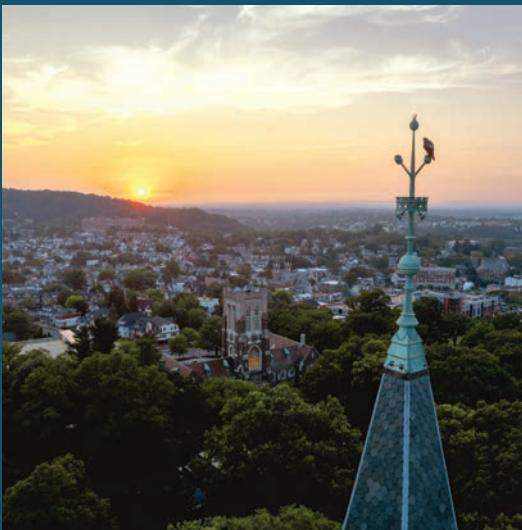


COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY ALTERNATIVE PLAN

2025 - 2027

Lehigh Valley

ECONOMIC DEVELOPMENT



STRATEGIC PLAN
2025 – 2027

A Message from the President & CEO

The Lehigh Valley is one of America's economic transition success stories. As Lehigh Valley Economic Development Corporation (LVEDC) marks its 30th Anniversary, the region has transformed from the loss of heavy industry and textile manufacturing to a new, diverse 21st century economy – still anchored by manufacturing – but much larger and creating more economic prosperity for the region's growing population.

The economic renaissance from 1995 to 2025 was driven by a regional collaboration across two counties, three cities, and 62 municipalities led by a partnership of the public and private sectors anchored by a strategic approach that built upon the region's competitive assets of geography, quality of life, education and training, and people. Today, the Lehigh Valley is one of Pennsylvania's largest population centers and economies and one of the fastest growing mid-sized markets in the U.S.

“Most of the challenges and needs of 30 years ago were replaced by a new set that comes with growth and prosperity.”

Don Cunningham
President & CEO
Lehigh Valley Economic
Development Corporation



In 2025, the Lehigh Valley has:

- Its largest population ever with 708,644 residents, a 28% increase since 1995.
- Its largest annual Gross Domestic Product at \$55.7 billion, more GDP than three states, and up from \$27.4 billion in 2004.
- A top U.S. manufacturing center with \$9 billion in annual output, more than 37,000 workers, and 700 manufacturers, accounting for 16% of the regional economy. (Manufacturing is 12% of the U.S. economy.)
- Its largest number of jobs, 340,087, a growth of 37% since 1995.
- Among the fastest growing population of young people (ages 18-34) in Pennsylvania, which has grown 5.9% since 2020.
- A median household income (\$81,709) that outpaces Pennsylvania (\$76,081) and the U.S. (\$78,539) and a poverty rate (10.5%) lower than the state (11.8%) and the nation (12.4%).

The transformation of the Lehigh Valley and its economy didn't happen by accident. Strategic planning, capitalizing on existing assets and creating new ones, has been at the core of that success, along with understanding the region's strengths and weaknesses and competitive realities with other markets and nations.

That process continues with LVEDC's Strategic Plan 2025-2027. Every three years, LVEDC's Board of Directors, which is comprised of the leadership of the region's largest and most critical employers, educational institutions, largest governments, and regional non-profits, commissions an independent review of Lehigh Valley's assets and challenges.

708,644
POPULATION

\$55.7 Billion
GROSS DOMESTIC PRODUCT

\$9 Billion
MANUFACTURING OUTPUT

Surveys, interviews, and focus groups were done with a cross section of public and private stakeholders to ensure broad stakeholder input in the development of a strategic economic development plan for the region.

Once again, the board engaged Garner Economics of Atlanta, Ga., to conduct an independent assessment of the region's strengths and weaknesses in comparison to its competition across the country. Those assessments and Garner's recommendations for the Lehigh Valley are part of the three-year plan.

These are new times in the Lehigh Valley. Most of the challenges and needs of 30 years ago were replaced by a new set that comes with growth and prosperity. Many of the market's biggest challenges are a reaction to growth: a shortage of housing units and affordability challenges, resident and local government opposition to development projects, and a pressing need to continue finding and training workers.

For the first time, the LVEDC strategic plan reaches beyond economic development boundaries. The Garner report targets regional issues that involve a wide range of stakeholders and local, state, and federal policymakers. They include the development of affordable workforce housing options, employer-sponsored private/public childcare, and dedicated economic development funding models for the state.

LVEDC's new strategic plan continues its rifle shot approach to recruiting companies in specific industries, such as life sciences, pharmaceuticals, advanced manufacturing, biomedical R&D, health care, regional and corporate headquarters, creatives services, and quality of life developments.



Strategic Plan 2025-2027 continues to prioritize our work in education and talent supply, development site preparation, marketing, communications, research and data analysis, quality of place growth and marketing, and the continued development of regional coalitions and sub-coalitions. It focuses as much on retaining and growing existing companies and developing entrepreneurs as it does the attraction and recruitment of new companies. The plan places importance on reusing former industrial properties and infill parcels in urban centers and growing the quality of life in downtowns.

Our work is grouped in five areas - targeted development, targeted sites, targeted talent, knowing thyself and telling our story, and building partnerships and place. The five areas include 20 initiatives summarized in this overview.

In a world of rapid technological advancements and interconnection, the Lehigh Valley must continue to monitor change, adapt, and stay ahead of where the world is going. It's that approach that has driven the region's storybook economic renaissance.

Data Sources: U.S. Census Population Estimates, 1995-2024; U.S. Bureau of Economic Analysis, 2023; Chmura Economics JobsEQ, Q1 2025; and American Community Survey, 2023 5-year estimates.

341,325
JOBS

\$81,709
MEDIAN HOUSEHOLD INCOME

10.5%
POVERTY RATE

Our Mission

The mission of the Lehigh Valley Economic Development Corporation is to market the economic assets of the Lehigh Valley and to create partnerships to support the recruitment, growth and retention of employers and the creation of jobs for people of all skill and education levels.





Our Vision

Our vision is of a diverse Lehigh Valley economy that provides economic growth and opportunity for people of all skill and education levels and strengthens all our cities, boroughs, and townships.



Our Values

Find a way: We do what it takes to solve the problem or find the answer.

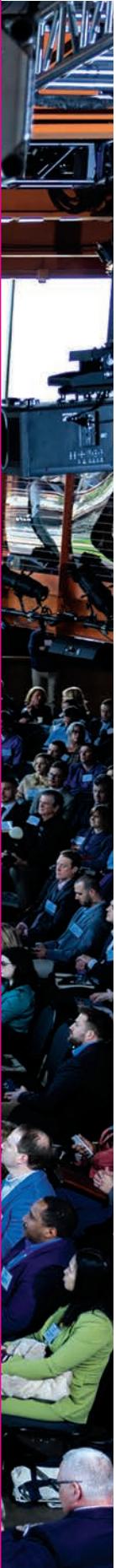
Build the team: We work with each other and all partners to find solutions.

Collaborate: We are the region's economic connector.

Inspire trust: Treat all equally and fairly and focus on the big picture.

Results first: Focus our work and efforts on outcomes, not on process.





Our Principles

To Create Value and Use What We're Given...

We will maximize the financial resources and partnerships that are available to us in an efficient, professional, and value-added manner.

To Know Thyself...

We will be an important source of economic data and market intelligence on the Lehigh Valley economy, its assets, and resources to drive economic strategies, marketing efforts, and the needs of our stakeholders.

To Tell Our Story...

We will tell our economic story to increase awareness both inside and outside our region and across the world of the economic assets, advantages, and strengths of the Lehigh Valley to attract and support the growth of employers.

To Always Get Better...

We will form partnerships, be a resource and a connector for stakeholders that have a role in making it easier for businesses to come here and grow here by making the complex simple and identifying the challenges and creating strategies to improve economic growth.

To Advocate and Coordinate...

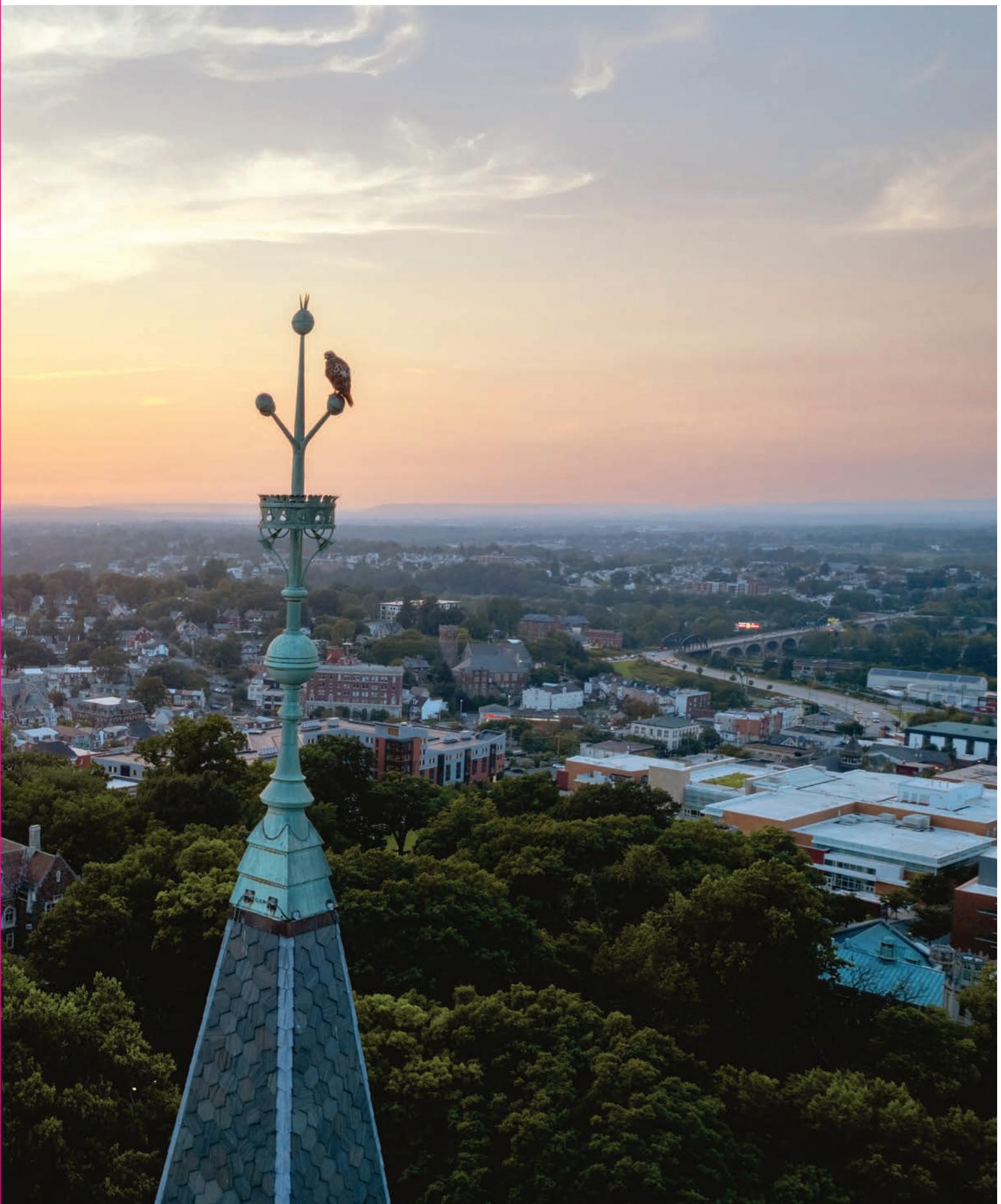
We will advocate for the improvement of economic assets and policies to strengthen the Lehigh Valley's ability to attract new employers, better prepare our workforce, serve our existing employers, and grow our entrepreneurs.

LVEDC Initiatives 2025-2027

A wide-angle photograph of a city at sunset. The sky is filled with warm, orange and yellow hues, with the sun low on the horizon behind a range of hills. In the foreground, a dense cluster of buildings, likely residential houses, is visible. The overall atmosphere is peaceful and suggests a thriving community.

- Targeted Development
- Targeted Sites
- Targeted Talent
- Know Thyself and Tell Our Story
- Build Partnerships and Place

A vertical strip on the right side of the slide, showing a close-up of a Gothic-style church tower with intricate stonework and a spire. The tower is surrounded by lush green trees and bushes. The lighting suggests it might be the same sunset as the background image.

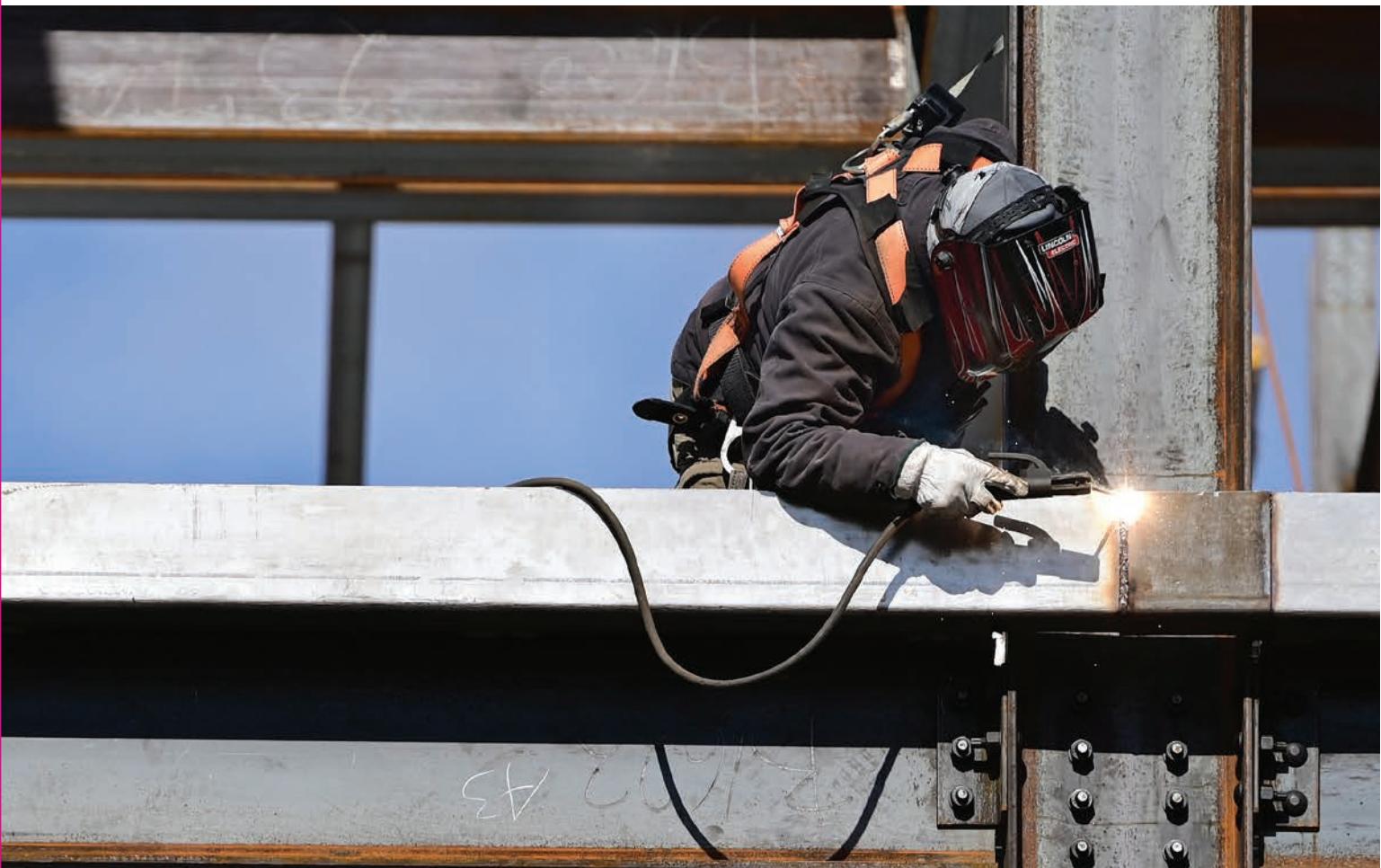


Targeted Development

LVEDC is sharpening its focus on attracting companies in strategic industry sectors that drive future economic growth and offer high-value jobs.

- Life Sciences, Pharma, and Biomedical
- Advanced Manufacturing, Technology, and Production
- Professional and Creative Services
- Food and Beverage Processing

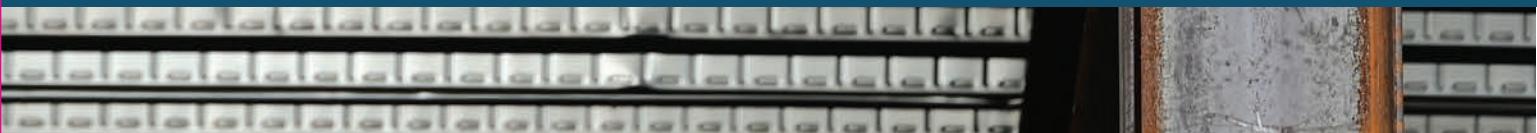




Targeted Sites

An established market, the Lehigh Valley is pursuing a deliberate economic development strategy that emphasizes the reuse of former industrial sites and urban infill areas to support job opportunities and quality of life rather than developing greenfields.

- **Redevelopment and Brownfield Reuse**
- **Urban Asset Growth and Infill Opportunities**
- **Site Preparedness and Readiness**
- **Engagement of Policymakers and Developers to Create Needed Product**





Targeted Talent

There will be a continued focus on attracting and developing talent linked to private-sector job creation. The approach helps existing employers as much as those recruited to the Lehigh Valley.

- Market for Talent Growth
- Understand Evolving Skills Gaps and Talent Needs
- Link Students to Employers: Internships, Apprenticeships
- Strengthen and Build Education and Employer Coalitions

Know Thyself & Tell Our Story

To strengthen the Lehigh Valley's competitive position, LVEDC will focus on deepening its understanding of the region and communicating why it is an attractive place to live, work, and do business.

- Collect and Communicate Economic and Community Data
- Benchmark and Communicate Region's Competitive Realities
- Expand Adoption of Regional "Made in Lehigh Valley" and Quality of Place Marketing
- Increase Earned Media Coverage and Online Marketing of Region



Build Partnerships & Place

To strengthen the Lehigh Valley's competitive position, LVEDC will build on three decades of transformation driven by unprecedented regional cooperation among municipalities, public leaders, and private-sector partners. LVEDC will continue to grow and diversify its coalitions to strengthen competitiveness, expand opportunity, and support a thriving regional economy.

- Grow Public-Private Coalition and Create Targeted New Sub-coalitions
- Broaden Coalition on Unified Regional Marketing
- Engage Policymakers to Increase Competitiveness and Development Opportunities
- Engage and Support Housing, Childcare, and Quality of Life Initiatives
- Support Coordination of Entrepreneurial Ecosystem to Grow Startup Businesses





Outdoor Economy & Quality of Place

LVEDC will support development of the outdoor economy and other entertainment and tourism initiatives to enhance the Lehigh Valley's quality of place and visitor experience.

- Amusement and Sports Facilities
- Outdoor Recreation and Activities
- Sports & Recreation Retail
- Culinary and Lifestyle Economy



Lehigh Valley

ECONOMIC DEVELOPMENT

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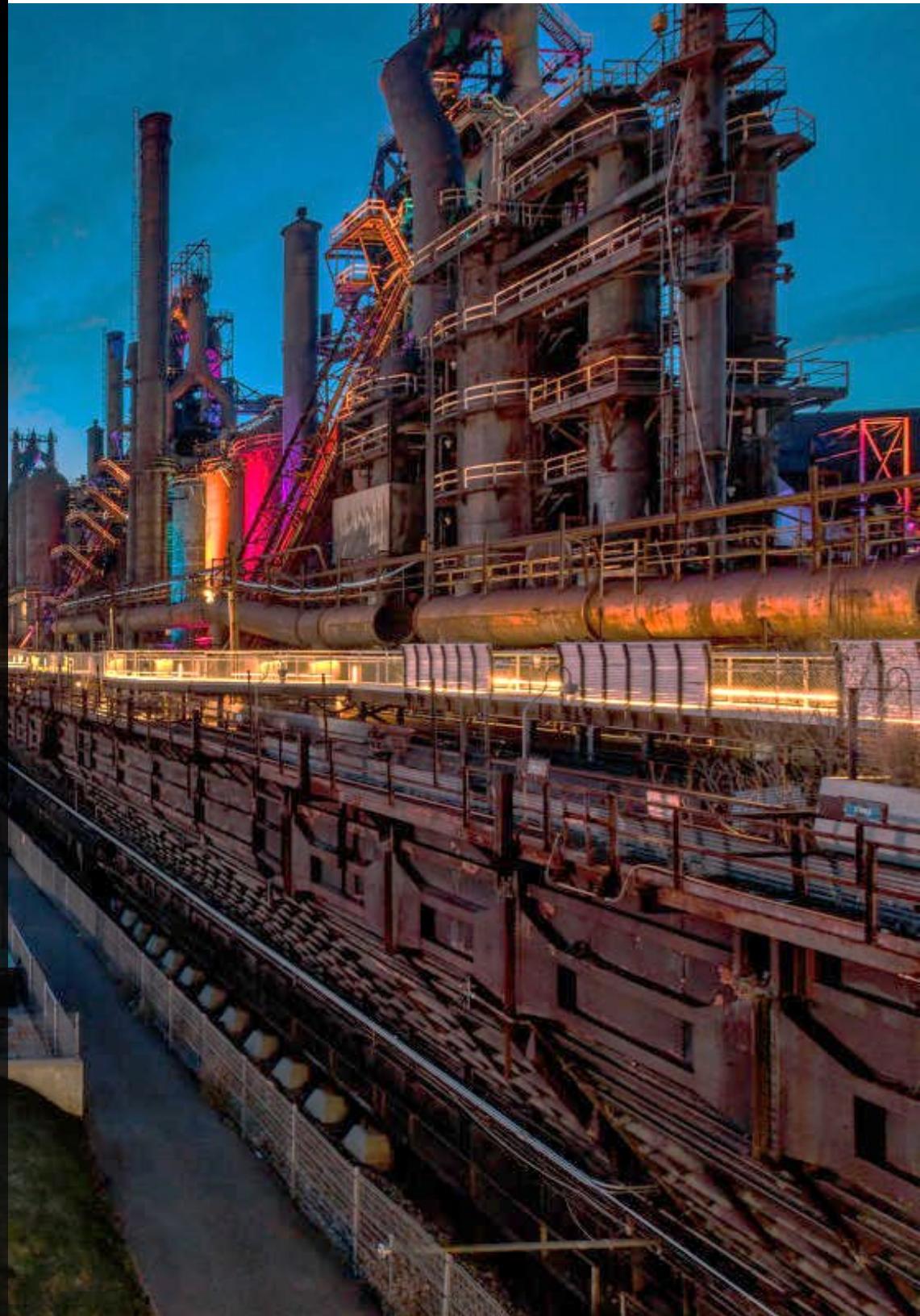


THE NEXT CHAPTER:
An Economic Development
Action Plan for the Lehigh Valley,
Pennsylvania

Lehigh Valley

ECONOMIC DEVELOPMENT

November 11, 2024



The Next Chapter: An Economic Development Action Plan for the Lehigh Valley



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Executive Summary

In April of 2024, the Lehigh Valley Economic Development Corporation (LVEDC) retained Garner Economics, LLC to update the economic development strategy for the Lehigh Valley. The LVEDC first retained Garner Economics to conduct and create an economic development strategy in 2013 (the region's first comprehensive assessment of the area's economic development competitiveness and service delivery), with subsequent updates to the plan by Garner Economics in 2017, 2020, and now a new approach in 2024.

This new plan, titled **THE NEXT CHAPTER: AN ECONOMIC DEVELOPMENT ACTION PLAN FOR THE LEHIGH VALLEY**, provides renewed focus on asset development, marketing, and organizational changes the Lehigh Valley and its economic development partners should take to keep the region on a trajectory of success. This action plan will help the region attract high-value businesses and retain existing businesses, create jobs, and nurture opportunities to attract talent.



Analysis and Assessments

This new approach began with a comprehensive review of the region in terms of *people, place, and product*. Elements of this Phase 1 Discovery effort included:

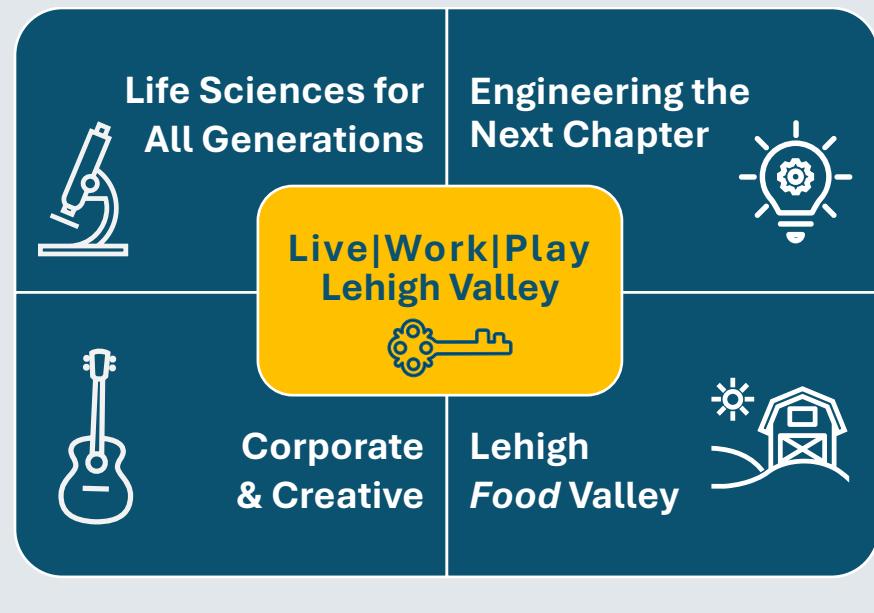
- A deep dive into the demographic, community & economic dynamics of Lehigh Valley
- An Assets & Challenges Assessment from the lens of a site selection consultant
- Stakeholder engagement to ascertain the perceptions of local businesses and leaders
- On-site visit and tour of Lehigh Valley to determine firsthand the assets and product available or in development.

Findings from this Phase 1 effort are published in the **COMPETITIVE REALITIES REPORT (CRR)**, a compilation of local and regional facts, data points, and stakeholder feedback. A summary of the CRR is provided in Chapter 1. These results provide the basis for determining target opportunities and recommendations for the LVEDC to create the next chapter for the Lehigh Valley.

Target Business Sectors

The optimal business sector targets presented in Chapter 2 provide the rationale for five business sector targets, one of which is to enhance the Lehigh Valley's experiential tourism and quality of place. Together, these targets will help the region grow and diversify its economic base. The five targets are *Life Sciences for All Generations*; *Engineering the Next Chapter*; *Corporate & Creative*; *Lehigh Food Valley*; and *Live/Work/Play: Lehigh Valley*.

The targets are chosen based on the region's attributes, assets, and proximity to other economic drivers. Each target family has a profile with valuable data and a narrative to support the selection. While target marketing is primarily the work of economic development, executing the experiential and quality of place target might typically be a cooperative effort led by organizations other than the LVEDC.



Recommendations

Lehigh Valley has experienced transformation since 2013, with growth in population and jobs, making it a more vibrant and dynamic region. The Valley has renewed and rebuilt and is now in a place of proactive maintenance. Garner Economics offers recommendations outlined in Chapter 3 to address challenges and keep the region and organization best in class and ready for the next chapter of growth.

Recommendations are presented in external (public-facing) and internal (organizational) categories:

EXTERNAL RECOMMENDATIONS

1. Enhance the Entrepreneurial Ecosystem.
2. Promote Single-Family Real Estate Rental Development.
3. Encourage Employer-Sponsored Public-Private Childcare.
4. Advocate for a Statewide Economic Development Funding Model.
5. Spur a Proactive Marketing and Talent Attraction Effort.

INTERNAL RECOMMENDATIONS

1. Create A Permitting and Regulatory Ombudsman Position.
2. Conduct Economic Development Leadership Laboratories.
3. World Trade ABE (for foreign direct investment).

Chapter 1. Competitive Realities Review: Current Standing of the Lehigh Valley



Stakeholder Engagement

Garner Economics held focus groups of key stakeholders representing Lehigh Valley businesses and community partners as part of the discovery process. Four focus groups were conducted via virtual tools, and the fifth was held in person with the LVEDC Board of Directors. An electronic survey was also distributed to reach a broader regional audience and received 330 responses. This process asked participants to rate the business climate and labor dynamics and share perceptions (on a 1-5 scale with 5 being the best).

3.6

Lehigh County
Business Climate Rating

3.5

Northampton County
Business Climate Rating

3.3

Entrepreneur
Support

3.4

Workforce Training
Effectiveness



Community Data Analysis

Demographic, labor and community indicators were evaluated as positive, neutral, or challenge based on the comparison to state and national benchmarks, change over time, or both. Neutral ratings generally resulted from factors with both negative and positive aspects. Each chapter begins with a visual summary of indicators and a narrative presenting the key themes affecting Lehigh Valley's standing. Most indicators were positive, showing growth, while 6 were neutral, and 7 were deemed a challenge.



Assets & Challenges Assessment

This assessment provides an overview of the area's strengths and weaknesses through the lens of a company or site location consultant evaluating the region for potential corporate investment. Over 50 community factors are part of this assessment across six categories, rated with an asset, challenge, or neutral indicator.

*There were no challenges or weaknesses in the main categories, but individual indicators, such as cost of living and moderate level housing within the Quality of Place category, are rated as a challenge)

Chapter 2. Optimal Targets for Lehigh Valley

Target marketing for development has become a standard for high-performing economic development organizations to effectively attract, retain, and expand business investment in their communities. This tactic helps prioritize resources and focuses on businesses appealing to residents and have the ability to thrive in the region. A targeted approach allows the LVEDC to understand the business sector's needs and preferences and tailor messaging to prospects around the region's strengths.

Garner Economics arranges business sectors among similar types of companies to create target families. This grouping helps align with the specific community's assets the business sectors seek—such as workforce skills, infrastructure, or supply chain networks.



How are targets chosen? Targets are determined using a desirability and feasibility screening.

Desirability: What would stakeholders of Lehigh Valley like to see in the community? The top responses included Life Sciences/Biotechnology, Manufacturing, Technology-based businesses, and Semiconductor Manufacturing.

Feasibility: What can Lehigh Valley reasonably attract and grow based on current or planned locational assets and economic analysis? This data-driven approach considers the region's competitive advantage and assets along with the overall industry performance, growth potential, or ability to improve the quality of place for new and existing residents.

Distribution Target. The rapid growth of distribution during and immediately after the pandemic has slowed down. Distribution facilities will continue to locate facilities organically due to geography without recruitment efforts. Stakeholders overwhelmingly stated that additional warehouses were not desired in Lehigh Valley. While the LVEDC cannot control the market, this sector was omitted as a target and is not included or prioritized within the plan for investing recruitment time or dollars.

Recommended Target Families. The five targets advised for LVEDC are *Life Sciences for All Generations*, *Engineering the Next Chapter*, *Corporate & Creative*, *Lehigh Food Valley*, and *Live/Work/Play: Lehigh Valley*. Each target family has a profile with detailed rationale as to why targets were chosen and valuable information that can be used for marketing and sharing with regional partners.

While target marketing is primarily the work of economic development, executing the experiential and quality of place target *Live/Work/Play: Lehigh Valley* will be a cooperative effort that may be led by organizations other than the LVEDC.

These target families invite a full complement of recruitment, entrepreneurial, and expansion support among economic development team players for business, tourism, and quality of place.



Optimal Targets for Lehigh Valley

				
Life Sciences for All Generations	Engineering the Next Chapter	Corporate & Creative	Lehigh Food Valley	Live Work Play Lehigh Valley
Biomedical R&D and Manufacturing	Engineering, AI, and Manufacturing	Professional & Creative Services	Food & Beverage Processing	Experiential & Quality of Place
<ul style="list-style-type: none"> • Pharmaceutical mfg. • Medical equipment mfg. • Biomedical R&D • Medical & diagnostic labs • Biological product mfg. • Personal wellness & cosmetic products mfg. 	<ul style="list-style-type: none"> • Engineering, AI & applied technology (R&D/services)* • Automotive/truck components mfg. • Engine equipment mfg. • Metalworking & forging • Machine Shops* • Electrical component mfg. • Semiconductor-related device mfg. • Battery & component mfg. • Plastic product & packaging mfg. 	<ul style="list-style-type: none"> • Corporate HQ • Business & shared services • Creative design* • Music & video services* • Computing infrastructure providers, data hosting • Data processing & analytics • Software programming & app development* 	<ul style="list-style-type: none"> • Pet foods • Fruit & vegetable preserving/processing • Vertical farming • Further processed foods • Beverages & bottled water • Cold storage facilities • Specialty foods (sauces, snacks, dressings, etc.)* • Confectionery products • Bakeries 	<ul style="list-style-type: none"> • Outdoor economy & sports tourism <ul style="list-style-type: none"> • Amusement and sports facilities • Outdoor tour & activities operators • Sports & equipment retailers, distributors • Craft breweries/small-batch distilleries* • Local or unique/boutique retail* • Specialty food stores

* Entrepreneurial Focus



Life Sciences for All Generations

Biomedical R&D and Manufacturing

- Pharmaceutical mfg.
- Medical equipment mfg.
- Biomedical R&D
- Medical & diagnostic labs
- Biological product mfg.
- Personal wellness & cosmetic products mfg.



The life sciences industry is growing due to various factors, including an aging population needing healthcare and advanced research, opening the door to more discoveries and expansion of treatments. Innovations in AI, genomics, and digital health are shaping a future of more effective, personalized healthcare for all ages.

Lehigh Valley is attractive for life science businesses due to its strategic location, skilled workforce, and access to higher education institutions. Situated within close proximity to major life science hubs like Philadelphia, New York City, and New Jersey, the Lehigh Valley offers convenient access to suppliers, partners, research institutions, and potential clients.

The region is already home to a burgeoning life science sector with key players in biotech, pharmaceuticals, medical devices, and healthcare research. Existing firms like B.Braun, Olympus Corporation, OraSure Technologies, and Sharp call Lehigh Valley home.

OraSure Technologies was born and grew in Lehigh Valley, an example of the innovation and entrepreneurial support in the region. Funding is an essential part of the story of growth. Ben Franklin Technology Partners offers startup financing via the Life Science & Healthcare Technology Fund. More dollars are available for research from venture capital firms and the National Institutes of Health.

Nationally, the target grew by 27% in employment, while Leigh Valley experienced a 48% increase in the family of industries between 2014 and 2024. Employment concentration indicates regional specialization in *Surgical & Medical Instrument Mfg.* (LQ 5.3), *Medical/Diagnostic Laboratories* (LQ 2.3), *Pharmaceutical Mfg* (LQ 1.6), and *Soap, Cleaning Compound & Toilet Preparation Mfg.* (LQ 1.4).

The factors outlined here make the Lehigh Valley a prime location for life science companies looking to grow in a cost-effective, well-connected, supportive environment.

Life Sciences for All Generations

Target rationale includes:

- Proximity to major life science hubs (P)
- Centrally located for major regional & national markets (P)
- Well-positioned to serve international markets (P)
- Excellent Interstate highway access (P)(C)
- Rail service & port access (P)
- Proximity to commercial and international airports (P)(C)
- Availability of business and professional services (P)
- Availability of tax-exempt financing for new industrial facilities (P)
- Availability of local incentives (P)
- Competitive cost of labor (P)

Life Sciences for All Generations

Talent and innovation assets:

- Area universities/colleges (P)(C)
- Access to community college/training (P)(C)
- 7,000 credentials awarded for studies that support target operations (P)(C)
- Availability of engineering programs (P)(C)
- Lehigh University's Center for Mfg. Systems Engineering, Bioengineering, and Biotechnology Minor (P)(C)
- Availability of manufacturing processes (P)
- Solid entrepreneurial ecosystem (P)(C)
- Quality of local elementary and secondary education (P)(C)
- Competitive cost of living relative to big markets (P)(C)
- Excellent health care systems (C)

Life Sciences for All Generations

Target statistics:

Lehigh Valley

Employment & GRP

• 10-Year % Change	47.8%
• 10-Year Forecast Growth	3.1%
• Average Wage	\$99,731
• Location Quotient	1.3
• GRP 10-Year Growth	192.3%

United States

Employment & GRP

• 10-Year % Change	27.0%
• 10-Year Forecast Growth	6.5%
• Average Wage	\$127,603
• GDP 10-Year Growth	79.7%

Industry Specialization (LQ)

- *Medical Instrument Mfg.* (LQ 5.3)
- *Medical/Diagnostic Laboratories* (LQ 2.3)
- *Pharmaceutical Mfg* (LQ 1.6)
- *Soap, Cleaning Compound & Toilet Preparation Mfg.* (LQ 1.4)

Legend: Items appealing to prospects (P) or community (C) needs.

Table 2.1 Life Science for All Generations Target Job Change and Forecast, 2024*Lehigh Valley & United States**High employment concentration (LQ)¹ above 1.2 in yellow*

NAICS	Industry	Lehigh Valley				United States		
		10-Year Change	10-Year % Change	10-Year Forecast	LQ ¹	10-Year Change	10-Year % Change	10-Year Forecast
3254	Pharmaceutical & Medicine Mfg.	826	252.0%	3.6%	1.6	69,169	24.8%	5.2%
3256	Soap, Cleaning Compound & Toilet Preparation Mfg.	245	228.6%	0.1%	1.4	11,822	10.9%	2.6%
5417	Scientific Research & Development	-24	-2.2%	5.2%	0.5	300,594	45.3%	7.3%
6215	Medical & Diagnostic Laboratories	322	27.1%	5.3%	2.3	70,051	27.7%	8.2%
54169	Other Scientific & Technical Consulting Services	108	75.0%	6.0%	0.5	7,418	3.0%	9.4%
339112	Surgical & Medical Instrument Mfg.	401	34.7%	-0.5%	5.3	24,768	20.9%	2.5%
339113	Surgical Appliance & Supplies Mfg.	72	101.1%	1.1%	0.7	3,851	3.8%	2.5%
339115	Ophthalmic Goods Mfg.	1	7.1%	-0.8%	0.4	-2,855	-10.6%	2.5%
Total/Average		1,951	47.8%	3.1%	1.3	484,819	27.0%	6.5%

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economic

¹ Location Quotient (LQ) measures specialization or concentration, usually in employment. The LQ compares local employment in an industry sector or occupation as a percentage of total employment to this same percentage nationally.

Table 2.2 Life Science for All Generations GRP/GDP, 2023*Lehigh Valley Gross Regional Product (GRP) & United States Gross Domestic Product (GDP)*

NAICS	Industry	Lehigh Valley		United States	
		GRP (Millions)	10-Year % Change	GDP (Millions)	10-Year % Change
3254	Pharmaceutical & Medicine Mfg.	\$538.3	387.4%	\$252,001.8	71.3%
3256	Soap, Cleaning Compound & Toilet Preparation Mfg.	\$105.4	568.2%	\$47,439.6	75.9%
5417	Scientific Research & Development	\$268.2	189.1%	\$231,614.2	115.9%
6215	Medical & Diagnostic Laboratories	\$190.2	82.1%	\$36,210.1	72.7%
54169	Other Scientific & Technical Consulting Services	\$40.4	89.0%	\$43,191.1	47.9%
339112	Surgical & Medical Instrument Mfg.	\$299.7	104.2%	\$31,948.1	52.3%
339113	Surgical Appliance & Supplies Mfg.	\$19.2	156.0%	\$21,285.7	38.3%
339115	Ophthalmic Goods Mfg.	\$3.1	63.9%	\$3,780.1	4.2%
Total/Average		\$1,464.6	192.3%	\$667,470.6	79.7%

Source: JobsEQ, 2023 US Dollars, Garner Economics

\$1.46 B

Annual GRP

Life Sciences Operations
Lehigh Valley region

Table 2.3 Life Science for All Generations Top In-Demand Occupations, 2024

High employment concentration (LQ)² above 1.2 in yellow

SOC	Occupation	LQ ²	Residents in Occupation	Employed in Valley	Net Out-Commuting ³	10-Year % Job Change	10-Year Forecast	10-Year % Job Change (U.S.)	10-Year Forecast (U.S.)
15-1250	Software and Web Developers, Programmers, and Testers	0.5	3,267	2,353	913	2.0%	17.2%	40.6%	22.4%
49-9040	Industrial Machinery Installation, Repair, and Maintenance Workers	1.0	1,168	1,115	53	45.3%	13.6%	27.5%	12.8%
17-2110	Industrial Engineers	1.1	787	801	-15	48.7%	10.6%	40.5%	10.3%
13-1080	Logisticians and Project Managers	0.8	2,005	1,726	279	58.7%	8.3%	92.4%	9.2%
17-2140	Mechanical Engineers	1.6	947	968	-21	15.5%	8.3%	21.7%	8.5%
31-9090	Miscellaneous Healthcare Support	1.1	4,052	3,834	218	21.1%	7.9%	25.4%	10.5%
19-1040	Medical Scientists	0.8	218	210	7	16.1%	6.4%	18.6%	8.2%
19-2030	Chemists and Materials Scientists	1.8	348	352	-4	21.2%	4.8%	6.4%	4.4%
49-9070	Maintenance and Repair Workers	1.0	3,488	3,366	122	15.6%	4.1%	14.9%	3.7%
29-2030	Diagnostic Related Technicians	1.7	1,626	1,511	115	34.5%	4.1%	22.7%	5.7%
19-1020	Biological Scientists	0.7	193	183	11	50.7%	3.8%	42.2%	2.8%
11-9120	Natural Sciences Managers	1.0	193	176	17	59.7%	3.5%	63.0%	3.6%
51-9110	Packaging and Filling Machine Operators	1.7	1,297	1,349	-51	32.0%	3.4%	11.1%	3.9%
19-4020	Biological Technicians	1.0	205	159	46	17.7%	2.7%	19.1%	3.4%
11-1020	General and Operations Managers	0.9	7,146	6,624	521	50.7%	2.2%	64.8%	4.9%
29-2010	Clinical Laboratory Technicians	1.5	1,153	1,132	21	11.2%	2.2%	9.8%	4.0%
19-4030	Chemical Technicians	1.5	221	178	43	6.1%	0.9%	-4.6%	2.2%
11-3050	Industrial Production Managers	1.1	541	501	40	48.5%	0.6%	36.9%	1.0%
17-3020	Engineering Technicians	0.8	873	638	235	-9.2%	0.0%	-3.3%	1.6%

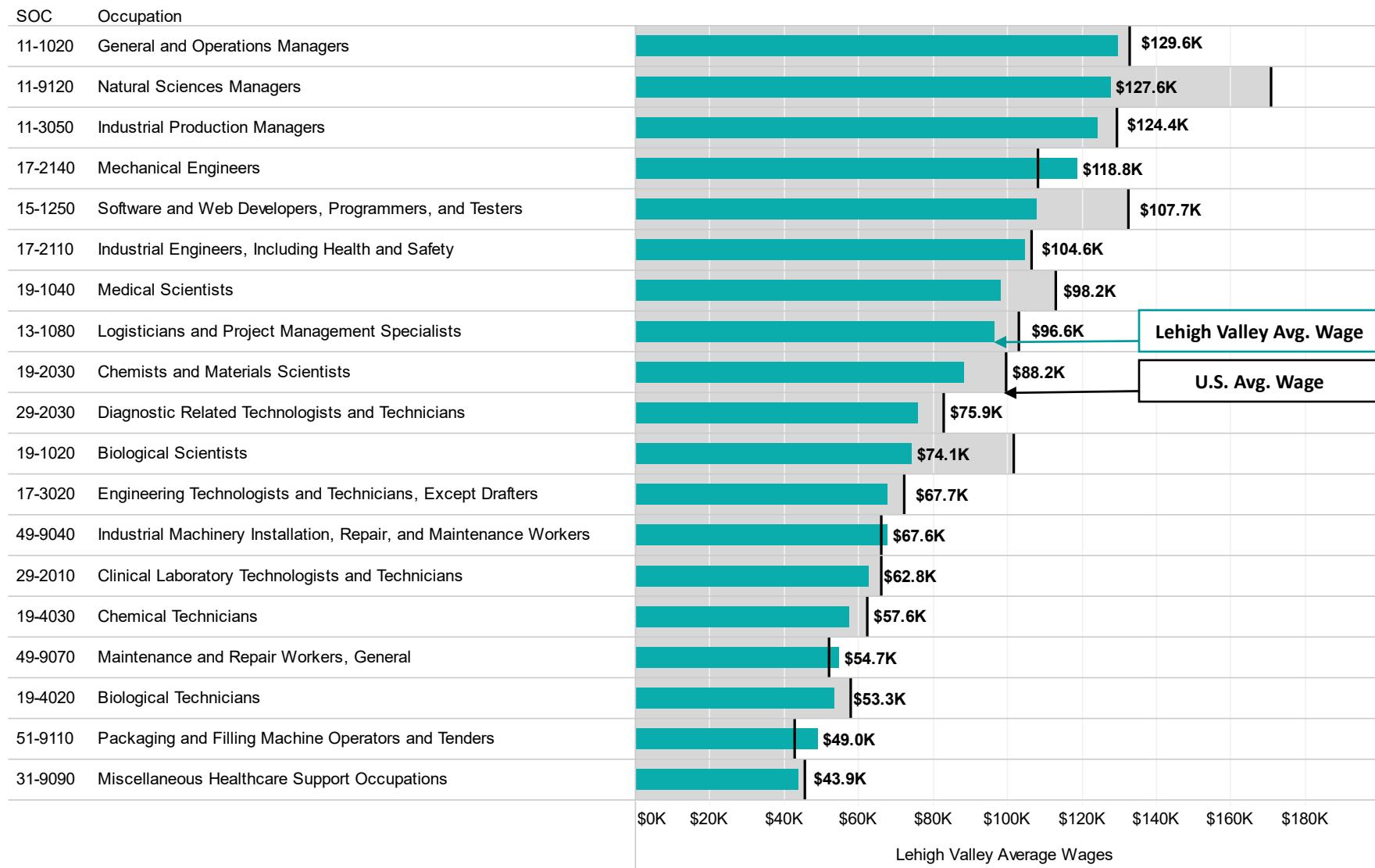
Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

² Location Quotient (LQ) measures specialization or concentration, usually in employment. The LQ compares local employment in an industry sector or occupation as a percentage of total employment to this same percentage nationally.

³ Net Commuting reflects the net number of residents in the occupation compared to employment based in Leigh Valley. A positive number indicates more residents leave the region for work, in essence, there are more residents in the occupation than there are jobs existing in Lehigh Valley.

Figure 2.1 Life Science for All Generations Top Occupational Wage Comparison

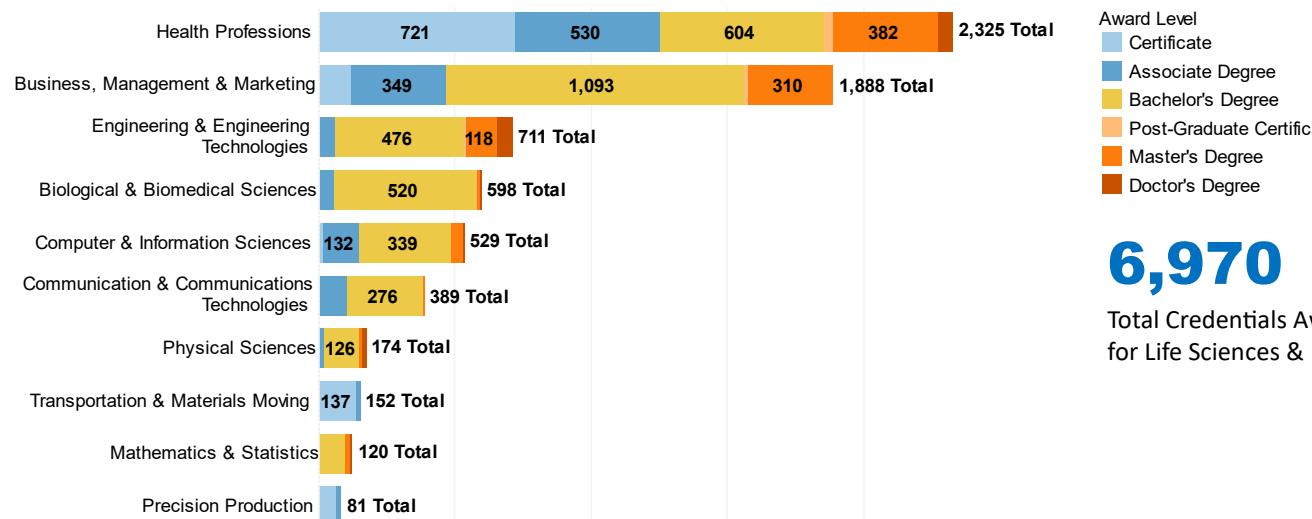
Annual average wages for Lehigh Valley compared to the United States Average, 2024



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 2.2 Life Science for All Generations Higher Education by Award Level

Certificates and degrees awarded at 2 and 4-year schools, 2022



Award Level
 Certificate
 Associate Degree
 Bachelor's Degree
 Post-Graduate Certificate
 Master's Degree
 Doctor's Degree

6,970

Total Credentials Awarded
 for Life Sciences & Related Operations

Table 2.4 Life Science for All Generations Higher Education

Certificates and degrees awarded at 2 and 4-year schools, 2022

Area of Study	Credentials Awarded
Health Professions	2,325
Business, Management & Marketing	1,888
Engineering & Engineering Technologies	711
Biological & Biomedical Sciences	598
Computer & Information Sciences	529
Communication & Communications Technologies	389
Physical Sciences	174
Transportation & Materials Moving	152
Mathematics & Statistics	120
Precision Production	81
Total	6,970

The region's talent pool is fueled by local universities and colleges with strong life science programs, including Lehigh University, DeSales University, and Muhlenberg College. These institutions, plus others in the greater area, produce a steady stream of highly trained graduates in biology, chemistry, biomedical engineering, and related fields.

Within a 45-minute drive, institutions collectively awarded nearly 7,000 credentials to students in 2023 for studies supporting target operations.

Source: National Center for Education Statistics, Institutions in the Lehigh Valley 45-minute drive-time area, Garner Economics



Engineering the Next Chapter

Engineering, AI, and Manufacturing

- Engineering, AI & applied technology (R&D/services)*
- Automotive and truck components mfg.
- Engine equipment mfg.
- Metalworking & forging
- Machine Shops*
- Electrical component mfg.
- Semiconductor and related device mfg.
- Battery & component mfg.
- Plastic product & packaging mfg.

* *Entrepreneurial Focus*



Stories about technology and how it will change the future fill the news daily. Artificial intelligence (AI) drives innovation across many industry sectors, including manufacturing. Along with automation, it will change the nature of production and its workers. Harnessing technology for manufacturing and other industries is essential in creating an innovation engine in Lehigh Valley.

Manufacturing is a core strength for Lehigh Valley, and innovations give local industries a competitive edge. Technology development for one application may be adapted for use across multiple industry sectors. The region's continued investments in building an environment for developing new technologies can attract new investment and spur more entrepreneurial activity.

Engineering the Next Chapter for Lehigh Valley is built around bolstering an infrastructure of technology transformation. Engineering firms, research and development, and applied technology services can lead and support this

effort. Semiconductor and related device manufacturing are examples of leading-edge development that received an added boost from the Chips Act. This industry, as well as battery and component production, will continue to grow and innovate.

Some sub-sectors in this target incorporate legacy manufacturing strengths for the Valley, such as metalworking and forging, which have regional concentrations (LQ 1.6 & 1.4). Other suggested targets aim to fill in supply chain gaps for existing industries.

Entrepreneurial support can also be an effective strategy for this target, particularly in machine shops. These companies are essential support for manufacturing but are not often relocated but instead grown locally.

Elements in this target incorporate traditional and advanced manufacturing sectors that will be at the forefront of the next generation of makers. A backbone of innovation can transform existing industries and attract more to the region.

Engineering the Next Chapter	Engineering the Next Chapter	Engineering the Next Chapter
Target rationale includes:	Talent and innovation assets:	Target statistics:
<ul style="list-style-type: none"> Strong manufacturing culture (P) Centrally located for major regional & national markets (P) Well-positioned to serve international markets (P) Excellent Interstate highway access (P)(C) Rail service & port access (P) Proximity to commercial and international airports (P)(C) Availability of business and professional services (P) Availability of tax-exempt financing for new industrial facilities (P) Availability of local incentives (P) Competitive cost of labor (P) 	<ul style="list-style-type: none"> Skilled technical workforce (P) 23,000+ production workers 13,000 engineering, computer, mathematical, and science workers Area universities/colleges (P)(C) Access to community college/training (P)(C) 4,000 credentials awarded for studies that support target operations (P)(C) Availability of engineering programs with 711 degrees awarded (P)(C) Lehigh University's Center for Mfg. Systems Engineering (P)(C) Availability of manufacturing processes (P) Solid entrepreneurial ecosystem (P)(C) Quality of local elementary and secondary education (P)(C) Competitive cost of living relative to big markets (P)(C) Excellent health care systems (C) 	<p>Lehigh Valley <i>Employment & GRP</i></p> <ul style="list-style-type: none"> 10-Year % Change 10.8% 10-Year Forecast Growth 2.0% Average Wage \$88,382 Location Quotient 1 GRP 10-Year Growth 31.1% <p>United States <i>Employment & GRP</i></p> <ul style="list-style-type: none"> 10-Year % Change 20.1% 10-Year Forecast Growth 6.8% Average Wage \$111,023 GDP 10-Year Growth 56.8% <p>Industry Specialization (LQ)</p> <ul style="list-style-type: none"> <i>Electrical Equipment Mfg.</i> (LQ 4.8) <i>Electrical Equipment and Component Mfg.</i> (LQ 4.3) <i>Plastics Product Mfg.</i> (LQ 2.1) <i>Fabricated Metal Product Mfg.</i> (LQ 1.6)

Legend: Items appealing to prospects (P) or community (C) needs.

Table 2.5 Engineering the Next Chapter Target Job Change and Forecast, 2024*Lehigh Valley & United States**High employment concentration (LQ)⁴ above 1.2 in yellow*

NAICS	Industry	Lehigh Valley				United States		
		10-Year Change	10-Year % Change	10-Year Forecast	LQ ⁴	10-Year Change	10-Year % Change	10-Year Forecast
3261	Plastics Product Mfg.	320	14.0%	-1.8%	2.1	65,265	12.2%	0.3%
3321	Forging & Stamping	29	12.8%	-4.1%	1.4	-8,678	-8.7%	-2.6%
3323	Architectural & Structural Metals Mfg.	114	15.7%	-0.6%	1.0	62,086	17.5%	1.4%
3324	Boiler, Tank & Shipping Container Mfg.	-85	-26.3%	-1.0%	1.2	68	0.1%	1.5%
3326	Spring & Wire Product Mfg.	-23	-97.7%	-12.6%	0.0	-2,449	-5.7%	-2.6%
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Mfg.	23	3.0%	0.2%	1.1	-29,493	-7.7%	-0.2%
3328	Coating, Engraving, Heat Treating & Allied Activities	45	19.5%	-7.5%	1.0	-5,503	-4.0%	-5.8%
3329	Other Fabricated Metal Product Mfg.	176	22.7%	-4.8%	1.6	2,085	0.7%	-2.7%
3344	Semiconductor & Other Electronic Component Mfg.	115	15.0%	5.3%	1.1	22,693	6.1%	7.7%
3353	Electrical Equipment Mfg.	-36	-2.4%	-2.4%	4.8	4,918	3.4%	0.3%
3363	Motor Vehicle Parts Mfg.	38	13.3%	-20.2%	0.3	46,447	8.9%	-17.6%
5415	Computer Systems Design & Related Services	262	14.6%	14.8%	0.4	748,055	41.0%	18.3%
33591	Battery Mfg.					25,735	96.9%	34.2%
33593	Wiring Device Mfg.	-45	-91.6%	29.6%	0.1	-2,455	-5.8%	34.1%
54133	Engineering Services	255	15.6%	1.2%	0.7	244,771	24.7%	3.9%
335999	All Other Miscellaneous Electrical Equipment and Component Mfg.	137	72.9%	33.4%	4.3	7,307	25.0%	33.3%
Total/Average		1,259	10.8%	2.0%	0.9	1,180,851	20.1%	6.8%

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

⁴ Location Quotient (LQ) measures specialization or concentration, usually in employment. The LQ compares local employment in an industry sector or occupation as a percentage of total employment to this same percentage nationally.

Although employment for Lehigh Valley in the past 10 years shows a 10.8% increase for this target family, some subsectors forecast shrinking employment but hold promise in overall investment. The attraction of foreign direct investment also holds promise for this target, particularly for European firms seeking entry into the U.S. market. Considering the measure of GRP supports a balanced view of growth and the increase of wealth in the region.

Table 2.6 Engineering the Next Chapter GRP/GDP, 2023

Lehigh Valley Gross Regional Product & United States Gross Domestic Product

NAICS	Industry	Lehigh Valley		United States	
		GRP (Millions)	10-Year % Change	GDP (Millions)	10-Year % Change
3261	Plastics Product Mfg.	\$340.6	25.5%	\$76,107.0	40.2%
3321	Forging and Stamping	\$31.4	38.0%	\$10,844.6	9.0%
3323	Architectural and Structural Metals Mfg.	\$94.4	42.1%	\$48,523.7	53.0%
3324	Boiler, Tank, and Shipping Container Mfg.	\$28.6	-11.5%	\$12,762.4	19.0%
3326	Spring and Wire Product Mfg.			\$4,428.2	19.9%
3327	Machine Shops; Turned Product; and Screw, Nut, and Bolt Mfg.	\$85.1	29.7%	\$40,385.5	13.7%
3328	Coating, Engraving, Heat Treating, and Allied Activities	\$26.4	63.2%	\$14,152.5	20.6%
3329	Other Fabricated Metal Product Mfg.	\$109.7	38.9%	\$38,462.9	23.2%
3344	Semiconductor and Other Electronic Component Mfg.	\$259.6	14.6%	\$110,665.4	50.1%
3353	Electrical Equipment Mfg.	\$261.5	18.4%	\$25,904.9	7.4%
3359	Other Electrical Equipment and Component Mfg.	\$75.8	84.4%	\$27,223.2	46.2%
3363	Motor Vehicle Parts Mfg.	\$44.5	2.9%	\$85,114.3	24.0%
5413	Architectural, Engineering, and Related Services	\$376.7	37.6%	\$286,176.4	58.0%
5415	Computer Systems Design and Related Services	\$310.9	52.7%	\$489,792.7	90.5%
		Total/Average	\$1,938.1	31.1%	\$1,187,018.8

Source: JobsEQ, 2023 US Dollars, Garner Economics

\$1.94 B

Annual GRP
Engineering the Next
Chapter Operations
Lehigh Valley region



Table 2.7 Engineering the Next Chapter Top In-Demand Occupations, 2024

High employment concentration (LQ)⁵ above 1.2 in yellow

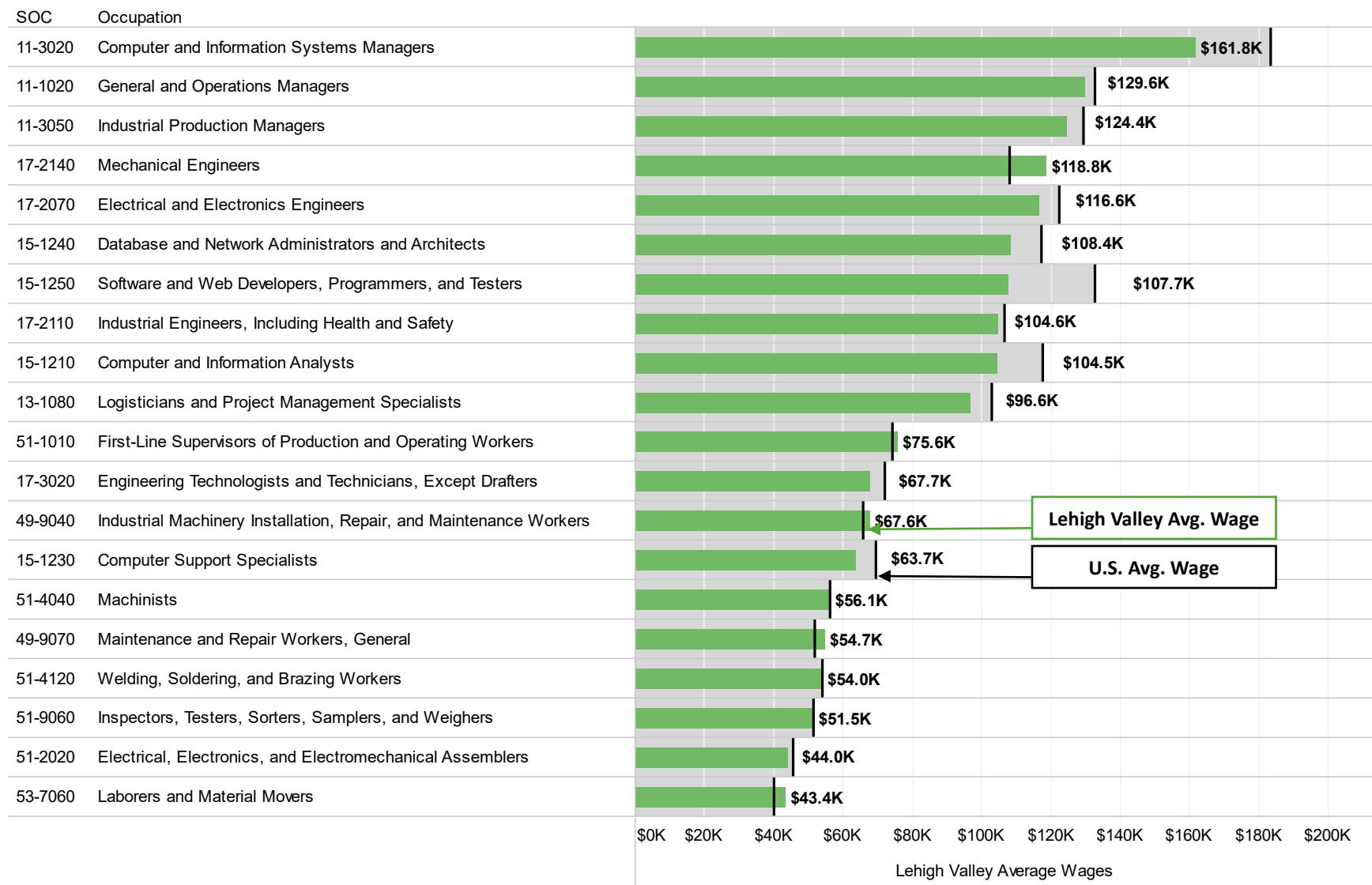
soc	Occupation	LQ⁵	Residents in Occupation	Employed in Valley	Net Out-Commuting⁶	10-Year % Job Change	10-Year Forecast	10-Year % Job Change (U.S.)	10-Year Forecast (U.S.)
15-1250	Software and Web Developers, Programmers, and Testers	0.5	3,267	2,353	913	2.0%	17.2%	40.6%	22.4%
49-9040	Industrial Machinery Installation, Repair, and Maintenance Workers	1.0	1,168	1,115	53	45.3%	13.6%	27.5%	12.8%
11-3020	Computer and Info Systems Managers	0.7	970	762	207	20.5%	12.7%	56.3%	15.6%
17-2110	Industrial Engineers	1.1	787	801	-15	48.7%	10.6%	40.5%	10.3%
15-1210	Computer and Information Analysts	0.7	1,224	977	247	-7.8%	10.0%	19.1%	16.1%
13-1080	Logisticians and Project Managers	0.8	2,005	1,726	279	58.7%	8.3%	92.4%	9.2%
17-2140	Mechanical Engineers	1.6	947	968	-21	15.5%	8.3%	21.7%	8.5%
53-7060	Laborers and Material Movers	1.9	24,396	26,409	-2,014	60.8%	5.4%	25.9%	5.7%
49-9070	Maintenance and Repair Workers	1.0	3,488	3,366	122	15.6%	4.1%	14.9%	3.7%
51-2020	Electrical/Electromechanical Assemblers	1.6	988	983	5	5.7%	2.6%	9.7%	2.6%
17-2070	Electrical and Electronics Engineers	0.7	454	434	20	3.0%	2.5%	8.3%	5.1%
11-1020	General and Operations Managers	0.9	7,146	6,624	521	50.7%	2.2%	64.8%	4.9%
15-1230	Computer Support Specialists	0.8	1,863	1,438	425	12.8%	2.0%	33.5%	6.5%
15-1240	Database and Network Admin/Architects	0.7	1,243	929	313	-9.0%	1.3%	13.5%	4.7%
11-3050	Industrial Production Managers	1.1	541	501	40	48.5%	0.6%	36.9%	1.0%
51-4040	Machinists	1.0	703	671	32	-10.3%	0.6%	-13.4%	0.5%
17-3020	Engineering Technicians, Except Drafters	0.8	873	638	235	-9.2%	0.0%	-3.3%	1.6%
51-4120	Welding, Soldering, and Brazing Workers	0.9	852	837	15	5.1%	-0.3%	10.2%	1.1%
51-1010	Supervisors of Production Workers	1.2	1,685	1,705	-19	19.1%	-0.4%	8.6%	-0.1%
51-9060	Inspectors, Testers, Sorters, Samplers, and Weighers	1.3	1,638	1,596	41	38.8%	-4.9%	25.8%	-3.9%

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

⁵ Location Quotient (LQ) measures specialization or concentration, usually in employment. The LQ compares local employment in an industry sector or occupation as a percentage of total employment to this same percentage nationally.

⁶ Net Commuting reflects the net number of residents in the occupation compared to employment based in Leigh Valley. A positive number indicates more residents leave the region for work, in essence, there are more residents in the occupation than there are jobs existing in Lehigh Valley.

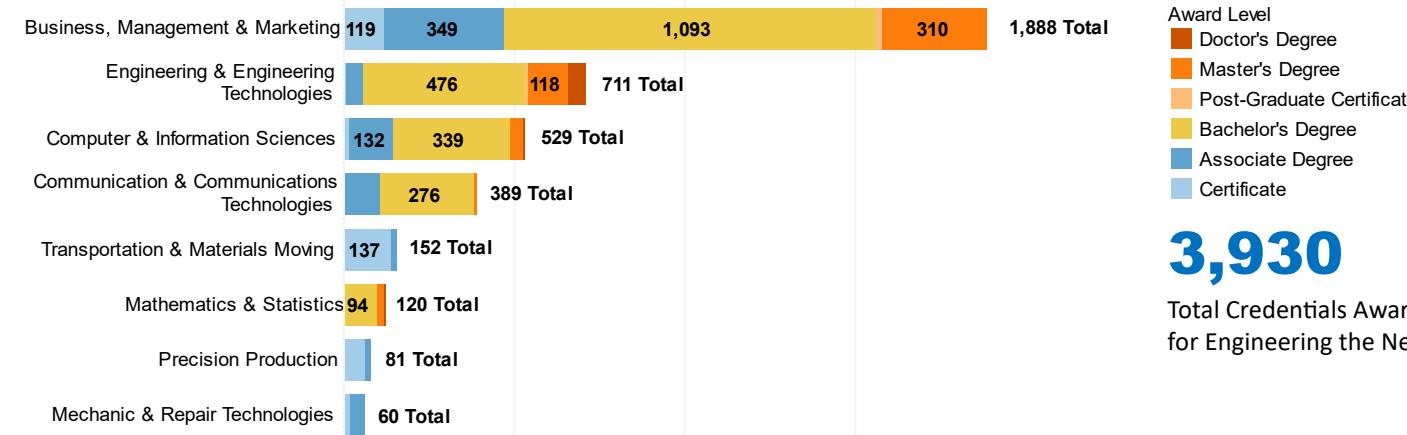
Figure 2.3 Life Science for All Generations Top Occupational Wage Comparison
Annual average wages for Lehigh Valley compared to the United States Average, 2024



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 2.4 Engineering the Next Chapter Higher Education by Award Level

Certificates and degrees awarded at 2 and 4-year schools, 2022



Award Level
 Doctor's Degree
 Master's Degree
 Post-Graduate Certificate
 Bachelor's Degree
 Associate Degree
 Certificate

3,930

Total Credentials Awarded
 for Engineering the Next Chapter

Table 2.8 Engineering the Next Chapter Higher Education

Certificates and degrees awarded at 2 and 4-year schools, 2022

Area of Study	Credentials Awarded
Business, Management & Marketing	1,888
Engineering & Engineering Technologies	711
Computer & Information Sciences	529
Communication & Communications Technologies	389
Transportation & Materials Moving	152
Mathematics & Statistics	120
Precision Production	81
Mechanic & Repair Technologies	60
Total	3,930

The importance of local training institutions, colleges, and universities in enhancing the area's manufacturing strength cannot be overstated. Schools within a 45-minute drive awarded 4,000 credentials ranging from certificates to graduate level degrees in 2022. Engineering programs at Lehigh University and Lafayette College granted over 700 engineering degrees. These programs are key to the region's manufacturing infrastructure. Additionally, technical training institutions in the area are also an asset to this target family.

Source: National Center for Education Statistics, Institutions in the Lehigh Valley 45-minute drive-time area, Garner Economics



Corporate & Creative

Professional & Creative Services

- Corporate HQ
- Business & shared services
- Creative design*
- Music & video services*
- Computing infrastructure providers, data hosting
- Data processing & analytics
- Software programming & app development*

* Entrepreneurial Focus



Woven among the targets for Lehigh Valley's Next Chapter is that of an innovation engine. The *Corporate & Creative* target subsectors invite and support this notion. The balance of business, creativity, and information management comprises the elements of this target family.

Data processing, analytics, and computing infrastructure are crucial to today's businesses. The growth of AI and digital tools drives the need for information enterprises, software programmers, and app developers to manage data and transactions.

The presence of PPL Corporation, Air Products, Martin Guitar, and Crayola in the Valley illustrates the excellent environment for corporate headquarters and shared services operations. These companies find the Lehigh Valley a more affordable location with proximity to the major markets of New York and Philadelphia. Lehigh Valley offers cost savings and world-class connections via

international airports, rail, and interstate highways.

Affordable labor in professional services invites headquarters and shared services operations with staff support functions, including customer service, legal, logistics, sales, and marketing. Average wages for all top occupations highlighted in Figure 2.5 show that salaries are well below national levels.

Net out-commuting statistics in Table 2.11 compare the number of Lehigh Valley residents in an occupation to the jobs in the region. Figure 2.5 illustrates that all top occupations have net out-commuting patterns – there are more residents in the occupation than existing jobs in the region. This situation presents an opportunity to capture additional workers for professional and creative service positions.

Marketing has become a predominantly digital medium, and the work of creative enterprises is to capture the attention. Design, music, and video are elements that are included to round out the target family.

Corporate & Creative	Corporate & Creative	Corporate & Creative
<p>Target rationale includes:</p> <ul style="list-style-type: none"> • Centrally located for major regional & national markets (P) • Well-positioned to serve international markets (P) • Excellent Interstate highway access (P)(C) • Rail service & port access (P) • Proximity to commercial and international airports (P)(C) • Availability of business and professional services (P) • Availability of tax-exempt financing for new industrial facilities (P) • Availability of local incentives (P) • Competitive cost of labor (P) 	<p>Talent and innovation assets:</p> <ul style="list-style-type: none"> • Area universities/colleges (P)(C) • Access to community college/training (P)(C) • 4,000 credentials awarded for studies that support target operations (P)(C) • Availability of engineering programs (P)(C) • Solid entrepreneurial ecosystem (P)(C) • Quality of local elementary and secondary education (P)(C) • Competitive cost of living relative to big markets (P)(C) • Excellent health care systems (C) 	<p>Target statistics:</p> <p>Lehigh Valley <i>Employment & GRP</i></p> <ul style="list-style-type: none"> • 10-Year % Change -10.9% • 10-Year Forecast Growth 4.4% • Average Wage \$106,125 • Location Quotient 1 • GRP 10-Year Growth 5.2% <p>United States <i>Employment & GRP</i></p> <ul style="list-style-type: none"> • 10-Year % Change 23.5% • 10-Year Forecast Growth 7.9% • Average Wage \$123,533 • GDP 10-Year Growth 74.4% <p>Industry Specialization (LQ)</p> <ul style="list-style-type: none"> • <i>Management of Companies & Enterprises</i> (LQ 1.4)

Legend: Items appealing to prospects (P) or community (C) needs.

Table 2.9 Corporate & Creative Target Job Change and Forecast, 2024*Lehigh Valley & United States**High employment concentration (LQ)⁷ above 1.2 in yellow*

NAICS	Industry	Lehigh Valley				United States		
		10-Year Change	10-Year % Change	10-Year Forecast	LQ	10-Year Change	10-Year % Change	10-Year Forecast
523	Securities, Commodity Contracts, & Other Financial Investments	143	16.9%	5.6%	0.4	197,118	21.0%	7.4%
524	Insurance Carriers & Related Activities	-2,928	-49.0%	2.7%	0.5	412,515	17.9%	5.2%
5121	Motion Picture & Video Industries	7	2.0%	0.02%	0.4	-7,387	-1.9%	4.0%
5122	Sound Recording Industries	7	48.4%	2.1%	0.3	9,403	35.9%	2.9%
5182	Computing Infrastructure Providers, Data Processing, Web Hosting	123	11.9%	11.9%	1.1	217,982	74.6%	13.2%
5411	Legal Services	-106	-7.4%	-1.9%	0.5	48,815	4.0%	0.4%
5412	Accounting, Tax Preparation & Payroll Services	1,752	122.5%	-3.0%	1.2	212,502	19.8%	-0.1%
5413	Architectural & Engineering	210	8.0%	1.1%	0.8	320,472	21.6%	3.6%
5414	Specialized Design Services	-12	-3.7%	1.5%	0.7	36,375	18.2%	3.6%
5415	Computer Systems Design & Related Services	262	14.6%	14.8%	0.4	748,055	41.0%	18.3%
5416	Management, Scientific, and Technical Consulting Services	489	31.3%	6.2%	0.5	725,039	50.5%	9.5%
5417	Scientific Research & Development Services	-24	-2.2%	5.2%	0.5	300,594	45.3%	7.3%
5418	Advertising & Public Relations	-58	-9.4%	4.3%	0.5	48,764	9.8%	7.2%
5419	Other Professional, Scientific & Technical Services	194	11.2%	8.5%	0.8	250,610	26.0%	10.7%
5511	Management of Companies & Enterprises	-2,683	-26.4%	6.7%	1.4	448,750	21.3%	9.5%
5611	Office Administrative Services	-34	-12.7%	3.2%	0.2	169,183	30.5%	15.6%
5614	Business Support Services	-1,040	-39.9%	-3.2%	0.9	-153,855	-16.1%	-1.1%
Total/Average		-3,698	-10.9%	4.4%	0.7	3,984,934	23.5%	7.9%

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

⁷ Location Quotient (LQ) measures specialization or concentration, usually in employment. The LQ compares local employment in an industry sector or occupation as a percentage of total employment to this same percentage nationally.

Table 2.10 Corporate & Creative GRP/GDP, 2023*Lehigh Valley Gross Regional Product & United States Gross Domestic Product*

NAICS	Industry	Lehigh Valley		United States	
		GRP (Millions)	10-Year % Change	GDP (Millions)	10-Year % Change
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	\$190.1	63.0%	\$372,257.7	50.7%
524	Insurance Carriers and Related Activities	\$627.2	-20.7%	\$739,066.4	88.9%
5121	Motion Picture and Video Industries	\$47.6	-54.9%	\$98,673.0	10.0%
5122	Sound Recording Industries	\$6.8	-11.0%	\$10,850.2	38.1%
5182	Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services	\$384.5	-31.3%	\$255,663.9	200.3%
5411	Legal Services	\$325.6	40.4%	\$345,431.3	56.5%
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	\$278.4	169.6%	\$172,020.8	74.1%
5413	Architectural, Engineering, and Related Services	\$376.7	37.6%	\$286,176.4	58.0%
5414	Specialized Design Services	\$40.3	20.8%	\$31,237.6	47.7%
5415	Computer Systems Design and Related Services	\$310.9	52.7%	\$489,792.7	90.5%
5416	Management, Scientific, and Technical Consulting Services	\$297.1	68.6%	\$372,647.4	97.0%
5417	Scientific Research and Development Services	\$268.2	189.1%	\$231,614.2	115.9%
5418	Advertising, Public Relations, and Related Services	\$67.7	24.0%	\$84,312.8	50.7%
5419	Other Professional, Scientific, and Technical Services	\$196.5	41.3%	\$154,047.2	61.2%
5511	Management of Companies and Enterprises	\$1,635.9	-13.8%	\$504,875.3	58.1%
5611	Office Administrative Services	\$19.9	-8.7%	\$97,148.5	73.4%
5614	Business Support Services	\$178.1	-2.6%	\$71,312.9	34.6%
Total/Average		\$5,251.5	5.2%	\$4,317,128.2	74.4%

Source: JobsEQ, 2023 US Dollars, Garner Economics

\$5.25 B

Annual GRP
Corporate & Creative
Operations
Lehigh Valley region



Table 2.11 Corporate and Creative Top In-Demand Occupations, 2024

soc	Occupation	LQ⁸	Residents in Occupation	Employed in Valley	Net Out-Commuting⁹	10-Year % Job Change	10-Year Forecast	10-Year % Job Change (U.S.)	10-Year Forecast (U.S.)
15-2050	Data Scientists	0.7	288	242	46	241.7%	32.0%	264.4%	35.0%
15-1250	Software and Web Developers, Programmers, and Testers	0.5	3,267	2,353	913	2.0%	17.2%	40.6%	22.4%
11-3030	Financial Managers	0.8	1,499	1,305	194	11.8%	13.9%	31.4%	15.3%
11-3020	Computer and Info Systems Managers	0.7	970	762	207	20.5%	12.7%	56.3%	15.6%
13-1160	Market Research Analysts and Marketing Specialists	0.7	1,590	1,350	240	61.5%	10.8%	90.9%	13.2%
15-1210	Computer and Information Analysts	0.7	1,224	977	247	-7.8%	10.0%	19.1%	16.1%
13-1080	Logisticians and Project Managers	0.8	2,005	1,726	279	58.7%	8.3%	92.4%	9.2%
13-2050	Financial Analysts and Advisors	0.6	1,186	943	242	-8.1%	5.9%	38.5%	7.5%
13-1110	Management Analysts	0.5	1,302	1,029	274	-5.8%	5.8%	14.5%	8.8%
41-3030	Securities, Commodities, and Financial Services Sales Agents	0.6	729	569	160	12.4%	5.3%	42.2%	6.3%
13-1070	Human Resources Workers	0.9	1,928	1,787	141	47.3%	3.0%	61.5%	5.5%
23-2010	Paralegals and Legal Assistants	0.5	505	332	173	4.6%	2.7%	23.4%	2.5%
11-2020	Marketing and Sales Managers	0.8	1,708	1,428	280	21.5%	2.2%	48.1%	4.9%
11-1020	General and Operations Managers	0.9	7,146	6,624	521	50.7%	2.2%	64.8%	4.9%
15-1230	Computer Support Specialists	0.8	1,863	1,438	425	12.8%	2.0%	33.5%	6.5%
13-2010	Accountants and Auditors	0.9	3,131	2,996	134	27.0%	1.8%	21.7%	4.2%
11-9190	Miscellaneous Managers	0.7	1,949	1,785	164	136.5%	1.6%	184.0%	3.5%
15-1240	Database and Network Admin/Architects	0.7	1,243	929	313	-9.0%	1.3%	13.5%	4.7%
27-4020	Photographers	0.9	303	276	27	-11.4%	0.2%	-4.7%	4.1%
27-1020	Designers	1.0	1,493	1,425	68	11.1%	-0.7%	20.1%	1.2%

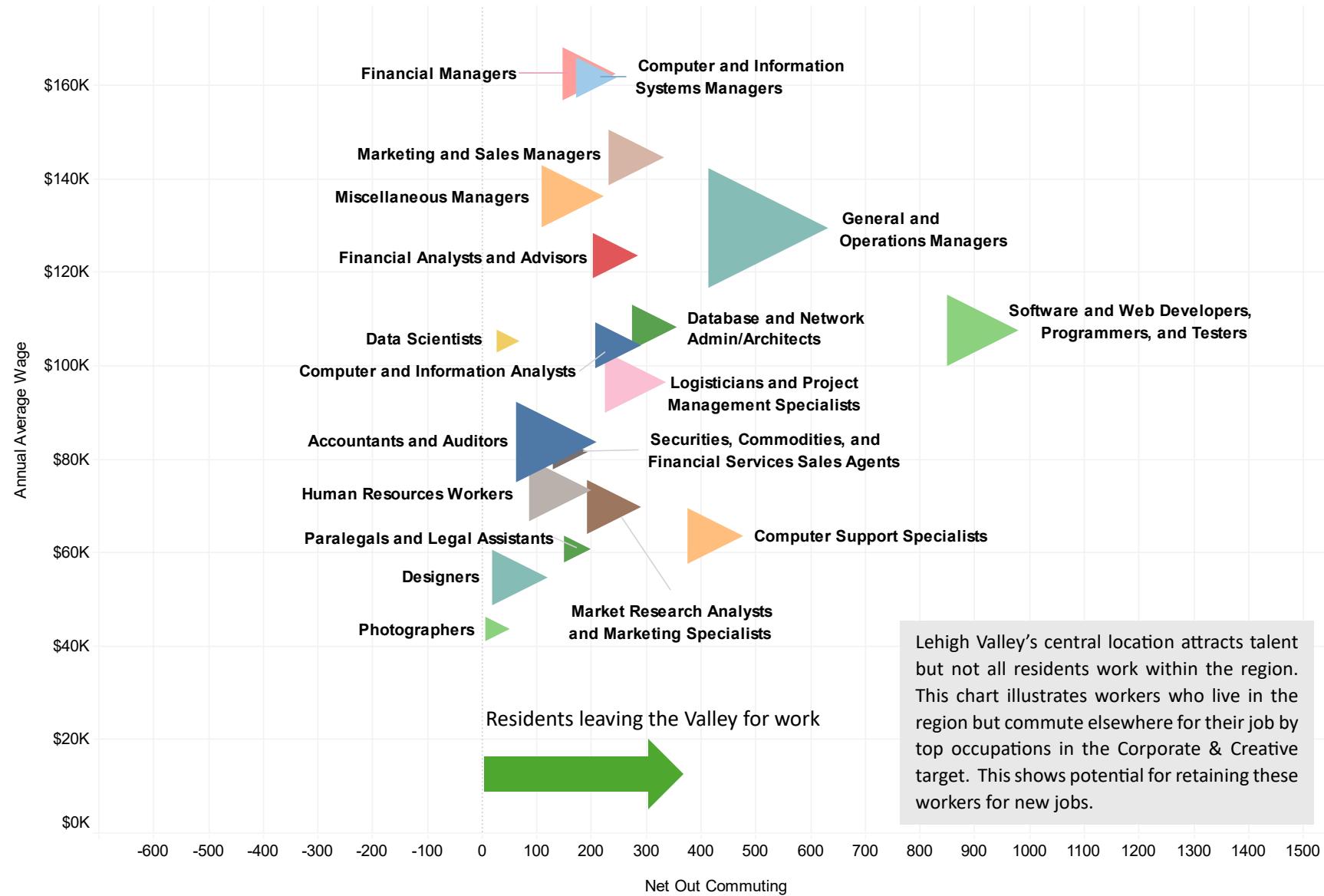
Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

⁸ Location Quotient (LQ) measures specialization or concentration, usually in employment. The LQ compares local employment in an industry sector or occupation as a percentage of total employment to this same percentage nationally.

⁹ Net Commuting reflects the net number of residents in the occupation compared to employment based in Leigh Valley. A positive number indicates more residents leave the region for work, in essence, there are more residents in the occupation than there are jobs existing in Lehigh Valley.

Figure 2.5 Corporate and Creative Top Occupational Out-Commuting

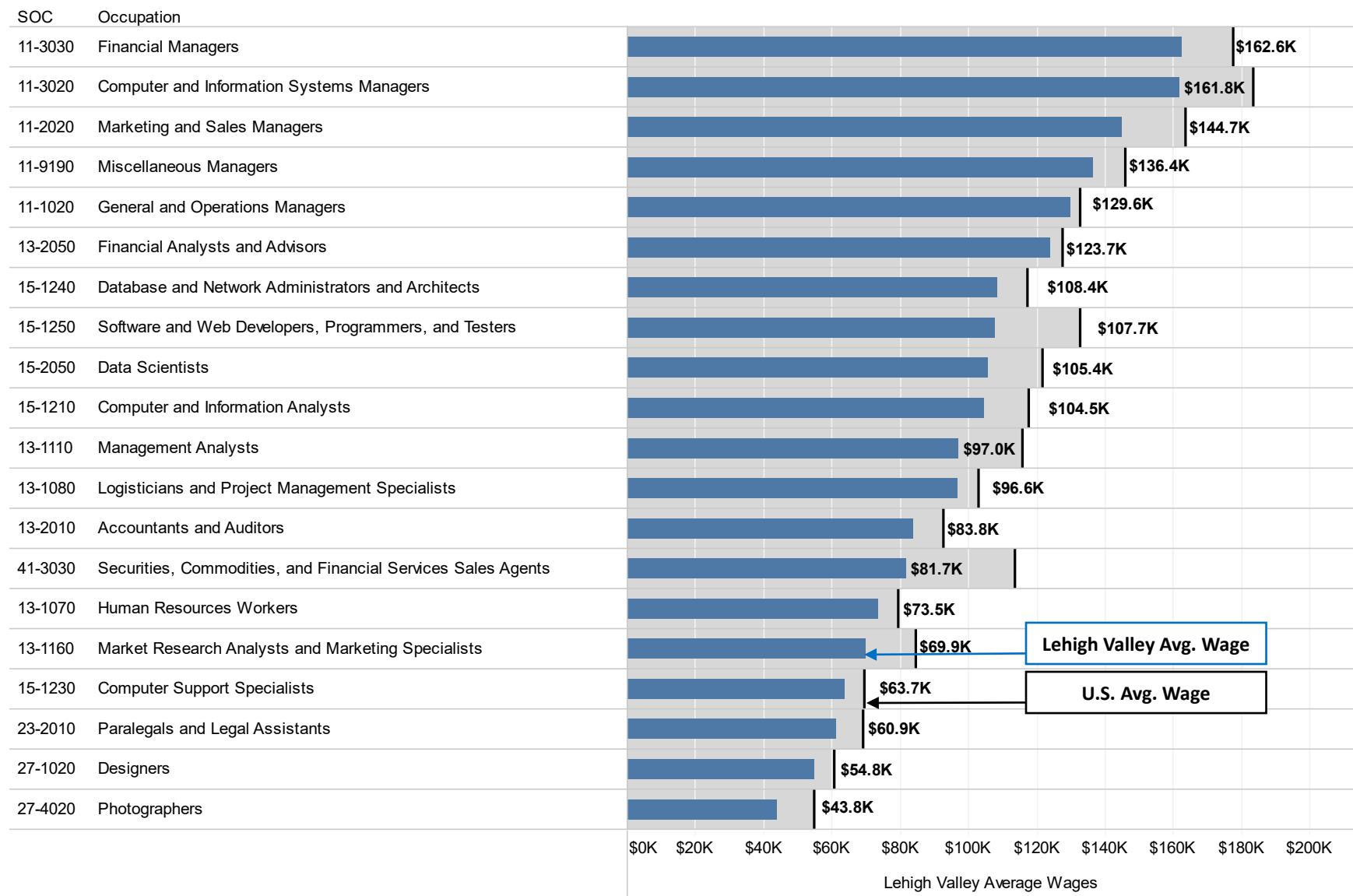
Net commuting comparing Lehigh Valley residents and workplace-based employment, 2024



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 2.6 Corporate and Creative Top Occupational Wage Comparison

Annual average wages for Lehigh Valley compared to the United States Average, 2024



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 2.7 Corporate & Creative Higher Education by Award Level

Certificates and degrees awarded at 2 and 4-year schools, 2022

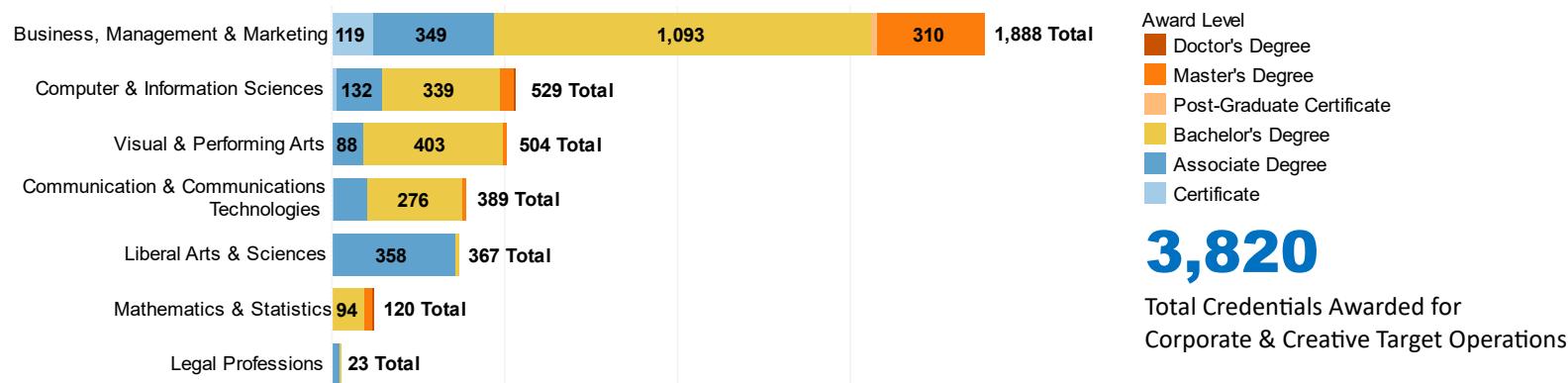


Table 2.12 Corporate & Creative Higher Education

Certificates and degrees awarded at 2 and 4-year schools, 2022

Area of Study	Credentials Awarded
Business, Management & Marketing	1,888
Computer & Information Sciences	529
Visual & Performing Arts	504
Communication & Communications Technologies	389
Liberal Arts & Sciences	367
Mathematics & Statistics	120
Legal Professions	23
Total	3,820

Lehigh Valley's workforce is well educated, with 33% of the population aged 25 or older in the Lehigh Valley holding a bachelor's or higher degree. There are 19 schools within a 45-minute drive of the region's center, with 63,000 students in 2022, creating a talent pipeline for jobs within this target. Business, Management & Marketing is students' second most chosen major, with 1,888 credentials earned in 2022. Overall, nearly 4,000 credentials were awarded that same year.

Source: National Center for Education Statistics, Institutions in the Lehigh Valley 45-minute drive-time area, Garner Economics



Lehigh Food Valley**

Food & Beverage Processing

- Pet foods
- Fruit & vegetable preserving/processing
- Vertical farming
- Further processed foods
- Beverages & bottled water
- Cold storage facilities
- Specialty foods (sauces, snacks, dressings, etc.)*
- Confectionery products
- Bakeries

* *Entrepreneurial Focus*

**[The Lehigh *Food Valley* label was offered as a suggested name, anonymously during stakeholder feedback.]



Food processing is a natural fit for the Lehigh Valley, drawing on Pennsylvania's agricultural heartland and a skilled manufacturing workforce. This sector continues to grow, even as changing consumer preferences drive innovation in products and packaging. The push to reduce single-use plastics, combined with demands for convenience and food preservation, has created opportunities for new packaging solutions.

In the Lehigh Valley, food processors benefit from partnerships with research institutions that support advancements in food safety, processing, and packaging, improving product quality and shelf life. Emerging markets, such as plant-based foods and trends in sustainable packaging and personalized nutrition, continue to reshape the industry.

Pet food production, for example, has surged by 141.5% in Lehigh Valley over the past decade, driven in part by a pandemic-fueled increase in pet adoptions. Meanwhile, the demand for convenient food options has

spurred the growth of ready-made and prepared products, including meal kits and grab-and-go items, reflecting consumers' increasingly busy lifestyles.

Vertical farming is rising, utilizing indoor, stacked, and controlled environments to grow crops year-round. This benefits water conservation and efficient land use.

Employment growth in food processing has outpaced the national average, rising 45% in the Lehigh Valley over the past 10 years compared to 34% nationally. The region also boasts high employment concentrations in key sub-sectors like *Animal Food Mfg.* (LQ 8.7), *Flavoring Syrup and Concentrate Mfg.* (LQ 7.0), and *Refrigerated Warehousing* (LQ 6.7).

Proximity to major markets strengthens the Valley's robust food processing sector, supporting both processed products and beverage manufacturing. Additionally, cold storage facilities provide critical preservation and last-mile distribution for perishable goods.

Lehigh Food Valley	Lehigh Food Valley	Lehigh Food Valley																		
<p>Target rationale includes:</p> <ul style="list-style-type: none"> • Abundant agricultural products (P) (C) • Centrally located for major regional & national markets (P) • Well-positioned to serve international markets (P) • Excellent Interstate highway access (P)(C) • Rail service & port access (P) • Proximity to commercial and international airports (P)(C) • Availability of business and professional services (P) • Availability of tax-exempt financing for new industrial facilities (P) • Availability of local incentives (P) • Competitive cost of labor (P) 	<p>Talent and innovation assets:</p> <ul style="list-style-type: none"> • Area universities/colleges (P)(C) • Access to community college/training (P)(C) • 4,000 credentials awarded for studies that support target operations (P)(C) • Availability of engineering programs (P)(C) • Lehigh University's Center for Mfg. Systems Engineering (P)(C) • Availability of manufacturing processes (P) • Solid entrepreneurial ecosystem (P)(C) • Quality of local elementary and secondary education (P)(C) • Competitive cost of living relative to big markets (P)(C) • Excellent health care systems (C) 	<p>Target statistics:</p> <p>Lehigh Valley Employment & GRP</p> <table> <tbody> <tr> <td>• 10-Year % Change</td> <td>45.5%</td> </tr> <tr> <td>• 10-Year Forecast Growth</td> <td>7%</td> </tr> <tr> <td>• Average Wage</td> <td>\$69,449</td> </tr> <tr> <td>• Location Quotient</td> <td>2.7</td> </tr> <tr> <td>• GRP 10-Year Growth</td> <td>70.7%</td> </tr> </tbody> </table> <p>United States Employment & GRP</p> <table> <tbody> <tr> <td>• 10-Year % Change</td> <td>33.6%</td> </tr> <tr> <td>• 10-Year Forecast Growth</td> <td>8.5%</td> </tr> <tr> <td>• Average Wage</td> <td>\$57,972</td> </tr> <tr> <td>• GDP 10-Year Growth</td> <td>46.5%</td> </tr> </tbody> </table> <p>Industry Specialization (LQ)</p> <ul style="list-style-type: none"> • <i>Animal Food Mfg.</i> (LQ 8.7) • <i>Flavoring Syrup/Concentrate</i> (LQ 7.0) • <i>Refrigerated Warehousing</i> (LQ 6.7) • <i>Sugar and Confectionery</i> (LQ 5.1) • <i>Beverage Mfg.</i> (LQ 3.6) • <i>Snack Food Mfg.</i> (LQ 2.2) 	• 10-Year % Change	45.5%	• 10-Year Forecast Growth	7%	• Average Wage	\$69,449	• Location Quotient	2.7	• GRP 10-Year Growth	70.7%	• 10-Year % Change	33.6%	• 10-Year Forecast Growth	8.5%	• Average Wage	\$57,972	• GDP 10-Year Growth	46.5%
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• Average Wage	\$57,972																			
• GDP 10-Year Growth	46.5%																			

Legend: Items appealing to prospects (P) or community (C) needs.

Table 2.13 Lehigh Food Valley Target Job Change and Forecast, 2024*Lehigh Valley & United States**High employment concentration (LQ)¹⁰ above 1.2 in yellow*

NAICS	Industry	Lehigh Valley				United States		
		10-Year Change	10-Year % Change	10-Year Forecast	LQ	10-Year Change	10-Year % Change	10-Year Forecast
3111	Animal Food Mfg.	791	141.5%	5.6%	8.7	20,124	36.5%	7.7%
3113	Sugar and Confectionery Product Mfg.	357	68.3%	-0.5%	5.1	13,218	18.7%	1.6%
3114	Fruit and Vegetable Preserving and Specialty Food Mfg.	195	297.8%	-3.3%	0.7	2,280	1.3%	-0.2%
3118	Bakeries and Tortilla Mfg.	471	127.2%	3.1%	1.1	56,087	18.6%	5.1%
3121	Beverage Mfg.	709	40.7%	8.7%	3.6	138,543	72.8%	11.7%
11141	Food Crops Grown Under Cover (Includes Vertical Farming)	109	1154.4%	2.2%	1.2	25,912	123.1%	3.0%
31191	Snack Food Mfg.	135	82.1%	17.6%	2.2	14,365	27.6%	18.4%
31193	Flavoring Syrup and Concentrate Mfg.	1	0.4%	17.4%	7.0	-615	-6.1%	18.2%
31194	Seasoning and Dressing Mfg.	-326	-74.5%	17.2%	1.1	13,537	35.4%	18.0%
31199	All Other Food Mfg.	133	141.9%	15.7%	1.0	41,824	59.4%	18.1%
49312	Refrigerated Warehousing and Storage	-170	-14.4%	10.4%	6.7	22,291	43.3%	12.9%
Total/Average		2,404	45.5%	7.0%	2.7	347,567	33.6%	8.5%

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

¹⁰ Location Quotient (LQ) measures specialization or concentration, usually in employment. The LQ compares local employment in an industry sector or occupation as a percentage of total employment to this same percentage nationally.

Table 2.14 Lehigh Food Valley GRP/GDP, 2023*Lehigh Valley Gross Regional Product & United States Gross Domestic Product*

NAICS	Industry	Lehigh Valley		United States	
		GRP (Millions)	10-Year % Change	GDP (Millions)	10-Year % Change
3111	Animal Food Mfg.	\$285.6	189.1%	\$14,934.4	61.5%
3113	Sugar and Confectionery Product Mfg.	\$143.1	131.5%	\$13,492.7	43.6%
3114	Fruit and Vegetable Preserving and Specialty Food Mfg.	\$42.9	470.1%	\$27,002.2	25.6%
3118	Bakeries and Tortilla Mfg.	\$86.4	168.1%	\$46,263.7	39.5%
3121	Beverage Mfg.	\$386.3	44.1%	\$50,801.6	67.5%
11141	Food Crops Grown Under Cover	\$18.3	2073.7%	\$5,274.1	159.9%
31191	Snack Food Mfg.	\$49.9	145.2%	\$11,291.5	43.1%
31193	Flavoring Syrup and Concentrate Mfg.	\$38.8	-27.1%	\$3,340.1	-59.8%
31194	Seasoning and Dressing Mfg.	\$22.5	-68.9%	\$9,868.3	53.1%
31199	All Other Food Mfg.	\$30.4	246.9%	\$16,630.8	112.2%
49312	Refrigerated Warehousing and Storage	\$73.4	11.0%	\$5,864.0	64.2%
		Total/Average	\$1,177.6	70.7%	\$204,763.4
					46.5%

Source: JobsEQ, 2023 US Dollars, Garner Economics

\$1.18 B

Annual GRP
Corporate & Creative
Operations
Lehigh Valley region



Table 2.15 Lehigh Food Valley Top In-Demand Occupations, 2024

High employment concentration (LQ)¹¹ above 1.2 in yellow

SOC	Occupation	LQ ⁵	Residents in Occupation	Employed in Valley	Net Out-Commuting ¹²	10-Year % Job Change	10-Year Forecast	10-Year % Job Change (U.S.)	10-Year Forecast (U.S.)
49-9040	Industrial Machinery Installation, Repair, and Maintenance Workers	1.0	1,168	1,115	53	45.3%	13.6%	27.5%	12.8%
13-1160	Market Research/Marketing Specialists	0.7	1,590	1,350	240	61.5%	10.8%	90.9%	13.2%
53-3030	Driver/Sales Workers and Truck Drivers	1.5	10,943	11,693	-750	46.1%	7.3%	25.6%	7.2%
51-3090	Miscellaneous Food Processing Workers	1.3	699	706	-7	66.3%	6.1%	30.6%	5.1%
19-4010	Agricultural and Food Science Technicians	0.8	77	57	20	69.3%	6.0%	54.8%	4.5%
35-2010	Cooks	0.9	4,955	4,998	-43	15.5%	5.6%	23.8%	6.5%
53-7060	Laborers and Material Movers	1.9	24,396	26,409	-2,014	60.8%	5.4%	25.9%	5.7%
49-9070	Maintenance and Repair Workers	1.0	3,488	3,366	122	15.6%	4.1%	14.9%	3.7%
53-7050	Industrial Truck and Tractor Operators	3.1	4,237	5,010	-773	106.9%	3.7%	35.4%	5.5%
51-9110	Packaging and Filling Machine Operators	1.7	1,297	1,349	-51	32.0%	3.4%	11.1%	3.9%
11-2020	Marketing and Sales Managers	0.8	1,708	1,428	280	21.5%	2.2%	48.1%	4.9%
11-1020	General and Operations Managers	0.9	7,146	6,624	521	50.7%	2.2%	64.8%	4.9%
51-3010	Bakers	1.2	545	532	13	50.8%	2.2%	31.0%	4.3%
35-1010	Supervisors of Food Preparation Workers	1.0	2,924	2,850	74	24.0%	2.1%	35.2%	5.0%
11-3050	Industrial Production Managers	1.1	541	501	40	48.5%	0.6%	36.9%	1.0%
51-1010	Supervisors of Production Workers	1.2	1,685	1,705	-19	19.1%	-0.4%	8.6%	-0.1%
51-9020	Crushing, Grinding, Polishing, Mixing, and Blending Workers	1.7	518	549	-31	8.4%	-1.8%	-16.0%	-1.6%
45-2090	Miscellaneous Agricultural Workers	0.3	676	561	115	39.3%	-3.3%	7.1%	-0.5%
51-9060	Inspectors, Testers, Sorters, Samplers, and Weighers	1.3	1,638	1,596	41	38.8%	-4.9%	25.8%	-3.9%
51-9010	Chemical Processing Machine Operators	2.0	736	713	23	102.7%	-5.5%	61.8%	-3.2%

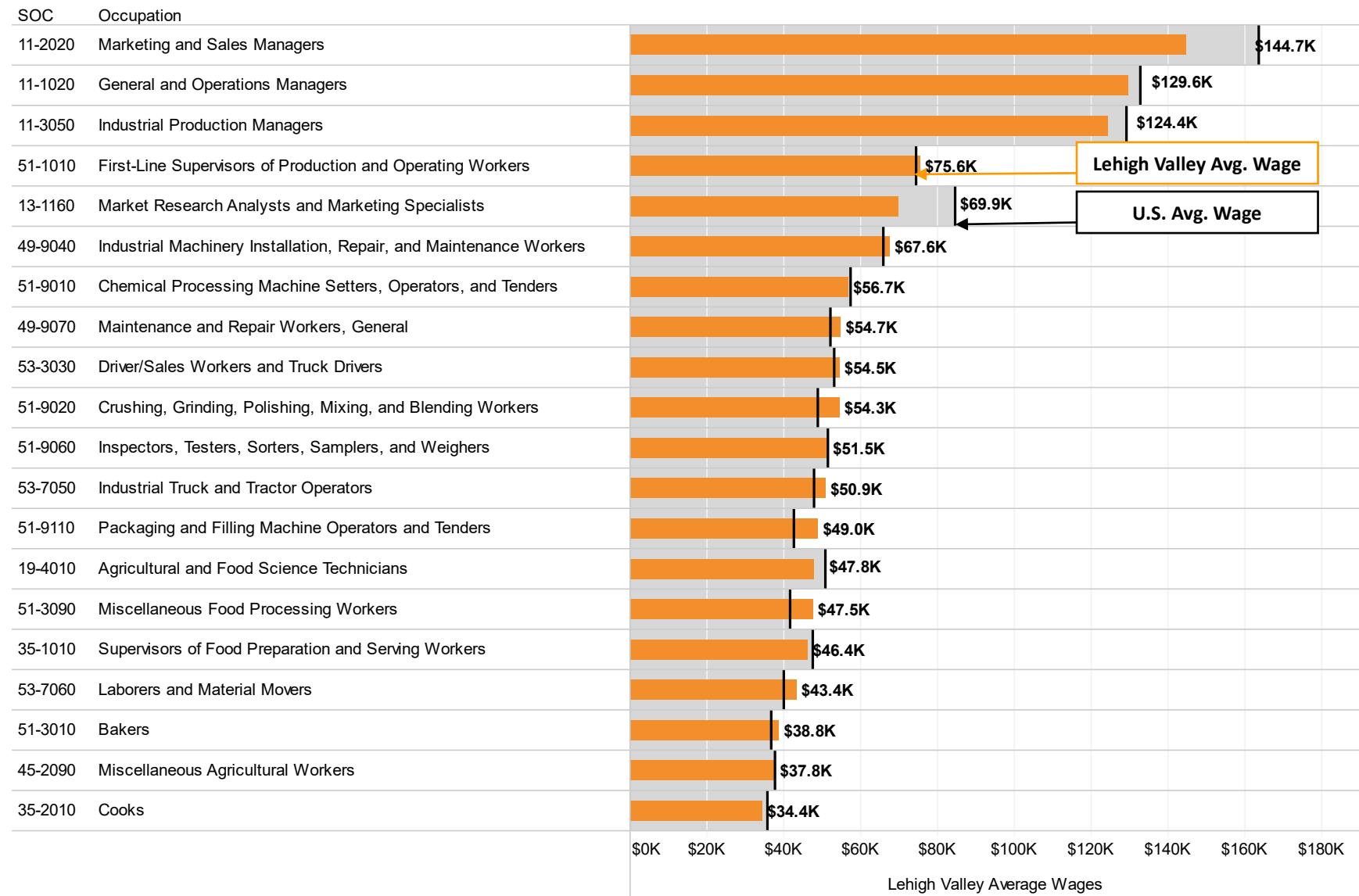
Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

¹¹ Location Quotient (LQ) measures specialization or concentration, usually in employment. The LQ compares local employment in an industry sector or occupation as a percentage of total employment to this same percentage nationally.

¹² Net Commuting reflects the net number of residents in the occupation compared to employment based in Leigh Valley. A positive number indicates more residents leave the region for work, in essence, there are more residents in the occupation than there are jobs existing in Lehigh Valley.

Figure 2.8 Lehigh Food Valley Top Occupational Wage Comparison

Annual average wages for Lehigh Valley compared to the United States Average, 2024



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 2.9 Lehigh Food Valley Higher Education by Award Level

Certificates and degrees awarded at 2 and 4-year schools, 2022

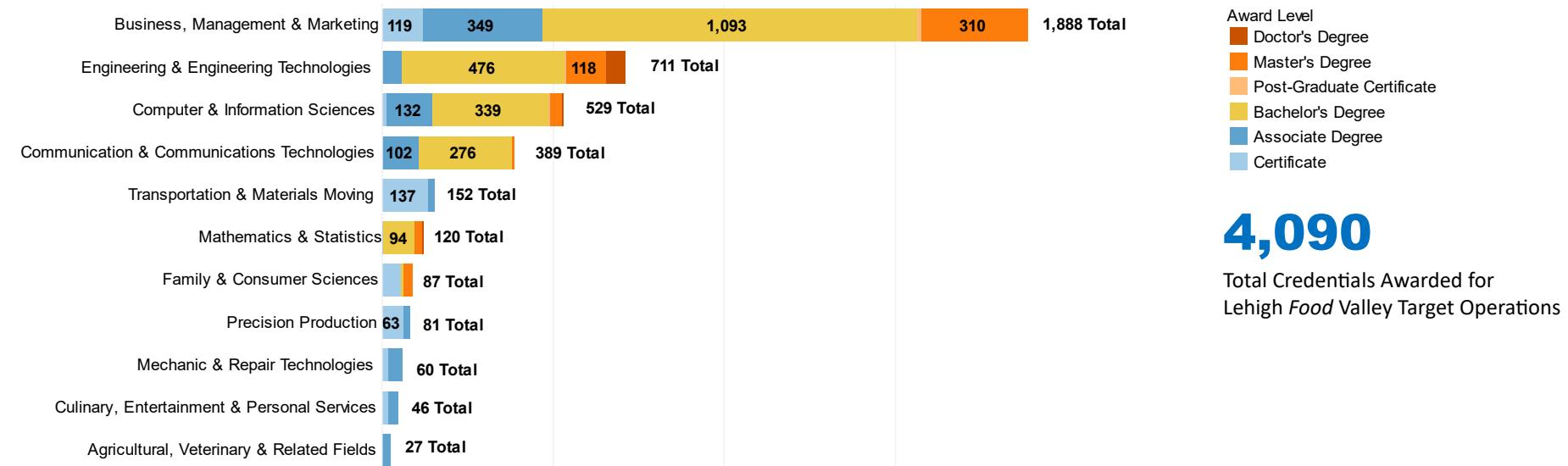


Table 2.16 Lehigh Food Valley Higher Education

Certificates and degrees awarded at 2 and 4-year schools, 2022

Area of Study	Credentials Awarded
Business, Management & Marketing	1,888
Engineering & Engineering Technologies	711
Computer & Information Sciences	529
Communication & Communications Technologies	389
Transportation & Materials Moving	152
Mathematics & Statistics	120
Family & Consumer Sciences	87
Precision Production	81
Mechanic & Repair Technologies	60
Culinary, Entertainment & Personal Services	46
Agricultural, Veterinary & Related Fields	27
Total	4,090

Lehigh Valley offers several educational pathways for students interested in agricultural careers, with local colleges and universities providing programs in agriculture, horticulture, and related fields. These study areas and manufacturing-oriented majors, such as engineering and beverage production, offer a full spectrum of talent for food processing and beverage manufacturing operations. Consumer sciences and culinary fields also provide the skill sets needed for target operations.

In total, more than 4,000 degrees were awarded across these fields, along with business studies to support operational needs.

Source: National Center for Education Statistics, Institutions in the Lehigh Valley 45-minute drive-time area, Garner Economics



Live | Work | Play Lehigh Valley

Experiential & Quality of Place

- Outdoor economy & sports tourism
 - Amusement and sports facilities
 - Outdoor tour & activities operators
 - Sports & equipment retailers, distributors
- Craft breweries/small-batch distilleries*
- Local or unique/boutique retail*
- Specialty food stores

** Entrepreneurial Focus*

Image: Valley Preferred Cycling Center, velodrome in Breinigsville Upper Macungie Township.

Photo credit: [@fordycent72](#)



The outdoor economy in the Lehigh Valley is a growing sector driven by the region's natural landscapes, accessible outdoor recreation, and strong community interest in nature-based activities. This economy attracts tourists, supports local businesses, and enhances residents' quality of life. The region offers a wide range of outdoor activities, including hiking, biking, kayaking, fishing, skiing, and exploring state and local parks.

The outdoor economy and sports tourism boost the economy through events, tournaments, and vacationing visitors. Although not a traditional economic development target, this supports economic activity and creates an environment that attracts and retains talent.

The Bureau of Economic Analysis calculated that the Outdoor Recreation industry is a \$563.7 billion industry, accounting for 2.2% of the nation's GDP in 2022. U.S. sports-related travelers spent a total of \$91.8 billion in 2023.

Subsectors in this target family include sports facilities, outdoor activities tour operators, sports-related equipment retailers, distributors, rentals, and visitor amenities. Craft breweries and small-batch distilleries add business and an experience for visitors and locals alike. These establishments also host musical acts, creating entertainment options. Local or boutique retail gives a local flavor to visitors in an increasingly global retail environment.

Tours to ride trails in the region connecting with major routes such as the Delaware & Lehigh Trail draw bikers and hikers alike. The Valley Preferred Cycling Center, also known as the Lehigh Valley Velodrome, is a cycling venue with a track that attracts local riders, visitors, and competitors through professional racing events.

These are examples of businesses and assets that can grow the sports tourism industry in Lehigh Valley. This target will likely be a collaborative effort among several organizations promoting Lehigh Valley.

Lehigh Food Valley	Lehigh Food Valley	Lehigh Food Valley																		
Target rationale includes:	Talent and innovation assets:	Target statistics:																		
<ul style="list-style-type: none"> Centrally located for major regional & national markets (P) Well-positioned to serve international markets (P) Excellent Interstate highway access (P)(C) Rail service & port access (P) Proximity to commercial and international airports (P)(C) Availability of business and professional services (P) Availability of tax-exempt financing for new industrial facilities (P) Availability of local incentives (P) Competitive cost of labor (P) 	<ul style="list-style-type: none"> Area universities/colleges (P)(C) Access to community college/training (P)(C) Nearly 4,000 credentials awarded for studies that support target operations (P)(C) Solid entrepreneurial ecosystem (P)(C) Quality of local elementary and secondary education (P)(C) Competitive cost of living relative to big markets (P)(C) Excellent health care systems (C) 	<p>Lehigh Valley <i>Employment & GRP</i></p> <table> <tbody> <tr> <td>10-Year % Change</td> <td>17.5%</td> </tr> <tr> <td>10-Year Forecast Growth</td> <td>1.9%</td> </tr> <tr> <td>Average Wage</td> <td>\$33,517</td> </tr> <tr> <td>Location Quotient</td> <td>1.1</td> </tr> <tr> <td>GRP 10-Year Growth</td> <td>77.2%</td> </tr> </tbody> </table> <p>United States <i>Employment & GRP</i></p> <table> <tbody> <tr> <td>10-Year % Change</td> <td>20.3%</td> </tr> <tr> <td>10-Year Forecast Growth</td> <td>4.1%</td> </tr> <tr> <td>Average Wage</td> <td>\$35,888</td> </tr> <tr> <td>GDP 10-Year Growth</td> <td>80.0%</td> </tr> </tbody> </table> <p>Industry Specialization (LQ)</p> <ul style="list-style-type: none"> <i>Breweries</i> (LQ 3.6) <i>Scenic & Sightseeing Transportation, Land</i> (LQ 2.3) <i>Tour Operators</i> (LQ 1.6) 	10-Year % Change	17.5%	10-Year Forecast Growth	1.9%	Average Wage	\$33,517	Location Quotient	1.1	GRP 10-Year Growth	77.2%	10-Year % Change	20.3%	10-Year Forecast Growth	4.1%	Average Wage	\$35,888	GDP 10-Year Growth	80.0%
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Average Wage	\$35,888																			
GDP 10-Year Growth	80.0%																			

Legend: Items appealing to prospects (P) or community (C) needs.

Table 2.17 Live|Work|Play Lehigh Valley Target Job Change and Forecast, 2024*Lehigh Valley & United States**High employment concentration (LQ)¹³ above 1.2 in yellow*

NAICS	Industry	Lehigh Valley				United States		
		10-Year Change	10-Year % Change	10-Year Forecast	LQ	10-Year Change	10-Year % Change	10-Year Forecast
4452	Specialty Food Retailers	-157	-20.5%	-5.9%	1.1	-3,174	-1.2%	-3.7%
4599	Other Miscellaneous Retailers	482	42.3%	-5.1%	1.3	135,378	28.8%	-3.9%
4871	Scenic & Sightseeing Transportation, Land	56	n/a	-0.3%	2.3	-1,504	-11.2%	3.2%
7139	Other Amusement & Recreation Industries	496	19.0%	6.2%	0.9	286,864	21.4%	8.7%
31212	Breweries	396	91.8%	8.7%	3.6	74,678	204.9%	11.7%
31214	Distilleries	51	n/a	8.5%	0.9	17,626	186.9%	11.7%
42391	Sporting & Recreational Goods and Supplies Merchant Wholesalers	-16	-31.7%	-5.8%	0.2	13,885	25.4%	-2.7%
45911	Sporting Goods Retailers	-72	-11.5%	-2.8%	0.8	5,354	1.7%	0.0%
56152	Tour Operators	-168	-67.5%	-0.6%	1.5	-2,220	-7.9%	0.8%
71132	Promoters of Performing Arts, Sports, and Similar Events without Facilities	-32	-56.9%	6.4%	0.2	13,254	35.4%	8.1%
71219	Nature Parks & Other Similar Institutions	8	53.8%	3.6%	0.1	-4,122	-5.2%	5.6%
Total/Average		1,039	17.5%	1.9%	1.1	543,335	20.3%	4.1%

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

¹³ Location Quotient (LQ) measures specialization or concentration, usually in employment. The LQ compares local employment in an industry sector or occupation as a percentage of total employment to this same percentage nationally.

Table 2.18 Live|Work|Play Lehigh Valley Target GRP/GDP, 2023*Lehigh Valley Gross Regional Product & United States Gross Domestic Product*

NAICS	Industry	Lehigh Valley		United States	
		GRP (Millions)	10-Year % Change	GDP (Millions)	10-Year % Change
4452	Specialty Food Retailers	\$53.4	52.3%	\$24,919.2	55.9%
4599	Other Miscellaneous Retailers	\$165.2	149.9%	\$79,395.0	108.1%
4871	Scenic and Sightseeing Transportation, Land	\$4.1	n/a	\$942.8	31.6%
7139	Other Amusement and Recreation Industries	\$157.2	70.6%	\$101,428.2	73.1%
31212	Breweries	\$131.5	70.8%	\$14,765.1	89.8%
31214	Distilleries	\$2.2	n/a	\$5,195.7	99.9%
42391	Sporting and Recreational Goods and Supplies Merchant Wholesalers	\$5.2	-10.1%	\$15,508.8	89.1%
45911	Sporting Goods Retailers	\$46.7	56.9%	\$28,245.3	65.5%
56152	Tour Operators	\$5.8	-54.2%	\$2,278.8	24.0%
71132	Promoters of Performing Arts, Sports, and Similar Events without Facilities	\$3.4	-33.5%	\$6,152.6	56.6%
7121	Museums, Historical Sites, and Similar Institutions	\$17.9	108.5%	\$20,076.2	43.9%
71219	Nature Parks and Other Similar Institutions	\$1.0	92.2%	\$6,282.3	23.1%
Total/Average		\$575.8	77.2%	\$291,885.2	80.0%

Source: JobsEQ, 2023 US Dollars, Garner Economics

\$575.8 M

Annual GRP
Live|Work|Play
Lehigh Valley Target
Operations
Lehigh Valley region



Table 2.19 Live|Work|Play Lehigh Valley Target Top 15 In-Demand Occupations, 2024

High employment concentration (LQ)¹⁴ above 1.2 in yellow

SOC	Occupation	LQ ⁵	Residents in Occupation	Employed in Valley	Net Out- Commuting ¹⁵	10-Year % Job Change	10-Year Forecast	10-Year % Job Change (U.S.)	10-Year Forecast (U.S.)
13-1160	Market Research Analysts and Marketing Specialists	0.7	1,590	1,350	240	61.5%	10.8%	90.9%	13.2%
53-1040	Supervisors of Transportation and Material Moving Workers	1.6	1,910	1,997	-87	69.4%	7.6%	42.5%	5.1%
39-9030	Recreation and Fitness Workers	0.8	1,187	1,077	111	-3.9%	7.5%	7.4%	9.2%
27-2020	Athletes, Coaches, Umpires, and Related Workers	1.0	574	601	-27	14.0%	7.1%	11.5%	8.7%
39-7010	Tour and Travel Guides	0.9	124	117	7	25.6%	6.4%	18.9%	8.3%
35-2010	Cooks	0.9	4,955	4,998	-43	15.5%	5.6%	23.8%	6.5%
39-1010	Supervisors of Entertainment and Recreation Workers	1.1	371	350	21	8.3%	5.0%	32.3%	7.1%
49-9070	Maintenance and Repair Workers, General	1.0	3,488	3,366	122	15.6%	4.1%	14.9%	3.7%
11-2020	Marketing and Sales Managers	0.8	1,708	1,428	280	21.5%	2.2%	48.1%	4.9%
11-1020	General and Operations Managers	0.9	7,146	6,624	521	50.7%	2.2%	64.8%	4.9%
35-1010	Supervisors of Food Preparation and Serving Workers	1.0	2,924	2,850	74	24.0%	2.1%	35.2%	5.0%
39-3090	Miscellaneous Entertainment Attendants and Related Workers	1.3	1,074	1,084	-10	28.7%	1.8%	24.4%	6.0%
37-3010	Grounds Maintenance Workers	0.9	2,532	2,311	221	7.0%	1.0%	10.3%	4.3%
37-1010	Supervisors of Building and Grounds Cleaning and Maintenance Workers	0.8	912	825	88	6.0%	0.6%	14.2%	3.7%
37-2010	Building Cleaning Workers	1.0	7,213	6,921	292	-5.7%	-0.3%	1.9%	0.7%

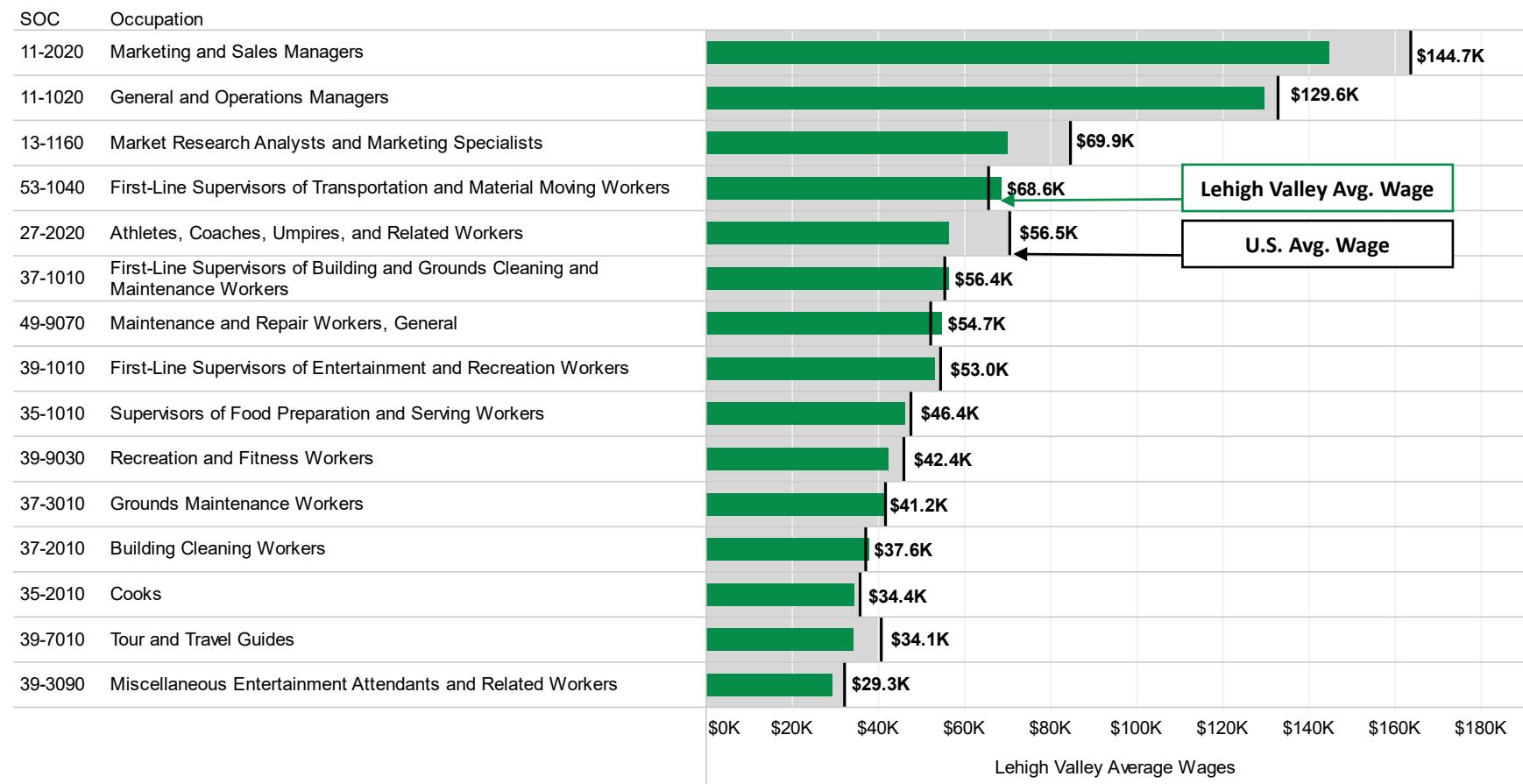
Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

¹⁴ Location Quotient (LQ) measures specialization or concentration, usually in employment. The LQ compares local employment in an industry sector or occupation as a percentage of total employment to this same percentage nationally.

¹⁵ Net Commuting reflects the net number of residents in the occupation compared to employment based in Leigh Valley. A positive number indicates more residents leave the region for work, in essence, there are more residents in the occupation than there are jobs existing in Lehigh Valley.

Figure 2.10 Live|Work|Play Lehigh Valley Target Top Occupational Wage Comparison

Annual average wages for Lehigh Valley compared to the United States Average, 2024



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 2.11 Live|Work|Play Lehigh Valley Higher Education by Award Level

Certificates and degrees awarded at 2 and 4-year schools, 2022

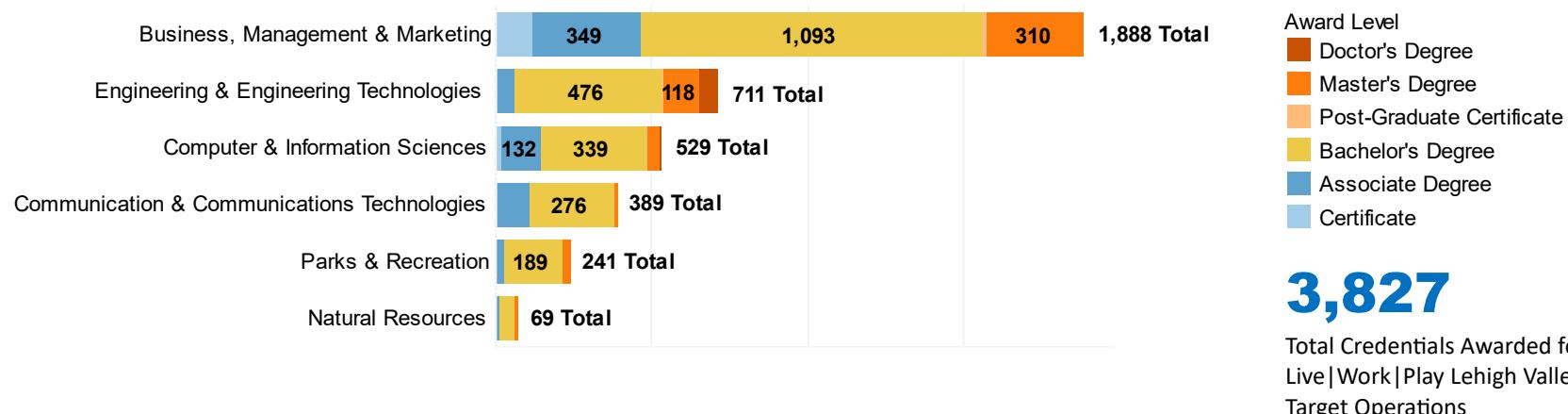


Table 2.20 Live|Work|Play Lehigh Valley Higher Education

Certificates and degrees awarded at 2 and 4-year schools, 2022

Area of Study	Credentials Awarded
Business, Management & Marketing	1,888
Engineering & Engineering Technologies	711
Computer & Information Sciences	529
Communication & Communications Technologies	389
Parks & Recreation	241
Natural Resources	69
Total	3,827

Source: National Center for Education Statistics, Institutions in the Lehigh Valley 45-minute drive-time area, Garner Economics

Chapter 3: Recommendations for Action

Garner Economics began working with the LVEDC in a consultative capacity in 2013. The transformation from then to now is beyond remarkable, both as an organization and in the region's economic vitality.

We happen to believe that the proactive nature of the LVEDC, under the CEO leadership of Don Cunningham, is partially attributable to the economic surge of the Lehigh Valley. For example, the population growth of the Valley from 2013-2023 is 6.5% compared to the Commonwealth of Pennsylvania at 1.5%.

We call this period of 2013 to the present the three phases of the LVEDC, or affectionately, the three phases of "Don": **Renew, Rebuild, and Proactive Maintenance.**

With this current phase of proactive maintenance, Garner Economics offers both external (public facing) and internal (organizational) recommendations to keep the region and organization best in class and economically resilient.

LVEDC Growth 2013-2024



Renew

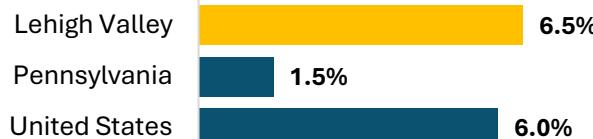


Rebuild



Proactive
Maintenance

Population Growth 2013-2023



2013–2023	Lehigh County	Northampton County	Lehigh Valley	PA	USA
Change	22,413	20,136	42,549	185,374	18,921,180
% Change	6.3%	6.7%	6.50%	1.5%	6.0%

From the comprehensive stakeholder engagement we conducted and documented in the **COMPETITIVE REALITIES REPORT** submitted in August 2024, and our own analysis based on quantitative and qualitative factors, we see the following regional challenges that impact opportunity and quality growth. Those that have an asterisk (*) are offered as recommendations on the following pages to help mitigate these challenges:

- Housing availability and diverse options*
- Too many municipalities*
- Too many school districts
- Road infrastructure
- Public transit options
- Shortages of skilled labor in the trades and other specific occupations
- More of a need to grow from within (entrepreneurship)*
- Childcare so employees can work*

EXTERNAL RECOMMENDATIONS

1. Enhance the Entrepreneurial Ecosystem.

The Lehigh Valley has many resources available to the public, specifically entrepreneurs or would-be entrepreneurs for business startups. But, stakeholder feedback suggests fragmentation and/or insufficient awareness of program availability, including the all-important need for startup and early-stage capital. There was also feedback that more could be done with area academic institutions to strengthen or even consolidate the entrepreneurial ecosystem.

Recommendation: Create a “Tech Village” at higher education institutions with an engineering and entrepreneurial framework, e.g., Lehigh University and space on the mountain campus; Lafayette College; Allentown/Bethlehem Redevelopment Zones. This Tech Village would offer incubator and/or accelerator space, business counseling, and meeting locations for venture or early-stage capital solicitations.

Examples: Several examples of renowned public business incubators in the U.S. provide valuable resources, mentorship, and networking opportunities for startups. Here are a few notable ones:

- [Idealab: Based in Pasadena, CA. It is one of the oldest and most successful incubators focusing on tech startups.](#)
- [Capital Factory: Based in Austin, Texas, A leading center for entrepreneurs in Texas, providing mentorship, funding, and coworking space2.](#)
- [Los Angeles Cleantech Incubator \(LACI\): Focused on clean technology, LACI supports startups working on sustainable solutions.](#)
- [INCubator at the Hamilton County, TN Business Development Center.](#)
- [Baylor Angel Network | Baylor Business |](#)



These incubators are known for their robust support systems, including funding opportunities, mentorship from industry experts, and access to a network of like-minded entrepreneurs.

2. Promote Single-Family Real Estate Rental Development.

EXTERNAL RECOMMENDATION

Housing availability, especially for moderate-income housing, is a critical need almost everywhere in the U.S. This was a reoccurring theme in the Lehigh Valley stakeholder engagement, especially from area employers. Housing is a crucial component of talent attraction; with the region's success in population growth, housing inventory is in very short supply. According to recent research from [Berkadia](#), build-to-rent single-family homes, homes that look like traditional single-family residences but are built to be rented, not owned, are seeing the most national demand.

The changing lifestyle needs of Gen Zer's, Millennials, and Baby Boomers have created this trend, and housing developers find this type of housing development much more profitable than constructing single-family homes or townhouses for sale. The rapid hike in mortgage rates has chilled the housing market nationally, but it's had a different effect on built-to-rent communities. Some home builders have transitioned homes intended to be sold into rental communities.

Recommendation: The LVEDC should work with the various municipalities that may be receptive to this type of development and attract a national housing build-to-rent developer(s) to the region. This type of development would have a significant, positive impact on the area in helping to put a dent in the Valley's housing affordability and availability crisis.

Examples:

- [Argent Cottages in Hardeeville, SC developed by Sands Companies](#)
- [Wingspan in Bridgeland, Houston Area developed by ArchCon Corporation for Howard Hughes Holdings](#)
- [Harrison Trace, Charlotte, NC built by D.H. Horton](#)



Argent Cottages, Hardeeville, SC, developed by Sands Companies

3. Encourage Employer-Sponsored Public-Private Childcare.

EXTERNAL RECOMMENDATION

Childcare affects the workforce. If a family or single parent does not have childcare available, they can't participate in the labor force. Along with housing, childcare availability and affordability are experiencing a national crisis. Clarksville, TN, just north of Nashville, has worked effectively to help solve that crisis locally by creating a public-private childcare academy in one of their large, publicly-owned industrial parks.

Similarly, a Michigan program joins public and private resources in a Tri Share Model where the state, employer, and parent each pay one-third of the monthly cost of childcare. This program is executed via multiple hubs that serve regions across the state. Other employers partner with third-party childcare providers directly to provide on-site childcare, such as BalladHealth in Tennessee and Virginia.

Recommendation: The LVEDC should spearhead an effort of business and government leaders (regionally) to visit the Economic Development Board in Clarksville, TN. The purpose would be to learn how their vision turned into action and to potentially replicate this initiative in one of the larger, established business parks in the Valley.

Examples:

- [Clarksville, TN, CMC EDC Celebrates Grand Opening of The Youth Academy Industrial Park Childcare Facility](#)
- [West Michigan Region Child Care Hub, Goodwill Industries](#)
- [BalladHealth Centers for Early Learning](#)



4. Advocate for a Statewide Economic Development Funding Model.

EXTERNAL RECOMMENDATION

Advocate and serve as the facilitator for a statewide funding model for Economic Development, e.g., $\frac{1}{2}$ cent sales tax. The LVEDC 2024 budget is \$3.5mm. Its income is mainly derived from the hotel tax (\$1.7mm) and investor contributions (\$575K). Its marketing and development expense budget is \$816K. This is a well-funded organization operationally. But for product development needs and infrastructure improvements, funds are limited.

Recently, Gov. Shapiro announced a \$500 million infusion of economic development money appropriated by the Legislature so that “PA can get into the economic development game” related to product development initiatives. This is a great start, but it does not solve the needs for product development and economic development infrastructure for communities in the long term. The LVEDC has a very proactive and well-established advocacy effort that is used to advocate for legislation affecting the Lehigh Valley and economic development activities.

The State of Texas has the preeminent economic development funding model for economic development product, with municipalities able to vote for a $\frac{1}{2}$ cent sales tax for economic development projects. Another example through its economic development arm, Jobs Ohio, the State of Ohio uses liquor sales proceeds to fund its economic development efforts. JobsOhio’s funding model drives effective economic development.

Recommendation: The LVEDC should take the lead in coordinating with the Governor’s office for a statewide effort on a model that would allow municipalities to have the ability to control their own destiny based on the capacity to create resources for product development.

Examples:

- [JobsOhio’s Funding Model Drives Effective Economic Development](#)
- [Texas Economic Development Sales Tax](#)



5. Spur a Proactive Marketing and Talent Attraction Effort.

EXTERNAL RECOMMENDATION



The Lehigh Valley is a Live|Work|Play community. As one survey respondent said, the Lehigh Valley is “Close to Everything.” We recommend that the LVEDC and Discover Lehigh Valley partner more proactively in mutual external marketing efforts. These can also blend with the Valley’s tourism promotion efforts since tourism is about quality of place, and tourism is economic development.

Recommendation: Take advantage of the world-famous **Martin Guitar** company being headquartered in the Lehigh Valley. Music is a universal language and a great conduit to bring people together. Gibson Guitars does this well in Nashville, using its museum and experiential music venues.

We recommend that the LVEDC and Discover Lehigh Valley work to produce an annual Martin Guitar singer/songwriter event with high-profile musical acts or songwriters that use Martin.¹⁶ This could potentially attract visitors from throughout the globe. Having this in conjunction with the Valley’s MusikFest is a possibility to scale it up. This recommendation cannot be successful unless Martin Guitar is all in.

Example: Gibson Garage: <https://gazette.gibson.com/news/save-the-dates-live-events-at-the-gibson-garage-nashville-in-november-and-december-2024/>

¹⁶ [Martin Guitar Artists | C.F. Martin & Company](#)

INTERNAL RECOMMENDATIONS

1. Create A Permitting And Regulatory Ombudsman Position.

Create a permitting and regulatory ombudsman position housed at the LVEDC. There are 62 municipalities in the Lehigh Valley, and their population size ranges from 125,000 to just a few hundred. As many have said in stakeholder feedback, navigating the many municipalities in the Lehigh Valley creates inefficiencies regarding government services, resulting in government inconsistencies, high cost of services, and a challenging business climate. The reality of having municipalities consolidate/disband is unrealistic. So what's an alternative to navigate the regulatory process effectively?

Recommendation: There is a need for someone in the Valley to know each municipality's zoning and permitting codes and how to effectively and efficiently navigate the development process. This does not need to be funded by the LVEDC, but we see the organization as a neutral arbiter of equally promoting the region, which is the reason to house it at the LVEDC offices. However, through the LVEDC's advocacy efforts, the organization must serve as a catalyst and facilitator for this initiative, or it won't get done.



2. Conduct Economic Development Leadership Laboratories

Conduct Economic Development Leadership Laboratories [leadership visits to aspirational regions]. A leadership visit or leadership lab is a trip to another city or region taken by a diverse delegation of leaders from a community's public, private, and nonprofit sectors. Intercity visits are typically led and facilitated by a community's chamber of commerce.

On a leadership trip, the visiting delegation discusses the challenges and opportunities that the community faces with host community leaders. The visit provides an opportunity for interaction among regional leaders and facilitates the exchange of best practices and lessons learned between the two regions. These visits are often organized annually, serving as a regularly scheduled opportunity for collective community visioning. In the case of the Lehigh Valley, several stakeholder engagement participants mentioned how helpful it would be if regional leaders, the nonprofit community, educators, and the business community could travel and learn together about what has worked well in other inspirational or aspirational regions.

Recommendation: Leadership visits are typically led and facilitated by a community's chamber of commerce. In the case of the Lehigh Valley, the Greater Lehigh Valley Chamber of Commerce could be the logical lead for this initiative, or the LVEDC if the Chamber opts not to pursue it. A typical size for an intercity visit would be as few as 25 and as many as 75-100 people. Clarksville, TN would be a logical first visit because of its proximity to Nashville. They have a public-private childcare facility in one of their large, publicly owned industrial parks, and they are a manufacturing powerhouse.



3. World Trade ABE: Promote the Valley more proactively for foreign direct investment (FDI).

INTERNAL RECOMMENDATION

Twelve percent of the Lehigh Valley's population is foreign-born. There are over 100 foreign-owned firms based in the Lehigh Valley. The Lehigh Valley International Airport (ABE) has one-stop air service to virtually anywhere in the world from connecting flights to locations like Newark, Atlanta, Philadelphia, Chicago and Charlotte. To attract more international companies, the Valley must "wear" its international hat daily to show these companies that the region is open and receptive to international investment.

Recommendation: A public face needs to be created to offer business assistance to existing and potential international companies and investors in the area. We suggest this be named **World Trade ABE**, using the Lehigh Valley (ABE) airline code. Funding for this effort would be from a larger, sustainable funding mechanism in External Recommendation #4.

What might some of these forward-facing international activities include? A sample of some activities might be:

- Promoting sister city agreements to regions of the world with the highest concentration of target industry sectors, e.g. Germany, Italy, Japan, Korea, United Kingdom, and France.
- Promoting international festivals with these specific countries.
- Promoting international exchange students and working more closely with academic institutions in the area to promote cultural exchange.
- Identify alumni from academic institutions in the area who now serve in a higher profile position with a company back in their host country. These individuals can be great ambassadors to the region.
- Consider starting a Japanese or Korean Saturday School to help promote investment from these targeted countries.
- Work with existing Valley companies to promote trade of goods and services to foreign buyers.
- Have an ombudsman for services such as translation, money exchange, how to get a local driver's license and the appropriate acclimation to the local community. This individual could be housed at the airport or the LVEDC.



Chapter 4: Final Thoughts

With excellent transportation assets, a high in-demand housing and visitation location, a strong manufacturing presence, diverse natural resources and effective public and private leadership, the Lehigh Valley has a wealth of amenities that make it an ideal location for investment. However, more needs to be done to create new real estate product and continue progress for brownfields' redevelopment (which has been award-winning). Now is not the time to take your foot off the gas pedal. The bar needs to be raised.

Through this report, **THE NEXT CHAPTER: AN ECONOMIC DEVELOPMENT ACTION PLAN FOR THE LEHIGH VALLEY**, community leaders can make long-term structural investments to ensure that the region can attract the types of activity it wants while also taking on game-changing initiatives to augment the area's quality of place assets, such as in sports tourism.

To create such change, the LVEDC will need to continue to facilitate dialogue with public and private leaders, to continue being more proactive rather than reactive, and execute its economic development efforts differently since today's local economic climate is far different than it was when the LVEDC began its rebirth in 2013.

thank you

Garner Economics would like to thank the LVEDC board of directors and staff, led by its chief executive officer, Don Cunningham, and the more than four hundred (400) people who participated in the stakeholder engagement process. Their feedback, compilation of data, and information—as well as their openness and willingness to explore various opportunities to strengthen Lehigh Valley's economic vitality and LVEDC operations—have contributed to the richness and rigor of this report.



Garner Economics LLC
solutions that work

August 15, 2024

A COMPETITIVE REALITIES REPORT

for
Lehigh Valley, Pennsylvania

Lehigh Valley
ECONOMIC DEVELOPMENT

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Chapter 1: Introduction

In late April 2024, the Lehigh Valley Economic Development Corporation (LVEDC), based in Bethlehem, Pennsylvania, retained Garner Economics, LLC, to help the region assess the market and plan for the next chapter of the region's economic success story. In 2013, Garner Economics conducted a comprehensive assessment of the region's economic development competitiveness and its economic development service delivery. The team returned in 2021 to refresh and recalibrate the action plan to accommodate changes in the local and global markets. The resulting action plan and refreshed strategy served as a road map to enhance the region's global competitiveness.

Lehigh Valley has shown great strides in achieving economic prosperity for its citizens, and as many highly effective organizations do, LVEDC is on a path of continuous improvement to increase economic activity and seek to enhance the region's competitive edge. Once again, Garner Economics, known for its objective and thorough evaluations, has been asked to take a critical look at where Lehigh Valley stands as a region. The scope of services looks to assess and assist in the creation of a strategy for Lehigh Valley's next chapter. This project includes:

- A comprehensive and holistic assessment of key forces driving the economy and its shifting dynamics;
- An Assets & Challenges Assessment of the region from the perspective of a site-location consultant that facilitates investment decisions;
- Validation and recommendations for business targets suitable for the region, based on our research and analysis; and finally,
- A set of implementable recommendations that the LVEDC and its economic development partners can utilize to enhance the economic well-being of the area and make the region desirable for business and talent while sustaining its quality of place.

Project Approach & Methodology

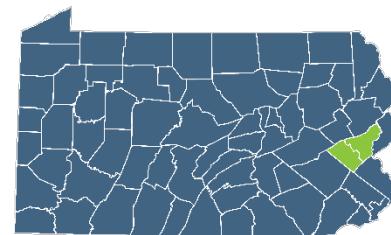
This **COMPETITIVE REALITIES REPORT** (CRR) is the first of two reports. It documents the work elements of the project scope and summarizes the findings of Phase I. A compilation of facts and data points with quantitative analysis and some subjective opinions, the CRR includes:

- Stakeholder Engagement Summary,
- Economic and Community Analysis, and
- Assets & Challenges Assessment.

These inform the process and provide the basis for the final strategy report and its recommendations

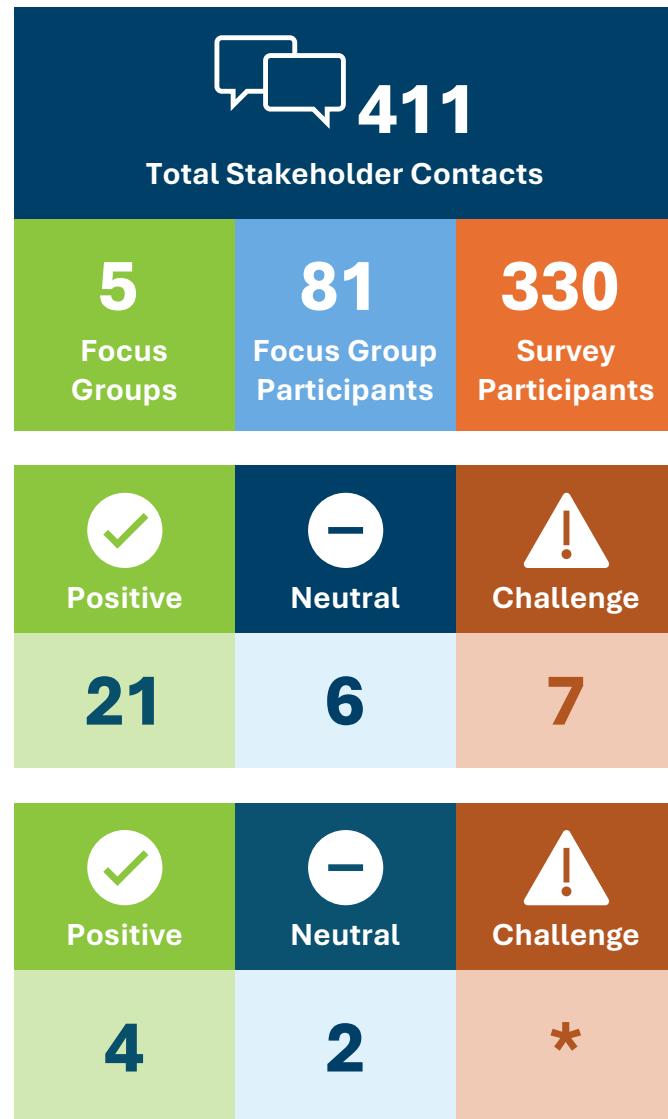


This CRR offers no recommendations. The final strategy report will consist of the business target suggestions along with conclusions and recommendations for how the region and its partners can align business development, community development, entrepreneurship, and quality of place efforts to optimize Lehigh Valley's competitive position.



Lehigh Valley
ECONOMIC DEVELOPMENT

Chapter 2: Executive Summary



Stakeholder Engagement

As part of the discovery process, Garner Economics held focus groups of key stakeholders representing Lehigh Valley businesses and community partners. Four focus groups were conducted virtually, and the fifth was held in person with the LVEDC Board of Directors. Additionally, an electronic survey was distributed to reach a broader regional audience and received 330 respondents. Please see Chapter 3 for more detail.

3.6

*Lehigh County
Business Climate Rating*

3.5

*Northampton County
Business Climate Rating*

3.3

*Entrepreneur
Support*

3.4

*Workforce Training
Effectiveness*

Community Data Analysis

Demographic, labor and community indicators were evaluated as positive, neutral, or challenge based on the comparison to state and national benchmarks, change over time, or both. Neutral ratings generally resulted from factors with both negative and positive aspects. Each chapter begins with a visual summary of indicators then a narrative presenting the key themes affecting Lehigh Valley's standing. Most indicators were positive, showing growth, while 6 were neutral, and 7 were deemed a challenge. Chapters 4-6 contain the data analysis.

Assets & Challenges Assessment

This assessment provides an overview of the area's strengths and weaknesses through the lens of a company or site location consultant evaluating the region for potential corporate investment. Over 50 community factors as part of this assessment across six categories, rated with an asset, challenge, or neutral indicator.

*There were no challenges or weaknesses in the main categories, but individual indicators, such as cost of living and moderate level housing, within Quality of Place, are rated as a challenge.

Chapter 3: Stakeholder Engagement

Community input is one of the most important elements in building an economic development strategic plan. Garner Economics believes that engaging stakeholders in the process not only provides vital intelligence on the region but also establishes “buy in” from regional businesses and community partners. Utilizing different tools and audiences offers insight and helps establish patterns and validation of data accumulated in the project's Discovery Phase.

To understand stakeholder sentiment about the business climate and economic development potential in the Lehigh Valley, Garner Economics solicited feedback from various groups using several methods.

- Four virtual focus groups with key stakeholders who are engaged with economic development, represent economic development partners, or are customers;
- An electronic survey of a broader group of businesses in the region that engage in or are affected by economic development efforts; and
- One in-person focus group with the Lehigh Valley Economic Development Corporation Board of Directors.

Stakeholder Groups

Eighty-two stakeholders participated in one of the focus groups facilitated by Jay Garner during this project. Each group was asked the same questions via an interactive polling platform to leverage responses from the entire group. Replies shown in real-time led to engaging in discussions on Lehigh Valley's business climate.

The online survey, which garnered 330 participants, included nearly identical questions. The online questionnaire allowed a wider range of Lehigh Valley employers, workers, and residents to share their perspectives on the business climate and livability of the region.



Survey participants were overwhelmingly long-time Lehigh Valley residents, with 79% reporting they were either native or had lived in the region for more than a decade. Only nine percent did not live in the Lehigh Valley; however, most listed their work zip within the region.

Data collected from stakeholders and the discussion in the focus groups began to uncover several themes of concern and points of pride in relaying the assets of the Lehigh Valley. The following review highlights the key topics and shares the top answers to the combined stakeholder responses from the five focus groups and 330 survey takers.

Business Climate

Stakeholders from both the focus groups and survey rated Lehigh Valley's business climate above average, with scores of 3.6 for Leigh County and 3.5 for Northampton County, on a scale with five being the best. For this survey, business climate is defined as policies and laws enacted by local jurisdictions that impact local businesses, either positively or negatively.

Organizing business climate ratings by a specific constituent group shows that the above-average score is consistent. Comments about this rating include the challenge of dealing with many different jurisdictions and permitting standards in the region's cities and townships. Some participants stated that municipalities were often too restrictive and expressed the wish for consistent policies, and some desired a consolidation of municipal services.

Figure 3.1 Business Climate Rating

Stakeholder rating of business climate

On a scale of 1 to 5 with 5 being best, how would you rate the business climate of Lehigh Valley?

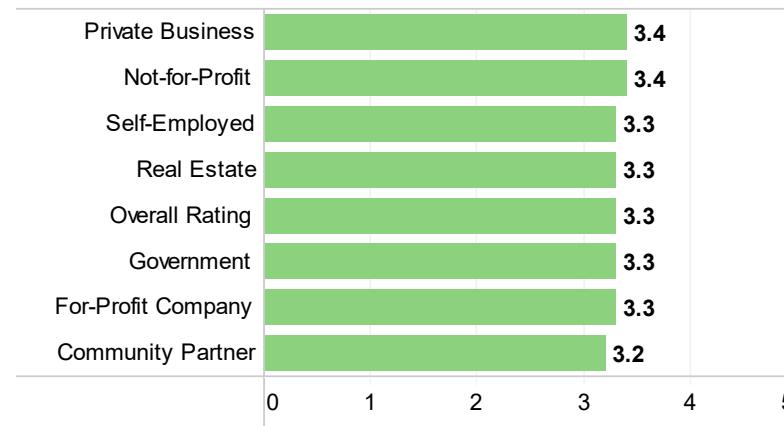


Entrepreneur Support

Figure 3.2 Entrepreneurial Rating

Rating of entrepreneurship efforts from 1 to 5, with 5 being the best.

How would you rate the region's efforts to support and grow entrepreneurs?



Entrepreneurial support and programs were also consistently rated above average (3.3 out of five) across multiple groups, including those who identified as self-employed. One concern voiced was the lack of venture capital or funding in general. Finding the right size of building to scale up operations from an incubator or start-up space was difficult and expensive, according to some participants.

When asked what could be done to improve efforts to support entrepreneurs, the top responses were:

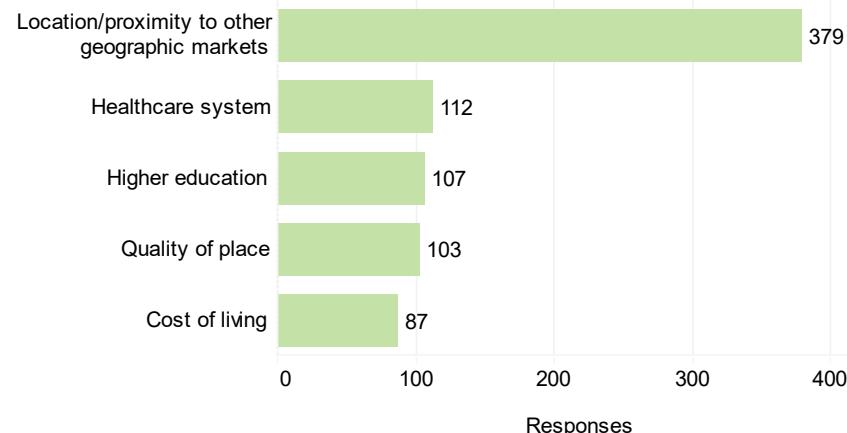
- Encourage venture capitalists to consider opportunities in region
- Create and promote a startup culture
- Help in accessing private investment/resources
- Provide more hands-on assistance to start-up businesses
- University collaboration

Perceptions of Assets & Challenges

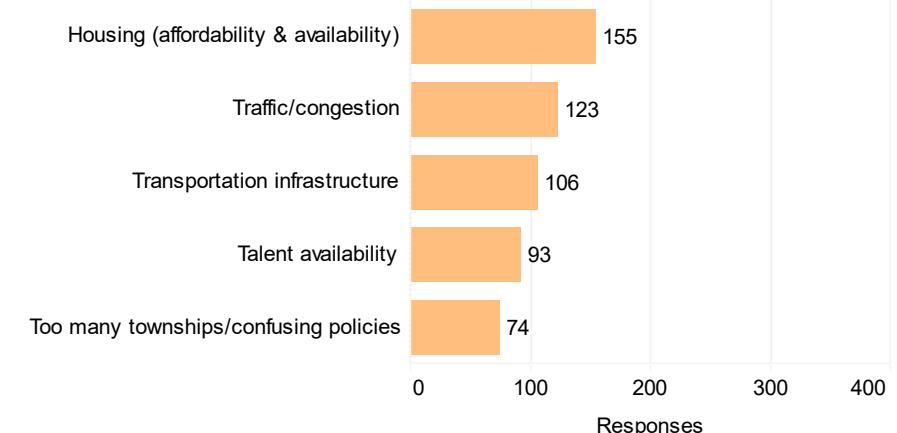
Figure 3.3 Top 5 Stakeholder Responses

Combined focus group and survey responses

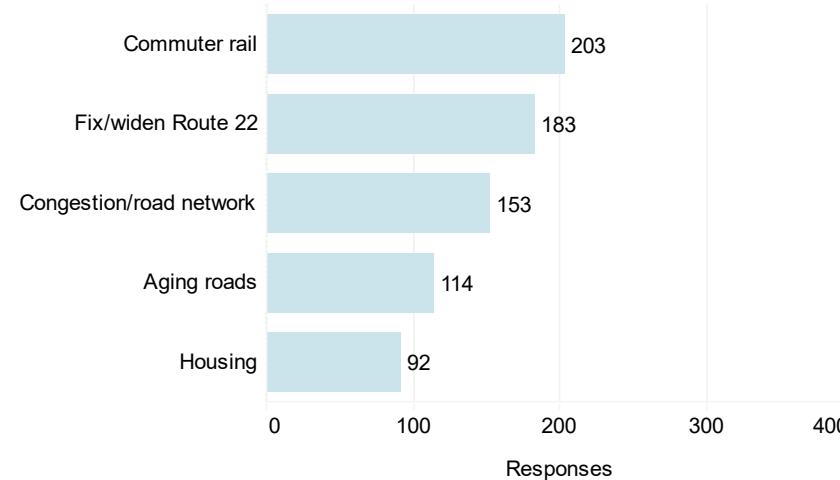
What do you see as the region's best assets?



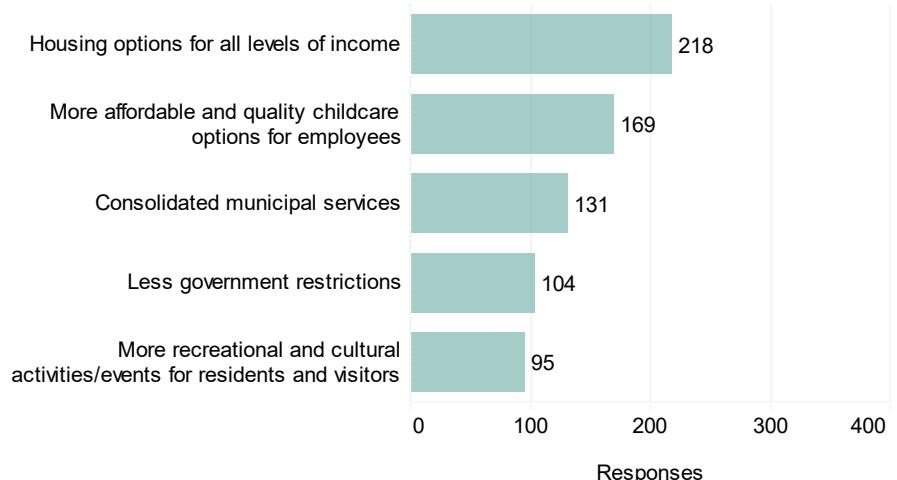
What are the biggest obstacles that inhibit the region's ability to grow?



What infrastructure - either "hard" or "soft" - is missing or unsatisfactory in the region?



What would you work to change about the region if you were not concerned with money or politics?

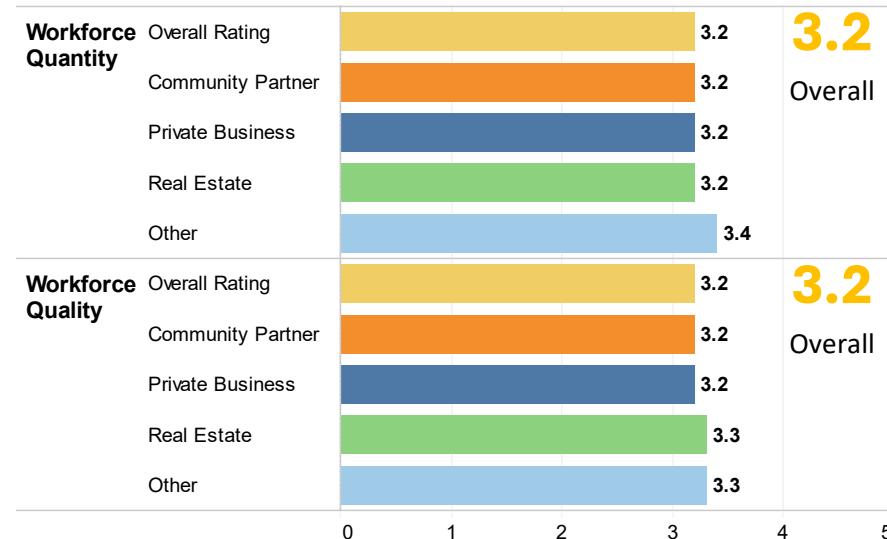


Workforce & Training

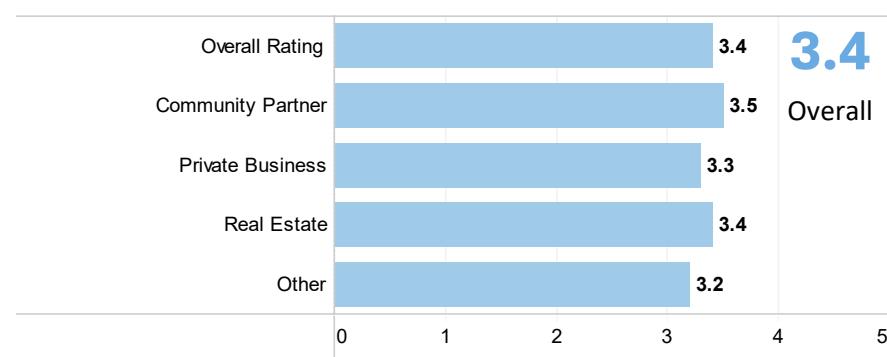
Figure 3.4 Workforce Rating

Stakeholder rating of labor force and training

How would you see the labor situation in the region (quality and quantity)?



Is the region effective in educating and/or training its populous for the workforce?



Stakeholders are highly concerned about talent development, retention, and attraction. Overall, workforce quality and quantity received an above-average rating, 3.2 each. Even though this rating was given, the availability of talent was one of the top five biggest obstacles that inhibit the region's ability to grow.

Skills Gap and Education

The effectiveness of the region's education and training institutions in preparing students for work received an above-average score of 3.4. The workforce topic revolved around a mismatch of availability, education, and skills needed by area businesses. Technical skills are the largest gap based on comments.

Participants were enthused about work-based learning opportunities, but most agreed that more is needed. Community colleges received positive comments in preparing students and offering relevant training.

The sentiment was that resources were available; however, greater effort is needed to collaborate and reach students about career possibilities. One focus group participant stated that a stigma may still be associated with manufacturing and the trades has to be overcome.

Housing and Affordability

In addition to core training and education, other workforce-related issues important to talent retention and attraction have gained attention. The lack of housing stock was brought up in relation to several different questions, including concerns over the lack of available and affordable homes for a variety of income levels.

Childcare

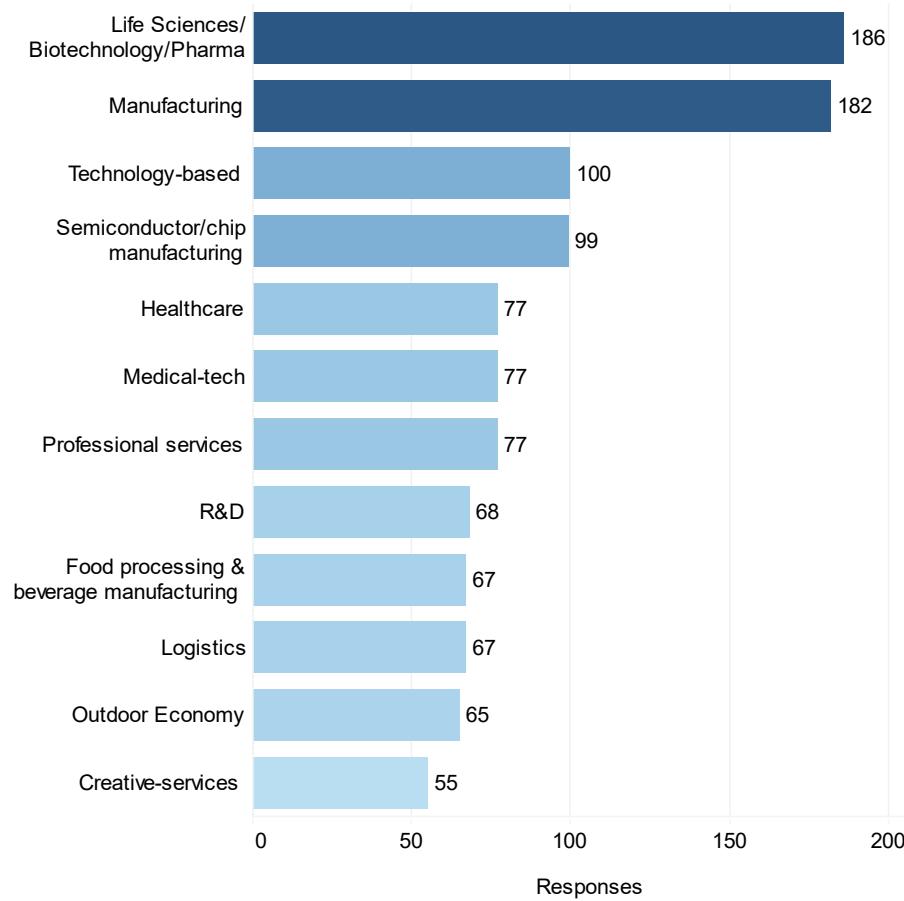
The wish to have more affordable and quality childcare options was another talent-related item that made it to the top five responses regarding what would you change about the region if money or politics were not a concern.

Business Targets for the Region

Figure 3.5 Possible Target Businesses

Desired business sectors for the region

What types of business sectors do you think would be a good fit for the region?



Both focus groups and survey participants selected business sectors that closely match existing business targets and other desired clusters. Life sciences is the top industry sector suggested by stakeholders with 186 responses. This cluster would include biotechnology as well as pharmaceutical R&D and production.

The region's strong manufacturing culture likely influenced the next selection of manufacturing businesses. Following these sectors are technology-based enterprises, semiconductor and chip manufacturing, and healthcare and medical tech.

Chapter 4: Demographic & Community Indicators

The Phase I Discovery process examines the region's economic standing and competitiveness. The Valley encompasses Lehigh and Northampton Counties and is strategically situated in eastern Pennsylvania, bordering the New York and Philadelphia Metro areas. The upcoming sections present the findings on how Lehigh Valley compares to the Commonwealth of Pennsylvania and the nation, as well as the five-year trends within the region.

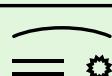
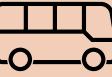
This analysis heavily relies on raw, objective data from government or impartial third-party agencies. Garner Economics conducted all unique

calculations and computations using the original and most currently available data (as of July 2024). When regional data was unavailable, county or city-level data was used for those indicators.

Demographic, labor and community indicators were evaluated as positive, neutral, or challenge based on the comparison to state and national benchmarks, change over time, or both. Neutral ratings generally resulted from factors with both negative and positive aspects. Each chapter begins with a visual summary of indicators then a narrative presenting the key themes affecting Lehigh Valley's standing.



Demographic & Community Indicators

POSITIVE	NEUTRAL	CHALLENGE
 Population Growth	 Age Distribution	 Diversity
 Migration	 Educational Attainment	 Graduation Rate
 Household Income	 Cost of Housing	 Crime Rates
 Air Service	 Broadband Speed	 Walk Score
	 Low Natural Population Change	 Living Wage
	 Poverty Rate Overall	 Bike Score
		 Poverty Rate for Children
		 Cost-of-Living
		 Broadband Access
		 Public Transit Scores

Indicators were evaluated as positive, neutral, or challenge based on the comparison to state and national benchmarks, change over time, or both. Neutral ratings generally resulted from factors with both negative and positive aspects.

 POSITIVE	 NEUTRAL	 CHALLENGE
<ul style="list-style-type: none"> • Growing population (6.5% over 10 years) • Half of the population is aged 20-59 years. • Ages 30-39 years increasing. • High diversity index in Lehigh County and growing in the Lehigh Valley. • Steady stream of new residents. • Well-educated population. • Above national and state graduation rates for public school systems. • More than half of households are earning above \$50,000 annually. • Households with higher incomes are growing. • The cost of housing is more affordable than comparable cities. • Lower crime rates than Pennsylvania overall • Crime rates have decreased in the past 5 years. • Passenger and cargo air traffic is increasing. • Good internet speeds in urban areas. • Good walk scores in cities. 	<ul style="list-style-type: none"> • Low to negative natural population change. • The cost of living is higher than in Philadelphia. • Average bike scores in cities. 	<ul style="list-style-type: none"> • Poverty has increased in part of the Lehigh Valley. • Cost of living is above national average. • Broadband accessibility to higher speed (1 Gig) in the Lehigh Valley. • Low public transit scores in cities.

PEOPLE

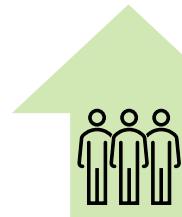
Population

Table 4.1 Population, 2013–2023

Highest Percentage Change in Grey

Geography	2023	
Lehigh County	377,754	
Northampton County	319,091	
Lehigh Valley	696,845	
Pennsylvania	12,961,683	
United States	334,914,895	
2018–2023 Change	#	%
Lehigh County	9,395	2.6%
Northampton County	14,527	4.8%
Lehigh Valley	23,922	3.6%
Pennsylvania	160,761	1.3%
United States	8,227,394	2.5%
2013–2023 Change	#	%
Lehigh County	22,413	6.3%
Northampton County	20,136	6.7%
Lehigh Valley	42,549	6.5%
Pennsylvania	185,374	1.5%
United States	18,921,180	6.0%

Source: U.S. Census Population Estimates, Garner Economics

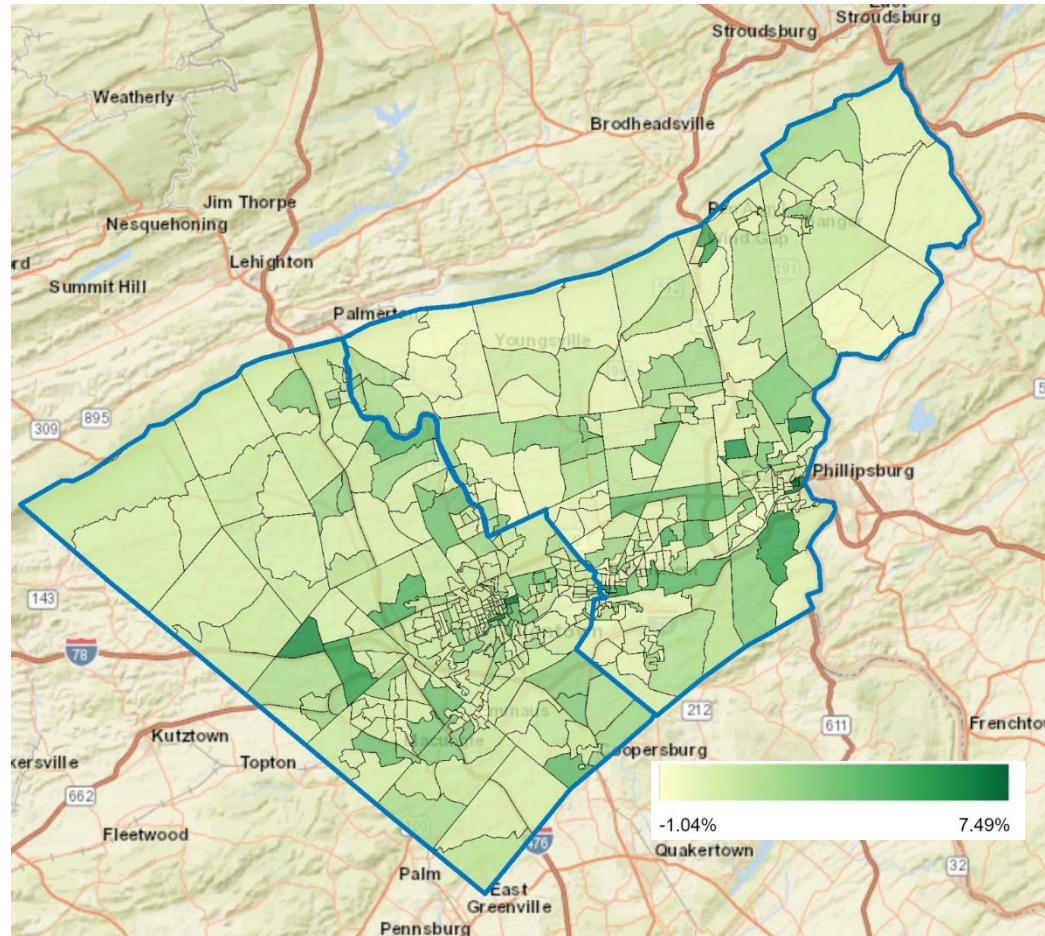


6.5%

Lehigh Valley Population
10-Year Growth

Figure 4.1 2024–2029 Population Growth

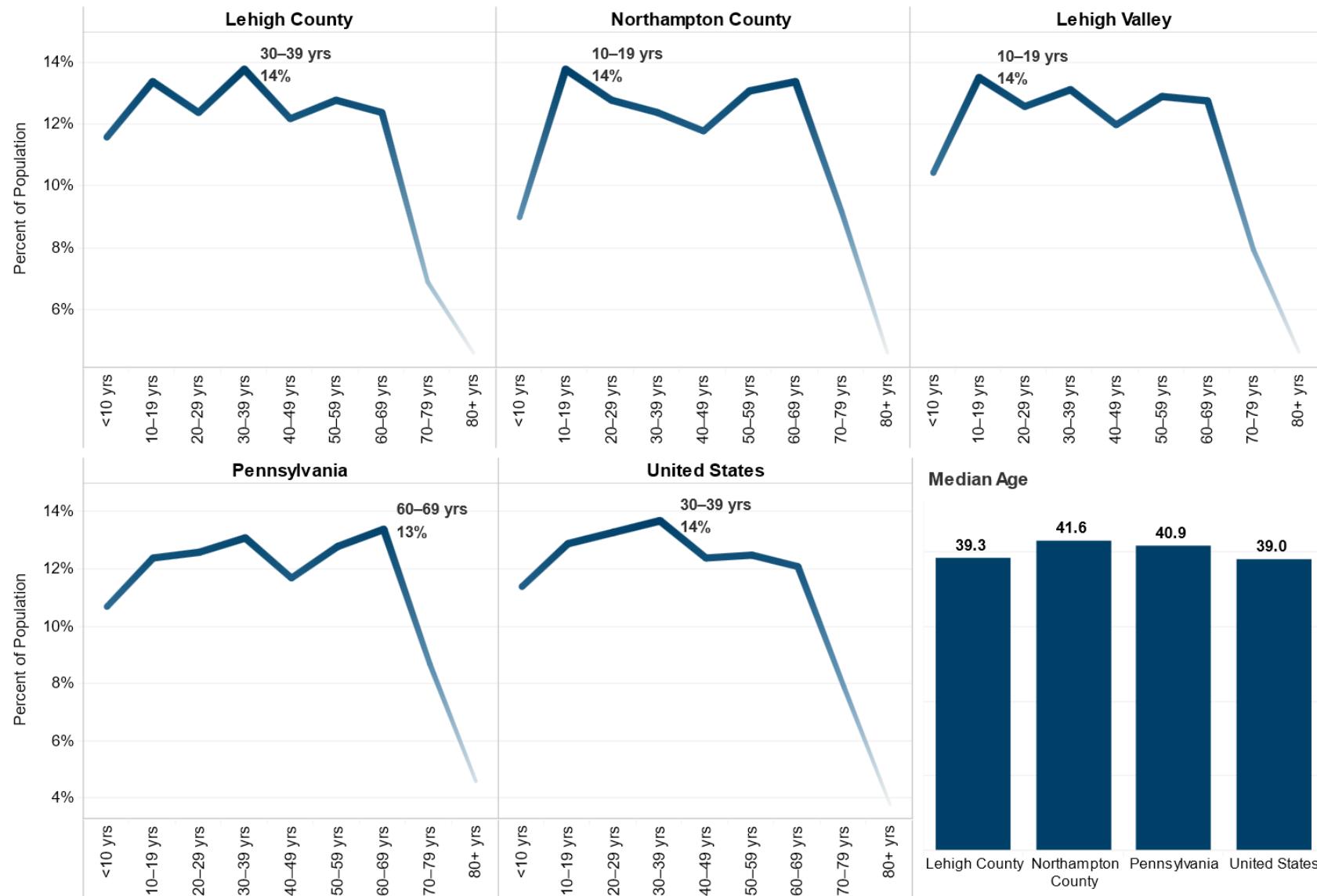
Annual Projected Growth by Census Block Groups



Source: ESRI Population Growth Estimates (Annually Compounded Rate), Garner Economics

Population by Age

Figure 4.2 Age Group Distribution, 2022



Source: U.S. Census Bureau, Garner Economics

Population by Age

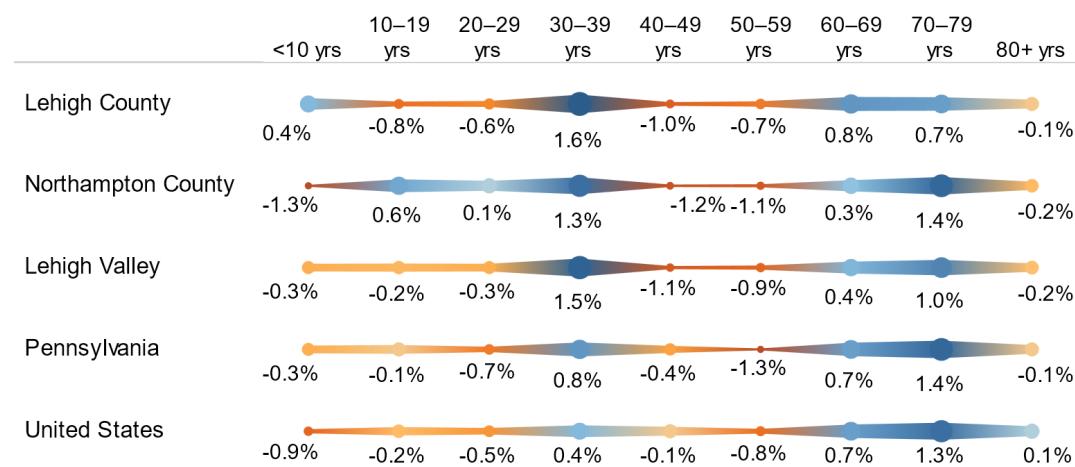
Table 4.2 Age Group Distribution, 2022

Highest Age Group for Each Geography in Grey

Age Group	Lehigh County	Northampton County	Lehigh Valley	Pennsylvania	United States
<10 yrs	11.6%	9.0%	10.4%	10.7%	11.4%
10-19 yrs	13.4%	13.8%	13.5%	12.4%	12.9%
20-29 yrs	12.4%	12.8%	12.6%	12.6%	13.3%
30-39 yrs	13.8%	12.4%	13.1%	13.1%	13.7%
40-49 yrs	12.2%	11.8%	12.0%	11.7%	12.4%
50-59 yrs	12.8%	13.1%	12.9%	12.8%	12.5%
60-69 yrs	12.4%	13.4%	12.8%	13.4%	12.1%
70-79 yrs	6.9%	9.2%	8.0%	8.7%	7.9%
80+ yrs	4.6%	4.6%	4.6%	4.6%	3.8%

Source: U.S. Census Bureau, Garner Economics

Figure 4.3 Age Change, 2017-2022



Source: U.S. Census Bureau, Garner Economics

Diversity

Racial diversity is not a determining factor in local economic competitiveness by itself, although some firms may prefer higher diversity rates to attract and retain workers. *There is also a growing recognition that being welcoming leads to prosperity.* Talent attraction and retention are key factors in economic development today, and many companies and communities are embracing equity, diversity, and inclusion as part of their talent attraction efforts.

The Diversity Index measures the probability that two people chosen randomly in a given area will be from different races and ethnic groups. Values close to 100% indicate that people in the population have different racial and ethnic characteristics.

Table 4.3 Diversity Index

Highest Diversity or Rate of Change Shaded

Geography	2020 Diversity Index	2024 Diversity Index	2020-2024 Change
Lehigh County	71.6%	74.2%	2.6%
Northampton County	55.0%	58.2%	3.2%
Lehigh Valley	65.2%	68.0%	2.8%
Pennsylvania	50.5%	52.8%	2.3%
United States	71.0%	72.5%	1.5%

Source: ESRI, Garner Economics

Population Change & Migration

Table 4.4 Net Population Change, 2022–2023

	Lehigh County	Northampton County	Lehigh Valley	Pennsylvania	United States
Net Natural Increase	335	-414	-79	-11,079	504,495
Net Domestic Migration	-616	1,019	403	-24,825	n/a
Net International Migration	1,745	599	2,344	25,776	1,138,989
Total Population Change*	1,480	1,191	2,671	-10,408	1,643,484

Source: U.S. Census Bureau, *Population Estimates*, Garner Economics

*Total population change includes a residual. This residual represents the population change that cannot be attributed to any specific demographic component. See Population Estimates Terms and Definitions at <https://www.census.gov/programs-surveys/popest/about/glossary.html>.

Figure 4.5 Residential Mobility, 2021–2022

Population that moved into each area in the past year
Shown as % of all new residents.

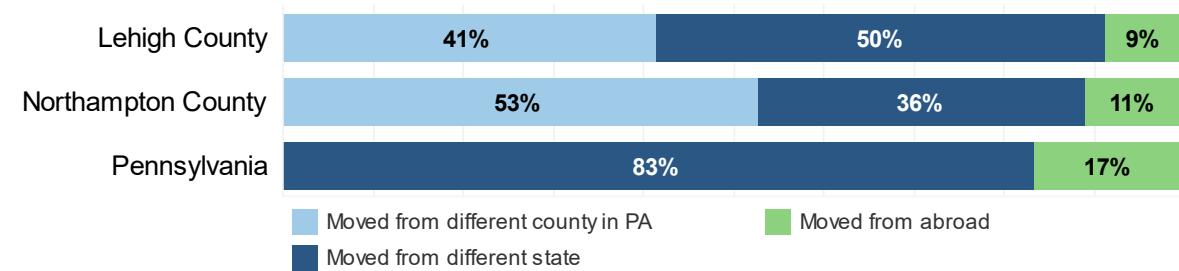


Table 4.5 Residential Mobility, 2021–2022

Population that moved to the area in the past year

Moved from:	Same County	Different County In PA	Different State	Abroad	Total New Residents
Lehigh County	18,626	7,078	8,568	1,490	17,136
Northampton County	9,754	9,124	6,293	1,888	17,305
Pennsylvania			256,909	51,382	308,290

Source: U.S. Census Bureau, Garner Economics



Figure 4.4 Foreign-born Residents, 2022

Percent of population born outside of the United States regardless of migration year

15%	Lehigh County
9%	Northampton County
12%	Lehigh Valley
8%	Pennsylvania
14%	United States

Source: U.S. Census Bureau, Garner Economics

EDUCATION

Educational Attainment

Figure 4.6 Educational Attainment, 2022

Population age 25 years or older

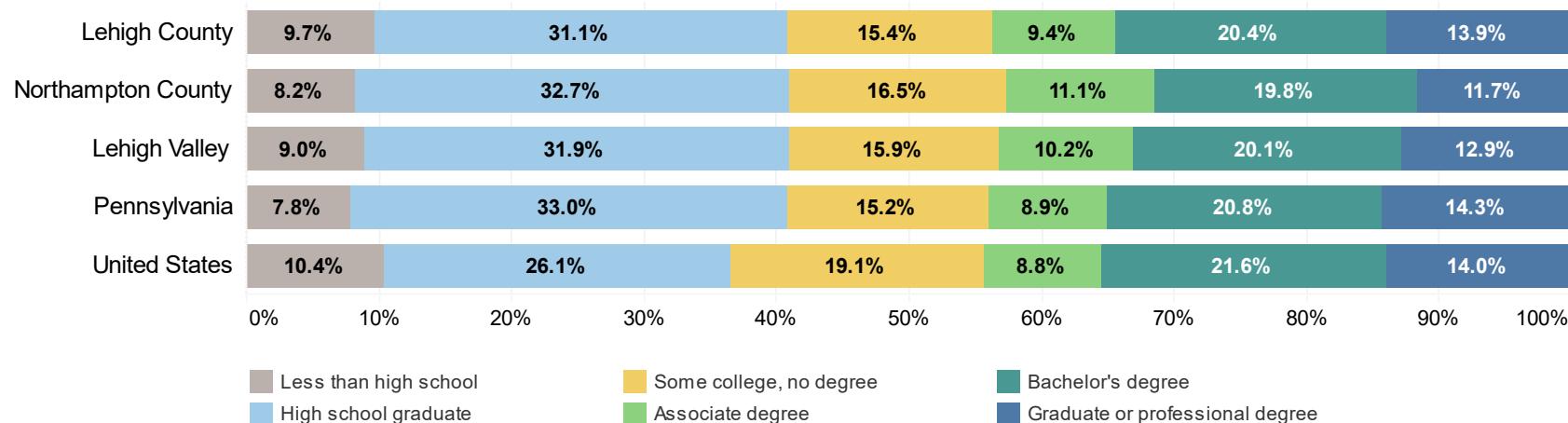
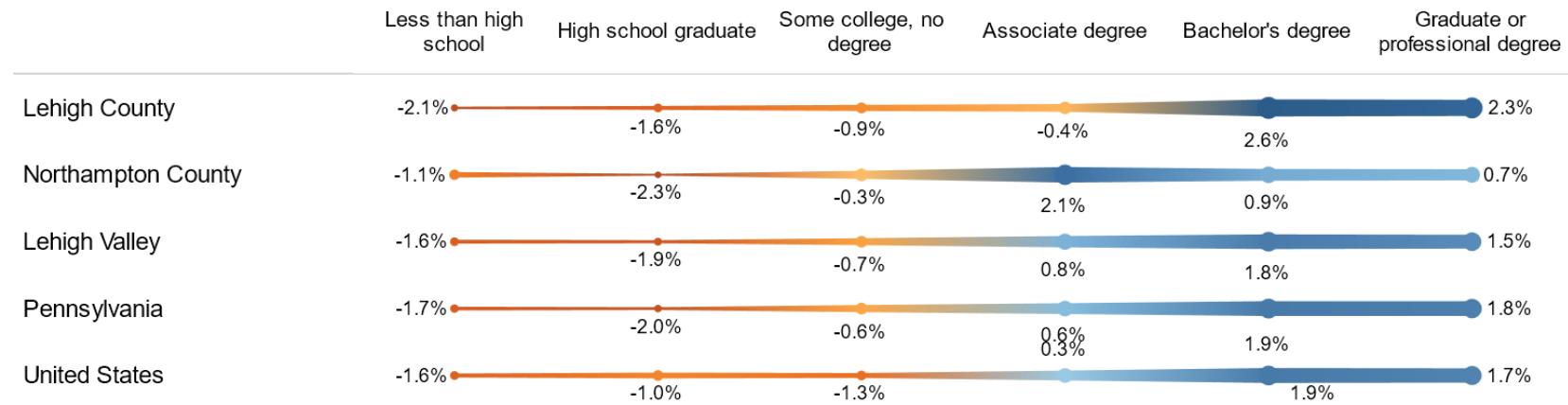


Figure 4.7 Change Educational Attainment, 2017-2022

Population age 25 years or older



Source: U.S. Census Bureau, Garner Economics

Graduation Rate

Figure 4.8 Four-Year Cohort Graduation Rate

Students that graduate public high school within four years

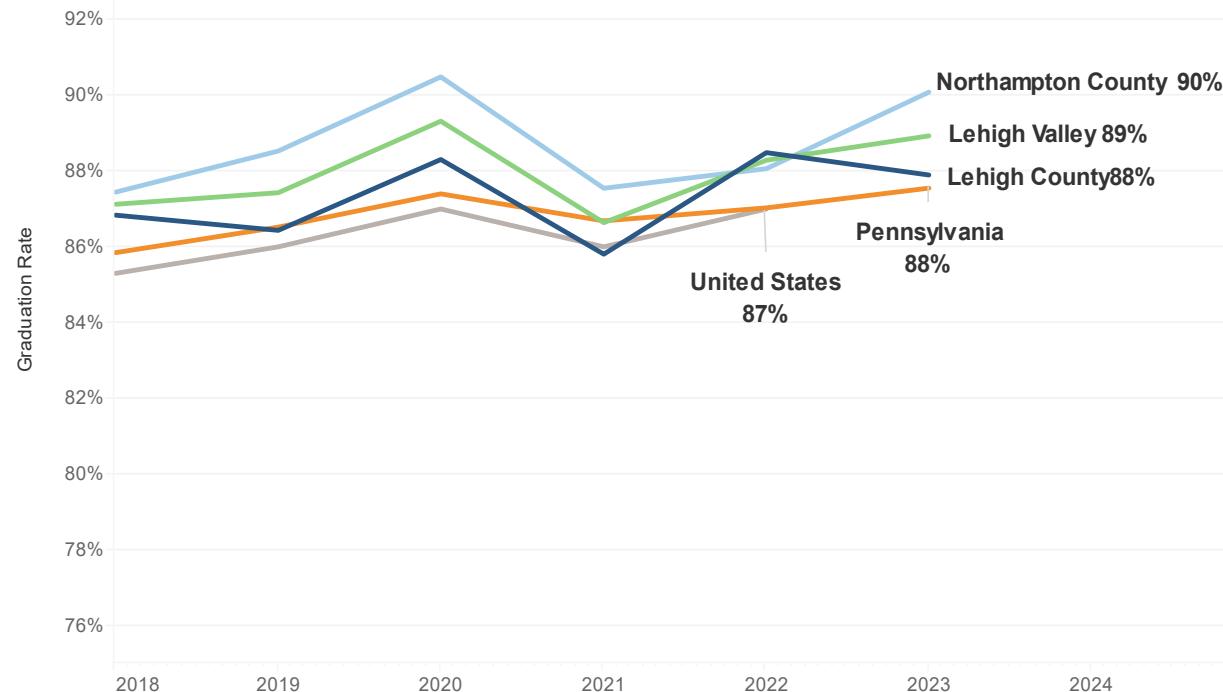


Table 4.6 Four-Year Cohort Graduation Rate

Students that graduate public high school within four years

Highest Graduation Rate in Grey

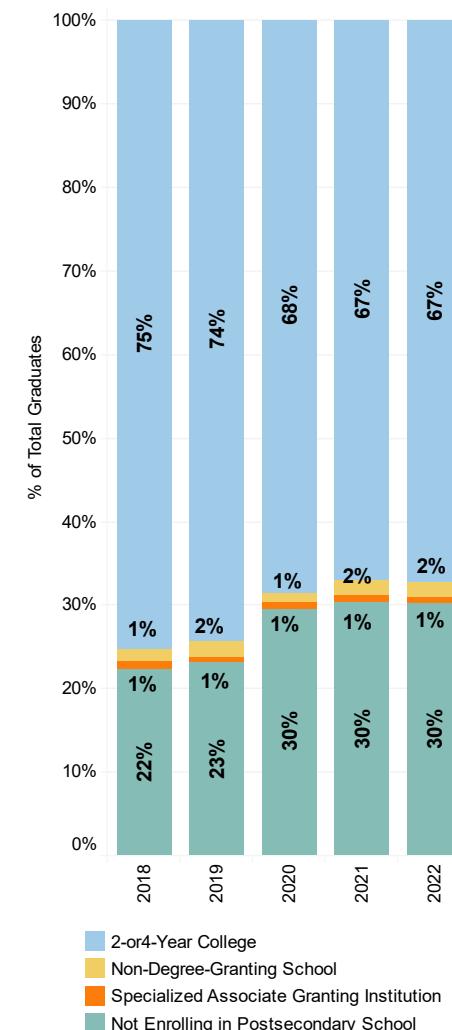
	2018	2019	2020	2021	2022	2023
Lehigh County	86.8%	86.4%	88.3%	85.8%	88.5%	87.9%
Northampton County	87.4%	88.5%	90.5%	87.5%	88.1%	90.1%
Lehigh Valley	87.1%	87.4%	89.3%	86.6%	88.3%	88.9%
Pennsylvania	85.8%	86.5%	87.4%	86.7%	87.0%	87.6%

Sources: National Center for Education Statistics, Pennsylvania Department of Education, Garner Economics

Graduate Intentions

Figure 4.9 Lehigh Valley Intended Outcomes of Graduates

Plans of graduating students



Source: Pennsylvania Department of Education, Garner Economics

INCOME

Household Income

Figure 4.10 Households by Income Level, 2022



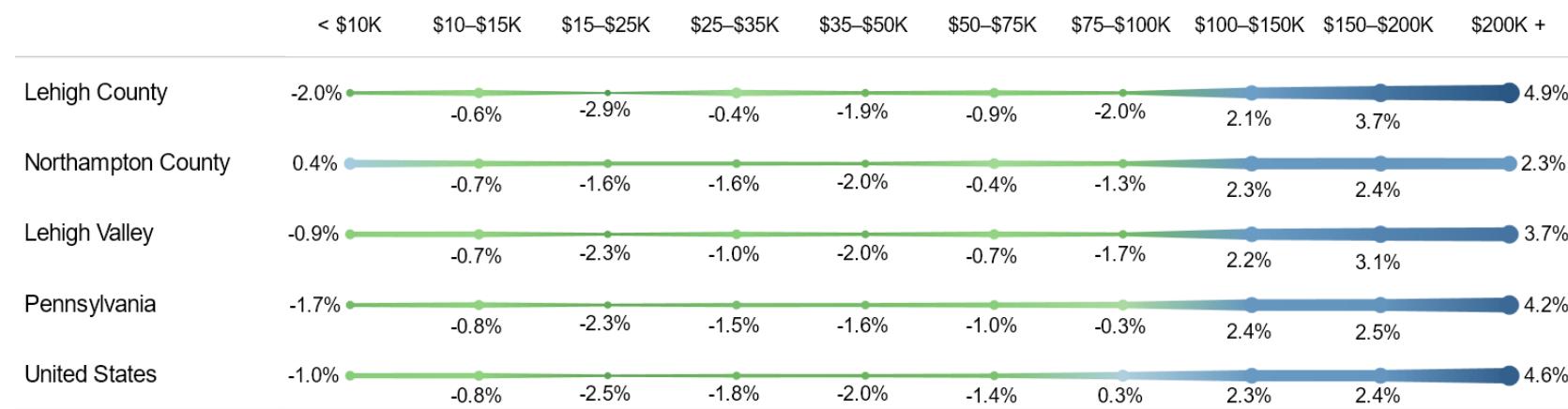
Source: U.S. Census Bureau, Garner Economics

Table 4.7 Household Income Distribution, 2022*Highest Income Percentage for Each Geography in Grey*

Income Level	Lehigh County	Northampton County	Lehigh Valley	Pennsylvania	United States
< \$10K	4.2%	7.4%	6.0%	6.0%	5.8%
\$10-\$15K	3.3%	4.5%	4.1%	4.1%	4.0%
\$15-\$25K	7.3%	7.6%	9.3%	8.6%	8.3%
\$25-\$35K	8.4%	7.3%	9.8%	8.8%	8.4%
\$35-\$50K	11.9%	9.9%	13.8%	12.3%	11.9%
\$50-\$75K	17.6%	15.5%	18.4%	17.6%	17.4%
\$75-\$100K	14.5%	11.3%	12.9%	13.3%	12.8%
\$100-\$150K	18.2%	15.0%	14.1%	15.5%	15.7%
\$150-\$200K	7.5%	8.0%	5.4%	6.7%	7.2%
\$200K +	7.1%	13.5%	6.2%	7.3%	8.5%

Source: U.S. Census Bureau, Garner Economics

Household Income

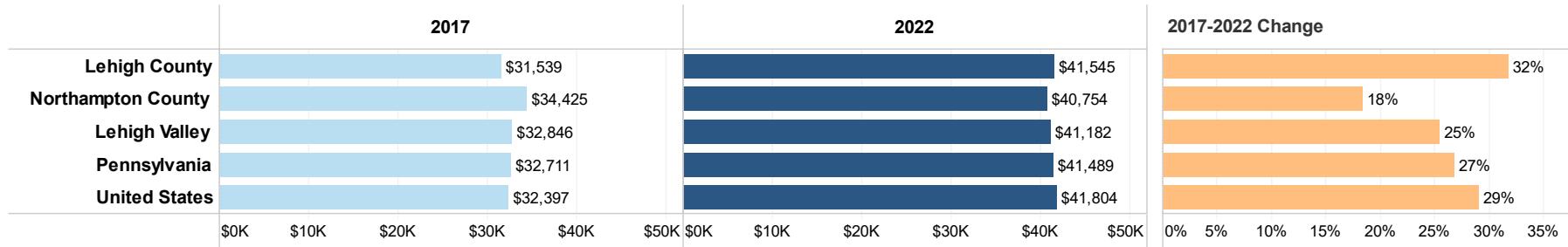
Figure 4.11 Change in Household Income, 2017-2022

Source: U.S. Census Bureau, Garner Economics

Per Capita Income

Figure 4.12 Per Capita Income

Income per person

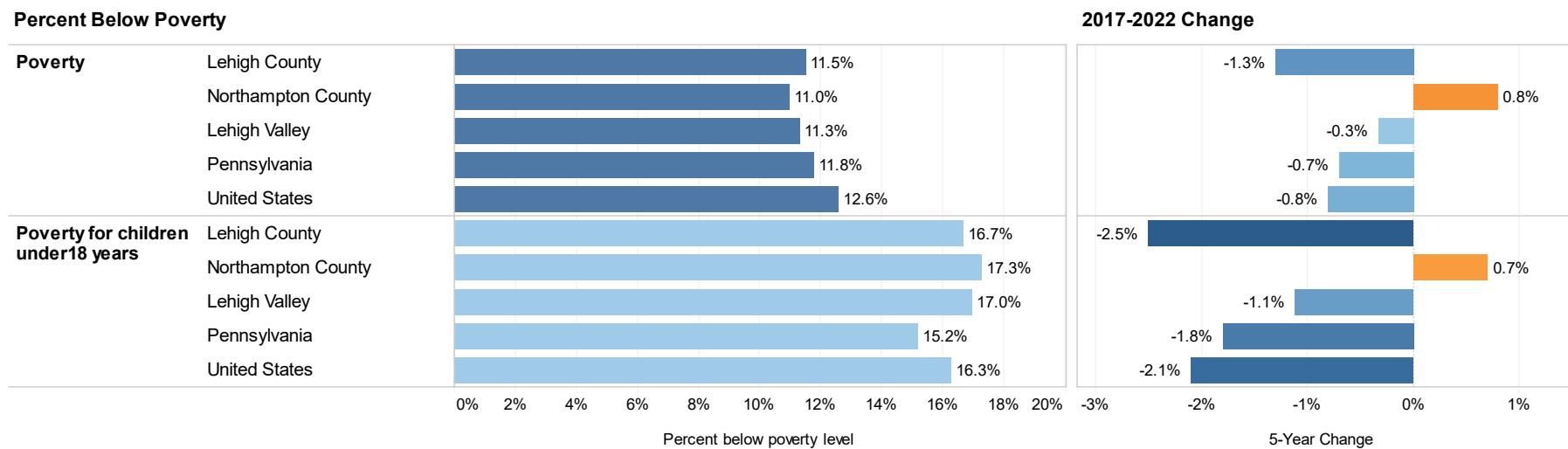


Source: U.S. Census Bureau, Garner Economics

Poverty

Figure 4.13 Poverty, 2022

Population in households earning below poverty levels



Source: U.S. Census Bureau, Garner Economics

LIVABILITY

Living Wage

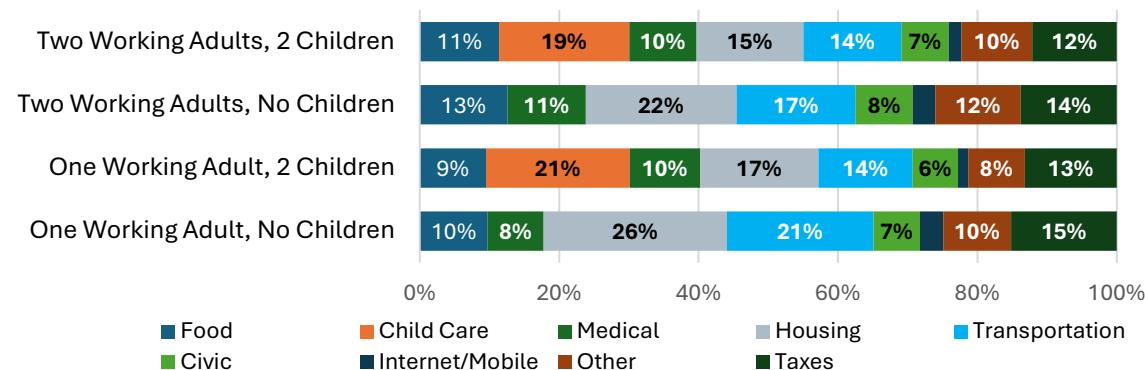
Table 4.8 MIT Living Wage, 2024

Estimated local wage rate for a full-time worker to cover basic needs where they live

	Children at Home	Lehigh County	Northampton County	Pennsylvania	Federal Poverty Wage
One Adult	None	\$21.76	\$22.30	\$21.95	\$7.24
	1	\$39.37	\$40.20	\$39.37	\$9.83
	2	\$49.42	\$50.53	\$50.09	\$12.41
	3	\$64.45	\$65.52	\$65.08	\$15.00
Two Adults, Dual Income	None	\$30.99	\$31.66	\$30.67	\$9.83
	1	\$37.90	\$38.75	\$37.14	\$12.41
	2	\$42.76	\$43.73	\$42.03	\$15.00
	3	\$45.44	\$46.50	\$44.27	\$17.59
Two Adults, One Income	None	\$15.49	\$15.83	\$15.33	\$4.91
	1	\$22.03	\$22.52	\$22.03	\$6.21
	2	\$27.35	\$27.93	\$27.70	\$7.50
	3	\$31.75	\$32.30	\$32.11	\$8.79

Figure 4.14 MIT Living Wage Estimated Expenses

Estimated basic costs in the region for working families



Source: Glasmeier, Amy K. Living Wage Calculator, 2024, Massachusetts Institute of Technology. livingwage.mit.edu

Housing Costs

Table 4.9 Rental Rates, 2023

Average Rent by City

City	Rent
Allentown	\$1,617
Bethlehem	\$1,814
Easton	\$1,653
Elizabeth	\$2,048
Newark	\$1,987
Philadelphia	\$1,740

Source: Zillow, Single Family & Apartments, Garner Economics



Table 4.10 Home Sales, 2023

Median Sale Price by Metro

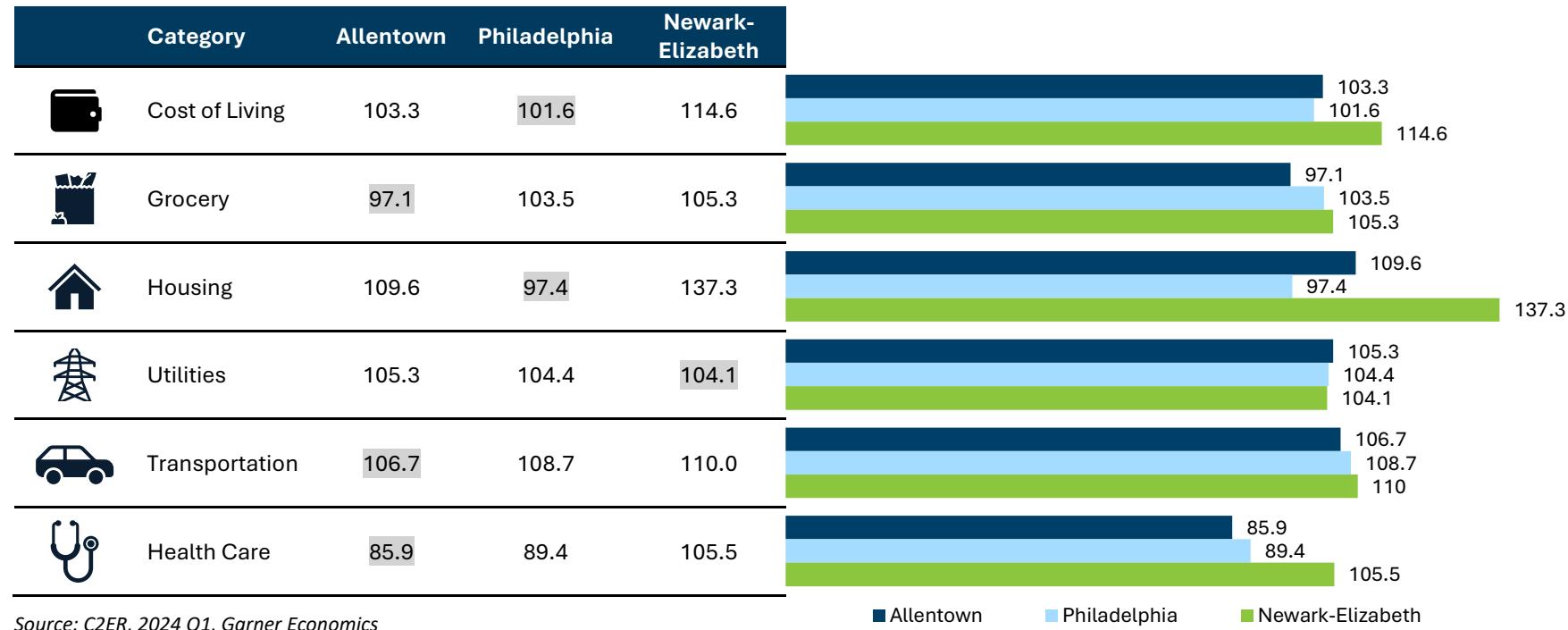
Metro	Sale Price	5-Year Change
Allentown, PA	\$282,566	58%
Philadelphia, PA	\$307,102	43%
New York, NY	\$543,312	41%

Source: Zillow, Single and Multi-Family home by Metro, Garner Economics

Cost of Living

Figure 4.15 Cost of Living Index, 2024

Lowest Index Rate in Grey



Source: C2ER, 2024 Q1, Garner Economics

Crime

Figure 4.16 Crime Offenses Reported, 2023

Actual Offenses Reported per 100,000 Residents

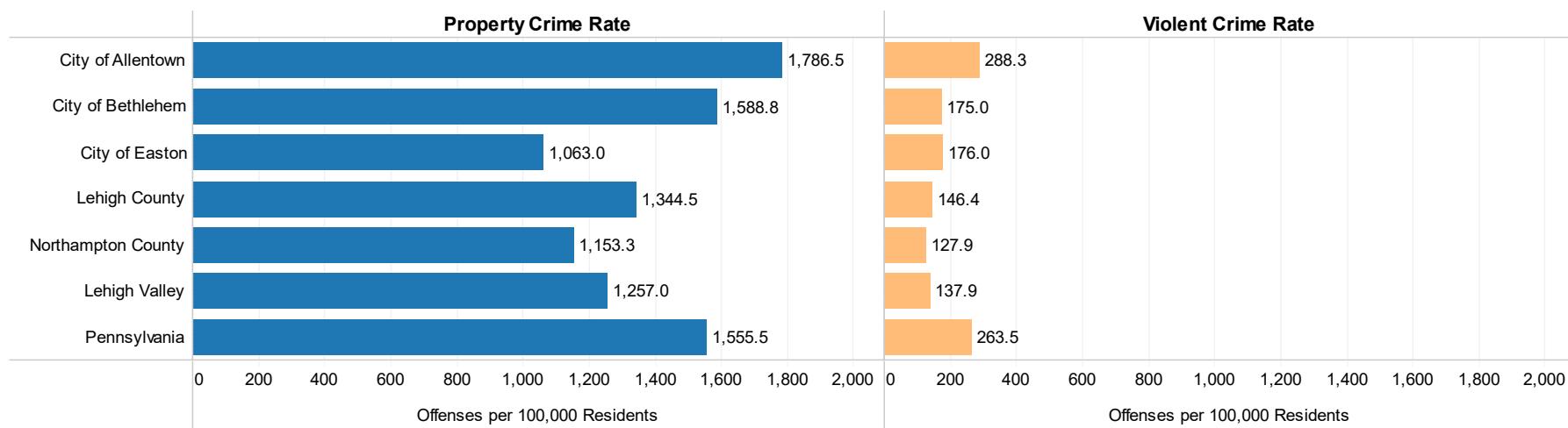


Table 4.11 Crime Offenses Reported

Actual Offenses Reported per 100,000 Residents

Lowest Rate in Grey

	2023		5-Year Change	
	Property Crime Rate	Violent Crime Rate	Property Crime Rate	Violent Crime Rate
City of Allentown	1,786.5	288.3	-23.0%	-15.0%
City of Bethlehem	1,588.8	175.0	-6.1%	-36.0%
City of Easton	1,063.0	176.0	-25.4%	-30.5%
Lehigh County	1,344.5	146.4	-16.6%	-0.3%
Northampton County	1,153.3	127.9	-14.6%	-28.4%
Lehigh Valley	1,257.0	137.9	-15.9%	-14.5%
Pennsylvania	1,555.5	263.5	2.9%	-14.8%

Source: Pennsylvania Uniform Crime Reporting System, Accessed June 2024. Rates include Part 1 Offenses from SRS Summary Reports.

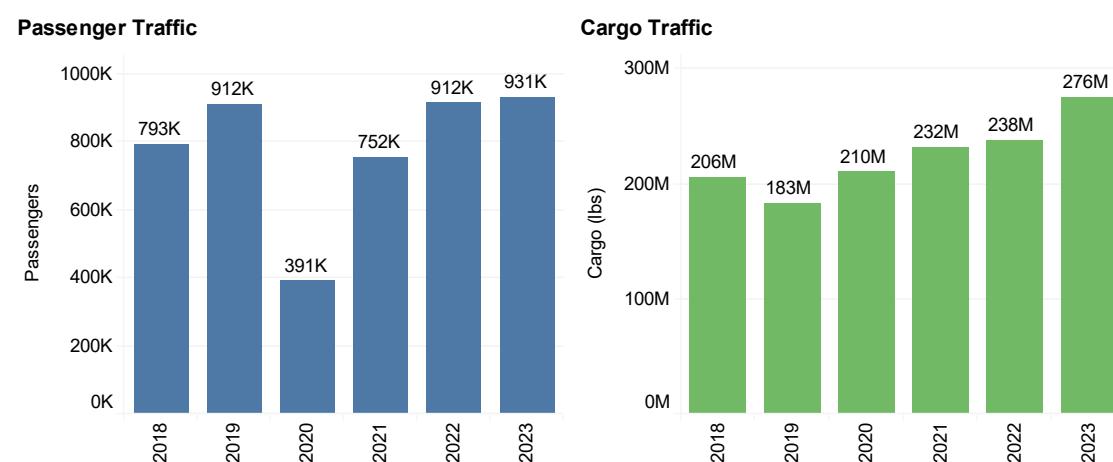
Air Service

Table 4.12 Lehigh Valley Int'l Airport, 2023

Profile Statistics	
Airport Code	ABE
Runways	2
Gates	15
Commercial Passenger Airlines	4
2023 U.S. Rank (Passenger)	146
Non-Stop Destination	15
2023 Passenger Traffic (total)	930,946
2023 Cargo Traffic (lbs.)	275,605,699
Acres	2,369

Source: Lehigh-Northampton Airport Authority, Garner Economics

Figure 4.17 LVIA (ABE) Passenger and Cargo Traffic



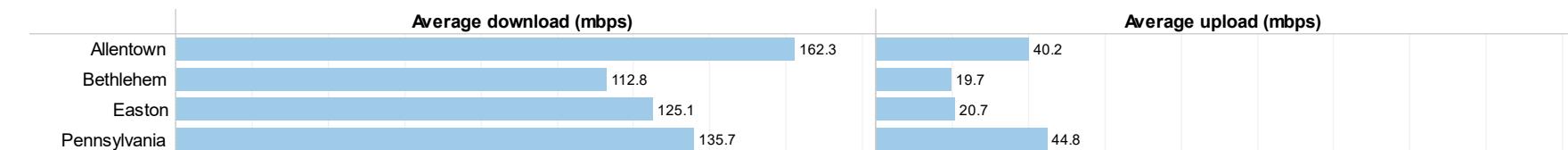
Broadband

Table 4.13 Percent of Households with Broadband Access by Internet Speed, 2023

Advertised Speed	Allentown	Bethlehem	Easton	Lehigh County	Northampton County	Lehigh Valley	Pennsylvania	United States
100 mbps	99.9%	99.6%	99.7%	100.0%	100.0%	100.0%	99.9%	92.2%
250 mbps	67.3%	15.3%	11.3%	48.4%	13.9%	31.2%	87.7%	88.9%
1000 mbps	10.0%	12.1%	9.2%	2.8%	0.2%	1.5%	33.7%	47.0%

Source: Broadband Map, Garner Economics. Mbps refers to megabytes per second of internet speed and network bandwidth.

Figure 4.18 Average Speed, 2023



Source: HighSpeedInternet.com, Garner Economics. Mbps refers to megabytes per second of internet speed and network bandwidth.

Walk & Bike Scores

Figure 4.19 Walk and Bike Scores, 2024

Weighted averages by city with a perfect score of 100.

	Allentown	Bethlehem	Easton
 Average Walk Score	 Walk Score 67	 Walk Score 59	 Walk Score 67
 Average Public Transit Score	 Transit Score 37	 Transit Score 33	 Transit Score 31
 Average Bike Score	 Bike Score 42	 Bike Score 45	 Bike Score 48

Walk Score

Walk Score is a branded measure of the walkability to nearby amenities by analyzing walking routes. Amenities within a 5-minute walk (.25 miles) are given maximum points, with no points given after a 30-minute walk. Walk Score also measures pedestrian friendliness by analyzing population density and road metrics.

Transit Score

Transit Score measures how well a location is served by public transit based on the distance and type of nearby transit lines.

Bike Score

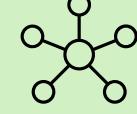
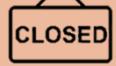
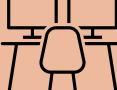
The Bike Score conveys whether a location is good for biking. For a given location, a Bike Score is calculated by measuring bike infrastructure (lanes, trails, etc.), hills, destinations, and road connectivity as well as the number of bike commuters. Component scores are based on data from the United States Geological Survey, Open Street Map, and the U.S. Census.

Source: Walk Score, www.walkscore.com accessed July 2024

Chapter 5: Talent & Employment

This chapter focuses on the labor market of the region. It begins with the residents who live within the Valley and then explores commuting patterns with the surrounding area a 45-minute drive from the center of Lehigh and Northampton Counties.

The data then transitions to employer-based information, including employment, industry composition, wage comparisons, and additional workplace statistics for those working in the region. Once again indicators in this chapter were evaluated as positive, neutral, or challenge based on benchmark comparison, change over time, or both.

POSITIVE	NEUTRAL	CHALLENGES
    Labor Force Growth Employment Growth Labor Force Participation    Commuting Labor Draw Area Startups    Manufacturing Employment College Enrollment Credentials Awarded	   Higher Wage Commuter Outflow Less Diverse Employment	    Business Exits Self-Employment Wages Not Keeping Up With Inflation

Indicators were evaluated as positive, neutral, or challenge based on the comparison to state and national benchmarks, change over time, or both. Neutral ratings generally resulted from factors with both negative and positive aspects.

 POSITIVE	 NEUTRAL	 CHALLENGES
<ul style="list-style-type: none"> • Labor force growing (3% in five years). • Employment is growing. • Labor force participation higher than state and national levels and growing (1.3%). • All ages under 60 years participate more than 70% in the workforce. • A majority of commuters travel less than 25 minutes to work. • Net positive inflow of commuters (3,474). • The labor draw area consists of more than 1.1 million people. • The number of new establishments is trending upward. • Strong manufacturing employment with 11.3% in the region. • More than 63,000 college students within 45 minutes' drive. • Nearly 12,000 higher education credentials were awarded in the area. 	<ul style="list-style-type: none"> • Many higher paying occupations have a net outflow of workers. • Less diverse employment with 1/5 of people working in health care. 	<ul style="list-style-type: none"> • Establishment exit rate higher than startup rate. • Self-employment is lower than in a state and nation and has decreased. • Adjusted for inflation, wages have declined.

TALENT

Labor Force

Table 5.1 Labor Force & Employment Status

	Lehigh Valley	Pennsylvania	United States
April 2024			
Labor Force	369,457	6,588,157	168,681,336
Employment	358,615	6,399,324	162,721,126
Unemployment Rate	2.9%	2.9%	3.5%
2023 Average			
Labor Force	365,693	6,518,343	167,887,013
Employment	352,672	6,295,653	161,750,801
Unemployment Rate	3.6%	3.4%	3.7%
5-Year Change (2018-2023)			
Labor Force	3.0%	0.1%	2.9%
Employment	4.2%	1.2%	3.2%
Unemployment Rate	-1.1%	-1.0%	-0.3%

Figure 5.1 Five-Year Change

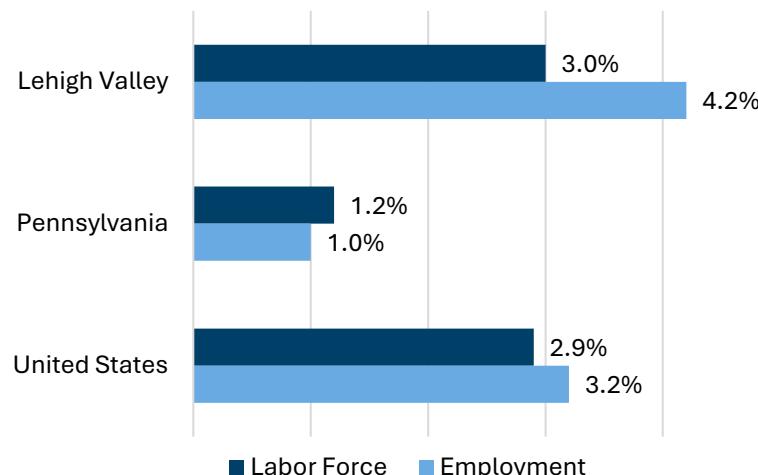
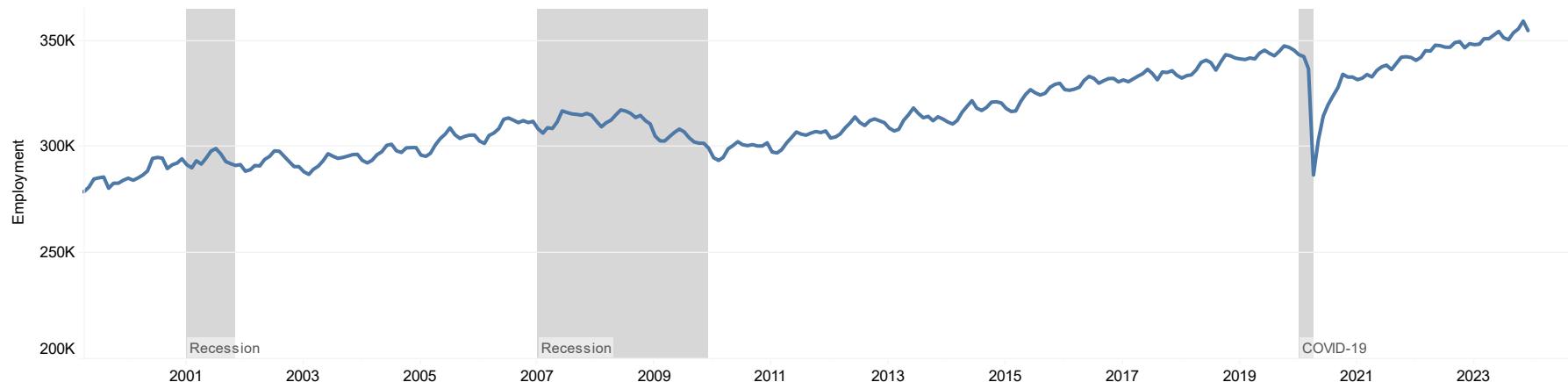


Figure 5.2 Lehigh Valley Monthly Employment Trend



Source: JobsEQ (Bureau of Labor Statistics), Garner Economics.

Labor Force Participation

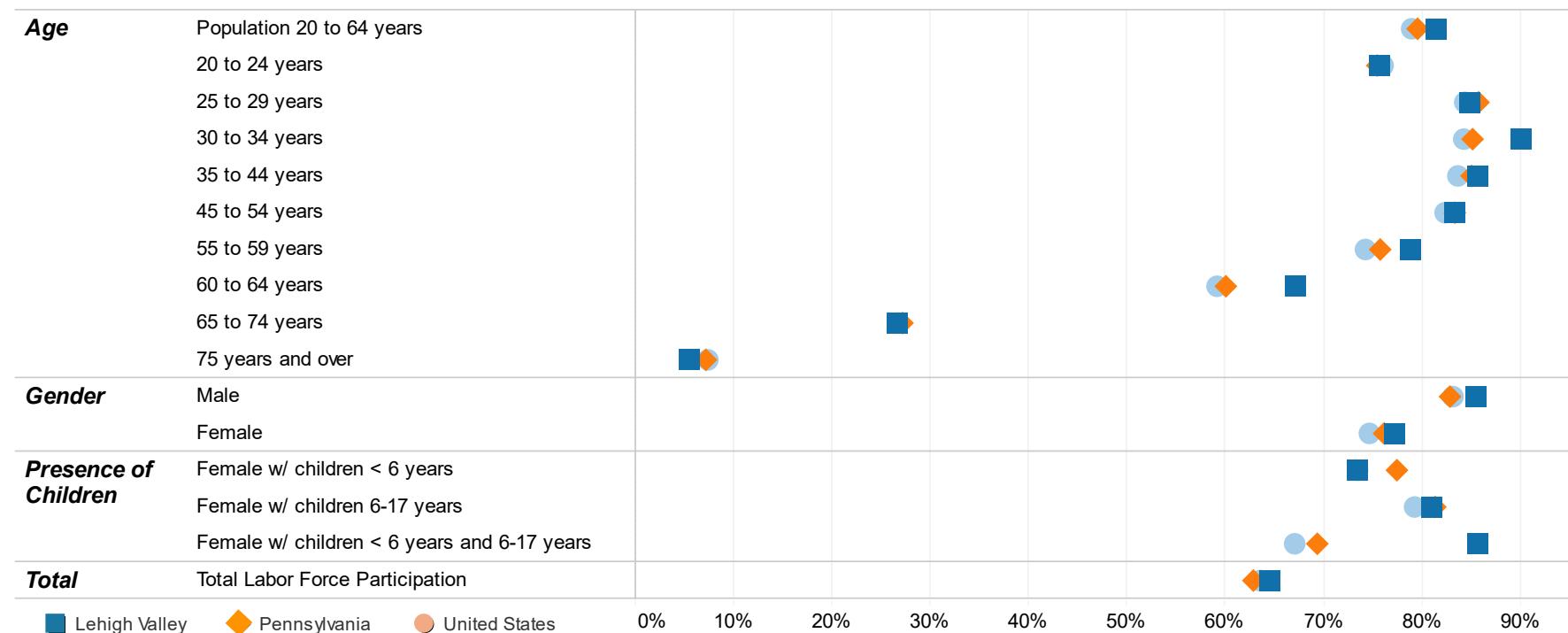
Table 5.2 Labor Force Participation

Highest Percentage Change in Grey

	Lehigh County	Northampton County	Lehigh Valley	Pennsylvania	United States
2022	63.5%	62.8%	66.1%	62.6%	64.5%
2017	63.2%	62.4%	64.8%	63.1%	63.9%
5-Year Change	0.3%	0.4%	1.3%	-0.5%	0.6%

Source: U.S. Census, Garner Economics

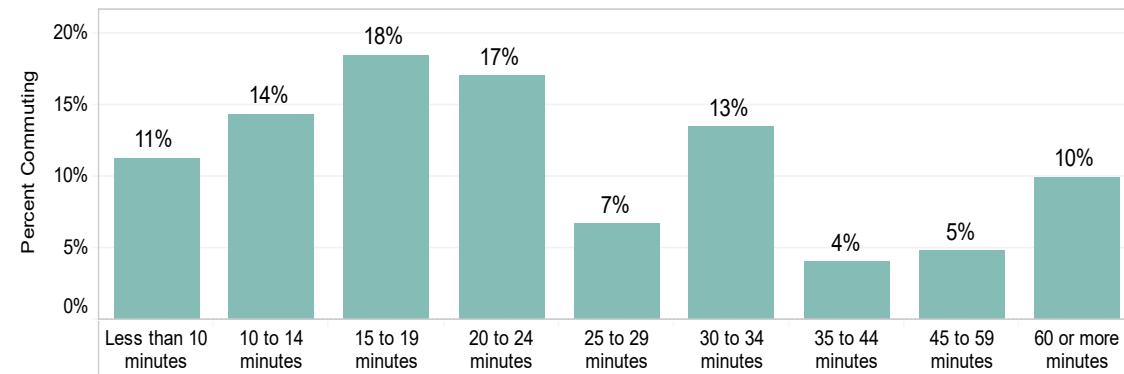
Figure 5.3 Labor Force Participation by Category, 2022



Source: U.S. Census, Garner Economics

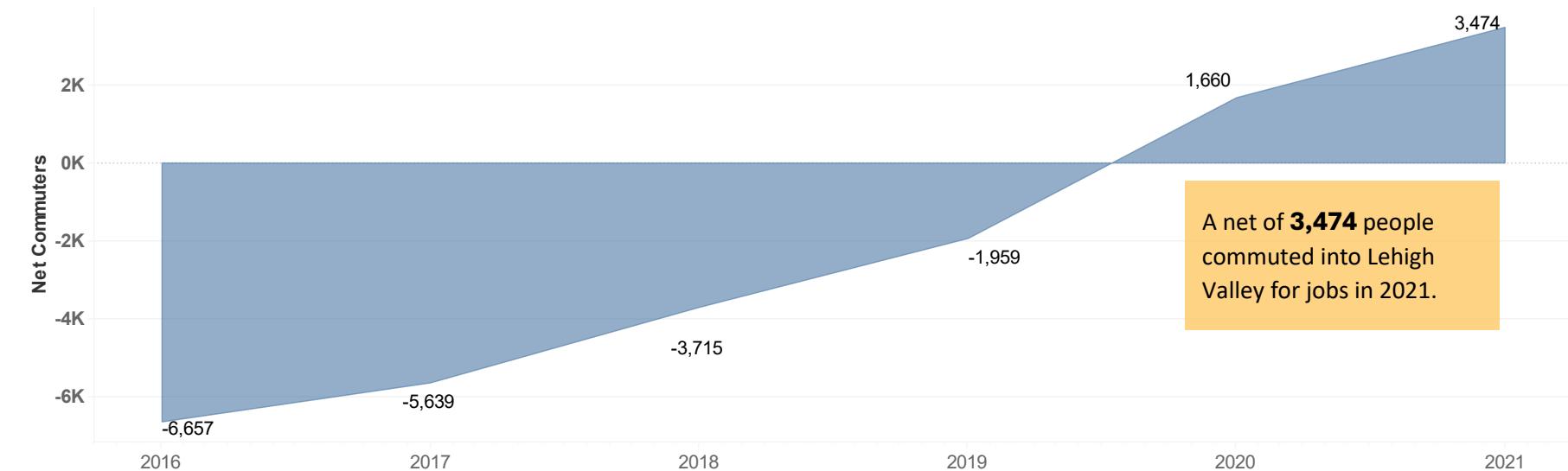
Commuting

Figure 5.4 Lehigh Valley Commuting Times, 2022



Source: U.S. Census, Garner Economics

Figure 5.5 Lehigh Valley Commuting Trend



Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics (LEHD), Garner Economics

Table 5.3 Average Travel Time to Work (Minutes)

Shortest Commute & Highest Change in Grey

	2022	2017	5-Year Change
Lehigh County	25.3	24.3	1
Northampton County	27.6	27.2	0.4
Lehigh Valley	26.5	25.8	0.7
Pennsylvania	26.4	27.1	-0.7
United States	26.4	26.9	-0.5

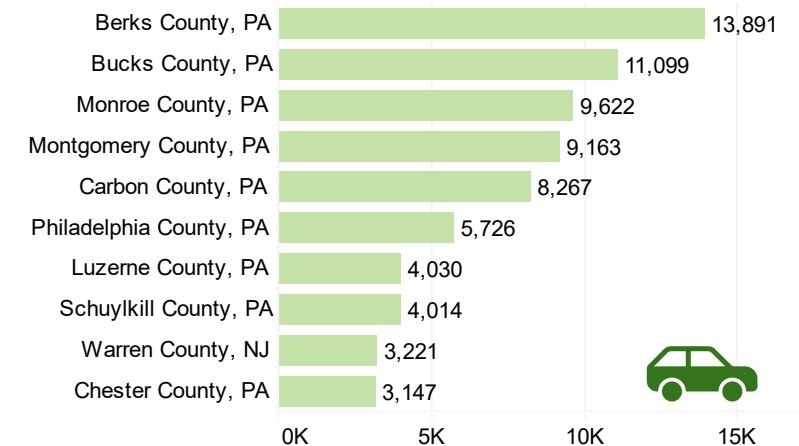
Source: U.S. Census, Garner Economics

Figure 5.6 Lehigh Valley Commuting Patterns, 2021



Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics (LEHD), Garner Economics

Figure 5.8 In-Commuting, Home County
Where People Live Who Work in Region, 2021



Source: U.S. Census Bureau, Longitudinal Employer-Household Dynamics (LEHD), Garner Economics

Figure 5.7 Lehigh Valley Metro Internal Commuting, 2021

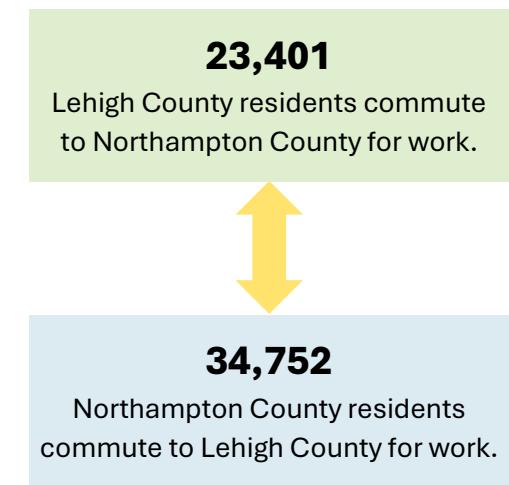


Figure 5.9 Out-Commuting, Employer County
Where People Work Who Live in Region, 2021

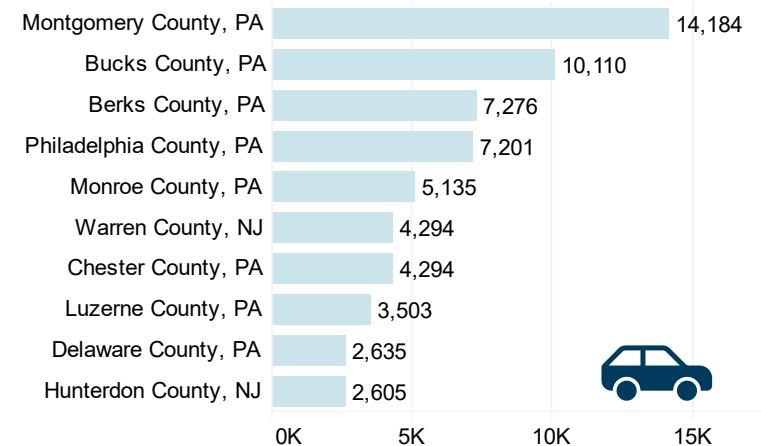
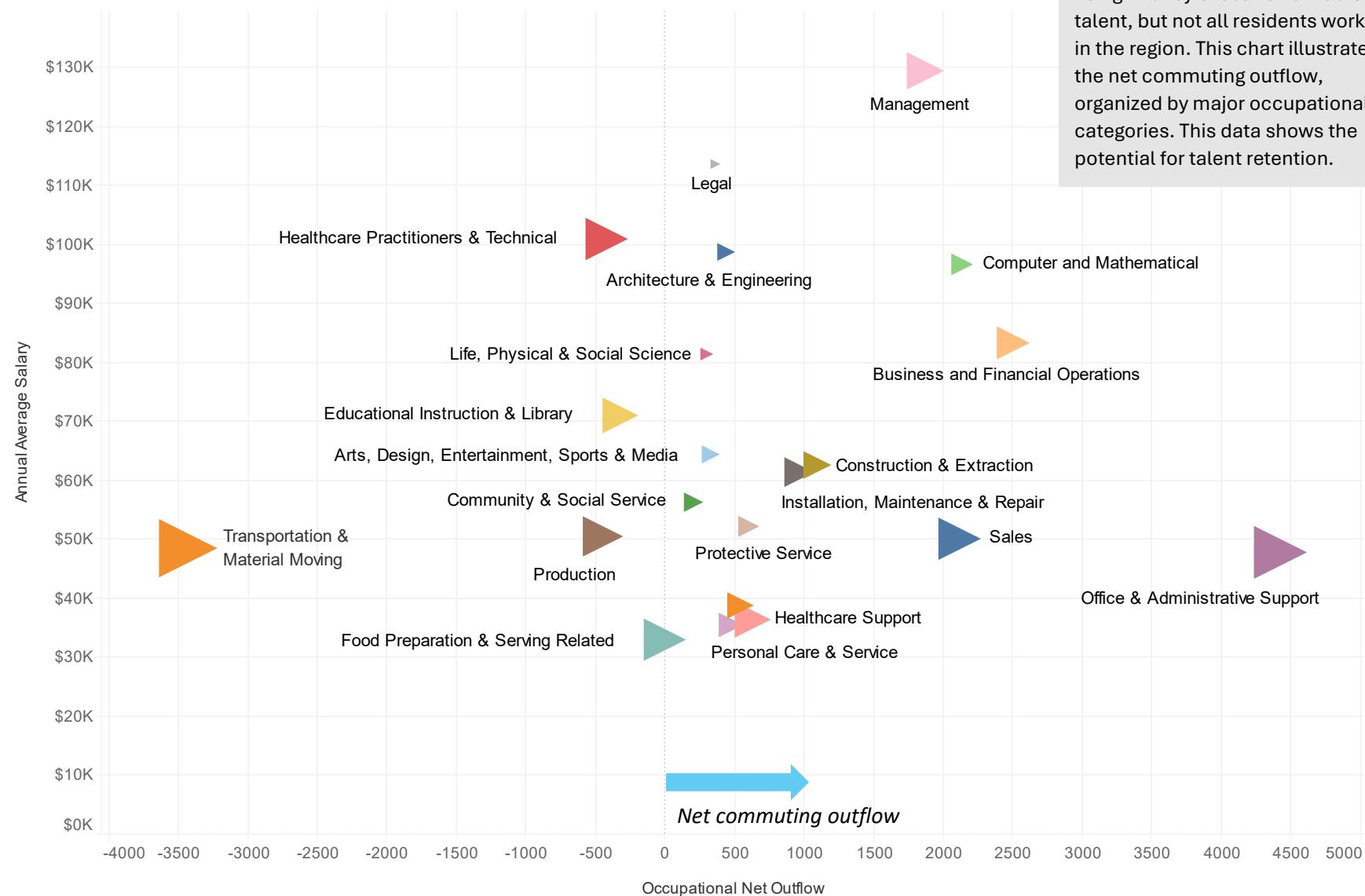


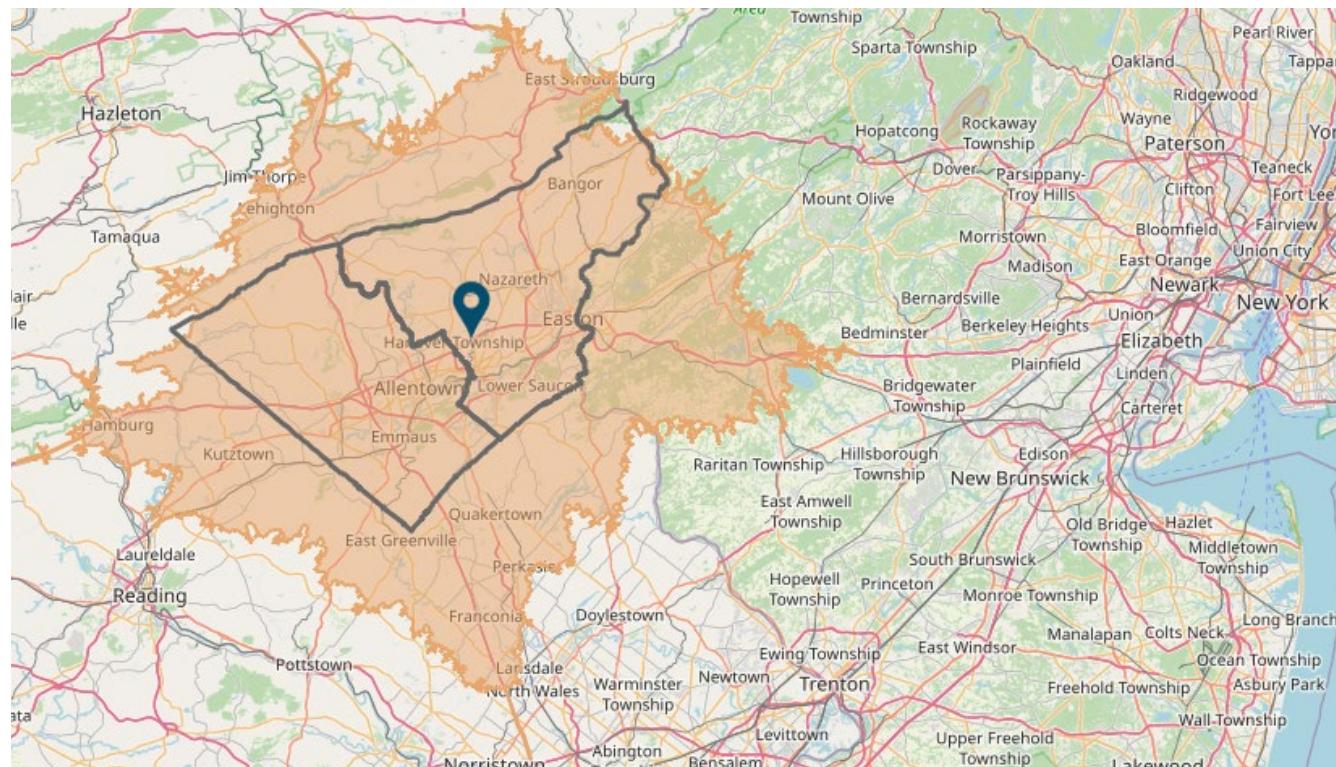
Figure 5.10 Lehigh Valley Commuting by Occupational Group, 2023



Source: JobsEQ, Garner Economics

Labor Force Draw

Figure 5.11 Drive-Time Analysis, 45-minutes



45-Minute Drive-Time Source: ESRI, Garner Economics

1,160,924

2024 Estimated Population

1%

Forecasted Population Growth
(2024-2029)

624,900

2024 Estimated Labor Force

366,052

2024 Labor Force
Age 25-53 Years

Work from Home

Table 5.4 Residents Working from Home

Highest Percentage in Grey

	Lehigh County	Northampton County	Lehigh Valley	Pennsylvania	United States
2022	12.4%	13.2%	12.8%	15.2%	15.2%
2017	5.0%	4.9%	5.0%	5.0%	5.2%
5-Year Change	7.4%	8.3%	7.8%	10.2%	10.0%

Source: U.S. Census, Garner Economics

ENTREPRENEURISM

Startups

Table 5.5 Startups & Exits, 2021

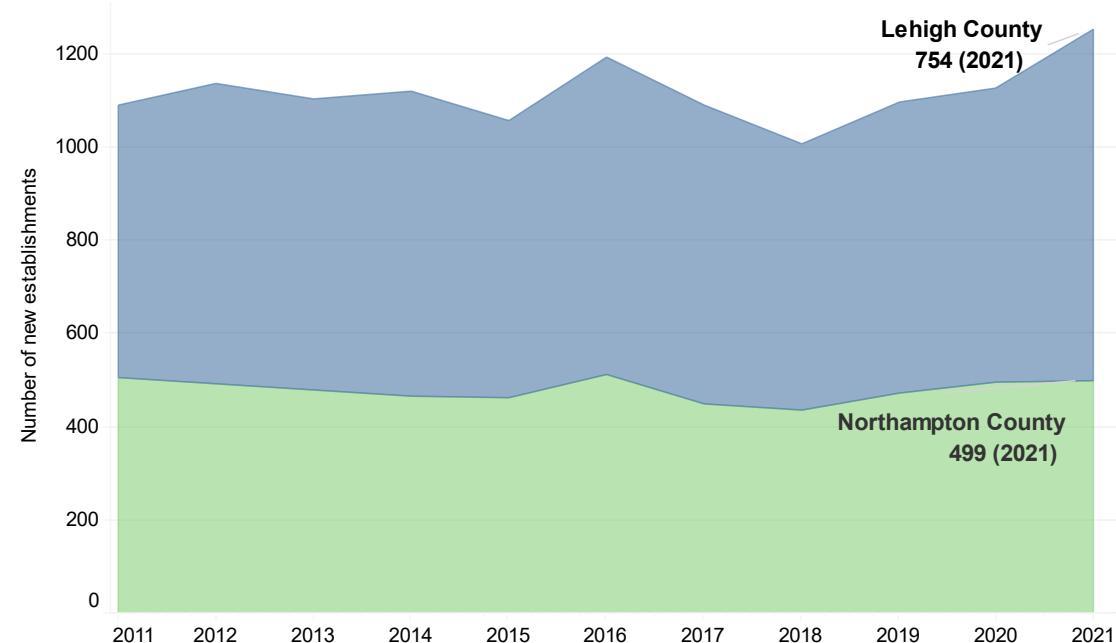
Rate of creation and exits of establishments in 2021

Establishment	Lehigh County	Northampton County	Lehigh Valley	Pennsylvania	United States
Creation rate	9.5%	8.5%	9.1%	8.5%	10.5%
Exit rate	10.1%	9.4%	9.8%	9.8%	10.3%

Source: U.S. Census Business Dynamics, Garner Economics

Figure 5.12 Number of New Establishments by County

New establishments created



Source: U.S. Census Business Dynamics, Garner Economics

Table 5.6 Employment by Size, 2023

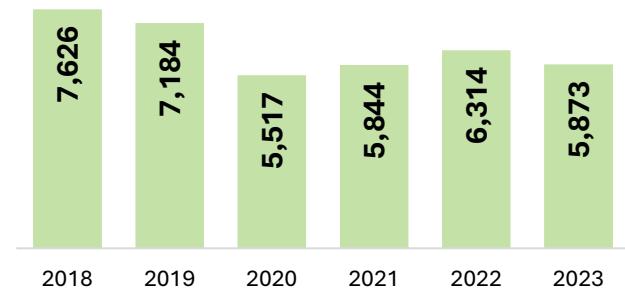
Average employment by Age of Firm (Private)

	#	0-1 Years	2-3 Years	4-5 Years	6+ Years
		%	%	%	%
Lehigh County	3,423	1.7%	2.5%	2.5%	93.3%
Northampton County	2,450	2.2%	3.2%	4.2%	90.4%
Lehigh Valley	5,873	1.9%	2.8%	3.1%	92.2%
Pennsylvania	128,451	2.4%	3.3%	3.5%	90.7%
United States	3,974,500	3.1%	3.7%	3.9%	89.4%

Source: U.S. Census QWI, Average employment at beginning of quarter, Garner Economics

Figure 5.13 Employment at New Firms

Average employment at Private Firms <1 Year Old



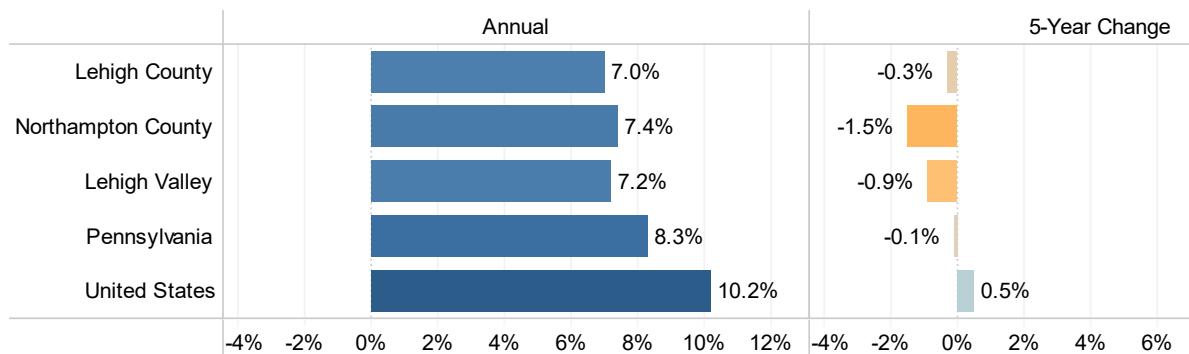
Source: U.S. Census QWI, Average employment at beginning of quarter, Garner Economics

EMPLOYMENT & WAGES

Self-Employment

Figure 5.14 Self-Employment, 2022

Employment in Incorporated and Unincorporated Businesses



Source: U.S. Census, Garner Economics

Annual Wages

Figure 5.15 Average Annual Wages, 2024

Average Wage per Worker for All Industries



Source: JobsEQ, 2024 Q1 for all industries, Garner Economics

Table 5.7 Self-Employment

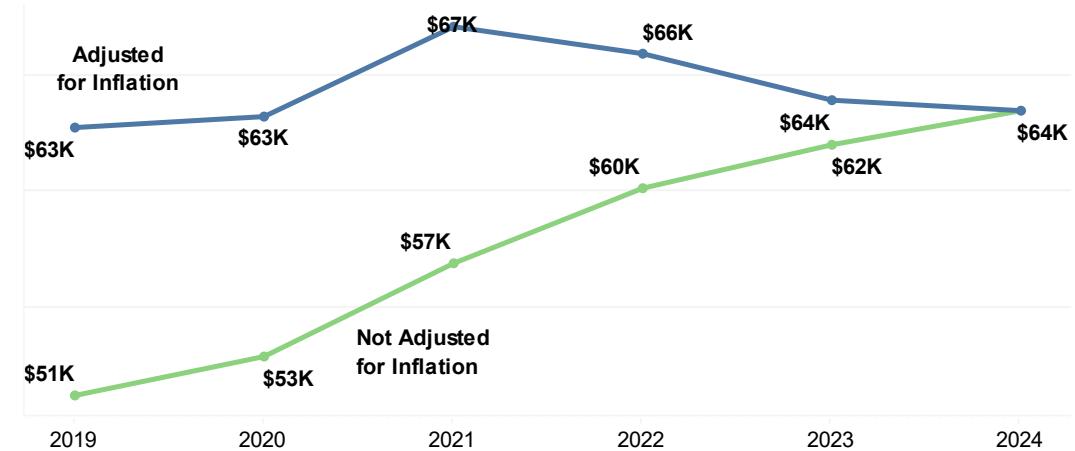
Highest Percentage in Grey

	2022	2017	5-Year Change
Lehigh County	7.0%	7.3%	-0.3%
Northampton County	7.4%	8.9%	-1.5%
Lehigh Valley	7.2%	8.1%	-0.9%
Pennsylvania	8.3%	8.4%	-0.1%
United States	10.2%	9.7%	0.5%

Source: U.S. Census, Garner Economics

Figure 5.16 Average Annual Wages

Adjusted by Inflation



Source: JobsEQ, U.S. Bureau of Labor Statistics, adjusted for inflation for Mid-Atlantic Region Garner Economics

Major Industry Sector Composition

Table 5.8 Industry Sector by Share of Employment

Ranked by Lehigh Valley Employment

Highest Percentage for Each Geography in Grey

Industry	Lehigh County	Northampton County	Lehigh Valley	Pennsylvania	United States
Health Care & Social Assistance	24.7%	12.6%	20.1%	18.8%	15.4%
Transportation & Warehousing	10.6%	14.7%	12.1%	5.8%	4.8%
Manufacturing	9.9%	13.6%	11.3%	9.5%	8.4%
Retail Trade	9.5%	10.0%	9.7%	10.0%	10.2%
Educational Services	6.4%	10.5%	8.0%	8.1%	8.5%
Accommodation & Food Services	6.4%	9.8%	7.7%	7.8%	9.2%
Administrative, Support, Waste Management & Remediation Services	5.9%	5.1%	5.6%	5.0%	6.1%
Professional, Scientific & Technical Services	4.9%	3.0%	4.2%	6.7%	7.1%
Wholesale Trade	3.9%	3.6%	3.8%	3.6%	4.0%
Construction	3.4%	3.6%	3.5%	4.5%	5.3%
Other Services	2.6%	3.0%	2.8%	3.4%	3.0%
Public Administration	2.0%	2.9%	2.4%	3.9%	5.0%
Management of Companies & Enterprises	3.1%	1.1%	2.3%	2.5%	1.7%
Finance & Insurance	2.1%	1.9%	2.1%	4.6%	4.1%
Arts, Entertainment & Recreation	2.0%	1.6%	1.8%	1.7%	1.9%
Information	0.9%	1.3%	1.0%	1.6%	2.0%
Real Estate, Rental & Leasing	1.0%	0.9%	0.9%	1.1%	1.6%
Utilities	0.4%	0.4%	0.4%	0.6%	0.6%
Agriculture, Forestry, Fishing & Hunting	0.2%	0.3%	0.2%	0.5%	0.8%
Mining, Quarrying, Oil & Gas Extraction	0.0%	0.1%	0.0%	0.4%	0.4%

Source: JobsEQ, Covered employment, four-quarter average ending 2024 Q1, Garner Economics



20.1%

Health Care Employment
Lehigh Valley Region

24.7%

Health Care Employment
Lehigh County

14.7%

Transportation & Warehousing Employment Northampton County

13.6%

Manufacturing Employment
Northampton County

Higher Education

Table 5.9 College & University Enrollment, 2022

Within a 45 Minute Drive of Lehigh Valley

Ranked by Enrollment

Institution Name	Sector	City	Enrollment
Northampton County Area Community College	Public, 2-year	Bethlehem	11,205
Lehigh Carbon Community College	Public, 2-year	Schnecksville	9,000
Kutztown University of Pennsylvania	Public, 4-year+	Kutztown	8,579
Lehigh University	Private, 4-year+	Bethlehem	7,696
East Stroudsburg University of Pennsylvania	Public, 4-year+	East Stroudsburg	5,853
DeSales University	Private, 4-year+	Center Valley	3,988
Warren County Community College	Public, 2-year	Washington	3,393
Moravian University	Private, 4-year+	Bethlehem	2,957
Lafayette College	Private, 4-year+	Easton	2,762
Muhlenberg College	Private, 4-year+	Allentown	2,214
Cedar Crest College	Private, 4-year+	Allentown	1,758
Penn State Lehigh Valley	Public, 4-year+	Center Valley	993
Lincoln Technical Institute-Allentown	Private for-profit, 2-year	Allentown	753
CDE Career Institute	Private for-profit, <2-year	Tannersville	471
Miller-Motte College-McCann-Allentown	Private for-profit, 2-year	Allentown	456
St Luke's Hospital School of Nursing	Private, 4-year+	Bethlehem	425
Falcon Institute of Health and Science	Private for-profit, <2-year	Bethlehem	246
Triangle Tech Inc-Bethlehem	Private for-profit, 2-year	Bethlehem	212
Welder Training and Testing Institute	Private for-profit, <2-year	Allentown	106
Total			63,067

Source: National Center for Education Statistics, Garner Economics

Figure 5.17 Top Areas of Study

Top Degrees or Certificates Granted

Within a 45 Minute Drive of Lehigh Valley

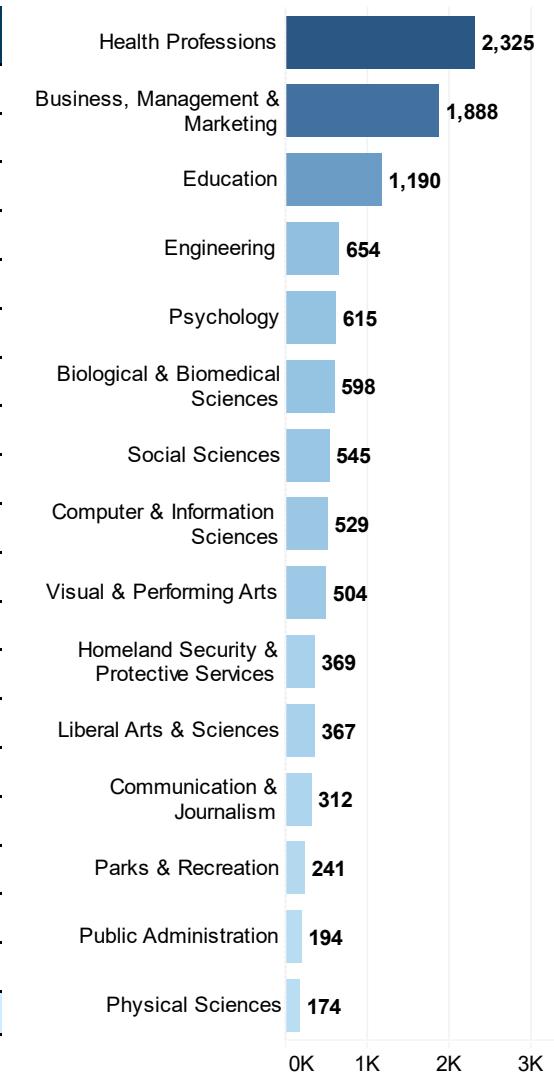
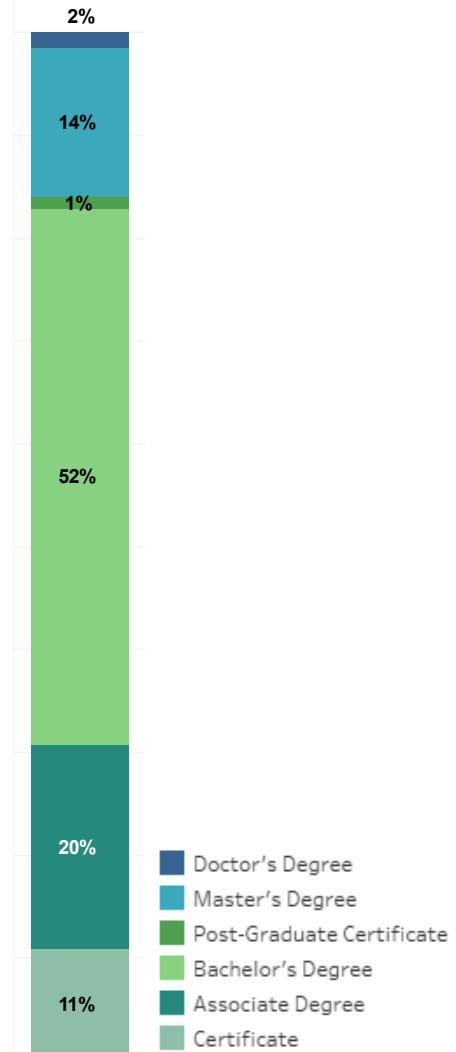


Table 5.10 College & University Degrees Granted, 2022
Within a 45-Minute Drive of Lehigh Valley
By Level of Degree

Institution Name	Associate & Certificate	Bachelor's Degree	Graduate-Level	Total Awarded
Lehigh University	35	1,251	676	1,962
Kutztown University of Pennsylvania	9	1,367	317	1,693
Northampton County Area Community College	1,408			1,408
East Stroudsburg University of Pennsylvania	63	994	274	1,331
Lehigh Carbon Community College	953			953
DeSales University	1	591	345	937
Moravian University		502	251	753
Lafayette College		694		694
Muhlenberg College	8	464	5	477
Cedar Crest College	35	228	175	438
Lincoln Technical Institute-Allentown	256			256
Miller-Motte College-McCann-Allentown	206			206
Warren County Community College	187			187
St Luke's Hospital School of Nursing	141			141
CDE Career Institute	141			141
Pennsylvania State University-Penn State Lehigh Valley	16	122		138
Falcon Institute of Health and Science	82			82
Triangle Tech Inc-Bethlehem	76			76
Welder Training and Testing Institute	61			61
Total	3,678	6,213	2,043	11,934

Source: National Center for Education Statistics, Garner Economics

Figure 5.17 College & University Degree-Level Granted, 2022
% of Total Within a 45-Minute Drive



Chapter 6: Employment Dynamics by Industry & Occupation

The following section provides a more detailed and in-depth assessment of Lehigh Valley. The analysis examines the regional economy from several perspectives, each adding a supporting layer of information. The goals are to provide historical context, reveal areas of unique specialization, and help

uncover emerging trends and opportunities. The main areas of analysis are major industries, occupational groups, and Gross Domestic or Regional Product (GDP). Data is as of the first quarter of 2024 for most of the chapter. Below are highlights of industry and occupational trends

Industry Sector Analysis

Table 6.1 Industry Sector Employment

Employment concentration (LQ) above 1 in Grey

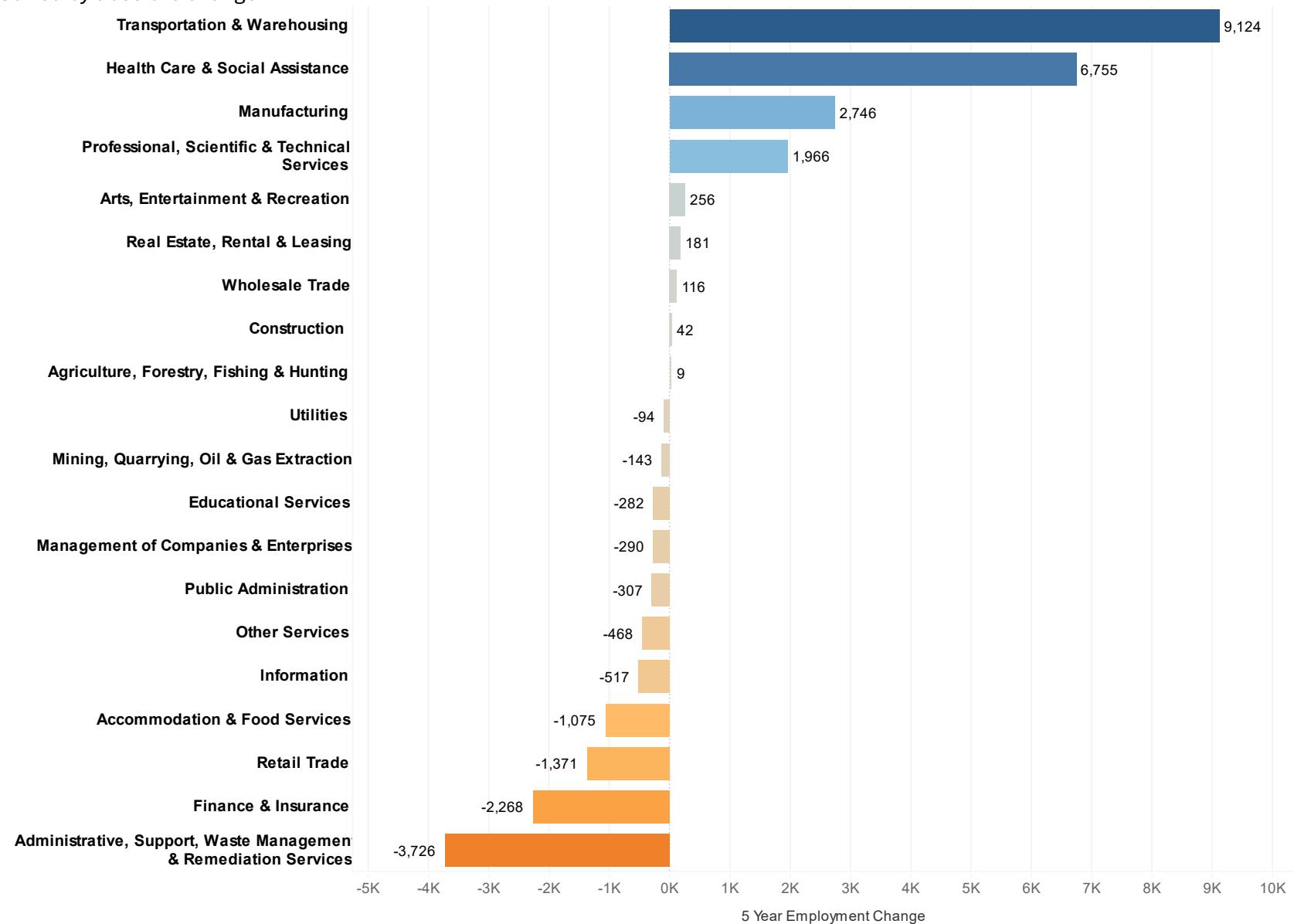
Industry Sector	2024 Employment	5-Year Change in Employment	5-Year % Change in Employment	5-Year Forecast Rate	LQ
Transportation & Warehousing	40,332	9,124	29.2%	3.9%	2.4
Health Care & Social Assistance	66,035	6,755	11.4%	3.5%	1.3
Manufacturing	36,738	2,746	8.1%	-1.0%	1.4
Professional, Scientific & Technical Services	15,286	1,966	14.8%	1.9%	0.6
Arts, Entertainment & Recreation	6,649	256	4.0%	2.1%	1.0
Real Estate, Rental & Leasing	3,886	181	4.9%	0.4%	0.6
Wholesale Trade	12,344	116	1.0%	-2.2%	1.0
Construction	13,946	42	0.3%	-0.6%	0.7
Agriculture, Forestry, Fishing & Hunting	1,062	9	0.9%	-1.8%	0.3
Utilities	1,221	-94	-7.2%	-4.4%	0.7
Mining, Quarrying, Oil & Gas Extraction	149	-143	-49.1%	-0.9%	0.1
Educational Services	25,963	-282	-1.1%	-0.6%	1.0
Management of Companies & Enterprises	7,473	-290	-3.7%	3.3%	1.4
Public Administration	7,566	-307	-3.9%	-0.7%	0.5
Other Services	13,228	-468	-3.4%	0.2%	0.9
Information	3,606	-517	-12.5%	1.8%	0.5
Accommodation & Food Services	25,121	-1,075	-4.1%	-0.4%	0.9
Retail Trade	32,436	-1,371	-4.1%	-3.1%	1.0
Finance & Insurance	6,966	-2,268	-24.6%	0.5%	0.5
Administrative, Support, Waste Management & Remediation Services	19,137	-3,726	-16.3%	-0.5%	0.9
Total - All Industries	339,145	10,653	3.2%	0.8%	1.0

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics



Figure 6.1 Industry Sector Employment Change, 2019-2024

Sorted by absolute change

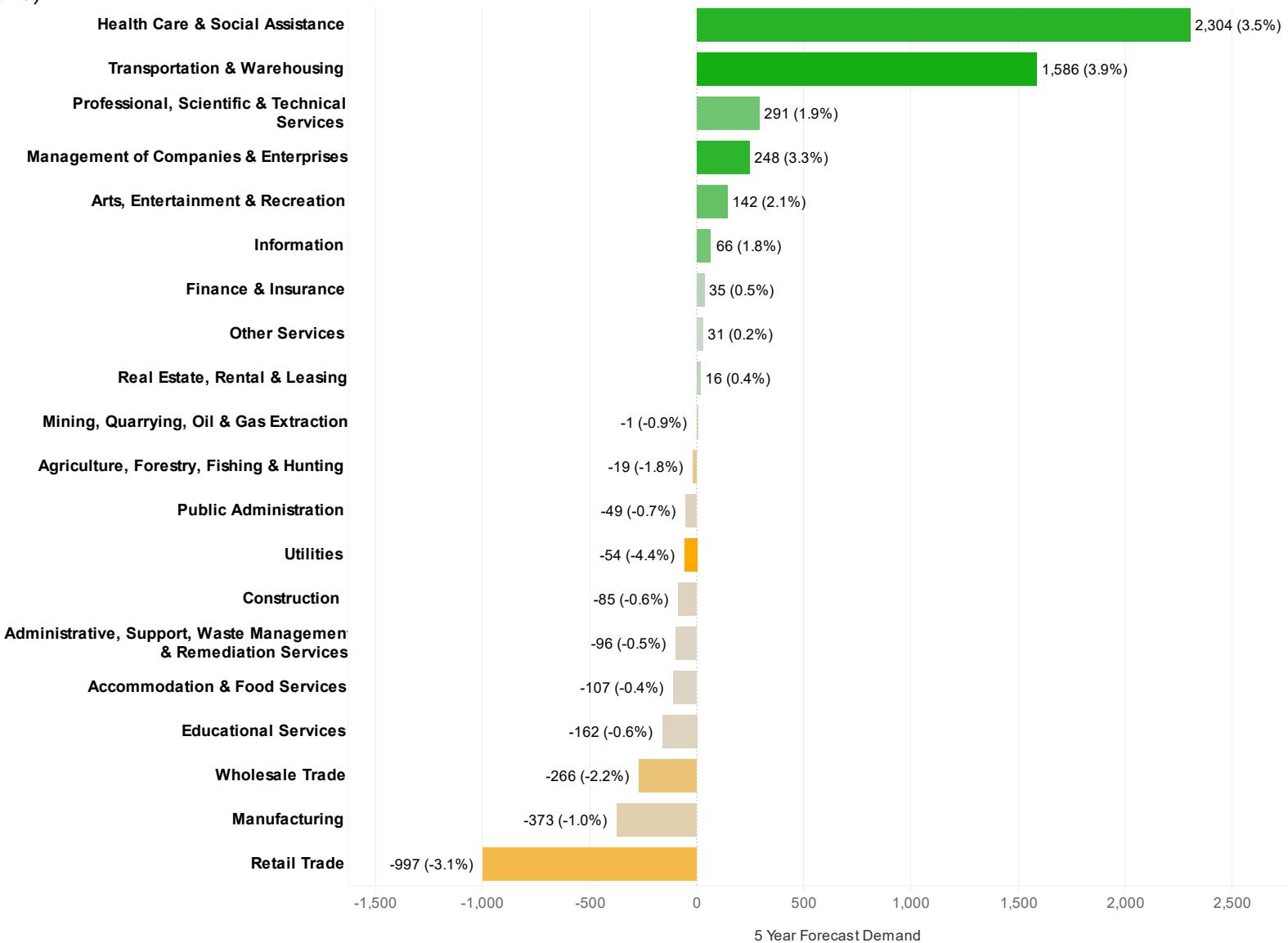


Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 6.2 Industry 5-Year Forecast, 2024-2029

Sorted by highest job demand

Jobs (percent demand)



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 6.3 Comparative Industry Wages, 2024

Lehigh Valley average wages compared to US average wages

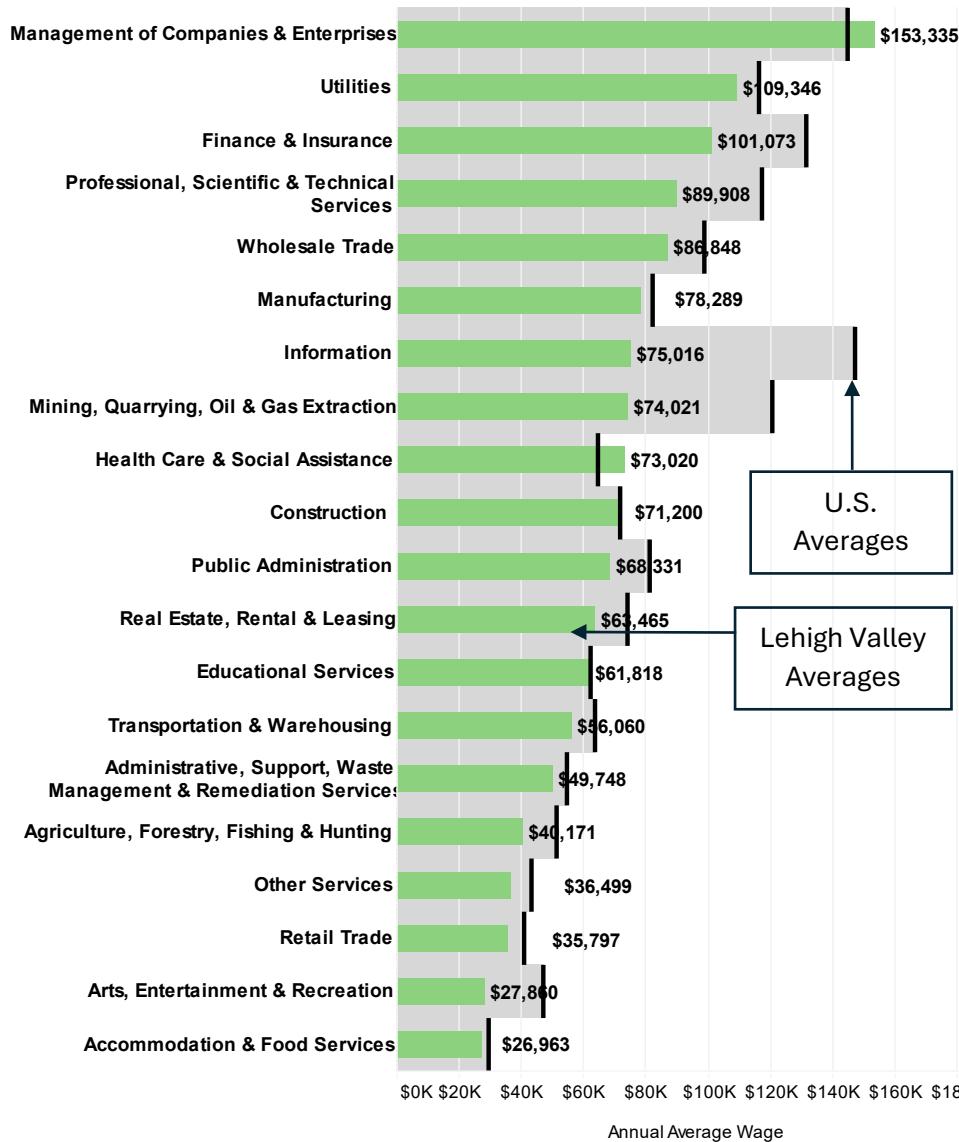
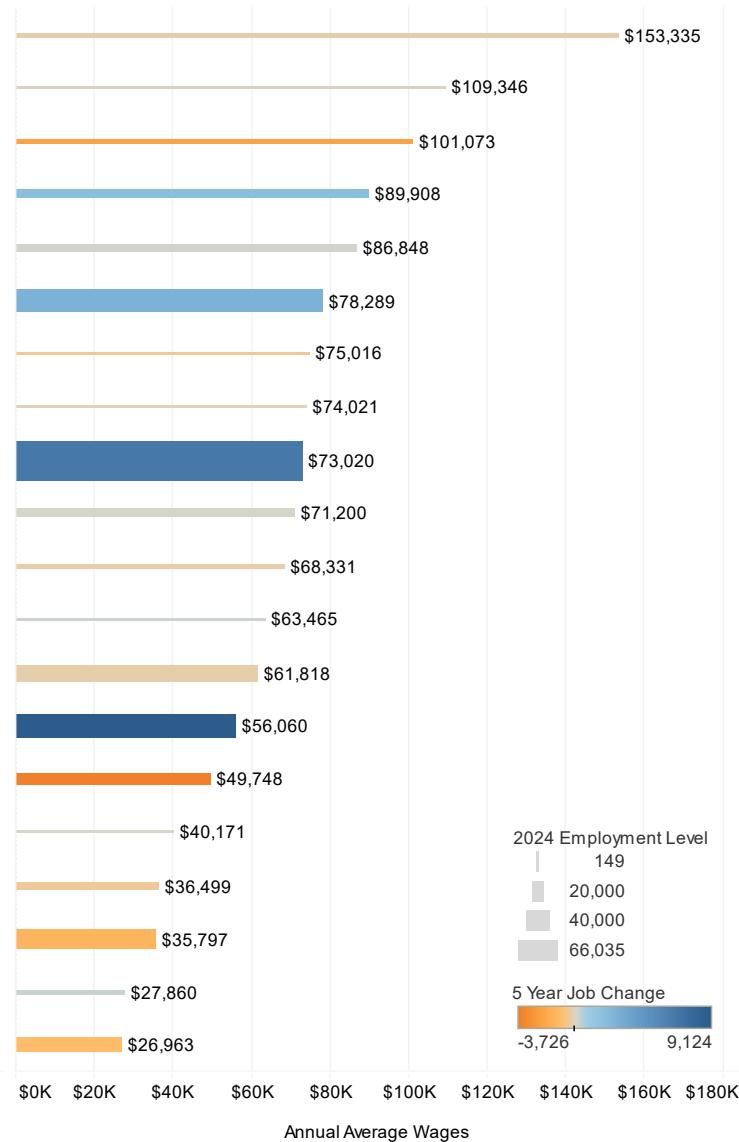


Figure 6.4 Lehigh Valley Industry Wages, 2024

2024 jobs (thickness) and 5-year change (color)



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Table 6.2 Gross Regional Product by Sector, 2022

Sorted by largest GRP

Industry	2022 GRP	% of GRP	5 Year % Change in GRP
Manufacturing	\$7,325M	16.8%	34.2%
Educational Services	\$2,693M	6.2%	15.4%
Wholesale Trade	\$2,668M	6.1%	27.2%
Retail Trade	\$2,603M	6.0%	38.3%
Construction	\$1,478M	3.4%	19.0%
Information	\$1,283M	2.9%	-31.9%
Public Administration	\$892M	2.0%	17.5%
Utilities	\$639M	1.5%	27.5%
Accommodation & Food Services	\$1,306M	3.0%	32.0%
Administrative, Support, Waste Management & Remediation Services	\$1,532M	3.5%	22.5%
Agriculture, Forestry, Fishing & Hunting	\$85M	0.2%	40.0%
Arts, Entertainment & Recreation	\$408M	0.9%	16.0%
Finance & Insurance	\$1,424M	3.3%	-11.1%
Health Care & Social Assistance	\$6,090M	14.0%	37.6%
Management of Companies & Enterprises	\$1,522M	3.5%	-9.4%
Mining, Quarrying, Oil & Gas Extraction	\$38M	0.1%	-32.9%
Other Services	\$993M	2.3%	22.1%
Professional, Scientific & Technical Services	\$2,100M	4.8%	35.3%
Real Estate, Rental & Leasing	\$4,278M	9.8%	20.0%
Transportation & Warehousing	\$4,243M	9.7%	52.2%
Total - All Industries	\$43,742M	100.0%	23.5%

Source: JobsEQ, data represents 2022, Garner Economics

Figure 6.5 Gross Regional Product 5-Year Change

Sorted by largest percentage of change (2017-2022)

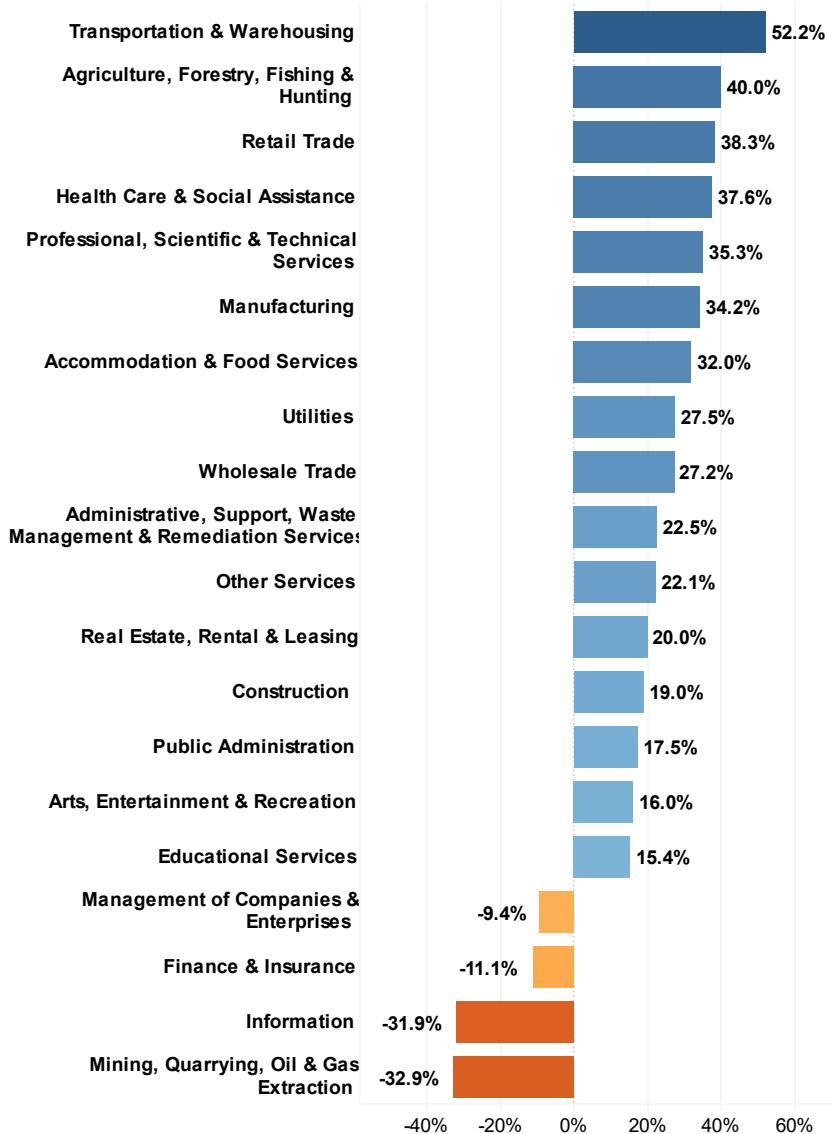


Table 6.3 Industry Specialization, 2024

Analyzed by concentration (LQ) and employment change

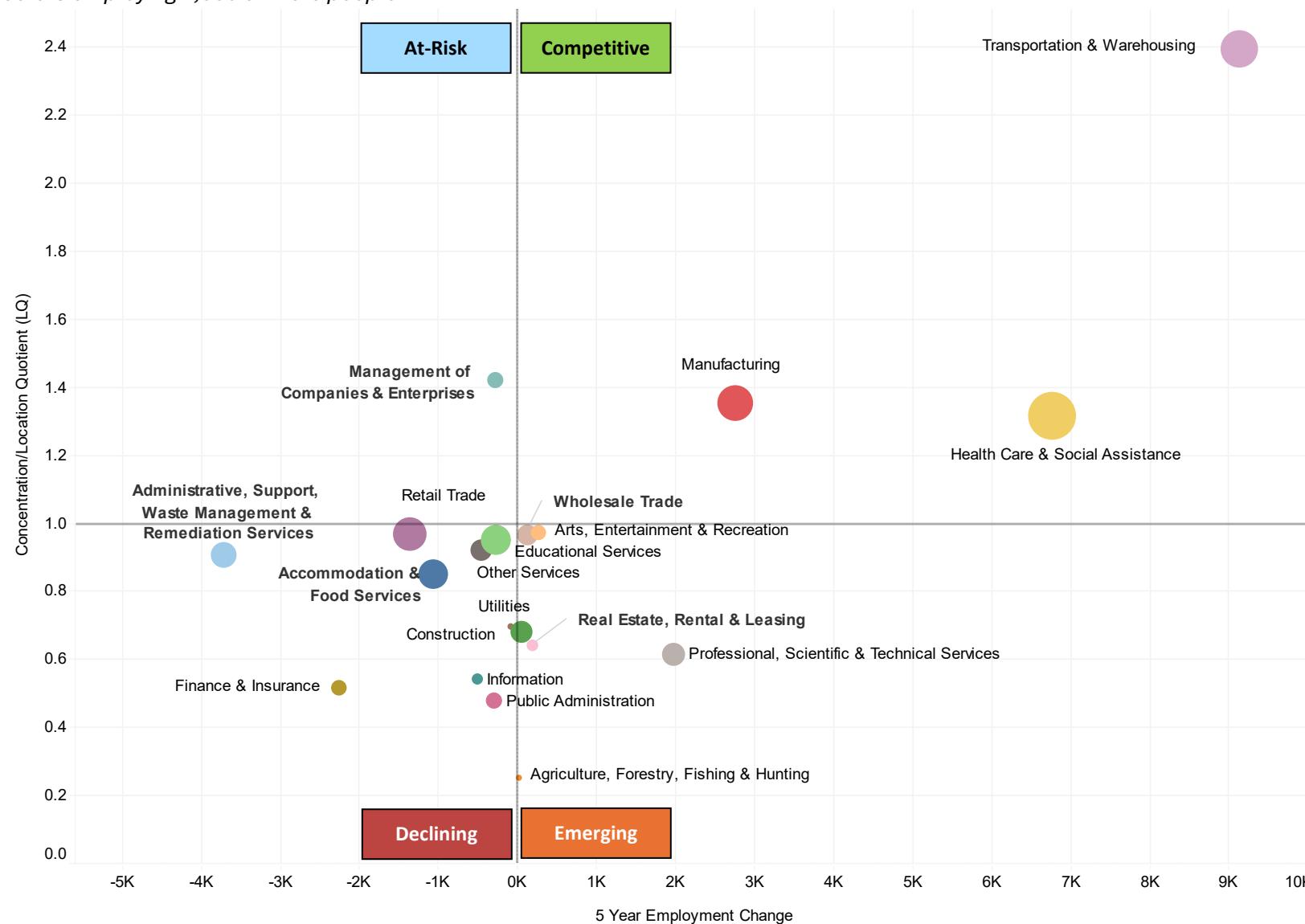
Industry Sector	2024 Employment	5-Year Employment Change	2024 Location Quotient
Competitive			
Transportation & Warehousing	40,332	9,124	2.4
Health Care & Social Assistance	66,035	6,755	1.3
Manufacturing	36,738	2,746	1.4
Arts, Entertainment & Recreation	6,649	256	1.0
Wholesale Trade	12,344	116	1.0
Emerging			
Professional, Scientific & Technical Services	15,286	1,966	0.6
Real Estate, Rental & Leasing	3,886	181	0.6
Construction	13,946	42	0.7
Agriculture, Forestry, Fishing & Hunting	1,062	9	0.3
Declining			
Utilities	1,221	-94	0.7
Mining, Quarrying, Oil & Gas Extraction	149	-143	0.1
Public Administration	7,566	-307	0.5
Other Services	13,228	-468	0.9
Information	3,606	-517	0.5
Accommodation & Food Services	25,121	-1,075	0.9
Finance & Insurance	6,966	-2,268	0.5
Administrative, Support, Waste Management & Remediation Services	19,137	-3,726	0.9
At-Risk			
Educational Services	25,963	-282	1.0
Management of Companies & Enterprises	7,473	-290	1.4
Retail	32,436	-1,371	1.0

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 6.6 Industry Specialization, 2024

Analyzed by concentration (LQ) and employment change

Sectors employing 1,000 or more people.



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Occupational Group Analysis

Table 6.4 Occupational Group Employment

Employment concentration (LQ) above 1 in Grey

Sorted by absolute change

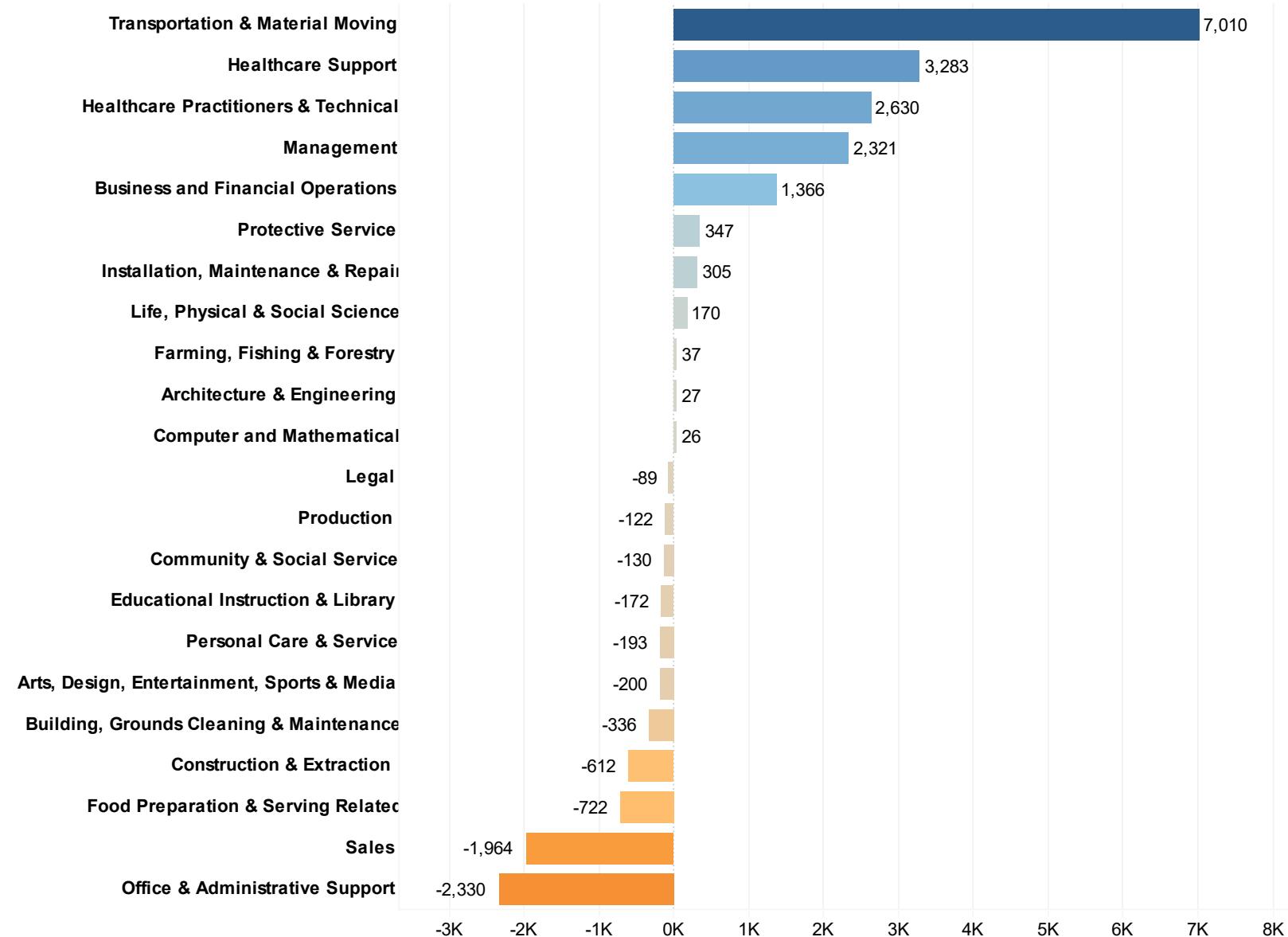
Industry Sector	2024 Employment	5-Year Change in Employment	5-Year % Change in Employment	5-Year Forecast Rate	LQ
Transportation & Material Moving	48,743	7,010	16.8%	2.8%	1.6
Healthcare Support	19,197	3,283	20.6%	6.5%	1.2
Healthcare Practitioners & Technical	26,190	2,630	11.2%	2.6%	1.3
Management	20,145	2,321	13.0%	2.2%	0.8
Business and Financial Operations	15,697	1,366	9.5%	1.8%	0.7
Protective Service	6,387	347	5.7%	-0.2%	0.9
Installation, Maintenance & Repair	12,789	305	2.4%	1.4%	1.0
Life, Physical & Social Science	2,362	170	7.8%	2.6%	0.8
Farming, Fishing & Forestry	677	37	5.7%	-1.4%	0.3
Architecture & Engineering	4,582	27	0.6%	2.1%	0.8
Computer and Mathematical	6,817	26	0.4%	5.0%	0.6
Legal	1,394	-89	-6.0%	2.2%	0.5
Production	23,264	-122	-0.5%	-2.3%	1.2
Community & Social Service	5,407	-130	-2.3%	4.7%	0.9
Educational Instruction & Library	18,504	-172	-0.9%	0.2%	1.0
Personal Care & Service	8,763	-193	-2.2%	2.0%	1.0
Arts, Design, Entertainment, Sports & Media	4,775	-200	-4.0%	0.7%	0.8
Building, Grounds Cleaning & Maintenance	10,148	-336	-3.2%	0.1%	0.9
Construction & Extraction	11,047	-612	-5.2%	0.3%	0.7
Food Preparation & Serving Related	25,816	-722	-2.7%	-0.1%	0.9
Sales	25,892	-1,964	-7.0%	-2.6%	0.9
Office & Administrative Support	40,550	-2,330	-5.4%	-3.7%	1.0
Total - All Occupations	339,145	10,653	3.2%	0.8%	1.0

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics



Figure 6.7 Occupational Group Employment Change, 2019-2024

Sorted by absolute change

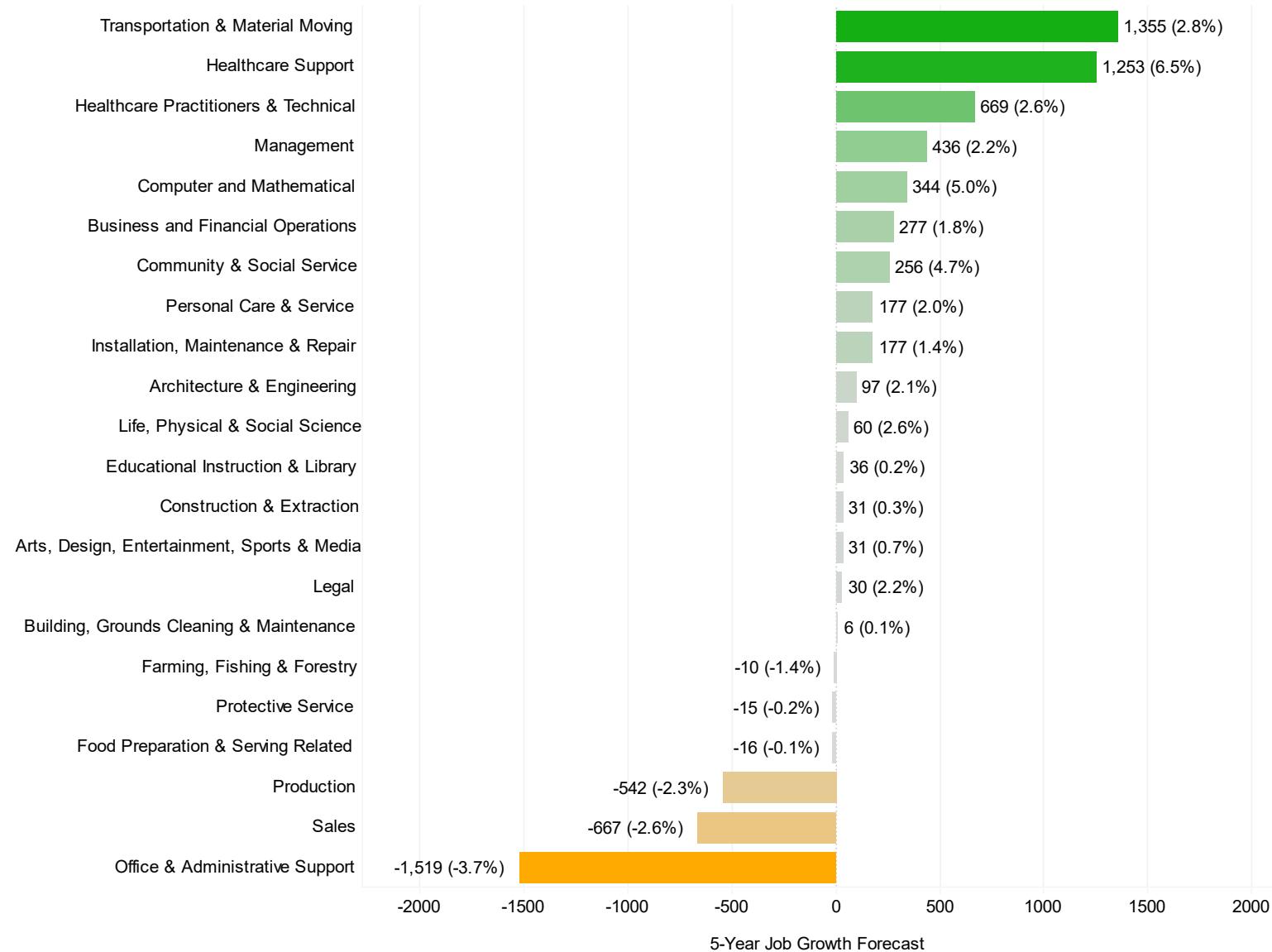


Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 6.8 Occupation 5-Year Forecast, 2024-2029

Sorted by highest job demand

Jobs (percent demand)



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 6.9 Comparative Occupational Wages, 2024

Lehigh Valley average wages compared to US average wages

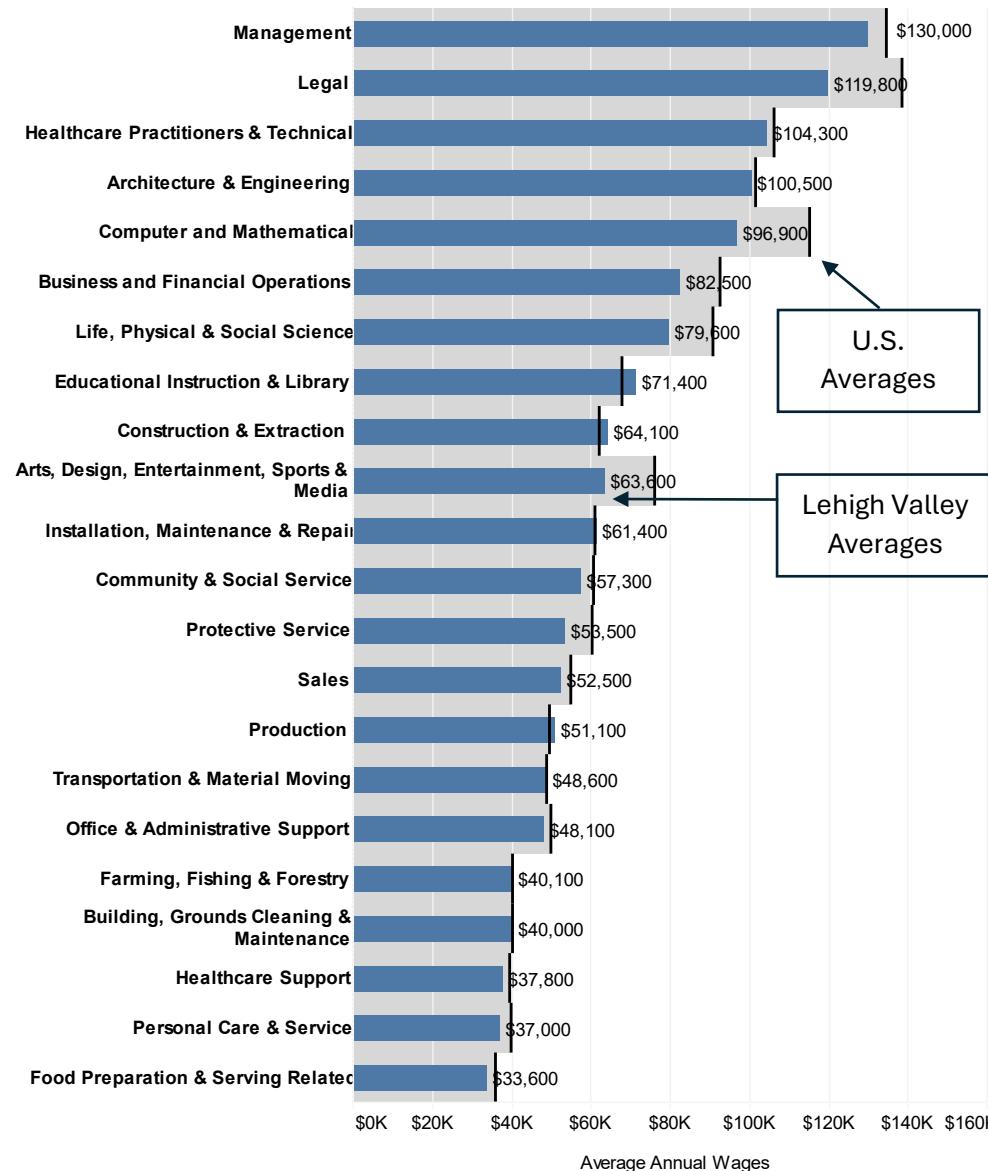
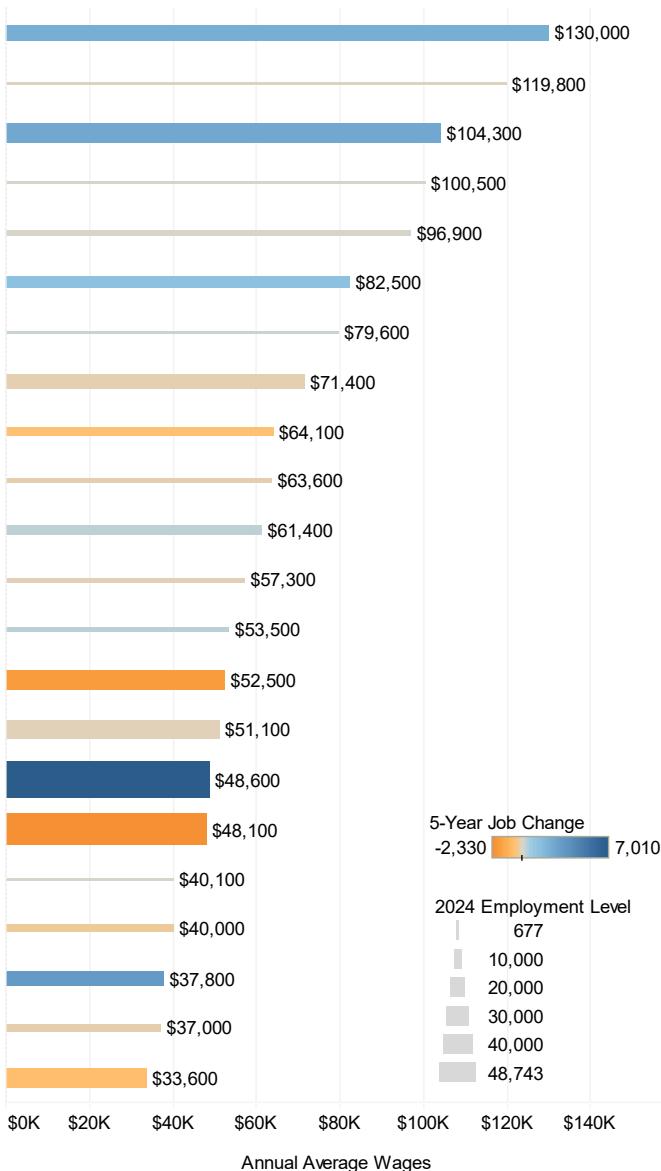


Figure 6.10 Lehigh Valley Occupational Wages, 2024

2024 jobs (thickness) and 5-year change (color)



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Table 6.5 Occupational Specialization, 2024

Analyzed by concentration (LQ) and employment change

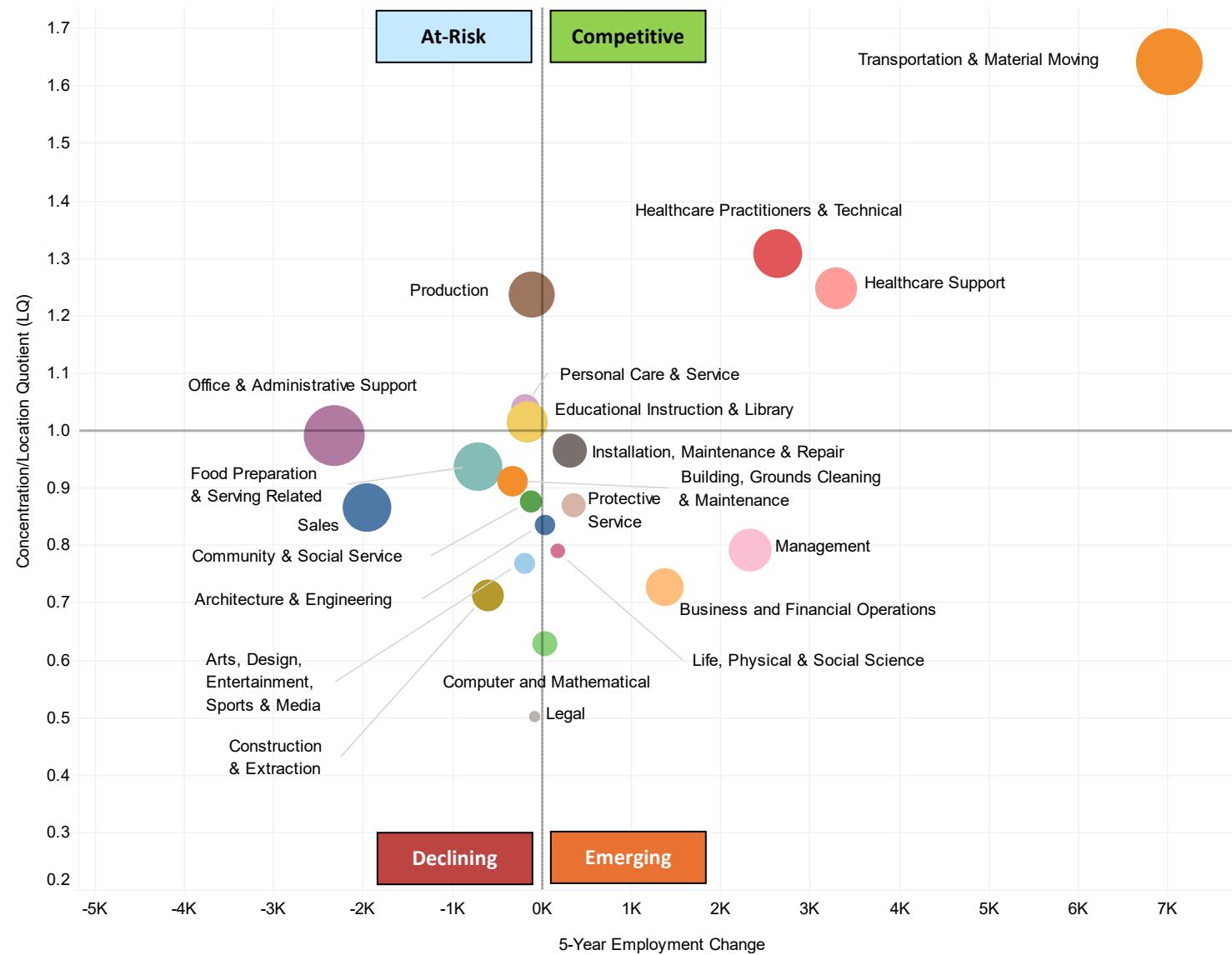
Industry Sector	2024 Employment	5-Year Employment Change	2024 Location Quotient
Competitive			
Transportation & Material Moving	48,743	7,010	1.6
Healthcare Practitioners & Technical	26,190	2,630	1.3
Healthcare Support	19,197	3,283	1.2
Installation, Maintenance & Repair	12,789	305	1.0
Emerging			
Protective Service	6,387	347	0.9
Architecture & Engineering	4,582	27	0.8
Management	20,145	2,321	0.8
Life, Physical & Social Science	2,362	170	0.8
Business and Financial Operations	15,697	1,366	0.7
Computer and Mathematical	6,817	26	0.6
Farming, Fishing & Forestry	677	37	0.3
Declining			
Food Preparation & Serving Related	25,816	-722	0.9
Building, Grounds Cleaning & Maintenance	10,148	-336	0.9
Community & Social Service	5,407	-130	0.9
Sales	25,892	-1,964	0.9
Arts, Design, Entertainment, Sports & Media	4,775	-200	0.8
Construction & Extraction	11,047	-612	0.7
Legal	1,394	-89	0.5
At-Risk			
Production	23,264	-122	1.2
Personal Care & Service	8,763	-193	1.0
Educational Instruction & Library	18,504	-172	1.0
Office & Administrative Support	40,550	-2,330	1.0

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Figure 6.12 Occupational Specialization, 2024

Analyzed by concentration (LQ) and employment change

Sectors employing 1,000 or more people.



Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Chapter 7: Assets & Challenges Assessment

The Assets and Challenges Assessment provides an overview of the area's strengths and weaknesses through the lens of a company or site location consultant evaluating the region for potential corporate investment. Garner Economics analyzed over 50 community factors as part of this assessment across six categories, rated with an asset, challenge, or neutral indicator (there were no challenge or weakness main categories, but individual indicators, such as cost of living, are rated as a challenge).



An **Asset** rating indicates a positive feature of the region that would be evaluated and rated as a competitive strength.



A **Neutral** rating is defined as normal in the realm of economic development opportunity and competitiveness.

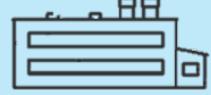


A **Challenge** rating indicates a negative trend or challenge within the area that hinders growth or the region's ability to be competitive.

	 Access to Markets	The Lehigh Valley region (Lehigh and Northampton Counties) is located within 60 minutes by auto to Philadelphia, 90 minutes to NYC, and a day's drive to one-third of the US population.	
		Interstate highways	4 interstate highways.
		Rail service	Two Class 1 railroads; one intermodal center.
		Air service	ABE (10 connections daily, including connecting international service).
		Seaports	2 within 75-90 minutes via truck.
		Broadband	Speeds greater than 250 megabytes per second (mbps) are a challenge in both Lehigh and Northampton Counties. See page 25.

	 Skilled Labor Availability Pages 27-39	Industrial/Production	>23,000 production workers. High concentration (1.2 LQ). See page 48
		Managerial/Admin	>20,000 managerial occupations and 40,000 administrative support staff.
		Engineering/Technical	>13,000 engineering, computer, mathematical and science occupations.
		Cost of labor	The majority of average wages by occupation are below national averages.
		Higher education and vocational training	19 schools are within a 45-minute drive of the region's center with 63,000 students and >23,000 degrees/certifications awarded in 2022. See page 38.

Assets & Challenges Assessment *(Continued)*

	 Access to Space	Lehigh Valley remains a compressed industrial market with a 6.3% vacancy rate, hovering below the national average of 6.5%. This category is marked neutral; however, it is trending towards positive.*	
		Industrial/flex space	151 million square feet. 6.3% vacancy rate.
		Office space	29.5 million square feet. 7.1% vacancy rate.
	<i>*Based on a CBRE Commercial Real Estate Report Q1 2024. https://t.ly/7IkuL</i>		

	 Entrepreneurial Support	The Lehigh Valley has over 50 organizations and programs devoted to supporting the entrepreneurial ecosystem in the region. <i>(Resource map of entrepreneurial organizations: https://t.ly/sBJ-3)</i>
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	 Government's Impact on Business	<p>Sixty-two municipalities within two counties make the regulatory process disjointed, cumbersome, and, according to many business constituents surveyed, not customer-friendly.</p> <p>Some survey comments were positive and local municipality-centric regarding the ease of the permitting process, thus the Neutral rating. Sixty-two municipalities prevent consistency and uniformity in the permitting process.</p> <p>See page 6 for additional comments.</p>
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Assets & Challenges Assessment *(Continued)*

  Quality of Place	Executive-level housing	455 homes are available for sale in Lehigh and Northampton counties with a price greater than \$500,000, according to Zillow, on 7/23/2024.
	Moderate-level housing 	According to Zillow, 381 homes are available in the Lehigh Valley as of 7/23/2024 with a sale price from \$250,000 to \$499,000. Based on stakeholder feedback, housing options in certain price points are a challenge.
	Apartments	1,437 units available for rent in the Lehigh Valley (Apartments.com 7/23/2024)
	Cost of living index 	High Cost of Living. See page 23 for more details. This is a challenge.
	Level of crime	Improving. See page 24 for more details.
	Medical facilities	Excellent health care options. Two large medical systems: Lehigh Valley Health Network and St. Luke's University Hospital.
	Higher-end hospitality (hotel) properties	Multiple properties ranked as AAA three diamond (or its equivalent) and higher.
	Restaurant options	Many dining establishments highly rated by Trip Advisor.
	Appearance of the Central Business District(s)	The CBD's of Allentown, Bethlehem, and Easton all show well.

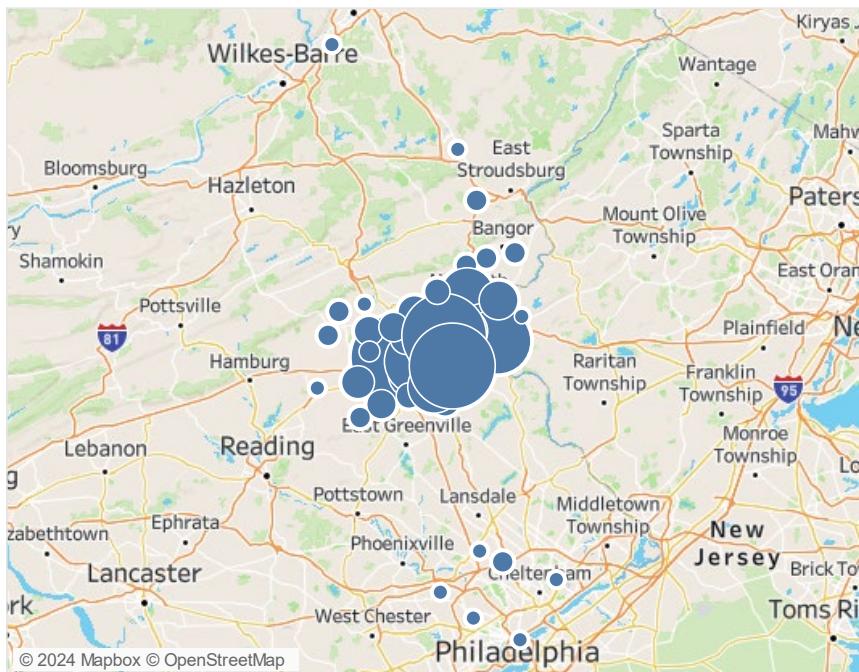
Appendix A: Focus Group Participants

Maura Kennedy , Amazon	Susan Lawless , Hanover Township	Becky Bradley , LVPC - Lehigh Valley Planning Commission
Andrew Schevets , Amorphic Tech Ltd	Northampton County	Richard Master , MCS
Lou Pektor , Ashley Development Corp./Alt-Realty	Doug Callenberger , Highmark	Katie Desiderio , Moravian University
Pat Witmer , B Braun	Jason Ascher , Hillwood Investment Properties	Rich Hobbs , MRC - Manufacturers Resource Center
Wayne Barz , Ben Franklin Technology Partners	Jason Kushner , Hillwood Investment Properties	Marek Tomanek , Northampton County
Sean Boyle , Boyle Construction	Martin Strenk , Hillwood Investment Properties	Tina Smith , Northampton County
Jim Roberts , Broadcom	Martin Till , HNL - Health Network Labs	Carrie Eglinton Manner , Orasure
Tony DaRe , BSI Corporate Benefits	Mark Granahan , iDEAL Semi-Conductor	Fadia Halma , PA DCED
Jill Wheeler , City Center Allentown	Darrell Engel , Infinera	Brett Smith , SBDC - Small Business Development Center
Vicki Kistler , City of Allentown	Ed Pullin , Intel	Terry Sullivan , Shift4
Laura Collins , City of Bethlehem	Adam Jaindl , Jaindl Land Development	Brian Fenstermaker , Slate Belt Rising
Sean Ziller , City of Bethlehem	Luke Jaindl , Jndl	Paul Hodges , Soltech Solution
John Kingsley , City of Easton	Joni Elekes , JG Petrucci Co., Inc.	Daniel Negri , Travaglini
Mo El Banna , CoreTech	Tom Shaughnessy , JG Petrucci Co., Inc.	Art Dorn , Truist
Sam Neidbala , Cryoconcepts	Dirk Frese , Julabo	Toby Borcoman , Tyber Medical
Steph Wilbow , Easy Signs	Jim Vozar , JVI LLC	Bob Ibach , Upper Macungie Township
Erin Lifeso , Factory LLC	Nicole Eramo , Lafayette University	Gina Cormane , WBLV - Workforce Board Lehigh Valley
Cindy Feinberg , Feinberg Real Estate Advisors	Owen O'Neil , LANTA	Nancy Dischinat , WBLV - Workforce Board Lehigh Valley
Jared Mast , GEDP - Greater Easton Development Partnership	Frank Kane , Lehigh County	
Jonathan Gelman , Gelcor Realty	Nathan Urban , Lehigh University	
	Kerry Wrobel , Lehigh Valley Industrial Park	
	Katelyn Mack , LINC	

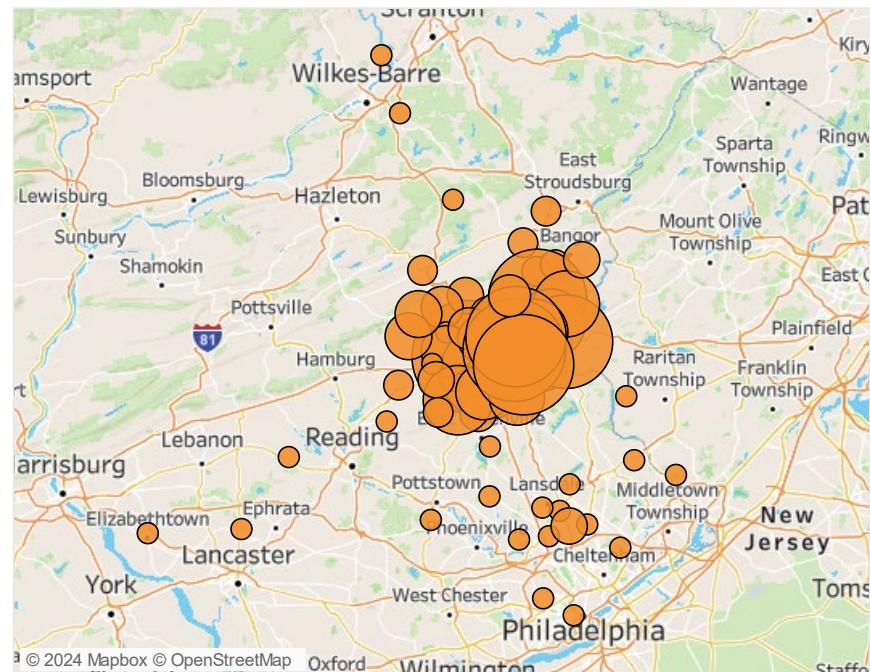
LVEDC Board of Directors

Appendix B: Survey Participation Demographics

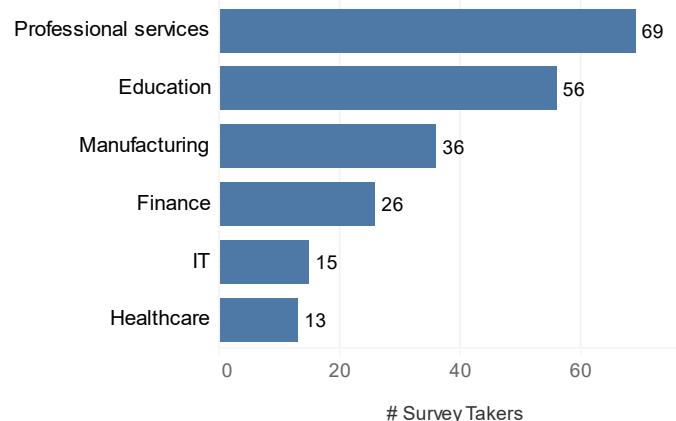
Where Survey Takers Work



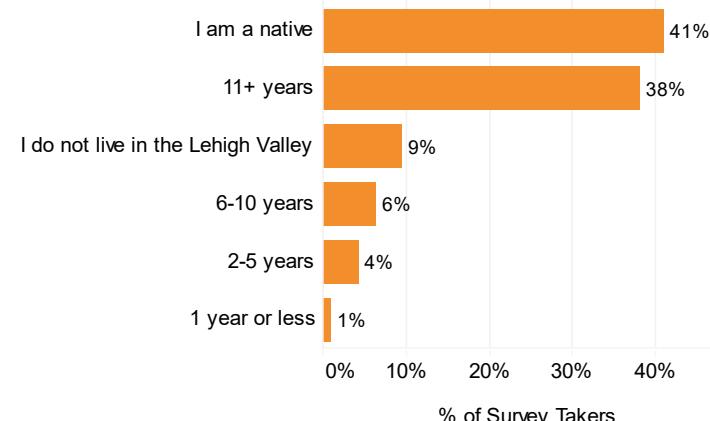
Where Survey Takers Live



Top Employment Sectors of Survey Takers



Where Survey Takers Live and Tenure



Appendix C: Industry Details

The industry listing below marks major categories in blue. Specialized industries have location quotients greater than 1.2 and are shaded.

NAICS	Industry	2024 Employment	5-Year Change	LQ	Annual Average Wage
11	Agriculture, Forestry, Fishing & Hunting	1,062	9	0.3	\$40,171
111	Crop Production	615	5	0.4	\$37,881
112	Animal Production and Aquaculture	381	4	0.3	\$44,752
113	Forestry and Logging	10	-2	0.1	\$57,936
114	Fishing, Hunting and Trapping	5	-2	0.1	\$23,464
115	Support Activities for Agriculture and Forestry	51	4	0.1	\$36,139
21	Mining, Quarrying, Oil & Gas Extraction	149	-143	0.1	\$74,021
211	Oil and Gas Extraction	7	6	0.0	\$139,144
212	Mining (except Oil and Gas)	136	-140	0.3	\$59,217
213	Support Activities for Mining	5	-10	0.0	\$98,514
22	Utilities	1,221	-94	0.7	\$109,346
23	Construction	13,946	42	0.7	\$71,200
236	Construction of Buildings	3,052	301	0.6	\$74,543
237	Heavy and Civil Engineering Construction	1,050	-265	0.4	\$85,730
238	Specialty Trade Contractors	9,845	5	0.8	\$68,625
31	Manufacturing	36,738	2,746	1.4	\$78,289
311	Food Manufacturing	4,400	1,673	1.2	\$71,362
312	Beverage and Tobacco Product Manufacturing	2,450	226	3.5	\$72,230
313	Textile Mills	92	-10	0.5	\$40,460
314	Textile Product Mills	82	-116	0.4	\$45,084
315	Apparel Manufacturing	735	-210	3.3	\$43,076
316	Leather and Allied Product Manufacturing	6	0	0.1	\$42,254
321	Wood Product Manufacturing	774	48	0.9	\$55,671
322	Paper Manufacturing	1,079	-161	1.5	\$73,778
323	Printing and Related Support Activities	661	-21	0.8	\$49,240
324	Petroleum and Coal Products Manufacturing	165	34	0.7	\$74,421
325	Chemical Manufacturing	3,538	905	1.9	\$83,253

NAICS	Industry	2024 Employment	5-Year Change	LQ	Annual Average Wage
326	Plastics and Rubber Products Manufacturing	2,737	265	1.8	\$66,693
327	Nonmetallic Mineral Product Manufacturing	1,646	-187	1.9	\$84,608
331	Primary Metal Manufacturing	1,959	401	2.5	\$93,070
332	Fabricated Metal Product Manufacturing	3,356	39	1.1	\$72,273
333	Machinery Manufacturing	2,115	-151	0.9	\$89,141
334	Computer and Electronic Product Manufacturing	1,202	-281	0.5	\$119,925
335	Electrical Equipment, Appliance, and Component Manufacturing	1,898	-26	2.2	\$86,936
336	Transportation Equipment Manufacturing	2,733	-428	0.7	\$75,153
337	Furniture and Related Product Manufacturing	987	-38	1.3	\$66,585
339	Miscellaneous Manufacturing	4,123	783	3.0	\$77,512
42	Wholesale Trade	12,344	116	1.0	\$86,848
423	Merchant Wholesalers, Durable Goods	7,258	178	1.0	\$94,912
424	Merchant Wholesalers, Nondurable Goods	4,517	-48	1.0	\$75,802
425	Wholesale Trade Agents and Brokers	569	-14	0.5	\$128,521
44	Retail Trade	32,436	-1,371	1.0	\$35,797
441	Motor Vehicle and Parts Dealers	4,753	-21	1.1	\$62,802
444	Building Material and Garden Equipment and Supplies Dealers	2,087	34	0.7	\$38,772
445	Food and Beverage Retailers	8,755	337	1.3	\$27,513
449	Furniture, Electronics, and Appliance Retailers	1,327	-417	0.7	\$47,535
455	General Merchandise Retailers	5,461	-235	0.8	\$29,230
456	Health and Personal Care Retailers	2,324	-245	0.9	\$39,348
457	Gasoline Stations and Fuel Dealers	2,370	151	1.1	\$30,969
458	Clothing, Clothing Accessories, Shoe, and Jewelry Retailers	1,810	-895	0.7	\$24,408
459	Sporting Goods, Hobby, Musical Instrument, Book, and Miscellaneous Retailers	3,548	-80	1.0	\$30,927
48	Transportation & Warehousing	40,332	9,124	2.4	\$56,060
481	Air Transportation	381	-138	0.3	\$95,540
482	Rail Transportation	206	-34	0.7	\$88,334
483	Water Transportation	14	4	0.1	\$122,194
484	Truck Transportation	5,382	285	1.6	\$71,916
485	Transit and Ground Passenger Transportation	2,187	-149	1.1	\$41,539

NAICS	Industry	2024 Employment	5-Year Change	LQ	Annual Average Wage
486	Pipeline Transportation	329	25	2.9	\$125,432
487	Scenic and Sightseeing Transportation	56	5	0.8	\$41,104
488	Support Activities for Transportation	1,590	384	0.8	\$63,173
491	Postal Service	1,501	76	1.2	\$69,467
492	Couriers and Messengers	5,364	1,924	2.1	\$40,409
493	Warehousing and Storage	23,322	6,741	6.1	\$53,537
51	Information	3,606	-517	0.5	\$75,016
512	Motion Picture and Sound Recording Industries	383	-92	0.4	\$27,388
513	Publishing Industries	506	-213	0.3	\$87,148
516	Broadcasting and Content Providers	213	-168	0.3	\$55,107
517	Telecommunications	1,008	-183	0.8	\$100,067
518	Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services	1,159	142	1.1	\$78,938
519	Web Search Portals, Libraries, and Other Information Services	338	-3	0.5	\$33,496
52	Finance & Insurance	6,966	-2,268	0.5	\$101,073
522	Credit Intermediation and Related Activities	2,932	-333	0.5	\$88,758
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	991	96	0.4	\$168,324
524	Insurance Carriers and Related Activities	3,042	-2,031	0.5	\$90,620
525	Funds, Trusts, and Other Financial Vehicles	2	0	0.0	\$72,984
53	Real Estate, Rental & Leasing	3,886	181	0.6	\$63,465
531	Real Estate	2,901	187	0.6	\$61,010
532	Rental and Leasing Services	970	-4	0.8	\$73,050
533	Lessors of Nonfinancial Intangible Assets (except Copyrighted)	15	-3	0.3	\$112,230
54	Professional, Scientific & Technical Services	15,286	1,966	0.6	\$89,908
55	Management of Companies & Enterprises	7,473	-290	1.4	\$153,335
56	Administrative, Support, Waste Management & Remediation Services	19,137	-3,726	0.9	\$49,748
561	Administrative and Support Services	17,893	-4,042	0.9	\$48,326
562	Waste Management and Remediation Services	1,244	316	1.1	\$71,373
61	Educational Services	25,963	-282	1.0	\$61,818
62	Health Care & Social Assistance	66,035	6,755	1.3	\$73,020

NAICS	Industry	2024 Employment	5-Year Change	LQ	Annual Average Wage
621	Ambulatory Health Care Services	22,315	2,126	1.2	\$100,378
622	Hospitals	21,038	2,358	1.5	\$78,963
623	Nursing and Residential Care Facilities	9,964	-1,097	1.4	\$45,790
624	Social Assistance	12,719	3,368	1.2	\$35,954
71	Arts, Entertainment & Recreation	6,649	256	1.0	\$27,860
711	Performing Arts, Spectator Sports, and Related Industries	1,930	15	1.0	\$35,975
712	Museums, Historical Sites, and Similar Institutions	341	38	0.7	\$32,571
713	Amusement, Gambling, and Recreation Industries	4,378	204	1.0	\$24,210
72	Accommodation & Food Services	25,121	-1,075	0.9	\$26,963
721	Accommodation	3,510	-638	0.9	\$44,262
722	Food Services and Drinking Places	21,611	-436	0.9	\$24,182
81	Other Services	13,228	-468	0.9	\$36,499
811	Repair and Maintenance	2,713	50	0.8	\$58,247
812	Personal and Laundry Services	4,926	24	1.1	\$31,638
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations	5,486	-527	0.9	\$30,072
814	Private Households	103	-15	0.2	\$38,090
92	Public Administration	7,566	-307	0.5	\$68,331
921	Executive, Legislative, and Other General Government Support	6,347	-348	1.0	\$65,688
922	Justice, Public Order, and Safety Activities	627	-4	0.2	\$84,182
923	Administration of Human Resource Programs	94	4	0.1	\$98,574
924	Administration of Environmental Quality Programs	66	3	0.1	\$55,298
925	Administration of Housing Programs, Urban Planning, and Community Development	187	-21	0.9	\$72,675
926	Administration of Economic Programs	191	38	0.1	\$87,452
928	National Security and International Affairs	52	21	0.0	\$88,445
0	Total - All Industries	339,145	10,653	1.0	\$63,509

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics

Appendix D: Occupational Details

The occupation listing below marks major categories in blue. Specialized Occupations have location quotients greater than 1.2 and are shaded.

Occupation	SOC	2024 Employment	2024 Residents in Occupation	5-Year Change	LQ	Annual Average Wage
Management Occupations	11-0000	20,145	22,166	2,321	0.79	\$130,000
Top Executives	11-1000	7,079	7,612	938	0.90	\$135,600
Advertising, Marketing, Public Relations, and Sales Managers	11-2000	1,580	1,865	121	0.74	\$143,200
Operations Specialties Managers	11-3000	4,233	4,901	434	0.84	\$141,900
Other Management Occupations	11-9000	7,254	7,788	828	0.70	\$114,700
Business and Financial Operations Occupations	13-0000	15,697	18,341	1,366	0.73	\$82,500
Business Operations Specialists	13-1000	10,627	12,666	970	0.72	\$79,700
Financial Specialists	13-2000	5,070	5,675	396	0.75	\$88,500
Computer and Mathematical Occupations	15-0000	6,817	9,015	26	0.63	\$96,900
Computer Occupations	15-1200	6,389	8,492	-21	0.63	\$96,600
Mathematical Science Occupations	15-2000	428	523	47	0.61	\$101,600
Architecture and Engineering Occupations	17-0000	4,582	5,058	27	0.84	\$100,500
Architects, Surveyors, and Cartographers	17-1000	262	252	-11	0.60	\$83,500
Engineers	17-2000	3,239	3,277	133	0.89	\$112,800
Drafters, Engineering Technicians, and Mapping Technicians	17-3000	1,081	1,529	-95	0.78	\$67,800
Life, Physical, and Social Science Occupations	19-0000	2,362	2,682	170	0.79	\$79,600
Life Scientists	19-1000	482	500	55	0.70	\$84,900
Physical Scientists	19-2000	509	516	29	0.94	\$89,300
Social Scientists and Related Workers	19-3000	475	466	-22	0.70	\$94,600
Life, Physical, and Social Science Technicians	19-4000	640	895	40	0.82	\$55,100
Occupational Health and Safety Specialists and Technicians	19-5000	257	305	68	0.90	\$83,400
Community and Social Service Occupations	21-0000	5,407	5,652	-130	0.88	\$57,300
Counselors, Social Workers, and Other Social Service Specialists	21-1000	4,399	4,683	-44	0.86	\$59,000
Religious Workers	21-2000	1,008	970	-86	0.95	\$49,700
Legal Occupations	23-0000	1,394	1,766	-89	0.50	\$119,800
Lawyers, Judges, and Related Workers	23-1000	933	1,075	-74	0.51	\$147,300
Legal Support Workers	23-2000	461	690	-14	0.49	\$64,000

Occupation	SOC	2024 Employment	2024 Residents in Occupation	5-Year Change	LQ	Annual Average Wage
Educational Instruction and Library Occupations	25-0000	18,504	18,299	-172	1.02	\$71,400
Postsecondary Teachers	25-1000	3,442	3,118	-238	1.25	\$101,200
Prek, Elementary, Middle, Secondary, Special Education Teachers	25-2000	9,724	9,577	51	1.10	\$74,600
Other Teachers and Instructors	25-3000	1,678	1,719	73	0.69	\$48,600
Librarians, Curators, and Archivists	25-4000	402	409	-32	0.80	\$62,700
Other Educational Instruction and Library Occupations	25-9000	3,257	3,476	-26	0.89	\$43,100
Arts, Design, Entertainment, Sports, and Media Occupations	27-0000	4,775	5,134	-200	0.77	\$63,600
Art and Design Workers	27-1000	1,778	1,883	95	0.88	\$61,800
Entertainers and Performers, Sports and Related Workers	27-2000	1,471	1,450	-102	0.86	\$63,100
Media and Communication Workers	27-3000	953	1,117	-167	0.57	\$74,300
Media and Communication Equipment Workers	27-4000	573	685	-26	0.72	\$53,000
Healthcare Practitioners and Technical Occupations	29-0000	26,190	25,855	2,630	1.31	\$104,300
Healthcare Diagnosing or Treating Practitioners	29-1000	17,599	16,677	2,146	1.32	\$126,800
Health Technologists and Technicians	29-2000	8,286	8,890	416	1.30	\$57,900
Other Healthcare Practitioners and Technical Occupations	29-9000	305	288	68	1.07	\$65,000
Healthcare Support Occupations	31-0000	19,197	19,933	3,283	1.25	\$37,800
Home Health and Personal Care Aides; and Nursing Assistants, Orderlies, and Psychiatric Aides	31-1100	14,556	14,862	2,824	1.30	\$35,100
Occupational Therapy and Physical Therapist Assistants and Aides	31-2000	531	661	91	1.28	\$56,900
Other Healthcare Support Occupations	31-9000	4,111	4,410	368	1.09	\$44,800
Protective Service Occupations	33-0000	6,387	7,034	347	0.87	\$53,500
Supervisors of Protective Service Workers	33-1000	459	603	19	0.62	\$84,100
Firefighting and Prevention Workers	33-2000	353	439	18	0.51	\$69,500
Law Enforcement Workers	33-3000	1,557	1,813	-64	0.64	\$79,000
Other Protective Service Workers	33-9000	4,018	4,178	374	1.15	\$38,700
Food Preparation and Serving Related Occupations	35-0000	25,816	25,964	-722	0.94	\$33,600
Supervisors of Food Preparation and Serving Workers	35-1000	2,850	2,924	174	0.96	\$46,400
Cooks and Food Preparation Workers	35-2000	6,361	6,351	56	0.81	\$33,700
Food and Beverage Serving Workers	35-3000	13,908	13,916	-734	1.01	\$31,600
Other Food Preparation and Serving Related Workers	35-9000	2,697	2,773	-219	0.91	\$29,900
Building and Grounds Cleaning and Maintenance Occupations	37-0000	10,148	10,762	-336	0.91	\$40,000

Occupation	SOC	2024 Employment	2024 Residents in Occupation	5-Year Change	LQ	Annual Average Wage
Supervisors of Building/Grounds Cleaning, Maintenance Workers	37-1000	825	912	3	0.81	\$56,400
Building Cleaning and Pest Control Workers	37-2000	7,013	7,318	-305	0.94	\$37,700
Grounds Maintenance Workers	37-3000	2,311	2,532	-33	0.87	\$41,200
Personal Care and Service Occupations	39-0000	8,763	9,287	-193	1.04	\$37,000
Supervisors of Personal Care and Service Workers	39-1000	753	825	33	1.17	\$50,100
Animal Care and Service Workers	39-2000	638	751	120	0.79	\$32,700
Entertainment Attendants and Related Workers	39-3000	1,737	1,706	-89	1.38	\$30,800
Funeral Service Workers	39-4000	158	182	0	1.19	\$53,500
Personal Appearance Workers	39-5000	2,251	2,310	-31	1.20	\$39,200
Baggage Porters, Bellhops, and Concierges	39-6000	131	150	5	0.92	\$36,900
Tour and Travel Guides	39-7000	117	124	0	0.91	\$34,100
Other Personal Care and Service Workers	39-9000	2,977	3,238	-230	0.87	\$35,900
Sales and Related Occupations	41-0000	25,892	28,197	-1,964	0.87	\$52,500
Supervisors of Sales Workers	41-1000	3,202	3,449	-292	0.89	\$61,700
Retail Sales Workers	41-2000	14,574	14,964	-1,432	0.91	\$34,100
Sales Representatives, Services	41-3000	3,206	4,083	8	0.68	\$72,800
Sales Representatives, Wholesale and Manufacturing	41-4000	3,448	4,045	-96	1.01	\$99,300
Other Sales and Related Workers	41-9000	1,461	1,656	-152	0.73	\$61,100
Office and Administrative Support Occupations	43-0000	40,550	45,255	-2,330	0.99	\$48,100
Supervisors of Office and Administrative Support Workers	43-1000	3,579	3,841	46	1.10	\$68,000
Communications Equipment Operators	43-2000	130	125	-107	1.17	\$39,500
Financial Clerks	43-3000	5,689	6,604	-745	0.90	\$48,600
Information and Record Clerks	43-4000	10,309	12,085	-504	0.86	\$43,000
Material Recording, Scheduling, Dispatching/ Distributing Workers	43-5000	5,884	6,097	471	1.15	\$51,400
Secretaries and Administrative Assistants	43-6000	7,322	7,934	-415	1.04	\$46,700
Other Office and Administrative Support Workers	43-9000	7,637	8,569	-1,076	1.08	\$44,300
Farming, Fishing, and Forestry Occupations	45-0000	677	822	37	0.34	\$40,100
Supervisors of Farming, Fishing, and Forestry Workers	45-1000	46	56	4	0.43	\$62,200
Agricultural Workers	45-2000	600	731	33	0.34	\$38,000
Fishing and Hunting Workers	45-3000	3	4	-3	0.10	n/a
Forest, Conservation, and Logging Workers	45-4000	29	32	2	0.24	\$48,700

Occupation	SOC	2024 Employment	2024 Residents in Occupation	5-Year Change	LQ	Annual Average Wage
Construction and Extraction Occupations	47-0000	11,047	12,229	-612	0.71	\$64,100
Supervisors of Construction and Extraction Workers	47-1000	1,159	1,287	36	0.67	\$87,600
Construction Trades Workers	47-2000	8,551	9,409	-479	0.72	\$62,200
Helpers, Construction Trades	47-3000	269	294	-92	0.61	\$43,300
Other Construction and Related Workers	47-4000	938	1,076	-5	0.95	\$58,400
Extraction Workers	47-5000	130	163	-71	0.28	\$60,300
Installation, Maintenance, and Repair Occupations	49-0000	12,789	13,855	305	0.97	\$61,400
Supervisors of Installation, Maintenance, and Repair Workers	49-1000	1,166	1,271	89	0.96	\$81,700
Electrical Equipment Mechanics, Installers, and Repairers	49-2000	960	1,233	-23	0.89	\$66,400
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	49-3000	3,919	4,084	-87	1.00	\$56,600
Other Installation, Maintenance, and Repair Occupations	49-9000	6,744	7,267	325	0.96	\$59,900
Production Occupations	51-0000	23,264	22,972	-122	1.24	\$51,100
Supervisors of Production Workers	51-1000	1,705	1,685	130	1.21	\$75,600
Assemblers and Fabricators	51-2000	5,605	5,314	-484	1.39	\$46,800
Food Processing Workers	51-3000	1,589	1,679	332	0.91	\$43,500
Metal Workers and Plastic Workers	51-4000	4,442	4,327	21	1.27	\$51,200
Printing Workers	51-5100	450	473	-58	1.01	\$46,800
Textile, Apparel, and Furnishings Workers	51-6000	1,170	1,155	-290	1.07	\$38,000
Woodworkers	51-7000	556	548	-25	1.12	\$45,100
Plant and System Operators	51-8000	554	585	21	0.91	\$77,300
Other Production Occupations	51-9000	7,192	7,207	233	1.32	\$51,100
Transportation and Material Moving Occupations	53-0000	48,743	45,525	7,010	1.64	\$48,600
Supervisors of Transportation and Material Moving Workers	53-1000	1,997	1,910	341	1.57	\$68,600
Air Transportation Workers	53-2000	248	352	3	0.38	\$154,900
Motor Vehicle Operators	53-3000	13,905	13,349	1,452	1.36	\$52,700
Rail Transportation Workers	53-4000	176	201	-21	0.82	\$81,100
Water Transportation Workers	53-5000	28	45	7	0.16	\$92,000
Other Transportation Workers	53-6000	435	518	12	0.69	\$38,900
Material Moving Workers	53-7000	31,954	29,150	5,217	1.93	\$44,700
Total - All Occupations	00-0000	339,145	355,802	10,653	1.00	\$62,200

Source: JobsEQ, All employment, four-quarter average ending 2024 Q1, Garner Economics