



**Division of Research
and Statistics**

Middle Skill Jobs in New York State: A Regional Analysis

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Introduction: What is a “Middle Skill” Job?

“Middle Skill” occupations refer to those job titles that require education and/or training beyond high school, but not a four-year college degree. Most job titles in this category require one of the six following educational/training credentials:

1. High School diploma (or equivalent) + apprenticeship
2. High School diploma (or equivalent) + moderate on-the-job training
3. High School diploma (or equivalent) + long-term on-the-job training
4. Post-secondary non-degree award (e.g., certificate programs such as Medical Assistant and Certified Nurse Aide)
5. Some college, no degree
6. Associate Degree

“Middle Skill” occupations have received an increasing amount of coverage in the business press due to the fact that they represent a significant share of the labor market in the United States and in each of the 50 states. In addition, many employers in a variety of industries report they are unable to find enough workers with the right skills and training to fill these jobs.

One of the occupational groups hardest hit by these labor shortages is the skilled trades, whose workers are especially critical to the construction and manufacturing sectors. The worker shortage in the skilled trades has been exacerbated by an aging workforce. For example, one study from Economic Modeling Specialists International (EMSI) found that in 2012, 53% of skilled-trade workers in the U.S. were at least 45 years old, including 18.6% who were between the ages of 55 and 64.

Data in this report are based on long-term occupational projections and occupational wage estimates prepared by the New York State Department of Labor’s Division of Research and Statistics. Projections data are available for each of the state’s 10 labor market regions, and currently cover 2012-2022. Regional wage data are current as of the first quarter of 2016. All underlying regional projections and wage data are available online at labor.ny.gov/stats/index.shtm. A list of the more than 200 “Middle Skill” occupational titles is available in the Appendix found at the end of this report.

Capital Region, 2012 – 2022

Executive Summary

From 2012 to 2022, the overall number of Middle Skill jobs in the Capital Region is expected to increase by 11,950, or 11.0%. In contrast, overall employment in Non-Middle Skill occupations will increase by 56,720, or 12.3%, over the same time period.

Middle Skill jobs will represent a slightly smaller proportion of overall employment in the Region in 2022 than in 2012, but they will remain vitally important to the regional economy. More specifically:

- In 2012, Middle Skills jobs made up 19.1% of all jobs in the Capital Region
- In 2022, Middle Skills jobs will make up 18.8% of all jobs in the Capital Region

What does the future hold for Middle Skill Jobs?

Occupational projections spanning the 2012-2022 period suggest that the Middle Skill group's overall growth rate will be positive in the Capital Region. Middle Skill jobs are projected to rise 11,950, or 11.0%, in 2012-2022.

The tables below show the Middle Skill job titles that are expected to add the most jobs, on both an absolute and percentage basis, between 2012 and 2022.

**Middle Skill Job Titles with Largest Expected Net Job Growth,
Capital Region, 2012-2022**

SOC Code	Job Title	% Change	Net Change
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+13.0	+1,080
29-2061	Licensed Practical and Licensed Vocational Nurses	+19.3	+770
25-9041	Teacher Assistants	+9.0	+620
47-2031	Carpenters	+15.7	+550
53-3032	Heavy and Tractor-Trailer Truck Drivers	+10.9	+500

**Middle Skill Job Titles with Fastest Expected Percentage Job Growth,
Capital Region, 2012-2022**

SOC Code	Job Title	% Change	Net Change
39-5094	Skincare Specialists	+40.9	+90
29-2032	Diagnostic Medical Sonographers	+40.0	+100
51-4012	Computer-Controlled Machine Tool Programmers, Metal and Plastic	+40.0	+20
31-2011	Occupational Therapy Assistants	+38.1	+80
29-2056	Veterinary Technologists and Technicians	+36.0	+90

**Middle Skill Job Titles with Most Total Annual Openings,
Capital Region, 2012-2022**

SOC Code	Job Title	Total Annual Openings	Annual Openings Due to Growth
25-9041	Teacher Assistants	+220	+60
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+190	+110
29-2061	Licensed Practical and Licensed Vocational Nurses	+180	+80
41-4012	Sales Representatives, Wholesale and Manufacturing (Except Technical and Scientific Products)	+140	+40
53-3032	Heavy and Tractor-Trailer Truck Drivers	+120	+50

**Middle Skill Job Titles with the Highest Annual Wages,
Capital Region, 2012-2022**

SOC Code	Job Title	Annual Average Wage
33-1012	First-Line Supervisors of Police and Detectives	\$90,760
47-4021	Elevator Installers and Repairers	\$89,870
49-9051	Electrical Power-Line Installers and Repairers	\$86,820
41-9022	Real Estate Sales Agents	\$82,090
33-3021	Detectives and Criminal Investigators	\$81,010

Central New York Region, 2012 – 2022

Executive Summary

From 2012 to 2022, the overall number of Middle Skill jobs in Central New York is expected to increase by 3,820, or 4.6%. In contrast, overall employment in Non-Middle Skill occupations will increase by 22,380, or 7.5%, over the same time period.

Middle Skill jobs will represent a slightly smaller proportion of overall employment in the Region in 2022 than in 2012, but they will remain vitally important to the regional economy. More specifically:

- In 2012, Middle Skills jobs made up 21.8% of all jobs in Central New York
- In 2022, Middle Skills jobs will make up 21.4% of all jobs in Central New York

What does the future hold for Middle Skill Jobs?

Occupational projections spanning the 2012-2022 period suggest that the Middle Skill group's overall growth rate will be positive in Central New York. Middle Skill jobs are projected to rise 3,820, or 4.6%, in 2012-2022.

The tables below show the Middle Skill job titles that are expected to add the most jobs, on both an absolute and percentage basis, between 2012 and 2022.

**Middle Skill Job Titles with Largest Expected Net Job Growth,
Central New York, 2012-2022**

SOC Code	Job Title	% Change	Net Change
29-2061	Licensed Practical and Licensed Vocational Nurses	+16.2	+560
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+6.8	+340
53-3032	Heavy and Tractor-Trailer Truck Drivers	+5.6	+270
47-2031	Carpenters	+9.1	+240
31-9092	Medical Assistants	+22.1	+210

**Middle Skill Job Titles with Fastest Expected Percentage Job Growth,
Central New York, 2012-2022**

SOC Code	Job Title	% Change	Net Change
43-6013	Medical Secretaries	+29.2	+210
29-2056	Veterinary Technologists and Technicians	+24.2	+80
31-2021	Physical Therapist Assistants	+23.8	+50
29-2021	Dental Hygienists	+22.9	+110
29-2041	Emergency Medical Technicians and Paramedics	+22.7	+150

**Middle Skill Job Titles with Most Total Annual Openings,
Central New York, 2012-2022**

SOC Code	Job Title	Total Annual Openings	Annual Openings Due to Growth
25-9041	Teacher Assistants	+140	+20
29-2061	Licensed Practical and Licensed Vocational Nurses	+140	+60
53-3032	Heavy and Tractor-Trailer Truck Drivers	+110	+30
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	+100	+10
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+80	+30

**Middle Skill Job Titles with the Highest Annual Wages,
Central New York, 2012-2022**

SOC Code	Job Title	Annual Average Wage
33-3021	Detectives and Criminal Investigators	\$89,240
41-9022	Real Estate Sales Agents	\$88,860
49-9051	Electrical Power-Line Installers and Repairers	\$83,130
29-2033	Nuclear Medicine Technologists	\$75,220
29-2032	Diagnostic Medical Sonographers	\$69,570

Finger Lakes Region, 2012 – 2022

Executive Summary

From 2012 to 2022, the overall number of Middle Skill jobs in the Finger Lakes is expected to increase by 7,120, or 5.7%. In contrast, overall employment in Non-Middle Skill occupations will increase by 35,780, or 7.4%, over the same time period.

Middle Skill jobs will represent a slightly smaller proportion of overall employment in the Region in 2022 than in 2012, but they will remain vitally important to the regional economy. More specifically:

- In 2012, Middle Skills jobs made up 20.6% of all jobs in the Finger Lakes
- In 2022, Middle Skills jobs will make up 20.4% of all jobs in the Finger Lakes

What does the future hold for Middle Skill Jobs?

Occupational projections spanning the 2012-2022 period suggest that the Middle Skill group's overall growth rate will be positive in the Finger Lakes. Middle Skill jobs are projected to rise 7,120, or 5.7%, in 2012-2022.

The tables below show the Middle Skill job titles that are expected to add the most jobs, on both an absolute and percentage basis, between 2012 and 2022.

**Middle Skill Job Titles with Largest Expected Net Job Growth,
Finger Lakes, 2012-2022**

SOC Code	Job Title	% Change	Net Change
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+8.8	+670
29-2061	Licensed Practical and Licensed Vocational Nurses	+15.2	+670
43-3011	Bill and Account Collectors	+18.4	+440
53-3032	Heavy and Tractor-Trailer Truck Drivers	+7.8	+360
43-6013	Medical Secretaries	+29.2	+350

**Middle Skill Job Titles with Fastest Expected Percentage Job Growth,
Finger Lakes, 2012-2022**

SOC Code	Job Title	% Change	Net Change
29-2032	Diagnostic Medical Sonographers	+35.7	+100
43-6013	Medical Secretaries	+29.2	+350
17-3025	Environmental Engineering Technicians	+28.6	+20
47-4041	Hazardous Materials Removal Workers	+28.2	+110
49-9062	Medical Equipment Repairers	+25.0	+50

**Middle Skill Job Titles with Most Total Annual Openings,
Finger Lakes, 2012-2022**

SOC Code	Job Title	Total Annual Openings	Annual Openings Due to Growth
25-9041	Teacher Assistants	+220	+30
29-2061	Licensed Practical and Licensed Vocational Nurses	+180	+70
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	+160	+30
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+140	+70
43-3011	Bill and Account Collectors	+110	+40

**Middle Skill Job Titles with the Highest Annual Wages,
Finger Lakes, 2012-2022**

SOC Code	Job Title	Annual Average Wage
49-9051	Electrical Power-Line Installers and Repairers	\$85,630
33-1012	First-Line Supervisors of Police and Detectives	\$84,370
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	\$84,290
33-3021	Detectives and Criminal Investigators	\$82,920
51-8013	Power Plant Operators	\$76,590

Hudson Valley Region, 2012 – 2022

Executive Summary

From 2012 to 2022, the overall number of Middle Skill jobs in the Hudson Valley is expected to increase by 19,690, or 10.1%. In contrast, overall employment in Non-Middle Skill occupations will increase by 96,520, or 12.4%, over the same time period.

Middle Skill jobs will represent a slightly smaller proportion of overall employment in the Region in 2022 than in 2012, but they will remain vitally important to the regional economy. More specifically:

- In 2012, Middle Skills jobs made up 20.1% of all jobs in the Hudson Valley
- In 2022, Middle Skills jobs will make up 19.7% of all jobs in the Hudson Valley

What does the future hold for Middle Skill Jobs?

Occupational projections spanning the 2012-2022 period suggest that the Middle Skill group's overall growth rate will be positive in the Hudson Valley. Middle Skill jobs are projected to rise 19,690, or 10.1%, in 2012-2022.

The tables below show the Middle Skill job titles that are expected to add the most jobs, on both an absolute and percentage basis, between 2012 and 2022.

**Middle Skill Job Titles with Largest Expected Net Job Growth,
Hudson Valley, 2012-2022**

SOC Code	Job Title	% Change	Net Change
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+14.2	+1,840
29-2061	Licensed Practical and Licensed Vocational Nurses	+29.0	+1,830
47-2031	Carpenters	+20.2	+1,570
25-9041	Teacher Assistants	+5.5	+890
39-5012	Hairdressers, Hairstylists, and Cosmetologists	+14.4	+890

**Middle Skill Job Titles with Fastest Expected Percentage Job Growth,
Hudson Valley, 2012-2022**

SOC Code	Job Title	% Change	Net Change
29-2032	Diagnostic Medical Sonographers	+41.1	+230
43-6013	Medical Secretaries	+38.5	+720
53-7021	Crane and Tower Operators	+36.4	+40
47-2021	Brickmasons and Blockmasons	+36.0	+180
47-2022	Stonemasons	+34.8	+80

**Middle Skill Job Titles with Most Total Annual Openings,
Hudson Valley, 2012-2022**

SOC Code	Job Title	Total Annual Openings	Annual Openings Due to Growth
25-9041	Teacher Assistants	+460	+90
29-2061	Licensed Practical and Licensed Vocational Nurses	+330	+180
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+300	+180
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	+260	+60
47-2031	Carpenters	+260	+160

**Middle Skill Job Titles with the Highest Annual Wages,
Hudson Valley, 2012-2022**

SOC Code	Job Title	Annual Average Wage
33-1012	First-Line Supervisors of Police and Detectives	\$111,660
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	\$104,050
53-7021	Crane and Tower Operators	\$99,300
33-3021	Detectives and Criminal Investigators	\$97,500
47-2171	Reinforcing Iron and Rebar Workers	\$94,080

Long Island Region, 2012 – 2022

Executive Summary

From 2012 to 2022, the overall number of Middle Skill jobs on Long Island is expected to increase by 27,510, or 9.6%. In contrast, overall employment in Non-Middle Skill occupations will increase by 123,390, or 11.6%, over the same time period.

Middle Skill jobs will represent a slightly smaller proportion of overall employment in the Region in 2022 than in 2012, but they will remain vitally important to the regional economy. More specifically:

- In 2012, Middle Skills jobs made up 21.2% of all jobs on Long Island
- In 2022, Middle Skills jobs will make up 20.9% of all jobs on Long Island

What does the future hold for Middle Skill Jobs?

Occupational projections spanning the 2012-2022 period suggest that the Middle Skill group's overall growth rate will be positive on Long Island. Middle Skill jobs are projected to rise 27,510, or 9.6%, in 2012-2022.

The tables below show the Middle Skill job titles that are expected to add the most jobs, on both an absolute and percentage basis, between 2012 and 2022.

**Middle Skill Job Titles with Largest Expected Net Job Growth,
Long Island, 2012-2022**

SOC Code	Job Title	% Change	Net Change
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+12.0	+2,570
47-2031	Carpenters	+16.7	+1,840
29-2061	Licensed Practical and Licensed Vocational Nurses	+24.9	+1,690
31-9092	Medical Assistants	+29.6	+1,620
25-9041	Teacher Assistants	+6.5	+1,420

**Middle Skill Job Titles with Fastest Expected Percentage Job Growth,
Long Island, 2012-2022**

SOC Code	Job Title	% Change	Net Change
39-5094	Skincare Specialists	+41.2	+210
29-2032	Diagnostic Medical Sonographers	+41.0	+340
43-6013	Medical Secretaries	+37.8	+730
29-2056	Veterinary Technologists and Technicians	+31.7	+320
47-2022	Stonemasons	+30.2	+160

**Middle Skill Job Titles with Most Total Annual Openings,
Long Island, 2012-2022**

SOC Code	Job Title	Total Annual Openings	Annual Openings Due to Growth
25-9041	Teacher Assistants	+640	+140
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	+460	+80
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+460	+260
29-2061	Licensed Practical and Licensed Vocational Nurses	+340	+170
47-2031	Carpenters	+320	+180

**Middle Skill Job Titles with the Highest Annual Wages,
Long Island, 2012-2022**

SOC Code	Job Title	Annual Average Wage
33-1012	First-Line Supervisors of Police and Detectives	\$141,580
47-2171	Reinforcing Iron and Rebar Workers	\$109,210
47-2221	Structural Iron and Steel Workers	\$108,430
33-3051	Police and Sheriff's Patrol Officers	\$105,130
29-1124	Radiation Therapists	\$99,780

Mohawk Valley Region, 2012 – 2022

Executive Summary

From 2012 to 2022, the overall number of Middle Skill jobs in the Mohawk Valley is expected to increase by 1,630, or 3.5%. In contrast, overall employment in Non-Middle Skill occupations will increase by 10,950, or 6.5%, over the same time period.

Middle Skill jobs will represent a slightly smaller proportion of overall employment in the Region in 2022 than in 2012, but they will remain vitally important to the regional economy. More specifically:

- In 2012, Middle Skills jobs made up 21.4% of all jobs in the Mohawk Valley
- In 2022, Middle Skills jobs will make up 20.9% of all jobs in the Mohawk Valley

What does the future hold for Middle Skill Jobs?

Occupational projections spanning the 2012-2022 period suggest that the Middle Skill group's overall growth rate will be positive in the Mohawk Valley. Middle Skill jobs are projected to rise 1,630, or 3.5%, in 2012-2022.

The tables below show the Middle Skill job titles that are expected to add the most jobs, on both an absolute and percentage basis, between 2012 and 2022.

**Middle Skill Job Titles with Largest Expected Net Job Growth,
Mohawk Valley, 2012-2022**

SOC Code	Job Title	% Change	Net Change
29-2061	Licensed Practical and Licensed Vocational Nurses	+16.1	+350
29-2041	Emergency Medical Technicians and Paramedics	+34.0	+180
53-3032	Heavy and Tractor-Trailer Truck Drivers	+7.2	+160
25-9041	Teacher Assistants	+3.0	+100
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	+17.6	+90

**Middle Skill Job Titles with Fastest Expected Percentage Job Growth,
Mohawk Valley, 2012-2022**

SOC Code	Job Title	% Change	Net Change
29-2032	Diagnostic Medical Sonographers	+44.4	+80
29-2041	Emergency Medical Technicians and Paramedics	+34.0	+180
43-6013	Medical Secretaries	+28.6	+80
29-2012	Medical and Clinical Laboratory Technicians	+28.6	+20
31-9092	Medical Assistants	+27.6	+80

**Middle Skill Job Titles with Most Total Annual Openings,
Mohawk Valley, 2012-2022**

SOC Code	Job Title	Total Annual Openings	Annual Openings Due to Growth
29-2061	Licensed Practical and Licensed Vocational Nurses	+90	+40
25-9041	Teacher Assistants	+90	+10
53-3032	Heavy and Tractor-Trailer Truck Drivers	+60	+20
33-3051	Police and Sheriff's Patrol Officers	+60	+0
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+50	+10

**Middle Skill Job Titles with the Highest Annual Wages,
Mohawk Valley, 2012-2022**

SOC Code	Job Title	Annual Average Wage
33-1012	First-Line Supervisors of Police and Detectives	\$83,650
49-9051	Electrical Power-Line Installers and Repairers	\$79,830
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	\$77,000
33-3021	Detectives and Criminal Investigators	\$75,890
29-2032	Diagnostic Medical Sonographers	\$70,380

New York City Region, 2012 – 2022

Executive Summary

From 2012 to 2022, the overall number of Middle Skill jobs in New York City is expected to increase by 57,500, or 8.4%. In contrast, overall employment in Non-Middle Skill occupations will increase by 494,890, or 14.2%, over the same time period.

Middle Skill jobs will represent a slightly smaller proportion of overall employment in the Region in 2022 than in 2012, but they will remain vitally important to the regional economy. More specifically:

- In 2012, Middle Skills jobs made up 16.3% of all jobs in New York City
- In 2022, Middle Skills jobs will make up 15.6% of all jobs in New York City

What does the future hold for Middle Skill Jobs?

Occupational projections spanning the 2012-2022 period suggest that the Middle Skill group's overall growth rate will be positive in New York City. Middle Skill jobs are projected to rise 57,500, or 8.4%, in 2012-2022.

The tables below show the Middle Skill job titles that are expected to add the most jobs, on both an absolute and percentage basis, between 2012 and 2022.

**Middle Skill Job Titles with Largest Expected Net Job Growth,
New York City, 2012-2022**

SOC Code	Job Title	% Change	Net Change
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+13.1	+6,250
25-9041	Teacher Assistants	+8.0	+3,470
47-2031	Carpenters	+14.3	+3,130
29-2061	Licensed Practical and Licensed Vocational Nurses	+19.8	+2,840
31-9092	Medical Assistants	+28.8	+2,670

**Middle Skill Job Titles with Fastest Expected Percentage Job Growth,
New York City, 2012-2022**

SOC Code	Job Title	% Change	Net Change
39-5094	Skincare Specialists	+41.3	+690
29-2032	Diagnostic Medical Sonographers	+41.2	+540
17-3025	Environmental Engineering Technicians	+39.3	+110
31-2021	Physical Therapist Assistants	+32.4	+350
47-4041	Hazardous Materials Removal Workers	+30.3	+500

**Middle Skill Job Titles with Most Total Annual Openings,
New York City, 2012-2022**

SOC Code	Job Title	Total Annual Openings	Annual Openings Due to Growth
25-9041	Teacher Assistants	+1,330	+350
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	+1,140	+260
33-3051	Police and Sheriff's Patrol Officers	+1,120	+50
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+1,070	+630
41-3011	Advertising Sales Agents	+700	+220

**Middle Skill Job Titles with the Highest Annual Wages,
New York City, 2012-2022**

SOC Code	Job Title	Annual Average Wage
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	\$112,570
47-2073	Operating Engineers and Other Construction Equipment Operators	\$111,940
33-1012	First-Line Supervisors of Police and Detectives	\$109,990
41-9022	Real Estate Sales Agents	\$98,100
29-1124	Radiation Therapists	\$97,330

North Country Region, 2012 – 2022

Executive Summary

From 2012 to 2022, the overall number of Middle Skill jobs in the North Country is expected to increase by 1,540, or 4.8%. In contrast, overall employment in Non-Middle Skill occupations will increase by 7,820, or 5.7%, over the same time period.

Middle Skill jobs will represent a slightly smaller proportion of overall employment in the Region in 2022 than in 2012, but they will remain vitally important to the regional economy. More specifically:

- In 2012, Middle Skills jobs made up 18.9% of all jobs in the North Country
- In 2022, Middle Skills jobs will make up 18.8% of all jobs in the North Country

What does the future hold for Middle Skill Jobs?

Occupational projections spanning the 2012-2022 period suggest that the Middle Skill group's overall growth rate will be positive in the North Country. Middle Skill jobs are projected to rise 1,540, or 4.8%, in 2012-2022.

The tables below show the Middle Skill job titles that are expected to add the most jobs, on both an absolute and percentage basis, between 2012 and 2022.

**Middle Skill Job Titles with Largest Expected Net Job Growth,
North Country, 2012-2022**

SOC Code	Job Title	% Change	Net Change
47-2031	Carpenters	+15.4	+210
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+7.3	+180
49-3023	Automotive Service Technicians and Mechanics	+13.3	+170
29-2061	Licensed Practical and Licensed Vocational Nurses	+10.1	+160
53-3032	Heavy and Tractor-Trailer Truck Drivers	+8.6	+140

**Middle Skill Job Titles with Fastest Expected Percentage Job Growth,
North Country, 2012-2022**

SOC Code	Job Title	% Change	Net Change
17-3025	Environmental Engineering Technicians	+33.3	+10
49-9062	Medical Equipment Repairers	+33.3	+10
31-2021	Physical Therapist Assistants	+30.0	+30
29-2032	Diagnostic Medical Sonographers	+28.6	+20
51-4041	Machinists	+27.3	+30

**Middle Skill Job Titles with Most Total Annual Openings,
North Country, 2012-2022**

SOC Code	Job Title	Total Annual Openings	Annual Openings Due to Growth
25-9041	Teacher Assistants	+70	+10
29-2061	Licensed Practical and Licensed Vocational Nurses	+60	+20
49-3023	Automotive Service Technicians and Mechanics	+50	+20
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+40	+20
47-2031	Carpenters	+40	+20

**Middle Skill Job Titles with the Highest Annual Wages,
North Country, 2012-2022**

SOC Code	Job Title	Annual Average Wage
33-3021	Detectives and Criminal Investigators	\$93,740
49-9051	Electrical Power-Line Installers and Repairers	\$85,660
33-1012	First-Line Supervisors of Police and Detectives	\$82,920
29-2032	Diagnostic Medical Sonographers	\$70,710
41-9022	Real Estate Sales Agents	\$68,860

Southern Tier Region, 2012 – 2022

Executive Summary

From 2012 to 2022, the overall number of Middle Skill jobs in the Southern Tier is expected to increase by 2,750, or 4.2%. In contrast, overall employment in Non-Middle Skill occupations will increase by 14,010, or 5.8%, over the same time period.

Middle Skill jobs will represent a slightly larger proportion of overall employment in the Region in 2022 than in 2012, and will continue to remain vitally important to the regional economy. More specifically:

- In 2012, Middle Skills jobs made up 21.1% of all jobs in the Southern Tier
- In 2022, Middle Skills jobs will make up 21.9% of all jobs in the Southern Tier

What does the future hold for Middle Skill Jobs?

Occupational projections spanning the 2012-2022 period suggest that the Middle Skill group's overall growth rate will be positive in the Southern Tier. Middle Skill jobs are projected to rise 2,750, or 4.2%, in 2012-2022.

The tables below show the Middle Skill job titles that are expected to add the most jobs, on both an absolute and percentage basis, between 2012 and 2022.

**Middle Skill Job Titles with Largest Expected Net Job Growth,
Southern Tier, 2012-2022**

SOC Code	Job Title	% Change	Net Change
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+8.5	+380
29-2061	Licensed Practical and Licensed Vocational Nurses	+11.7	+230
53-3032	Heavy and Tractor-Trailer Truck Drivers	+8.2	+230
47-2031	Carpenters	+11.7	+200
25-9041	Teacher Assistants	+3.6	+160

**Middle Skill Job Titles with Fastest Expected Percentage Job Growth,
Southern Tier, 2012-2022**

SOC Code	Job Title	% Change	Net Change
29-2032	Diagnostic Medical Sonographers	+35.7	+50
51-4012	Computer-Controlled Machine Tool Programmers, Metal and Plastic	+33.3	+30
29-2056	Veterinary Technologists and Technicians	+31.3	+50
31-2021	Physical Therapist Assistants	+26.3	+50
27-4011	Audio and Video Equipment Technicians	+23.1	+30

**Middle Skill Job Titles with Most Total Annual Openings,
Southern Tier, 2012-2022**

SOC Code	Job Title	Total Annual Openings	Annual Openings Due to Growth
25-9041	Teacher Assistants	+120	+20
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+80	+40
29-2061	Licensed Practical and Licensed Vocational Nurses	+70	+20
53-3032	Heavy and Tractor-Trailer Truck Drivers	+70	+20
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	+60	+10

**Middle Skill Job Titles with the Highest Annual Wages,
Southern Tier, 2012-2022**

SOC Code	Job Title	Annual Average Wage
33-1012	First-Line Supervisors of Police and Detectives	\$82,490
49-9051	Electrical Power-Line Installers and Repairers	\$77,810
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers	\$76,060
29-2033	Nuclear Medicine Technologists	\$73,760
13-1031	Claims Adjusters, Examiners, and Investigators	\$71,030

Western New York Region, 2012 – 2022

Executive Summary

From 2012 to 2022, the overall number of Middle Skill jobs in Western New York is expected to increase by 8,810, or 5.6%. In contrast, overall employment in Non-Middle Skill occupations will increase by 43,510, or 8.1%, over the same time period.

Middle Skill jobs will represent a slightly smaller proportion of overall employment in the Region in 2022 than in 2012, but they will remain vitally important to the regional economy. More specifically:

- In 2012, Middle Skills jobs made up 22.7% of all jobs in Western New York
- In 2022, Middle Skills jobs will make up 22.3% of all jobs in Western New York

What does the future hold for Middle Skill Jobs?

Occupational projections spanning the 2012-2022 period suggest that the Middle Skill group’s overall growth rate will be positive in Western New York. Middle Skill jobs are projected to rise 8,810, or 5.6%, in 2012-2022.

The tables below show the Middle Skill job titles that are expected to add the most jobs, on both an absolute and percentage basis, between 2012 and 2022.

**Middle Skill Job Titles with Largest Expected Net Job Growth,
Western New York, 2012-2022**

SOC Code	Job Title	% Change	Net Change
43-3011	Bill and Account Collectors	+17.0	+950
29-2061	Licensed Practical and Licensed Vocational Nurses	+18.1	+950
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+8.1	+800
47-2031	Carpenters	+12.3	+500
43-6013	Medical Secretaries	+27.7	+430

**Middle Skill Job Titles with Fastest Expected Percentage Job Growth,
Western New York, 2012-2022**

SOC Code	Job Title	% Change	Net Change
29-2032	Diagnostic Medical Sonographers	+32.1	+90
29-2056	Veterinary Technologists and Technicians	+29.7	+110
51-4012	Computer-Controlled Machine Tool Programmers, Metal and Plastic	+29.6	+80
39-5094	Skincare Specialists	+28.6	+40
43-6013	Medical Secretaries	+27.7	+430

**Middle Skill Job Titles with Most Total Annual Openings,
Western New York, 2012-2022**

SOC Code	Job Title	Total Annual Openings	Annual Openings Due to Growth
25-9041	Teacher Assistants	+270	+40
43-3011	Bill and Account Collectors	+260	+100
29-2061	Licensed Practical and Licensed Vocational Nurses	+220	+90
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	+170	+30
43-3031	Bookkeeping, Accounting, and Auditing Clerks	+170	+80

**Middle Skill Job Titles with the Highest Annual Wages,
Western New York, 2012-2022**

SOC Code	Job Title	Annual Average Wage
23-2091	Court Reporters	\$91,760
33-3021	Detectives and Criminal Investigators	\$89,960
49-9051	Electrical Power-Line Installers and Repairers	\$85,030
47-4021	Elevator Installers and Repairers	\$82,730
33-1012	First-Line Supervisors of Police and Detectives	\$79,870

Summary

“Middle Skill” occupations represent an excellent career field for many segments of the population in New York State. Increasing demand for these occupations and a growing need to replace retiring workers means there are many job openings in high-paying occupations with good job security.

For Further Information

Questions regarding this report should be directed to Kevin Jack, Statewide Labor Market Analyst. He can be reached via email at Kevin.Jack@labor.ny.gov or by phone at (518) 457-3800.

Appendix: “Middle Skill” Job Titles

Note: The “Middle Skill” job titles below typically require education and/or training beyond high school, but not a four-year college degree. Typical training and education requirements are compiled by the U.S. Bureau of Labor Statistics.

SOC Code	Occupational Title
11-9131	Postmasters and Mail Superintendents
13-1021	Buyers and Purchasing Agents, Farm Products
13-1022	Wholesale and Retail Buyers, Except Farm Products
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products
13-1031	Claims Adjusters, Examiners, and Investigators
13-1032	Insurance Appraisers, Auto Damage
13-2082	Tax Preparers
17-3011	Architectural and Civil Drafters
17-3012	Electrical and Electronics Drafters
17-3013	Mechanical Drafters
17-3021	Aerospace Engineering and Operations Technicians
17-3022	Civil Engineering Technicians
17-3023	Electrical and Electronics Engineering Technicians
17-3024	Electro-Mechanical Technicians
17-3025	Environmental Engineering Technicians
17-3026	Industrial Engineering Technicians
17-3027	Mechanical Engineering Technicians
17-3031	Surveying and Mapping Technicians
19-4011	Agricultural and Food Science Technicians
19-4031	Chemical Technicians
19-4091	Environmental Science and Protection Technicians, Including Health
19-4093	Forest and Conservation Technicians
21-1011	Substance Abuse and Behavioral Disorder Counselors
23-2011	Paralegals and Legal Assistants
23-2091	Court Reporters
25-2011	Preschool Teachers, Except Special Education
25-4031	Library Technicians
25-9041	Teacher Assistants
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators
27-1023	Floral Designers

SOC Code	Occupational Title
27-1026	Merchandise Displayers and Window Trimmers
27-2023	Umpires, Referees, and Other Sports Officials
27-2032	Choreographers
27-2042	Musicians and Singers
27-4011	Audio and Video Equipment Technicians
27-4012	Broadcast Technicians
27-4014	Sound Engineering Technicians
27-4021	Photographers
29-1124	Radiation Therapists
29-1126	Respiratory Therapists
29-2012	Medical and Clinical Laboratory Technicians
29-2021	Dental Hygienists
29-2031	Cardiovascular Technologists and Technicians
29-2032	Diagnostic Medical Sonographers
29-2033	Nuclear Medicine Technologists
29-2041	Emergency Medical Technicians and Paramedics
29-2051	Dietetic Technicians
29-2052	Pharmacy Technicians
29-2053	Psychiatric Technicians
29-2055	Surgical Technologists
29-2056	Veterinary Technologists and Technicians
29-2061	Licensed Practical and Licensed Vocational Nurses
29-2071	Medical Records and Health Information Technicians
29-2081	Opticians, Dispensing
31-2011	Occupational Therapy Assistants
31-2021	Physical Therapist Assistants
31-9011	Massage Therapists
31-9091	Dental Assistants
31-9092	Medical Assistants
31-9093	Medical Equipment Preparers
31-9094	Medical Transcriptionists
33-1012	First-Line Supervisors of Police and Detectives
33-1021	First-Line Supervisors of Fire Fighting and Prevention Workers
33-2011	Firefighters
33-3011	Bailiffs
33-3012	Correctional Officers and Jailers
33-3021	Detectives and Criminal Investigators
33-3051	Police and Sheriff's Patrol Officers

SOC Code	Occupational Title
33-9011	Animal Control Workers
33-9021	Private Detectives and Investigators
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation
39-2011	Animal Trainers
39-5011	Barbers
39-5012	Hairdressers, Hairstylists, and Cosmetologists
39-5091	Makeup Artists, Theatrical and Performance
39-5092	Manicurists and Pedicurists
39-5094	Skincare Specialists
41-3011	Advertising Sales Agents
41-3021	Insurance Sales Agents
41-3041	Travel Agents
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products
41-9022	Real Estate Sales Agents
43-3011	Bill and Account Collectors
43-3031	Bookkeeping, Accounting, and Auditing Clerks
43-3051	Payroll and Timekeeping Clerks
43-3061	Procurement Clerks
43-4011	Brokerage Clerks
43-4031	Court, Municipal, and License Clerks
43-4061	Eligibility Interviewers, Government Programs
43-4141	New Accounts Clerks
43-5031	Police, Fire, and Ambulance Dispatchers
43-5032	Dispatchers, Except Police, Fire, and Ambulance
43-5061	Production, Planning, and Expediting Clerks
43-6012	Legal Secretaries
43-6013	Medical Secretaries
43-9011	Computer Operators
43-9021	Data Entry Keyers
43-9031	Desktop Publishers
43-9041	Insurance Claims and Policy Processing Clerks
45-4022	Logging Equipment Operators
47-2011	Boilermakers
47-2021	Brickmasons and Blockmasons
47-2022	Stonemasons
47-2031	Carpenters
47-2043	Floor Sanders and Finishers

SOC Code	Occupational Title
47-2071	Paving, Surfacing, and Tamping Equipment Operators
47-2073	Operating Engineers and Other Construction Equipment Operators
47-2121	Glaziers
47-2142	Paperhangers
47-2152	Plumbers, Pipefitters, and Steamfitters
47-2171	Reinforcing Iron and Rebar Workers
47-2211	Sheet Metal Workers
47-2221	Structural Iron and Steel Workers
47-4011	Construction and Building Inspectors
47-4021	Elevator Installers and Repairers
47-4031	Fence Erectors
47-4041	Hazardous Materials Removal Workers
47-4051	Highway Maintenance Workers
47-4061	Rail-Track Laying and Maintenance Equipment Operators
47-5021	Earth Drillers, Except Oil and Gas
49-2011	Computer, Automated Teller, and Office Machine Repairers
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairs
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
49-2092	Electric Motor, Power Tool, and Related Repairers
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles
49-2097	Electronic Home Entertainment Equipment Installers and Repairers
49-2098	Security and Fire Alarm Systems Installers
49-3011	Aircraft Mechanics and Service Technicians
49-3021	Automotive Body and Related Repairers
49-3023	Automotive Service Technicians and Mechanics
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
49-3041	Farm Equipment Mechanics and Service Technicians
49-3042	Mobile Heavy Equipment Mechanics, Except Engines
49-3043	Rail Car Repairers
49-3051	Motorboat Mechanics and Service Technicians
49-3052	Motorcycle Mechanics
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics
49-3091	Bicycle Repairers

SOC Code	Occupational Title
49-3092	Recreational Vehicle Service Technicians
49-9011	Mechanical Door Repairers
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door
49-9031	Home Appliance Repairers
49-9041	Industrial Machinery Mechanics
49-9043	Maintenance Workers, Machinery
49-9044	Millwrights
49-9051	Electrical Power-Line Installers and Repairers
49-9052	Telecommunications Line Installers and Repairers
49-9061	Camera and Photographic Equipment Repairers
49-9062	Medical Equipment Repairers
49-9063	Musical Instrument Repairers and Tuners
49-9064	Watch Repairers
49-9094	Locksmiths and Safe Repairers
49-9098	Helpers--Installation, Maintenance, and Repair Workers
51-1011	First-Line Supervisors of Production and Operating Workers
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
51-2041	Structural Metal Fabricators and Fitters
51-2091	Fiberglass Laminators and Fabricators
51-2092	Team Assemblers
51-3092	Food Batchmakers
51-3093	Food Cooking Machine Operators and Tenders
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic

SOC Code	Occupational Title
51-4041	Machinists
51-4051	Metal-Refining Furnace Operators and Tenders
51-4061	Model Makers, Metal and Plastic
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4111	Tool and Die Makers
51-4121	Welders, Cutters, Solderers, and Brazers
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic
51-4192	Layout Workers, Metal and Plastic
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic
51-4194	Tool Grinders, Filers, and Sharpeners
51-6041	Shoe and Leather Workers and Repairers
51-6062	Textile Cutting Machine Setters, Operators, and Tenders
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers
51-6092	Fabric and Apparel Patternmakers
51-6093	Upholsterers
51-7011	Cabinetmakers and Bench Carpenters
51-8013	Power Plant Operators
51-8021	Stationary Engineers and Boiler Operators
51-8031	Water and Wastewater Treatment Plant and System Operators
51-8091	Chemical Plant and System Operators
51-8092	Gas Plant Operators
51-9011	Chemical Equipment Operators and Tenders
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders

SOC Code	Occupational Title
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers
51-9071	Jewelers and Precious Stone and Metal Workers
51-9081	Dental Laboratory Technicians
51-9082	Medical Appliance Technicians
51-9083	Ophthalmic Laboratory Technicians
51-9111	Packaging and Filling Machine Operators and Tenders
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
51-9122	Painters, Transportation Equipment
51-9191	Adhesive Bonding Machine Operators and Tenders
51-9194	Etchers and Engravers
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic
51-9196	Paper Goods Machine Setters, Operators, and Tenders
53-2021	Air Traffic Controllers
53-2022	Airfield Operations Specialists
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians
53-3021	Bus Drivers, Transit and Intercity
53-3032	Heavy and Tractor-Trailer Truck Drivers
53-6041	Traffic Technicians
53-6051	Transportation Inspectors
53-7021	Crane and Tower Operators
53-7032	Excavating and Loading Machine and Dragline Operators

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