

Connecticut's Middle-Skill Jobs



Nursing & Residential Care Facilities



Hospitals



Construction & Trade Contractors



Dental Offices



School & Employee Bus Transportation Companies



Automotive Maintenance & Repair Establishments



Did You Know?

- Connecticut has more middle-skill jobs than low- or high-skill jobs.
- Over the next decade, strong growth in middle-skill jobs and wages is expected as the demand continues to rise.
- In Connecticut, it is projected that nearly four out of every ten job openings (new and replacement) will require only middle-skills.

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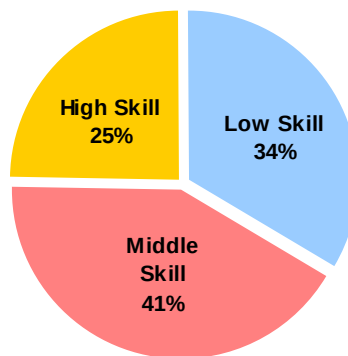
CONNECTICUT'S MIDDLE SKILL JOBS

Middle-Skill Jobs – What are they?

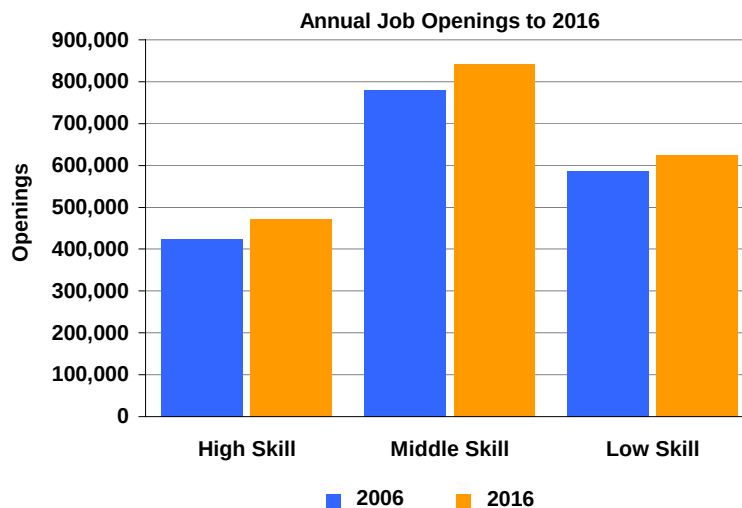
Middle-skill jobs generally require more than a high school diploma, but less than a four-year college degree. This can include an associate's degree, medium-term and long-term on-the-job training, work experience, vocational certification (apprenticeship), or some college. In Connecticut, certain industries are particularly reliant on middle-skill workers, and others employ a large number of such workers by virtue of their prominence in Connecticut. Wages for industries with strong concentrations of middle-skill jobs, most notably construction, transportation and utilities, education and health services have continued to increase since 2000. Industries particularly reliant on middle-skill workers, and those that employ large numbers of middle-skill workers, may be an especially good starting place for a career in a middle-skill occupation. In total, Connecticut has more than 400 different middle-skill occupations – many of which command a middle-class income.

Connecticut has more middle-skill jobs than low- or high-skill jobs.

Employment by Skill Level - 1st Q2009



Over the next decade, strong growth in middle-skill jobs and wages is expected as the demand continues to rise. Most notably, job openings for middle-skill occupations in transportation, construction, and installation, maintenance and repair are forecasted to grow by at least eleven percent. In Connecticut, it is projected that nearly four out of every ten job openings (new and replacement) will require only middle-skills.



As mentioned, there are certain industries in Connecticut that are more reliant on middle-skill jobs and employ a large number of middle-skill workers. The table below shows the state's top ten industries with high middle-skill job concentration¹ that are also big enough to employ large numbers of middle-skill workers.

Sixty-five percent of all Hospital jobs are Middle-Skill Level

Industry	Industry Middle-Skill Jobs	
	Number	Percent
Hospitals	37,850	65%
Nursing and Residential Care Facilities	26,710	69%
Building Equipment Contractors	18,480	80%
Dental Offices	8,560	75%
Personal Care Services	8,500	81%
Building Finishing Contractors	7,340	87%
School and Employee Bus Transportation	7,280	97%
Specialty Trade Contractors	7,280	84%
Automotive Repair and Maintenance	7,090	66%
Foundation, Structure, Building Exterior Contractors	6,840	81%

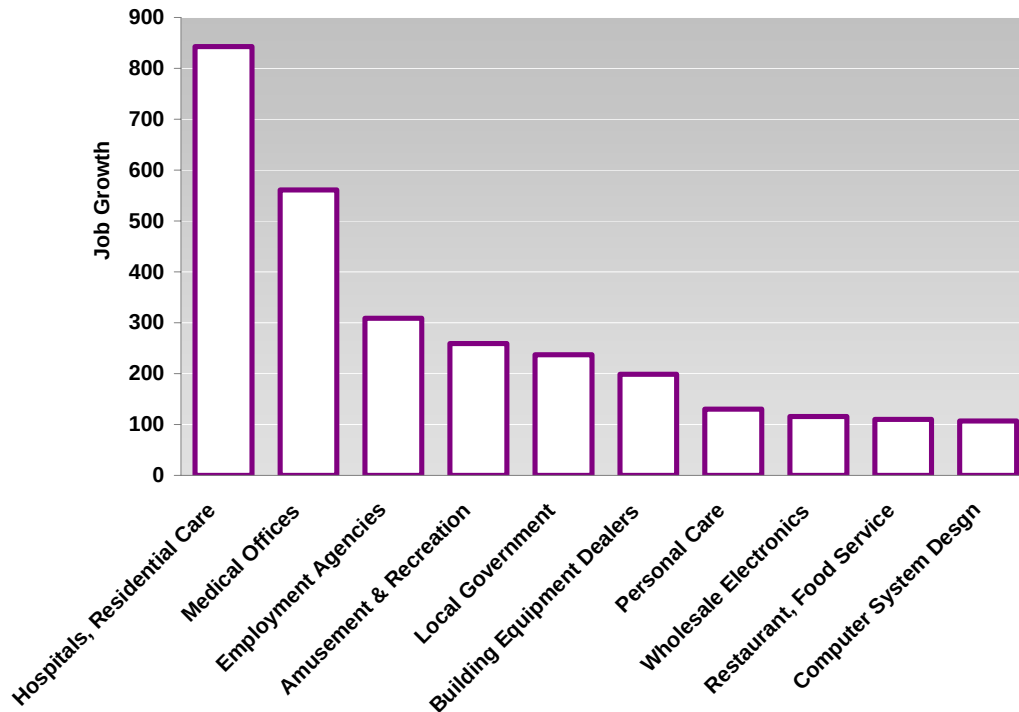
Although not all of the industries listed below have a high concentration of middle-skill jobs, nonetheless they employ a significant amount of middle-skill workers.

**Thirty-five percent of all Management jobs
require less than a Bachelor's Degree**

Industry	Industry Middle-Skill Jobs	
	Number	Percent
Local Government	36,280	54%
Insurance Carriers	23,220	44%
State Government	21,580	52%
Offices of Physicians	17,940	59%
Aerospace Products and Parts Manufacturing	16,950	57%
Employment Services	14,360	45%
Elementary and Secondary Schools	14,260	12%
Restaurants	11,050	21%
Colleges, Universities, and Professional Schools	10,570	26%
Management of Companies and Enterprises	9,820	35%
Legal Services	7,620	54%
Automobile Dealers	7,520	49%

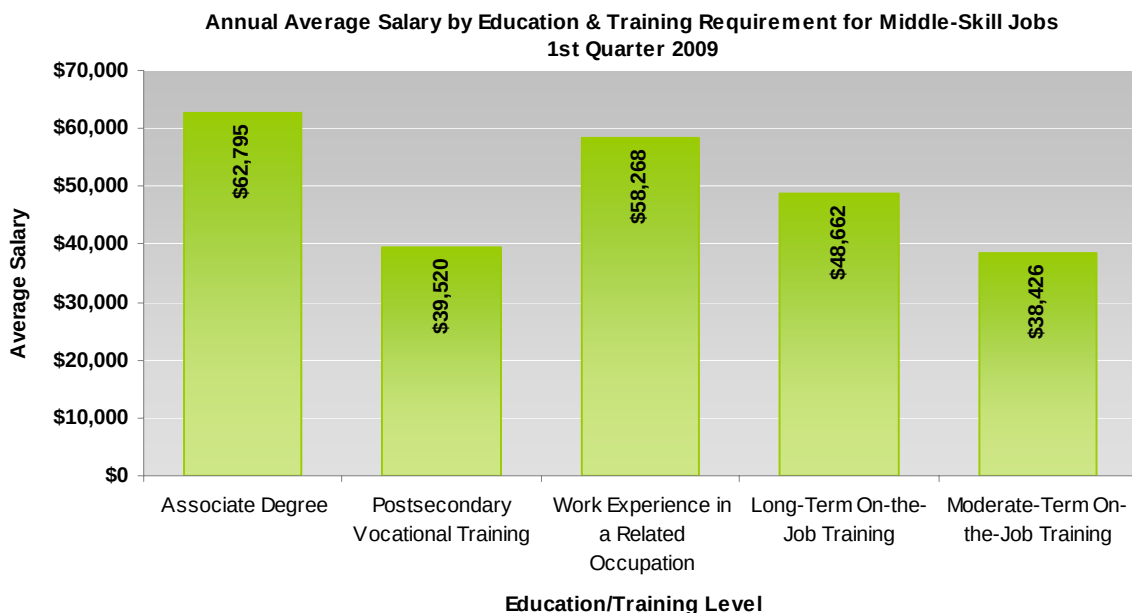
¹ Defined as a concentration at least 1.25 times as great as the average concentration.

Connecticut's top ten industries forecasted for the largest employment growth (new & replacement) in middle-skill jobs over the next decade are listed below.



Middle-Skill Jobs – What do they pay?

Middle-Skill Jobs include a wide range of salaries, and a worker's earnings depend on a variety of factors including the type of education and/or training required for the job. Also, post-secondary education and training such as an associate's degree, vocational certificate, significant on-the-job training, and/or previous work experience increases earnings over other types of training for middle-skill jobs. Many of Connecticut's middle-skill jobs require specific skills and competencies and therefore, will continue to offer well-paying opportunities that provide a middle-class lifestyle for the workers who fill them.



Middle-Class Lifestyle - What does it mean?

There is no standard definition for middle-class, but one of the lifestyle characteristics people associate with being middle-class is the ability to purchase a home. Fortunately, many of Connecticut's middle-skill jobs provide an adequate wage for purchasing a home. In Connecticut, a worker can qualify for a mortgage on a modest home if they earn a minimum of \$47,223 per year, or approximately \$22.70 per hour.² Workers interested in pursuing a new career in a middle-skill job may be interested in knowing which occupations provide an average wage adequate for attaining the goal of purchasing one's own home. Note: In the tables listed below, only occupations with a median hourly wage³ of \$22.70 or greater are included.

The table below contains those middle-skill occupations with the largest employment.

Occupation	Employment	Minimum Education Requirement
Registered Nurses	35,370	Associate Degree
Supervisors/Mgrs. of Office and Administrative Support	22,760	Work Experience in Related Occupation
Sales Representatives, Wholesale and Manufacturing	17,110	Work Experience in Related Occupation
Supervisors/Managers of Production and Operating Workers	8,640	Work Experience in Related Occupation
Carpenters	8,030	Long-Term OJT
Licensed Practical and Vocational Nurses	7,940	Postsecondary Vocational Training
Police and Sheriff's Patrol Officers	7,310	Long-Term OJT
Claims Adjusters, Examiners, and Investigators	7,250	Long-Term OJT
Sales Representatives, Technical and Scientific Products	7,110	Work Experience in Related Occupation
Electricians	6,880	Long-Term OJT
Computer Support Specialists	6,620	Associate Degree
Plumbers, Pipefitters, and Steamfitters	5,380	Long-Term OJT
Supervisors/Managers of Construction Trades and Extraction	5,070	Work Experience in Related Occupation
Supervisors/Managers of Mechanics, Installers, and Repairers	5,070	Work Experience in Related Occupation
Sales Representatives, Services	5,010	Work Experience in Related Occupation
Paralegals and Legal Assistants	4,670	Associate Degree
Purchasing Agents	4,050	Long-Term OJT
Heating, A/C, Refrigeration Mechanics and Installers	3,980	Long-Term OJT
Supervisors/Managers of Non-Retail Sales Workers	3,530	Work Experience in Related Occupation
Operating Engineers and Construction Equipment Operators	3,530	Moderate-Term OJT

² Based on a 10th percentile 2007 home value of \$162,500 and a 20% down payment. Assumed monthly mortgage payment is approximately \$1100, exclusive of property taxes. Calculated assuming a mill rate of 25 applied to 70% of the home value, and a mortgage payment to income ratio of 28%. Mortgage guidelines from the Federal Reserve and the Federal Reserve Bank of Atlanta. Available at www.federalreserve.gov/pubs/mortgage/MORBRO_2.htm and www.frbatlanta.org/partnerssoftwareonline/dsp_main.cfm#here. Home value data obtained from usa.ipums.org/usa: Steven Ruggles, Matthew Sobek, Trent Alexander, Catherine A. Fitch, Ronald Goeken, Patricia Kelly Hall, Miriam King, and Chad Ronnander. *Integrated Public Use Microdata Series: Version 4.0* [Machine-readable database]. Minneapolis, MN: Minnesota Population Center [producer and distributor], 2009. Available at www.usa.ipums.org/usa.

³ CT Department of Labor - Office of Research. *Connecticut Occupational Employment & Wages: Statewide 2009*. Available online at: www.ctdol.state.ct.us/lmi

Within industries heavily reliant on middle-skill employment, certain occupations are more frequently represented than others. Listed below are the top ten middle-skill occupations within the state's industries with the highest middle-skill job concentration.

Occupation	Employment	Minimum Education Requirement
Registered Nurses	20,460	Associate Degree
Carpenters	6,900	Long-Term OJT
Electricians	6,010	Long-Term OJT
Licensed Practical and Vocational Nurses	4,940	Postsecondary Vocational Training
Plumbers, Pipefitters, and Steamfitters	4,700	Long-Term OJT
Supervisors/Managers of Construction Trades and Extraction	4,360	Work Experience in Related Occupation
Supervisors/Managers of Office and Admin. Support	4,050	Work Experience in Related Occupation
Supervisors/Managers of Production and Operating Workers	3,880	Work Experience in Related Occupation
Heating, A/C, Refrigeration Mechanics and Installers	3,350	Long-Term OJT
Operating Engineers and Other Construction Equip. Operators	3,090	Moderate-Term OJT

Middle-Skill Jobs - Are they more likely to be off-shored?

In today's global economy, it is important to determine a job's off-shoreability factor – that is the likeliness of a job being off-shored to another country. Least vulnerable to off-shoring are jobs that require face-to-face interaction with customers, and/or are difficult and inefficient to deliver remotely. Connecticut is fortunate to have substantial employment in middle-skill jobs that are unlikely, or cannot be off-shored or filled by less-educated immigrant workers. The table below includes a sample of Connecticut's middle-skill jobs that are least likely to be off-shored.

Occupational Group/Title	Employment	2009 Median Earnings
Teacher Assistants	27,800	\$ 27,620
Automotive Service Technicians and Mechanics	8,160	41,040
Social and Human Service Assistants	7,120	41,600
Medical Assistants	5,800	33,340
Correctional Officers and Jailers	4,390	46,490
Medical Secretaries	3,810	36,030
Dental Assistants	3,410	40,140
Pharmacy Technicians	3,230	30,040
Dental Hygienists	2,970	76,110
Fire Fighters	2,960	54,270
Radiologic Technologists and Technicians	2,870	59,840
Legal Secretaries	2,460	47,740
Electrical and Electronic Engineering Technicians	2,200	58,180
Self-Enrichment Education Teachers	2,130	48,630
Court, Municipal, and License Clerks	1,700	45,120
Medical and Clinical Laboratory Technicians	1,620	47,340
Computer, Automated Teller, and Office Machine Repairers	1,390	48,110
Industrial Engineering Technicians	1,110	56,780
Detectives and Criminal Investigators	1,030	67,850
Diagnostic Medical Sonographers	880	76,020
Telecommunications Equipment Installers and Repairers	870	51,540
Construction and Building Inspectors	770	64,670
Civil Engineering Technicians	590	52,900
Opticians, Dispensing	570	51,230
Cardiovascular Technologists and Technicians	550	52,580
Physical Therapist Assistants	470	52,310

Green Jobs – Are they middle-skill jobs?

The Department of Labor's Office of Research has made efforts to quantify the number of "green" jobs in the state's economy and to forecast how employment will fare over time. Difficulty arises when trying to tabulate the number of "green" jobs and obtain information as to the potential impact of the "greening" of the economy because researchers cannot draw a clear distinction between "green" and "non-green" jobs.

However, it is evident that companies are becoming more environmentally conscious in their operations and increasingly shifting toward the provision of products and services that use renewable energy resources, reduce pollution, conserve natural resources and reconstitute waste. This "greening" of businesses in Connecticut is expected to create some jobs, but to a greater extent, change the **nature** of existing occupations. New green jobs will require the implementation of new processes, materials, and technologies. Research has indicated that the largest number of green jobs will only require an apprenticeship/professional certification, or one to two years of postsecondary education. A majority of these jobs may only require an additional "layer" of green skills and knowledge. In each case, they meet the education and training requirements of a middle-skill job.

According to the White House Middle Class Task Force, occupational wages are often higher in "highly green industries" than they are in other industries. For example, "green" electricians command wages that are 16.3% higher than the average wage for electricians in all industries, "green" supervisors of mechanics, installers, and repairers earn 21.1% more than average, and "green" supervisors of production and operating workers earn 9.7% more.⁴

Conclusion

The most recent employment data for Connecticut indicate that middle-skill jobs are already well represented in the state economy, and numerous new openings are projected. Many pay well, and are often found in large industries reliant on middle-skill workers. Because the educational requirement for these positions is less than a bachelor degree, and may include on-the-job training or the transfer of skills from a prior occupation, middle-skill occupations provide a promising opportunity for workers looking to transition to a new career path with minimal work life interruption and a continued ability to support a middle-class lifestyle.

Education and training should increase its focus on occupational training that targets middle-skill jobs in demand, and meets the projected workforce needs. Many current and future low-income workers are likely to take advantage of the added training for middle-skill jobs and thereby raise their earnings and their family's living standards.

Overall, the demand for middle-skills is likely to grow rapidly over the next decade and beyond – both overall and within key sectors. This data clearly demonstrates that ample employment opportunities will remain in a variety of good-paying jobs in the middle of the labor market over the next decade and beyond.

⁴ White House Middle Class Task Force. Staff Report. *Green Jobs: A Pathway to a Strong Middle Class*. Available at: www.whitehouse.gov/assets/documents/mctf_one_staff_report_final.pdf

Connecticut's Top Middle-Skill Occupations by Annual Job Openings

Occupation	Annual Openings	Employment	2009 Median Earnings	Minimum Education Requirement
Customer Service Representatives	1,450	29,300	\$ 36,340	Moderate-Term OJT
Registered Nurses	1,110	35,370	70,180	Associate Degree
Bookkeeping, Accounting, and Auditing Clerks	720	24,230	39,380	Moderate-Term OJT
Executive Secretaries and Administrative Assistants	610	23,050	46,530	Work Experience in Related Occupation
Receptionists and Information Clerks	560	15,630	29,990	Short-Term OJT
Nursing Aides, Orderlies, and Attendants	510	24,620	30,290	Postsecondary Vocational Training
Teacher Assistants	500	27,800	27,640	Short-Term OJT
Supervisors/Mgrs. of Office and Administrative Support	440	22,760	50,170	Work Experience in Related Occupation
Secretaries, Except Legal, Medical, and Executive	420	26,480	35,440	Moderate-Term OJT
Home Health Aides	360	11,730	28,080	Short-Term OJT
Tellers	330	5,920	27,910	Short-Term OJT
Licensed Practical and Vocational Nurses	320	7,940	53,040	Postsecondary Vocational Training
Computer Support Specialists	310	6,620	49,980	Associate Degree
Automotive Service Technicians and Mechanics	290	8,160	41,040	Postsecondary Vocational Training
Electricians	280	6,880	53,290	Long-Term OJT
Carpenters	260	8,030	48,900	Long-Term OJT
Police and Sheriff's Patrol Officers	250	7,310	59,320	Long-Term OJT
Shipping, Receiving, and Traffic Clerks	250	8,930	30,560	Short-Term OJT
Social and Human Service Assistants	230	7,120	41,600	Moderate-Term OJT
Medical Assistants	220	5,800	33,340	Moderate-Term OJT
Correctional Officers and Jailers	190	4,390	46,490	Moderate-Term OJT
Plumbers, Pipefitters, and Steamfitters	190	5,380	57,890	Long-Term OJT
Fire Fighters	180	2,960	54,270	Long-Term OJT
Cooks, Institution and Cafeteria	170	4,340	30,310	Moderate-Term OJT
Pharmacy Technicians	170	3,230	30,040	Moderate-Term OJT
Claims Adjusters, Examiners, and Investigators	170	7,250	60,570	Long-Term OJT
Medical Secretaries	170	3,810	36,030	Moderate-Term OJT
Postal Service Mail Carriers	140	5,000	52,250	Short-Term OJT
Construction Laborers	140	7,960	38,980	Moderate-Term OJT
Supervisors/Managers of Mechanics, Installers, and Repairers	130	5,070	66,370	Work Experience in Related Occupation
Production, Planning, and Expediting Clerks	130	4,880	46,950	Moderate-Term OJT
Paralegals and Legal Assistants	130	4,670	49,130	Associate Degree
Supervisors/Managers of Construction Trades and Extraction	130	5,070	69,120	Work Experience in Related Occupation
Dental Assistants	130	3,410	40,140	Moderate-Term OJT
Maintenance and Repair Workers, General	130	10,930	42,540	Moderate-Term OJT
Food Service Managers	120	2,850	48,980	Work Experience in Related Occupation
Dental Hygienists	120	2,970	76,110	Associate Degree
Bill and Account Collectors	120	4,140	38,360	Short-Term OJT
Billing and Posting Clerks and Machine Operators	110	7,360	36,360	Moderate-Term OJT
Industrial Production Managers	110	3,050	92,870	Work Experience in Related Occupation
Heating, AC, Refrigeration Mechanics and Installers	110	3,980	51,380	Long-Term OJT
Painters, Construction and Maintenance	110	2,230	38,250	Moderate-Term OJT
Purchasing Agents	90	4,050	64,230	Long-Term OJT
Data Entry Keyers	90	3,340	30,080	Moderate-Term OJT
Automotive Body and Related Repairers	90	2,050	42,160	Long-Term OJT
Radiologic Technologists and Technicians	80	2,870	59,840	Associate Degree
Interviewers, Except Eligibility and Loan	80	3,230	34,050	Short-Term OJT
Operating Engineers and Construction Equipment Operators	80	3,530	53,910	Moderate-Term OJT
Veterinary Technologists and Technicians	80	1,230	35,170	Associate Degree
Insurance Claims and Policy Processing Clerks	70	7,030	39,750	Long-Term OJT
Bus and Truck Mechanics and Diesel Engine Specialists	70	2,730	47,760	Postsecondary Vocational Training
Sheet Metal Workers	70	1,950	49,750	Long-Term OJT
Order Clerks	70	3,280	31,180	Short-Term OJT
Payroll and Timekeeping Clerks	70	2,460	41,750	Moderate-Term OJT
Emergency Medical Technicians and Paramedics	70	2,760	37,340	Postsecondary Vocational Training
Chefs and Head Cooks	60	1,680	49,500	Moderate-Term OJT
Medical Records and Health Information Technicians	60	1,620	33,590	Associate Degree
Highway Maintenance Workers	60	2,730	48,340	Moderate-Term OJT
Legal Secretaries	60	2,460	47,740	Associate Degree
Telecommunications Equipment Installers and Repairers	60	1,590	51,540	Postsecondary Vocational Training
Wholesale and Retail Buyers, Except Farm Products	50	1,320	48,460	Long-Term OJT
Brokerage Clerks	50	830	40,930	Moderate-Term OJT
Surgical Technologists	50	990	45,430	Postsecondary Vocational Training
Telecommunications Line Installers and Repairers	50	870	44,620	Long-Term OJT
Compliance Officers	50	3,370	63,070	Long-Term OJT
Transportation, Storage, and Distribution Managers	50	1,180	82,700	Work Experience in Related Occupation
Police, Fire, and Ambulance Dispatchers	50	1,280	41,560	Moderate-Term OJT
Electrical and Electronic Engineering Technicians	50	2,200	55,180	Associate Degree
Self-Enrichment Education Teachers	50	2,130	48,630	Work Experience in Related Occupation
Detectives and Criminal Investigators	50	1,030	67,850	Work Experience in Related Occupation
Industrial Machinery Mechanics	50	1,850	48,170	Long-Term OJT