technicians who specialize in other scanning modalities. Excludes "Diagnostic Medical Sonographers" (29-2032) and "Magnetic Resonance Imaging Technologists" (29-2035).
29-2035	Magnetic Resonance Imaging Technologists	Operate Magnetic Resonance Imaging (MRI) scanners. Monitor patient safety and comfort, and view images of area being scanned to ensure quality of pictures. May administer gadolinium contrast dosage intravenously. May interview patient, explain MRI procedures, and position patient on examining table. May enter into the computer data such as patient history, anatomical area to be scanned, orientation specified, and position of entry.
29-2036	Medical Dosimetrists	Generate radiation treatment plans, develop radiation dose calculations, communicate and supervise the treatment plan implementation, and consult with members of radiation oncology team.
29-2042	Emergency Medical Technicians	Assess injuries and illnesses and administer basic emergency medical care. May transport injured or sick persons to medical facilities. Excludes "Paramedics" (29-2043), "Firefighters" (33-2011), and "Ambulance Drivers and Attendants, Except Emergency Medical Technicians" (53-3011).
29-2043	Paramedics	Administer basic or advanced emergency medical care and assess injuries and illnesses. May administer medication intravenously, use equipment such as EKGs, or administer advanced life support to sick or injured individuals. Excludes "Emergency Medical Technicians" (29-2042) and "Ambulance Drivers and Attendants, Except Emergency Medical Technicians" (53-3011).
29-2051	Dietetic Technicians	Assist in the provision of food service and nutritional programs, under the supervision of a dietitian. May plan and produce meals based on established guidelines, teach principles of food and nutrition, or counsel individuals.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
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.
29-2053	Psychiatric Technicians	Care for individuals with mental or emotional conditions or disabilities, following the instructions of physicians or other health practitioners. Monitor patients' physical and emotional well-being and report to medical staff. May participate in rehabilitation and treatment programs, help with personal hygiene, and administer oral or injectable medications.
29-2055	Surgical Technologists	Assist in operations, under the supervision of surgeons, registered nurses, or other surgical personnel. May help set up operating room, prepare and transport patients for surgery, adjust lights and equipment, pass instruments and other supplies to surgeons and surgeons' assistants, hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments. Excludes "Surgical Assistants" (29-9093).
29-2056	Veterinary Technologists and Technicians	Perform medical tests in a laboratory environment for use in the treatment and diagnosis of diseases in animals. Prepare vaccines and serums for prevention of diseases. Prepare tissue samples, take blood samples, and execute laboratory tests, such as urinalysis and blood counts. Clean and sterilize instruments and materials and maintain equipment and machines. May assist a veterinarian during surgery.
29-2057	Ophthalmic Medical Technicians	Assist ophthalmologists by performing ophthalmic clinical functions. May administer eye exams, administer eye medications, and instruct the patient in care and use of corrective lenses.
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.
29-2072	Medical Records Specialists	Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the healthcare system. Classify medical and healthcare concepts, including diagnosis, procedures, medical services, and equipment, into the healthcare industry's numerical coding system. Includes medical coders. Excludes "Health Information Technologists and Medical Registrars" (29-9021) and "File Clerks" (43-4071).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
29-2081	Opticians, Dispensing	Design, measure, fit, and adapt lenses and frames for client according to written optical prescription or specification. Assist client with inserting, removing, and caring for contact lenses. Assist client with selecting frames. Measure customer for size of eyeglasses and coordinate frames with facial and eye measurements and optical prescription. Prepare work order for optical laboratory containing instructions for grinding and mounting lenses in frames. Verify exactness of finished lens spectacles. Adjust frame and lens position to fit client. May shape or reshape frames. Includes contact lens opticians.
29-2091	Orthotists and Prosthetists	Design, measure, fit, and adapt orthopedic braces, appliances or prostheses, such as limbs or facial parts for patients with disabling conditions.
29-2092	Hearing Aid Specialists	Select and fit hearing aids for customers. Administer and interpret tests of hearing. Assess hearing instrument efficacy. Take ear impressions and prepare, design, and modify ear molds. Excludes "Audiologists" (29-1181).
29-2099	Health Technologists and Technicians, All Other	All health technologists and technicians not listed separately.
29-9021	Health Information Technologists and Medical Registrars	Apply knowledge of healthcare and information systems to assist in the design, development, and continued modification and analysis of computerized healthcare systems. Abstract, collect, and analyze treatment and followup information of patients. May educate staff and assist in problem solving to promote the implementation of the healthcare information system. May design, develop, test, and implement databases with complete history, diagnosis, treatment, and health status to help monitor diseases. Excludes "Medical Records Specialists" (29-2072).
29-9091	Athletic Trainers	Evaluate and treat musculoskeletal injuries or illnesses. Provide preventive, therapeutic, emergency, and rehabilitative care. Excludes "Physical Therapists" (29-1123).
29-9092	Genetic Counselors	Assess individual or family risk for a variety of inherited conditions, such as genetic disorders and birth defects. Provide information to other healthcare providers or to individuals and families concerned with the risk of inherited conditions. Advise individuals and families to support informed decisionmaking and coping methods for those at risk. May help conduct research related to genetic conditions or genetic counseling.
29-9093	Surgical Assistants	Assist in operations, under the supervision of surgeons. May, in accordance with state laws, help surgeons to make incisions and close surgical sites, manipulate or remove tissues, implant surgical devices or drains, suction the surgical site, place catheters, clamp or cauterize vessels or tissue, and apply dressings to surgical site. Excludes "Registered Nurses" (29-1141) and "Surgical Technologists" (29-2055).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
29-9099	Healthcare Practitioners and Technical Workers, All Other	All healthcare practitioners and technical workers not listed separately.
31-1121	Home Health Aides	Monitor the health status of an individual with disabilities or illness, and address their health-related needs, such as changing bandages, dressing wounds, or administering medication. Work is performed under the direction of offsite or intermittent onsite licensed nursing staff. Provide assistance with routine healthcare tasks or activities of daily living, such as feeding, bathing, toileting, or ambulation. May also help with tasks such as preparing meals, doing light housekeeping, and doing laundry depending on the patient's abilities.
31-1122	Personal Care Aides	Provide personalized assistance to individuals with disabilities or illness who require help with personal care and activities of daily living support (e.g., feeding, bathing, dressing, grooming, toileting, and ambulation). May also provide help with tasks such as preparing meals, doing light housekeeping, and doing laundry. Work is performed in various settings depending on the needs of the care recipient and may include locations such as their home, place of work, out in the community, or at a daytime nonresidential facility.
31-1131	Nursing Assistants	Provide or assist with basic care or support under the direction of onsite licensed nursing staff. Perform duties such as monitoring of health status, feeding, bathing, dressing, grooming, toileting, or ambulation of patients in a health or nursing facility. May include medication administration and other health-related tasks. Includes nursing care attendants, nursing aides, and nursing attendants. Excludes "Home Health Aides" (31-1121), "Personal Care Aides" (31-1122), "Orderlies" (31-1132), and "Psychiatric Aides" (31-1133).
31-1132	Orderlies	Transport patients to areas such as operating rooms or x-ray rooms using wheelchairs, stretchers, or moveable beds. May maintain stocks of supplies or clean and transport equipment. Excludes "Nursing Assistants" (31-1131). Psychiatric orderlies are included in "Psychiatric Aides" (31-1133).
31-1133	Psychiatric Aides	Assist mentally impaired or emotionally disturbed patients, working under direction of nursing and medical staff. May assist with daily living activities, lead patients in educational and recreational activities, or accompany patients to and from examinations and treatments. May restrain violent patients. Includes psychiatric orderlies.
31-2011	Occupational Therapy Assistants	Assist occupational therapists in providing occupational therapy treatments and procedures. May, in accordance with state laws, assist in development of treatment plans, carry out routine functions, direct activity programs, and document the progress of treatments. Generally requires formal training.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
31-2012	Occupational Therapy Aides	Under close supervision of an occupational therapist or occupational therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing patient and treatment room.
31-2021	Physical Therapist Assistants	Assist physical therapists in providing physical therapy treatments and procedures. May, in accordance with state laws, assist in the development of treatment plans, carry out routine functions, document the progress of treatment, and modify specific treatments in accordance with patient status and within the scope of treatment plans established by a physical therapist. Generally requires formal training.
31-2022	Physical Therapist Aides	Under close supervision of a physical therapist or physical therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing the patient and the treatment area.
31-9011	Massage Therapists	Perform therapeutic massages of soft tissues and joints. May assist in the assessment of range of motion and muscle strength, or propose client therapy plans.
31-9091	Dental Assistants	Perform limited clinical duties under the direction of a dentist. Clinical duties may include equipment preparation and sterilization, preparing patients for treatment, assisting the dentist during treatment, and providing patients with instructions for oral healthcare procedures. May perform administrative duties such as scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes.
31-9092	Medical Assistants	Perform administrative and certain clinical duties under the direction of a physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician. Excludes "Physician Assistants" (29-1071).
31-9093	Medical Equipment Preparers	Prepare, sterilize, install, or clean laboratory or healthcare equipment. May perform routine laboratory tasks and operate or inspect equipment.
31-9094	Medical Transcriptionists	Transcribe medical reports recorded by physicians and other healthcare practitioners using various electronic devices, covering office visits, emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Transcribe dictated reports and translate abbreviations into fully understandable form. Edit as necessary and return reports in either printed or electronic form for review and signature, or correction.
31-9095	Pharmacy Aides	Record drugs delivered to the pharmacy, store incoming merchandise, and inform the supervisor of stock needs. May operate cash register and accept prescriptions for filling.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	Feed, water, and examine pets and other nonfarm animals for signs of illness, disease, or injury in laboratories and animal hospitals and clinics. Clean and disinfect cages and work areas, and sterilize laboratory and surgical equipment. May provide routine postoperative care, administer medication orally or topically, or prepare samples for laboratory examination under the supervision of veterinary or laboratory animal technologists or technicians, veterinarians, or scientists. Excludes "Animal Caretakers" (39-2021).
31-9097	Phlebotomists	Draw blood for tests, transfusions, donations, or research. May explain the procedure to patients and assist in the recovery of patients with adverse reactions.
31-9099	Healthcare Support Workers, All Other	All healthcare support workers not listed separately.
33-1011	First-Line Supervisors of Correctional Officers	Directly supervise and coordinate activities of correctional officers and jailers.
33-1012	First-Line Supervisors of Police and Detectives	Directly supervise and coordinate activities of members of police force.
33-1021	First-Line Supervisors of Firefighting and Prevention Workers	Directly supervise and coordinate activities of workers engaged in firefighting and fire prevention and control.
33-1091	First-Line Supervisors of Security Workers	Directly supervise and coordinate activities of security workers and security guards.
33-1099	First-Line Supervisors of Protective Service Workers, All Other	All protective service supervisors not listed separately above.
33-2011	Firefighters	Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster assistance.
33-2021	Fire Inspectors and Investigators	Inspect buildings to detect fire hazards and enforce local ordinances and state laws, or investigate and gather facts to determine cause of fires and explosions.
33-2022	Forest Fire Inspectors and Prevention Specialists	Enforce fire regulations, inspect forest for fire hazards, and recommend forest fire prevention or control measures. May report forest fires and weather conditions.
33-3011	Bailiffs	Maintain order in courts of law.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
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.
33-3021	Detectives and Criminal Investigators	Conduct investigations related to suspected violations of federal, state, or local laws to prevent or solve crimes. Excludes "Private Detectives and Investigators" (33-9021).
33-3031	Fish and Game Wardens	Patrol assigned area to prevent fish and game law violations. Investigate reports of damage to crops or property by wildlife. Compile biological data.
33-3041	Parking Enforcement Workers	Patrol assigned area, such as public parking lot or city streets to issue tickets to overtime parking violators and illegally parked vehicles.
33-3051	Police and Sheriff's Patrol Officers	Maintain order and protect life and property by enforcing local, tribal, state, or federal laws and ordinances. Perform a combination of the following duties: patrol a specific area; direct traffic; issue traffic summonses; investigate accidents; apprehend and arrest suspects, or serve legal processes of courts. Includes police officers working at educational institutions.
33-3052	Transit and Railroad Police	Protect and police railroad and transit property, employees, or passengers.
33-9011	Animal Control Workers	Handle animals for the purpose of investigations of mistreatment, or control of abandoned, dangerous, or unattended animals.
33-9021	Private Detectives and Investigators	Gather, analyze, compile, and report information regarding individuals or organizations to clients, or detect occurrences of unlawful acts or infractions of rules in private establishment.
33-9031	Gambling Surveillance Officers and Gambling Investigators	Observe gambling operation for irregular activities such as cheating or theft by either employees or patrons. Investigate potential threats to gambling assets such as money, chips, and gambling equipment. Act as oversight and security agent for management and customers.
33-9032	Security Guards	Guard, patrol, or monitor premises to prevent theft, violence, or infractions of rules. May operate x-ray and metal detector equipment. Excludes "Police Officers" (33-3050) and "Transportation Security Screeners" (33-9093).
33-9091	Crossing Guards and Flaggers	Guide or control vehicular or pedestrian traffic at such places as streets, schools, railroad crossings, or construction sites.
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.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
33-9093	Transportation Security Screeners	Conduct screening of passengers, baggage, or cargo to ensure compliance with Transportation Security Administration (TSA) regulations. May operate basic security equipment such as x-ray machines and hand wands at screening checkpoints.
33-9094	School Bus Monitors	Maintain order among students on a school bus. Duties include helping students safely board and exit and communicating behavioral problems. May perform pretrip and posttrip inspections and prepare for and assist in emergency evacuations.
33-9099	Protective Service Workers, All Other	All protective service workers not listed separately.
35-1011	Chefs and Head Cooks	Direct and may participate in the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts.
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	Directly supervise and coordinate activities of workers engaged in preparing and serving food.
35-2011	Cooks, Fast Food	Prepare and cook food in a fast food restaurant with a limited menu. Duties of these cooks are limited to preparation of a few basic items and normally involve operating large-volume single-purpose cooking equipment.
35-2012	Cooks, Institution and Cafeteria	Prepare and cook large quantities of food for institutions, such as schools, hospitals, or cafeterias.
35-2013	Cooks, Private Household	Prepare meals in private homes. Includes personal chefs.
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.
35-2015	Cooks, Short Order	Prepare and cook to order a variety of foods that require only a short preparation time. May take orders from customers and serve patrons at counters or tables. Excludes "Cooks, Fast Food" (35-2011).
35-2019	Cooks, All Other	All cooks not listed separately.
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.
35-3011	Bartenders	Mix and serve drinks to patrons, directly or through waitstaff.
35-3023	Fast Food and Counter Workers	Perform duties such as taking orders and serving food and beverages. Serve customers at counter or from a steam table. May take payment. May prepare food and beverages. Counter attendants who also wait tables are included in "Waiters and Waitresses" (35-3031),

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
35-3031	Waiters and Waitresses	Take orders and serve food and beverages to patrons at tables in dining establishment. Excludes "Fast Food and Counter Workers" (35-3023).
35-3041	Food Servers, Nonrestaurant	Serve food to individuals outside of a restaurant environment, such as in hotel rooms, hospital rooms, residential care facilities, or cars. Excludes "Fast Food and Counter Workers" (35-3023) and "Door-to-Door Sales Workers, News and Street Vendors, and Related Workers" (41-9091).
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.
35-9021	Dishwashers	Clean dishes, kitchen, food preparation equipment, or utensils.
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.
35-9099	Food Preparation and Serving Related Workers, All Other	All food preparation and serving related workers not listed separately.
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.
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	Directly supervise and coordinate activities of workers engaged in landscaping or groundskeeping activities. Work may involve reviewing contracts to ascertain service, machine, and workforce requirements; answering inquiries from potential customers regarding methods, material, and price ranges; and preparing estimates according to labor, material, and machine costs.
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.
37-2012	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.
37-2019	Building Cleaning Workers, All Other	All building cleaning workers not listed separately.
37-2021	Pest Control Workers	Apply or release chemical solutions or toxic gases and set traps to kill or remove pests and vermin that infest buildings and surrounding areas.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
37-3011	Landscaping and Groundskeeping Workers	Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units. Excludes "Farmworkers and Laborers, Crop, Nursery, and Greenhouse" (45-2092).
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation, or chemical application on trees, shrubs, lawns, or crops. Usually requires specific training and state or federal certification. Crop dusters are included in "Commercial Pilots" (53-2012).
37-3013	Tree Trimmers and Pruners	Using sophisticated climbing and rigging techniques, cut away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks, or utilities, or to improve appearance, health, and value of tree. Prune or treat trees or shrubs using handsaws, hand pruners, clippers, and power pruners. Works off the ground in the tree canopy and may use truck-mounted lifts. Excludes workers who primarily perform duties of "Landscaping and Groundskeeping Workers" (37-3011) and "Pesticide Handlers, Sprayers, and Applicators, Vegetation" (37-3012).
37-3019	Grounds Maintenance Workers, All Other	All grounds maintenance workers not listed separately.
39-1013	First-Line Supervisors of Gambling Services Workers	Directly supervise and coordinate activities of workers in assigned gambling areas. May circulate among tables, observe operations, and ensure that stations and games are covered for each shift. May verify and pay off jackpots. May reset slot machines after payoffs and make repairs or adjustments to slot machines or recommend removal of slot machines for repair. May plan and organize activities and services for guests in hotels/casinos.
39-1014	First-Line Supervisors of Entertainment and Recreation Workers, Except Gambling Services	Directly supervise and coordinate activities of entertainment and recreation related workers.
39-1022	First-Line Supervisors of Personal Service Workers	Supervise and coordinate activities of personal service workers.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
39-2011	Animal Trainers	Train animals for riding, harness, security, performance, or obedience, or for 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.
39-2021	Animal Caretakers	Feed, water, groom, bathe, exercise, or otherwise provide care to promote and maintain the well-being of pets and other animals that are not raised for consumption, such as dogs, cats, race horses, ornamental fish or birds, zoo animals, and mice. Work in settings such as kennels, animal shelters, zoos, circuses, and aquariums. May keep records of feedings, treatments, and animals received or discharged. May clean, disinfect, and repair cages, pens, or fish tanks. Excludes "Veterinary Assistants and Laboratory Animal Caretakers" (31-9096) and "Farmworkers, Farm, Ranch, and Aquacultural Animals" (45-2093).
39-3011	Gambling Dealers	Operate table games. Stand or sit behind table and operate games of chance by dispensing the appropriate number of cards or blocks to players, or operating other gambling equipment. Distribute winnings or collect players' money or chips. May compare the house's hand against players' hands.
39-3012	Gambling and Sports Book Writers and Runners	Post information enabling patrons to wager on various races and sporting events. Assist in the operation of games such as keno and bingo. May operate random number-generating equipment and announce the numbers for patrons. Receive, verify, and record patrons' wagers. Scan and process winning tickets presented by patrons and pay out winnings for those wagers.
39-3019	Gambling Service Workers, All Other	All gambling service workers not listed separately.
39-3021	Motion Picture Projectionists	Set up and operate motion picture projection and related sound reproduction equipment.
39-3031	Ushers, Lobby Attendants, and Ticket Takers	Assist patrons at entertainment events by performing duties, such as collecting admission tickets and passes from patrons, assisting in finding seats, searching for lost articles, and helping patrons locate such facilities as restrooms and telephones.
39-3091	Amusement and Recreation Attendants	Perform a variety of attending duties at amusement or recreation facility. May schedule use of recreation facilities, maintain and provide equipment to participants of sporting events or recreational pursuits, or operate amusement concessions and rides.
39-3092	Costume Attendants	Select, fit, and take care of costumes for cast members, and aid entertainers. May assist with multiple costume changes during performances.
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	Provide personal items to patrons or customers in locker rooms, dressing rooms, or coatrooms.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
39-3099	Entertainment Attendants and Related Workers, All Other	All entertainment attendants and related workers not listed separately.
39-4011	Embalmers	Prepare bodies for interment in conformity with legal requirements.
39-4012	Crematory Operators	Operate crematory equipment to reduce human or animal remains to bone fragments in accordance with state and local regulations. Duties may include preparing the body for cremation and performing general maintenance on crematory equipment. May use traditional flame-based cremation, calcination, or alkaline hydrolysis.
39-4021	Funeral Attendants	Perform a variety of tasks during funeral, such as placing casket in parlor or chapel prior to service, arranging floral offerings or lights around casket, directing or escorting mourners, closing casket, and issuing and storing funeral equipment.
39-4031	Morticians, Undertakers, and Funeral Arrangers	Perform various tasks to arrange and direct individual funeral services, such as coordinating transportation of body to mortuary, interviewing family or other authorized person to arrange details, selecting pallbearers, aiding with the selection of officials for religious rites, and providing transportation for mourners. Excludes "Funeral Home Managers" (11-9171).
39-5011	Barbers	Provide barbering services, such as cutting, trimming, shampooing, and styling hair; trimming beards; or giving shaves.
39-5012	Hairdressers, Hairstylists, and Cosmetologists	Provide beauty services, such as cutting, coloring, and styling hair, and massaging and treating scalp. May shampoo hair, apply makeup, dress wigs, remove hair, and provide nail and skincare services. Excludes "Makeup Artists, Theatrical and Performance" (39-5091), "Manicurists and Pedicurists" (39-5092), and "Skincare Specialists" (39-5094).
39-5091	Makeup Artists, Theatrical and Performance	Apply makeup to performers to reflect period, setting, and situation of their role.
39-5092	Manicurists and Pedicurists	Clean and shape customers' fingernails and toenails. May polish or decorate nails.
39-5093	Shampooers	Shampoo and rinse customers' hair.
39-5094	Skincare Specialists	Provide skincare treatments to face and body to enhance an individual's appearance. Includes electrologists and laser hair removal specialists.
39-6011	Baggage Porters and Bellhops	Handle baggage for travelers at transportation terminals or for guests at hotels or similar establishments.
39-6012	Concierges	Assist patrons at hotel, apartment, or office building with personal services. May take messages; arrange or give advice on transportation, business services, or entertainment; or monitor guest requests for housekeeping and maintenance.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
39-7011	Tour Guides and Escorts	Escort individuals or groups on sightseeing tours or through places of interest, such as industrial establishments, public buildings, and art galleries.
39-7012	Travel Guides	Plan, organize, and conduct long-distance travel, tours, and expeditions for individuals and groups.
39-9011	Childcare Workers	Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play. Excludes "Preschool Teachers, Except Special Education" (25-2011) and "Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education" (25-9042).
39-9031	Exercise Trainers and Group Fitness Instructors	Instruct or coach groups or individuals in exercise activities for the primary purpose of personal fitness. Demonstrate techniques and form, observe participants, and explain to them corrective measures necessary to improve their skills. Develop and implement individualized approaches to exercise. Excludes "Educational Instruction and Library Occupations" (25-0000), "Coaches and Scouts" (27-2022), and "Athletic Trainers" (29-9091).
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.
39-9041	Residential Advisors	Coordinate activities in resident facilities in secondary school 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.
39-9099	Personal Care and Service Workers, All Other	All personal care and service workers not listed separately.
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.
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.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
41-2011	Cashiers	Receive and disburse money in establishments other than financial institutions. May use electronic scanners, cash registers, or related equipment. May process credit or debit card transactions and validate checks. Excludes "Gambling Change Persons and Booth Cashiers" (41-2012).
41-2012	Gambling Change Persons and Booth Cashiers	Exchange coins, tokens, and chips for patrons' money. May issue payoffs and obtain customer's signature on receipt. May operate a booth in the slot machine area and furnish change persons with money bank at the start of the shift, or count and audit money in drawers. Excludes "Cashiers" (41-2011).
41-2021	Counter and Rental Clerks	Receive orders, generally in person, for repairs, rentals, and services. May describe available options, compute cost, and accept payment. Excludes "Fast Food and Counter Workers" (35-3023), "Hotel, Motel, and Resort Desk Clerks" (43-4081), "Order Clerks" (43-4151), and "Reservation and Transportation Ticket Agents and Travel Clerks" (43-4181).
41-2022	Parts Salespersons	Sell spare and replacement parts and equipment in repair shop or parts store.
41-2031	Retail Salespersons	Sell merchandise, such as furniture, motor vehicles, appliances, or apparel to consumers. Excludes "Cashiers" (41-2011).
41-3011	Advertising Sales Agents	Sell or solicit advertising space, time, or media in publications, signage, TV, radio, or Internet establishments or public spaces.
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.
41-3031	Securities, Commodities, and Financial Services Sales Agents	Buy and sell securities or commodities in investment and trading firms, or provide financial services to businesses and individuals. May advise customers about stocks, bonds, mutual funds, commodities, and market conditions.
41-3041	Travel Agents	Plan and sell transportation and accommodations for customers. Determine destination, modes of transportation, travel dates, costs, and accommodations required. May also describe, plan, and arrange itineraries and sell tour packages. May assist in resolving clients' travel problems.
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	Sell services to individuals or businesses. May describe options or resolve client problems. Excludes "Advertising Sales Agents" (41-3011), "Insurance Sales Agents" (41-3021), "Securities, Commodities, and Financial Services Sales Agents" (41-3031), "Travel Agents" (41-3041), "Sales Representatives, Wholesale and Manufacturing" (41-4010), and "Telemarketers" (41-9041).
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 postsecondary education. Excludes "Sales Engineers" (41-9031).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
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.
41-9011	Demonstrators and Product Promoters	Demonstrate merchandise and answer questions for the purpose of creating public interest in buying the product. May sell demonstrated merchandise.
41-9012	Models	Model garments or other apparel and accessories for prospective buyers at fashion shows, private showings, or retail establishments. May pose for photos to be used in magazines or advertisements. May pose as subject for paintings, sculptures, and other types of artistic expression.
41-9021	Real Estate Brokers	Operate real estate office, or work for commercial real estate firm, overseeing real estate transactions. Other duties usually include selling real estate or renting properties and arranging loans.
41-9022	Real Estate Sales Agents	Rent, buy, or sell property for clients. Perform duties such as study property listings, interview prospective clients, accompany clients to property site, discuss conditions of sale, and draw up real estate contracts. Includes agents who represent buyer.
41-9031	Sales Engineers	Sell business goods or services, the selling of which requires a technical background equivalent to a baccalaureate degree in engineering. Excludes "Engineers" (17-2011 through 17-2199) whose primary function is not marketing or sales.
41-9041	Telemarketers	Solicit donations or orders for goods or services over the telephone.
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.
41-9099	Sales and Related Workers, All Other	All sales and related workers not listed separately.
43-1011	First-Line Supervisors of Office and Administrative Support Workers	Directly supervise and coordinate the activities of clerical and administrative support workers.
43-2011	Switchboard Operators, Including Answering Service	Operate telephone business systems equipment or switchboards to relay incoming, outgoing, and interoffice calls. May supply information to callers and record messages.
43-2021	Telephone Operators	Provide information by accessing alphabetical, geographical, or other directories. Assist customers with special billing requests, such as charges to a third party and credits or refunds for incorrectly dialed numbers or bad connections. May handle emergency calls and assist children or people with physical disabilities to make telephone calls.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
43-2099	Communications Equipment Operators, All Other	All communications equipment operators not listed separately.
43-3011	Bill and Account Collectors	Locate and notify customers of delinquent accounts by mail, telephone, or personal visit to solicit payment. Duties include receiving payment and posting amount to customer's account, preparing statements to credit department if customer fails to respond, initiating repossession proceedings or service disconnection, and keeping records of collection and status of accounts.
43-3021	Billing and Posting Clerks	Compile, compute, and record billing, accounting, statistical, and other numerical data for billing purposes. Prepare billing invoices for services rendered or for delivery or shipment of goods. Excludes "Medical Records Specialists" (29-2072).
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers. Excludes "Payroll and Timekeeping Clerks" (43-3051).
43-3041	Gambling Cage Workers	In a gambling establishment, conduct financial transactions for patrons. Accept patron's credit application and verify credit references to provide check-cashing authorization or to establish house credit accounts. May reconcile daily summaries of transactions to balance books. May sell gambling chips, tokens, or tickets to patrons, or to other workers for resale to patrons. May convert gambling chips, tokens, or tickets to currency upon patron's request. May use a cash register or computer to record transaction.
43-3051	Payroll and Timekeeping Clerks	Compile and record employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions, or prepare paychecks. Excludes "Bookkeeping, Accounting, and Auditing Clerks" (43-3031).
43-3061	Procurement Clerks	Compile information and records to draw up purchase orders for procurement of materials and services. Excludes "Wholesale and Retail Buyers, Except Farm Products" (13-1022).
43-3071	Tellers	Receive and pay out money. Keep records of money and negotiable instruments involved in a financial institution's various transactions.
43-3099	Financial Clerks, All Other	All financial clerks not listed separately.
43-4011	Brokerage Clerks	Perform duties related to the purchase, sale, or holding of securities. Duties include writing orders for stock purchases or sales, computing transfer taxes, verifying stock transactions, accepting and delivering securities, tracking stock price fluctuations, computing equity, distributing dividends, and keeping records of daily transactions and holdings.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
43-4021	Correspondence Clerks	Compose letters or electronic correspondence in reply to requests for merchandise, damage claims, credit and other information, delinquent accounts, incorrect billings, or unsatisfactory services. Duties may include gathering data to formulate reply and preparing correspondence.
43-4031	Court, Municipal, and License Clerks	Perform clerical duties for courts of law, municipalities, or governmental licensing agencies and bureaus. May prepare docket of cases to be called; secure information for judges and court; prepare draft agendas or bylaws for town or city council; answer official correspondence; keep fiscal records and accounts; issue licenses or permits; and record data, administer tests, or collect fees. Clerks of Court are classified in "Managers, All Other" (11-9199).
43-4041	Credit Authorizers, Checkers, and Clerks	Authorize credit charges against customers' accounts. Investigate history and credit standing of individuals or business establishments applying for credit. May interview applicants to obtain personal and financial data, determine credit worthiness, process applications, and notify customers of acceptance or rejection of credit.
43-4051	Customer Service Representatives	Interact with customers to provide basic or scripted information in response to routine inquiries about products and services. May handle and resolve general complaints. Excludes individuals whose duties are primarily installation, sales, repair, and technical support.
43-4061	Eligibility Interviewers, Government Programs	Determine eligibility of persons applying to receive assistance from government programs and agency resources, such as welfare, unemployment benefits, social security, and public housing.
43-4071	File Clerks	File correspondence, cards, invoices, receipts, and other records in alphabetical or numerical order or according to the filing system used. Locate and remove material from file when requested.
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.
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.
43-4121	Library Assistants, Clerical	Compile records, and sort, shelve, issue, and receive library materials such as books, electronic media, pictures, cards, slides and microfilm. Locate library materials for loan and replace material in shelving area, stacks, or files according to identification number and title. Register patrons to permit them to borrow books, periodicals, and other library materials. Excludes "Library Technicians" (25-4031).

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SOC 6-digit	SOC Detailed Title	SOC Definition
43-4131	Loan Interviewers and Clerks	Interview loan applicants to elicit information; investigate applicants' backgrounds and verify references; prepare loan request papers; and forward findings, reports, and documents to appraisal department. Review loan papers to ensure completeness, and complete transactions between loan establishment, borrowers, and sellers upon approval of loan.
43-4141	New Accounts Clerks	Interview persons desiring to open accounts in financial institutions. Explain account services available to prospective customers and assist them in preparing applications.
43-4151	Order Clerks	Receive and process incoming orders for materials, merchandise, classified ads, or services such as repairs, installations, or rental of facilities. Generally receives orders via mail, phone, fax, or other electronic means. Duties include informing customers of receipt, prices, shipping dates, and delays; preparing contracts; and handling complaints. Excludes "Dispatchers, Except Police, Fire, and Ambulance" (43-5032) who both dispatch and take orders for services.
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	Compile and keep personnel records. Record data for each employee, such as address, weekly earnings, absences, amount of sales or production, supervisory reports, and date of and reason for termination. May prepare reports for employment records, file employment records, or search employee files and furnish information to authorized persons.
43-4171	Receptionists and Information Clerks	Answer inquiries and provide information to the general public, customers, visitors, and other interested parties regarding activities conducted at establishment and location of departments, offices, and employees within the organization. Excludes "Switchboard Operators, Including Answering Service" (43-2011).
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	Make and confirm reservations for transportation or lodging, or sell transportation tickets. May check baggage and direct passengers to designated concourse, pier, or track; deliver tickets and contact individuals and groups to inform them of package tours; or provide tourists with travel or transportation information. Excludes "Cashiers" (41-2011), "Travel Agents" (41-3041), and "Hotel, Motel, and Resort Desk Clerks" (43-4081) who sell tickets for local transportation.
43-4199	Information and Record Clerks, All Other	All information and record clerks not listed separately.
43-5011	Cargo and Freight Agents	Expedite and route movement of incoming and outgoing cargo and freight shipments in airline, train, and trucking terminals and shipping docks. Take orders from customers and arrange pickup of freight and cargo for delivery to loading platform. Prepare and examine bills of lading to determine shipping charges and tariffs.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
43-5021	Couriers and Messengers	Pick up and deliver messages, documents, packages, and other items between offices or departments within an establishment or directly to other business concerns, traveling by foot, bicycle, motorcycle, automobile, or public conveyance. Excludes "Light Truck Drivers" (53-3033).
43-5031	Public Safety Telecommunicators	Operate telephone, radio, or other communication systems to receive and communicate requests for emergency assistance at 9-1-1 public safety answering points and emergency operations centers. Take information from the public and other sources regarding crimes, threats, disturbances, acts of terrorism, fires, medical emergencies, and other public safety matters. May coordinate and provide information to law enforcement and emergency response personnel. May access sensitive databases and other information sources as needed. May provide additional instructions to callers based on knowledge of and certification in law enforcement, fire, or emergency medical procedures.
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.
43-5041	Meter Readers, Utilities	Read meter and record consumption of electricity, gas, water, or steam.
43-5051	Postal Service Clerks	Perform any combination of tasks in a United States Postal Service (USPS) post office, such as receive letters and parcels; sell postage and revenue stamps, postal cards, and stamped envelopes; fill out and sell money orders; place mail in pigeon holes of mail rack or in bags; and examine mail for correct postage. Includes postal service clerks employed by USPS contractors.
43-5052	Postal Service Mail Carriers	Sort and deliver mail for the United States Postal Service (USPS). Deliver mail on established route by vehicle or on foot. Includes postal service mail carriers employed by USPS contractors.
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	Prepare incoming and outgoing mail for distribution for the United States Postal Service (USPS). Examine, sort, and route mail. Load, operate, and occasionally adjust and repair mail processing, sorting, and canceling machinery. Keep records of shipments, pouches, and sacks, and perform other duties related to mail handling within the postal service. Includes postal service mail sorters and processors employed by USPS contractors. Excludes "Postal Service Clerks" (43-5051) and "Postal Service Mail Carriers" (43-5052).

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SOC 6-digit	SOC Detailed Title	SOC Definition
43-5061	Production, Planning, and Expediting Clerks	Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems. Excludes "Project Management Specialists" (13-1082) and "Weighers, Measurers, Checkers, and Samplers, Recordkeeping" (43-5111).
43-5071	Shipping, Receiving, and Inventory Clerks	Verify and maintain records on incoming and outgoing shipments involving inventory. Duties include verifying and recording incoming merchandise or material and arranging for the transportation of products. May prepare items for shipment. Excludes "Weighers, Measurers, Checkers, and Samplers, Recordkeeping" (43-5111), "Mail Clerks and Mail Machine Operators, except Postal Service" (43-9051), and "Stockers and Order Fillers" (53-7065).
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	Weigh, measure, and check materials, supplies, and equipment for the purpose of keeping relevant records. Duties are primarily clerical by nature. Includes workers who collect and keep record of samples of products or materials. Excludes "Inspectors, Testers, Sorters, Samplers, and Weighers" (51-9061).
43-6011	Executive Secretaries and Executive Administrative Assistants	Provide high-level administrative support by conducting research, preparing statistical reports, and handling information requests, as well as performing routine administrative functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff. Excludes "Secretaries" (43-6012 through 43-6014).
43-6012	Legal Secretaries and Administrative Assistants	Perform secretarial duties using legal terminology, procedures, and documents. Prepare legal papers and correspondence, such as summonses, complaints, motions, and subpoenas. May also assist with legal research.
43-6013	Medical Secretaries and Administrative Assistants	Perform secretarial duties using specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties may include scheduling appointments, billing patients, and compiling and recording medical charts, reports, and correspondence.
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Perform routine administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers. Excludes legal, medical, and executive secretaries (43-6011 through 43-6013).
43-9021	Data Entry Keyers	Operate data entry device, such as keyboard or photo composing perforator. Duties may include verifying data and preparing materials for printing. Excludes "Word Processors and Typists" (43-9022).

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SOC 6-digit	SOC Detailed Title	SOC Definition
43-9022	Word Processors and Typists	Use word processor, computer, or typewriter to type letters, reports, forms, or other material from rough draft, corrected copy, or voice recording. May perform other clerical duties as assigned. Excludes "Court Reporters and Simultaneous Captioners" (27-3092), "Medical Transcriptionists" (31-9094), "Secretaries and Administrative Assistants" (43-6010), and "Data Entry Keyers" (43-9021).
43-9031	Desktop Publishers	Format typescript and graphic elements using computer software to produce publication-ready material.
43-9041	Insurance Claims and Policy Processing Clerks	Process new insurance policies, modifications to existing policies, and claims forms. Obtain information from policyholders to verify the accuracy and completeness of information on claims forms, applications and related documents, and company records. Update existing policies and company records to reflect changes requested by policyholders and insurance company representatives. Excludes "Claims Adjusters, Examiners, and Investigators" (13-1031).
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	Prepare incoming and outgoing mail for distribution. Time-stamp, open, read, sort, and route incoming mail; and address, seal, stamp, fold, stuff, and affix postage to outgoing mail or packages. Duties may also include keeping necessary records and completed forms.
43-9061	Office Clerks, General	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, office machine operation, and filing.
43-9071	Office Machine Operators, Except Computer	Operate one or more of a variety of office machines, such as photocopying, photographic, and duplicating machines, or other office machines. Excludes "Billing and Posting Clerks" (43-3021) and "Mail Clerks and Mail Machine Operators, Except Postal Service" (43-9051).
43-9081	Proofreaders and Copy Markers	Read transcript or proof type setup to detect and mark for correction any grammatical, typographical, or compositional errors. Excludes workers whose primary duty is editing copy. Includes proofreaders of braille.
43-9111	Statistical Assistants	Compile and compute data according to statistical formulas for use in statistical studies. May perform actuarial computations and compile charts and graphs for use by actuaries. Includes actuarial clerks.
43-9199	Office and Administrative Support Workers, All Other	All office and administrative support workers not listed separately.

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SOC 6-digit	SOC Detailed Title	SOC Definition
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	Directly supervise and coordinate the activities of agricultural, forestry, aquacultural, and related workers. Excludes "First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers" (37-1012).
45-2011	Agricultural Inspectors	Inspect agricultural commodities, processing equipment, and facilities, and fish and logging operations, to ensure compliance with regulations and laws governing health, quality, and safety.
45-2021	Animal Breeders	Select and breed animals according to their genealogy, characteristics, and offspring. May require knowledge of artificial insemination techniques and equipment use. May involve keeping records on heats, birth intervals, or pedigree. Excludes "Animal Scientists" (19-1011) whose primary function is research and "Animal Caretakers" (39-2021) who may occasionally breed animals as part of their other caretaking duties.
45-2041	Graders and Sorters, Agricultural Products	Grade, sort, or classify unprocessed food and other agricultural products by size, weight, color, or condition. Excludes "Agricultural Inspectors" (45-2011).
45-2091	Agricultural Equipment Operators	Drive and control equipment to support agricultural activities such as tilling soil; planting, cultivating, and harvesting crops; feeding and herding livestock; or removing animal waste. May perform tasks such as crop baling or hay bucking. May operate stationary equipment to perform post-harvest tasks such as husking, shelling, threshing, and ginning.
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, and field crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities. Excludes "Pesticide Handlers, Sprayers, and Applicators, Vegetation" (37-3012), "Graders and Sorters, Agricultural Products" (45-2041), and "Forest, Conservation, and Logging Workers" (45-4011 through 45-4029).
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	Attend to live farm, ranch, open range or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, rabbits, finfish, shellfish, and bees. Attend to animals produced for animal products, such as meat, fur, skins, feathers, eggs, milk, and honey. Duties may include feeding, watering, herding, grazing, milking, castrating, branding, de-beaking, weighing, catching, and loading animals. May maintain records on animals; examine animals to detect diseases and injuries; assist in birth deliveries; and administer medications, vaccinations, or insecticides as appropriate. May clean and maintain animal housing areas. Includes workers who shear wool from sheep and collect eggs in hatcheries.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
45-2099	Agricultural Workers, All Other	All agricultural workers not listed separately.
45-3031	Fishing and Hunting Workers	Hunt, trap, catch, or gather wild animals or aquatic animals and plants. May use nets, traps, or other equipment. May haul catch onto ship or other vessel. Aquacultural laborers who work on fish farms are included in "Farmworkers, Farm, Ranch, and Aquacultural Animals" (45-2093).
45-4011	Forest and Conservation Workers	Under supervision, perform manual labor necessary to develop, maintain, or protect areas such as forests, forested areas, woodlands, wetlands, and rangelands through such activities as raising and transporting seedlings; combating insects, pests, and diseases harmful to plant life; and building structures to control water, erosion, and leaching of soil. Includes forester aides, seedling pullers, tree planters, and gatherers of nontimber forestry products such as pine straw.
45-4021	Fallers	Use axes or chainsaws to fell trees using knowledge of tree characteristics and cutting techniques to control direction of fall and minimize tree damage.
45-4022	Logging Equipment Operators	Drive logging tractor or wheeled vehicle equipped with one or more accessories, such as bulldozer blade, frontal shear, grapple, logging arch, cable winches, hoisting rack, or crane boom, to fell tree; to skid, load, unload, or stack logs; or to pull stumps or clear brush. Includes operating stand-alone logging machines, such as log chippers. Logging truck drivers are included in "Heavy and Tractor-Trailer Truck Drivers" (53-3032).
45-4023	Log Graders and Scalers	Grade logs or estimate the marketable content or value of logs or pulpwood in sorting yards, millpond, log deck, or similar locations. Inspect logs for defects or measure logs to determine volume. Excludes "Buyers and Purchasing Agents, Farm Products" (13-1021).
45-4029	Logging Workers, All Other	All logging workers not listed separately.
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	Directly supervise and coordinate activities of construction or extraction workers.
47-2011	Boilermakers	Construct, assemble, maintain, and repair stationary steam boilers and boiler house auxiliaries. Align structures or plate sections to assemble boiler frame tanks or vats, following blueprints. Work involves use of hand and power tools, plumb bobs, levels, wedges, dogs, or turnbuckles. Assist in testing assembled vessels. Direct cleaning of boilers and boiler furnaces. Inspect and repair boiler fittings, such as safety valves, regulators, automatic-control mechanisms, water columns, and auxiliary machines.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
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. Installers of mortarless segmental concrete masonry wall units are classified in "Landscaping and Groundskeeping Workers" (37-3011). Excludes "Stonemasons" (47-2022).
47-2022	Stonemasons	Build stone structures, such as piers, walls, and abutments. Lay walks, curbstones, or special types of masonry for vats, tanks, and floors.
47-2031	Carpenters	Construct, erect, install, or repair structures and fixtures made of wood and comparable materials, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall, and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways.
47-2041	Carpet Installers	Lay and install carpet from rolls or blocks on floors. Install padding and trim flooring materials. Excludes "Floor Layers, Except Carpet, Wood, and Hard Tiles" (47-2042).
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	Apply blocks, strips, or sheets of shock-absorbing, sound-deadening, or decorative coverings to floors.
47-2043	Floor Sanders and Finishers	Scrape and sand wooden floors to smooth surfaces using floor scraper and floor sanding machine, and apply coats of finish.
47-2044	Tile and Stone Setters	Apply hard tile, stone, and comparable materials to walls, floors, ceilings, countertops, and roof decks.
47-2051	Cement Masons and Concrete Finishers	Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints. Installers of mortarless segmental concrete masonry wall units are classified in "Landscaping and Groundskeeping Workers" (37-3011).
47-2053	Terrazzo Workers and Finishers	Apply a mixture of cement, sand, pigment, or marble chips to floors, stairways, and cabinet fixtures to fashion durable and decorative surfaces.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
47-2061	Construction Laborers	Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris, and other waste materials. May assist other craft workers. Construction laborers who primarily assist a particular craft worker are classified under "Helpers, Construction Trades" (47-3010). Excludes "Hazardous Materials Removal Workers" (47-4041).
47-2071	Paving, Surfacing, and Tamping Equipment Operators	Operate equipment used for applying concrete, asphalt, or other materials to road beds, parking lots, or airport runways and taxiways or for tamping gravel, dirt, or other materials. Includes concrete and asphalt paving machine operators, form tampers, tamping machine operators, and stone spreader operators.
47-2072	Pile Driver Operators	Operate pile drivers mounted on skids, barges, crawler treads, or locomotive cranes to drive pilings for retaining walls, bulkheads, and foundations of structures such as buildings, bridges, and piers.
47-2073	Operating Engineers and Other Construction Equipment Operators	Operate one or several types of power construction equipment, such as motor graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or front-end loaders to excavate, move, and grade earth, erect structures, or pour concrete or other hard surface pavement. May repair and maintain equipment in addition to other duties. Excludes "Extraction Workers" (47-5000) and "Crane and Tower Operators" (53-7021).
47-2081	Drywall and Ceiling Tile Installers	Apply plasterboard or other wallboard to ceilings or interior walls of buildings. Apply or mount acoustical tiles or blocks, strips, or sheets of shock-absorbing materials to ceilings and walls of buildings to reduce or reflect sound. Materials may be of decorative quality. Includes lathers who fasten wooden, metal, or rockboard lath to walls, ceilings, or partitions of buildings to provide support base for plaster, fireproofing, or acoustical material. Excludes "Carpenters" (47-2031), "Carpet Installers" (47-2041), and "Tile and Stone Setters" (47-2044).
47-2082	Tapers	Seal joints between plasterboard or other wallboard to prepare wall surface for painting or papering.
47-2111	Electricians	Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems. Excludes "Security and Fire Alarm Systems Installers" (49-2098).
47-2121	Glaziers	Install glass in windows, skylights, store fronts, and display cases, or on surfaces, such as building fronts, interior walls, ceilings, and tabletops.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
47-2131	Insulation Workers, Floor, Ceiling, and Wall	Line and cover structures with insulating materials. May work with batt, roll, or blown insulation materials.
47-2132	Insulation Workers, Mechanical	Apply insulating materials to pipes or ductwork, or other mechanical systems in order to help control and maintain temperature.
47-2141	Painters, Construction and Maintenance	Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency. Excludes "Paperhangers" (47-2142).
47-2142	Paperhangers	Cover interior walls or ceilings of rooms with decorative wallpaper or fabric, or attach advertising posters on surfaces such as walls and billboards. May remove old materials or prepare surfaces to be papered.
47-2151	Pipelayers	Lay pipe for storm or sanitation sewers, drains, and water mains. Perform any combination of the following tasks: grade trenches or culverts, position pipe, or seal joints. Excludes "Welders, Cutters, Solderers, and Brazers" (51-4121).
47-2152	Plumbers, Pipefitters, and Steamfitters	Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Includes sprinkler fitters.
47-2161	Plasterers and Stucco Masons	Apply interior or exterior plaster, cement, stucco, or similar materials. May also set ornamental plaster.
47-2171	Reinforcing Iron and Rebar Workers	Position and secure steel bars or mesh in concrete forms in order to reinforce concrete. Use a variety of fasteners, rod-bending machines, blowtorches, and hand tools. Includes rod busters.
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.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
47-2221	Structural Iron and Steel Workers	Raise, place, and unite iron or steel girders, columns, and other structural members to form completed structures or structural frameworks. May erect metal storage tanks and assemble prefabricated metal buildings. Excludes "Reinforcing Iron and Rebar Workers" (47-2171).
47-2231	Solar Photovoltaic Installers	Assemble, install, or maintain solar photovoltaic (PV) systems on roofs or other structures in compliance with site assessment and schematics. May include measuring, cutting, assembling, and bolting structural framing and solar modules. May perform minor electrical work such as current checks. Excludes solar PV electricians who are included in "Electricians" (47-2111) and solar thermal installers who are included in "Plumbers, Pipefitters, and Steamfitters" (47-2152).
47-3011	HelpersBrickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	Help brickmasons, blockmasons, stonemasons, or tile and marble setters by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist brickmasons, blockmasons, and stonemasons or tile and marble setters are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).
47-3012	HelpersCarpenters	Help carpenters by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist carpenters are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).
47-3013	HelpersElectricians	Help electricians by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist electricians are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).
47-3014	HelpersPainters, Paperhangers, Plasterers, and Stucco Masons	Help painters, paperhangers, plasterers, or stucco masons by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist painters, paperhangers, plasterers, or stucco masons are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
47-3015	HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters	Help plumbers, pipefitters, steamfitters, or pipelayers by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist plumbers, pipefitters, steamfitters, or pipelayers are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).
47-3016	HelpersRoofers	Help roofers by performing duties requiring less skill. Duties include using, supplying, or holding materials or tools, and cleaning work area and equipment. Construction laborers who do not primarily assist roofers are classified under "Construction Laborers" (47-2061). Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).
47-3019	Helpers, Construction Trades, All Other	All construction trades helpers not listed separately.
47-4011	Construction and Building Inspectors	Inspect structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical systems or plumbing.
47-4021	Elevator and Escalator Installers and Repairers	Assemble, install, repair, or maintain electric or hydraulic freight or passenger elevators, escalators, or dumbwaiters.
47-4031	Fence Erectors	Erect and repair fences and fence gates, using hand and power tools.
47-4041	Hazardous Materials Removal Workers	Identify, remove, pack, transport, or dispose of hazardous materials, including asbestos, lead-based paint, waste oil, fuel, transmission fluid, radioactive materials, or contaminated soil. Specialized training and certification in hazardous materials handling or a confined entry permit are generally required. May operate earth-moving equipment or trucks.
47-4051	Highway Maintenance Workers	Maintain highways, municipal and rural roads, airport runways, and rights-of-way. Duties include patching broken or eroded pavement and repairing guard rails, highway markers, and snow fences. May also mow or clear brush from along road, or plow snow from roadway. Excludes "Tree Trimmers and Pruners" (37-3013).
47-4061	Rail-Track Laying and Maintenance Equipment Operators	Lay, repair, and maintain track for standard or narrow-gauge railroad equipment used in regular railroad service or in plant yards, quarries, sand and gravel pits, and mines. Includes ballast cleaning machine operators and railroad bed tamping machine operators.
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	Clean and repair septic tanks, sewer lines, or drains. May patch walls and partitions of tank, replace damaged drain tile, or repair breaks in underground piping.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
47-4091	Segmental Pavers	Lay out, cut, and place segmental paving units. Includes installers of bedding and restraining materials for the paving units.
47-4099	Construction and Related Workers, All Other	All construction and related workers not listed separately.
47-5011	Derrick Operators, Oil and Gas	Rig derrick equipment and operate pumps to circulate mud or fluid through drill hole.
47-5012	Rotary Drill Operators, Oil and Gas	Set up or operate a variety of drills to remove underground oil and gas, or remove core samples for testing during oil and gas exploration. Excludes "Earth Drillers, Except Oil and Gas" (47-5023).
47-5013	Service Unit Operators, Oil and Gas	Operate equipment to increase oil flow from producing wells or to remove stuck pipe, casing, tools, or other obstructions from drilling wells. Includes fishing-tool technicians.
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	Operate or tend machinery at surface mining site, equipped with scoops, shovels, or buckets to excavate and load loose materials.
47-5023	Earth Drillers, Except Oil and Gas	Operate a variety of drills such as rotary, churn, and pneumatic to tap subsurface water and salt deposits, to remove core samples during mineral exploration or soil testing, and to facilitate the use of explosives in mining or construction. Includes horizontal and earth boring machine operators.
47-5032	Explosives Workers, Ordnance Handling Experts, and Blasters	Place and detonate explosives to demolish structures or to loosen, remove, or displace earth, rock, or other materials. May perform specialized handling, storage, and accounting procedures.
47-5041	Continuous Mining Machine Operators	Operate self-propelled mining machines that rip coal, metal and nonmetal ores, rock, stone, or sand from the mine face and load it onto conveyors, shuttle cars, or trucks in a continuous operation.
47-5043	Roof Bolters, Mining	Operate machinery to install roof support bolts in underground mine.
47-5044	Loading and Moving Machine Operators, Underground Mining	Operate underground loading or moving machine to load or move coal, ore, or rock using shuttle or mine car or conveyors. Equipment may include power shovels, hoisting engines equipped with cable-drawn scraper or scoop, or machines equipped with gathering arms and conveyor.
47-5049	Underground Mining Machine Operators, All Other	All underground mining machine operators not listed separately.
47-5051	Rock Splitters, Quarry	Separate blocks of rough dimension stone from quarry mass using jackhammers, wedges, or chop saws.
47-5071	Roustabouts, Oil and Gas	Assemble or repair oil field equipment using hand and power tools. Perform other tasks as needed.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
47-5081	HelpersExtraction Workers	Help extraction craft workers, such as earth drillers, blasters and explosives workers, derrick operators, and mining machine operators, by performing duties requiring less skill. Duties include supplying equipment or cleaning work area. Apprentice workers are classified with the appropriate skilled construction trade occupation (47-2011 through 47-2231).
47-5099	Extraction Workers, All Other	All extraction workers not listed separately.
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	Directly supervise and coordinate the activities of mechanics, installers, and repairers. May also advise customers on recommended services. Excludes team or work leaders.
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.
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	Repair, install, or maintain mobile or stationary radio transmitting, broadcasting, and receiving equipment, and two-way radio communications systems used in cellular telecommunications, mobile broadband, shipto-shore, aircraft-to-ground communications, and radio equipment in service and emergency vehicles. May test and analyze network coverage.
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	Install, set up, rearrange, or remove switching, distribution, routing, and dialing equipment used in central offices or headends. Service or repair telephone, cable television, Internet, and other communications equipment on customers' property. May install communications equipment or communications wiring in buildings. Excludes "Telecommunications Line Installers and Repairers" (49-9052).
49-2091	Avionics Technicians	Install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space vehicles.
49-2092	Electric Motor, Power Tool, and Related Repairers	Repair, maintain, or install electric motors, wiring, or switches.
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	Install, adjust, or maintain mobile electronics communication equipment, including sound, sonar, security, navigation, and surveillance systems on trains, watercraft, or other mobile equipment. Excludes "Avionics Technicians" (49-2091) and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096).
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	Repair, test, adjust, or install electronic equipment, such as industrial controls, transmitters, and antennas. Excludes "Avionics Technicians" (49-2091), "Electrical and Electronics Installers and Repairers, Transportation Equipment" (49-2093), and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	Inspect, test, repair, or maintain electrical equipment in generating stations, substations, and in-service relays.
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	Install, diagnose, or repair communications, sound, security, or navigation equipment in motor vehicles.
49-2097	Audiovisual Equipment Installers and Repairers	Install, repair, or adjust audio or television receivers, stereo systems, camcorders, video systems, or other electronic entertainment equipment in homes or other venues. May perform routine maintenance. Excludes "Audio and Video Technicians" (27-4011).
49-2098	Security and Fire Alarm Systems Installers	Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes. Excludes "Electricians" (47-2111) who do a broad range of electrical wiring.
49-3011	Aircraft Mechanics and Service Technicians	Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems. Excludes "Avionics Technicians" (49-2091).
49-3021	Automotive Body and Related Repairers	Repair and refinish automotive vehicle bodies and straighten vehicle frames. Excludes "Automotive Glass Installers and Repairers" (49-3022) and "Coating, Painting, and Spraying Machine Setters, Operators, and Tenders" (51-9124).
49-3022	Automotive Glass Installers and Repairers	Replace or repair broken windshields and window glass in motor vehicles.
49-3023	Automotive Service Technicians and Mechanics	Diagnose, adjust, repair, or overhaul automotive vehicles. Excludes "Automotive Body and Related Repairers" (49-3021), "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031), and "Electronic Equipment Installers and Repairers, Motor Vehicles" (49-2096).
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.
49-3041	Farm Equipment Mechanics and Service Technicians	Diagnose, adjust, repair, or overhaul farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031).
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors, used in construction, logging, and mining. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031) and "Rail Car Repairers" (49-3043).
49-3043	Rail Car Repairers	Diagnose, adjust, repair, or overhaul railroad rolling stock, mine cars, or mass transit rail cars. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
49-3051	Motorboat Mechanics and Service Technicians	Repair and adjust electrical and mechanical equipment of inboard or inboard-outboard boat engines. Excludes "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031).
49-3052	Motorcycle Mechanics	Diagnose, adjust, repair, or overhaul motorcycles, scooters, mopeds, dirt bikes, or similar motorized vehicles.
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	Diagnose, adjust, repair, or overhaul small engines used to power lawn mowers, chain saws, recreational sporting equipment, and related equipment.
49-3091	Bicycle Repairers	Repair and service bicycles.
49-3092	Recreational Vehicle Service Technicians	Diagnose, inspect, adjust, repair, or overhaul recreational vehicles including travel trailers. May specialize in maintaining gas, electrical, hydraulic, plumbing, or chassis/towing systems as well as repairing generators, appliances, and interior components. Includes workers who perform customized van conversions. Excludes "Automotive Service Technicians and Mechanics" (49-3023) and "Bus and Truck Mechanics and Diesel Engine Specialists" (49-3031) who also work on recreation vehicles.
49-3093	Tire Repairers and Changers	Repair and replace tires.
49-9011	Mechanical Door Repairers	Install, service, or repair automatic door mechanisms and hydraulic doors. Includes garage door mechanics.
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	Install, repair, and maintain mechanical regulating and controlling devices, such as electric meters, gas regulators, thermostats, safety and flow valves, and other mechanical governors.
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Install or repair heating, central air conditioning, HVAC, or refrigeration systems, including oil burners, hotair furnaces, and heating stoves.
49-9031	Home Appliance Repairers	Repair, adjust, or install all types of electric or gas household appliances, such as refrigerators, washers, dryers, and ovens.
49-9041	Industrial Machinery Mechanics	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems. May also install, dismantle, or move machinery and heavy equipment according to plans. Excludes "Mobile Heavy Equipment Mechanics, Except Engines" (49-3042), and "Maintenance Workers, Machinery" (49-9043).
49-9043	Maintenance Workers, Machinery	Lubricate machinery, change parts, or perform other routine machinery maintenance. Excludes "Maintenance and Repair Workers, General" (49-9071).
49-9044	Millwrights	Install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
49-9045	Refractory Materials Repairers, Except Brickmasons	Build or repair equipment such as furnaces, kilns, cupolas, boilers, converters, ladles, soaking pits, and ovens, using refractory materials.
49-9051	Electrical Power-Line Installers and Repairers	Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy duty transmission towers. Excludes "Electrical and Electronics Repairers, Powerhouse, Substation, and Relay" (49-2095).
49-9052	Telecommunications Line Installers and Repairers	Install and repair telecommunications cable, including fiber optics.
49-9061	Camera and Photographic Equipment Repairers	Repair and adjust cameras and photographic equipment, including commercial video and motion picture camera equipment.
49-9062	Medical Equipment Repairers	Test, adjust, or repair biomedical or electromedical equipment.
49-9063	Musical Instrument Repairers and Tuners	Repair percussion, stringed, reed, or wind instruments. May specialize in one area, such as piano tuning. Excludes "Audiovisual Equipment Installers and Repairers" (49-2097) who repair electrical and electronic musical instruments.
49-9064	Watch and Clock Repairers	Repair, clean, and adjust mechanisms of timing instruments, such as watches and clocks. Includes watchmakers, watch technicians, and mechanical timepiece repairers. Excludes "Timing Device Assemblers and Adjusters" (51-2061).
49-9069	Precision Instrument and Equipment Repairers, All Other	All precision instrument and equipment repairers not listed separately.
49-9071	Maintenance and Repair Workers, General	Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of a building in repair. Duties may involve pipe fitting; HVAC maintenance; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs. Excludes "Facilities Managers" (11-3013) and "Maintenance Workers, Machinery" (49-9043).
49-9081	Wind Turbine Service Technicians	Inspect, diagnose, adjust, or repair wind turbines. Perform maintenance on wind turbine equipment including resolving electrical, mechanical, and hydraulic malfunctions.
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	Install, service, adjust, or repair coin, vending, or amusement machines including video games, juke boxes, pinball machines, or slot machines.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
49-9092	Commercial Divers	Work below surface of water, using surface-supplied air or scuba equipment to inspect, repair, remove, or install equipment and structures. May use a variety of power and hand tools, such as drills, sledgehammers, torches, and welding equipment. May conduct tests or experiments, rig explosives, or photograph structures or marine life. Excludes "Athletes and Sports Competitors" (27-2021), "Police and Sheriff's Patrol Officers" (33-3051), and "Fishing and Hunting Workers" (45-3031).
49-9094	Locksmiths and Safe Repairers	Repair and open locks, make keys, change locks and safe combinations, and install and repair safes.
49-9095	Manufactured Building and Mobile Home Installers	Move or install mobile homes or prefabricated buildings.
49-9096	Riggers	Set up or repair rigging for construction projects, manufacturing plants, logging yards, ships and shipyards, or for the entertainment industry.
49-9097	Signal and Track Switch Repairers	Install, inspect, test, maintain, or repair electric gate crossings, signals, signal equipment, track switches, section lines, or intercommunications systems within a railroad system.
49-9098	HelpersInstallation, Maintenance, and Repair Workers	Help installation, maintenance, and repair workers in maintenance, parts replacement, and repair of vehicles, industrial machinery, and electrical and electronic equipment. Perform duties such as furnishing tools, materials, and supplies to other workers; cleaning work area, machines, and tools; and holding materials or tools for other workers.
49-9099	Installation, Maintenance, and Repair Workers, All Other	All installation, maintenance, and repair workers not listed separately.
51-1011	First-Line Supervisors of Production and Operating Workers	Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators. Excludes team or work leaders.
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	Assemble, fit, fasten, and install parts of airplanes, space vehicles, or missiles, such as tails, wings, fuselage, bulkheads, stabilizers, landing gear, rigging and control equipment, or heating and ventilating systems.
51-2021	Coil Winders, Tapers, and Finishers	Wind wire coils used in electrical components, such as resistors and transformers, and in electrical equipment and instruments, such as field cores, bobbins, armature cores, electrical motors, generators, and control equipment.
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.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
51-2023	Electromechanical Equipment Assemblers	Assemble or modify electromechanical equipment or devices, such as servomechanisms, gyros, dynamometers, magnetic drums, tape drives, brakes, control linkage, actuators, and appliances.
51-2031	Engine and Other Machine Assemblers	Construct, assemble, or rebuild machines, such as engines, turbines, and similar equipment used in such industries as construction, extraction, textiles, and paper manufacturing.
51-2041	Structural Metal Fabricators and Fitters	Fabricate, position, align, and fit parts of structural metal products. Shipfitters are included in "Layout Workers, Metal and Plastic" (51-4192).
51-2051	Fiberglass Laminators and Fabricators	Laminate layers of fiberglass on molds to form boat decks and hulls, bodies for golf carts, automobiles, or other products.
51-2061	Timing Device Assemblers and Adjusters	Perform precision assembling or adjusting, within narrow tolerances, of timing devices such as digital clocks or timing devices with electrical or electronic components. Watchmakers are included in "Watch and Clock Repairers" (49-9064).
51-2092	Team Assemblers	Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them, rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Includes team leaders who work as part of the team. Assemblers who continuously perform the same task are classified elsewhere in 51-2000.
51-2099	Assemblers and Fabricators, All Other	All assemblers and fabricators not listed separately.
51-3011	Bakers	Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods. Pastry chefs in restaurants and hotels are included with "Chefs and Head Cooks" (35-1011).
51-3021	Butchers and Meat Cutters	Cut, trim, or prepare consumer-sized portions of meat for use or sale in retail establishments.
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	Use hands or hand tools to perform routine cutting and trimming of meat, poultry, and seafood.
51-3023	Slaughterers and Meat Packers	Perform nonroutine or precision functions involving the preparation of large portions of meat. Work may include specialized slaughtering tasks, cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats. Work typically occurs in slaughtering, meat packing, or wholesale establishments. Excludes "Meat, Poultry, and Fish Cutters and Trimmers" (51-3022) who perform routine meat cutting.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
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.
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.
51-3093	Food Cooking Machine Operators and Tenders	Operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers, to prepare food products. Excludes "Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders" (51-3091).
51-3099	Food Processing Workers, All Other	All food processing workers not listed separately
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.
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend forging machines to taper, shape, or form metal or plastic parts.
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend machines to roll steel or plastic forming bends, beads, knurls, rolls, or plate, or to flatten, temper, or reduce gauge of material.
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.
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend drilling machines to drill, bore, ream, mill, or countersink metal or plastic work pieces.
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.
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend lathe and turning machines to turn, bore, thread, form, or face metal or plastic materials, such as wire, rod, or bar stock.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend milling or planing machines to mill, plane, shape, groove, or profile metal or plastic work pieces.
51-4041	Machinists	Set up and operate a variety of machine tools to produce precision parts and instruments out of metal. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures. Machinists who primarily program or operate computer numerically controlled (CNC) equipment are classified in "Computer Numerically Controlled Tool Operators and Programmers" (51-9160).
51-4051	Metal-Refining Furnace Operators and Tenders	Operate or tend furnaces, such as gas, oil, coal, electric-arc or electric induction, open-hearth, or oxygen furnaces, to melt and refine metal before casting or to produce specified types of steel. Excludes "Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic" (51-4191).
51-4052	Pourers and Casters, Metal	Operate hand-controlled mechanisms to pour and regulate the flow of molten metal into molds to produce castings or ingots.
51-4061	Model Makers, Metal and Plastic	Set up and operate machines, such as lathes, milling and engraving machines, and jig borers to make working models of metal or plastic objects. Includes template makers.
51-4062	Patternmakers, Metal and Plastic	Lay out, machine, fit, and assemble castings and parts to metal or plastic foundry patterns, core boxes, or match plates.
51-4071	Foundry Mold and Coremakers	Make or form wax or sand cores or molds used in the production of metal castings in foundries. Excludes "Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic" (51-4072) and "Molders, Shapers, and Casters, Except Metal and Plastic" (51-9195).
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.
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.
51-4111	Tool and Die Makers	Analyze specifications, lay out metal stock, set up and operate machine tools, and fit and assemble parts to make and repair dies, cutting tools, jigs, fixtures, gauges, and machinists' hand tools.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
51-4121	Welders, Cutters, Solderers, and Brazers	Use hand-welding, flame-cutting, hand-soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	Set up, operate, or tend welding, soldering, or brazing machines or robots that weld, braze, solder, or heat treat metal products, components, or assemblies. Includes workers who operate laser cutters or laser-beam machines.
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend heating equipment, such as heat-treating furnaces, flame-hardening machines, induction machines, soaking pits, or vacuum equipment to temper, harden, anneal, or heat treat metal or plastic objects.
51-4192	Layout Workers, Metal and Plastic	Lay out reference points and dimensions on metal or plastic stock or workpieces, such as sheets, plates, tubes, structural shapes, castings, or machine parts, for further processing. Includes shipfitters.
51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend plating machines to coat metal or plastic products with chromium, zinc, copper, cadmium, nickel, or other metal to protect or decorate surfaces. Typically, the product being coated is immersed in molten metal or an electrolytic solution. Excludes "Coating, Painting, and Spraying Machine Setters, Operators, and Tenders" (51-9124).
51-4194	Tool Grinders, Filers, and Sharpeners	Perform precision smoothing, sharpening, polishing, or grinding of metal objects.
51-4199	Metal Workers and Plastic Workers, All Other	All metal workers and plastic workers not listed separately.
51-5111	Prepress Technicians and Workers	Format and proof text and images submitted by designers and clients into finished pages that can be printed. Includes digital and photo typesetting. May produce printing plates.
51-5112	Printing Press Operators	Set up and operate digital, letterpress, lithographic, flexographic, gravure, or other printing machines. Includes short-run offset printing presses.
51-5113	Print Binding and Finishing Workers	Bind books and other publications or finish printed products by hand or machine. May set up binding and finishing machines.
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.
51-6021	Pressers, Textile, Garment, and Related Materials	Press or shape articles by hand or machine.
51-6031	Sewing Machine Operators	Operate or tend sewing machines to join, reinforce, decorate, or perform related sewing operations in the manufacture of garment or nongarment products.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
51-6041	Shoe and Leather Workers and Repairers	Construct, decorate, or repair leather and leather-like products, such as luggage, shoes, and saddles. May use hand tools.
51-6042	Shoe Machine Operators and Tenders	Operate or tend a variety of machines to join, decorate, reinforce, or finish shoes and shoe parts.
51-6051	Sewers, Hand	Sew, join, reinforce, or finish, usually with needle and thread, a variety of manufactured items. Includes weavers and stitchers.
51-6052	Tailors, Dressmakers, and Custom Sewers	Design, make, alter, repair, or fit garments.
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	Operate or tend machines to bleach, shrink, wash, dye, or finish textiles or synthetic or glass fibers.
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	Set up, operate, or tend machines that cut textiles.
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	Set up, operate, or tend machines that knit, loop, weave, or draw in textiles. Excludes "Sewing Machine Operators" (51-6031).
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	Set up, operate, or tend machines that wind or twist textiles; or draw out and combine sliver, such as wool, hemp, or synthetic fibers. Includes slubber machine and drawing frame operators.
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	Set up, operate, or tend machines that extrude and form continuous filaments from synthetic materials, such as liquid polymer, rayon, and fiberglass.
51-6092	Fabric and Apparel Patternmakers	Draw and construct sets of precision master fabric patterns or layouts. May also mark and cut fabrics and apparel.
51-6093	Upholsterers	Make, repair, or replace upholstery for household furniture or transportation vehicles.
51-6099	Textile, Apparel, and Furnishings Workers, All Other	All textile, apparel, and furnishings workers not listed separately.
51-7011	Cabinetmakers and Bench Carpenters	Cut, shape, and assemble wooden articles or set up and operate a variety of woodworking machines, such as power saws, jointers, and mortisers to surface, cut, or shape lumber or to fabricate parts for wood products. Excludes "Woodworking Machine Setters, Operators, and Tenders" (51-7040).
51-7021	Furniture Finishers	Shape, finish, and refinish damaged, worn, or used furniture or new high-grade furniture to specified color or finish.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
51-7031	Model Makers, Wood	Construct full-size and scale wooden precision models of products. Includes wood jig builders and loft workers.
51-7032	Patternmakers, Wood	Plan, lay out, and construct wooden unit or sectional patterns used in forming sand molds for castings.
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	Set up, operate, or tend wood sawing machines. May operate computer numerically controlled (CNC) equipment. Includes lead sawyers. Workers who primarily program or operate CNC equipment are classified in "Computer Numerically Controlled Tool Operators and Programmers" (51-9160).
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	Set up, operate, or tend woodworking machines, such as drill presses, lathes, shapers, routers, sanders, planers, and wood nailing machines. May operate computer numerically controlled (CNC) equipment. Workers who primarily program or operate CNC equipment are classified in "Computer Numerically Controlled Tool Operators and Programmers" (51-9160).
51-7099	Woodworkers, All Other	All woodworkers not listed separately.
51-8011	Nuclear Power Reactor Operators	Operate or control nuclear reactors. Move control rods, start and stop equipment, monitor and adjust controls, and record data in logs. Implement emergency procedures when needed. May respond to abnormalities, determine cause, and recommend corrective action.
51-8012	Power Distributors and Dispatchers	Coordinate, regulate, or distribute electricity or steam.
51-8013	Power Plant Operators	Control, operate, or maintain machinery to generate electric power. Includes auxiliary equipment operators. Excludes "Nuclear Power Reactor Operators" (51-8011).
51-8021	Stationary Engineers and Boiler Operators	Operate or maintain stationary engines, boilers, or other mechanical equipment to provide utilities for buildings or industrial processes. Operate equipment such as steam engines, generators, motors, turbines, and steam boilers.
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.
51-8091	Chemical Plant and System Operators	Control or operate entire chemical processes or system of machines.
51-8092	Gas Plant Operators	Distribute or process gas for utility companies and others by controlling compressors to maintain specified pressures on main pipelines.
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	Operate or control petroleum refining or processing units. May specialize in controlling manifold and pumping systems, gauging or testing oil in storage tanks, or regulating the flow of oil into pipelines.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
51-8099	Plant and System Operators, All Other	All plant and system operators not listed separately.
51-9011	Chemical Equipment Operators and Tenders	Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam-jacketed kettles, and reactor vessels. Excludes "Chemical Plant and System Operators" (51-8091).
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	Set up, operate, or tend continuous flow or vat-type equipment; filter presses; shaker screens; centrifuges; condenser tubes; precipitating, fermenting, or evaporating tanks; scrubbing towers; or batch stills. These machines extract, sort, or separate liquids, gases, or solids from other materials to recover a refined product. Includes dairy processing equipment operators. Excludes "Chemical Equipment Operators and Tenders" (51-9011).
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.
51-9022	Grinding and Polishing Workers, Hand	Grind, sand, or polish, using hand tools or hand-held power tools, a variety of metal, wood, stone, clay, plastic, or glass objects. Includes chippers, buffers, and finishers.
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	Set up, operate, or tend machines to mix or blend materials, such as chemicals, tobacco, liquids, color pigments, or explosive ingredients. Excludes "Food Batchmakers" (51-3092).
51-9031	Cutters and Trimmers, Hand	Use hand tools or hand-held power tools to cut and trim a variety of manufactured items, such as carpet, fabric, stone, glass, or rubber.
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	Set up, operate, or tend machines that cut or slice materials, such as glass, stone, cork, rubber, tobacco, food, paper, or insulating material. Excludes "Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic" (51-4031), "Textile Cutting Machine Setters, Operators, and Tenders" (51-6062), and "Woodworking Machine Setters, Operators, and Tenders" (51-7040).
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	Set up, operate, or tend machines, such as glass-forming machines, plodder machines, and tuber machines, to shape and form products such as glassware, food, rubber, soap, brick, tile, clay, wax, tobacco, or cosmetics. Excludes "Shoe Machine Operators and Tenders" (51-6042) and "Paper Goods Machine Setters, Operators, and Tenders" (51-9196).
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	Operate or tend heating equipment other than basic metal, plastic, or food processing equipment. Includes activities such as annealing glass, drying lumber, curing rubber, removing moisture from materials, or boiling soap.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
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.
51-9071	Jewelers and Precious Stone and Metal Workers	Design, fabricate, adjust, repair, or appraise jewelry, gold, silver, other precious metals, or gems. Includes diamond polishers and gem cutters, and persons who perform precision casting and modeling of molds, casting metal in molds, or setting precious and semiprecious stones for jewelry and related products.
51-9081	Dental Laboratory Technicians	Construct and repair full or partial dentures or dental appliances. Excludes "Dental Assistants" (31-9091).
51-9082	Medical Appliance Technicians	Construct, maintain, or repair medical supportive devices such as braces, orthotics and prosthetic devices, joints, arch supports, and other surgical and medical appliances.
51-9083	Ophthalmic Laboratory Technicians	Cut, grind, and polish eyeglasses, contact lenses, or other precision optical elements. Assemble and mount lenses into frames or process other optical elements. Includes precision lens polishers or grinders, centereredgers, and lens mounters. Excludes "Opticians, Dispensing" (29-2081).
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.
51-9123	Painting, Coating, and Decorating Workers	Paint, coat, or decorate articles, such as furniture, glass, plateware, pottery, jewelry, toys, books, or leather. Excludes "Artists and Related Workers" (27-1010), "Designers" (27-1020), "Photographic Process Workers and Processing Machine Operators" (51-9151), and "Etchers and Engravers" (51-9194).
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	Set up, operate, or tend spraying or rolling 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. Includes painters of transportation vehicles such as painters in auto body repair facilities. Excludes "Plating Machine Setters, Operators, and Tenders, Metal and Plastic" (51-4193).
51-9141	Semiconductor Processing Technicians	Perform any or all of the following functions in the manufacture of electronic semiconductors: load semiconductor material into furnace; saw formed ingots into segments; load individual segment into crystal growing chamber and monitor controls; locate crystal axis in ingot using x-ray equipment and saw ingots into wafers; and clean, polish, and load wafers into series of special purpose furnaces, chemical baths, and equipment used to form circuitry and change conductive properties.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
51-9151	Photographic Process Workers and Processing Machine Operators	Perform work involved in developing and processing photographic images from film or digital media. May perform precision tasks such as editing photographic negatives and prints.
51-9161	Computer Numerically Controlled Tool Operators	Operate computer-controlled tools, machines, or robots to machine or process parts, tools, or other work pieces made of metal, plastic, wood, stone, or other materials. May also set up and maintain equipment.
51-9162	Computer Numerically Controlled Tool Programmers	Develop programs to control machining or processing of materials by automatic machine tools, equipment, or systems. May also set up, operate, or maintain equipment.
51-9191	Adhesive Bonding Machine Operators and Tenders	Operate or tend bonding machines that use adhesives to join items for further processing or to form a completed product. Processes include joining veneer sheets into plywood; gluing paper; or joining rubber and rubberized fabric parts, plastic, simulated leather, or other materials. Excludes "Shoe Machine Operators and Tenders" (51-6042).
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	Operate or tend machines to wash or clean products, such as barrels or kegs, glass items, tin plate, food, pulp, coal, plastic, or rubber, to remove impurities.
51-9193	Cooling and Freezing Equipment Operators and Tenders	Operate or tend equipment such as cooling and freezing units, refrigerators, batch freezers, and freezing tunnels, to cool or freeze products, food, blood plasma, and chemicals.
51-9194	Etchers and Engravers	Engrave or etch metal, wood, rubber, or other materials. Includes such workers as etcher-circuit processors, pantograph engravers, and silk screen etchers. Photoengravers are included in "Prepress Technicians and Workers" (51-5111).
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	Mold, shape, form, cast, or carve products such as food products, figurines, tile, pipes, and candles consisting of clay, glass, plaster, concrete, stone, or combinations of materials.
51-9196	Paper Goods Machine Setters, Operators, and Tenders	Set up, operate, or tend paper goods machines that perform a variety of functions, such as converting, sawing, corrugating, banding, wrapping, boxing, stitching, forming, or sealing paper or paperboard sheets into products.
51-9197	Tire Builders	Operate machines to build tires.
51-9198	HelpersProduction Workers	Help production workers by performing duties requiring less skill. Duties include supplying or holding materials or tools, and cleaning work area and equipment. Apprentice workers are classified in the appropriate production occupations (51-0000).
51-9199	Production Workers, All Other	All production workers not listed separately. Excludes "Packers and Packagers, Hand" (53-7064).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
53-1041	Aircraft Cargo Handling Supervisors	Supervise and coordinate the activities of ground crew in the loading, unloading, securing, and staging of aircraft cargo or baggage. May determine the quantity and orientation of cargo and compute aircraft center of gravity. May accompany aircraft as member of flight crew and monitor and handle cargo in flight, and assist and brief passengers on safety and emergency procedures. Includes loadmasters.
53-1042	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	Directly supervise and coordinate the activities of helpers, laborers, or material movers, hand.
53-1043	First-Line Supervisors of Material- Moving Machine and Vehicle Operators	Directly supervise and coordinate activities of material-moving machine and vehicle operators and helpers.
53-1044	First-Line Supervisors of Passenger Attendants	Supervise and coordinate activities of passenger attendants. Includes supervisors of "Flight Attendants" (53-2031).
53-1049	First-Line Supervisors of Transportation Workers, All Other	All first-line supervisors of transportation workers not listed separately.
53-2011	Airline Pilots, Copilots, and Flight Engineers	Pilot and navigate the flight of fixed-wing aircraft, usually on scheduled air carrier routes, for the transport of passengers and cargo. Requires Federal Air Transport certificate and rating for specific aircraft type used. Includes regional, national, and international airline pilots and flight instructors of airline pilots. Excludes "Electro-Mechanical and Mechatronics Technologists and Technicians" (17-3024).
53-2012	Commercial Pilots	Pilot and navigate the flight of fixed-wing aircraft on nonscheduled air carrier routes, or helicopters. Requires Commercial Pilot certificate. Includes charter pilots with similar certification, and air ambulance and air tour pilots. Excludes regional, national, and international airline pilots. Excludes "Electro-Mechanical and Mechatronics Technologists and Technicians" (17-3024).
53-2021	Air Traffic Controllers	Control air traffic on and within vicinity of airport, and movement of air traffic between altitude sectors and control centers, according to established procedures and policies. Authorize, regulate, and control commercial airline flights according to government or company regulations to expedite and ensure flight safety.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
53-2022	Airfield Operations Specialists	Ensure the safe takeoff and landing of commercial and military aircraft. Duties include coordination between air-traffic control and maintenance personnel, dispatching, using airfield landing and navigational aids, implementing airfield safety procedures, monitoring and maintaining flight records, and applying knowledge of weather information.
53-2031	Flight Attendants	Monitor safety of the aircraft cabin. Provide services to airline passengers, explain safety information, serve food and beverages, and respond to emergency incidents.
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	Drive ambulance or assist ambulance driver in transporting sick, injured, or convalescent persons. Assist in lifting patients.
53-3031	Driver/Sales Workers	Drive truck or other vehicle over established routes or within an established territory and sell or deliver goods, such as food products, including restaurant take-out items, or pick up or deliver items such as commercial laundry. May also take orders, collect payment, or stock merchandise at point of delivery. Excludes "Coin, Vending, and Amusement Machine Servicers and Repairers" (49-9091) and "Light Truck Drivers" (53-3033).
53-3032	Heavy and Tractor-Trailer Truck Drivers	Drive a tractor-trailer combination or a truck with a capacity of at least 26,001 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires commercial drivers' license. Includes tow truck drivers. Excludes "Refuse and Recyclable Material Collectors" (53-7081).
53-3033	Light Truck Drivers	Drive a light vehicle, such as a truck or van, with a capacity of less than 26,001 pounds Gross Vehicle Weight (GVW), primarily to pick up merchandise or packages from a distribution center and deliver. May load and unload vehicle. Excludes "Couriers and Messengers" (43-5021) and "Driver/Sales Workers" (53-3031).
53-3051	Bus Drivers, School	Drive a school bus to transport students. Ensure adherence to safety rules. May assist students in boarding or exiting.
53-3052	Bus Drivers, Transit and Intercity	Drive bus or motor coach, including regular route operations, charters, and private carriage. May assist passengers with baggage. May collect fares or tickets.
53-3053	Shuttle Drivers and Chauffeurs	Drive a motor vehicle to transport passengers on a planned or scheduled basis. May collect a fare. Includes nonemergency medical transporters and hearse drivers. Excludes "Ambulance Drivers and Attendants, Except Emergency Medical Technicians" (53-3011) and "Taxi Drivers" (53-3054).
53-3054	Taxi Drivers	Drive a motor vehicle to transport passengers on an unplanned basis and charge a fare, usually based on a meter. Excludes "Shuttle Drivers and Chauffeurs" (53-3053).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
53-3099	Motor Vehicle Operators, All Other	All motor vehicle operators not listed separately.
53-4011	Locomotive Engineers	Drive electric, diesel-electric, steam, or gas-turbine-electric locomotives to transport passengers or freight. Interpret train orders, electronic or manual signals, and railroad rules and regulations. Excludes "Engineers" (17-2011 through 17-2199).
53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers	Drive switching or other locomotive or dinkey engines within railroad yard, industrial plant, quarry, construction project, or similar location.
53-4022	Railroad Brake, Signal, and Switch Operators and Locomotive Firers	Operate or monitor railroad track switches or locomotive instruments. May couple or uncouple rolling stock to make up or break up trains. Watch for and relay traffic signals. May inspect couplings, air hoses, journal boxes, and hand brakes. May watch for dragging equipment or obstacles on rights-of-way.
53-4031	Railroad Conductors and Yardmasters	Coordinate activities of switch-engine crew within railroad yard, industrial plant, or similar location. Conductors coordinate activities of train crew on passenger or freight trains. Yardmasters review train schedules and switching orders and coordinate activities of workers engaged in railroad traffic operations, such as the makeup or breakup of trains and yard switching.
53-4041	Subway and Streetcar Operators	Operate subway or elevated suburban trains with no separate locomotive, or electric-powered streetcar, to transport passengers. May handle fares.
53-4099	Rail Transportation Workers, All Other	All rail transportation workers not listed separately.
53-5011	Sailors and Marine Oilers	Stand watch to look for obstructions in path of vessel, measure water depth, turn wheel on bridge, or use emergency equipment as directed by captain, mate, or pilot. Break out, rig, overhaul, and store cargo-handling gear, stationary rigging, and running gear. Perform a variety of maintenance tasks to preserve the painted surface of the ship and to maintain line and ship equipment. Must hold government-issued certification and tankerman certification when working aboard liquid-carrying vessels. Includes able seamen and ordinary seamen.
53-5021	Captains, Mates, and Pilots of Water Vessels	Command or supervise operations of ships and water vessels, such as tugboats and ferryboats. Required to hold license issued by U.S. Coast Guard. Excludes "Motorboat Operators" (53-5022).
53-5022	Motorboat Operators	Operate small motor-driven boats. May assist in navigational activities.
53-5031	Ship Engineers	Supervise and coordinate activities of crew engaged in operating and maintaining engines, boilers, deck machinery, and electrical, sanitary, and refrigeration equipment aboard ship. Excludes "Engineers" (17-2000).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
53-6011	Bridge and Lock Tenders	Operate and tend bridges, canal locks, and lighthouses to permit marine passage on inland waterways, near shores, and at danger points in waterway passages. May supervise such operations. Includes drawbridge operators, lock operators, and slip bridge operators.
53-6021	Parking Attendants	Park vehicles or issue tickets for customers in a parking lot or garage. May park or tend vehicles in environments such as a car dealership or rental car facility. May collect fee.
53-6031	Automotive and Watercraft Service Attendants	Service automobiles, buses, trucks, boats, and other automotive or marine vehicles with fuel, lubricants, and accessories. Collect payment for services and supplies. May lubricate vehicle, change motor oil, refill antifreeze, or replace lights or other accessories, such as windshield wiper blades or fan belts. May repair or replace tires. Excludes "Cashiers" (41-2011).
53-6032	Aircraft Service Attendants	Service aircraft with fuel. May de-ice aircraft, refill water and cooling agents, empty sewage tanks, service air and oxygen systems, or clean and polish exterior.
53-6041	Traffic Technicians	Conduct field studies to determine traffic volume, speed, effectiveness of signals, adequacy of lighting, and other factors influencing traffic conditions, under direction of traffic engineer.
53-6051	Transportation Inspectors	Inspect equipment or goods in connection with the safe transport of cargo or people. Includes rail transportation inspectors, such as freight inspectors, rail inspectors, and other inspectors of transportation vehicles not elsewhere classified. Excludes "Transportation Security Screeners" (33-9093).
53-6061	Passenger Attendants	Provide services to ensure the safety of passengers aboard ships, buses, trains, or within the station or terminal. Perform duties such as explaining the use of safety equipment, serving meals or beverages, or answering questions related to travel. Excludes "Baggage Porters and Bellhops" (39-6011) and "Flight Attendants" (53-2031).
53-6099	Transportation Workers, All Other	All transportation workers not listed separately.
53-7011	Conveyor Operators and Tenders	Control or tend conveyors or conveyor systems that move materials or products to and from stockpiles, processing stations, departments, or vehicles. May control speed and routing of materials or products.
53-7021	Crane and Tower Operators	Operate mechanical boom and cable or tower and cable equipment to lift and move materials, machines, or products in many directions.
53-7031	Dredge Operators	Operate dredge to remove sand, gravel, or other materials in order to excavate and maintain navigable channels in waterways.
53-7041	Hoist and Winch Operators	Operate or tend hoists or winches to lift and pull loads using power-operated cable equipment. Excludes "Crane and Tower Operators" (53-7021).

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
53-7051	Industrial Truck and Tractor Operators	Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location. Excludes "Logging Equipment Operators" (45-4022).
53-7061	Cleaners of Vehicles and Equipment	Wash or otherwise clean vehicles, machinery, and other equipment. Use such materials as water, cleaning agents, brushes, cloths, and hoses. Excludes "Janitors and Cleaners, Except Maids and Housekeeping Cleaners" (37-2011).
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	Manually move freight, stock, luggage, or other materials, or perform other general labor. Includes all manual laborers not elsewhere classified. Excludes "Construction Laborers" (47-2061) and "Helpers, Construction Trades" (47-3011 through 47-3019). Excludes "Material Moving Workers" (53-7011 through 53-7199) who use power equipment.
53-7063	Machine Feeders and Offbearers	Feed materials into or remove materials from machines or equipment that is automatic or tended by other workers.
53-7064	Packers and Packagers, Hand	Pack or package by hand a wide variety of products and materials.
53-7065	Stockers and Order Fillers	Receive, store, and issue merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. May operate power equipment to fill orders. May mark prices on merchandise and set up sales displays. Excludes "Shipping, Receiving, and Inventory Clerks" (43-5071), "Laborers and Freight, Stock, and Material Movers, Hand" (53-7062), and "Packers and Packagers, Hand" (53-7064).
53-7071	Gas Compressor and Gas Pumping Station Operators	Operate steam-, gas-, electric motor-, or internal combustion-engine driven compressors. Transmit, compress, or recover gases, such as butane, nitrogen, hydrogen, and natural gas.
53-7072	Pump Operators, Except Wellhead Pumpers	Tend, control, or operate power-driven, stationary, or portable pumps and manifold systems to transfer gases, oil, other liquids, slurries, or powdered materials to and from various vessels and processes.
53-7073	Wellhead Pumpers	Operate power pumps and auxiliary equipment to produce flow of oil or gas from wells in oil field.
53-7081	Refuse and Recyclable Material Collectors	Collect and dump refuse or recyclable materials from containers into truck. May drive truck.
53-7121	Tank Car, Truck, and Ship Loaders	Load and unload chemicals and bulk solids, such as coal, sand, and grain, into or from tank cars, trucks, or ships, using material moving equipment. May perform a variety of other tasks relating to shipment of products. May gauge or sample shipping tanks and test them for leaks.
53-7199	Material Moving Workers, All Other	All material moving workers not listed separately.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
55-1011	Air Crew Officers	Perform and direct in-flight duties to ensure the successful completion of combat, reconnaissance, transport, and search and rescue missions. Duties include operating aircraft communications and radar equipment, such as establishing satellite linkages and jamming enemy communications capabilities; operating aircraft weapons and defensive systems; conducting preflight, in-flight, and postflight inspections of onboard equipment; and directing cargo and personnel drops.
55-1012	Aircraft Launch and Recovery Officers	Plan and direct the operation and maintenance of catapults, arresting gear, and associated mechanical, hydraulic, and control systems involved primarily in aircraft carrier takeoff and landing operations. Duties include supervision of readiness and safety of arresting gear, launching equipment, barricades, and visual landing aid systems; planning and coordinating the design, development, and testing of launch and recovery systems; preparing specifications for catapult and arresting gear installations; evaluating design proposals; determining handling equipment needed for new aircraft; preparing technical data and instructions for operation of landing aids; and training personnel in carrier takeoff and landing procedures.
55-1013	Armored Assault Vehicle Officers	Direct the operation of tanks, light armor, and amphibious assault vehicle units during combat situations on land or in aquatic environments. Duties include directing crew members in the operation of targeting and firing systems; coordinating the operation of advanced onboard communications and navigation equipment; directing the transport of personnel and equipment during combat; formulating and implementing battle plans, including the tactical employment of armored vehicle units; and coordinating with infantry, artillery, and air support units.
55-1014	Artillery and Missile Officers	Manage personnel and weapons operations to destroy enemy positions, aircraft, and vessels. Duties include planning, targeting, and coordinating the tactical deployment of field artillery and air defense artillery missile systems units; directing the establishment and operation of fire control communications systems; targeting and launching intercontinental ballistic missiles; directing the storage and handling of nuclear munitions and components; overseeing security of weapons storage and launch facilities; and managing maintenance of weapons systems.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
55-1015	Command and Control Center Officers	Manage the operation of communications, detection, and weapons systems essential for controlling air, ground, and naval operations. Duties include managing critical communication links between air, naval, and ground forces; formulating and implementing emergency plans for natural and wartime disasters; coordinating emergency response teams and agencies; evaluating command center information and need for high-level military and government reporting; managing the operation of surveillance and detection systems; providing technical information and advice on capabilities and operational readiness; and directing operation of weapons targeting, firing, and launch computer systems.
55-1016	Infantry Officers	Direct, train, and lead infantry units in ground combat operations. Duties include directing deployment of infantry weapons, vehicles, and equipment; directing location, construction, and camouflage of infantry positions and equipment; managing field communications operations; coordinating with armor, artillery, and air support units; performing strategic and tactical planning, including battle plan development; and leading basic reconnaissance operations.
55-1017	Special Forces Officers	Lead elite teams that implement unconventional operations by air, land, or sea during combat or peacetime. These activities include offensive raids, demolitions, reconnaissance, search and rescue, and counterterrorism. In addition to their combat training, special forces officers often have specialized training in swimming, diving, parachuting, survival, emergency medicine, and foreign languages. Duties include directing advanced reconnaissance operations and evaluating intelligence information; recruiting, training, and equipping friendly forces; leading raids and invasions on enemy territories; training personnel to implement individual missions and contingency plans; performing strategic and tactical planning for politically sensitive missions; and operating sophisticated communications equipment.
55-1019	Military Officer Special and Tactical Operations Leaders, All Other	All military officer special and tactical operations leaders not listed separately.
55-2011	First-Line Supervisors of Air Crew Members	Supervise and coordinate the activities of air crew members. Supervisors may also perform the same activities as the workers they supervise.
55-2012	First-Line Supervisors of Weapons Specialists/Crew Members	Supervise and coordinate the activities of weapons specialists/crew members. Supervisors may also perform the same activities as the workers they supervise.
55-2013	First-Line Supervisors of All Other Tactical Operations Specialists	Supervise and coordinate the activities of all other tactical operations specialists not classified separately above. Supervisors may also perform the same activities as the workers they supervise.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
55-3011	Air Crew Members	Perform in-flight duties to ensure the successful completion of combat, reconnaissance, transport, and search and rescue missions. Duties include operating aircraft communications and detection equipment, including establishing satellite linkages and jamming enemy communications capabilities; conducting preflight, in-flight, and postflight inspections of onboard equipment; operating and maintaining aircraft weapons and defensive systems; operating and maintaining aircraft in-flight refueling systems; executing aircraft safety and emergency procedures; computing and verifying passenger, cargo, fuel, and emergency and special equipment weight and balance data; and conducting cargo and personnel drops.
55-3012	Aircraft Launch and Recovery Specialists	Operate and maintain catapults, arresting gear, and associated mechanical, hydraulic, and control systems involved primarily in aircraft carrier takeoff and landing operations. Duties include installing and maintaining visual landing aids; testing and maintaining launch and recovery equipment using electric and mechanical test equipment and hand tools; activating airfield arresting systems, such as crash barriers and cables, during emergency landing situations; directing aircraft launch and recovery operations using hand or light signals; and maintaining logs of airplane launches, recoveries, and equipment maintenance.
55-3013	Armored Assault Vehicle Crew Members	Operate tanks, light armor, and amphibious assault vehicles during combat situations on land or in aquatic environments. Duties include driving armored vehicles that require specialized training; operating and maintaining targeting and firing systems; operating and maintaining advanced onboard communications and navigation equipment; transporting personnel and equipment in a combat environment; and operating and maintaining auxiliary weapons, including machine guns and grenade launchers.
55-3014	Artillery and Missile Crew Members	Target, fire, and maintain weapons used to destroy enemy positions, aircraft, and vessels. Field artillery crew members predominantly use guns, cannons, and howitzers in ground combat operations, while air defense artillery crew members predominantly use missiles and rockets. Naval artillery crew members predominantly use torpedoes and missiles launched from a ship or submarine. Duties include testing, inspecting, and storing ammunition, missiles, and torpedoes; conducting preventive and routine maintenance on weapons and related equipment; establishing and maintaining radio and wire communications; and operating weapons targeting, firing, and launch computer systems.

Table F1. SOC Detailed Codes, Titles, and Definitions

SOC 6-digit	SOC Detailed Title	SOC Definition
55-3015	Command and Control Center Specialists	Operate and monitor communications, detection, and weapons systems essential for controlling air, ground, and naval operations. Duties include maintaining and relaying critical communications between air, naval, and ground forces; implementing emergency plans for natural and wartime disasters; relaying command center information to high-level military and government decisionmakers; monitoring surveillance and detection systems, such as air defense; interpreting and evaluating tactical situations and making recommendations to superiors; and operating weapons targeting, firing, and launch computer systems.
55-3016	Infantry	Operate weapons and equipment in ground combat operations. Duties include operating and maintaining weapons, such as rifles, machine guns, mortars, and hand grenades; locating, constructing, and camouflaging infantry positions and equipment; evaluating terrain and recording topographical information; operating and maintaining field communications equipment; assessing need for and directing supporting fire; placing explosives and performing minesweeping activities on land; and participating in basic reconnaissance operations.
55-3018	Special Forces	Implement unconventional operations by air, land, or sea during combat or peacetime as members of elite teams. These activities include offensive raids, demolitions, reconnaissance, search and rescue, and counterterrorism. In addition to their combat training, special forces members often have specialized training in swimming, diving, parachuting, survival, emergency medicine, and foreign languages. Duties include conducting advanced reconnaissance operations and collecting intelligence information; recruiting, training, and equipping friendly forces; conducting raids and invasions on enemy territories; laying and detonating explosives for demolition targets; locating, identifying, defusing, and disposing of ordnance; and operating and maintaining sophisticated communications equipment.
55-3019	Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other	All military enlisted tactical operations and air/weapons specialists and crewmembers not listed separately.