



SKILLED TRADES LABOR FORCE DEMAND ANALYSIS
New York State Southern Tier 8 Region
and
Pennsylvania Northern Tier Region

May 2026



A Collaborative Project

Southern Tier 8

and

The Goodwill Theatre Inc.

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SKILLED TRADES LABOR FORCE DEMAND ANALYSIS

New York State's Southern Tier 8 Region and Pennsylvania's Northern Tier

EXECUTIVE SUMMARY

Well trained people in the skilled trades are needed throughout the country, with significant demand projected to continue due to industry sector growth, housing demand, historic restoration projects and major infrastructure development initiatives. According to IBIS World (2025), the new construction and renovation industry in the US is projected to need over 500,000 additional workers annually to meet demand; including carpenters, electricians, HVAC technicians, plumbers, property managers, stagehands and technicians.

This same demand is particularly significant in New York State's upstate region. It is being driven by construction of manufacturing facilities and office buildings, expansion of academic campus facilities, expansion and upgrades to major healthcare facilities, new housing construction, community development projects, expansion and revitalization of live theatre and concert production facilities, and historic property restoration. In particular, is the demand for skilled traded to support both the Micron facility construction and new housing demand particularly in nearby towns, such as Clay, Liverpool, Cicero, Baldwinsville, and parts of the Syracuse metro area. This combined demand to along the I86 Corridor to the north is serving as a magnet for skilled trades, drawing from the Southern Tier 8 and greater Upstate New York region.

The geographic focus of this analysis is the Southern Tier 8 region consisting of Broome, Tioga, Tompkins, Otsego, Cortland, Delaware, Schoharie, and Chenango counties. Southern Tier 8 recognized the urgency to build a skilled trades workforce pipeline in response to a combination of its regional demand and the migration of the skilled trades north along the I-86 corridor. This development compounds New York State's forecast for the skilled labor sector to be one of the most difficult to fill during the past seven years. The issue is further exacerbated by the decreasing number of skilled trades people due to the aging population and too few younger people entering the trades.

Southern Tier 8, working in partnership with the Goodwill Theatre in Johnson City, NY undertook this skilled trades labor force analysis to gain an understanding of the factors driving demand together with the anticipated gaps in the supply chain affecting this region and the bordering counties of Pennsylvania's Northern Tier. The trades examined include carpenters, electricians, HVAC technicians, plumbers, property managers, and stagehands. The report provides information regarding the forecasted demand, factors driving demand and migration of this workforce out of the immediate region, competitive wages, current gaps in training resources and apprenticeships, and potential opportunities to fill the gaps. It also provides insights into a potential collaborative arrangement between the Goodwill Theatre Inc. and Johnson College of Technology to strengthen the supply for high-demand skilled trades, with a particular focus on the need for well-trained stagehands and skilled tradesmen in adaptive reuse, and the revitalization and restoration of community and arts spaces. It supports the Goodwill Theatre's plan to develop a trades and entertainment incubator to undertake renovation and new construction of its facilities and to expose younger generations to trades through the expansion of Johnson College's vocational training and apprenticeship programs.

INTRODUCTION

Southern Tier 8 Region



The Southern Tier 8 region consists of Broome, Tioga, Tompkins, Otsego, Cortland, Delaware, Schoharie, and Chenango counties in New York State. The region covers a diverse mix of communities, including the cities of Binghamton, Ithaca and Oneonta, along with small towns and rural municipalities.

Its mission is to partner with member counties to identify and address multi-county issues in order to improve the quality of life within the region.

The Regional Board advances infrastructure investment, workforce development, and economic opportunity across 56% of Appalachian NY by building community capacity with local partners for project and partnership development. Its five goals include:

Economic Development & Domestic Manufacturing: Serve as the local partner for federal investments for the Appalachian Regional Commission and Economic Development Administration. ST8's responsibility is to bring forward the region's most impactful investments to federal partners. As community partners across 8 rural counties in New York State, ST8 supports asset-based economic development & building supportive ecosystems for private sector growth.

Workforce Development & Education Investment: Support building supportive ecosystems for skills training, innovative educational programs, workforce readiness and job placement.

Critical Infrastructure Adaptation & Expansion: Assist member counties with cross-border infrastructure challenges, that may involve assessment, project development, education & advocacy and formal investment strategies for community improvements.

Regional Advancement & Innovation Ecosystem Development: Showcase the region in a concise way encompassing regional assets, businesses, organizations, news, events, with the goal to educate, inspire, and build interest in our region.

Compliance, Capacity Building & Resiliency: Support local priorities to meet State & Federal Environmental Regulations with shared services to increase efficiencies and reduce local costs.

The issue of having adequate skilled trades people is of importance due to competing demand driven by growth of the existing industrial base, new business development and technology parks, university facilities, the performing arts; as well as housing and community development projects. This analysis supports the Southern Tier 8's Workforce Development and Education Investment goal: ***As community partners across 8 rural counties in New York State, we support building supportive ecosystems for skills training, innovative educational programs, workforce readiness and job placement.***



Goodwill Theatre Inc.

The Goodwill Theatre Complex (GWT) sits in the center of the Village of Johnson City, NY as part of the Binghamton MSA (Broome & Tioga Counties, NY). It is an anchor in the Johnson City Arts and Cultural District alongside Binghamton University's JC Campus and United Healthcare's Wilson Hospital.



Recognized as a pivotal resource of the Susquehanna Heritage Area System, the Goodwill Theatre proves to be emblematic of the paternalistic position taken by industry at the turn of the century. The building stands as a monument to George Johnson's policies of "Industrial Democracy", and their far-reaching effects that resonated outward to impact on the economic development of the Susquehanna Valley, patterns of immigration and migration, and the daily life of the local community.

Today, the mission is to create and operate a dynamic regional performing arts center with a professional training academy that will enrich the lives of the residents and visitors through education, events and performances. GWT opened its first performance venue, the Schorr Family Firehouse Stage in the Johnson City Health and Cultural iDistrict in 2007. Currently, it offers more than 65 performances each season.

Its priorities are to:

1. Use the power of the arts to build and transform the community and provide further access to cultural offerings in rural areas or communities that have historically been underserved by the arts sector.
2. Make arts facilities accessible for a diverse set of artists and participants, and to enable arts and cultural programming that is more creatively compelling for artists and audiences.
3. Be a valued resource and partner with other cultural organizations and higher education.
4. Contribute to local workforce development and/or expansion, tourism growth, and/or placemaking and downtown revitalization.

Based in Scranton, Pennsylvania, Johnson College is a private two-year academic institution that offers 18 associate degrees and 5 academic certificate programs, with a focus on technical skills. The college is accredited by the Middle States Commission on Higher Education and is Northeastern Pennsylvania's only career technical college. It is ranked by Forbes in the Top 10 Trade Schools in the Nation and also is recognized as an "Opportunity College and University" by the Carnegie Foundation and ACE for its commitment to accessible education and paths to competitive wages.

Programs are organized across areas such as building trades and technology, electronics and industrial technology, transportation, and health and animal sciences. As the only technical college in Northeastern Pennsylvania, the college has a strong relationship with area employers and offers customized job training. The college has taken a leading role in regional economic development and community partnerships in Pennsylvania by offering programs that both complement business trends and target education for high-demand, essential occupations. For example, the college's Hazleton satellite campus was opened in 2023 within the Humboldt Industrial Park.



Johnson College is now enrolling students in seven new programs, expanding its offerings to 15 associate degree programs and five academic certificate programs. Several of these additions build on programs the College has offered successfully for many years and are designed to meet evolving workforce needs. Most of the new offerings begin in fall 2026, with the new plumbing certificate program scheduled to start in the spring 2027 semester.

These programs include:

Cybersecurity: equips students for entry-level roles in information security and network defense, with hands-on training in risk management, ethical hacking, digital forensics, and incident response. The **Scripting and Application Development Program:** trains students for entry-level positions in application development, automation, and application support using industry-standard programming languages and tools. **Network Management Concentration:** positions students for entry-level technician roles, maintaining and troubleshooting computer hardware, software, and network systems.

Automation and Robotics builds students' skills for industrial automation, including PLC and HMI programming, robotics, sensors, motion control, and Industry 4.0 concepts.

The **Industrial Mechanics** concentration readies students for industrial maintenance careers with training in mechanical systems, hydraulics, pneumatics, electrical drives, and preventive maintenance.

Johnson College is also expanding its **Mechatronics Technology program** with two new two-year associate degree concentrations, offered at both the Scranton and Hazleton campuses, beginning in fall 2026. The College also is expanding one of its Heating, Ventilation, and Air Conditioning Technology programs by adding a five-semester **Heating, Ventilation, and Air Conditioning Technology with Plumbing** option.

The Challenge

Well trained people in the skilled trades throughout the country are needed, with a significant demand projected to continue due to industry growth, housing demand, expanding live theatre and concert productions, building restoration projects, community revitalization, and infrastructure development. In 2022, the number of people with construction trade occupations across the country was 6.2 million, 11% lower than in 2007 and 2% lower than before the pandemic. There is a projected need for more than 500,000 additional workers annually to meet future demand. Among the top 10 skills in highest demand are construction management, electricians, plumbers, and HVAC technicians. And according to the National Endowment for the Arts, the demand for construction trades in live arts production is generated by the need for skilled workers to build, repair and operate venues for live performances.

Demand for the skilled trades in the Southern Tier 8 region and adjacent areas also is increasing, driven by housing construction, community development projects, expanding arts and cultural programming, historic property restoration, new manufacturing and business operations facilities, business and technology park development, Cornell and Binghamton University projects, infrastructure to support the housing and manufacturing growth, as well as projects such as the proposed Constitution Pipeline. And the megafab Micron Technology Project in Clay will significantly drive the demand for new long-term and short-term housing. The Micron related growth is expected to happen over a period of several years, contributing to the long-term demand for the skilled trades and drain on this target workforce throughout the Upstate Region.

The New York State Department of Labor has named Six Significant Industries including administrative and support services; **specialty trades contractors**; educational services; food service; computer and electronic product manufacturing; and nursing and residential care facilities. Both NYS Department of Labor offices for the Southern Tier and Mohawk Valley name **the specialty trades as #1 in growth and demand and identify it as the most pressing economic development challenge**. Table 1 below demonstrates this demand, which is projected to be 22% for electricians and 17% for plumbers and HVAC technicians during 2020-2030.

Table 1. New York State Southern Tier Region: Skilled Labor Wage and Demand

Rank	Occupational Title	% Share of Industry Workforce	Median Wage	Projected Employment Change (2020-2030)
1	Electricians	10.89%	\$67,276	21.7%
2	Plumbers, Pipefitters and Steamfitters	8.3%	\$66,216	17.6%
3	Construction Laborers	6.8%	\$45,750	17.2%
4	HVAC Technician	6.1%	\$61,194	17.22%
5	First-line Supervisors of Construction Trades	5.7%	\$61,194	15.3%
6	Roofers	4.8%	\$51,388	15.0%
7	General and Operations Managers	4.0%	\$98,959	28.5%
8	Engineers and Construction Equip. Operators	3.5%	\$62,074	17.9%
9	Carpenters	3.5%	\$61,714	8.6%
10	Painters, Construction and Maintenance	2.9%	\$49,246	12.2%

Source: New York State Department of Labor. Southern Tier Regional Office. 2025.

The Opportunity

Southern Tier 8 Regional Economic Development recognized the urgency to build a skilled trades workforce pipeline with demand generated by the expanding I-81 corridor industry cluster, as well as community development projects, importance of the live arts and restoration of historic properties, and the increasing demand for housing. Southern Tier 8, working in partnership with the Goodwill Theatre in Johnson City, NY undertook this labor force analysis to gain an understanding of the overall national and regional demand for skilled trades in New York State's Southern Tier and the I81 corridor, and the boarding counties in Pennsylvania's Northern Tier.

This analysis signals not only the growing demand in the Southern Tier 8 region but also demonstrates how the gap is growing wider due. It informs the gaps in education, technical training programs, and apprenticeships critical to addressing the demand. It also provides insights to the need for expanded training programs, apprenticeships. It also points to the value of a potential collaborative arrangement between the Goodwill Theatre Inc. and Johnson College of Technology to strengthen the opportunity for high-demand skilled trades in New York's Southern Tier, with a particular focus on responding to the need for well-trained stagehands and skilled tradesmen in adaptive reuse, and the revitalization and restoration of community and arts spaces.

It supports the Goodwill Theatre's plan to develop a trades and entertainment incubator to renovate and expand its facilities. The initial focus would be on the Phase 2 project, which includes the renovation and new construction of the former Municipal Building and Central Fire Station that now houses the Schorr Family Firehouse Stage on its first floor and addition of a 300-seat theatre space. Upon completion of Phase 2, GWT will proceed with Phase 3 that involves the complete renovation of the historic Goodwill Theatre building with its 850-seat theatre.

The project aims to expose younger generations to trades through the expansion of Johnson College's vocational training and apprenticeship programs. Such a joint initiative with Johnson College would provide students with hands-on experience and technical skills training and apprenticeships in construction trades such as carpentry, plumbing, electrical work, HVAC, and property management. An apprenticeship program also will provide pathways for individuals to both serve as theatre and stage technicians and work in the construction industry, enabling participants to earn a wage while learning valuable skills.

The initiative is the first step in Johnson College's long-term plan to support capacity building and program expansion in the skilled trades by launching/piloting its first programs in NY State with the goal of growing into a satellite campus and building upon its foundation for nationally-recognized career technical education, improving students' livelihoods with careers leading to family-supporting wages, and helping grow the regional economy with a trained workforce in essential trades. The College's goals include growing enrollment in the three associate degree programs covered by this initiative – Heating, Ventilation, and Air Conditioning, Electrical Construction Technology, and Carpentry and Cabinetmaking Technology (HVAC, ECT, CCT) and staying ahead of current industry technology. New construction technology in building materials, equipment, and methods is moving at lightning speed, and our students need to be trained to enter the regional workforce as prepared technicians. Of the 691 enrolled students, 35% are majoring in the three specified construction programs. In addition to the three programs named in this proposal, Johnson also offers construction-related programs in Industrial Technology, Architectural Drafting and Design, and Building Property Maintenance.

NATIONAL PERSPECTIVE: DEMAND FOR THE SKILLED TRADES

According to McKinsey & Company, the US skilled labor market is facing record-high pressure and “*US manufacturing and construction face a hiring crunch for skilled workers such as carpenters, electricians, welders, and plumbers.*” (“*Tradespeople wanted: The need for critical trade skills in the US*” McKinsey & Company. April 2025).

Nationally, the construction occupations are projected to grow faster than the average for all occupations during 2024-2034, with about 649,300 openings each year due to employment growth and the need to replace workers. Key job categories included in this projection are boilermakers, carpenters, construction equipment operators, and construction laborers and helpers.

It is important to note that this is a desirable career path, with the national median annual wage for this group at \$58,360 (2024), which is higher than the median annual wage for all occupations in the US.

The US Bureau of Economic Analysis projects demand for skilled trades in the construction sector is expected to rise, with this labor market sector identified as one of the most difficult jobs to fill for the past seven years. This is due to three important supply-side trends that are decreasing the number of skilled laborers in the workforce: ***the aging US population, too few younger people entering the trades, and the decline in new immigrant trade workers.***

“Demand in US industry is projected to remain high due to infrastructure needs, a surge in real estate redevelopment, and the energy transition. The Bipartisan Infrastructure Law’s (BIL’s) spending levels and subsequent workforce needs are slated to peak around 2027–28, when new BIL construction expenditure could expand job market supply by 345,000 jobs, spanning sectors across the value chain.” (“*Tradespeople wanted: The need for critical trade skills in the US*” McKinsey & Company. April 2025).

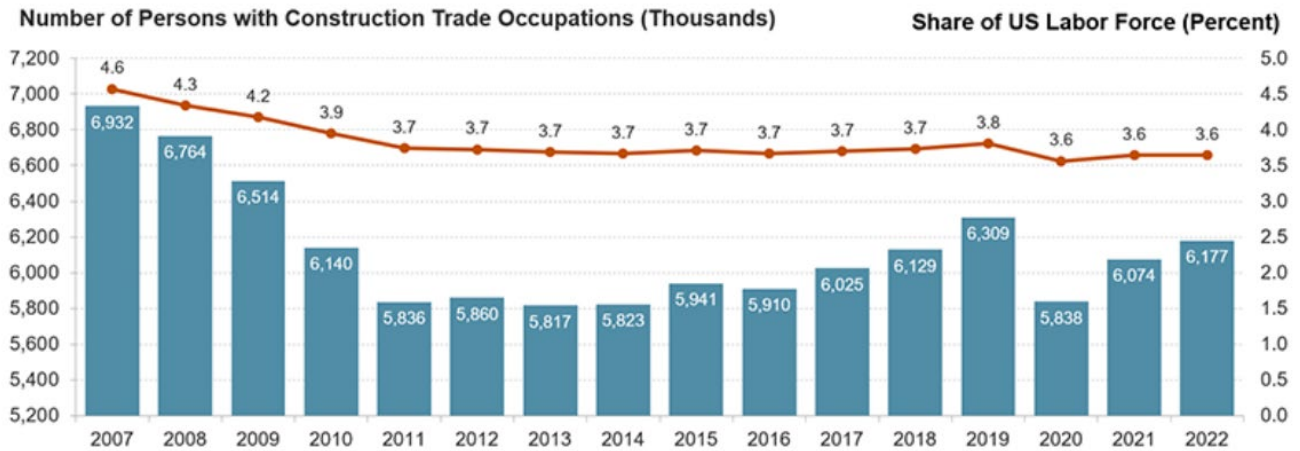
The National Endowment for the Arts also reports the demand for construction trades in live arts production is driven by the need for skilled workers to build and repair venues for live performances.

According to IBIS World (2025), the new construction and renovation industry nationally is projected to need over 500,000 additional workers annually to meet consumer and developer demand for both new construction and renovation projects. **There are critical trades in demand in arts related facilities including carpenters, electricians, HVAC technicians, plumbers, stagehands and technicians.**

According to a report issued by the Harvard University Joint Center for Housing Studies state: “*Since the mid-2000s, the construction industry in the United States has faced a significant shortage of skilled labor. During the Great Recession, the industry lost nearly 1 million workers and has struggled to rebuild its workforce as demand has returned. There are roughly one million fewer workers in the construction trades than there were at the time of the last housing boom in 2007, which has contributed to project delays, rising costs, and other challenges.*”

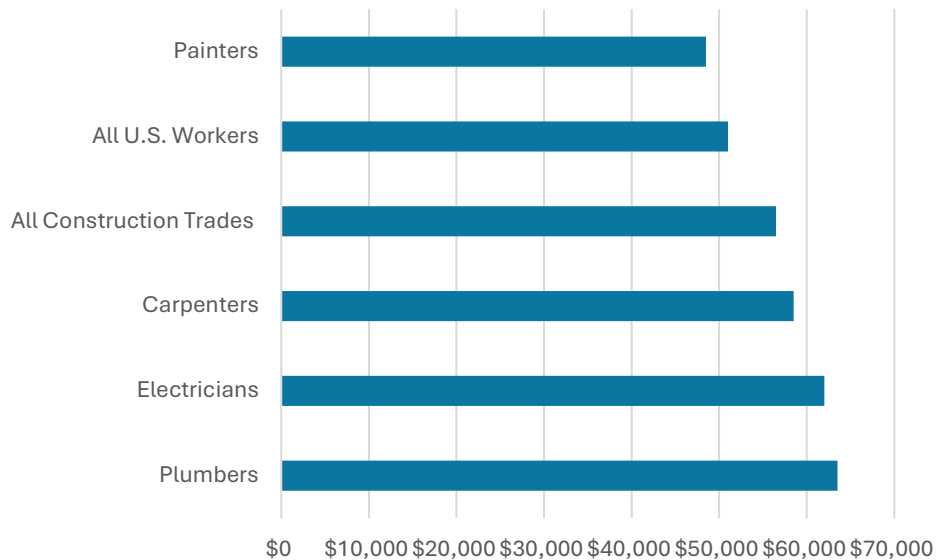
While the total number of workers in the broader construction industry has rebounded back to near-2007 levels, the number of workers with trade occupations has not experienced the same recovery. In 2022, the number of people with construction trade occupations was 6.2 million, 11% lower than in 2007 and 2% lower than before the pandemic. Among the top 10 skills in highest demand are construction management, electricians, plumbers & pipefitters, and HVAC technicians.

Figure 1. Construction Trades Workforce: Early 2000's to Mid 2020's



Source: Harvard University Joint Center for Housing Studies

Figure 2. Median Annual Wages for Full-time Workers in the Trades



To tackle these barriers, a number of initiatives have been implemented across the country to change perceptions about careers in construction, increase enrollment in construction-related education and training programs, and attract individuals who have been underrepresented in skilled trade occupations.

DEMAND FOR SKILLED TRADES: ADAPTIVE REUSE AND RENOVATION OF HISTORIC BUILDINGS

Adaptive reuse is emerging as a significant movement in contemporary architecture and urban development as a strategy for communities to achieve sustainable growth while preserving their culture identity. In addition, property developers are recognizing the opportunities for cost efficiency with adaptive reuse versus new construction. And there are significant NYS and Federal tax incentives opportunities.

It is important to note such projects must follow the US Secretary of Interior's standards for rehabilitation of historic buildings and New York State's Historic Preservation Office guidelines.

These historic preservation and adaptive reuse projects are creating a demand for skilled tradespeople with a diverse range of skills to ensure the integrity and character of the buildings.

Why Adaptive Reuse Matters

The importance of adaptive reuse lies in its ability to preserve the cultural heritage of communities while meeting contemporary needs. By reimagining old structures, architects and developers can create unique spaces that blend the old with the new. This approach not only conserves resources but also reduces the carbon footprint associated with new construction.

- **Construction Managers:** Oversee the team, manage budgets and schedules, and ensure safety.
- **Electricians:** Deal with the challenges of designing and installing modern electrical systems while preserving the building's aesthetic integrity such as concealing wiring behind walls.
- **HVAC Technicians:** Use installation approaches to blend modern HVAC systems with historic architecture. They are skilled in advanced installation techniques, data analysis skills, while simultaneously having the ability to integrate HVAC systems seamlessly into the architectural aesthetics of historic buildings. Issues include acoustic sensitivity, space constraints, complex airflow requirements, and regulatory compliance. Each installation is unique, and the HVAC technician must engage in planning and collaboration with architects, acousticians, and construction managers.
- **Plumbers:** Update plumbing systems without compromising a building's historic character and using modern techniques while respecting old materials. They are responsible for replacing outdated materials such as lead pipes, with safer alternatives to ensure safety and functionality. They also must navigate complex plumbing systems, often involving rare materials and intricate designs, requiring an understanding of historical plumbing practices. They must balance preservation with modern upgrades, ensuring the plumbing system meets current standards.
- **Preservation Carpenters:** Reconstruct, restore, and rehabilitate wood structures, working with tools like rulers, squares, levels and hammers, as well as power tools like table saws, circular saws, drills, joiners and planers. They also document sites and assess their conditions and pathology. Carpenters also are window restoration specialists who repair and replace windows, which SPHO requires to be wood.
- **Masonry Restoration Specialists:** Repair and maintain masonry walls, arches, and other features.
- **Finish Carpentry Specialists:** Repair and restoration of finished carpentry elements such as doors, windows, and trim to maintain the aesthetic and functional integrity of historic buildings.

DEMAND FOR SKILLED TRADES: LIVE THEATRE AND CONCERTS

The skilled trades in the target counties are of particular importance to the construction of theatres, renovation of historic buildings used for concerts and theatre productions, as well as the design and production of live performances.

National Demand Projections for Skilled Trades Relevant to Live Theatre Productions

Work performed for live theatre productions by the skilled trades nationwide includes new construction, additions, alterations, restoration, set construction and assembly, and overall safety of the performers.

Table 2. Wage and Projected Demand for Trades in Support of Live Theatre and Film Productions

Occupational Title	Concentration of Employment	Median Wage	Projected Employment Change (%) by 2030
Electricians	10.8%	\$67,276	21.7%
Plumbers, Pipefitters & Steamfitters	8.3%	\$66,216	17.6%
Construction Laborers	6.8%	\$45,750	17.2%
HVAC	6.1%	\$61,194	17.2%
Supervisors of Construction Trades	5.7%	\$83,627	15.3%
General and Operations Managers	4.0%	\$98,959	28.5%
Carpenters	3.5%	\$61,714	8.65%
Stage Hand	NA	\$132,800	NA
Flyman	NA	\$119,177	NA

Source: US Labor Department and New York State Bureau of Labor Market Information

New York State

The growing demand for skilled trades among the performance facilities is being compounded by the growth in live performances and film throughout New York State. And this growth is expected to continue with the New York State film tax incentives program.

Southern Tier Region Live Performance Facilities

- ✓ Anderson Center for the Performing Arts on the Binghamton University campus
- ✓ Chenango River Theatre, Greene
- ✓ Clemens Center, Elmira
- ✓ Foothills Performing Arts Center, Oneonta
- ✓ Forum Theatre, Binghamton
- ✓ Goodwill Theatre, Johnson City
- ✓ Hangar Theatre, Ithaca
- ✓ State Theatre, Ithaca
- ✓ Tioga Downs Casino, Nichols

Northern Pennsylvania Tier

There also is regional demand for skilled trades in Scranton and Philadelphia. Examples include restoration of the Weinberg Theatre at the Scranton Cultural Center and several renovation projects in Philadelphia such as the historic Drake Building theatre and the Walnut Street Theatre to mention a few.

Carpenters: The demand for carpenters in the live theatre industry is high, with 250+ job openings nationwide at any given time. This is consistent with overall national employment trends for carpenters, which is projected to grow 4% from 2024 to 2034. Carpenters in live performance theatres are craftspeople serving as both artists and engineers, building the physical backbone of a production and bringing set designs to life through expert construction, precise assembly and the dismantling of sets. Their ability to interpret technical drawings and collaborate with designers ensures the seamless integration of all components on stage. They build, repair, and maintain sets and props for theater productions, and are responsible for ensuring structural integrity and safety on stage. Their roles include building and constructing sets including the overall physical structure for the stage such as platforms, stairs and other elements. Carpenters also work closely with set designers and directors to ensure the visual elements are safe, functional, and aligned with the director's vision. And, carpenters are responsible for the maintenance and repair of sets, ensuring they are maintained in good condition for performances. Their work demands strong technical skills, attention to detail, and the ability to work efficiently under tight production schedules. Understanding set construction involves knowledge of materials, tools, and structural techniques used to build stages, platforms, and scenic elements.

Construction and Property Managers: Construction and property managers in theatre restoration and productions oversee the construction team, manage budgets and schedules, and ensure safety protocol. The construction managers lead the physical set construction, which is crucial for the success of a production. The construction manager's role also includes dismantling the sets at the end of the project, ensuring that all materials are recycled or stored for future productions. They also work closely with set designers and construction teams to ensure the set is built to the required specifications and standards.

Electricians: The demand for electricians in live theatre productions is projected to grow significantly in the future. Job boards list various roles including stage lighting engineer, head electrician and lighting designer. These roles involve tasks such as load-in and setup of equipment, lighting adjustments, and operation of lighting control systems. In live theatre productions they load-in and set up equipment, hang and focus lighting instruments, operate lighting control systems, and wire lighting instruments. They are responsible for all non-design aspects of the lighting, including the installation, operation and maintenance of lighting equipment. They work closely with lighting designers, stage managers, and other technical crew members to implement intricate lighting designs that align with the director's vision.

Their role demands an understanding of both technical skills and artistic sense, ensuring the electrical elements of the production enhance the overall aesthetic experience. Electricians also are responsible for ensuring personal and fire safety on set, providing power supply without overloading circuits or risking power outages, and offering installation help. Certifications from organizations such as ETCP (Entertainment Technician Certification Program) for Rigging and Electrical are highly valued.

HVAC Technicians: HVAC technicians play an important role in the installation and maintenance of complex systems in live performance venues. Theaters present a set of distinct challenges driven by the need for optimal indoor air quality and temperature control. And a unique challenge is that this equipment must be silent while simultaneously meeting peak cooling demand. They must be skilled in advanced installation techniques, data analysis skills, and the ability to integrate HVAC systems seamlessly into the architectural aesthetics of theaters. Some of the issues include acoustic sensitivity, space constraints particularly in limited space in historic theatres, complex airflow requirements, and regulatory compliance.

Nationwide, there are currently more than forty-five open live theatre HVAC Technician positions. Approximately one-third of vacant positions are routinely located in New York State, with a concentration in New York City.

The demand for HVAC technicians in theatre renovation and productions is driven by the need for optimal indoor air quality, temperature control, energy efficiency and operational costs. Technicians must possess a comprehensive understanding of data analytics and utilize digital tools to optimize system performance. The technicians also must be skilled in advanced installation techniques, data analysis skills, and the ability to integrate HVAC systems seamlessly into the architectural aesthetics of theaters.

Training involves:

- ✓ Advanced installation techniques specific to complex environments like theaters.
- ✓ Using data analytics to pre-assess system efficiency and maintenance needs.
- ✓ Collaborating with design and engineering teams to integrate HVAC systems seamlessly into the architectural aesthetics of theaters.

Plumbers: Plumbers play a key role in live theatre. They are critical to maintaining the behind-the-scenes water systems, which might include hydraulic and pneumatic systems, as well as water filtration and treatment. Examples include water-based effects such as rain, waterfalls, fountains, water curtains, splashing effects, and aquariums. In addition, plumbers are important to the cooling systems in a theatre. Stage lighting and intense performances can create heated conditions on stage, making it crucial to incorporate cooling systems to prevent discomfort and overheating. Water-based cooling systems, such as air conditioning or misting systems, can be strategically placed backstage and on stage to regulate the temperature. To mitigate these risks, proper waterproofing techniques and materials are utilized in stage construction. In addition, plumbers are involved in installing sealants, barriers, and drainage systems to prevent water leaks and damage.



SKILLED TRADES DEMAND BY INDUSTRY SECTOR: SOUTHERN TIER 8 AND SURROUNDING REGIONS

Demand for the skilled trades in New York's Southern Tier Region is increasing, driven by housing construction, community development projects, and new manufacturing and business operations facilities. It is important to note that Southern Tier 8 currently is developing a regional workforce housing investment framework to make projects financially feasible.

According to the Southern Tier Region Economic Development Council, the region is gaining a reputation as an energy storage research and manufacturing hub and is a critical future supply chain location for semiconductor and technology industries expanding along the New York Thruway corridor. Cumulatively, the region's industries are expected to increase in employment between 2020 and 2030, adding over 19,000 jobs to region's economy. Likewise, the Mohawk Valley expects to see expansion of high-tech manufacturing, STEM-driven industries, and cultural tourism.

The New York State Department of Labor has named Six Significant Industries including specialty trade contractors. These include administrative and support services; **specialty trades contractors**; educational services; food services and drinking places; computer and electronic product manufacturing; and nursing and residential care facilities. Following are examples of sectors with an increased demand on the trades in both the Southern Tier 8 capture area, as well as in surrounding areas.

The Broome-Tioga Local Workforce Development Area identifies specific in-demand occupations critical to supporting infrastructure, industrial operations, and housing developments. These include heavy equipment operators, heavy equipment mechanics, industrial machinery technicians, and construction laborers.

Construction and Renovation of Culture and Performing Arts Facilities

Johnson City iDistrict and Renovation of Goodwill Theatre Schoor Family Firehouse Stage

The Goodwill Theatre Schoor Family Firehouse Stage renovation project is in the heart of the Triple Cities Innovation Corridor that includes the communities of Binghamton, Johnson City, and Endicott. The Goodwill Theatre (GWT) requires skilled trades to support the significant renovation and adaptive reuse of the historic 1899 Municipal Building Fire Station (Firehouse). GWT has stabilized 75% of the building and completed full environmental remediation over the past 15 years. The next Phase 2 represents the final step in the full utilization of the Firehouse and includes complete renovation of the 1st, 2nd and 3rd floors to adapt the structure into a double stage performance facility, increasing occupancy by 400% and drawing an additional 30,000 patrons annually. The 1920 Goodwill Theatre building and the 1899 Firehouse will be connected by a shared lobby. The rehabilitation of the Firehouse building, including foundation and basement repair, involves all mechanical, electrical and plumbing equipment; installation of an interior staircase, exterior masonry repointing, repair and reinforcement of the basement and foundation, installation of a French drain to send storm water to culverts; lowering of the basement floor to accommodate MEP mechanicals, laundry area, concession support and other storage; removal of staircases now located in the middle of the building; repair and strengthening of the 2nd & 3rd floors to comply with fire and safety codes; and more. This project involves the integration of the trades education, creative industries, immersive arts, professional film production, stage productions, live events, and hospitality. The joint initiative with Johnson College will require high-quality craftsmanship, preservation of historic features, and seamless collaboration across different trades. It would

be essential for the Johnson College students to apply their knowledge and skills in this renovation project while simultaneously gaining practical experience with modern construction technologies and techniques to meet both aesthetic and functional standards.

Renovation of the Hangar Theatre

The Hangar Theatre in Ithaca is undergoing significant renovations funded by the New York Senate's Community Resiliency, Economic Sustainability, and Technology Program (CREST). The project includes replacing the HVAC system, parking lot resurfacing, and a new tent for KIDDSTUFF.

Renovation of the Clinton Cider Mill

The Clinton Cider Mill theatre is being renovated for Year-Round Operation in its 100th Year.

Renovations at the Uptown Theatre

The Uptown Theatre in Utica (Mohawk Valley) is being renovated.

Potential Major Infrastructure Projects

The Constitution Pipeline Company, LLC proposes to construct the Constitution Pipeline project, which would involve the construction, installation, and operation of approximately 99 miles of new natural gas pipeline. The project would originate in northeastern Pennsylvania and extend through Broome, Chenango, Delaware, and Schoharie Counties in New York State, before reaching its interconnection point at the Wright Compressor Station in the Town of Wright, Schoharie County.

Community Development Projects

The Village of Clinton and the Town of Kirkland were named the Mohawk Valley's winner of the Downtown Revitalization Initiative in 2023 and many of the projects are underway including the Kirkland Art Center, the rehabilitation and adaptive reuse of historic buildings, and infill development for mixed-income housing.

Several more community development projects are underway in the target area that will create demand for the skilled trades. Examples include:

- \$1.41 million in NYS funds to support renovations at the community center in Johnson City
- \$1.32 million in NYS funds to support construction of a new community center in Ithaca
- \$5.1 million in NYS funds for two new community centers in the Mohawk Valley
- \$10 million in Downtown Revitalization Initiatives in the Village of Schoharie

Higher Education Campus Expansion Projects

Binghamton University in Broome County is constructing and renovating several buildings on its campus.

- ✓ New 50,000 sf lecture hall complex
- ✓ Classroom and lecture hall building scheduled for completion in June 2027
- ✓ Grace Residence Hall to house 362 students; scheduled for completion in 2027

Cornell University in Tompkins County is actively working on several construction projects.

- ✓ Meining Fieldhouse: New construction of 91,150 square feet
- ✓ Atkinson Hall: New construction of 104,000 square feet, supporting the growth of the Cornell Atkinson Center for Sustainability and other departments
- ✓ Dunfield Hall: New construction of a building, part of the Veterinary Medical Center

SUNY Oneonta is a host site for NYPA's long duration energy storage demonstration project with facilities expected to be operational by 2028.

Business and Industry New Investments and Expansion in Southern Tier 8 Region

Following are examples of the numerous investments across the entire Southern Tier 8 Region that are driving demand for skilled trades.

- Broome County: Major business investments call for the creation of nearly 400 construction jobs.
 - ✓ Development of the Broome Technology Park in Endicott to support advanced manufacturing.
 - ✓ BAE Systems - large expansion to its Endicott campus in the Broome Technology Park for research and design of energy storage systems for airborne applications.
 - ✓ The Raymond Corporation - \$28.1 million investment supporting advanced manufacturing and battery assembly operations.
 - ✓ Square Deal Partners – Riverside Gardens (Johnson City) - \$15.2 million mixed-use redevelopment creating 67 housing units and community amenities.
 - ✓ The Lane Group – NYPENN Trade Center (Johnson City) - \$20.2 million historic preservation and adaptive reuse project creating residential and commercial space.
 - ✓ Gateway Revitalization Apartments (Binghamton) - \$16.3 million affordable housing redevelopment serving workforce households.
 - ✓ SparkJC – Phases 2 and 3 of a large-scale renovation of the Oakdale Commons in Johnson City involves construct of new residential units, additional retail, and health care and childcare facilities.
 - ✓ Construction of \$70 million project on the site of the former Quality Inn Suites on the Vestal Parkway in Vestal to build 200 luxury apartments.



- ✓ New off-campus housing construction to support student growth at Binghamton University. An example is the 58 cottage style units in The Retreat at Bunn Hill complex in Vestal. The complex is currently under construction and expected to be ready for occupancy in Fall 2026.



➤ Tompkins County:

- ✓ In Ithaca, the former Collegetown Fire Station site is slated for a \$16.5M apartment development. The proposed building will include eight stories with 77 units and 112 bedrooms on floors two through eight. The proposed development will feature a mix of residential options, including four-bedroom and two-bedroom units, as well as studio and one-bedroom apartments.
- ✓ The 95-acre Southworks project blends adaptive reuse with new construction.



It involves repurposing a historic industrial manufacturing site into a destination neighborhood with 2M square feet of innovation, commercial, maker, residential, public, and outdoor spaces.

- Tioga County: Renovations are proposed for Lockheed Martin’s 70,000-square-foot building that will be used for manufacturing aerospace and defense products. This will require 74 direct and 15 indirect construction jobs.

- The Mohawk Valley: The region is on track to enter the global competition for advanced manufacturing, food processing, and semiconductor supply chain companies by accelerating the readiness of nearly 1,000 shovel-ready acres along the I-90 and I-88 corridors. And, the multi-year expansion of Turning Stone Resort Casino is projected to add 3,600 construction jobs.



Nearby Counties

There are several projects in the western portion of New York’s Southern Tier Region that also are drawing the skilled trades. For example, in Chemung County the rail technology company Siemens Mobility is investing \$60 million to build a first-of-its-kind high-speed rail manufacturing facility in Horseheads, creating 300 new jobs. In Steuben County, Alstom is building Plant 4, a new state-of-the-art manufacturing facility producing stainless car body shells for passenger rail vehicles. The facility will produce 200 multi-level commuter rail cars for Chicago’s Metra system and put Hornell at the center of the worldwide rail industry. And, Chobani is investing \$1 billion in a new yogurt plant and creating 1,000 jobs in Rome, NY, just 50 miles east of Syracuse. The project is in the former Air Force base and represents the nation’s largest investment ever in a natural food production facility.

New Micron Technology Project in Central New York



In Onondaga County, which includes the Greater Syracuse and Clay areas, is the new Micron development site where most New York State workforce and construction efforts are being directed to build a semiconductor fab plant.

The project involves an investment of \$100 billion over 20 years and is expected to result in creation of 50,000 jobs; 9,000 direct jobs and 40,000 in construction, community and support jobs.

These jobs include suppliers, contractors and skilled trades. For example, according to the local IBEW, Micron's construction will require about 3,000 electricians and at least 400 full-time employees once the fabs are up and running. Currently, the local IBEW has about 1,500 members.

The impact on trades is from the construction of both the site development and facility, as well as housing construction. Projections call for construction of more than 2,000 housing units annually, including multi-family and single-family houses. The workforce demand among the trades will be compounded by the skilled labor shortage in the home building sector both nationally and in Upstate New York. Several efforts are underway to begin addressing the demand for the skilled trades.

- Onondaga Community College is investing in its skilled trade courses like welding, HVAC, and electrical work. The school is currently constructing new classrooms and investing in new, state-of-the-art equipment and labs.
- New York State's Office of Strategic Workforce Development will be working to align workforce development efforts with the needs and priorities of employers. There are seven statewide priority industries for this initiative, including Construction.
- New York State is partnering with Micron and recently announced a \$43 million initiative that includes workforce training and development.
- Micron is making \$35.5 million in community investments to address housing, transportation, childcare, education and workforce development. This initiative made through the Green CHIPS Community Investment Fund (CIF), is a partnership between Empire State Development and Micron. The program includes components impacting the skilled trades including: \$30 million for the Housing Central New York (HCNY) fund to support housing expansion; \$2.2 million for a pilot program with the Central New York Regional Transportation Authority (Centro) to create a new public bus route from Syracuse to Clay; \$300,000 to OCM BOCES to scale its trades and pre-apprenticeship programs that will strengthen the talent pipeline into skilled trade apprenticeships.
- The local IBEW recently invested \$7 million in expansion of its training center.

Housing Renovation and New Construction

The Southern Tier 8 regional economy is anchored by a diverse blend of industries, including advanced manufacturing, agriculture and food processing, healthcare, education, utilities, and retail. These sectors are growing, creating opportunities for workforce development. Consequently, overall demand for renovation and new housing construction is increasing across the Southern Tier 8 region.

According to the New York State Association of Realtors, **the housing crisis is no longer just a quality-of-life issue. It is an economic competitiveness issue.** Communities are struggling to retain workers, attract new employers, and stabilize neighborhoods because the availability, affordability, and diversity in housing choice are not keeping pace with demand.

Despite generally affordable price points, the region's housing stock remains stagnant due to low rates of new construction, declining quality, and an inventory that is increasingly outdated, especially for households in middle income ranges. Limited availability of quality housing, compounded by the unfavorable construction environment, constrains the region's ability to capitalize on these economic opportunities as employers struggle to attract and retain workers. And potential new investments are hindered by the lack of suitable housing options for the workforce.

Several factors are impacting housing demand across the target region.

- Studies in Oneida County, Herkimer County, Central New York confirm the housing market is tight, with limited product and vacancy rates as low as 1%.
- Pro-Housing Communities in the Mohawk Valley has generated a great deal of support to help shorten the gap of available housing in areas that are expected to see steady employment growth through manufacturing across the I-90 corridor.
- According to the Tompkins County Department of Planning and Sustainability data, in 2025 there were 3,964 multi-family residential units in various stages of development.
- The 2024 Broome County Housing Demand Report states there are projected 10,000 new jobs over the next ten years. The demand for housing to support people relocating to the area is further impacted by the 15,423 workers projected to retire. According to the Broome County IDA, the Greater Binghamton area needs 6,000 new housing units in the next 10 years.

The Greater Binghamton Association of Realtors at the Chamber of Commerce Economic Forecast event held in March 2026 announced ... **“We need more housing — now”** and issued the following statement.

The Greater Binghamton housing market is increasingly tightening. According to [GBAR's](#) data, there was on average 1,600 homes for sale at any given point ten years ago. Today, less than 300 are on the market.

Across both Greater Binghamton and New York State, housing and job growth must move forward together, or we will continue to lose people, investment, and opportunity. If you travel along the I-90 Thruway, you see one thing clearly: new housing construction supporting economic growth.

*In energy policy, we've advocated for an “all-of-the-above” strategy, because no single source can meet growing power demand. Housing deserves that same mindset. For too long, we have debated housing needs in silos: renters versus homeowners, market-rate versus affordable, student housing versus workforce housing. **Just as an energy grid collapses when too much pressure is placed on one source, a community falters when it relies on only one type of housing to serve a wide spectrum of needs.***

The health of a housing market is one of the clearest benchmarks of the vibrancy of an economy. Housing has always been tied to job creation and growth. Business seeks talent. Talent seeks housing. Yet here in Broome County, a 2024

Housing Needs Assessment showed more than 70% of our housing stock is over 50 years old. Rental vacancies have dropped below what's needed for a healthy market, hovering between 3% and 5%.

One of Greater Binghamton's and the Southern Tier's greatest assets is our housing affordability – ranked by Newmark Global Strategies as the 5th most affordable in the United States. While housing affordability is a competitive advantage, it is not guaranteed. Home values have increased more than 40% since 2019, but that is a sign that new construction has failed to keep pace with demand.

We must embrace an “all-in” housing strategy. A first step is encouraging local municipalities to secure NY’s “Pro-Housing” designation to access state resources. There must be support for organizations like the Broome County Land Bank as it seeks to spur reinvestment and rehabilitation of existing buildings for workforce and affordable housing.

We also must expand the “missing middle” and newly built high-value duplexes, townhomes, condominiums, and small-lot single-family homes that developers can deliver more efficiently. And there must be a serious plan to grow transitional and supportive housing as a first step toward breaking the cycle of homelessness and poverty.

We must also demand more from absent “institutional” developers that purchase large swaths of properties in our urban core with no plan to maintain them. Purchasing a building should eliminate blight, not perpetuate it. Zoning reform would allow for a flexible and broader mix of housing types. Swifter, stricter code enforcement for negligent owners is a must.

And we cannot be shy about using tools like PILOT programs strategically — not as giveaways, but as partnerships that require measurable public benefit in return, including timely completion of construction and commitments to community reinvestment.

Greater Binghamton is on the precipice of great economic momentum through continued investment by our “eds and meds”: Binghamton University, UHS, and Guthrie. We’re also seeing significant expansion of our manufacturing sector, including the growth of BAE Systems, Toyota Raymond, and CMP-AMS in the City of Binghamton. And we remain laser focused on building out new development sites to support growth, including the redevelopment of the Huron Campus and the planning for development of the Broome Technology Park.

A catalyst for this momentum is embracing “and,” not “or,” when it comes to housing. We leave too much on the table without alignment across government, nonprofit partners, the private sector, and communities on an all-in strategy.

New York State Investment in Housing

- \$100 million in Pro-Housing Supply Fund awards are being made in 2026 to jump-start housing growth state-wide. Funds are intended to help finance essential infrastructure projects, such as sewer and water system upgrades needed to facilitate new housing development in certified Pro-Housing Communities.
- The New York Housing Compact is building 800,000 new housing units by 2033 with an investment of \$25 billion together with policies that include growth targets and a comprehensive approach to improving housing availability and affordability. The Compact has a goal of 3% for “new homes” in downstate municipalities and 1% for upstate communities in three-year cycles. If municipalities do not meet these growth targets, a “fast track” approval process is available to private developers as a “builder’s remedy” in order to obtain approval for development projects.
- New York State Energy Research and Development Authority (NYSERDA) is rolling out “AMP Up”— a new \$125 million program focused on upgrading affordable multi-family housing across the Upstate region.
- The New York Housing Accelerator \$15 million initiative is aimed at speeding up the development of shovel-ready, mixed-income multi-family residential projects. The program is anchored by a \$100 million state investment and matched by \$115 million in capital from participating lenders.

SKILLED TRADES WORKFORCE PROFILE: NEW YORK SOUTHERN TIER 8 REGION AND PENNSYLVANIA NORTHERN TIER

New York State Mohawk Valley Region Tier Skilled Trades Demand

The Mohawk Valley region includes Fulton, Herkimer, Montgomery, Oneida, Otsego, and Schoharie counties. Of these counties, the following two are in the Southern Tier 8 region: Otsego and Schoharie.

The skilled trades occupations comprise much of the employment within the construction sector in the Mohawk Valley. Employment grew at a rate of 3.3% (100 jobs) from 2018 to 2023 despite the slowdown due to COVID. In 2023, average annual wages in the industry (\$64,800) exceeded the regional all-industry average by 14.9%. In the specialty trade contractor’s industry, the five most common occupations are electricians; plumbers, pipefitters, and steamfitters; construction laborers; carpenters; and heating, air conditioning, and refrigeration mechanics, and installers. Over the next decade, the impending retirement of many baby boomers will result in many job opportunities in this industry, especially among the skilled trades. Employment is projected to grow by 19.7% between 2020 and 2030. The multi-year expansion of the Turning Stone Resort Casino is projected to add 3,600 construction jobs to the region.

With a total of 3,000 workers, the skilled trades occupations comprise much of the employment within the specialty trade contractor’s industry. With an average annual wage of \$64,800, the five most common occupations are electricians; plumbers, pipefitters, and steamfitters; construction laborers; carpenters; and HVAC mechanics and installers. Employment is projected to grow by 19.7% between 2020 and 2030.

Table 3. Mohawk Valley Region Skilled Trades Demand and Wage Projections (2024 Report)

Rank	Occupational Title	% Share of Industry Workforce	Median Wage	Projected Employment Change (2020-2030)	Training
1	Construction Laborers	10.2%	\$45,534	20.8%	On-the-job training
2	Electricians	6.4%	\$62,407	22.9%	Apprenticeship
3	Carpenters	5.7%	\$61,700	15.8%	Apprenticeship
4	HVAC Technician	5.5%	\$57,938	17.6%	On-the-job training
5	Plumbers, Pipefitters and Steamfitters	4.8%	NA	17.1%	Apprenticeship
6	General and Operations Mgrs	3.9%	\$107,507	26.7%	None
7	First-line Supervisors of Construction Trades	4.2%	\$74,596	18.3%	None
8	Operating Engineers and Construction Equip. Operators	3.9%	\$61,638	19.1%	On-the-job training
9	Cement Masons	3.5%	\$57,946	NA	NA
10	Brick masons	3.4%	NA	NA	Apprenticeship

Source: New York State Department of Labor. Mohawk Valley Labor and Significant Industries 2024 Report

New York State Southern Tier Region Skilled Trades Demand

The Southern Tier region includes Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga and Tompkins counties. Five are in the Southern Tier 8 region: Broome, Chenango, Delaware, Tioga and Tompkins.

The Southern Tier Department of Labor Office names the specialty trades as #1 in growth and demand. This sector employed 5,000 people in 2023, an increase of 200 (4.2%) jobs from 2018. The industry pays \$66,800 on average, which is above the all-industry average of \$62,700.

The shortage in construction and related industries is one of the region’s most pressing economic development challenges. This mirrors national and regional trends that have converged, including an aging skilled labor force, retirement of seasoned workers, a generational decline in trades training, and declining birth rates. Shortages are compounded for industrial and commercial projects. Additional contributing factors include business development, investments in the performing arts facilities, new higher education and research facilities, and housing renovation and production.

Table 4. NY Southern Tier Region Skilled Trades Demand and Wage Projections (2024 Report)

Rank	Occupational Title	% Share of Industry Workforce	Median Wage	Projected Employment Change (2020-2030)	Training
1	Electricians	10.89%	\$67,276	21.7%	Apprenticeship
2	Plumbers, Pipefitters, Steamfitters	8.3%	\$66,216	17.6%	Apprenticeship
3	Construction Laborers	6.8%	\$45,750	17.2%	On-the-job
4	HVAC Technician	6.1%	\$61,194	17.22%	On-the-job
5	First-line Supervisors of Construction Trades	5.7%	\$61,194	15.3%	None
6	Roofers	4.8%	\$51,388	15.0%	On-the-job
7	General and Operations Mgrs	4.0%	\$98,959	28.5%	None
8	Operating Engineers and Construction Equip. Operators	3.5%	\$62,074	17.9%	On-the-job
9	Carpenters	3.5%	\$61,714	8.6%	Apprenticeship
10	Painters, Construction and Maintenance	2.9%	\$49,246	12.2%	On-the-job

Source: New York State Department of Labor. Southern Tier Labor and Significant Industries 2024 Report

Note: An industry was designated as “significant” with reference to one or more of the following characteristics:

- The industry experienced above-average job growth (in either net or percentage terms); or
- The industry employed at least 4,000 people; or
- The industry’s projected employment growth for 2020-2030 was above average in the region (22.6%); or
- The industry paid above-average annual wages (\$62,700).

Demand was further identified in the 2025 Broome-Tioga Workforce NY (BTWF) Local Plan 2025-2029. Based on occupational projections together with information from regional employers. It concluded there are six priority sectors in demand including **Construction and Skilled Trades**. This is attributed primarily to the drop in population and employee pool. Over the last decade the Binghamton MSA saw a drop in employment from 107,770 in 2015 to 101,376 in 2025.

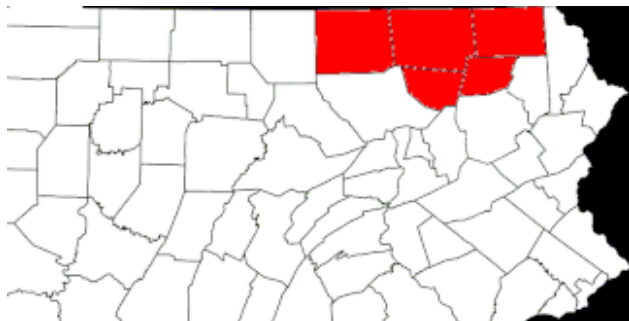
TRAINING AND APPRENTICESHIP PROGRAMS IN THE SOUTHERN TIER 8 REGION

- **Broome-Tioga BOCES Educational Programs:** Offers “Construction and Technology Day” and three programs related to skilled trades.
 - **Building Trades 101:** Students learn foundational construction skills needed for entry-level work in the construction field including carpentry, basic electrical work, and safe use of tools.
 - **Residential Electricity:** Introduces students to basic electrical concepts, wiring, and residential installation techniques and prepared students for entry-level work or apprenticeships.
 - **Welding II for Construction (2027):** Course focuses on advanced welding methods, real-world construction applications, blueprint reading, safety and precision.

For local high school students in grades 10-12, all career and technical courses have articulation agreements or opportunities for concurrent credits with post-secondary institutions and/or unions.

- **Broome-Tioga Workforce NY, in partnership with the County Executive’s Office and New York Wired for Education, runs the SkillUp! program.** Free online and classroom training in skilled trades, healthcare, customer service, and clerical work.
- **Greater Southern Tier (GST) BOCES Building Construction Program:** Students acquire skills in the safe operation of power and hand woodworking tools and machines, building site layout, framing techniques, foundations and forms, stair construction, window and door installation, thermal and moisture protection, siding, roofing, interior finishing, basic wiring, plumbing, brick and block laying.
 - **CareerBound:** A comprehensive career development and workforce training program for adults ages 18–24, offering industry-recognized certifications, education support, and paid work experiences.
 - **SUNY College of Technology at Delhi:** Carpentry Certificate and Associates Degree.
 - **Mohawk Valley Community College:** Welding Technology, HVAC Certification Program, Electrical Service Technician, Air Conditioning Technology, Refrigeration Airframe and PP Tech – Certificate, Carpentry and Masonry – Certificate.
 - **Tompkins Build - Pathways to Apprenticeship Program:** Partnership with Tompkins County and the Tompkins-Cortland Building Trades Council. The program includes a comprehensive blend of hands-on experience, classroom learning following the Multi-Craft Core Curriculum (MC3), and field trips to local union training centers. It is focused on the construction industry.
- **Training and Apprenticeship Programs for Skilled Trades**
 - **Plumbers and Pipefitters Apprenticeship Training Program:** A joint project of the Broome County Association of Plumbing, Heating and Cooling Contractors; the Mohawk Valley Mechanical Contractors Association and Plumbers; and Pipefitters Local Union 112 (Binghamton). Offers a five-year apprenticeship program with a minimum of 8,000 hours of on-the-job training.
 - **United Association Local 112 Journeymen Training** On-the-job and classroom training in Pipe Welding Certifications, Electronic Controls (DDC), Refrigeration and Air Conditioning, and Construction Supervision. (Binghamton)
 - **Joint Apprenticeship and Training Program (JATC)** for Electricians Local Union #325 (Binghamton).
 - **Local Union #785 for Skilled Construction Craft Laborer Apprentices** (Ithaca). Jurisdiction includes Broome, Chemung, Cortland, Delaware, Schuyler, Steuben, Tioga, and Tompkins counties. Chenango County (except Sherburne, Columbus, and New Berlin townships).

DEMAND FOR THE SKILLED TRADES IN PENNSYLVANIA’S NORTHERN TIER



Pennsylvania’s Northern Tier includes Bradford, Sullivan, Susquehanna, Tioga and Wyoming counties with a cumulative population of 180,000.

Residents are dispersed across small communities surrounded by agricultural land and forests. The region consists of 166 municipalities and 18 public school districts.

The population change from 2020 to 2050 for the region is projected to decline by approximately 8.2% while Pennsylvania's overall population is anticipated to grow modestly, with a projected increase of 1.6% over the same period.

According to American Community Survey (ACS) 5-Year Estimates, the median age for the region is 46. Comparatively, the current median age for Pennsylvania is 40.8. Sullivan County has the highest median age in the region at 54.5, while Bradford County has the youngest median age of 44.5.

Data from the US Census Bureau, shows the population 65+ in the Northern Tier is 38% larger than the same age group for the United States, additionally the Northern Tier is 20% below the nation for the age 20-24 population. These statistics support the growing workforce challenges that arise as large numbers of seasoned workers retire leaving a shortage of skilled workers.

While income levels have increased, the Northern Tier workforce still faces significant wage disparities. The region's average annual wages are \$14,000 below the state average for Pennsylvania and nearly \$17,000 lower than the national average, reflecting a continued gap in earning potential for workers in the area.

Skilled Trades Demand Projections for Pennsylvania Northern Tier: 2026-2028

According to the Workforce Innovation and Opportunity Act (WIOA) Local Plan (2025-2028) for Pennsylvania’s Northern Tier, the Long-Term Occupational Projections for 2032 indicate the greatest employment growth are in Healthcare with an increase of 410 jobs (6.6%). This is followed by Farming, Fishing, and Forestry, which is projected to grow by 200 jobs (10.3%). In contrast, declines are expected in both the Production (-2.4%) and Construction (-1.8%) occupations.

Table 5. Pennsylvania Northern Tier Skilled Trades Wage and Demand

Occupational Title	Median Wage	Demand
Carpenters	\$52,410	27
Electricians	\$71,830	11
Plumbers, Pipefitters & Steamfitters	\$61,430	11
HVAC	\$60,140	17
Construction Management	\$107,140	3

Source: Pennsylvania Department of Labor and Industry. Center for Workforce Information and Analysis

Table 6. Long-term Occupational Projections in the Construction Sector and the Installation, Maintenance and Repair Sector for the Pennsylvania Northern Tier (2022-2032)

Occupation	Employment (2022)	Projected Employment (2032)	Employment Change (2022-2032)		Annual Demand
			Volume	Percentage	
Construction	3,790	3,720	-70	-1/8%	328
Installation, Maintenance & Repair	3,470	3,440	-30	-0.9%	290

Source: WIO Local Plan (2025-2028)

Note: According to the 2024 High Priority Occupations list, the highest projected annual demand is Heavy & Tractor-Trailer Truck Drivers, with 206 positions. The second highest demand is for Farmworkers & Laborers in Crop, Nursery, and Greenhouse.

Target Skills: 2024 High Priority Occupations for Pennsylvania Northern Tier Area

The highest priority occupations are in Healthcare with an increase of 410 jobs (6.6%). This is followed by Farming, Fishing, and Forestry, which is projected to grow by 200 jobs (10.3%). In contrast, declines are expected in Production (-2.4%) and Construction (-1.8%) occupations.

Looking ahead to 2032, workforce demand is expected to shift, with employment growth for individuals with advanced degrees projected to increase by 6.9%. In contrast, occupations requiring long-term training are expected to see a slight decline of -1.2%. By 2032 the workforce demand will be shifting, with employment growth for individuals with advanced degrees projected to increase by 6.9%. In contrast, occupations requiring long-term training are expected to see a slight decline of -1.2%.

Table 7. 2024 High Priority Occupations in Pennsylvania Northern Tier Area

Job Title	Wages (2023)			2020 Employment	2030 Projected Employment	Percent Change	Annual Demand
	Entry Level	Annual Average	Experienced				
General & Operations Mgr	\$48,260	\$99,680	\$135,390	760	800	5.3%	68
Carpenters	\$35,980	\$51,500	\$59,260	280	290	3.6%%	28
Electricians	\$44,830	\$65,790	\$76,270	90	90	0.0%	10
Plumbers, Pipefitters, Steamfitters	N/A	N/A	N/A	90	90	0.0%	8
HVAC Technicians	\$36,930	\$53,310	\$61,500	160	170	6.3%	16

Source: WIOA Multi-Year Local Area Plan for Pennsylvania’s Northern Tier 2025-2028

Table 8. Concentration of Employment and Wages in the Trades in Pennsylvania

Occupational Title	Concentration of Employment	Median Wage
Electricians	10.8%	\$65,400
Plumbers, Pipefitters & Steamfitters	8.3%	\$66,650
Construction Laborers	6.8%	\$48,480
HVAC Technician	6.1%	\$61,120
General and Operations Managers	4.0%	\$103,990
Carpenters	3.5%	\$59,240

Source: Pennsylvania Center for Workforce Information and Analysis (CWIA)



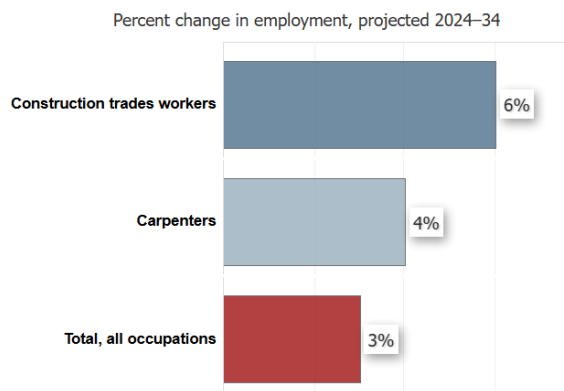
NATIONAL PROFILE OF THE TRADES

Carpenters

Skilled carpenters are critical for the construction, reconstruction, restoration, and rehabilitation of structures. There is a critical need for carpenters in residential construction, nonresidential building construction, building exteriors, other wood product manufacturing, restoration of historic buildings, as well as live theatre productions.

Employment of carpenters nationwide is expected to grow by 4% from 2024 to 2034; an increase of 43,100 jobs.

In 2025, there were 959,000 carpenter jobs nationwide. There are an estimated 74,100 job openings each year from 2024 through to 2034. (Source: US Bureau of Labor Statistics, August 2025). Many of these openings will result from the need to replace workers who retire or transfer to different occupations. (Source: IBIS Carpenters in the US Industry Report 2025).



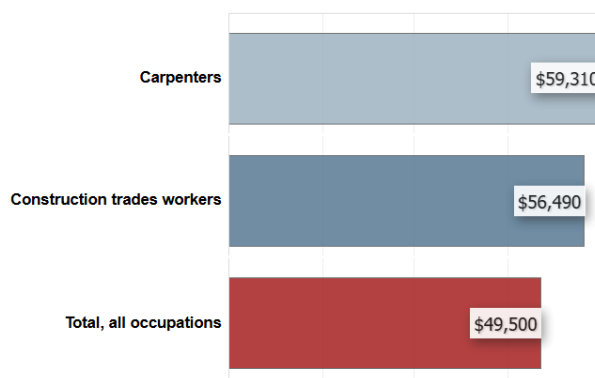
Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Employment Projections program

Throughout the country, there are currently more than 230 job openings for live theatre carpenters. The IBIS Carpenters in the US - Market Research Report (2015-2030) states that despite volatility in the new construction housing market, carpenters find stability in repair and maintenance during construction downturns. Carpenters turn to essential upgrades, as well as restoration and preservation projects to ensure continued demand when the market fluctuates.

Carpenters trained at schools such as Johnson College are in demand by construction firms and specialty renovation projects. Carpenters can seamlessly blend traditional techniques with modern construction methodologies and yet can apply it to unique projects such as historic restoration. For example, the most valued skills in commercial carpentry include interior systems expertise, understanding of sustainable building practices, and the ability to work with prefabricated components. And renovation and new construction projects in performing arts facilities require carpenters who have specialized knowledge and training.

Percentile Wage Estimates for Carpenters (May 2024)

The median annual wage for carpenters was \$59,310 or \$28.51 per hour. This is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$38,760, and the highest 10 percent earned more than \$98,370.



Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics

Table 9. Broad Industry Sectors with the Highest Concentration of Employment Among Carpenters (2024)

Industry	Employment	% of Industry Employment	Annual Mean Wage
Residential Building Construction	218,950	23.63	\$58,330
Nonresidential Building Construction	118,290	13.78	\$68,140
Foundation, Structure, and Building Exterior Contractors	94,360	9.64	\$59,640
Other Wood Product Manufacturing	9,600	3.88	\$43,880

Percentile	10%	25%	50% (Median)	75%	90%
Hourly Wage	\$ 18.00	\$ 22.18	\$ 27.09	\$ 34.75	\$ 45.47
Annual Wage	\$ 37,440	\$ 46,130	\$ 56,350	\$ 72,290	\$ 94,580

Table 10. Employment Clusters with the Highest Concentration of Employment Among Carpenters (2024)

Industry	Annual Mean Wage
Electric Power Generation, Transmission and Distribution	\$113,810
Specialty Hospitals	\$93,060
Special Food Services	\$88,550
Performing Arts, Sports and Similar Events	\$87,790



Figure 3. Employment of Carpenters by State (2024)

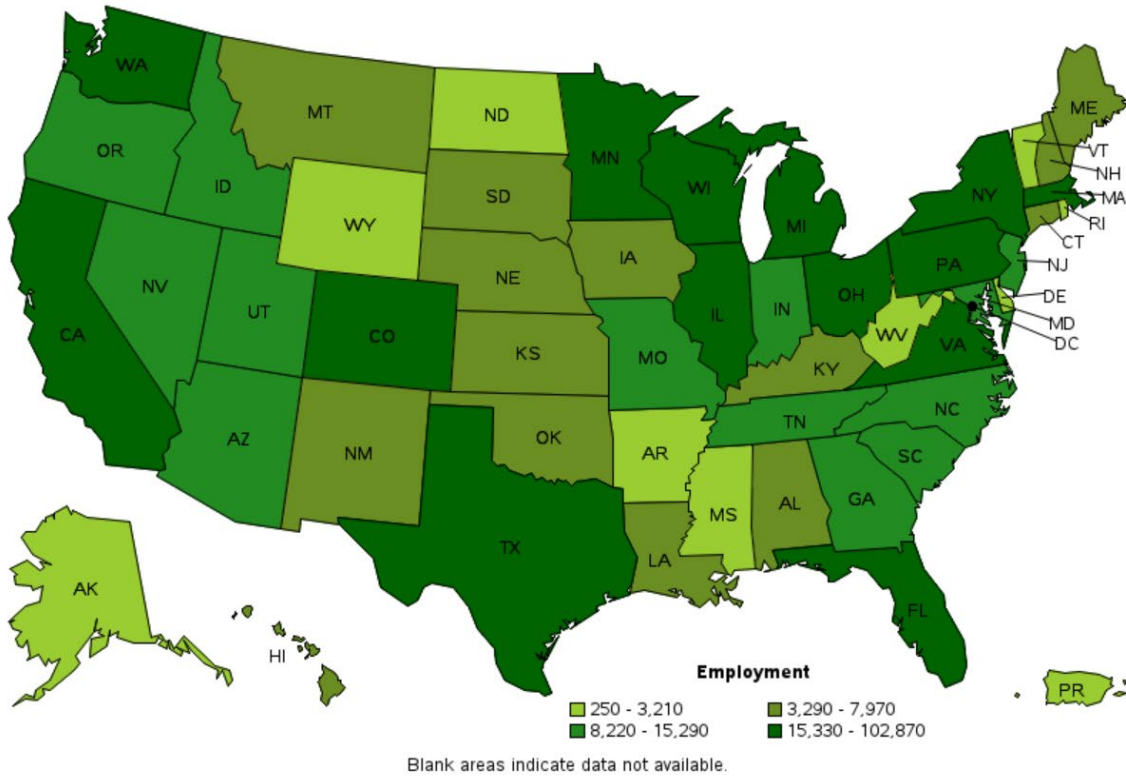


Figure 4. Annual Mean Wage of Carpenters (2024)

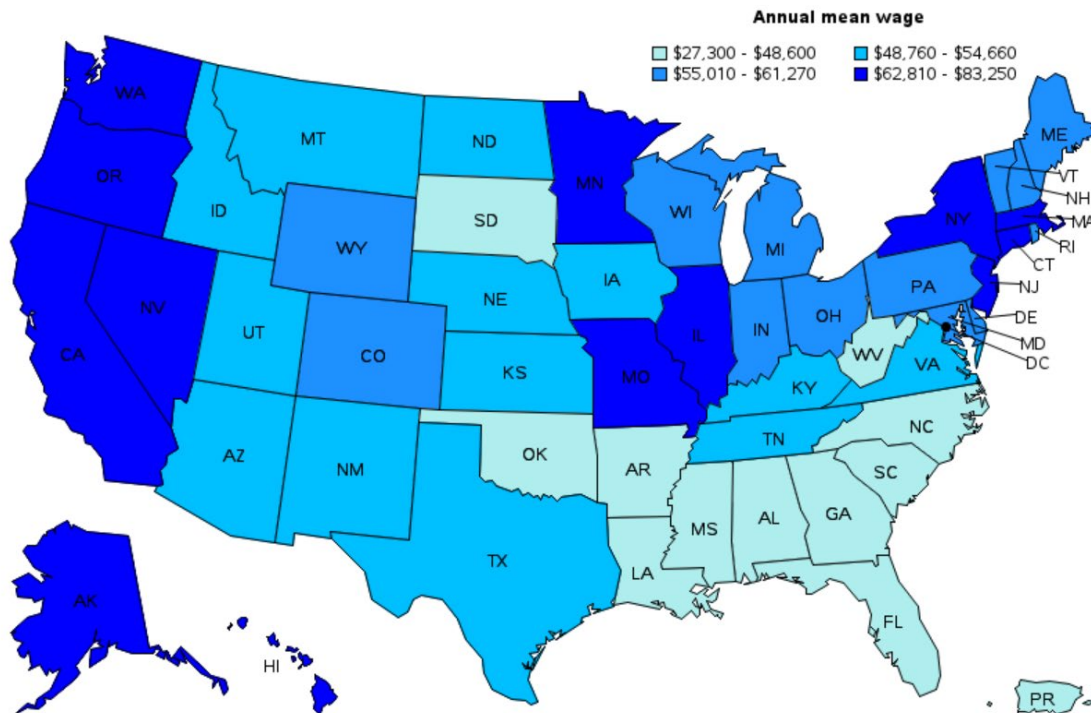


Table 11. New York State

Employment	Avg Annual Salary	Avg Mean Wage	Monthly Pay	Weekly Pay	Hourly Wage
47,740	\$63,989	\$68,450	\$5,332	\$1,230	\$30.76

Table 12. Employment and Wages in New York Southern Tier Region

Employment	Average Annual Salary	Average Mean Wage
1,450	\$58,100	\$61,633

Pennsylvania Northern Tier

Demand for carpenters is expected to grow, with a projected job growth rate of 4.5% between 2024 and 2034. This growth rate is higher than the national average.

Table 13. Employment and Wages in Pennsylvania’s Northern Tier

Employment	Average Annual Salary	Average Mean Wage	Monthly Pay	Weekly Pay	Hourly Wage
47,740	\$54,207	\$59,860	\$4,517	\$1,042	\$26.06

Table 14. Top Trades Jobs in Demand in Pennsylvania Northern Tier: 2018-2028

Source: Pennsylvania Department of Labor and Industry

Note: See Appendix A for the comprehensive list of top jobs in demand.

SOC Title	Entry Level Wages	Annual Average Wages	Experienced Level Wages	Estimated 2018 Employment	Projected 2028 Employment	Percent Change	Annual Demand
Carpenters	\$30,780	\$42,680	\$48,630	300	320	6.7%	33

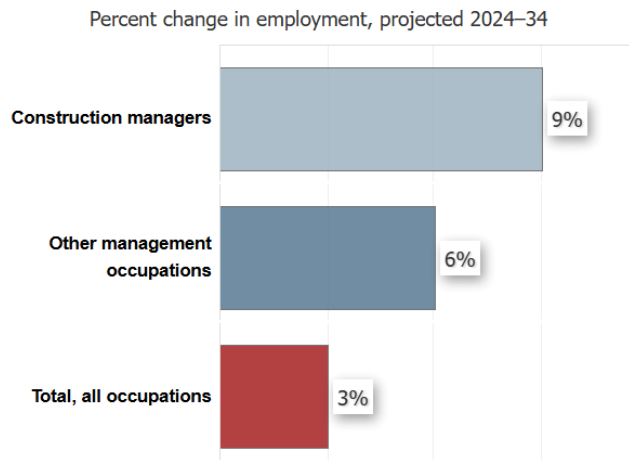


Construction and Property Managers

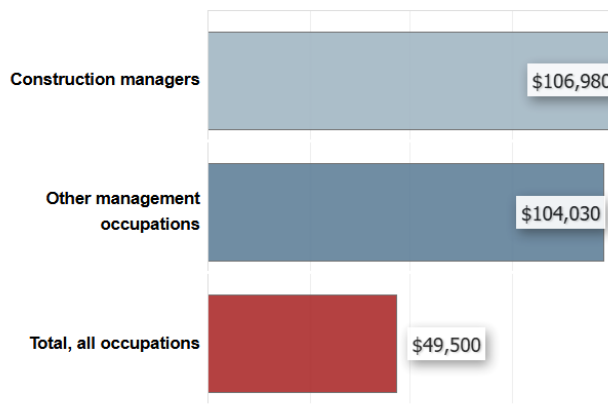
Construction managers plan, coordinate, budget, and supervise construction projects from start to finish. Construction management is ranked among the Top 10 Construction Roles in Highest Demand for 2026, with 550,300 jobs. There is expected demand for an additional 48,100 jobs between 2024-2034. This represents a 9% job growth outlook. It is important to note that in addition to new construction, there will be continuing emphasis on retrofitting buildings to make them more energy efficient, creating jobs for general contractors, who are more likely to manage the renovation and upgrading of buildings.

The demand for construction managers is projected to grow significantly in the coming years, driven by various factors such as population growth, urban expansion, and government investment in infrastructure.

The US Bureau of Labor Statistics projects a 9% growth rate in construction manager jobs from 2024-2034, with about 46,800 openings each year on average. This growth is expected to be much faster than the average for all occupations, reflecting the increasing demand for skilled managers to oversee complex projects and ensure regulatory compliance.



Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Employment Projections program



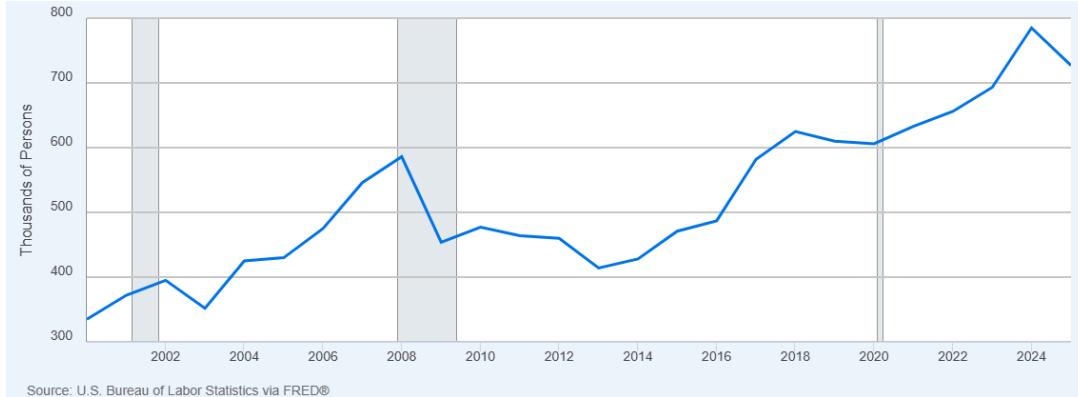
Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics

The median annual wage for construction managers was \$106,980 in May 2024. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$65,160, and the highest 10 percent earned more than \$176,990.

In May 2024, the median annual wages for construction managers in the top industries in which they worked were as follows:

Heavy and civil engineering construction	\$121,060
Nonresidential building construction	\$120,010
Specialty trade contractors	\$102,140
Residential building construction	\$ 91,150

Figure 5. Demand for Construction and Property Managers



New York State

There are 11,380 construction management positions in New York State. The entry level salary is \$68,540. The average annual wage is \$119,990.

Table 15. New York Southern Tier Wages and Demand for Construction Managers

	Employment 2022	Employment 2032	Net Change	Percentage Change	Mean Wage	Average Wage
Construction Manager	480	530	50	10.4%	\$114,362	\$110,079

Pennsylvania

There are 9,749 construction management positions in Pennsylvania. The entry level salary is \$53,480. The average annual wage is \$98,200.

Table 16. Pennsylvania Northern Tier Wages and Demand for Construction Managers

	Average Wage	Demand
Construction Manager	\$107,140	3



Electricians

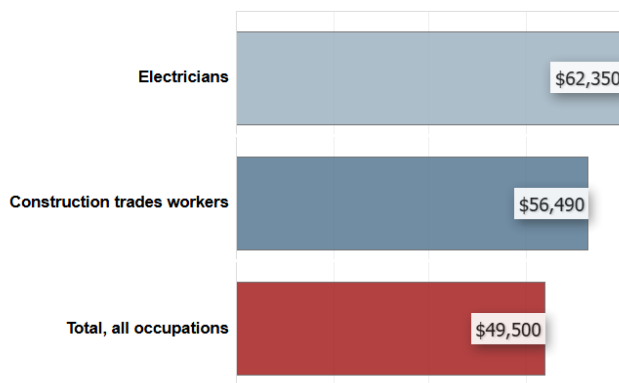
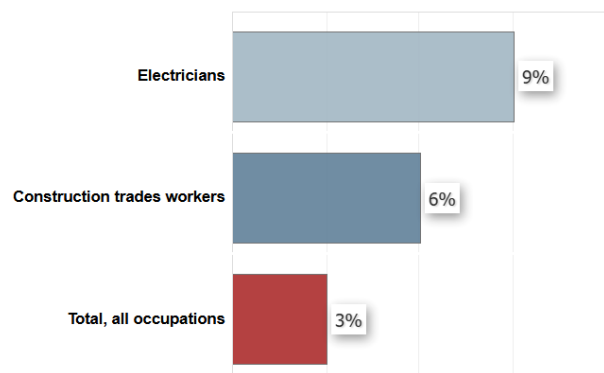
There is demand for highly trained and qualified electricians in both theatre building restoration and live productions. Electricians must have knowledge and abilities in safety and emergency systems, program lighting boards, hanging cable and troubleshooting stage lights, and also understand the principles of sound, transmission and amplification, stage lighting and stage machinery. The typical roles of an electrician in live theatre productions include:

- Oversee and operate the theatre building, life safety and emergency electrical systems.
- Collaborate with lighting designers and other technical crew members to implement intricate lighting designs that align with the director's vision.
- Design and install electrical systems that power lighting, sound, and other technical aspects.
- Oversee installation, start-up, maintenance, and repair of electrical equipment associated with emergency power systems including generators, paralleling switchgear breakers and controls, UPS systems/batteries, static switches and automatic transfer switches.
- Operate lighting consoles to execute cues and troubleshoot issues during performances.
- Operate, test, troubleshoot, repair, and bypass building fire alarm and suppression systems, as required for inspection and/or to support ongoing construction efforts.
- Perform daily area checks, identifying and/or making repairs to lighting and electrical distribution components; identifies other trade deficiencies to Work Order Control.
- Program and operate the light board for rehearsals and performances.
- Perform the safe and efficient dismantling, sorting, and storage of lighting at end of a production.

Nationwide, there are 818,700 jobs held by electricians and a projected 9% increase over the next decade, about double the national average for employment growth. Entry-level electrician jobs grew by 8.3% in 2023, with 15,200 apprenticeships registered nationwide.

About 81,000 openings for electricians are projected each year. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or retire.

Percent change in employment, projected 2024–34



The national annual wage for electricians was \$62,350 in May 2024. The lowest 10% earned less than \$39,430, and the highest 10% earned more than \$106,030.

Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics

Figure 6. Demand for Electricians



Figure 7. Employment of Electricians in New York State

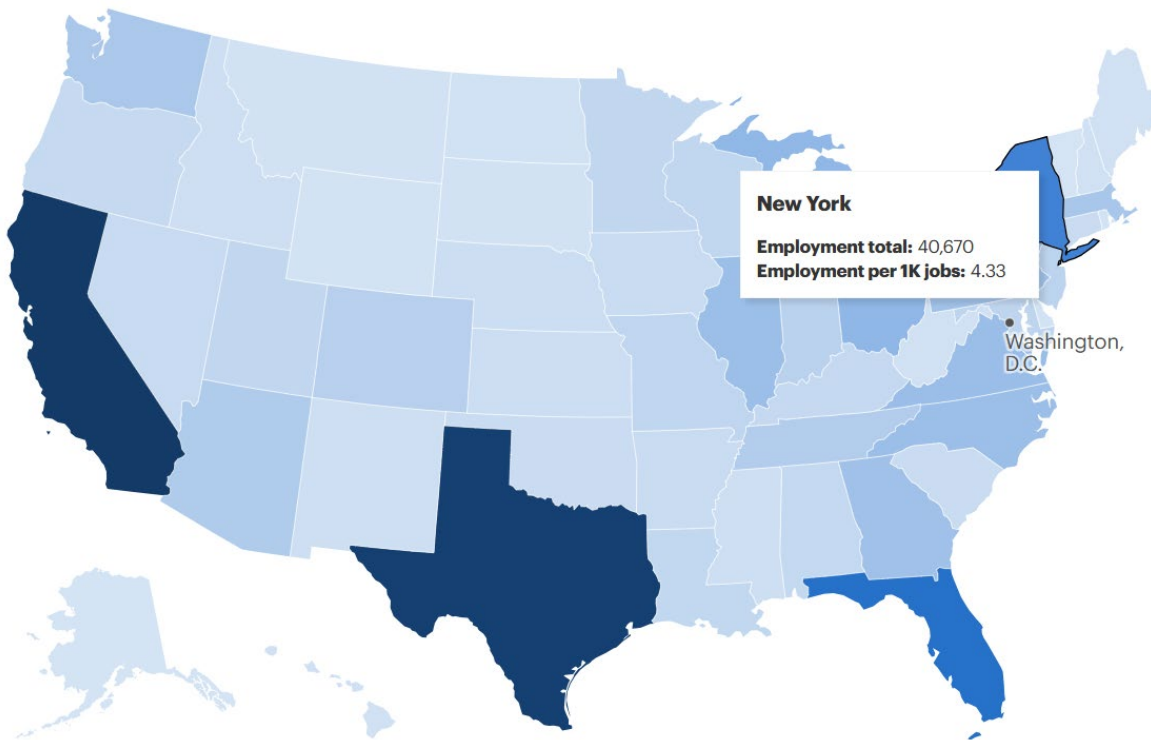


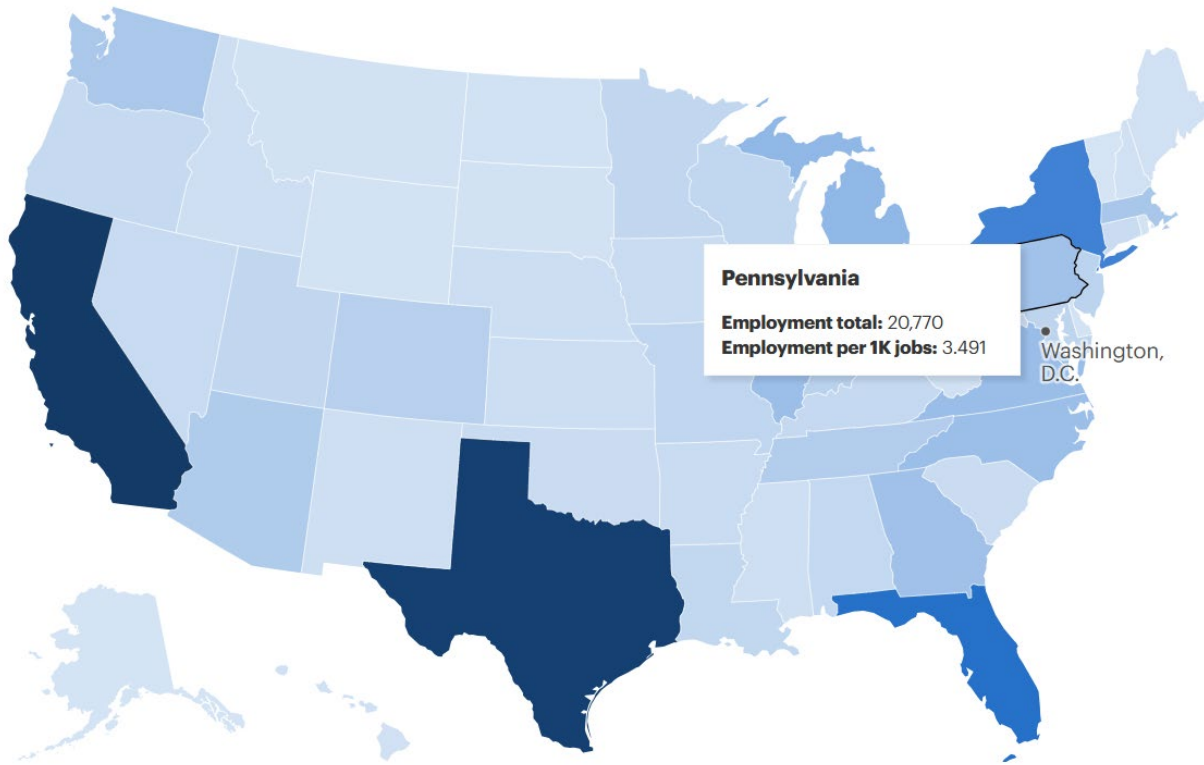
Table 17. New York State Demand for Electricians

Employment 2025	Increase	Wage	Projected Increase
40,670	4.2%	\$83,550	2.1%

Table 18. New York Southern Tier Demand for Electricians

Employment 2025	Employment 2032	Increase	Mean Wage	Median Wage	Experienced Wage
1,020	1,090	6.9%	\$73,620	\$74,078	\$86,641

Figure 8. Employment of Electricians in Pennsylvania



Pennsylvania had 20,770 electricians in 2023 and today has 24,800 electricians. The median annual wage is \$62,350. Employment growth is projected to be 9% from 2024-2034, resulting in 81,000 openings each year over the decade and 5,540 new job openings during this time period.

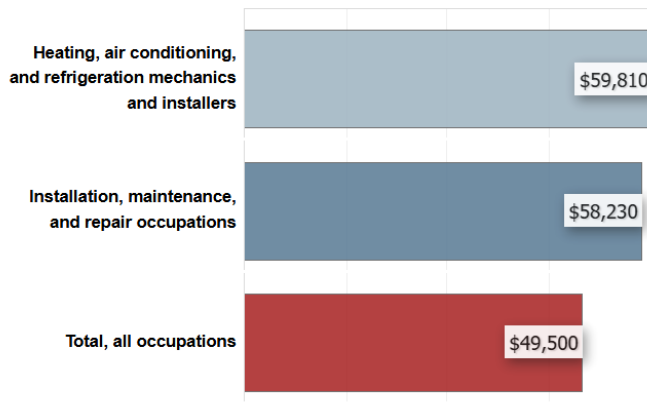
Table 19. Pennsylvania Northern Tier Electrician Wages (no additional data is available)

Average Wage
\$71,830



HVAC Technicians (Heating, Air Conditioning, Refrigeration Mechanics and Installers)

According to the US Bureau of Labor Statistics, there are an estimated 425,200 HVAC workers nationwide. The job outlook for 2024-2034 calls for an increased demand of 8%, and an additional 34,500 workers. On average, about 40,100 openings for heating, air conditioning, and refrigeration mechanics and installers are projected each year, over the decade.



The median annual pay (May 2025) is \$59,810 for workers who do not have any post-secondary training.

Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics

The median annual wages for heating, air conditioning, and refrigeration mechanics and installers **in the top industries** in which they worked were as follows:

Wholesale trade	\$65,760
Educational services; state, local, and private	\$60,960
Retail trade	\$60,730
Plumbing, heating, and air-conditioning contractors	\$58,750

Employment of heating, air conditioning, and refrigeration mechanics and installers is currently 425,200.

It is projected to grow 8% from 2024 to 2034, much faster than the average for all occupations.

Projected employment is 459,700 by 2034; an increase of 34,500.

About 40,100 openings for heating, air conditioning, and refrigeration mechanics and installers are projected each year, on average, over the decade.

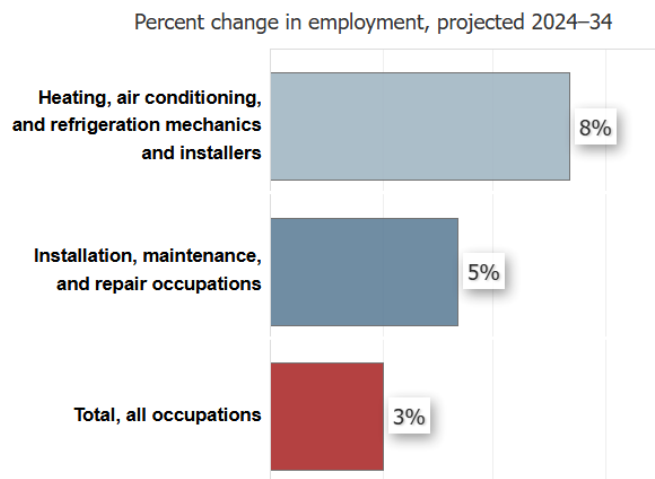
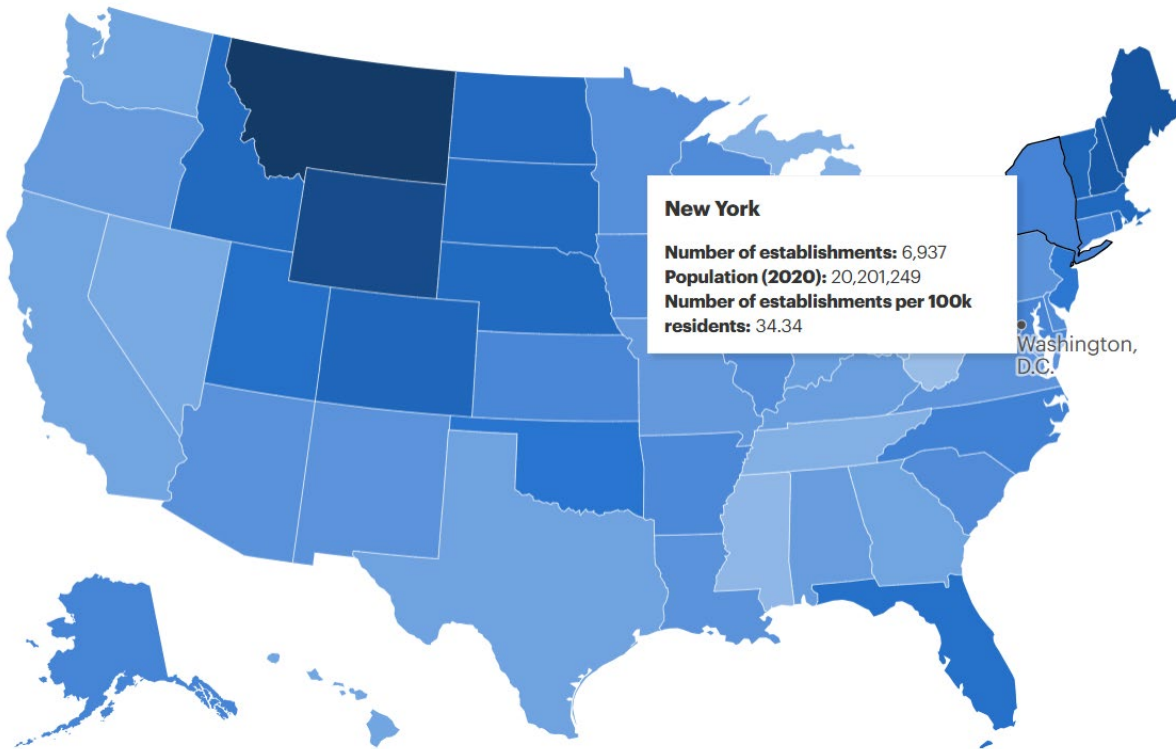


Figure 9. Employment of HVAC Technicians in New York State



New York State

The demand for HVAC technicians across NY State is projected to grow at a 6% rate over the next 10 years, and an expected need for 2,110 new HVAC technician positions each year.

Table 20. New York Southern Tier Demand for HVAC Technicians

Entry Level Wages	Annual Average Wages	Experienced Level Wages	Estimated 2025 Employment	Projected 2028 Employment
\$45,469	\$62,377	\$74,097	580	620



Figure 10. Employment of HVC Technicians in Pennsylvania

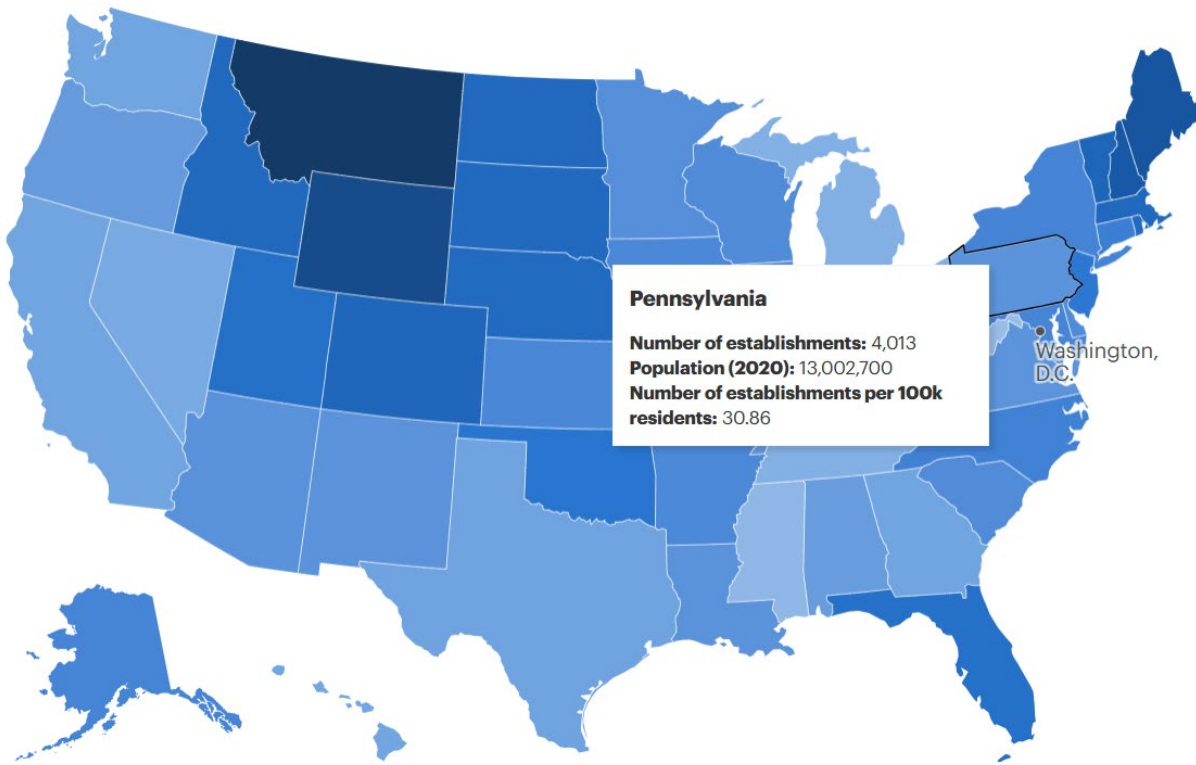


Table 21. Pennsylvania Demand for HVAC Technicians

Entry Level Wages	Annual Average Wages	Experienced Level Wages	Estimated 2025 Employment	Projected 2028 Employment	Employment Growth: 2024-2034
\$43,350	\$61,468	\$84,190	11,100	13,000	8.1%

Table 22. Pennsylvania Norther Tier Demand for HVAC Technicians

Entry Level Wages	Annual Average Wages	Experienced Level Wages	Estimated 2018 Employment	Projected 2028 Employment	Annual Demand
\$32,820	\$45,400	\$51,690	140	150	15

Plumbers

Plumbers play an important role in both live theatre production facilities and the updating of historic buildings. They must balance preservation with modern upgrades, ensuring the plumbing system meets current standards while maintaining the building’s historic significance. This typically involves replacing outdated materials with safer alternatives, while dealing with rare materials and historic designs.

There are currently more than 45 open live theatre plumber positions (April 2026).

The U.S. Bureau of Labor Statistics (BLS) reports 504,500 people worked as plumbers, pipefitters and steamfitters in 2023, installing and repairing plumbing and piping fixtures and systems. Current employment is 504,500; and projected employment in 2034 is 527,200; which represents an increase of 22,700 or 4%.

Nationwide figures approximate the following number of plumbers for each experience level:

- ✓ Apprentice plumbers: 21,971
- ✓ Journey-level plumbers: 222,597
- ✓ Master plumbers: 212,969

Table 23. National Wages and Demand for Plumbers

Entry Level Wages	Annual Average Wages	Experienced Level Wages	Estimated 2018 Employment	Projected 2028 Employment	Percent Change	Annual Demand
\$42,290	\$57,720	\$65,430	90	90	0.0%	11

The median annual wage for plumbers is approximately \$62,970. The highest numbers of plumbers are in California (40,260), Texas (37,980), Florida (26,930), New York (26,670) and Pennsylvania (14,840). The plumbing industry is expected to grow about 50% faster than the overall U.S. job market, reflecting a consistent demand for skilled trades people (Source: Consumer Affairs). The demand for plumbers is projected to grow with an average of 42,600 openings nationwide expected each year (Source: Consumer Affairs). Employment is expected to grow by 2% between 2022-2032. (Source: US Bureau of Labor Statistics).

Figure 11. National Demand for Plumbers

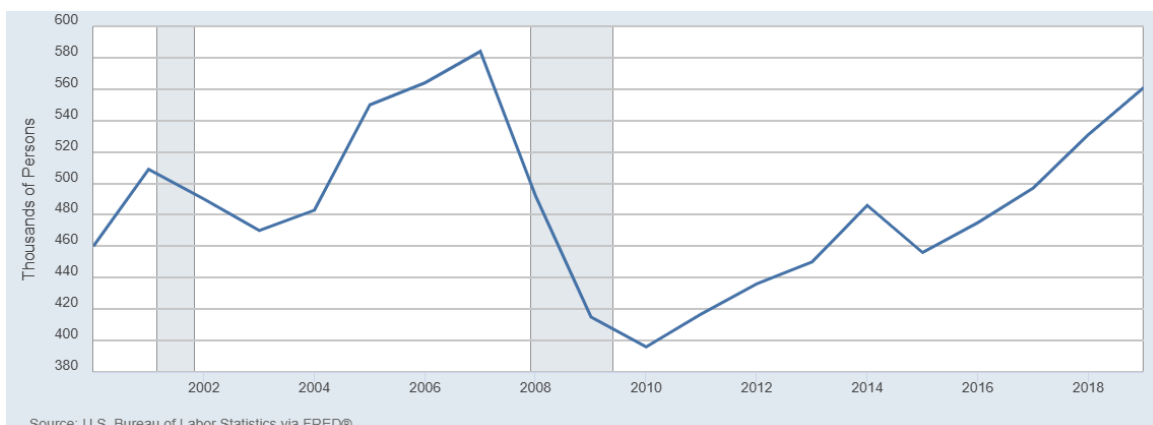
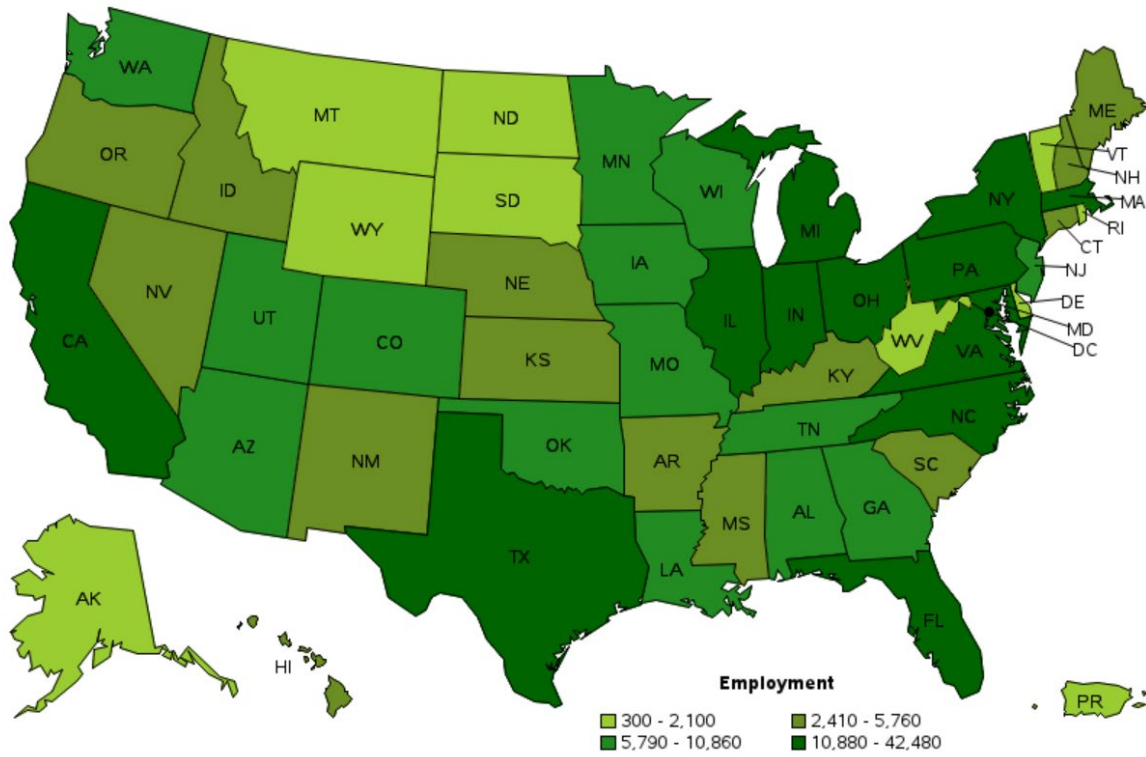


Figure 12. Employment of Plumbers, Pipefitters and Steamfitters by State (May 2023)



Source: IBISWorld

Figure 13. Annual Mean Wage of Plumbers, Pipefitters and Steamfitters by State (May 2023)

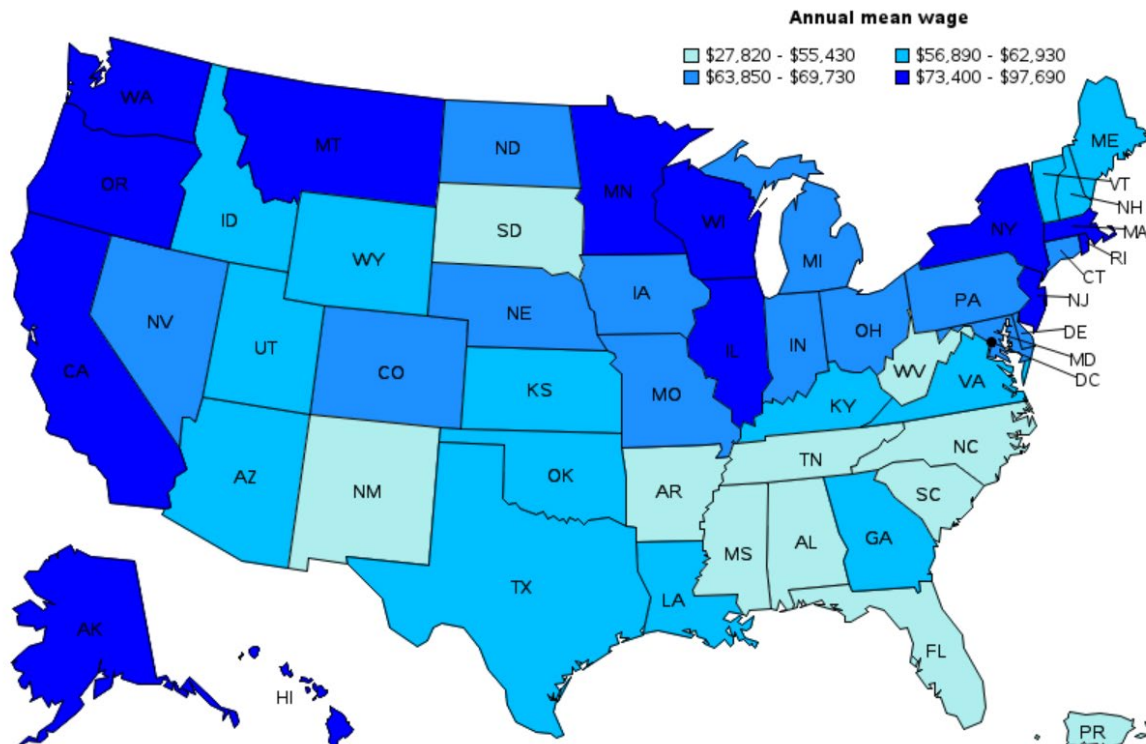


Figure 14. Plumbers in New York State

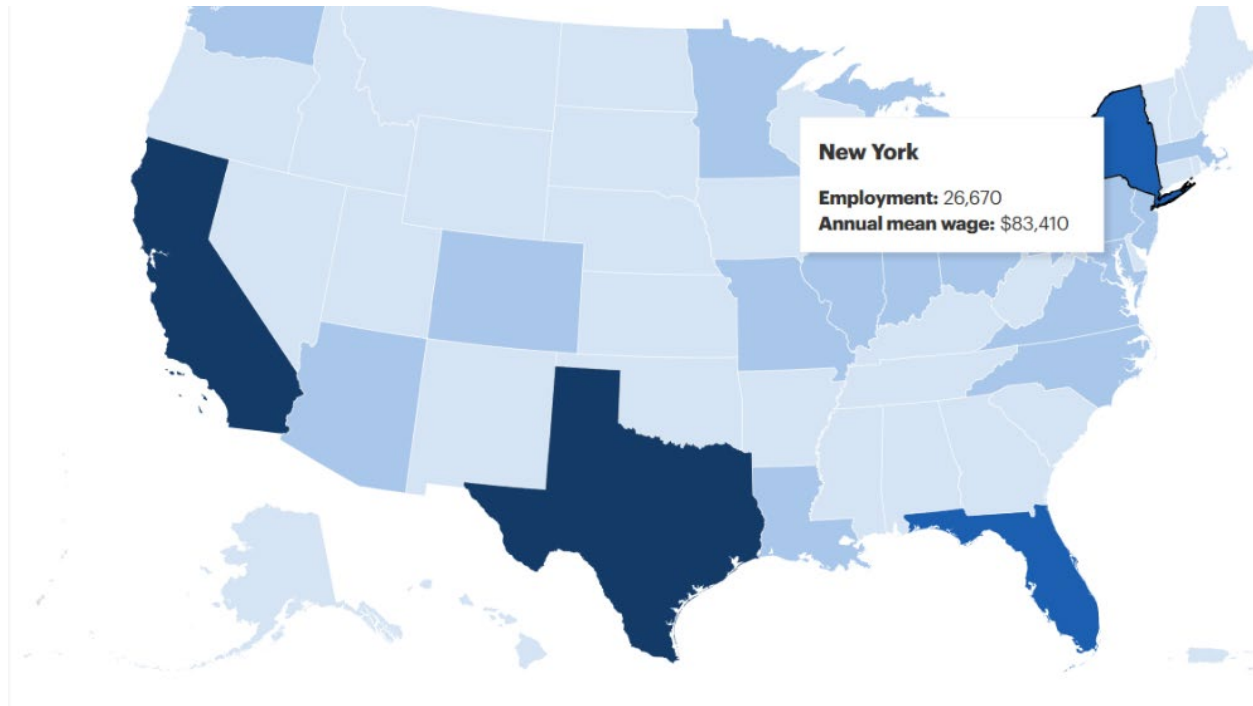


Table 24. Plumbers in New York State Source: NYS Department of Labor Statistics. December 2025.

Estimated Employment	Projected 2032 Employment	Percent Change	Annual Demand	Entry Level Wages	Annual Mean Wage
26,670	27,736	4%	11	\$41,532	\$83,410

Table 25. Demand for Plumbers in New York State Southern Tier Region

Source: NYS Department of Labor Statistics. December 2025.

Estimated 2022 Employment	Projected 2032 Employment	Percent Change	Annual Demand	Entry Level Wages	Annual Average Wages	Experienced Level Wages
720	750	0.0%	11	\$41,532	\$55,515	\$62,507

Figure 15. Plumbers in Pennsylvania

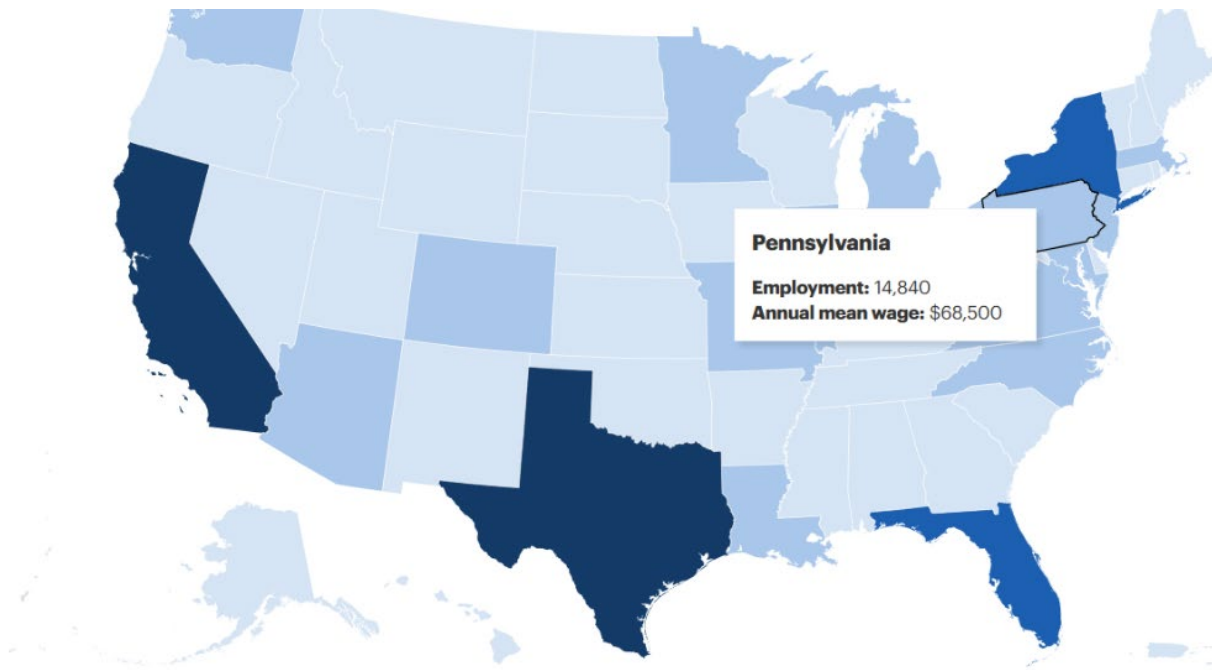


Table 26. Demand for Plumbers in Pennsylvania Northern Tier: 2018-2028

Source: Pennsylvania Dept of Labor and Industry Note: See Appendix A for list of jobs in demand.

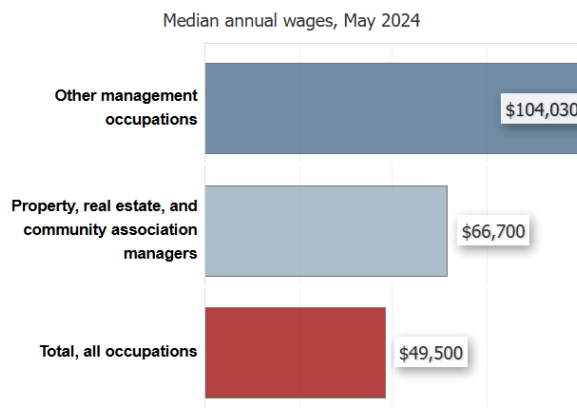
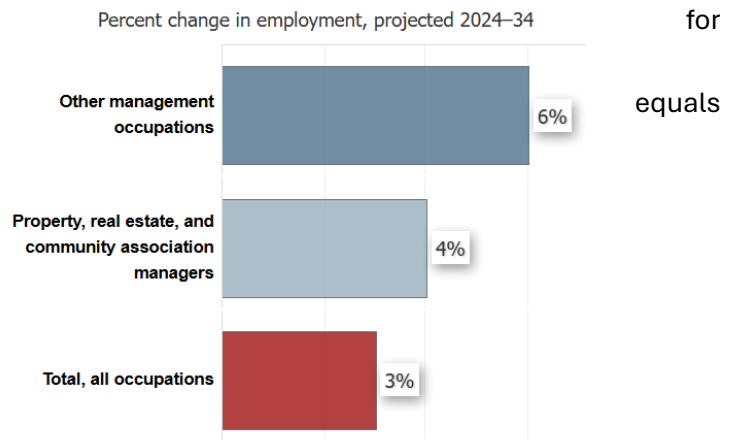
Entry Level Wages	Annual Average Wages	Experienced Level Wages	Estimated 2018 Employment	Projected 2028 Employment	Percent Change	Annual Demand
\$42,290	\$57,720	\$65,430	90	90	0.0%	11



Property Management

The U.S. Bureau of Labor Statistics (BLS) reports there are an estimated 466,100 jobs in this broad field. About 39,000 openings for property, real estate, and community association managers are projected each year, on average, over the next decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.

It further projects a 4-6% growth in employment property, real estate and community association managers during the period 2024-2034. This 17,000 employment change.



The median annual wage for property, real estate, and community association managers was \$66,700 in May 2024. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$39,360, and the highest 10 percent earned more than \$141,040.

Note: All Occupations includes all occupations in the U.S. Economy.
Source: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics

New York State

Within the “broad” definition of property management, there are 10,480 works within New York State. This group has an annual mean wage of \$116,050.

Within the “**building and construction**” category of property management, there are 3,160 employees with a median annual wage of \$110,430.

Table 27. Property Management Workers

Employment	Hourly mean wage	Annual mean wage
10,480	\$ 55.79	\$ 116,050

Appendix A. Top Jobs in Demand in New York State Southern Tier

- **Construction Skilled Trade Occupations** comprise much of the employment within the specialty trade contractors (NAICS Industry 238) industry. This industry employed 5,000 people in 2023, up 200 (4.2%) jobs from 2018. The industry pays \$66,800 on average, which is above the all-industry average of \$62,700.
- **Manufacturing.** Three manufacturing industries made the significant industries list: food manufacturing (NAICS Industry 311), machinery manufacturing (NAICS Industry 333), and computer and electronic product manufacturing (NAICS Industry 334). All three, on average, pay well above all industry average (\$62,700) for the region in 2023: \$76,800, \$73,300, and \$110,900, respectively. Food manufacturing (100 jobs, 3.0%) and machinery manufacturing (100, 2.6%) industries both added jobs from 2018 through 2023. Machinery Manufacturing's employment base is projected to grow to 13.4%. A noteworthy 7,300 people work in the computer and electronic product manufacturing industry.
- **Merchant Wholesalers, Durable Goods Durable goods merchant wholesale trade** (NAICS Industry 423) establishments are engaged in wholesaling products, such as motor vehicles, furniture, construction materials, machinery and equipment (including household-type appliances), metals and minerals (except petroleum), sporting goods, toys and hobby goods, recyclable materials, and parts. This industry has grown from 2018 through 2023 and displayed an average wage (\$81,900) above the all-industry average of \$62,700.
- **Couriers and Messengers E-Commerce** has unlocked a new normal in consuming goods. The couriers and messengers (NAICS Industry 492) industry has benefited greatly from this changed retail experience. According to the federal Bureau of Labor Statistics, businesses in the couriers and messengers industry provide intercity and/or local delivery of parcels and documents (including express delivery services) without operating under a universal service obligation. This business segment made the current significant industry list due to its recent (1,100 jobs, or 137.5%, from 2018 through 2023) and projected (450 jobs, or 42.1%, from 2020 through 2030) growth. FedEx and UPS are the big players in this industry but there are many more smaller outfits that assist in getting desired goods to their customers.
- **Professional and Business Services:** Two of the three breakout industries from the professional and business services sector are on the significant industries list: professional, scientific, and technical services (NAICS Industry 541), - 3 - and management of companies and enterprises (NAICS Industry 551). These industries share a common trait: they tend to sell to other businesses rather than to consumers. Both the professional, scientific, and technical services and management of companies and enterprises industries showed job growth from 2018-2023, 100 jobs (1.0%) and 200 jobs (7.1%) respectively. Professional, scientific, and technical services paid an average wage of \$102,100 and management of companies and enterprises paid an average wage of \$145,900. Both are above the regional all-industry average. Professional, scientific, and technical services also employed a sizeable number of individuals (10,400 in 2023). Over the 2020-2023 time period, the management of companies and enterprises business category is expected to add 650 jobs (or 23.0%) from 2020 through 2030, which a slightly larger than the predicted all-industries change of 22.6%.

- **Educational Services.** With more than 41,100 jobs between the public and private sectors, educational services (NAICS Industry 611), has, by far, the most employment of any significant industry in the region (16.7% of the regional total). This sector lost jobs, to the tune of 2.8% between 2018 and 2023, but is expected to expand from 2020 through 2030 (12.8%). The industry's 2023 average annual wage (\$69,200) was above the all-industry annual average (\$62,700). Common job titles include teacher assistant, elementary school teacher and secondary school teacher.
- **Health Care.** Two of the three industries from the health care sector made the significant industries list: ambulatory health care services (NAICS Industry 621) and hospitals (NAICS Industry 622). Combined these industry account for over 21,000 regional jobs, or 9.1% of total jobs in the Southern Tier. The ambulatory health care services industry hits on all four of the designated benchmarks for the significant industry report. The industry added 200 jobs (2.2%) over the five-year period ending in 2023. It also employed 9,100 people in 2023. On top of that, this industry's workforce footprint is anticipated to grow by 2,160 (23.5%) from 2020-2030 and the average wage in the industry (\$86,800) is above the all-industry average (\$62,700). Although hospitals did come up short on hitting both employment growth and projected employment growth significance targets, it did involve a large number of workers (13,300) and did pay an above average wage (\$72,300). Labor demand in the health care sector has consistently outstripped labor supply. This trend is anticipated to persist.
- **Other Services** (excluding public administration) is a catchall sector including establishments engaged in providing services not specifically provided for elsewhere in the 4 - classification system. One of the industries in this sector, repair and maintenance (NAICS Industry 811), was considered significant in the Southern Tier. This industry includes a wide range of businesses that offer repairs and maintenance for various products and equipment. Automotive repair and maintenance shops dominate the employment landscape here. The repair and maintenance industry made the significant industry list due to job growth between 2018 and 2023 (300 jobs, or 15.8%) and expected job growth (1,410, 75.4%) between 2020 and 2030.

Appendix B. Top Jobs in Demand in Pennsylvania's Northern Tier: 2028

SOC Title	Entry Level Wages	Annual Average Wages	Exper. Level Wages	Estimated 2018 Employment	Projected 2028 Employment	Percent Change	Annual Demand
Farmers, Ranchers & Other Agricultural Managers	N/A	N/A	N/A	2,680	2,620	-2.2%	257
Human Resources Specialists	\$40,630	\$66,340	\$79,200	170	170	0.0%	16
Accountants & Auditors	\$42,510	\$69,290	\$82,680	400	410	2.5%	38
Environmental Engineering Technologists & Technicians	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chemical Technicians	\$40,600	\$53,360	\$59,740	\$70	\$70	\$0	\$7
Substance Abuse, Behavioral Disorder & MH Counselors	\$29,510	\$44,260	\$51,630	\$190	\$200	\$0	\$21
Elementary School Teachers	\$51,260	\$68,610	\$77,290	\$750	\$780	\$0	\$61
Secondary School Teachers	\$55,430	\$72,170	\$80,540	\$540	\$570	\$0	\$42
Registered Nurses	\$57,400	\$72,990	\$80,780	\$1,280	\$1,380	\$0	\$81
Emergency Medical Technicians & Paramedics	N/A	N/A	N/A	150	160	6.7%	12
Surgical Technologists	\$41,500	\$47,060	\$49,850	100	110	10.0%	9
Licensed Practical & Licensed Vocational Nurses	\$37,150	\$45,610	\$49,840	370	380	2.7%	29
Nursing Assistants	\$26,980	\$31,630	\$33,950	760	790	3.9%	89

Medical Assistants	\$28,820	\$34,100	\$36,730	200	250	25.0%	29
Phlebotomists	\$29,580	\$35,080	\$37,830	N/A	N/A	N/A	N/A
Correctional Officers & Jailers	\$32,490	\$51,310	\$60,710	140	130	-7.1%	11
Police & Sheriff's Patrol Officers	\$39,300	\$66,250	\$79,730	310	310	0.0%	21
Supervisors – Housekeeping & Janitorial Workers	\$26,450	\$40,540	\$47,590	90	100	11.1%	11
Supervisors – Landscaping & Groundskeeping Workers	\$32,650	\$45,670	\$52,180	100	100	0.0%	12
Hairdressers, Hairstylists & Cosmetologists	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Supervisors – Retail Sales Workers	\$26,800	\$40,120	\$46,780	810	800	-1.2%	87
Parts Salespersons	\$22,500	\$31,560	\$36,090	380	380	0.0%	46
Billing & Posting Clerks	\$27,930	\$39,950	\$45,960	250	270	8.0%	30
Interviewers	\$26,950	\$35,960	\$40,460	70	70	0.0%	9
Dispatchers	\$33,390	\$55,190	\$66,090	140	150	7.1%	14
Shipping, Receiving & Inventory Clerks	\$28,540	\$37,930	\$42,630	170	160	-5.9%	17
Medical Secretaries & Administrative Assistants	\$27,080	\$32,820	\$35,700	140	170	21.4%	19
Farmworkers & Laborers: Crop, Nursery & Greenhouse	N/A	N/A	N/A	660	670	1.5%	108

Carpenters	\$30,780	\$42,680	\$48,630	300	320	6.7%	33
Operating Engineers	\$36,050	\$47,270	\$52,880	560	560	0.0%	66
Plumbers, Pipefitters & Steamfitters	\$42,290	\$57,720	\$65,430	90	90	0.0%	11
Rock Splitters, Quarry	\$31,890	\$38,960	\$42,490	240	240	0.0%	32
Supervisors – Mechanics, Installers & Repairers	\$46,330	\$70,500	\$82,590	270	280	3.7%	27
Automotive Body & Related Repairers	\$28,110	\$42,660	\$49,940	N/A	N/A	N/A	N/A
Automotive Service Technicians & Mechanics	\$25,680	\$38,250	\$44,540	380	380	0.0%	37
Heating, A/C & Refrigeration Mechanics & Installers	\$32,820	\$45,400	\$51,690	140	150	7.1%	15
Industrial Machinery Mechanics	\$40,790	\$58,160	\$66,840	290	300	3.4%	29
Telecommunications Line Installers & Repairers	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maintenance & Repair Workers, General	\$25,680	\$37,860	\$43,950	730	760	4.1%	75
CNC Machine Tool Operators	\$33,800	\$44,900	\$50,440	240	250	4.2%	26
Machinists	\$33,120	\$45,100	\$51,080	90	90	0.0%	9
Multiple Machine Tool Setters/Oprs/Tenders	\$27,520	\$38,230	\$43,580	130	120	-7.7%	13
Welders, Cutters, Soderers & Brazers	\$36,910	\$49,210	\$55,360	190	200	5.3%	22

Water/Wastewater Treatment Plant & System Operators	\$34,490	\$45,420	\$50,890	230	210	-8.7%	19
Gas Plant Operators	\$54,440	\$70,110	\$77,940	230	250	8.7%	29
Inspectors, Testers, Sorters, Samplers & Weighers	\$31,970	\$44,210	\$50,330	270	220	-18.5%	25
Supervisors – Transportation & Material-Moving Workers	\$35,240	\$53,820	\$63,100	180	190	5.6%	21
Heavy & Tractor-Trailer Truck Drivers	\$34,960	\$46,210	\$51,830	2,220	2,310	4.1%	266
Light Truck Drivers	\$20,920	\$36,300	\$43,980	250	260	4.0%	29

Source: Pennsylvania Department of Labor and Industry

Rank	Occupational Title	% Share of Industry Workforce	Median Wage	Projected Employment Change 2020-2030	Education	Training
1	Electrician	10.8%	\$67,276	21.7%	High School	Apprenticeship
2	Plumbers, Pipefitters, Steamfitters	8.3%	\$66,216	17.6%	High School	Apprenticeship
3	Construction Laborers	6.8%	\$45,750	17.2%	No formal education	Short-term on-the-job training
4	HVAC Technicians	6.1%	\$61,194	17.2%	Postsecondary	Long-term on-the-job training
5	First-line Supervisors of Construction Trades	5.7%	\$83,627	15.3%	High School	None
6	Roofers	4.8%	\$51,388	15.0%	No formal education	Moderate-term on-the-job training
7	General and Operations Managers	4.0%	\$98,959	28.5%	Bachelor's degree	None
8	Operating Engineers and Other Construction Equipment Operators	3.5%	\$62,074	17.9%	High School	Moderate-term on-the-job training
9	Carpenters	3.5%	\$61,714	8.6%	High School	Apprenticeship
10	Painters, Construction and Maintenance	2.9%	\$49,246	12.2%	No formal education	Moderate-term on-the-job training