Lehigh Valley Major Industry Analysis Report 2025

Supplementary information for Industry Dashboard

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Contents

Introduction

The Lehigh Valley, encompassing Lehigh and Northampton counties, is a vibrant and growing region in eastern Pennsylvania. As of 2024, the region is home to approximately 708,000 residents, with a labor force that includes over 346,000 employed individuals and 13,700 unemployed, resulting in an unemployment rate of 3.8% and a labor force participation rate of 50.9%.[1] A robust workforce and dynamic labor market have been central to the region's economic growth over the past several decades.

The Workforce Board Lehigh Valley (WBLV) plays a critical role in strengthening this regional economy by aligning workforce development efforts with the needs of local industries. WBLV provides strategic leadership, data-informed planning, and targeted programs that support both employers and job seekers across the region.

This report presents a comprehensive analysis of the Lehigh Valley's four largest employment sectors: Healthcare and Social Assistance, Manufacturing, Transportation & Warehousing, and Retail Trade. These industries collectively represent nearly 45% of the region's total workforce and serve as foundations of the local economy.

Drawing on the nearest data, this analysis provides insight into workforce demographics, employment trends, wage patterns, and educational attainment. In addition to outlining current industry conditions, this report highlights available job training and apprenticeship programs designed to address skill gaps and expand access to quality employment.

By offering a data-rich, industry-specific overview of workforce dynamics in the Lehigh Valley, this report aims to inform and guide efforts to build a more inclusive, resilient, and future-ready labor market.

Lastly, this report is supplemented and expanded analysis for Industry Data Dashboard available on the Workforce Board Lehigh Valley website.

[1] BLS Local Area Unemployment Statistics

Data & Methodology

This analysis examines four major industries in the Lehigh Valley based on their employment size and economic significance within the region. Geographic scope of this report is the Lehigh Valley Workforce Development Area, which encompasses both Lehigh County and Northampton County.

To ensure a comprehensive and data-driven approach, it integrates data from multiple sources, including U.S. Census Quarterly Workforce Indicators (QWI), Pennsylvania Department of Labor & Industry (CWIA), U.S. Bureau of Labor Statistics (BLS) and Lehigh Valley Planning Commission (LVPC). Each data source employs its own methodologies for estimation, which may result in slight variations across datasets. To address these inconsistencies, we adopted a cross-comparative approach. Historical trends were reviewed across datasets to assess temporal consistency, and state-level benchmarks were used to identify which estimates most accurately reflect current labor market conditions. Lastly, every data point covers different range of time. We mainly utilize the latest available data sets. Supplemental historical data is also provided in the Appendix to contextualize long-term trends and industry shifts.

Industry Profiles

This section presents fundamental information about each major industry in the Lehigh Valley. It highlights key indicators of each industry sector such as number of employment and establishments, economic contribution and impact, demographic information and average annual salary trends.

Including this information is important because it provides a comprehensive understanding of the region's economic structure, workforce and demographic characteristics. Such insights help policy makers, educators and business leaders identify workforce strengths and gaps, plan targeted training programs and make informed decisions to support sustainable economic growth.

Workforce Statistics by Industry

Table 1 summarizes key workforce indicators for each industry, including total number of employments, 10-year employment growth, the number of establishments (employers), and Location Quotient (LQ). The LQ is a standardized measure of industry concentration, indicating how over- or under-represented an industry is in the region compared to the Pennsylvania state average.

With 65,697 employees and nearly 2,217 establishments, Healthcare and Social Assistance sector is the largest employment industry in the region. It has grown by about 30.2% over the past decade, supported by strong healthcare employers in the region, healthcare infrastructure expansion and increased demand for medical services. The Location Quotient (LQ) of 1.10 indicates that healthcare employment in the Lehigh Valley is about 10% more concentrated than the Pennsylvania state average, highlighting the region's relative specialization and competitive strength in healthcare services.

The Manufacturing industry remains a critical part of the Lehigh Valley's economic identity, employing 36,612 individuals across 759 establishments. After years of decline, the sector has rebuilt with approximately 21.7% growth over the past 10 years, signaling a modest revitalization. The Location Quotient (LQ) of 1.22 indicates that manufacturing employment in Lehigh Valley is about 22% more concentrated than the PA state average, reflecting the region's enduring industrial specialization and legacy strength in production and supply chain activities.

Transportation and Warehousing is the fastest-growing sector in the region, with 92.5% employment growth between 2014 and 2024. This dramatic surge, bringing the workforce to 32,226 people across 716 establishments, reflects the region's geographic positioning as a logistics hub between major metro areas. The industry's high Location Quotient (LQ) of 1.88 indicates that employment in this sector is about 88% more concentrated than the PA state average, making it the most specialized industry in the Lehigh Valley. This exceptional concentration highlights the region's geographic advantages along major transportation corridors, reinforcing its role as a center for warehousing, distribution, and logistics. As demand for warehousing, last-mile delivery, and logistics coordination continues to rise, ongoing investment in physical infrastructure and workforce development will be crucial to sustaining this momentum.

Retail Trade remains a large employer with 30,590 workers across 1,921 establishments, but the sector has experienced a 5% decline in employment over the past decade. Its Location Quotient (LQ) of 0.97 indicates that retail employment in Lehigh Valley is roughly in line with the state average, suggesting the sector's presence is proportionate to the size of the regional economy.

TABLE 1. Workforce Summary by Industry (2024)

Industry	Employment[2]	Changes in the last 10 years*	Establishments	Location Quotient[3]
Healthcare	65,697	30.2%	2,217	1.10
Manufacturing	36,612	21.7%	759	1.22
Transportation	32,226	92.5%	716	1.88
Retail Trade	30,590	-5.0%	1,921	0.97

Note: *changes between 2014 – 2024. **Employment represents number of employees. ***Establishments means the number of businesses operating in the Lehigh Valley region.

Figure 1 illustrates long-term employment trends for four key industries in the Lehigh Valley from 2001 to 2024. Over this 24-year period, the Healthcare sector has demonstrated steady and robust growth, expanding from 35,001 jobs in 2001 to 65,697 in 2024, an increase of nearly 88%. This sustained rise reflects growing regional demand for health services, driven by population growth and an aging demographic.

The Transportation and Warehousing sector show the most dramatic expansion, surging from 9,060 jobs in 2001 to 32,226 in 2024, marking an impressive 256% increase. This growth underscores the Lehigh Valley's strategic position as a logistics and distribution hub between major metropolitan markets. Unlike the other three major sectors, which experienced job losses during the pandemic, Transportation and Warehousing continued to add employment, demonstrating its resilience. However, the sector experienced a sudden decline in jobs between 2023 and 2024, indicating potential short-term adjustments in the labor market or industry dynamics.

In contrast, Manufacturing employment declined sharply from 47,403 in 2001 to a low of 28,084 in 2010 (a 41% drop), before gradually recovering to 36,612 in 2024, reflecting a modest 30% rebound over the past decade.

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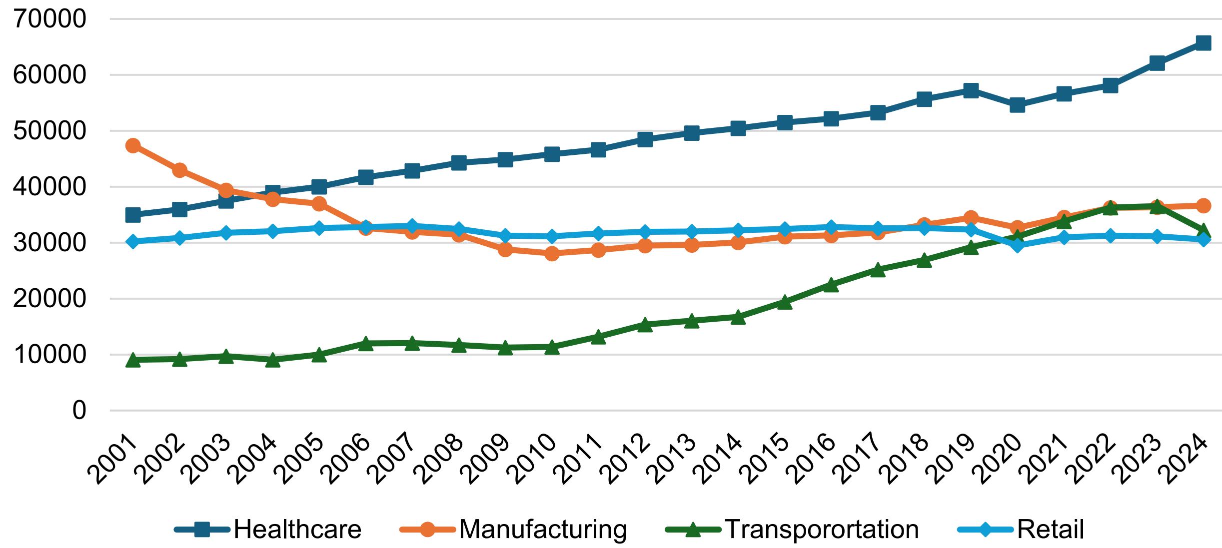
[2] Employment and Establishments data were collected from BLS: QCEW

[3] CWIA Lehigh Valley WDA profile

Meanwhile, Retail Trade employment has remained relatively stable but trended slightly downward, from 30,242 workers in 2001 to 30,590 in 2024, representing a net change of less than 2% over the period. Despite its stability, the sector's lack of growth reflects shifting consumer preferences, online retail expansion, and increasing automation.

Figure 1. Historical Employment Sizes by Industry in the LV



Regional Economic Contribution

This section discusses the economic contribution of the major industries in the Lehigh Valley. We used two measures, Total Output and Total Value Added, as indicators of each industry's contribution to the regional economy. Furthermore, we used employment and investment multipliers to illustrate the broader economic impact of each industry in the region.

Total Output represents the total value of goods and services produced by an industry, including both intermediate inputs (such as raw materials and supplies purchased from other industries) and final goods and services. It reflects the overall scale of production activity within an industry.

Total Value-Added measures the net contribution of an industry to the regional economy. It is calculated as Total Output minus the cost of intermediate inputs, and includes components such as employee compensation, business profits, and taxes on production. It is similar to the Gross Domestic Product (GDP).

Multipliers represent the ripple effects that occur when activity in one industry generates additional economic activity in other sectors. For example, an employment multiplier indicates how many total jobs (direct, indirect, and induced) are supported throughout the regional economy for every new job created in each industry, while an investment multiplier shows the broader economic benefits that result from additional spending or investment within that industry. For our multiplier calculation, we assumed a scenario where each industry generates 100 jobs.

Table 2 presents Total Output and Total Value-Added for the major industries in the Lehigh Valley, ranked by Total Output. Manufacturing leads the regional economy with approximately $21.4 billion in total output and $6.8 billion in value added, reflecting its substantial production activity and contribution to regional GDP. Health Care and Social Assistance contribute $10.4 billion in output and $6.9 billion in value added, highlighting its dual role as a significant employer and generator of local economic value. Transportation and Warehousing and Retail Trade contribute $5.5 billion and $3.9 billion in total output, respectively, supporting regional commerce, logistics, and consumption. These four sectors collectively represent the core economic drivers of the Lehigh Valley, with their outputs and value-added illustrating both direct and indirect impacts on regional income and employment.

Although Manufacturing has the largest Total Output in the Lehigh Valley, its Total Value Added is slightly lower than that of Health Care and Social Assistance. This is because manufacturing relies heavily on intermediate inputs such as raw materials, components, and energy purchased from other industries. While these inputs contribute to high overall production (Total Output), they do not count as value added. In contrast, healthcare primarily generates services using local labor, with relatively few purchased inputs. As a result, a larger portion of healthcare's output is retained as Value Added, reflecting its net contribution to the regional economy. This illustrates that high production volume does not necessarily translate into higher economic value added.

Table 2. Economic Output and Value Added in Lehigh Valley

Industry	Total Output	Total Value Added
Manufacturing	$21,364,958,325	$6,758,188,890
Health Care and Social Assistance	$10,449,462,694	$6,891,545,690
Transportation and Warehousing	$5,520,362,351	$3,387,415,521
Retail Trade	$3,910,494,541	$2,804,364,073

Note: data is based on 2023 and was collected from IMPLAN. The dollar value is in 2025.

Table 3 shows employment multipliers for major industries in the Lehigh Valley. Manufacturing has the largest ripple effect, with 100 direct jobs supporting 202 total jobs, while Healthcare and Transportation support 141 and 138 total jobs, respectively. Retail Trade has the smallest impact, with 100 direct jobs generating 126 total jobs. This highlights that industries with strong supply chains and high local spending, such as manufacturing sector, create greater employment benefits beyond their own workforce.

Table 3. Employment Impact and Multiplier					
Industry Sectors	**Direct**	**Indirect**	**Induced**	**Total Impact Employment**	**Multiplier***
Manufacturing	100	63	39	202	2.02
Transportation & Warehousing	100	19	19	138	1.38
Healthcare & Social Assistance	100	18	23	141	1.41
Retail Trade	100	12	13	126	1.26

Note: analysis was run from IMPLAN with 2023 database. *Total number of jobs to be created in the region when one job was created in selected industry sector. Direct effects represent jobs created within the industry itself; Indirect effects capture additional jobs generated in supplier industries that provide goods and services to support the industry; Induced effects reflect jobs supported by household spending from incomes earned in the direct and indirect jobs.

Workforce Age Distribution

Workforce age distribution varies significantly by industry, often reflecting barriers to entry, education or licensing requirements, and job characteristics. Understanding the age distribution of the workforce provides critical insights into labor force sustainability, future retirement risks, talent pipeline development and opportunities for targeted training. **Figure 2** shows the age distribution of employees in the four major industries in the Lehigh Valley in 2024. The horizontal axis represents age groups, while the vertical axis indicates the number of employees. Each industry is color-coded to illustrate differences across age categories.

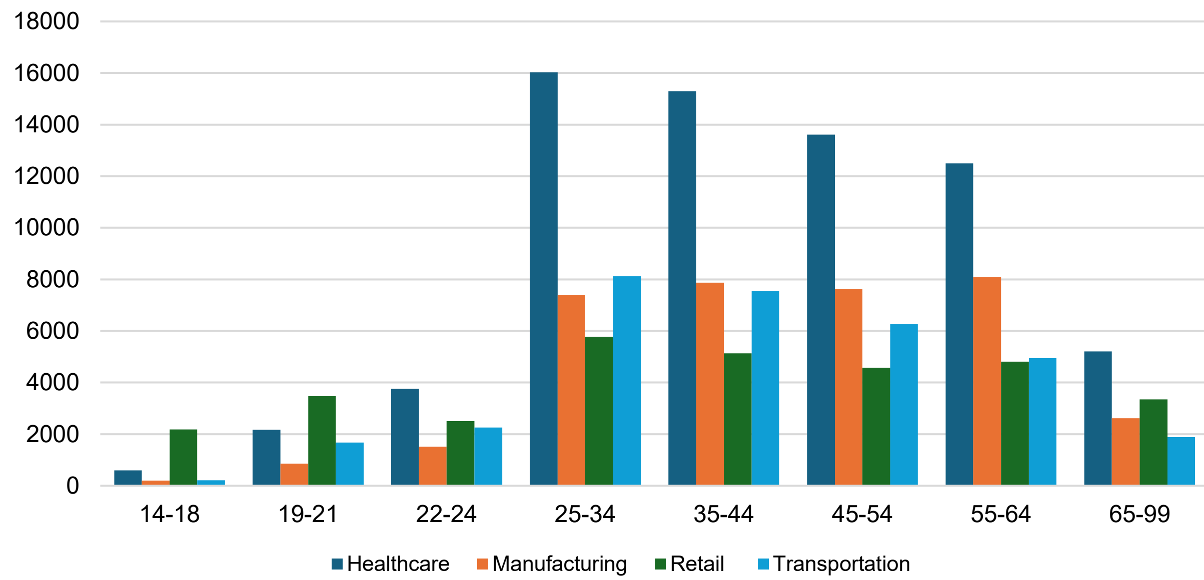
The Healthcare and Social Assistance sector has a strong concentration of workers in the 25-54 age range, which represents the core of the region's working-age population. The 25-34 age group is the largest, with 16,023 employees, followed closely by the 35-44 group with 15,295. This distribution indicates a robust inflow of early- and mid-career professionals, likely fueled by strong demand, career advancement potential, and entry via associate or certification programs.

The Manufacturing industry presents a markedly different demographic profile compared to other sectors. The 55-64 age group constitutes the largest share of the workforce, totaling 8,099 workers, while employment remains relatively flat across the 25–54 age range, indicating a limited influx of younger workers into the field. Approximately 30% of manufacturing employees are over the age of 55, highlighting an aging workforce. This trend may reflect declining interest among younger generations in manufacturing careers, as well as limited exposure to the industry through education, training, and outreach initiatives. The potential implications are significant: within the next decade, a substantial portion of the current workforce may retire, creating a critical labor gap that could challenge the region's manufacturing capacity and productivity.

Retail Trade sector shows the most evenly distributed workforce across age groups, including a notable number of workers aged 14-21. This reflects the industry's role as an accessible entry point into the labor market through part-time, seasonal, or lower-skill positions such as retail associates and food service workers.

Similar to Healthcare, the **Transportation & Warehousing sector** is dominated by the 25-54 age group, with the 25-34 segment being the largest at 8,121 employees. This age distribution suggests the industry is relatively open to early-career workers, possibly due to low formal education requirements and the availability of vocational training. Furthermore, as we have seen the growth rate in Figure 1, Lehigh Valley has seen significant growth in this industry sector due to geographical advantages and strong industrial infrastructure. With fast business growth, the sector has created many jobs in the region (Historical age distribution data from 1998 to 2024 is available in the Appendix)

Figure 2. Age Distribution of the Workforce by Industry (2024)



Note: data was collected from Census QWI explorer. *Healthcare represents Healthcare & Social Assistance; **Transportation includes both Transportation & Warehousing

Workforce Educational Attainment

Educational attainment is a crucial lens through which to understand access to employment, industry skill requirements and opportunities for career advancement. This section examines the highest level of education completed by workers in the four major industries in the Lehigh Valley**.**

Figure 3 presents the distribution of educational attainment of workers in each of the four industries for 2024. Five categories are used: 1) Less than high school, 2) High school or equivalent, 3) Some college or associate degree 4) bachelor’s degree or advanced degree 5) Workers aged 24 or younger. Each industry is color-coded for comparison.

In the Healthcare & Social Assistance industry, the largest share of employees holds "Some college or associate degree," followed by those with a bachelor's or higher. This reflects the credentialed nature of healthcare occupations, such as medical assistants, registered nurses, and technicians, many of which require licensure or formal post-secondary training. This aligns with the industry's need for specialized credentials. The strong presence of associate and bachelor's degree holders underscores the importance of maintaining accessible and affordable training pipelines. Community colleges, on the job training program, and certification pathways play a vital role in sustaining the region's healthcare labor supply.

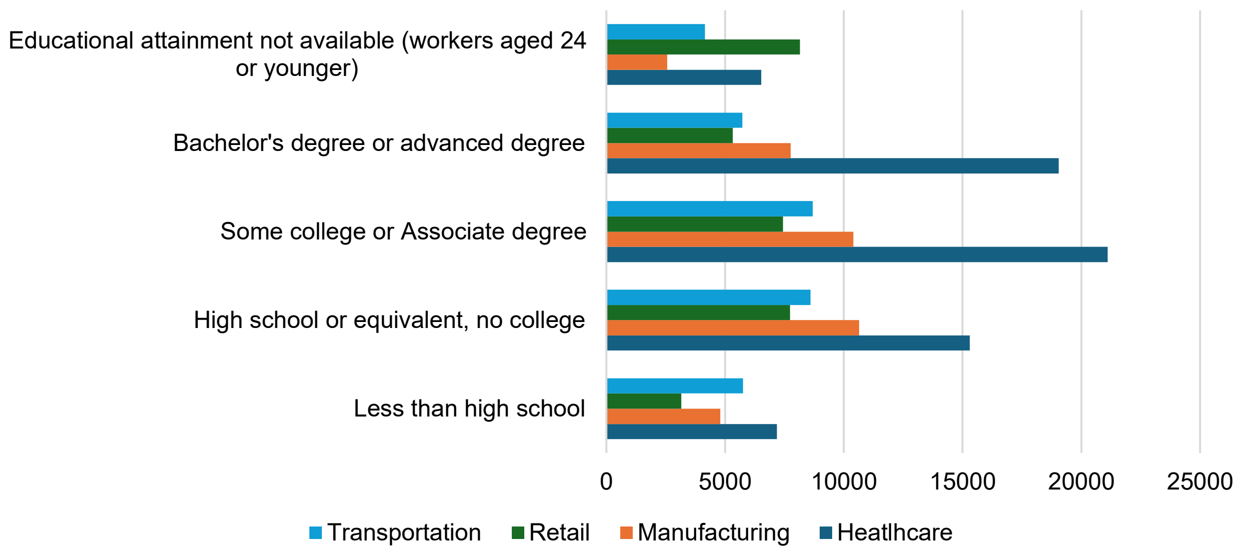
In Manufacturing, the workforce is predominantly composed of individuals with a high school diploma or equivalent and those with some college or an associate degree. The largest group has completed high school, indicating that the industry maintains relatively low formal education barriers to entry. It indicates that practical skills, technical training, and work experience could carry greater weight than formal degrees in this sector. While formal education requirements are minimal, reskilling and upskilling remain essential. Investments in industry credentials, technical education, and work-based learning (e.g., apprenticeships) will be key to sustaining competitiveness and productivity.

Data shows that Retail Trade has one of the most educationally accessible workforces in the Lehigh Valley. A significant portion of employees have only a high school diploma or less, and many are under age 24, resulting in a large "unknown" category for educational attainment. This reflects the sector's role in early employment, particularly among students and young adults. Many roles in retail (e.g., cashiers, sales associates) do not require post-secondary education.

Lastly, Transportation & Warehousing shows a similar educational trend to Manufacturing. Most workers have completed high school or have some college or an associate degree. Few hold bachelor's or advanced degrees, consistent with the operational and vocational nature of many jobs in the sector. Although industry does not typically require post-secondary degrees, targeted certifications, like CDL, are often essential.[4] Strengthening vocational pipelines and offering accessible credentialing programs can increase both worker readiness and employer satisfaction.

[4] lvwda_ltop.xlsx: Preferred education level by occupation.

Figure 3. Educational Attainment by Industry



Note: Data was collected from Census QWI explorer. Horizontal axis shows the number of employments.

Average Annual Salaries

This section examines average annual wages for the Lehigh Valley's four major industries as of 2024 and compares regional wage levels to state (Pennsylvania) and national benchmarks, providing insight into the region's competitiveness in attracting and retaining labor. **Table 4** presents average annual wages by industry across the three geographic benchmarks; and **Figure 4** illustrates historical annual wage trends from 2001 to 2024 for each industry in the Lehigh Valley, highlighting long-term growth patterns and trajectories.

The Healthcare sector offers an average annual wage of $67,827 in the Lehigh Valley, exceeding both the Pennsylvania average ($64,356) and the national average ($64,628). This reflects strong demand for medical services and skilled labor in the region.

Manufacturing remains the highest-paying sector among the four industries in the Lehigh Valley, with an average annual wage of $83,960. This exceeds the Pennsylvania average ($77,198) but is slightly below the national average ($85,461), suggesting that while local manufacturing positions are competitive within the state, they may face competition from higher-paying hubs nationwide.

In contrast, Retail Trade continues to offer the lowest wages of the four sectors, with an average of $36,551, below both state and national levels. Although retail plays a significant role in the regional labor market, many positions are part-time, seasonal, or entry-level, often with limited benefits. In the Lehigh Valley, retail employment frequently provides opportunities for young workers with minimal prior experience.

The Transportation and Warehousing sector report an average annual wage of $58,884, slightly below the Pennsylvania average ($59,402) and notably below the national average ($67,202).

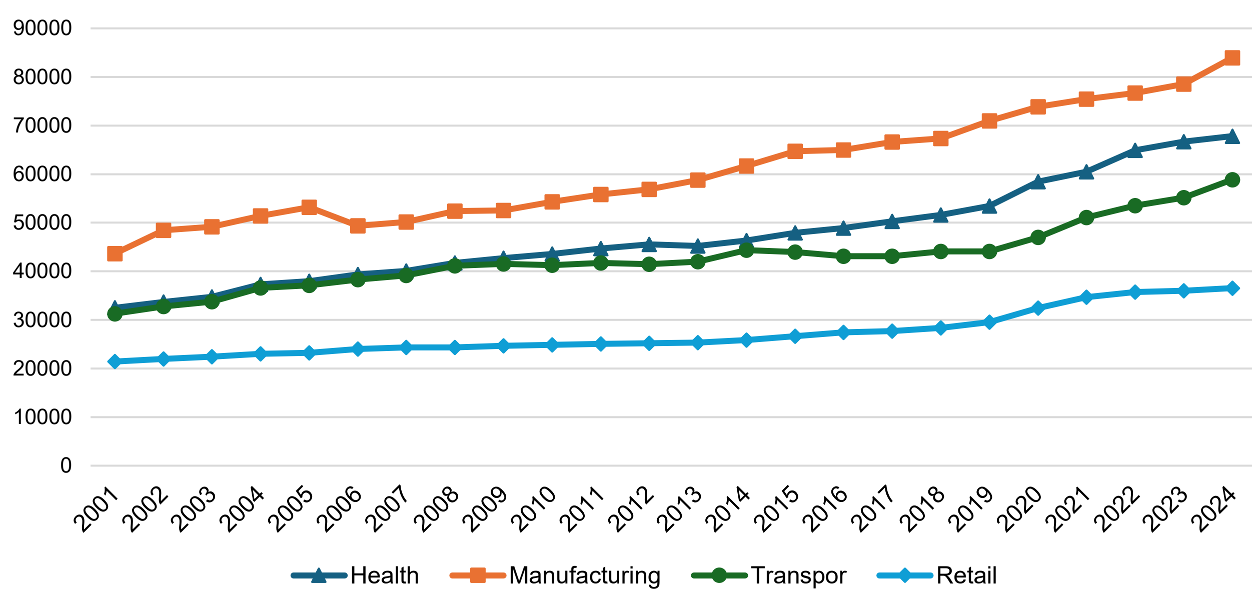
As Figure 4 illustrates, between 2001 and 2024, wages in Lehigh Valley's major industries showed steady growth, with variations across sectors. Healthcare wages increased from $32,486 in 2001 to $67,827 in 2024. Manufacturing wages grew from $43,651 to $83,960, remaining the highest-paying sector, despite minor mid-2000s fluctuations. Transportation and Warehousing wages increased from $31,291 to $58,884, with accelerated growth in recent years linked to regional logistics and supply chain expansion. Retail Trade wages rose from $21,433 to $36,551, remaining the lowest among the four sectors but showing steady increases over time.

Overall, these trends indicate substantial wage growth across the region's major industries, with the largest absolute gains observed in Manufacturing and Healthcare, underscoring their continued economic significance and competitiveness in the Lehigh Valley labor market.

TABLE 4. Average Annual Salaries by Industry (2024)

Industry	Lehigh Valley	PA	National
Healthcare	$67,827	$64,356	$64,628
Manufacturing	$83,960	$77,198	$85,461
Retail Trade	$36,551	$37,558	$42,075
Transportation	$58,884	$59,402	$67,202

Figure 4. Average Annual Salaries by Industry in LV



Note: Average Annual Pay data was collected from BLS QCEW. (not seasonally adjusted)

Industry Hiring Trends

This section analyzes recent hiring activity and labor market dynamics within the Lehigh Valley's four major industries. It draws on key labor market indicators to provide a comprehensive view of demand-side trends. Together, these metrics provide an overview of the current state of each industry labor market in the Lehigh Valley; It includes identification of growing industry sectors, analysis of potential labor shortages and labor dynamics.

Table 5 presents four indicators: Number of New Hires, Net Job Creation (2013-2023), Projected Number of Employment (2035) and the Number of New Online Job Postings (2025). New Hires indicates the number of newly hired individuals in second quarter of 2025. Net Job Creation shows the net change in employment, accounting for both hires and separations between 2022 and 2024. The year 2022 was chosen as the base year due to the impact of pandemic between 2020 and 2021 to economy. Our data indicates that the economy, at least labor market, was very close to full recovery from pandemic in 2022. Projected by 2035 column indicates the projected number of employments by 2035 for each industry. The New Online Job Postings column provides information on number of newly posted jobs online by employers in specific period, in our case September of 2025. It represents current employer demand and hiring activity for each industry for a certain period.

With 2,805 new hires in Q2 2025 and a net job creation of 3,892 between 2013 and 2023, the Healthcare sector leads in both current and projected labor demand. The projected employment level of 68,483 by 2035 reflects this continued growth trajectory, driven by an aging population and ongoing demand for medical professionals and support staff.

The Manufacturing sector added 1,393 new hires in Q2 2025 and experienced modest net job creation of 1,365 between 2013 and 2023. While smaller than Healthcare or Transportation, this growth is significant given the industry's historical employment decline. Its projected workforce of 41,948 by 2035 suggests steady expansion. The sector recorded 518 new online job postings in month of September 2025, signaling moderate current hiring demand. Given the industry's aging workforce and technical skill requirements, employer investment in on-the-job training and apprenticeships will be critical to sustaining this growth. Automation and process innovation may also reshape job functions and hiring needs.

Although Retail Trade saw 912 new hires in Q2 2025, it recorded a net job loss of 421 over the prior two years. Positive hiring alongside negative net job creation suggests high turnover and job instability. Employees may be leaving the sector due to lower wages, limited benefits, or transitions to other industries with better advancement opportunities. Despite this volatility, Retail is projected to employ 33,210 people by 2035, reflecting its continued relevance to the local economy. The industry also logged 653 new online job postings, indicating sustained recruitment activity.

The Transportation sector shows strong momentum. With 1,118 new hires and a significant net job creation of 3,672, it is a fast-growing industry along with healthcare in the region. This reflects growing demand for logistics, distribution, and supply chain support roles. The industry is projected to reach 41,841 jobs by 2035, and it posted 224 online job openings in the month of September. This relatively low posting count, compared to its job creation, may indicate high reliance on informal recruitment networks, internal mobility, or job placement through licensing programs like Commercial Driver's License (CDL) schools. Partnerships between employers and training providers could help scale the workforce more effectively.

TABLE 5. Job Market Trend Indicators

Industry	New Hires (2025 Q2)[5]	Net Job Creation (2013 - 2023)**	Projected by 2035***	New Online Job Postings (Sep, 2025)[6]
Healthcare	2,805	3,892	68,483	1,061
Manufacturing	1,393	1,365	41,948	518
Retail Trade	912	-421	33,210	653
Transportation	1,118	3,672	41,841	224

Note: *data sources are in the footnote. **Net Job Creation is based on Stable employment. ***Projected employment numbers by 2050 are also available in LVPC's Data LV.

[5] New Hires | Department of Labor and Industry | Commonwealth of Pennsylvania
[6] Online Job Postings | Department of Labor and Industry | Commonwealth of Pennsylvania)

Industry Partnership

The Workforce Board Lehigh Valley (WBLV) administers a suite of workforce development programs that address regional talent shortages, support upskilling and reskilling, and facilitate collaboration between employers, educators, and community stakeholders. WBLV's initiatives include Apprenticeship Programs, On-the-Job Training (OJT), and Industry Partnerships, each playing a critical role in closing skill gaps and supporting inclusive economic growth. Through ongoing engagement with employers, WBLV actively identifies workforce challenges and implements targeted solutions to strengthen the regional labor market. All the programs outlined in this section are also featured on the official Workforce Board Lehigh Valley website.

5.1 Healthcare Pipeline Industry Partnership

Workforce Board Lehigh Valley established a Healthcare Pipeline Industry Partnership in June of 2024 to address acute workforce challenges in the Lehigh Valley's healthcare sector. The partnership includes more than 30 employers, educational institutions, and community organizations working collaboratively to improve recruitment, training, and retention strategies. The Healthcare Industry Partnership offers various initiatives to cultivate a skilled workforce, including educational programs, apprenticeships, and on-the-job training opportunities. **Table 6** provides a list of the participants involved in the Lehigh Valley Healthcare Pipeline Industry Partnership.

5.2 Industrial Training & Education Consortium of the Lehigh Valley

The Industrial Training and Education Consortium of the Lehigh Valley (iTEC) is a regional public-private partnership dedicated to strengthening the manufacturing talent pipeline. iTEC provides registered apprenticeships, pre-apprenticeship programs, and customized training designed to meet the specific workforce needs of local manufacturers. Currently, iTEC includes 11 participating companies and 8 training partners, including vocational schools, community colleges, and nonprofit training organizations.[7] Key features of the iTEC program include Employer-sponsored apprenticeships, Collaborative curriculum development, Tuition assistance and wage reimbursement incentives and Career pathway mapping.

[7] Partners - iTEC

Table 6. Lehigh Valley Healthcare Pipeline Industry Partnership Members	
Bethlehem Area Vocational Technical School	Lehigh Career & Technical Institute
BrightStar Care of Strousburg & Allentown	Lehigh Carbon Community College
Career Institute of Technology	Lehigh County - Cedarbrook Senior Care & Rehab
Century Promise	Lehigh Valley Economic Development Corporation
Cetronia Ambulance Corps	Northampton Community College
Equinox Benefits Consulting	Northampton County - Gracedale Nursing Home
Fellowship Community	PA CareerLink Lehigh Valley
Greater Lehigh Valley Chamber of Commerce	St. Luke's University Health Network
KidsPeace	Penn State Lehigh Valley
LINC	Lehigh Valley Planning Commission
Luthern Senior Services	Lehigh Valley Health Network
Macungie Ambulance Corps	Morningstar Senior Living
Manufacturers Resource Center (MRC)	Muhlenberg College
Valley Health Partners	Suburban EMS
Workforce Board LV	Teamlogic IT

Note: This list of healthcare industry partnership members was provided by Workforce Board Lehigh Valley and is current as of 2025. It may change as additional partners join the program. *The list is sorted in alphabetical order.

Limitation of the Analysis

This analysis is based on multiple data sources, each employing distinct methodologies, which may result in variations in the estimated figures. While the majority of data sources tend to exhibit corresponding trends and values, some showed the difference in values. To minimize biases and ensure the accuracy of the findings, we cross-verified data across several sources.

It is also important to note that the data cover slightly different time periods. For example, employment impact and multiplier estimates are based on 2023 data, while most other indicators rely on 2024 and 2025 data. Although this time gap limits direct comparison between some measures, we used the most recent data available for each part of the analysis. Given how quickly local labor market conditions can change, regular updates using newly released data will help ensure the findings remain current and accurate.

Conclusion

This report provides a comprehensive overview of the Lehigh Valley's major industry sectors, Healthcare & Social Assistance, Manufacturing, Transportation & Warehousing, and Retail Trade, highlighting their economic contributions, workforce characteristics and labor market dynamics.

Understanding these patterns is crucial for regional policymakers, educators, workforce development agencies and employers. Insights into total output, value added and wage competitiveness help identify which sectors drive growth and where strategic investment or intervention is needed. For example, the rapid expansion of the Transportation & Warehousing sector demonstrates the Valley's growing importance as a logistics hub, while the aging workforce in Manufacturing signals a need for talent pipeline development through vocational training, apprenticeships, and industry partnerships.

By tracking employment trends, this analysis supports evidence-based decision-making that can enhance the region's economic sustainability and competitiveness. Strengthening industry-education collaboration, promoting high-value job creation, and aligning workforce initiatives with emerging industry needs will ensure that the Lehigh Valley remains a strong and adaptable regional economy well-positioned for future growth.

APPENDIX A. Historical Employment Size by Industry

Historical Employment Size by Industry				
	Healthcare	**Manufacturing**	**Transportation**	**Retail Trade**
1998	30904	45730	7624	24031
1999	29254	47408	8112	24062
2000	33282	46977	8232	25399
2001	34208	45828	8219	26597
2002	34566	41964	8758	27354
2003	35971	37729	9462	27714
2004	37540	36236	9390	29051
2005	39735	35462	10370	29524
2006	40022	30609	11908	29286
2007	41444	29982	11840	29653
2008	42872	29595	11969	30286
2009	43826	27278	11569	29562
2010	46050	26329	12350	29558
2011	46309	26494	13537	29816
2012	46801	27490	14714	30546
2013	48687	27868	14800	30543
2014	49536	28377	15191	30147
2015	49782	28866	17430	29473
2016	51146	29345	19922	29962
2017	52461	29638	22707	29568
2018	54837	30704	24056	29450
2019	55476	31790	25572	29286
2020	55104	31022	25967	27886
2021	55964	31794	29239	28086
2022	58202	33068	32028	28628
2023	62598	34085	32554	28852

Note: this table shows historical employment size by industry between 1998 – 2023. The data was collected from Census QWI, and stable employment counts were collected. **Table 1** in this article uses this data.

APPENDIX B. Industry Workforce Age Distribution

Healthcare Industry Workforce Age Distribution (1998-2024)								
	14-18	**19-21**	**22-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65-99**
1998	448	1093	1923	8780	10846	7355	3098	748
1999	513	1118	1806	7792	9518	7080	3046	739
2000	599	1247	1892	8414	10831	8641	3478	826
2001	597	1330	1946	8281	10720	9282	3799	919
2002	578	1356	1963	8269	10456	9602	4212	1002
2003	521	1342	2052	8582	10325	10038	4554	1057
2004	548	1330	2147	8826	10372	10692	5062	1160
2005	502	1357	2220	9042	10793	11380	5678	1279
2006	521	1384	2212	9073	10643	11556	5938	1400
2007	532	1404	2346	9351	10803	11826	6437	1518
2008	510	1424	2478	9734	10904	12116	6971	1680
2009	429	1380	2511	9829	10740	12176	7446	1820
2010	400	1352	2462	10105	10740	12266	8026	1926
2011	372	1305	2512	10374	10705	12229	8489	2008
2012	329	1256	2750	10736	10726	12104	8764	2203
2013	339	1304	2952	11361	11023	12081	9335	2322
2014	328	1244	2866	11876	11214	12012	9797	2421
2015	316	1299	2909	12226	11210	11952	9903	2493
2016	342	1342	2949	12705	11346	12026	10295	2670
2017	402	1362	2990	13098	11590	12101	10690	2967
2018	448	1502	3141	13898	12044	12308	11085	3297
2019	478	1643	3135	14339	12328	12238	11086	3552
2020	441	1581	2932	14374	12541	12158	11240	3686
2021	411	1651	2923	14226	12698	12137	11470	3914
2022	429	1686	3016	14433	13344	12370	11858	4336
2023	540	1962	3448	15386	14445	13124	12348	4869
2024	592	2168	3762	16023	15295	13615	12501	5211

Note: data in Appendix B indicates the number of employments in different age boundaries by industry. The data was collected from Census QWI

Manufacturing Industry Workforce Age Distribution (1998-2024)								
	14-18	**19-21**	**22-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65-99**
1998	346	1185	1762	9872	15453	12719	6667	1015
1999	332	1141	1750	9802	15880	13884	7231	1039
2000	360	1178	1740	9363	15564	14126	7233	1093
2001	350	1116	1743	8973	15157	14133	7065	1136
2002	290	874	1474	7866	13706	13334	6926	1098
2003	244	705	1232	6708	11760	12201	6545	1040
2004	212	663	1131	6157	10785	11997	6649	1039
2005	204	697	1115	6007	10230	12024	6681	1038
2006	197	700	1046	5193	8343	10211	6006	1038
2007	204	714	1101	5067	7861	10045	6032	1089
2008	169	684	1093	4998	7494	10027	6175	1146
2009	110	484	933	4540	6676	9322	6016	1109
2010	91	446	860	4328	6192	8886	6037	1079
2011	97	510	910	4506	6068	8655	6162	1118
2012	109	595	1111	4758	6126	8723	6519	1260

2013	120	613	1200	5018	6013	8536	6716	1345
2014	122	603	1176	5226	6007	8404	7023	1437
2015	125	576	1223	5515	6036	8300	7292	1466
2016	124	553	1237	5786	6080	8168	7628	1555
2017	137	549	1236	5987	6196	7916	7736	1666
2018	150	609	1210	6363	6483	7909	8022	1778
2019	157	710	1261	6734	6698	7914	8363	1910
2020	160	611	1174	6750	6673	7576	8113	1999
2021	195	712	1306	7057	6914	7628	8224	2168
2022	216	850	1532	7423	7325	7691	8302	2304
2023	219	895	1607	7511	7719	7638	8262	2497
2024	196	856	1509	7387	7871	7622	8099	2619

Transportation Industry Workforce Age Distribution (1998-2024)

	14-18	19-21	22-24	25-34	35-44	45-54	55-64	65-99
1998	73	278	442	2052	2372	1604	861	256
1999	99	318	454	2134	2542	1773	909	281
2000	130	356	451	2064	2537	1897	951	310
2001	134	344	426	1984	2517	2025	1018	354
2002	102	329	407	1968	2618	2186	1174	383
2003	109	346	469	2088	2805	2419	1276	405
2004	130	347	454	1982	2646	2457	1328	394
2005	148	440	550	2154	2838	2707	1482	416
2006	154	552	689	2507	3291	3188	1728	473
2007	150	559	683	2508	3224	3212	1798	506
2008	146	537	636	2342	3152	3328	1923	549
2009	92	494	640	2433	2992	3209	1856	562
2010	63	434	656	2533	3036	3334	1994	633
2011	65	510	807	2931	3345	3666	2230	676
2012	59	577	942	3257	3524	3905	2473	738
2013	58	535	974	3338	3481	3851	2552	730
2014	58	564	1041	3583	3439	3840	2655	756
2015	76	692	1251	4330	3844	4230	3045	878
2016	115	927	1564	5348	4485	4649	3327	954
2017	155	1192	1816	6355	5148	5144	3761	1106
2018	188	1274	1847	6868	5534	5329	4027	1215
2019	257	1490	1900	7376	5976	5523	4271	1333
2020	390	1778	2120	7748	6312	5599	4366	1346
2021	531	2344	2464	8549	7126	6167	4823	1563
2022	408	2402	2721	9366	7857	6679	5141	1815
2023	276	1966	2550	9097	8076	6779	5226	1957
2024	215	1678	2261	8121	7545	6259	4946	1887

Retail Trade Industry Workforce Age Distribution (1998-2024)								
	14-18	**19-21**	**22-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65-99**
1998	2454	2617	1902	5967	6320	4709	2670	1284
1999	2700	2778	1890	5694	6218	4816	2784	1342
2000	3085	3049	1999	5697	6437	5174	2968	1429
2001	3208	3304	2137	5664	6555	5600	3234	1532
2002	3172	3391	2263	5707	6500	5799	3468	1602
2003	2993	3499	2425	5752	6366	5853	3593	1668
2004	3162	3712	2648	5888	6327	6169	3854	1759
2005	3139	3808	2742	5801	6242	6384	4016	1824
2006	3176	3810	2705	5722	6076	6425	4177	1866
2007	3288	3834	2670	5812	5877	6398	4243	1928
2008	3213	3967	2733	5968	5790	6517	4419	2070
2009	2494	3930	2706	5800	5414	6329	4350	2052
2010	2042	4052	2932	5916	5182	6291	4446	2046
2011	1916	4110	3086	6159	5093	6262	4695	2105
2012	1872	4167	3337	6512	5027	6171	4874	2268
2013	1749	4020	3449	6742	5022	6088	4997	2347
2014	1714	3820	3406	6895	4964	5873	5006	2430
2015	1783	3688	3243	6910	4922	5663	5085	2426
2016	1953	3663	3151	7076	4982	5584	5235	2504
2017	1976	3576	2937	6891	4968	5437	5310	2628
2018	2034	3567	2774	6802	5083	5292	5322	2756
2019	2094	3475	2678	6722	5108	5154	5316	2878
2020	2127	3358	2583	6372	5091	4842	5127	2747
2021	2697	3600	2578	6152	5061	4666	4984	2753
2022	2651	3547	2555	6159	5306	4696	5013	3012
2023	2404	3521	2556	6027	5340	4690	4966	3241
2024	2179	3468	2505	5778	5129	4580	4812	3346

APPENDIX C. Historical Educational Attainment

Healthcare Industry Educational Attainment (1998 – 2024)					
	Less than high school	High school or equivalent, no college	Some college or Associate degree	Bachelor's degree or advanced degree	Educational attainment not available (workers aged 24 or younger)
1998	1498	7144	11645	10540	3464
1999	1455	6683	10677	9360	3437
2000	1612	7438	12207	10933	3738
2001	1690	7648	12494	11169	3872
2002	1730	7841	12683	11287	3897
2003	1794	8052	13075	11634	3916
2004	1898	8398	13606	12208	4026
2005	2016	8842	14383	12930	4078
2006	2112	8964	14481	13052	4117
2007	2253	9291	14955	13436	4283
2008	2440	9660	15438	13867	4411
2009	2563	9862	15570	14016	4319
2010	2739	10152	15861	14311	4214
2011	2870	10323	16084	14528	4190
2012	3075	10519	16235	14702	4335
2013	3355	10948	16711	15109	4594
2014	3639	11371	17003	15307	4437
2015	3936	11564	17025	15258	4524
2016	4298	11938	17340	15468	4633
2017	4638	12333	17676	15798	4754
2018	5027	12892	18294	16420	5090
2019	5324	13208	18516	16496	5256
2020	5465	13248	18597	16690	4955
2021	5605	13259	18631	16950	4986
2022	6007	13718	19157	17460	5132
2023	6673	14668	20376	18456	5950
2024	7179	15309	21106	19051	6522

Note: Tables in Appendix C show the number of employments in different educational attainment boundaries by industries. The data was collected from Census QWI.

Transportation Industry Educational Attainment (1998 – 2024)					
	Less than high school	High school or equivalent, no college	Some college or Associate degree	Bachelor's degree or advanced degree	Educational attainment not available (workers aged 24 or younger)
1998	848	3028	2098	1170	792
1999	911	3230	2279	1218	870
2000	922	3295	2311	1230	938
2001	952	3364	2341	1242	904
2002	973	3528	2511	1319	839
2003	1058	3770	2739	1425	924
2004	1036	3643	2680	1450	931
2005	1166	3896	2934	1598	1138
2006	1450	4484	3423	1828	1395
2007	1536	4499	3436	1776	1391

2008	1478	4436	3497	1882	1319
2009	1537	4261	3400	1854	1227
2010	1662	4453	3538	1876	1154
2011	1884	4916	3915	2133	1382
2012	2128	5208	4214	2346	1578
2013	2189	5167	4226	2369	1567
2014	2271	5221	4328	2452	1662
2015	2648	5887	4966	2825	2019
2016	3246	6573	5671	3273	2606
2017	3873	7324	6512	3806	3162
2018	4236	7684	6949	4104	3308
2019	4558	8033	7434	4453	3646
2020	4732	8112	7717	4810	4286
2021	5327	8839	8579	5483	5340
2022	6046	9480	9352	5980	5531
2023	6177	9391	9384	6184	4792
2024	5753	8592	8689	5725	4153

Manufacturing Industry Educational Attainment (1998 – 2024)					
YEAR	**Less than high school**	**High school or equivalent, no college**	**Some college or Associate degree**	**Bachelor's degree or advanced degree**	**Educational attainment not available (workers aged 24 or younger)**
1998	4904	16783	13406	10633	3293
1999	4962	17442	14170	11262	3223
2000	4773	17080	14204	11322	3277
2001	4551	16392	14022	11500	3209
2002	4078	14962	12884	11008	2638
2003	3729	13648	11452	9425	2181
2004	3631	13246	11016	8734	2007
2005	3504	12954	10927	8594	2017
2006	3252	11723	9438	6379	1942
2007	3164	11360	9260	6310	2019
2008	3162	11176	9206	6296	1947
2009	2842	10266	8601	5955	1527
2010	2728	9753	8257	5786	1398
2011	2756	9647	8306	5799	1517
2012	2910	9900	8594	5983	1816
2013	3048	9879	8658	6042	1933
2014	3175	9984	8779	6160	1902
2015	3312	10064	8912	6321	1924
2016	3462	10170	9098	6488	1915
2017	3564	10161	9157	6619	1922
2018	3785	10360	9513	6896	1968
2019	3976	10547	9809	7287	2129
2020	4004	10282	9701	7124	1944
2021	4181	10466	9995	7351	2213
2022	4511	10670	10263	7601	2598
2023	4722	10726	10415	7764	2720
2024	4792	10645	10400	7760	2561

Retail Trade Industry Educational Attainment (1998 – 2024)					
	Less than high school	High school or equivalent, no college	Some college or Associate degree	Bachelor's degree or advanced degree	Educational attainment not available (workers aged 24 or younger)
1998	2344	9089	6158	3358	6973
1999	2360	8993	6160	3341	7368
2000	2455	9338	6438	3473	8134
2001	2556	9645	6714	3672	8649
2002	2579	9752	6906	3838	8825
2003	2588	9732	7020	3890	8916
2004	2658	10028	7235	4076	9521
2005	2680	10043	7351	4194	9689
2006	2660	9976	7402	4226	9690
2007	2692	9864	7444	4258	9792
2008	2764	9958	7622	4420	9914
2009	2676	9484	7419	4366	9130
2010	2669	9354	7431	4428	9024
2011	2736	9424	7580	4573	9113
2012	2834	9496	7794	4728	9376
2013	2923	9488	7915	4871	9219
2014	2988	9363	7886	4930	8940
2015	3030	9170	7830	4978	8714
2016	3146	9151	7951	5132	8767
2017	3157	8987	7922	5167	8490
2018	3191	8844	7938	5281	8374
2019	3220	8696	7927	5336	8248
2020	3121	8270	7604	5184	8068
2021	3056	7964	7428	5169	8875
2022	3244	8022	7596	5323	8753
2023	3256	7988	7621	5399	8481
2024	3156	7733	7436	5320	8152