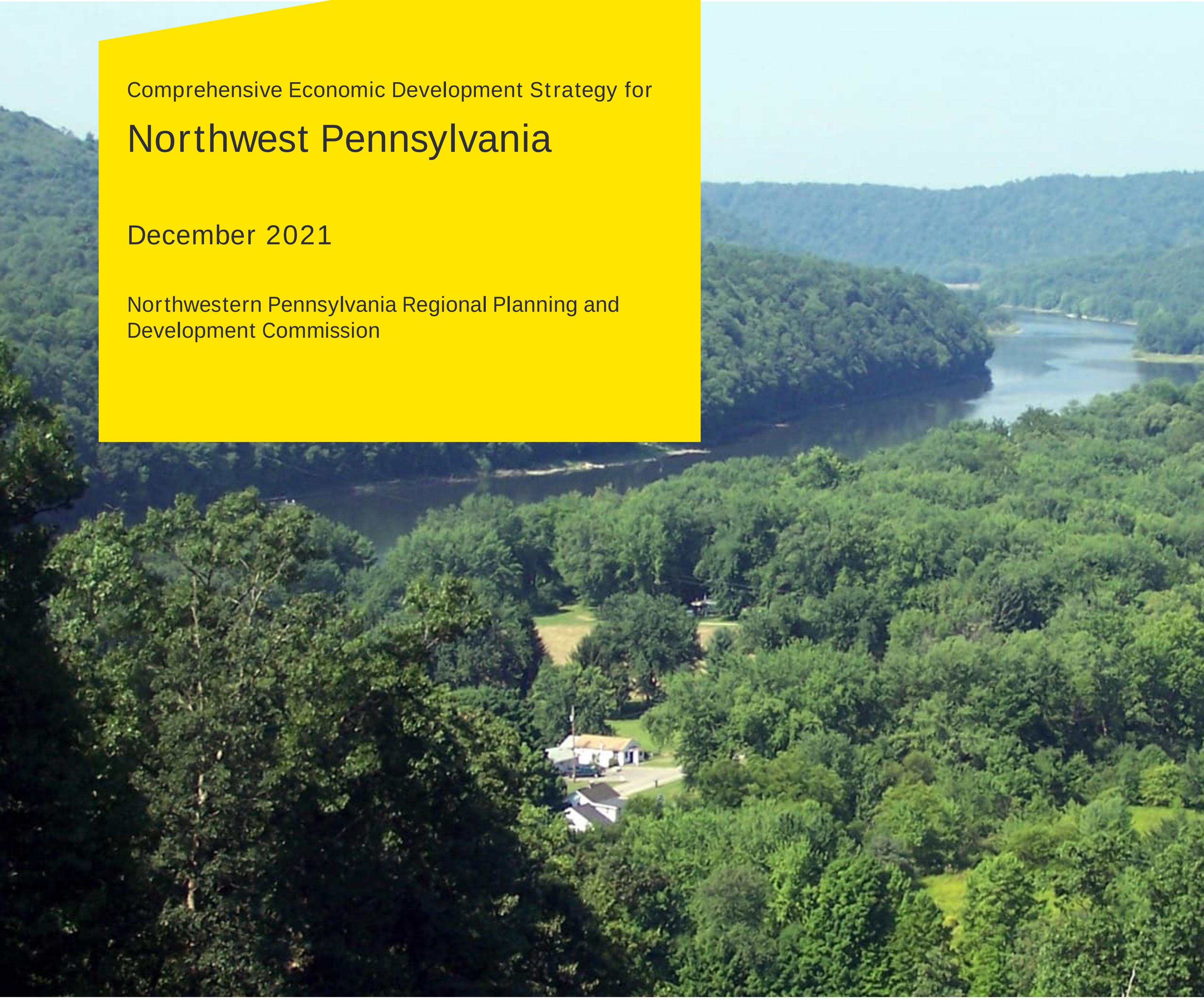
Comprehensive Economic Development Strategy for

Northwest Pennsylvania

December 2021

Northwestern Pennsylvania Regional Planning and Development Commission



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About the CEDS and Region

The Northwestern Pennsylvania Regional Planning and Development Commission (Northwest Commission) is leading the update of the Comprehensive Economic Development Strategy (CEDS) for the 8-county Northwest Pennsylvania region (referred to as NWPA in this report). The CEDS contributes to effective economic development in America's communities and regions through a locally-based, regionally-driven economic development planning process. Economic development planning – as implemented through the CEDS – is not only a cornerstone of the U.S. Economic Development Administration's (EDA) programs, but successfully serves as a means to engage community leaders, leverage the involvement of the private sector, and establish a strategic blueprint for regional collaboration. The CEDS provides the capacity-building foundation by which the public sector, working in conjunction with other economic actors (organizations, individuals, firms, industries), creates the environment for regional economic prosperity.

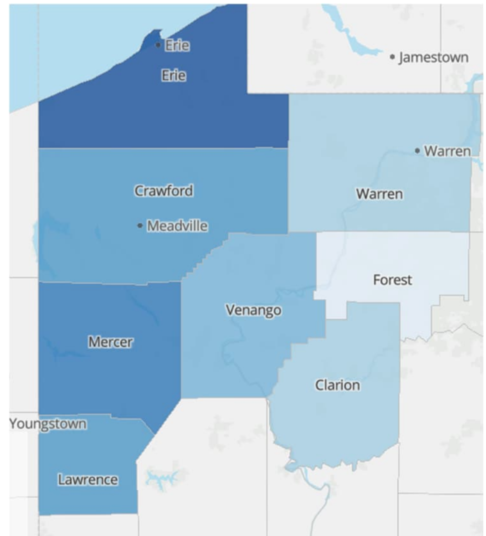
The Northwest Commission serves as a regional-based resource for business and economic development as well as community development and planning. Comprised of a team of skilled professionals, the non-profit agency is dedicated to sustaining the economic vitality and growth of the region by offering both free and low-cost services. This is achieved through fostering local, state, and federal partnerships across public and private sector lines. A variety of programs are offered including government contracting, international marketing, business financing, transportation, and grant services.

Other organizations that might be involved are workforce development and education institutions, local governments, state governments, utility companies, community foundations, and convention and visitors bureaus. Ultimately, economic development success depends on everyone in a community working together to establish a vision and accomplish goals. Even individuals that have nothing to do with an EDO can affect change by being positive spokespersons and volunteering in positive community improvements.

The Northwest Pennsylvania region is served by the Commission and the CEDS includes the following counties:

- Clarion County, PA
- Crawford County, PA
- Erie County, PA
- Forest County, PA
- Lawrence County, PA
- Mercer County, PA
- Venango County, PA
- Warren County, PA

Northwest Pennsylvania Region



Color-coding shows the density of jobs by county; darker colors indicate more jobs versus other counties.

The planning process was led by [EY Economic Development Advisory Services]() under the leadership of the Northwest Commission by Dr. Tammy Dulaney, EDA/ARC Program Manager.

The Process

Our process for completing this CEDS was multi-pronged and included a community economic & demographic assessment, a community survey, focus groups and interviews, and an Advisory Committee meeting for oversight and feedback. Our process began in April 2021 and was completed in nine months by December. All meetings and conversations were conducted virtually due to pandemic conditions.

CEDS Planning Process

April May June July Aug	Phase 1 Project kickoff Review client information and background materials Strategy committee meetings 1& 2 Focus groups & interviews Distribute & analyze community survey Economic & demographic assessment SWOT analysis
Sept Oct Nov Dec	Phase 2 Strategy committee meeting 3 Focus groups & interviews Vision creation Goals & objectives Action plan Final presentation/Strategy committee meeting 4

Focus Groups were conducted during a two-day "virtual trip" on July 20-21. Focus groups were constructed according to the following topics:

- Entrepreneurship and small business
- Business climate and industry diversification
- Higher education and workforce development
- Social non-profits focused on disadvantaged populations
- Broadband availability and access

- Quality of life and tourism
- Young professionals and college students

Interviews were conducted throughout the project with major employers, key institution leaders, entrepreneurs, and implementation partners.

Advisory Committee Representation

The project was overseen by an Advisory Committee consisting of representatives from each county, meeting four times across the duration of the planning process. Committee members included:

County	Organization	First	Last
Clarion	Clarion County Economic Development Corporation	Jarred	Heuer
Crawford	County Commissioner	Francis	Weiderspahn
Crawford	Planning Director	Zach	Norwood
Crawford/Venango	CATA	Tim	Geibel
Erie	County Planner	Honey	Stempka
Erie	Superintendent	Dr. Michelle	Hartzell
Forest	Forest County Schools	Amanda	Hetrick
Lawrence	Lawrence County Economic Development Corporation	Linda	Nitch
Lawrence County	Lawrence County Department of Planning and Community Development	Amy	McKinney
Mercer	Greenville Reynolds Development Corporation	Brad	Gosser
Mercer	OhanaLink Technologies	Tom	McKinley
Regional	IU6 Assistant Executive Director	Matt	Laverde
Regional	Northwest Commission	Jill	Foys
Regional	Northwest Commission	Dr. Tammy	Dulaney
Regional	Northwest Commission	Shana	Smith
Regional	NPRC	Dr. Aldo	Jackson
Regional	Oil Region Alliance	John	Phillips
Regional	Steel Valley Authority	Deb	Lutz
Regional	West Central Job Partnership/Mercer/Lawrence	Eric	Karmecy

County	Organization	First	Last
Venango	Franklin Industrial & Commercial Development Authority	Deb	Eckelberger
Venango	Planning Commission	Jason	Ruggiero
Venango	Venanago County Commissioner	Albert "Chip"	Abramovic
Venango	Venango County Chamber	Susan	Williams
Warren	Warren County Chamber	Jim	Decker
Warren	Warren County Planning Commission	Dan	Glotz

We would like to express our sincere gratitude for their leadership and input on this CEDS process.

Implementing this Strategy

The most effective means to catapult the region moving forward is to capitalize on the coordination of leadership in the region. In particular, federal grant pursuits will require more intentional partnerships in order to produce high-quality proposals for high-impact, regional projects.

Unlike previous CEDS, the significant new federal funding now available for economic recovery provides a rare opportunity to "expand and operationalize" more regional initiatives, from traditional economic development to new efforts in workforce training and attraction, broadband development, and small business support.

Collectively, leaders have the opportunity to identify local gaps in service that are common in larger metros (e.g. web platforms to business services) and fill them in a cooperative, regional way. Rather than try to do more of what has been traditionally done in economic and workforce development, leaders can seek to create new projects that take multiple leaps forward. Ultimately, Northwest Pennsylvania seeks to catch-up to its competitors and then exceed them

As describe further in the Implementation section of this CEDS, a Regional Economic Leadership Team should be formed from the Advisory Committee of this CEDS. From this group, Priority Projects should be identified from the numerous strategies presented in this CEDS which can be implemented by custom-built Action Teams. Finally, a Funding Research Team should be formed to identify the full range of federal, state, and philanthropic funding programs, share this information across the region, and produce a regional approach in funding pursuits.

Research: Key Findings

In addition to focus groups, interviews and committee input, the consulting team conducted a survey of community residents and businesses. The survey was distributed by the Northwest Commission, the Advisory Committee members, and local partners.

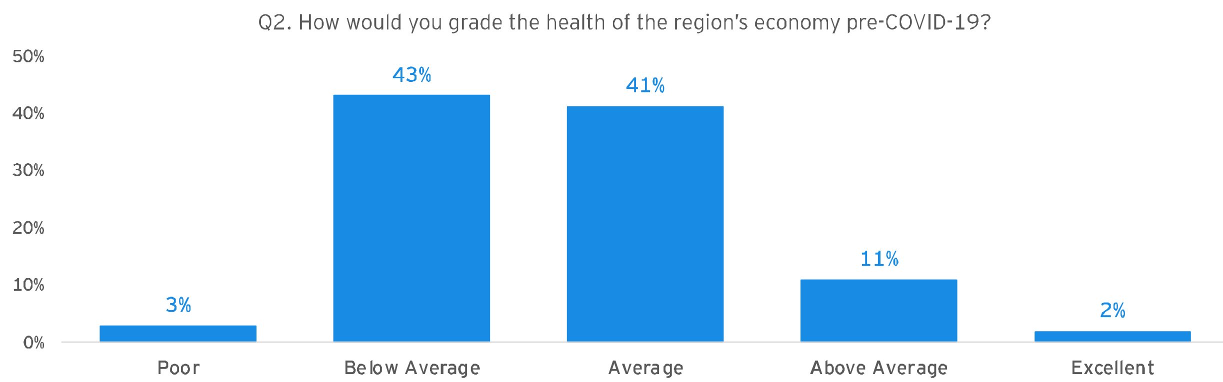
In addition, the consulting team prepared an Economic & Demographic Assessment of data to inform conversations.

Key findings from this research are provided in this section of the CEDS. The full reports are provided in an Appendix.

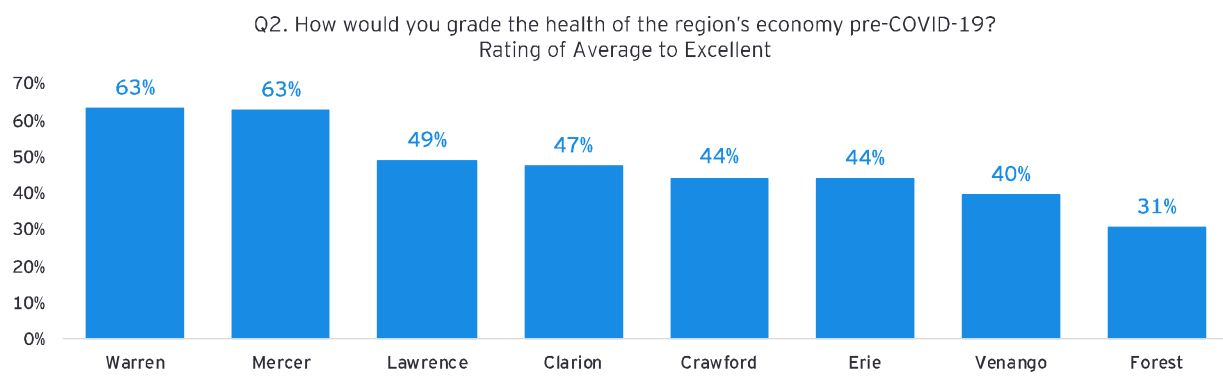
Community Survey: Key Findings

Over 300 survey responses were collected during June-July in 2021. Survey respondents were largely representative of the region's population; the share of respondents by county was largely aligned with the 2019 percentage share of population by county. Erie County had the largest share of respondents while Forest County had the lowest share of respondents.

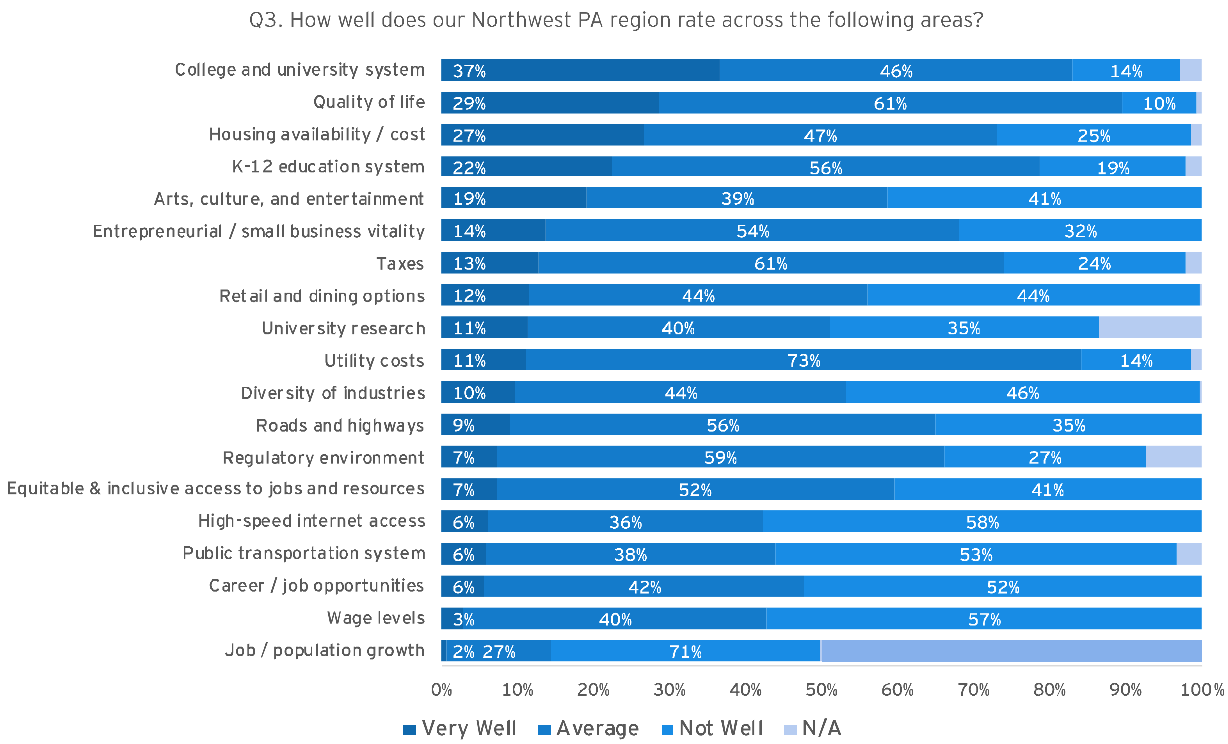
When asked "How would you grade the health of the region's economy pre-COVID-19?", over 88% of respondents felt that the region's economy pre-COVID-19 was average or below.



County-level responses show that economic development needs are highly varied across the region:



When asked “How well does our Northwest PA region rate across the following areas?”, respondents had favorable ratings for education, quality of life, housing and culture. The topic of most concern related to job/population growth, broadband access, wage levels, public transport, and job opportunities.



“

Our region offers the potential for solid employment and quality of living.

Responses varied by county:

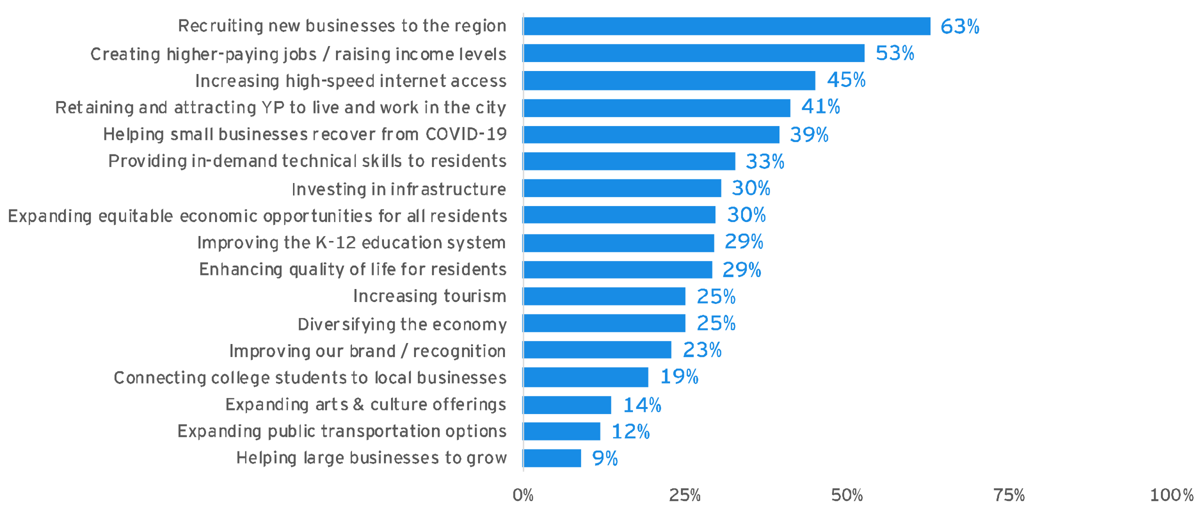
Q3. How well does our Northwest PA region rate across the following areas?

Average to Very Well

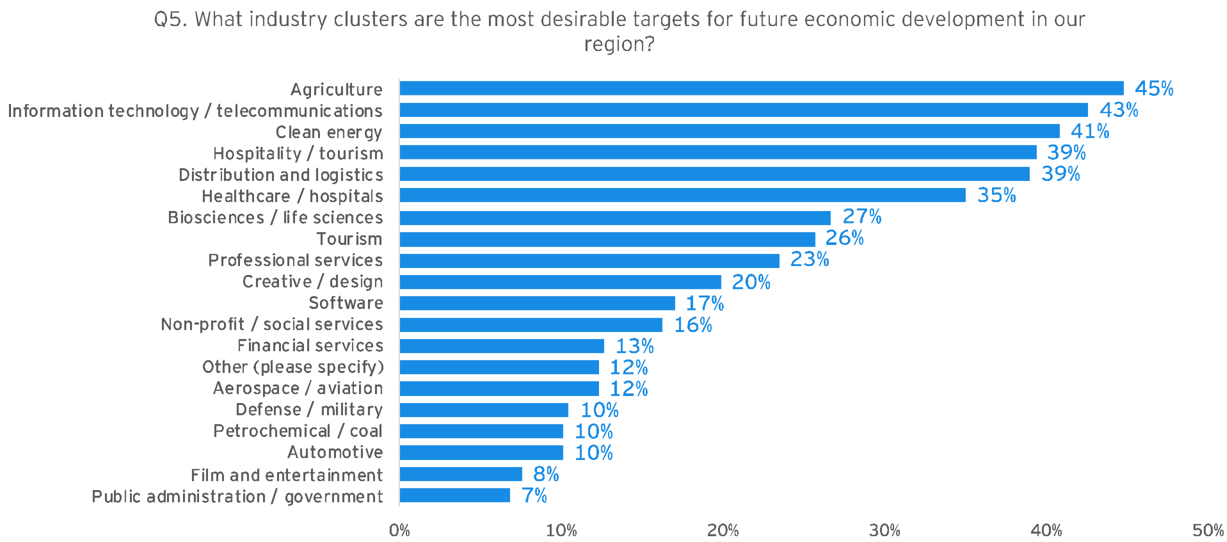
	Clarion	Crawford	Erie	Forest	Lawrence	Mercer	Venango	Warren
College and university system	84%	79%	90%	67%	86%	93%	81%	53%
Quality of life	89%	98%	92%	85%	81%	86%	95%	79%
Housing availability / cost	63%	67%	75%	75%	84%	86%	67%	53%
K-12 education system	89%	86%	56%	69%	76%	98%	86%	68%
Arts, culture, and entertainment	37%	53%	84%	46%	50%	47%	67%	58%
Entrepreneurial / small business vitality	53%	55%	72%	58%	64%	70%	88%	63%
Taxes	79%	71%	73%	100%	64%	79%	81%	53%
Retail and dining options	37%	42%	90%	31%	45%	60%	53%	53%
University research	39%	44%	64%	46%	55%	66%	38%	26%
Utility costs	89%	90%	86%	69%	77%	79%	95%	74%
Diversity of industries	26%	40%	52%	46%	56%	69%	60%	53%
Roads and highways	79%	68%	66%	85%	58%	63%	60%	58%
Regulatory environment	63%	53%	71%	50%	64%	77%	64%	68%
Equitable & inclusive access to jobs & resources	68%	51%	33%	62%	62%	81%	65%	58%
High-speed internet access	21%	23%	46%	38%	70%	53%	26%	37%
Public transportation system	32%	40%	51%	31%	56%	28%	42%	63%
Career / job opportunities	37%	37%	40%	46%	60%	58%	42%	53%
Wage levels	47%	30%	22%	42%	65%	60%	30%	42%
Job / population growth	26%	24%	31%	15%	24%	38%	26%	21%

When asked "What should be our region's top economic development priorities for the next five years?", respondents indicated recruiting new businesses, creating higher paying jobs, and increasing broadband access:

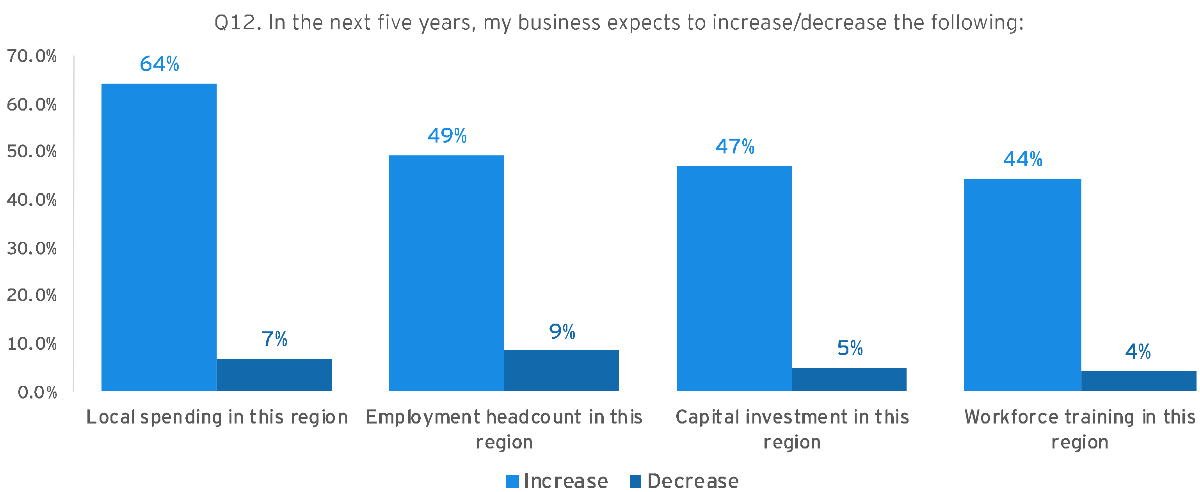
Q4. What should be our region's top economic development priorities for the next five years?



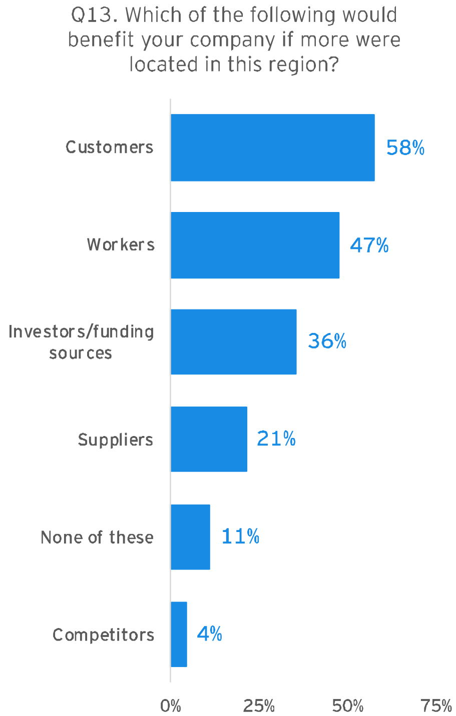
When asked, “What industry clusters are the most desirable targets for future economic development in our region?”, respondents indicated that their top targets are: Agriculture, Clean energy, Distribution and logistics, Hospitality / tourism, and Information technology / telecommunications.

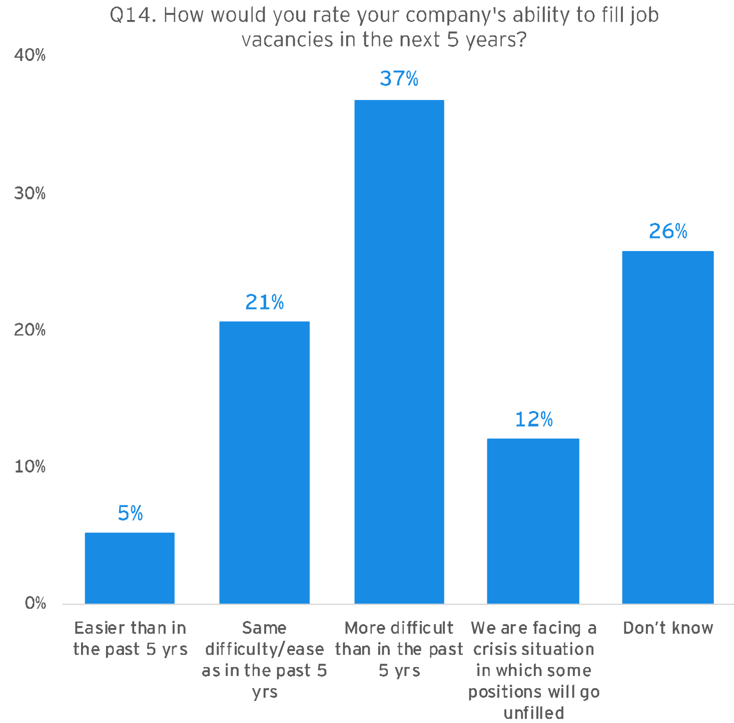


Business respondents expressed optimism for the future. They indicated a strong desire to increase spending, headcount, and training:

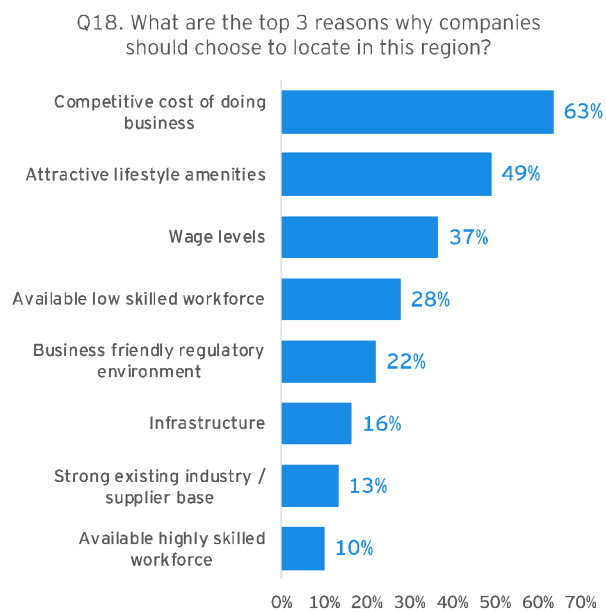


Still, employers expressed a significant concern over the availability of workers:





When asked to choose the top 3 reasons to locate in the region, businesses emphasized costs, wage levels, and lifestyle amenities:



Economic & Demographic Assessment: Key Findings

The CEDS process began with an economic and demographic analysis of the region to provide a complete picture of the trends impacting the region currently as well as historically. Datasets for the analysis included the following:

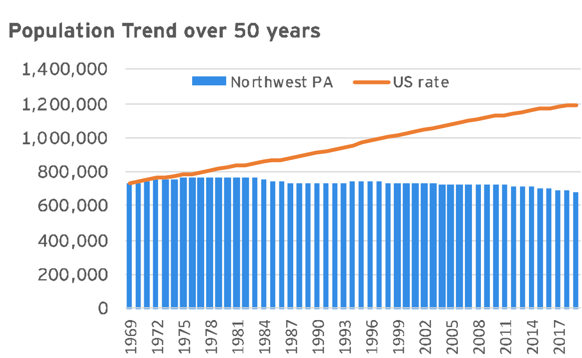
- Population demographics (growth, age, racial composition)
- Household and per capita income levels
- Educational attainment by age
- Enrollment and graduate output at regional post-secondary education institutions
- Employment by industry sector
- Employment by industry clusters and occupation clusters

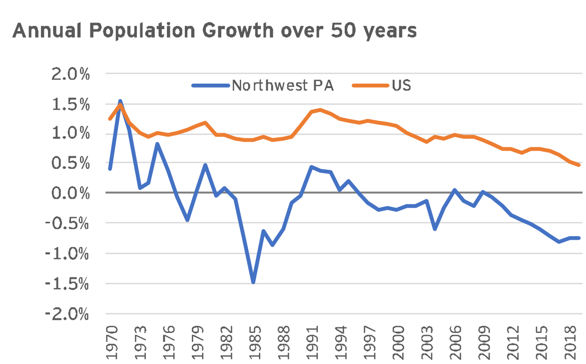
Analysis was conducted for the 8-county region with county breakdowns for some metrics. County-level Economic and Demographic Profiles are provided in a separate section.

The Economic & Demographic Assessment served as a foundation to inform community conversations around strengths and weaknesses as well as informing strategies for future economic development.

Population Growth

- The region's population continues a multi-decade, slow decline. Population losses have accelerated in the last 5 years.





- Erie County comprises about 40% of the 8-county region and enjoys more modest rates of decline than other counties. Venango, Mercer and Lawrence counties' population declined fastest in the last 10 years. Statewide population growth is positive and about one-quarter of US growth rates.

Population by County
2009 v. 2019

	Population 2019	Total % Growth 10-year	Net New Pop. 10-year
Clarion County, PA	38,438	-2.7%	-1,068
Crawford County, PA	84,629	-4.4%	-3,866
Erie County, PA	269,728	-3.5%	-9,917
Forest County, PA	7,247	3.2%	228
Lawrence County, PA	85,512	-5.0%	-4,476
Mercer County, PA	109,424	-5.8%	-6,770
Venango County, PA	50,668	-6.5%	-3,510
Warren County, PA	39,191	-3.4%	-1,393
Northwest PA	684,837	-4.3%	-30,772
Pennsylvania	12,802 K	1.6%	200 K
U.S.	328,240 K	7.0%	21,583 K

Population by Age

- The region's population is over-represented for persons nearing or entering retirement, while younger and mid-career workers are under-represented.
  - Variations in birth rates and international migration are causing significant changes in the US, as the smaller Gen X population moves toward retirement and Baby Boomers age: two out of every three people added to the US population in the last 10 years are 65 years or older.
  - Northwest Pennsylvania added 23,000 retirees to its population versus losing 54,000 people under the age of 65 (in 10 years).
  - The region is losing most ground in the 40-54 year-old population.

Population Pyramid
Northwest PA

	Population 2019	New Pop. '09-'19	% Growth '09-'19	US Comp / Gap	15pt.
All ages	684,837	-30,772	-4.3%	7.0%	
0-4	36,218	-3,844	-9.6%	-7.8%	
5-9	36,788	-4,015	-9.8%	-1.9%	
10-14	39,492	-3,967	-9.1%	4.2%	
15-19	44,773	-9,227	-17.1%	-2.7%	
20-24	43,011	-5,787	-11.9%	-0.2%	
25-29	41,164	-82	-0.2%	8.7%	
30-34	39,583	1,091	2.8%	13.4%	
35-39	38,286	-3,771	-9.0%	6.3%	x
40-44	36,329	-10,259	-22.0%	-4.6%	x
45-49	40,693	-12,043	-22.8%	-10.2%	
50-54	44,308	-11,959	-21.3%	-5.4%	x
55-59	49,739	-1,032	-2.0%	15.7%	x
60-64	52,284	10,817	26.1%	30.1%	
65-69	45,781	13,053	39.9%	47.7%	
70-74	34,919	8,795	33.7%	55.0%	x
75-79	25,196	2,870	12.9%	31.4%	x
80-84	17,107	-2,337	-12.0%	8.1%	x
85-	19,166	925	5.1%	16.7%	

- Within counties, Erie County's population is the most age-diverse and has a high share of working-age adults.
- Working-age share fell in all counties (with the exception of Clarion County) as well as for Pennsylvania and the US.
    - As people live longer, fewer workers are available to support the economy and retiree populations, which can cause labor shortages.
        - Warren and Venango have 40% more people in retirement than the US, for example.
    - The age group 25-44 has about 15% fewer persons in the region than typical at the US level.

Population by Age Group
2009 v. 2019

	% 25-64 Year Olds 2019	Pt. Change 10-year	Location Quotient (Local Share of US Share) 0-14	15-24	25-44	45-64	65+
Clarion County, PA	48.1%	0.8%	0.84	1.24	0.81	1.04	1.23
Crawford County, PA	49.4%	-2.3%	0.91	0.97	0.82	1.09	1.29
Erie County, PA	50.5%	-1.4%	0.94	1.03	0.91	1.03	1.13
Forest County, PA	55.5%	-2.3%	0.37	1.15	1.10	1.02	1.38
Lawrence County, PA	49.6%	-1.9%	0.88	0.89	0.82	1.09	1.37
Mercer County, PA	49.1%	-1.7%	0.83	1.02	0.79	1.10	1.35
Venango County, PA	51.1%	-1.9%	0.84	0.79	0.80	1.18	1.40
Warren County, PA	50.3%	-3.1%	0.86	0.79	0.78	1.16	1.43
Northwest Pennsylvania	50.0%	-1.7%	0.89	0.99	0.85	1.08	1.26
Pennsylvania	51.8%	-1.0%	0.92	0.96	0.94	1.05	1.14
U.S.	52.1%	-0.7%	1.00	1.00	1.00	1.00	1.00

Educational Attainment

- The region's education levels for the working-age population are below US levels but improving.
    - In total, 54% of working-age adults have post-secondary education and 28% have a Bachelor's degree or higher.
    - Younger workers 25-34 years old are closing the gap with the US with 33% having a Bachelor's in the region with Erie County having the highest rate (39%).

Educational Attainment, 2019
Adults, 25-64 Year-Olds

	Bachelor's or Higher	5-year Pt. Chg.	Assoc./Some College	5-year Pt. Chg.	HS or Higher	5-year Pt. Chg.
Clarion County, PA	24.4%	+2.6%	23.4%	-1.1%	91.7%	+0.1%
Crawford County, PA	24.6%	+2.1%	23.3%	-0.8%	90.2%	-0.6%
Erie County, PA	31.4%	+1.1%	26.2%	+2.2%	91.5%	-0.7%
Forest County, PA	6.4%	-1.8%	15.5%	-7.9%	81.9%	-1.0%
Lawrence County, PA	24.1%	+3.1%	28.5%	-1.9%	93.4%	+0.3%
Mercer County, PA	25.4%	+1.8%	26.5%	+0.2%	90.2%	-0.5%
Venango County, PA	19.8%	+2.3%	25.5%	-1.3%	92.2%	+0.2%
Warren County, PA	21.4%	+0.9%	30.5%	+2.6%	94.2%	+0.8%
Northwest PA	28.1%	+1.7%	26.2%	+0.7%	91.3%	-0.5%
Pennsylvania	34.9%	+3.1%	25.6%	-0.4%	92.1%	+0.7%
U.S.	34.6%	+3.1%	29.3%	-1.2%	89.5%	+1.2%

- High school graduation levels in the region exceed US levels for all working-age adults as well as 25-34 year-olds.

Educational Attainment, 2019

25-34 Year-Olds

	Bachelor's or Higher	5-year Change	Assoc./Some College	5-year Change	HS or Higher	5-year Change
Clarion County, PA	30.0%	+4.3%	27.8%	-1.7%	92.5%	+1.6%
Crawford County, PA	28.3%	-1.7%	20.6%	-5.5%	87.3%	-4.0%
Erie County, PA	39.1%	+5.8%	27.4%	+5.0%	94.1%	+3.4%
Forest County, PA	2.0%	-3.5%	16.6%	-6.8%	74.8%	-3.9%
Lawrence County, PA	23.8%	-7.5%	32.5%	-0.8%	92.7%	+0.8%
Mercer County, PA	25.4%	-4.2%	27.8%	-0.8%	89.4%	+2.8%
Venango County, PA	23.6%	+4.1%	26.2%	-6.0%	93.6%	+1.3%
Warren County, PA	27.0%	-2.8%	29.9%	+0.5%	91.9%	-0.1%
Northwest PA	32.9%	+0.9%	27.3%	+1.7%	92.1%	+1.8%
Pennsylvania	40.0%	+2.8%	25.9%	-0.6%	93.1%	+2.0%
U.S.	36.9%	+3.5%	30.3%	-1.4%	91.7%	+2.5%

Income Growth

- Per capita income levels are growing but still only reach about 78% of US levels.
- The region's per capita income has been steadily losing ground against the US for the past 10 years.

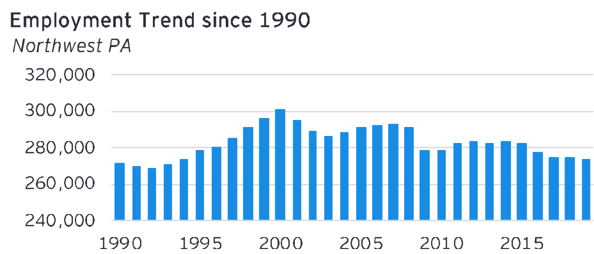
Per Capita Income and Median Household Income Trends

2009 v. 2019

	Per Capita Income, 2019	10-year % Growth	Med. HH Inc. '19	10-year % Growth
Clarion County, PA	$42,281	26%	$49,173	29%
Crawford County, PA	$42,237	42%	$49,741	30%
Erie County, PA	$46,379	39%	$51,923	22%
Forest County, PA	$24,113	19%	$41,267	24%
Lawrence County, PA	$45,252	39%	$50,979	20%
Mercer County, PA	$43,682	39%	$54,099	26%
Venango County, PA	$43,822	34%	$53,619	46%
Warren County, PA	$43,401	30%	$52,592	31%
Northwest PA	$44,470	38%	$51,815	26%
Pennsylvania	$58,032	44%	$65,642	28%
U.S.	$56,490	44%	$65,712	31%

Job Growth

- Cycles of growth and decline in employment levels have occurred over the last 20 years.



- Job growth dynamics vary widely by industry.
- The Construction industry created jobs, as did Health Care and Other Services.
- Most job losses have been in the broad Trade, Transportation, and Utilities industry.
- Small but high-growth emerging clusters are in Aerospace, Research, and Software/IT (see Appendix for more detailed sub-cluster analysis).

Employment by Industry
Northwest PA

	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	2,329	-3.6%	7.3%	-464	828
Construction	9,738	1.7%	1.0%	790	450
Manufacturing	47,089	-1.2%	-6.2%	-2,970	-18,734
Trade, transportation, and utilities	48,114	-1.6%	0.3%	-4,172	758
Information	2,070	-3.9%	-8.9%	-454	-1,500
Financial activities	11,889	-0.2%	1.4%	-97	796
Professional and business services	18,089	-1.3%	4.2%	-1,232	3,566
Health Services & Priv. Ed.	59,970	0.2%	7.7%	607	18,375
Leisure and hospitality	28,102	0.0%	3.4%	26	4,371
Other services	10,302	0.5%	2.4%	264	1,131
Government	34,475	-0.8%	-0.9%	-1,459	-1,713
Total, all industries	273,242	-0.7%	0.7%	-9,432	9,205

- The economy continues to shift to higher skilled positions for the most part. (see Appendix for more detail on occupational demand trends).
- Medical fields are high-demand and Science and Engineering positions are growing.
- Lower skill positions in truck driving are still experiencing high-demand.
- Financial and Business occupations are also experiencing modest growth

Each county was provided its own Economic & Demographic snapshot, as shown below:

Economic Profile

Clarion County, PA

Clarion County experienced sustained growth from 1990 through 2005, reaching a peak employment of 15,100 jobs. But by 2019, the employment base fell to 12,900 jobs – about the same number of jobs 40 years prior. Health Services, Trade/Transp./Utilities and Government are the largest employers in the county. Some industries registered modest growth in the past 5 years: Construction, Leisure and Hospitality, and Manufacturing (the only county in the region that increased its manufacturing base). Natural Resources & Mining and Government registered the largest loss in jobs between 2014 and 2019.

Employment by Industry
Clarion County, PA

	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	219	-15.3%	4.6%	-284	101
Construction	585	0.9%	6.9%	25	159
Manufacturing	1,446	0.3%	-9.4%	25	-905
Trade, transportation, and utilities	2,408	-0.7%	-3.5%	-86	-484
Information	77	-5.5%	0.8%	-25	4
Financial activities	432	-0.7%	1.8%	-16	39
Professional and business services	473	-0.4%	7.2%	-9	142
Health Services & Priv. Ed.	2,810	-1.1%	14.0%	-155	1,422
Leisure and hospitality	1,441	0.6%	2.7%	45	176
Other services	641	1.4%	13.2%	43	276
Government	2,403	-1.7%	-1.3%	-214	-181
Total, all industries	12,934	-1.0%	1.1%	-653	751

Source: US Bureau of Labor Statistics (QCEW)

Age and Race Profile

Clarion County, PA

Clarion County's population declined by 2.7% over the 10-year period through 2019. Still, some age groups grew: the 25-34 year-old population grew much faster than the US rates, and the 60-69 year-old population grew the fastest of all county age groups. Still, populations between 35-54 years declined significantly.

With the presence of Clarion University, the population is heavily skewed toward college-aged students. Some of the high rates of growth in the 25-34 year-old population may reflect an increasing ability to retain graduates in recent years.

Clarion County is predominantly White but its population is diversifying. Individuals of Two or More Races added the most new population to the county over the past 10 years and was also the fastest-growing race group, followed by Hispanics.

Population by Race
Clarion County, PA

	Population 2019	% Share	% Growth '09-'19
All Races	38,438		-2.7%
White	36,835	95.8%	-3.6%
Black	457	1.2%	-1.9%
Hispanic	419	1.1%	40.6%
Asian	261	0.7%	37.4%
Nat. Am./Pac. Isl.	68	0.2%	-6.8%
Two or More Races	398	1.0%	51.3%

Source: US Census (Population and Housing Unit Estimates)

Population Pyramid
Clarion County, PA

	Population 2019	LQ '19	New Pop. '09-'19	% Growth '09-'19	US Comp
All ages	38,438		-1,068	-2.7%	7.0%
0-4	1,978	0.86	-18	-0.9%	-7.8%
5-9	1,977	0.84	107	5.7%	-1.9%
10-14	1,996	0.82	-218	-9.8%	4.2%
15-19	2,876	1.17	-526	-15.5%	-2.7%
20-24	3,316	1.31	-1,265	-27.6%	-0.2%
25-29	2,267	0.82	401	21.5%	8.7%
30-34	2,189	0.83	322	17.2%	13.4%
35-39	1,950	0.77	-240	-11.0%	6.3%
40-44	1,900	0.81	-478	-20.1%	-4.6%
45-49	2,257	0.94	-485	-17.7%	-10.2%
50-54	2,450	1.02	-380	-13.4%	-5.4%
55-59	2,719	1.06	66	2.5%	15.7%
60-64	2,767	1.15	584	26.8%	30.1%
65-69	2,542	1.24	670	35.8%	47.7%
70-74	1,832	1.12	153	9.1%	55.0%
75-79	1,410	1.25	97	7.4%	31.4%
80-84	1,023	1.38	54	5.6%	8.1%
85-	989	1.28	88	9.8%	16.7%

Strengths, Weaknesses, Opportunities & Threats

SWOT Key Findings

The following pages contain a detailed summary of Northwest Pennsylvania's strengths and weaknesses as well as the opportunities and threats faced by the region. Key findings reflect input by the Advisory Committee, focus groups, interviews, and original research conducted by the consulting team.

This SWOT is broken down into five (5) categories: Business Climate & Industry, Workforce & Education, Infrastructure, Entrepreneurship & Innovation, and Quality of Life & Tourism.

Across those categories, some recurring themes emerge, as follows:

- A high quality of life – including the relatively low cost of living and doing business – is one of the region's greatest assets. K-12 education, quality of life, cost of living, and culture were four of the five highest rated attributes of NWPA by survey respondents. Quality of life and access to the outdoors were mentioned as assets in every interview and focus group conducted. A majority of surveyed business leaders also rated the cost of doing business and lifestyle amenities as the top attractions for companies in the region.
- Many of the region's weaknesses are the result of demographic trends. An aging workforce and declining population create challenges for businesses seeking to fill vacancies. Continued aging of the workforce and decline in population generally could escalate the cost of services and decrease their quality, which could undermine the region's strengths in quality of life if left unchecked.
- Access to the assets that will spark and sustain economic growth are unevenly spread throughout the region, and the COVID-19 pandemic will have exacerbated inequalities. Interviewees and focus group participants noted that outside Erie, the region lacks arts or cultural attractions, and that for many cultural amenities, Pittsburgh is the closest location. Broadband infrastructure is unevenly developed, with little investment occurring in less densely populated areas. Not all areas of NWPA have the transportation infrastructure that can support larger businesses' market access requirements.
- Stoking the region's entrepreneurial culture could provide a sustainable pathway to long-term wealth creation for the region, but access to capital is a challenge for start-ups and small businesses. Erie has a robust entrepreneurial support ecosystem, and the region relies on small businesses

for a majority of its jobs. Focusing resources on entrepreneurial support and access to capital could reduce smaller communities' reliance on a single large business or industry for its jobs while retaining communities' character and quality of life.

- Similar to national trends, middle skill positions (requiring Certificates or Associate's) are difficult to fill. A realignment that would guide more young people into trades or two-year degree programs could remedy NWPA's workforce challenges. Even with the creation of the Northern Pennsylvania Regional College (NPRC) and the newly formed Erie County Community College (EC3PA), the region remains underserved by post-secondary vocational training institutions and community colleges. Although the region has a network of public and private human resource and training assets, business leaders report that this system does not provide a relevant curriculum that is responsive to business needs.
- Supporting currently strong industry clusters could promote new industry growth and increase employment opportunities. A coordinated, regional focus on developing already-present regional occupation clusters could create momentum in existing areas of strength, while also linking available and displaced workers to employment and entrepreneurship opportunities.

The overall findings of the SWOT lay a foundation of strengths on which NWPA can build future economic development opportunities. They should also help identify and prioritize strategic actions to address local challenges going forward.

Venango County, PA

Business Climate & Industry

Strengths

1. The region is affordable for business and offers a climate and lifestyle that is attractive to workers.
   - 63% of survey respondents who own or manage businesses cited cost as a benefit of being in NWPA, the most of any attribute.
2. NWPA offers businesses regional and national connectivity to major markets.
   - Some, but not all, areas of NWPA have strong connections to regional and national markets through NWPA's transportation infrastructure, and the region is near major metro centers in Pittsburgh, Cleveland and Buffalo.
3. Health Care and other industries are experiencing promising growth.
   - The region boasts a growing, large industrial cluster in Health Care, as well as mid-sized clusters in Construction, Finance and Professional Services. Small but high-growth emerging clusters are in Aerospace, Research, and Software/IT.
4. Manufacturing remains a core industry and employer across the region.
   - Manufacturers provide 17% of all jobs in the region and above-average salaries, and per-capita concentrations are high in numerous production clusters: Agribusiness & Food, Energy, Industrial Machinery, Materials, and Metalworking.
     - Still, a slow decline in jobs in manufacturing reflects a long-standing national trend.

Weaknesses

1. Pennsylvania's business climate has a negative reputation and perception.
   - It is difficult to objectively measure the business climate in a community, but interviewees, focus group participants, and survey respondents highlighted a common perception that Pennsylvania is not a business-friendly state, particularly for medium-to-large-sized businesses, in relation to other competitor states.
   - Anecdotally, these perceptions are often based on regulations around the environment and taxes. Small businesses also face challenges in NWPA, but relative to other similarly situated regions, those challenges are not abnormal.

2. Businesses find it difficult to recruit workers.

- An aging workforce and relatively low population growth challenge businesses in filling vacancies. Population losses have accelerated in the last 5 years. The population in Northwest Pennsylvania currently stands at 685,000 after shrinking over 4% in the last 10 years.
  - Forest County has the highest share of working age population (as a % of total population), followed by Venango and Erie counties.
  - More than half of survey respondents rated NWPA as "not well" in terms of population growth.
  - Nearly 37% of survey respondents felt that their company's ability to fill job vacancies in next five years was going to be more difficult than the previous five years.

Opportunities

1. Target clusters like agriculture, clean energy and IT could be sources of economic growth.

- Target clusters provide one of the greatest opportunities for regional economic development growth. The region has an opportunity to encourage, incentivize, facilitate, recognize, and celebrate target industry clusters.
- Survey respondents rated the growing clusters of agriculture, clean energy, and IT/telecommunications as the most desirable industry clusters for NWPA to target.
- As a region with attractive culture, good schools, and an overall high quality of life, NWPA could become better positioned to grow its knowledge economy.

2. Supporting currently strong industry clusters could promote industry growth and increase employment opportunities.

- A coordinated, regional focus on developing already-present regional occupation clusters could create momentum in existing areas of strength, while also linking available and displaced workers to employment and entrepreneurship opportunities.
- Remote worker availability, particularly in IT, across the country could alleviate shortages in key technical staff for firms.

Threats

1. A major employer leaving the region would have widespread negative effects.

- In general, NWPA faces continued job losses due to downsizing or exit of companies impacted by foreign and domestic competition. With a small number of large private employers in the region, any one large employer's decision to relocate or shrink NWPA-based operations would have significant impact on the economy.

2. The plastics industry is currently strong but could see future declines due to environmental regulations and corporate ESG initiatives.

- Due in part to the local availability of raw materials, the plastics industry will continue to be an economic driver in the region, but that may be tenuous due to a risk of increased state and federal environmental regulation as well as corporations' growing environmental/sustainability/governance initiatives (ESG) to reduce plastics in the supply chain.
- Plastics manufacturers should anticipate and adapt to future demand for alternative, environmentally-friendly materials due to consumer preferences or policy changes.

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• NWPA offers businesses regional and national connectivity to major markets.
• Health Care and other industries are experiencing promising growth.
• Manufacturing remains a core industry and employer across the region</td><td>• Pennsylvania's business climate has a negative reputation and perception.
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Workforce & Education

Strengths

1. Northwest Pennsylvania has large number of postsecondary and higher education institutions.

   - NWPA is home to nearly 3 dozen institutions of postsecondary and higher education which educate residents and attract new potential residents. Branch locations of major universities are a strength, including Penn State Behrend (Erie County), Penn State Shenango (Lawrence County), and Pitt Titusville (Venango County).

2. K-12 education in the region is of above-average quality.

   - High school graduation rates (those with a HS diploma) are higher in the region (91.3%) than the US average (89.5%) but slightly below Pennsylvania's average (92.1%).
   - Residents have a favorable view of the K-12 education system in the region.

3. Demand is growing for talent in higher skilled positions in fields like Medicine, Science and Engineering.

   - The economy continues to shift to higher skilled positions. Medical field positions are in high-demand and Science and Engineering positions are growing. Lower skill positions in truck driving are still high-demand. Financial and Business occupations are also experiencing modest growth.

4. The Northern Pennsylvania Regional College will offer new programs at the certificate and associate levels.

   - This new state-funded institution will fill a gap in middle-skills education, offering online and in-person classes in multiple locations in NWPA.

Weaknesses

1. Northwest Pennsylvania lacks sufficient vocational, 2-year colleges, and similar options.

   - Even with the creation of the Northern Pennsylvania Regional College (NPRC) and newly formed Erie County Community College (EC3PA), the region remains underserved by post-secondary vocational training institutions and community colleges. Even when programs are available, low enrollment and graduation rates limit the delivery of new skilled workforce into the economy.

2. The region is home to an older and aging workforce.

- The region’s workforce is over-represented for persons nearing or entering retirement, while younger and mid-career workers are under-represented.
- Working-age share has fallen in all counties except Clarion County. As people live longer, fewer workers are available to support the economy and retiree populations, which can cause labor shortages. Warren and Venango have 40% more people in retirement than the US as a share of population, for example. The age group 25-44 has about 15% fewer persons in the region than typical at the US level.

3. Educational attainment in Northwest Pennsylvania is lower than statewide and national averages.
    - Though education levels are increasing, just 54% of working-age adults have post-secondary education (28% have a Bachelor’s degree and another 26% having some college or an Associate degree). This trails the US by nearly 10 points and Pennsylvania by 6 points.
    - Within the region, educational attainment rates are highest in Erie County, with its 31.4% Bachelor’s attainment rate. The highest Associate’s rate is in Warren County at 30.5%.
4. The region’s young worker population is undereducated compared to the US.
    - The present workforce is out of alignment with the typical educational profile favored by businesses seeking to expand. Northwest Pennsylvania’s younger working-age population (25 to 34 years) is less educated than the US and Pennsylvania at the bachelor’s level but more comparable at the Associate/Some College level.
5. Teaching at educational institutions is not always aligned with the needs of businesses.
    - Although the region has an impressive network of public and private human resource and training assets, including colleges and other post-secondary institutions, this system does not necessarily provide a relevant curriculum that is responsive to business needs.

Opportunities

1. The region’s high quality of life could make the region more attractive to freelance and knowledge workers.
    - As a region with attractive culture, good schools and an overall high quality of life, NWPA could be well positioned to grow its knowledge and freelance worker population in light of migration trends related to COVID-19.
    - Another opportunity would be to leverage this quality of life to create a coordinated effort to retain more college graduates.

2. Expanding career and technology training could direct students to local, good jobs in trades.

- Expansion of apprenticeship programs, mentoring programs, and investment in career talent pipeline initiatives (such as CareerLink) could help funnel high school graduates to lucrative and under-staffed opportunities in the trades.

Threats

1. The region's population continues to decline.

- The region is already experiencing a multi-decade population decline and an outmigration of its productive age population and youth.
- Young people graduating from high school and college could leave in even greater numbers due to lack of entry-level career opportunities.
- A population that continues to age and shrink will increase the dependent population carrying cost burden and reduce the size of productive-age workforce.

2. Economic and demographic trends could increase economic disparities even further.

- Limited job opportunities for individuals with skills and training between high school and a bachelor's degree could further increase economic disparities in the community.

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Infrastructure

Strengths

1. Transportation infrastructure for businesses is strong and the region is located near large population centers.
   - ► Some, but not all, areas of NWPA have strong connections to national rail and interstate highway infrastructure that place the region within 500 miles of a significant portion of the population of the U.S. and Canada.
2. The oil and gas resources remain an asset in the region.
   - ► The oil and gas industry, while not growing jobs in the region, remains rooted in the physical resources in the region.
3. Some of the region has the infrastructure already in place for growth.
   - ► Some, but not all, communities have infrastructure service capacities (including ground water and wastewater systems, natural gas capacity, electric service capacity, and broadband telecommunications capacity) that can sustain economic growth.

Weaknesses

1. The cost of extending services and infrastructure to sparsely populated areas is high; current infrastructure can be inadequate for growth; and building and maintaining additional infrastructure remains challenged.
   - ► Maintaining aging infrastructure in rural communities is costly to repair and maintain, and in many cases may be inadequate to supply the needs of new or expanding businesses.
2. Air service in the region doesn't meet the needs of most travelers and businesses.
   - ► There is limited passenger air service within the region; many travelers need to travel outside the region to airports. No air cargo infrastructure exists.
3. Broadband coverage is sparse and remains a challenge to expand in the future.
   - ► Broadband infrastructure is unevenly developed, with little investment in less densely populated areas. Market and regulatory forces make addressing broadband coverage difficult: a law preempting municipalities from owning internet utilities and challenging terrain discourages investment in poorly served areas, while market segmentation and other

private company behavior makes consolidating information about coverage gaps challenging.

4. Northwest Pennsylvania lacks sites and attractive real estate for new or growing businesses.
    - The region lacks high-quality, turnkey office and industrial spaces, many commercial and industrial facilities are aging, and attracting commercial new real estate investment is challenging.

Opportunities

1. Large amounts of federal funding is already or may become available for infrastructure projects, including broadband investments.
    - A surge in federal funding for infrastructure and particularly for broadband is a once-in-a-generation chance to move the needle on internet access for remote communities subject to past underinvestment.
2. Developing sites, especially shared-use facilities targeted at technology businesses, could improve product availability.
    - Encouraging the development of physical facilities geared toward technology-based businesses, especially specialized shared-use physical facilities, could offset the shortage of diverse and affordable physical space with specialized amenities.
    - Nearly half (47%) of business-owning survey respondents expect to increase capital investment in the region, which could provide a chance to improve connected assets and infrastructure.

Threats

- Maintaining aging infrastructure may prove to be challenging long-term.
    - Without adequate maintenance and reinvestment, the region's aging infrastructure could worsen, leading to even greater gaps in future funding. The cost of repairing or improving infrastructure could increase the operating costs of businesses, who could face higher taxes to fund investment.
- Poor high-speed broadband access could limit the ability to support and grow technology start-ups.
    - Lack of access to reliable broadband throughout the region could prevent many businesses from adopting new online business models.

- Small and medium-sized local businesses struggle to compete with firms in regions with better support infrastructure.
  - Small and medium sized local businesses may grow less competitive on cost compared to national and international counterparts. Without a different value proposition for customers, such as a reputation for high quality across the region, these businesses may struggle to thrive, particularly those that were harmed economically by the pandemic.

SWOT: Infrastructure	
Strengths	*Weaknesses*
• Transportation infrastructure for businesses is strong and the region is located near large population centers. • The oil and gas resources remain an asset in the region. • Some of the region has the infrastructure already in place for growth.	• The cost of extending services and infrastructure to sparsely populated areas is high; current infrastructure can be inadequate for growth; and building and maintaining additional infrastructure remains challenged. • Air service in the region doesn't meet the needs of most travelers and businesses. • Broadband coverage is sparse and remains a challenge to expand in the future. • Northwest Pennsylvania lacks sites and attractive real estate for new or growing businesses.
Opportunities	*Threats*
• Large amounts of federal funding is already or may become available for infrastructure projects, including broadband investments. • Developing sites, especially shared-use facilities targeted at technology businesses, could improve product availability.	• Maintaining aging infrastructure may prove to be challenging long-term. • Poor high-speed broadband access could limit the ability to support and grow technology start-ups. • Small and medium-sized local businesses struggle to compete with firms in regions with better support infrastructure.

Entrepreneurship & Innovation

Strengths

1. Erie has a growing entrepreneurship ecosystem and nascent start-up culture.
   - For a city its size, Erie has well-integrated resources and support organizations for entrepreneurs, including accelerators, incubators, networking groups, and specialty resources, such as sector-specific business support groups and Erie's Black Wall Street.
2. Both Erie and the region have many successful small and medium sized local businesses, which are primary drivers of local wealth creation.
   - According to the Pennsylvania SBDC, nearly 16,000 businesses employ less than 100 workers in NWPA. Nearly 98% of employers are in this category, a slightly higher percentage than the statewide average.

Weaknesses

1. Limited research and development exists in the region, and the opportunity to commercialize research is limited.
   - Lacking a large university with a dedicated technology commercialization office or major businesses with significant R&D spending, the region is limited in terms of its capacity to conduct and commercialize cutting-edge research. Businesses seem to be relatively un-networked, and transferring commercializable technologies within the private sector business community and the entrepreneurial community is not common.
2. Access to capital for entrepreneurs is limited.
   - There are few private equity capital funding resources capable of providing risk capital (e.g., angels, pre-seed funds, seed-funds, venture capital funds, micro-equity venture capital funds, non-traditional community venture capital funds, and venture debt/ venture lending organizations) to finance high-risk, high-growth entrepreneurial endeavors.

Opportunities

1. Expanding STEM education at the K-12 level could help prepare students for jobs in high-demand industries and occupations.
   - Investments in applied STEM education at the K-12 level in areas like robotics could provide high-wage potential career pathway alternatives to college and lead to more entrepreneurship with regionally significant applications to disciplines like agriculture and forestry.

2. Expanding entrepreneurial services could lead to more organic economic growth.

   - The region needs to ensure that it has sufficient structural service-delivery capacity (e.g., technical and business assistance providing capacity and funding assistance capacity) to nurture new business development.

3. If Erie's entrepreneurial ecosystem is nurtured it could lead to more small business and startup growth.

   - With continued expansion of its entrepreneurial ecosystem and infrastructure, larger counties have the potential to be a catalyst for commercialization and new business creation across the region. Anecdotally, Erie's entrepreneurial ecosystem has seen an increase in start-ups leading up to and through the pandemic, but many entrepreneurs could use more formal business training, and all need better access to capital to scale their businesses.

4. Specific and targeted investments in entrepreneurship across the region could increase innovation.

   - Developing a regional strategy and suite of resources for entrepreneurs could stimulate further innovation with interventions like:
     - Creating a formalized system of cluster-based entrepreneurial networks, including the scheduling of meetings (including scheduled participatory talks on specific topics as well as organized networking), provision of meeting space and encouraging and incentivizing attendance and participation, creation of mentoring and ambassador programs, and creation of virtual meeting and networking spaces.
     - Undertaking increased entrepreneurship education at all levels (e.g., primary and secondary education, colleges, and adult education).
     - Expanding and enhancing non-technical entrepreneurial and small business assistance resources and providers (e.g., business planning assistance, etc.) and business development programs, and encouraging the utilization of these assets.
     - Improving regional business capital market accessibility, through creation and expansion of various stage private and community venture capital funds, expansion of revolving loan fund capitalization, increased utilization of loan guarantees to leverage commercial bank financing, and assistance to businesses with accessing private and public funding sources

Threats

1. Northwest Pennsylvania is not perceived as an innovation hub.

- Innovators and entrepreneurs may relocate to other regions perceived as more friendly or facilitative to their development activities, or which offer greater technical, financial or workforce resources and incentives or less costly operating environments.

2. Locally owned businesses may be threatened or negatively impacted by inadequate preparation for succession or transition.

- As founders of locally owned start-ups age and the region struggles to retain college-bound youth, small businesses require support in succession planning that will sustain the enterprise past the current generation of ownership.

SWOT: Entrepreneurship & Innovation	
Strengths	*Weaknesses*
• Erie has a growing entrepreneurship ecosystem and nascent start-up culture. • Both Erie and the region have many successful small and medium sized local businesses, which are primary drivers of local wealth creation.	• Limited research and development exists in the region, and the opportunity to commercialize research is limited. • Access to capital for entrepreneurs is limited.
Opportunities	*Threats*
• Expanding STEM education at the K-12 level could help prepare students for jobs in high-demand industries and occupations. • Expanding entrepreneurial services could lead to more organic economic growth. • If Erie's entrepreneurial ecosystem is nurtured it could lead to more small business and startup growth. • Specific and targeted investments in entrepreneurship across the region could increase innovation.	• Northwest Pennsylvania is not perceived as an innovation hub. • Locally owned businesses may be threatened or negatively impacted by inadequate preparation for succession or transition.

Quality of Life & Tourism

Strengths

1. Compared with larger metropolitan areas, NWPA is affordable for residents and offers a high quality of life.
    - K-12 education, quality of life, cost of living, and culture were four of the five highest rated attributes of NWPA by survey respondents, and the quality of life and access to the outdoors were mentioned as assets in every interview and focus group conducted.
2. The region's tourism assets include many natural and man-made tourism destinations, recreational, and cultural assets.
    - Attractions including a national forest and the Oil Heritage Region provide a diversity of unique, year-round attractions for different audiences.
3. The region has an attractive rural quality of life, making the region an attractive place to operate a business and raise a family.
    - The region enjoys human-scale communities in close proximity to the natural environment and low crime rates, in addition to an affordable cost of living.

Weaknesses

1. Quality of life entertainment options outside of Erie are lacking.
    - Interviewees and focus group participants noted that outside Erie, the region lacks arts or cultural attractions, and that for many cultural amenities, Pittsburgh is the closest location.
2. Rural communities need to revitalize their main streets and encourage investment.
    - Most rural communities with a declining population and legacy industries face a need to preserve and reinvigorate main streets and downtown business centers to avoid sprawl, improve quality of life, and reduce the cost of service provision. Generally, these areas need to redevelop and repair downtowns, to enhance the provision of services, to increase availability of housing stock, and to address high commercial vacancy rates in historic downtowns.
3. The region's housing market is aging, lacks variety in home types, and housing construction is slow.

- The region's housing stock has several specific weaknesses: increasing age and inadequate new construction, lack of variety of alternative types of housing options to meet varied individual tastes and requirements, increasing prevalence of manufactured and/or mobile housing, increasing conversion of large homes to apartments, affordability of rental and purchase properties, absentee ownership of rental properties, etc.

Opportunities

1. Improving quality of life could have far-reaching economic effects.
   - A focus on enhancing local retail, dining, and arts could accelerate wealth generation, improve quality of life, and attract more visitors and remote workers to spend money locally – all of which would help NWPA emerge stronger and more resilient from the COVID-19 pandemic.
2. Additional tourism development could be catalyzed through additional developments.
   - These developments could include:
     - expansion and improvement of public tourism destination facilities, recreational assets, and festivals / events;
     - encouraging and incentivizing privately owned tourism destination facilities and recreational assets;
     - revitalizing downtowns, creating special districts (e.g., arts, entertainment, specialized shopping, etc.) and improving walkability; and
     - incentivizing the expansion and improvement of the tourism, recreation, and leisure support sectors.
3. Federal funding for COVID-19 relief could be utilized in several impactful ways for retail and tourism in Northwest Pennsylvania.
   - Federal pandemic recovery funding is an opportunity to use infrastructure investment to preserve and reinvigorate main streets, encourage "smart growth", and reduce the cost of services. This could include:
     - redevelopment and repair of buildings and public spaces;
     - catalyzing commercial and services providers to locate in downtowns;
     - increasing the availability of housing stock in downtowns
     - creating and improving creative districts;
     - improving walkability and wayfinding;
     - and continuing to build on the region's success in improving the relationship within communities of the built environment and the natural environment.

4. NWPA has an opportunity to address weaknesses in the region's housing and building stock.
    - ► These weaknesses can be addressed through stimulating new construction and renovation and incentivizing increased variety of alternative types of housing options.

Threats

1. An aging population could translate to a smaller, less-available workforce and higher cost of services.
    - ► Continued aging of the workforce and decline in population generally could escalate the cost of services and decrease their quality, which could undermine the region's strengths in quality of life if unchecked.
2. Poor high-speed broadband access could limit the ability to support and attract freelance workers and acerbate economic disparities in the community.
    - ► Without widespread access to broadband throughout the region, particularly in rural areas and smaller communities, gains from technology-sector and knowledge economy growth will be uneven and focused in communities like Erie.

SWOT: Quality of Life and Tourism	
Strengths	*Weaknesses*
• Compared with larger metropolitan areas, NWPA is affordable for residents and offers a high quality of life. • The region's tourism assets include many natural and man-made tourism destinations, recreational, and cultural assets. • The region has an attractive rural quality of life, making the region an attractive place to operate a business and raise a family.	• Quality of life entertainment options outside of Erie are lacking. • Rural communities need to revitalize their main streets and encourage investment. • The region's housing market is aging, lacks variety in home types, and housing construction is slow.
Opportunities	*Threats*
• Improving quality of life could have far-reaching economic effects. • Additional tourism development could be catalyzed through additional developments. • Federal funding for COVID-19 relief could be utilized in several impactful ways for retail and tourism in Northwest Pennsylvania. • NWPA has an opportunity to address weaknesses in the region's housing and building stock.	• An aging population could translate to a smaller, less-available workforce and higher cost of services. • Poor high-speed broadband access could limit the ability to support and attract freelance workers and acerbate economic disparities in the community.

Strategic Recommendations

After considering the research findings and Advisory Committee input, the consulting team identified the follow four (4) goal areas for the Northwest Pennsylvania CEDS:

Strategies are provided for each goal area, and tactics for implementation are provided. Case studies are also shown for many of the strategies to help guide local leaders as they design new programs, enhance existing programs, or learn "what's worked" in other communities.

As described in the subsequent Implementation section of the CEDS, the Advisory Committee is envisioned to transition to become a Regional Economic Leadership Team to coordinate the prioritization of projects and implementation strategies in this CEDS. Teamwork, passion, collaboration, and communication across regional leadership will be critical to success.

Strategies: Entrepreneurship Development

1. Help small businesses recover from the pandemic and thrive in the face of future technology and demographic change.

   - Help operationalize new firms or better organize existing firms.
     - Potential Project: "Small business in a box".
   - Expand and align mentoring programs for startups.
     - Build a roster of volunteer business professionals or retirees to advise and market it through local partner channels and social media.
       - For example, a SCORE chapter is only available in a few counties (Erie, Lawrence, Venango) in the region. While services can be done virtually, requests are routed through the closest local chapter.

Mentor Programs: SCORE	• SCORE is an SBA and charitable organization that provides confidential business mentoring through its network of 10,000 mentors. • https://www.score.org
Mentor Programs: HEMP Mentor Program	• The Helzberg Entrepreneurial Mentoring Program (HEMP) was founded in 1995 by the former owner and president of Helzberg Diamonds. It is a three-year program developed for established entrepreneurs in the Kansas City region, which helps business owners take their growing companies to the next level. • HEMP's approach differs from mentoring programs in the US. HEMP focuses on helping entrepreneurs whose companies are successfully operating but need assistance navigating more mature growth phases. Expanding a company that has grown beyond the startup phase requires different expertise and a new set of guidance for a leader of a maturing business. This program helps young companies address the need for second-stage leadership skills and expertise. Qualifications include mentees' companies having at least $1 million in annual revenues and a minimum of five employees. • https://www.hempkc.org

2. Inventory entrepreneurial assets and explore key expansions and investments

- Inventory incubators, accelerators, and service providers across the region.
  - Potential Project: Create a "Startup NWPA" website with partners to provide onboarding to startups and educational programming.

Startup Web Platform: EngenuitySC's Innovate Columbia	• EngenuitySC is a business leadership-led coalition to promote innovation, competitiveness, and entrepreneurial education. • Innovate Columbia is a web platform that lets entrepreneurs filter by their stage of development (Ideation to Maturity) and needs (space to funding). • https://www.innovatecolumbiasc.com
SBIR/STTR grant proposal assistance: Innovation Partnership of Pennsylvania	• Innovation Partnership is a Pennsylvania-based consortium of economic development, business assistance, and higher education organizations that provide early-stage technology companies with free proposal writing assistance, training, and financial assistance to submit SBIR/STTR grants to federal agencies. • Phase 1 grants can be $50,000 - $250,000; Phase 2 grants are typically $750,000. • Over the last 16 years, IP has helped with 562 grant proposals that achieved a high win rate of 25%. • https://innovationpartnership.net
Ag Startup Competition: Ag Innovation Challenge	• The American Farm Bureau Federation offers a national business competition that showcases U.S. startups developing innovative solutions that address challenges facing America's farmers, ranchers and rural communities. • Launched in 2015, The Challenge was the first national business competition of its kind focused exclusively on rural entrepreneurs. • https://www.fb.org/land/ag-innovation-challenge-2022
Accelerator for Outdoor Industries and Tourism: Telluride Venture Network (previously Telluride Venture Accelerator)	• Telluride Venture Accelerator was founded in 2012 with the mission of making Telluride both a great place to live and to start a business. The TVA is a nonprofit, mentor-driven accelerator created by the Telluride Foundation, a philanthropic organization focused on improving the quality of life in Telluride, Colorado. • The TVA provides boocamps, seed funding through its Telluride Venture Fund, and a mentor-mentee matching program.

	• The TVA focuses on high-growth target clusters that support and diversify the region – Outdoor Recreation; Tourism; Natural/Organic Products; Health & Healthy Living; and Energy, Water, & Education. • https://tellurideventurenetwork.com/

3. Expand K-12 entrepreneurship programming

- Expand numerous programs already in place to teach entrepreneurship in schools.
- Identify and expand business volunteers to visit/teach in schools.
- Create (or expand) new entrepreneurship curriculum from national models and resources.

Entrepreneurship in Schools: Junior Achievement	• Junior Achievement, founded in 1919, is a well-known and global-reaching non-governmental organization, providing hand-on curriculum via a network of mentors inside the classroom. Over 3M students were served by 150,000 volunteers in 2019-2020. • https://www.jaworldwide.org
Entrepreneurship in Schools: YE Academy (Youth Entrepreneurship)	• Founded in 1991, YE provides videos and curriculum for free to educators to inspire students. • https://yeacademy.org
STEM Education in High Schools: ESTEAM / National Consortium for Entrepreneurship Education	• Funded by the Appalachian Regional Commission, ESTEAM helps middle and high school programs in a seven-state region (including 3 counties in PA) infuse Entrepreneurship into STEAM (Science, Technology, Engineering, Arts and Mathematics) initiatives. The two-year project will reach 52 counties and a potential 75 rural school districts. • The Consortium, known as EntreEd, provides curriculum and networking resources for teachers. • https://www.entre-ed.org/esteam-project

Strategies: Business Expansion, Retention, and Recruitment

1. Expand employer outreach for retention and assistance

- Expand/encourage the active engagement of those with access to Executive Pulse for BR&E efforts.
- Form Action Teams to help assist companies when needs are identified (don’t ask to help without resources for delivering).

BRE Programs: Business First Greater Richmond	• Business First is a collaborative initiative between the Greater Richmond (VA) Partnership and local governments. Several years ago, the region decided to take a regional approach to retaining and expanding industry. Local economic development professionals and trained volunteers meet with local companies to hear their needs. • Business First embraces a customer service focus in which businesses share their opportunities and concerns through a formal, shared survey questionnaire utilized by all regional partners. The information is then shared in a process at alerts organizations in the region (e.g. utilities, developers, educators, public office holders) when a company has a need that could jeopardize its presence in the region. • https://www.grpva.com

2. Target industry asset development and promotion

- Inventory available sites and buildings across the region and identify gaps in the market; approach developers to explore P3s to better serve the market.
- Bring consensus around traditional target industries (manufacturing, agriculture, education, health) to emerging industries (renewable energy, innovative materials reuse).
- Form a regional economic development marketing entity (e.g. “LocateInNWPA.com” to host information for businesses, funded by EDOs and governments.
  - Currently, corporate marketing in NWPA is being done at the local level by counties and cities. NWPA does not have a regional marketing EDO which is typical of large metros or regions served by an Economic Development District like the Northwest Commission.

External Company Recruitment: Northeast Indiana Regional Partnership	• The Northeast Indiana Regional Partnership was formed in 2006 with the purpose of building a globally competitive economy in the 11-county region. The organization's mission is to build, market, and sell Northeast Indiana. The Partnership structured its program of work to align with the mission of Build, Market, and Sell: o Build – Build global competitiveness through regional strategy implementation, industry cluster initiatives, and a certified sites program o Market – Creating an internationally recognized region through regional brand development and the "Our Story Project" targeted marketing materials and strategic international and national PR campaigns o Sell – Establish an international network of business prospects through targeted business development efforts and project management • https://neindiana.com

3. Increase access and awareness for business incentives in the region

- Inventory available local and state incentives for companies; also inventory top federal incentives (e.g. ERC from CARES Act); involve local accountants to provide quality information in exchange for referrals.
- Create a "Business Assistance Navigator" public-facing website that can help companies identify incentives and programs that fit them and their needs.
- Review incentive programs in neighboring states to identify potential new incentives to offer locally.

Erie County, PA

Strategies: Workforce Development and Education

1. Increase engagement with employers to identify workforce challenges.
   - Form Regional Sector Alliances around industries for common information sharing to WD and Education; focus on target industries (Manufacturing, Health, IT, etc.); emphasize both strategy and action across industry-education partnerships.
     - Build on the TEAM Consortium as it expands its footprint and into new industries.
   - Identify new or expand existing education programs that can be created to serve critical needs (e.g. Respiratory Techs for local hospitals).

Industry-Education Partnerships: Talent-to-Industry Exchanges, MidAmerica Regional Council, Kansas City, KS	• Talent-to-Industry Exchanges (TIEs) are replicable public/private partnerships that bring industry and education groups together to solve workforce challenges. • GradForce KC introduced the TIE concept in 2016 to address the alignment of the region's education pipeline with workforce needs in specific industries. • TIEs are regional and comprehensive, industry-led, data-driven, and action-oriented. • https://www.marc.org/Data-Economy/Workforce-Development/GradForce-KC/Talent-to-Industry-Exchanges.html
Sector Partnership Toolkit: State of Iowa	• The State of Iowa developed a comprehensive toolkit for the key milestone stages of developing a successful sector partnership, starting with Planning, Emerging, and then Sustaining. • Each stage includes detailed toolkits with training materials to help guide and assist growing sector partnerships. • https://educateiowa.gov/adult-career-and-community-college/sector-partnerships#Sector_Partnership_Toolkits_and_Resources
STEM Training in High Schools: Alamo Academies	• In 2001, Alamo Academies was formed in San Antonio to provide high school juniors and seniors the opportunity to earn industry and academic certificates that lead to high-wage jobs in local target industries. • A collaborative process takes place that includes local industry leaders who participate in the development of curriculum pathways, recruitment, and student support services. Junior and

	senior high school students are bussed to the Alamo Academy campus daily for 2.5 hours of classes. During the 2-year program, students earn 31-34 college credits at no personal cost. • Since it began in 2001, over 1,200 graduates transitioned to higher education or high-wage careers in Aerospace, Advanced Manufacturing, IT, or Health Care. • https://alamoacademies.com

2. Expand career information and workforce hiring assistance/job fairs for employers

- ► Expand career information websites to promote high-demand careers in the region's target industries.
- ► Collaborate across EDOs and Chambers to host in-person and virtual job fairs, sharing responsibility for marketing.
- ► Expand employer informational visits to middle and high schools.

Promoting Manufacturing Careers: Colorado Career Action Tools	• The State of Colorado developed an online portal that showcases advanced manufacturing jobs. It provides interactive tools to explore job types in each advanced manufacturing sector as well as detailed information about employer's education providers. • https://mfgworksco.com

3. Create or Expand Talent Recruitment Efforts, particularly for Remote Workers

- ► Consider building a "LiveinNWPA" website.
- ► Identify cities to market NWPA to remote workers via social media or ad placement.

Workforce Recruitment and Retention: Roanoke, VA Talent Website	• Roanoke created a dedicated talent website that reflects the Roanoke outdoor brand. The website showcases the region as a great place to live, work, and play. • In addition to bringing the region's outdoor recreation and other amenities to life, the website includes a job and internship portal that allows visitors to browse job openings and learn more about Roanoke's industries

	• https://get2knownoke.com/work
Workforce Recruitment: "Live in Springfield" Campaign	• The Springfield (MO) Regional Economic Partnership leads economic development efforts for the 10-county Southwest Missouri Region. It has developed robust marketing tools for both business and talent attraction. A dedicated website aims to attract people to work in the region. • https://www.liveinspringfieldmo.com
Remote Work Job Training: Digital Factory	• While no longer in operation (and ahead of its time), Parsons County, Tennessee created a "Digital Factory" to train and place rural residents in jobs that can be done online. For those without broadband Internet access, a co-working space was set up. • Job trainings included telephone customer service, programming, website design, and web content writing

4. Form a regional internship and leadership program for college students

- Too often, internship programs are city or county-based, or colleges have select relationships with employers. Regionalize an internship program.
- Create leadership training opportunities to help college students prepare for work life.

College Student Leadership Training: Roanoke, VA Summer Leadership Program	• This program was developed for college students or recent graduates in the region to develop leadership skills and advance their careers. Pre-pandemic, the program included professional development, soft-skills training, mentoring, networking, and activities for students to get to know the region, including outdoor adventure, sporting events, and social gatherings. • Post-pandemic activities focus on online programming based on the eight competencies established by the National Association of Colleges and Employers to transition from college to the workplace. • https://get2knownoke.com/experience-leadership-institute

Strategies: Infrastructure, Place, and Tourism

1. Expand broadband availability and access across the region

- Continue to collaborate across government and the private sector to identify grant opportunities and implement broadband investments
  - Potential Project: Form NWPA Broadband Coalition to maximize partners, efficiencies, and combined research efforts to pursue federal funding.

Regional Broadband Districts: East Central Vermont Telecommunications District (ECFiber)	• ECFiber is a nonprofit organization operating in East Central Vermont which services a regional coalition of Vermont. • The organization prioritizes delivering broadband at an affordable rate to underserved regions within the state. • The last mile provider currently serves 24 towns within the East Central Vermont Telecommunications District. The communication districts banded together to provide what they see as a public utility – high speed internet. • https://www.ecfiber.net/about-us/
Broadband Construction: UTOPIA (Utah Telecommunication Open Infrastructure Agency)	• UTOPIA is a coalition of 16 different cities in Utah who joined together with the common goal of deploying broadband to every business and household within their network. • The network infrastructure was originally bankrolled and paid for by the member cities. They then lease the fiber to network providers, which encourages competitive pricing across the service area. • https://www.utopiafiber.com/
Broadband Planning: Northeast Indiana Network Plan	• The Northeast Indiana Regional Partnership developed a working group which included regional chambers, government officials, local schools, universities, EDOs, and workforce groups to advocate to the state capitol for a regional solution to the digital divide. • This was a multi-county effort aimed at bringing the full force of the region to the table to focus specifically on broadband connectivity. • The working group voted on resolutions and proposals to gain a full consensus of the types of broadband projects were needed in the region. They included quantifiable damages as well as benefits whenever possible in order to bolster their efforts.

Broadband Access Analysis: Des Moines Regional Partnership data gathering	• In August of 2020, the Des Moines Regional Partnership issued an RFP for a study specifically aimed at gaining a more detailed understanding of service gaps. Federal maps of current service areas and speed is measured using census tracts and a self-reported federal form 477. They are regularly inaccurate – making it challenging to diagnose which regions are in greater need of broadband deployment. • The project selected an engineering firm familiar with stakeholder input and survey methodology to ascertain actual internet speeds. The project also prioritized digital equity to ensure a representative sample of constituents and businesses were selected across the entire rural and urban region. • The project results were combined and compared against government estimates to gain the clearest picture of broadband availability.

2. Main Street revitalization

- Consider how cities can best use CDBG, etc. funding help small stores upgrade facades and respond to the pandemic.
- Work with and expand Main Street activities and partners.

3. Brownfield remediation/site development

- Inventory brownfield sites and prioritize based on highest use; seek new funders and P3 partners to bring new product to market.

Clarion County, PA

4. Tourism development and promotion

- Expand marketing promotion of the region's tourism assets.
  - Potential project: PA Wilds Outdoor Recreation Industry Cluster Development (BBB)
- Restore the regional natural amenities through investments in conservation and restoration.
- Evaluate and identify new resource-based product opportunities that are unique to this region, sustainable for the environment, and export oriented .
  - Potential project: Agriculture-valued added products for construction

Connecting Regional Outdoor Assets for Tourism Promotion: Outdoor Knoxville	• Outdoor Knoxville is an initiative to make Knoxville's outdoor assets an economic driver for the region. The effort aims to "increase outdoor amenities, create better access to regional areas, and promote greater participation in outdoor activities." The online resource provides a comprehensive inventory of outdoor activities, venues, organizations, events, and resources in the East Tennessee region. • Outdoor Knoxville also created the Get Out and Play! Guide, a comprehensive directory of all parks, trails, and greenways in Knox and surrounding counties. An Outdoor Knoxville Adventure Center has also been established that houses the Legacy Parks Foundation, Billy Lush Board Shop, and Visit Knoxville's Visitor Outpost. Visitors can rent equipment, sign up for group outings, and obtain more information about outdoor recreation activities at the Center. Outdoor Knoxville is a division of Legacy Parks Foundation, a nonprofit organization "working to ensure that our community enjoys exceptional recreational opportunities, natural beauty and open spaces, and that these assets exist for generations to come." • Areas of focus include preserving ridges and views, connecting greenways and trails, maintaining health and access of waterways, creating recreational opportunities for the underserved, and exceeding the national average for public parks and green space. • https://outdoorknoxville.com

5. Expand affordable housing and re-investment in housing stock

- Expand new first-time buyer assistance programs; consider creating a regional CDC (Community Development Corporation).
- Fund housing restoration non-profits and encourage community volunteerism.
- Examine the barriers and costs to land development and encourage national best practices.

Implementation and Resources

On the following pages, we provide information that will help Action Teams prioritize projects from the strategies above, identify funding opportunities, coalesce partners, and produce a game plan for achieving their objectives.

Project worksheets were provided to the Advisory Committee members to begin the process of implementation. As teams are formed, they will need to answer key questions such as:

1. What problem or need do you want to solve or address?
2. What is the solution you want to build/implement?
3. What team members and partners (non-financial) do you need to help you deliver your solution?
4. How should you breakdown activities? (design/build, operations, marketing, implementation)
5. What funding do you need now and ongoing?
6. What funding partners could be approached for support?
7. What hurdles will you face in your efforts?
8. What headline(s) would you want to read in the newspaper in 2 years about your project?

During our final Advisory Committee meeting, several Priority Projects were proposed, many with overlap. Already projects have been identified and proposed for USEDA BBBRC Phase 1 funding for further development.

Regional collaborations are best done when:

- Information sharing can serve all participants better together than individually
- Grant proposals are strengthened by showing strong collaboration across a diverse set of partners and geographies (which is key to EDA grants)
- Competition is viewed externally (e.g. other communities in other states), not internally
- Combining resources and funding across the region can produce a better ROI than individually (e.g. regional websites and marketing)

Based on the above criteria, and interest in projects, this CEDS identifies the following as high priority projects for regional cooperation:

1. Broadband Development
2. Talent Recruitment and Development
3. Funding Identification

Implementing this Strategy

As mentioned in the Introduction, more coordination across the region will be needed going forward to maximize success and implementation of this CEDS. In particular, federal grant pursuits will require more intentional partnerships in order to produce high-quality proposals for high-impact, regional projects.

Unlike previous CEDS, the significant new federal funding tied to both ARPA as well as the recently passed Infrastructure and Jobs Act now available for economic recovery provides a rare opportunity to "expand and operationalize" more regional initiatives, from traditional economic development to new efforts in workforce training and attraction, broadband development, and small business support.

Collectively, leaders have the opportunity to identify local gaps in service that are common in larger metros (e.g. web platforms to business services) and fill them in a cooperative, regional way. Leaders can now seek to pursue new projects that may fall out of the traditional purview of economic development and take multiple leaps forward. Ultimately, Northwest Pennsylvania seeks to catch-up to its competitors and then exceed them.

A Regional Economic Leadership Team should be formed from the Advisory Committee of this CEDS. The already existing Commission Economic Development Committee, which is compromised of some advisory committee members, should identify priority projects which can be implemented by custom-built Action teams. Finally, a Funding Research Team should be formed to identify the full range of federal, state, and philanthropic funding programs, share this information across the region, and produce a regional approach in funding pursuits.

Key next steps include:

- Establish the Commission's Economic Development Committee as the Regional Economic Leadership Team
    - Consider expanding the committee to comprise new local leaders and leaders from the CEDS Advisory Committee, particularly those connected to key implementation items and priority projects.
    - Continue to convene as regional leaders to identify Priority Projects, coordinate resources and share leading practices. Leverage these roundtables to define shared plans and disseminate coordinated information across the region.
    - Develop a data-driven approach for decision-making as an objective way for determining future allocation of resources and time.
    - Identify and engage subject-matter experts in identified areas of recovery such as broadband, workforce and education, small business

recovery, which could provide valuable insights into existing initiatives. Create a master list of experts and participants in Priority Projects.
- Establish an information platform (such as MS Teams) to collect information, set tasks and responsibilities, and begin to collaborate on proposal development in real-time.

- Form a Regional Funding Research Team
  - Create a sub-committee focused entirely on the identification of funding opportunities, dates, and requirements.
  - Create a regional data warehouse for information that can be tapped for any future proposals by Project Teams.

Specific to funding, federal funding is available for pandemic recovery across numerous agencies. New, significant funding programs have been created, as well as pre-pandemic programs that were already in place. In addition, philanthropy funding is at its highest levels, with new philanthropists funding billions competitively across the US.

Selection of USEDA Grant Funding Opportunities

Program Name	Brief Description	Awards Information	Cost Sharing/ Matching	Applicants	Important Dates
Build Back Better Regional Challenge	Accelerating the economic recovery and build resilient economies. Transformational funding to 20-30 regions that want to grow new regional clusters or scale existing ones through planning, infrastructure, innovation, workforce development, access to capital, and more	$1 Billion Phase 1: 500,000k per cluster for technical assistance (50-60 awards) Phase 2: 25-75M (20-30 awards)	At least 80% and up to 100	Regional Coalition of private, public, and government organizations interested in supporting the same cluster	Phase 1 Deadline: October 19th, 2021 Phase 2 Deadline: March 15th 2022
Good Jobs Challenge	Build and strengthen systems and partnerships that bring together employers who have hiring needs with other key entities to train workers with in demand skills = good paying jobs. Efforts to reach historically underserved communities and geographies is encouraged. Proposals must have the following three phases: 1. System Development (establish network with partners) 2. Program Design (Develop the skills training curriculum) 3. Program Implementation (non-construction)	$500 Million Awards: Dependent upon need (25-50 awards) Phases: System Development, Program Design, or Implementation	Expects to fund 100%	System Lead entity of a regional workforce system or the Backbone Organization of a sectoral partnership as the lead applicant (EDD, Indian tribe, political subdivision, higher ed, P3)	January 26 2022
Economic Adjustment Assistance	Most flexible program - grants under this program will help hundreds of communities across the nation plan, build, innovate, and put people back to work through construction or non-construction projects dependent upon local needs. Wide	$500 Million, Coal Counties Commitment: 200 Million Awards: Dependent upon need?	Fund at least 80% and up to 100% of projects	No individuals or for profit instituions	Rolling applications (at least by March 31 2022)

Program Name	Brief Description	Awards Information	Cost Sharing/ Matching	Applicants	Important Dates
	range of technical, planning, workforce development, entrepreneurship, and public works are eligible				
Travel, Tourism & Outdoor Recreation	EDA is focused on accelerating the recovery of communities that are reliant upon travel, tourism, and outdoor recreation sectors. 510M of this funding is non-competitive state tourism grants to help states investing in marketing/infrastructure/workforce. 240M in competitive grants for communities	$750 Million State Grants (Non-competitive): 510M Competitive Community Grants: 240M	Fund at least 80% and up to 100% of projects	EDD, Tribe, Local political subdivision, Institution of Higher Ed, P3	Rolling competitive tourism grants (Apply by March 15 2022), states will be invited to apply
State Planning, Research, and Networks Program	State grant program by allocating 1M for each statewide plan with an additional 31M for investment in research to assess the effectiveness of EDAs programs	$90 Million 1M for each state/territory and 31M for research	100%, non-competitive and not necessary to report on	Governors Office	Invitation to states, researchers should apply now
Coal Communities Commitment	Allocation of 300M of the total 3B in ARP to assist communities impacted by the declining use of coal through activities and programs that support economic diversification, job creation, capital investment, workforce development, and re-employment opportunities	$100M of BBBRC $200M of EAA		Communities that can reasonably demonstrate how changes in coal economy have resulted or anticipated to result in job losses and layoffs in any coal reliant commercial sector	Rolling? No due date on site

Based on this new funding opportunities, Priority Projects can be pursued by project-specific Action Teams. An example priority project is provided below:

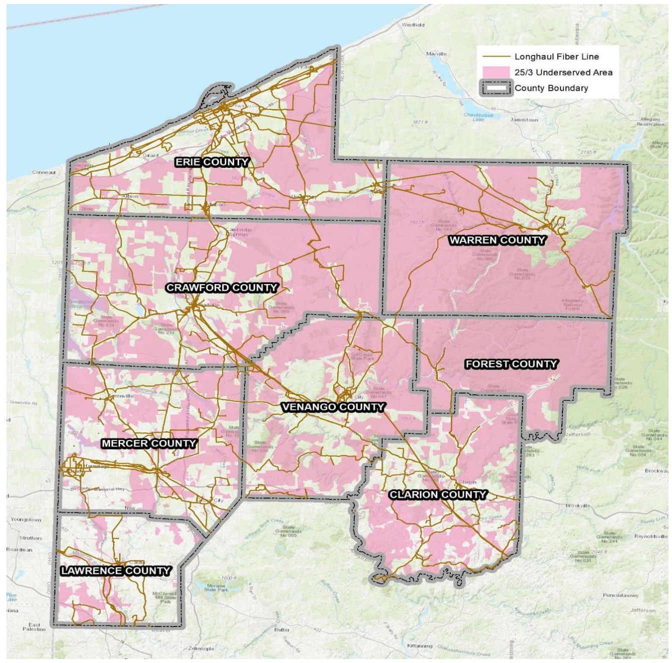
Example Priority Project: Broadband Expansion Coalition

Why this Priority?

High-speed internet access is no longer a luxury for affluent, urban consumers, but increasingly a critical utility for urban, suburban, and rural consumers and businesses. The federal government has declared connectivity a necessity for full participation in society, including aspects of education, work, health and other areas of modern American life.

Within Northwest PA, broadband service has been identified by the Advisory Committee as a top priority, possibly the more important priority, given the rapid virtualization of business, education and society due to the pandemic. Analysis shows that a majority of the region's geography is not served by adequate broadband:

Areas Underserved by Broadband in Northwest PA



Source: Northwest Commission

How do we collaborate, fund, and implement a solution?

State and local governments across the country are activity evaluating their role in supporting high-speed broadband and fiber deployment to close the digital divide and positively impact their communities. With new federal funding available for broadband deployment, communities must organize and act quickly to pursue these funds.

Federal funding for broadband is now available from several legislated packages, including the recently passed infrastructure package with $65 billion allocated to funding broadband improvements in unserved and underserved areas. These funds have multiple goals: to improve coverage, quality, affordability, digital literacy and competitiveness.

The Infrastructure Investment and Jobs Act (IIJA) comes on the heels of substantive programs such as the American Rescue Plan Act (ARPA), which made $17 billion available for broadband; the Consolidated Appropriations Act (CAA) of $1.3 billion; the Rural Digital Opportunity Fund, providing $20.4 billion for unserved areas; and the U.S. Department of Agriculture's Rural Utility Service Reconnect Pilot program that is part of the Coronavirus Aid, Relief, and Economic Security (CARES) Act. Over the next decade, federal funding for these broadband and connectivity initiatives is expected to continue reaching unprecedented levels. Federal funds allocated to broadband are expected to increase four times 2019 levels by 2024.

Many states, counties and cities chose to use part of their ARPA allocation, available today, to conduct the necessary planning for access to the forthcoming and much larger IIJA pools of funds. States will need to submit detailed plans to obtain the IIJA funds that are available to them on a formula basis and will also have the ability to compete for other pools of money. Cities and counties see a clear benefit in providing "their" plan to the state, so that it is included in the state's request, in addition to competing for funding of their own. Those proactive entities also anticipate a supply chain shortage – of staff, of advisors, of construction capacity, even of fiber optics – that will unfold when states start to deploy the $65 billion of IIJA. They are seeking to get to the head of the line for funding and for delivery. The IIJA is in part formulaic to states, but it requires submission of a letter of intent, a draft proposal, an action plan and a final proposal. States must describe how funds will address unserved areas before underserved areas are considered. About one third of IIJA funding is competitive and will go to the projects with most "merit," regardless of state.

What are critical implementation steps?

1. Form a NWPA Broadband Coalition of public and private partners
2. Identify regional activities that can be collectively done: funding source analysis, local data collection, best practice research
3. Implement a multi-week sprint to prepare the Coalition members to submit grant applications.
4. Deploy collaboration tools such as MS Teams to share information, communicate, and set deadlines for actions.

Conclusion

This CEDS should act as the central strategic economic development document for the 8-county region served by the Northwest Pennsylvania Regional Planning and Development Commission. A regional and coordinated approach to economic development will propel NWPA to be more than just a sum of the efforts of its individual counties, governments, and businesses. The CEDS development process engaged private sector leadership, constituents, workers, and community leaders. This document provides the blueprint for how public entities and leaders should work with private sector and community actors to grow regional economic prosperity.

The planning process for the CEDS was broken up into two phases. The objective of Phase 1 was to synthesize qualitative and quantitative data to gain a snapshot of the current economic and demographic state of the region. It included focus groups, interviews with business and community leaders, a community-wide survey, an economic & demographic research report, and a SWOT analysis. The economic & demographic assessment of the region exposes some concerns including an ageing and declining population, current education levels for working-age adults are below the US average, and current per capita income in the region is lower than the US average. Reoccurring themes uncovered during the SWOT analysis paint a proud community with a very high quality of life and a low cost of doing business – but is also at risk for stagnant growth due to continued negative demographic trends. There is a strong opportunity for the region to accelerate entrepreneurial growth as well as encourage development of talent to fill middle skill positions requiring Certificates or Associate's degrees.

Phase 2 of the process aimed to develop a vision for future economic growth and a set of goals for the region. The goals are broken into the categories of entrepreneurship; business expansion, retention, & recruitment; workforce development & education; and infrastructure, place, & tourism development. The strategic recommendations included within each of those 4 goal areas are designed to set the Commission and the region on a course for the development of Action Teams to engage community partners on projects. A small selection of these goals include creating an inventory of entrepreneurial support assets, expanding K-12 entrepreneurship programming, expanding broadband access, and further promoting tourism through a regional marketing campaign.

The Northwest Pennsylvania region will be economically stronger and more resilient through increased collaboration, collective capacity building, and focused community and business engagement projects.

To borrow and adapt a quote from one of America's leading authors,

"Nothing will work unless <u>we</u> do, <u>together</u>."

- Maya Angelou

(original quote:
"Nothing will work unless you do")

Evaluation Framework

The EDD will continue to monitor data in subsequent years to evaluate the region's industry performance, condition of its workforce, resiliency and equity.

Metrics to be monitored from this CEDS will include:

- Employment growth by industry and county
- Population growth and net-migration
- Industry diversification
- Income growth and distribution by county
- Educational attainment
- Poverty rate

Appendix: Economic & Demographic Assessment

Northwest Pennsylvania Demographic & Economic Assessment

July 2021

EY

Building a better working world

Table of contents

1 Introduction

About the CEDS and region

Northwestern Pennsylvania Regional Planning and Development Commission (NWC) is leading the update of the Comprehensive Economic Development Strategy (CEDS) for the 8-county Northwest Pennsylvania region. The CEDS contributes to effective economic development in America's communities and regions through a locally-based, regionally-driven economic development planning process. Economic development planning – as implemented through the CEDS – is not only a cornerstone of the U.S. Economic Development Administration's (EDA) programs, but successfully serves as a means to engage community leaders, leverage the involvement of the private sector, and establish a strategic blueprint for regional collaboration. The CEDS provides the capacity-building foundation by which the public sector, working in conjunction with other economic actors (organizations, individuals, firms, industries), creates the environment for regional economic prosperity.

The Northwest Commission serves as a regional-based resource for business and economic development as well as community development and planning. Comprised of a team of skilled professionals, the non-profit agency is dedicated to sustaining the economic vitality and growth by offering both free and low-cost services. This is achieved through fostering local, state, and federal partnerships across public and private sector lines. A variety of programs are offered including government contracting, international marketing, business financing, transportation, and grant services.

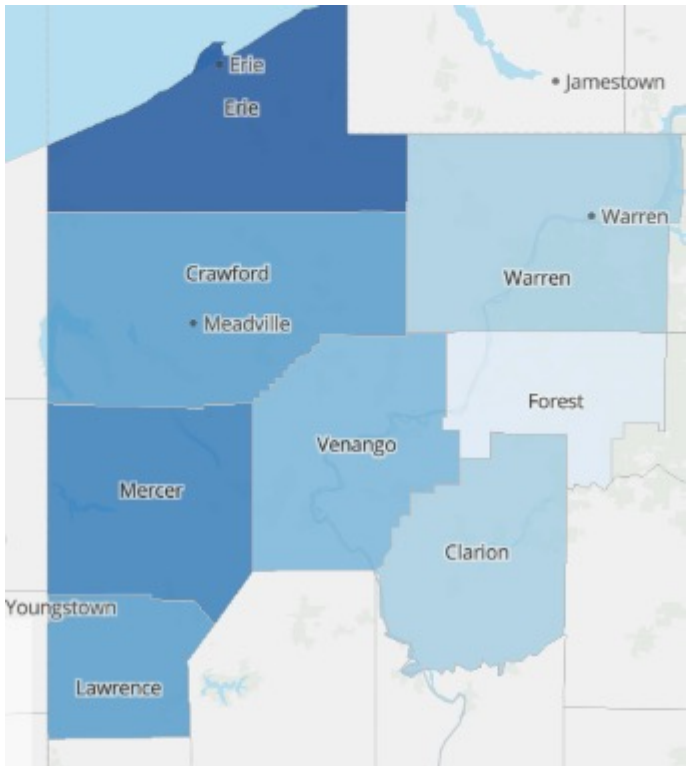
Other organizations that might be involved are workforce development and education institutions, local governments, state governments, utility companies, community foundations, and convention and visitors bureaus. Ultimately, economic development success depends on everyone in a community working together to establish a vision and accomplish goals. Even individuals that have nothing to do with an EDO can affect change by being positive spokespersons and volunteering in positive community improvements.

About the CEDS and region

The Northwest Pennsylvania region served by the Commission and the CEDS includes the following counties:

- Clarion County, PA
- Crawford County, PA
- Erie County, PA
- Forest County, PA
- Lawrence County, PA
- Mercer County, PA
- Venango County, PA
- Warren County, PA

Northwest Pennsylvania Region



Color-coding shows the density of jobs by county; darker colors indicate more jobs versus other counties.

About this report

The CEDS process begins with an economic and demographic analysis of the region to provide a complete picture of the trends impacting the region currently as well as historically. Datasets for the analysis include the following:

- Population demographics (growth, age, racial composition)
- Household and per capita income levels
- Educational attainment by age
- Enrollment and graduate output at regional post-secondary education institutions
- Employment by industry sector
- Employment by industry clusters and occupation clusters

Analysis is conducted for the 8-county region with county breakdowns for some metric. County-level Economic and Demographic Profiles are provided in a separate section.

This Demographic & Economic Assessment will serve as a foundation to inform community conversations around strengths and weaknesses as well as informing strategies for future economic development.

Key findings

The data and analysis in this report are intended to both update and inform the community on key demographic and economic trends that will impact the economic development strategy. Many findings are long-standing conditions, such as growth trends. Others are new findings, particularly around industries that are emerging and could be supported for future job creation.

Key findings from the Demographic & Economic Assessment include:

Population Growth	The region's population continues a multi-decade, slow decline. Population losses have accelerated in the last 5 years. Erie County comprises about 40% of the 8-county region and enjoys more modest rates of decline than other counties. Venango, Mercer and Lawrence counties' population declined fastest in the last 10 years. Statewide population growth is positive and about one-quarter of US growth rates.
Population by Age	The region's population is over-represented for persons nearing or entering retirement, while younger and mid-career workers are under-represented. Variations in birth rates and international migration are causing significant changes in the US, as the smaller Gen X population moves toward retirement and Baby Boomers age: two out of every three people added to the US population in the last 10 years are 65 years or older. Northwest Pennsylvania added 23,000 retirees to its population versus losing 54,000 people under the age of 65 (in 10 years). The region is losing most ground in the 40-54 year-old population. Within counties, Erie County's population is the most age-diverse and has a high share of working-age adults. Working-age share fell in all counties (with the exception of Clarion County) as well as for Pennsylvania and the US. As people live longer, fewer workers are available to support the economy and retiree populations, which can cause labor shortages. Warren and Venango have 40% more people in retirement than the US, for example. The age group 25-44 has about 15% fewer persons in the region than typical at the US level.

Key findings

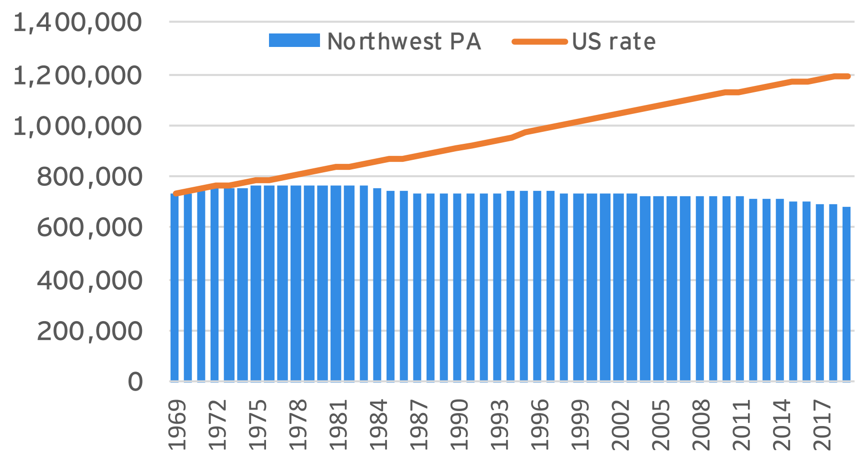
Educational Attainment	The region's education levels for the working-age population are below US levels but improving. In total, 54% of working-age adults have post-secondary education and 28% have a Bachelor's degree or higher. Younger workers 25-34 years old are closing the gap with the US with 33% having a Bachelor's in the region and Erie County having the highest rate (39%). High school graduation levels in the region exceed US levels for all working-age adults as well as 25-34 year-olds.
Income Growth	Per capita income levels are growing but still only reach about 78% of US levels. The region's per capita income has been steadily losing ground against the US for the past 10 years.
Job Growth	Cycles of growth and decline in employment levels have occurred over the last 20 years. More recently the region lost nearly 10,000 over the last 5 years, primarily in Retail, Transportation, and Manufacturing industries. Growth industries in the region include the large Health Care cluster and mid-sized clusters in Construction, Finance and Professional Services. Small but high-growth emerging clusters are in Aerospace, Research, and Software/IT. The economy continues to shift to higher skilled positions for the most part. Medical fields are high-demand and Science and Engineering positions are growing. Lower skill positions in truck driving are still high-demand. Financial and Business occupations are also experiencing modest growth.

Demographic Assessment

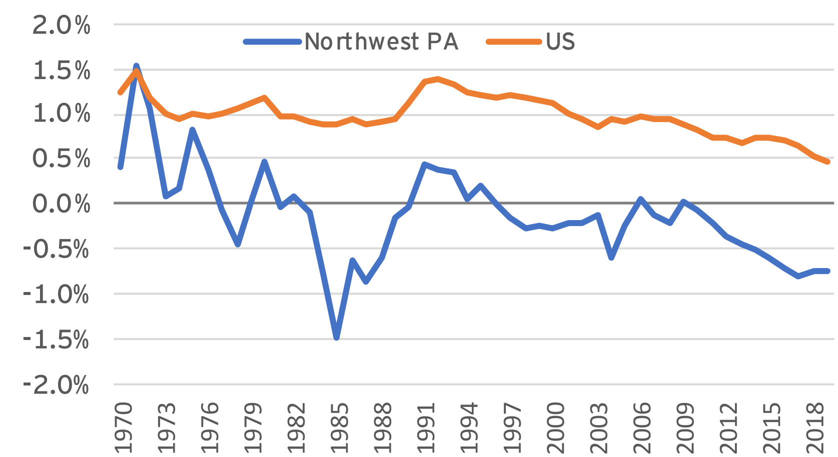
Population
Growth Trends, Last 50 Years

The population in Northwest Pennsylvania currently stands at 685,000 after shrinking over 4% in the last 10 years. Looking back over 50 years, the region enjoyed positive population growth in the 70's, followed by steep declines in the 80s and a few years of growth in the early 90s. In total, the region's population has shrunk by 6.4% over the past 50 years for a loss of over 46,800 individuals. If Northwest Pennsylvania grew on par with the US rate, its population would be 1.2 million, with an additional 500,000 people.

Population Trend over 50 years



Annual Population Growth over 50 years



Source: US Bureau of Economic Analysis based on Census data

Population

Growth Trends by County, Last 10 Years

Providing a population snapshot by county and analyzing population trends over a period of time is an important component of any strategic plan. Over the last 10 years, every county in the Northwest PA region experienced declines with the exception of Forest County. The largest declines were witnessed by Venango, Mercer and Lawrence counties. In total, the region's population declined by 31,000 people.

Population declines in the region are in contrast with population growth elsewhere in the Commonwealth of Pennsylvania, which grew at one-quarter the US rate over the last 10 years.

Population by County

2009 v. 2019

	Population 2019	Total % Growth 10-year	Net New Pop. 10-year
Clarion County, PA	38,438	-2.7%	-1,068
Crawford County, PA	84,629	-4.4%	-3,866
Erie County, PA	269,728	-3.5%	-9,917
Forest County, PA	7,247	3.2%	228
Lawrence County, PA	85,512	-5.0%	-4,476
Mercer County, PA	109,424	-5.8%	-6,770
Venango County, PA	50,668	-6.5%	-3,510
Warren County, PA	39,191	-3.4%	-1,393
Northwest PA	684,837	-4.3%	-30,772
Pennsylvania	12,802 K	1.6%	200 K
U.S.	328,240 K	7.0%	21,583 K

Source: US Census Bureau (Population Estimates Program)

Population

Special Topic: Groups Quarters Population

Northwest Pennsylvania is unique in the number of prisons found in some of its counties. According to State of Pennsylvania Department of Corrections, there are three state prisons and seven county correctional facilitates in the region. State Correctional Institutions can be found in the following cities (counties): Albion (Erie), Forest (Forest), and Mercer (Mercer). County Correctional Institutions can be found in each county in the region.

Analysis of Census data shows that some counties have a high portion of their population in "group quarters" which includes prisons but can also include college dorms, military barracks, skilled nursing centers, resident health hospitals, and justice schools. The counties with both a state and a county institution had the highest group quarter populations.

Group Quarters and Population by County

2009 v. 2019	GQ Population 2019	GQ % Share of Total Pop., 2019	% Change in GQ Share of Total Pop., 10-yr	Net New Pop. 10-year
Clarion County, PA	1,774	4.6%	5.8%	51
Crawford County, PA	3,821	4.5%	-9.0%	-571
Erie County, PA	12,174	4.5%	-16.7%	-2,974
Forest County, PA	2,645	36.5%	-8.7%	-160
Lawrence County, PA	2,093	2.4%	-26.2%	-892
Mercer County, PA	6,291	5.7%	-4.7%	-718
Venango County, PA	1,302	2.6%	-22.8%	-501
Warren County, PA	759	1.9%	-23.1%	-263
Northwest PA	30,859	4.5%	-12.6%	-6,028

Source: The State of Pennsylvania Department of Corrections

Population

Age Breakdown and Growth

Variation in population growth by age provides insight into how a workforce is changing as well as the ability of a community to retain and attract demographics.

The Population Pyramid for the region shows each 5-year age group as its own row. Bulges in the 2019 population (exceeding the dotted line average) appear for persons nearing or entering retirement. Younger and mid-career workers are under-represented.

In terms of growth, the population aged 40-54 fell by more than 20% over the last 10 years. This decline is partly due to lower birth rates for the Gen X population (ages 40-54) moving into this age group but also due to out-migration, as shown by 15-point gaps between regional and US growth rates (shown as "x" in the right column). Older populations in the 60-74 year range grew 26-40%, nearly matching US growth.

The older teens and college-age population has fallen by double-digits, but growth in 25-34 year-olds was flat or slightly positive in the past 10 years.

Population Pyramid

Northwest PA

	Population 2019	New Pop. '09-'19	% Growth '09-'19	US Comp	15pt. Gap
All ages	684,837	-30,772	-4.3%	7.0%	
0-4	36,218	-3,844	-9.6%	-7.8%	
5-9	36,788	-4,015	-9.8%	-1.9%	
10-14	39,492	-3,967	-9.1%	4.2%	
15-19	44,773	-9,227	-17.1%	-2.7%	
20-24	43,011	-5,787	-11.9%	-0.2%	
25-29	41,164	-82	-0.2%	8.7%	
30-34	39,583	1,091	2.8%	13.4%	
35-39	38,286	-3,771	-9.0%	6.3%	x
40-44	36,329	-10,259	-22.0%	-4.6%	x
45-49	40,693	-12,043	-22.8%	-10.2%	
50-54	44,308	-11,959	-21.3%	-5.4%	x
55-59	49,739	-1,032	-2.0%	15.7%	x
60-64	52,284	10,817	26.1%	30.1%	
65-69	45,781	13,053	39.9%	47.7%	
70-74	34,919	8,795	33.7%	55.0%	x
75-79	25,196	2,870	12.9%	31.4%	x
80-84	17,107	-2,337	-12.0%	8.1%	x
85-	19,166	925	5.1%	16.7%	

Source: US Census Bureau (Population Estimates Program)
Notes: Dotted line indicates the average population across all age groups through 74 years. X's in the last column indicate a 15 point gap in growth with the US average.

Population

Working Age Share of Population

Looking closer at the growth of the working-age population (25 to 64) removes impacts from college population as well as retirees. Specifically, companies seek locations with a large working age population that is growing. The chart below shows that Forest County has the highest share of working age population (as a % of total population), followed by Venango and Erie counties. Working-age share fell in all counties (with the exception of Clarion County) as well as for Pennsylvania and the US. As people live longer, fewer workers are available to support the economy, which can cause labor shortages.

An examination of location quotients (LQs) shows that relative to the US, all counties have a much higher share of their population in the retiree age group. Warren and Venango have 40% more people in retirement than the US. The age group 25-44 has about 20% fewer persons than typical at the US level.

Population by Age Group

2009 v. 2019	% 25-64 Year Olds 2019	Pt. Change 10-year	Location Quotient (Local Share of US Share) 0-14	15-24	25-44	45-64	65+
Clarion County, PA	48.1%	0.8%	0.84	1.24	0.81	1.04	1.23
Crawford County, PA	49.4%	-2.3%	0.91	0.97	0.82	1.09	1.29
Erie County, PA	50.5%	-1.4%	0.94	1.03	0.91	1.03	1.13
Forest County, PA	55.5%	-2.3%	0.37	1.15	1.10	1.02	1.38
Lawrence County, PA	49.6%	-1.9%	0.88	0.89	0.82	1.09	1.37
Mercer County, PA	49.1%	-1.7%	0.83	1.02	0.79	1.10	1.35
Venango County, PA	51.1%	-1.9%	0.84	0.79	0.80	1.18	1.40
Warren County, PA	50.3%	-3.1%	0.86	0.79	0.78	1.16	1.43
Northwest Pennsylvania	50.0%	-1.7%	0.89	0.99	0.85	1.08	1.26
Pennsylvania	51.8%	-1.0%	0.92	0.96	0.94	1.05	1.14
U.S.	52.1%	-0.7%	1.00	1.00	1.00	1.00	1.00

Source: US Census Bureau (Population Estimates Program)

Note: LQ is the age group's share of the local population versus the US share. An LQ greater than 1 indicates a larger relative share than the US.

Population

Educational Attainment, Working-age Adults

More than 28% of working-age adults in the region have a Bachelor's degree, with another 26% having some college or an Associate degree. In total, 54% of working-age adults have post-secondary education and this percentage is increasing. The region trails the US by nearly 10 points and Pennsylvania by 6 points. High school graduation rates (those with a HS diploma) are higher in the region (91.3%) than the US average (89.5%) but slightly below Pennsylvania's average (92.1%).

Within the region, educational attainment rates are highest in Erie County, with its 31.4% Bachelor's attainment rate. The highest Associate's rate is in Warren County at 30.5%. Large improvements in Bachelor's attainment have been seen in Lawrence, Clarion, and Crawford, and large improvements in Associate/Some College were seen in Warren and Erie counties.

Educational Attainment, 2019

Adults, 25-64 Year-Olds

	Bachelor's or Higher	5-year Pt. Chg.	Assoc./Some College	5-year Pt. Chg.	HS or Higher	5-year Pt. Chg.
Clarion County, PA	24.4%	+2.6%	23.4%	-1.1%	91.7%	+0.1%
Crawford County, PA	24.6%	+2.1%	23.3%	-0.8%	90.2%	-0.6%
Erie County, PA	31.4%	+1.1%	26.2%	+2.2%	91.5%	-0.7%
Forest County, PA	6.4%	-1.8%	15.5%	-7.9%	81.9%	-1.0%
Lawrence County, PA	24.1%	+3.1%	28.5%	-1.9%	93.4%	+0.3%
Mercer County, PA	25.4%	+1.8%	26.5%	+0.2%	90.2%	-0.5%
Venango County, PA	19.8%	+2.3%	25.5%	-1.3%	92.2%	+0.2%
Warren County, PA	21.4%	+0.9%	30.5%	+2.6%	94.2%	+0.8%
Northwest PA	28.1%	+1.7%	26.2%	+0.7%	91.3%	-0.5%
Pennsylvania	34.9%	+3.1%	25.6%	-0.4%	92.1%	+0.7%
U.S.	34.6%	+3.1%	29.3%	-1.2%	89.5%	+1.2%

Source: US Census Bureau (American Community Survey)

Note: Due to statistical limitations in survey size, data for smaller counties Clarion, Forest, Venango, and Warren use 5-year trailing averages.

Population

Educational Attainment, Young Working-Age

Young workers are highly sought after by expanding companies, often driving them to relocate to young, well-educated communities. Northwest Pennsylvania's younger working-age population (25 to 34 years) is less educated than the US and Pennsylvania at the Bachelor's level but more comparable at the Associate/Some College level.

- About 33% of 25-34 year-olds have a Bachelor's degree, versus 37% for the US and 40% for Pennsylvania.
- More than 27% have an Associate/Some College locally, versus 26% for Pennsylvania and 30% for the US.
- Locals have a HS diploma (92%) at comparable levels to the US and Pennsylvania.

25-34 year-olds in the region are most educated in Erie County (39% with a Bachelor's) and Lawrence (33% with Assoc/SC).

Educational Attainment, 2019

25-34 Year-Olds

	Bachelor's or Higher	5-year Change	Assoc./Some College	5-year Change	HS or Higher	5-year Change
Clarion County, PA	30.0%	+4.3%	27.8%	-1.7%	92.5%	+1.6%
Crawford County, PA	28.3%	-1.7%	20.6%	-5.5%	87.3%	-4.0%
Erie County, PA	39.1%	+5.8%	27.4%	+5.0%	94.1%	+3.4%
Forest County, PA	2.0%	-3.5%	16.6%	-6.8%	74.8%	-3.9%
Lawrence County, PA	23.8%	-7.5%	32.5%	-0.8%	92.7%	+0.8%
Mercer County, PA	25.4%	-4.2%	27.8%	-0.8%	89.4%	+2.8%
Venango County, PA	23.6%	+4.1%	26.2%	-6.0%	93.6%	+1.3%
Warren County, PA	27.0%	-2.8%	29.9%	+0.5%	91.9%	-0.1%
Northwest PA	32.9%	+0.9%	27.3%	+1.7%	92.1%	+1.8%
Pennsylvania	40.0%	+2.8%	25.9%	-0.6%	93.1%	+2.0%
U.S.	36.9%	+3.5%	30.3%	-1.4%	91.7%	+2.5%

Source: US Census Bureau (American Community Survey)
Note: Due to statistical limitations in survey size, data for smaller counties Clarion, Forest, Venango, and Warren use 5-year trailing averages.

Population
Income Trends

Per capita and median household incomes have risen in the past 10 years across all counties within the Northwest Pennsylvania Region, as well as Pennsylvania and the US. While there has been meaningful growth in per capita income for all counties within the region, the per capita incomes in the region fall below both the state and national levels for both percentage growth and absolute values. The per capita income for the region stood at $44,470 in 2019 versus $56,000 for the US and $58,000 for Pennsylvania.

Per Capita Income and Median Household Income Trends

2009 v. 2019

	Per Capita Income, 2019	10-year % Growth	Med. HH Inc. '19	10-year % Growth
Clarion County, PA	$42,281	26%	$49,173	29%
Crawford County, PA	$42,237	42%	$49,741	30%
Erie County, PA	$46,379	39%	$51,923	22%
Forest County, PA	$24,113	19%	$41,267	24%
Lawrence County, PA	$45,252	39%	$50,979	20%
Mercer County, PA	$43,682	39%	$54,099	26%
Venango County, PA	$43,822	34%	$53,619	46%
Warren County, PA	$43,401	30%	$52,592	31%
Northwest PA	$44,470	38%	$51,815	26%
Pennsylvania	$58,032	44%	$65,642	28%
U.S.	$56,490	44%	$65,712	31%

Source: US Bureau of Economic Analysis (REIS), US Census Bureau (Small Area Income Estimates)

Population
Poverty Trends

In 2019, all counties within Northwest Pennsylvania had poverty rates that were greater than the rates for Pennsylvania and the US. Overall, there were more than 94,000 individuals within the region that were living at or below the poverty line in 2019. Forest County has the highest poverty rate (26%), followed by Erie County (17%). Lawrence County lowest poverty rate in the region and is on par with the US rate. Venango County saw the largest decrease in its poverty rate (a 5-point decline), followed by Crawford County (a 3.6-point decline). Poverty rates increased by more than 1 point in Forest and Warren counties.

Poverty
2009 v. 2019

	% in Poverty 2019	Point Change 10-year	Pop. In Pov. 2019
Clarion County, PA	14.1%	-0.2%	5,162
Crawford County, PA	12.6%	-3.6%	10,129
Erie County, PA	16.6%	+0.9%	42,666
Forest County, PA	26.0%	+3.6%	1,196
Lawrence County, PA	12.3%	+0.3%	10,271
Mercer County, PA	13.1%	+0.1%	13,469
Venango County, PA	12.5%	-5.0%	6,213
Warren County, PA	13.5%	+1.3%	5,153
Northwest PA	14.4%	-0.4%	94,259
Pennsylvania	12.0%	-0.5%	1,481 K
U.S.	12.3%	-2.0%	39,490 K

Source: US Census Bureau (Small Area Income Estimates)

3 Economic Assessment

Economy

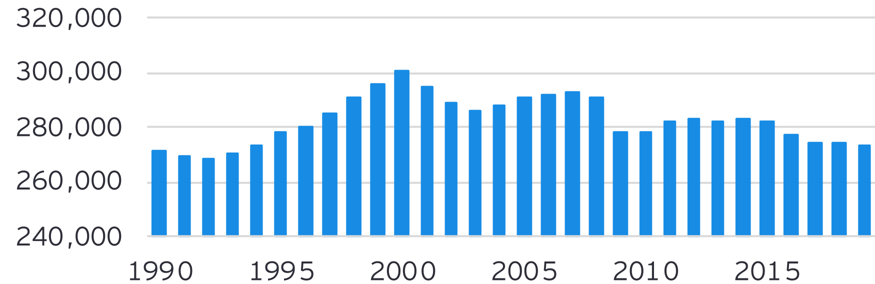
Growth Trends, Last 5 Years

Since 1990, there have been cycles of growth and decline in employment levels in the region. The longest sustained growth in employment lasted for seven years and began in 1993. Employment peaked in 2000 at 300,000 but has since declined to 273,000 as of 2019.

Job growth dynamics vary widely by industry. The Construction industry created jobs, as did Health Care and Other Services. Most job losses have been in the broad Trade, Transportation, and Utilities industry.

Employment Trend since 1990

Northwest PA



Employment by Industry

Northwest PA	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	2,329	-3.6%	7.3%	-464	828
Construction	9,738	1.7%	1.0%	790	450
Manufacturing	47,089	-1.2%	-6.2%	-2,970	-18,734
Trade, transportation, and utilities	48,114	-1.6%	0.3%	-4,172	758
Information	2,070	-3.9%	-8.9%	-454	-1,500
Financial activities	11,889	-0.2%	1.4%	-97	796
Professional and business services	18,089	-1.3%	4.2%	-1,232	3,566
Health Services & Priv. Ed.	59,970	0.2%	7.7%	607	18,375
Leisure and hospitality	28,102	0.0%	3.4%	26	4,371
Other services	10,302	0.5%	2.4%	264	1,131
Government	34,475	-0.8%	-0.9%	-1,459	-1,713
Total, all industries	273,242	-0.7%	0.7%	-9,432	9,205

Source: US Bureau of Labor Statistics (QCEW)
Note: 2019 data is the most recent full year of data available and was selected to avoid short–term fluctuations from the COVID-19 pandemic.

Industry cluster analysis

Industry cluster analysis provides a more detailed look at job creation, with more than 30 industries clusters examined. The bubble chart on the following page combines employment growth, absolute size, and relative concentration to illustrate performance. The horizontal axis displays employment growth of each cluster from 2014 through 2019. The vertical axis shows the location quotient (LQ). An LQ is the ratio of local share of industry employment relative to the national share of industry employment. For example, an LQ greater than 1 indicates that local industry employment density is greater than than the US average. The size of each bubble indicates the number of local jobs in the cluster. Clusters can generally be grouped in four categories, as described in the map below.

Higher concentration

Top left – strong but declining

Contains clusters that are more concentrated in the region but are declining (negative employment growth). Over time, these clusters may fall to the bottom left as job losses eventually lead to a declining concentration.

Top right – strong and advancing

Contains clusters that are more concentrated in the region and are growing. These clusters are usually built on highly competitive local assets and are also experiencing strong national and international growth.

Negative growth

Positive growth

Bottom left – weak and declining

Contains clusters that are underrepresented in the region (low concentration) and are also losing jobs. In general, clusters in this quadrant reveal a lack of competitiveness.

Bottom right – weak but advancing

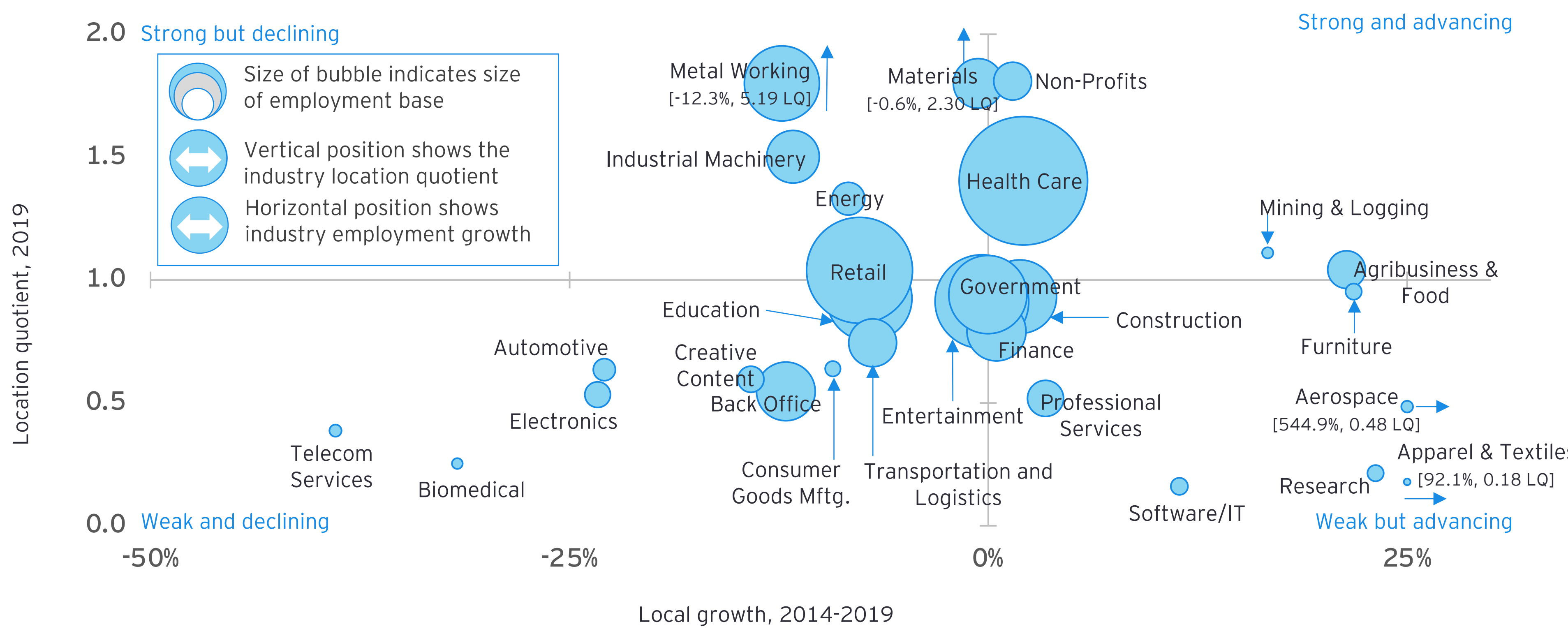
Contains clusters that are underrepresented in the region but are growing. If growth continues, these clusters will eventually move into the top-right quadrant. These are generally considered "emerging" clusters.

Lower concentration

Industry composition

Health Care (which includes government hospitals) is the largest industry cluster in Northwest Pennsylvania, with 53,000 workers. It's LQ of 1.4 indicates that the region has about 40% more jobs per worker than typically seen across the US. Other high-LQ industries are Non-profits and manufacturing clusters Materials, Metal Working, Industrial Machinery, and Energy. The region enjoys several smaller high-growth clusters that may offer opportunities for continued growth in the future: Agribusiness & Food, Furniture, and Mining/Logging. Small clusters that are high-growth but have a relatively low LQ can be considered emerging clusters: Aerospace, Research, and Software/IT.

Northwest Pennsylvania Region industry cluster analysis



Source:
EMSI

Industry composition

Large clusters that are somewhat under-represented may also offer opportunities for future growth: Construction, Finance and Professional Services. The region's Retail cluster is shedding jobs and appears in-line with US job density. Entertainment, which includes Hotels, Arts and Culture, is under-represented in the region (LQ is 0.9) and may merit more investment. Traditional working-class clusters Back Office and Transportation & Logistics are both losing jobs and relatively weak versus the US job density.

Northwest Pennsylvania Region industry cluster performance

Cluster	Employment (2019)	Employment growth (2014-2019)	Location quotient (2019)
Aerospace	479	544.9%	0.48
Agribusiness & Food	4,654	21.4%	1.04
Apparel & Textiles	168	92.1%	0.18
Automotive	1,637	-22.9%	0.64
Back Office	11,185	-12.1%	0.55
Biomedical	407	-31.7%	0.25
Construction	17,546	1.9%	0.93
Consumer Goods Mftg	807	-9.3%	0.64
Creative Content	2,271	-14.2%	0.60
Education	23,452	-7.1%	0.93
Electronics	2,190	-23.3%	0.53
Energy	3,539	-8.3%	1.33
Entertainment	28,279	-0.4%	0.91
Finance	11,324	0.5%	0.79
Furniture	886	21.8%	0.95

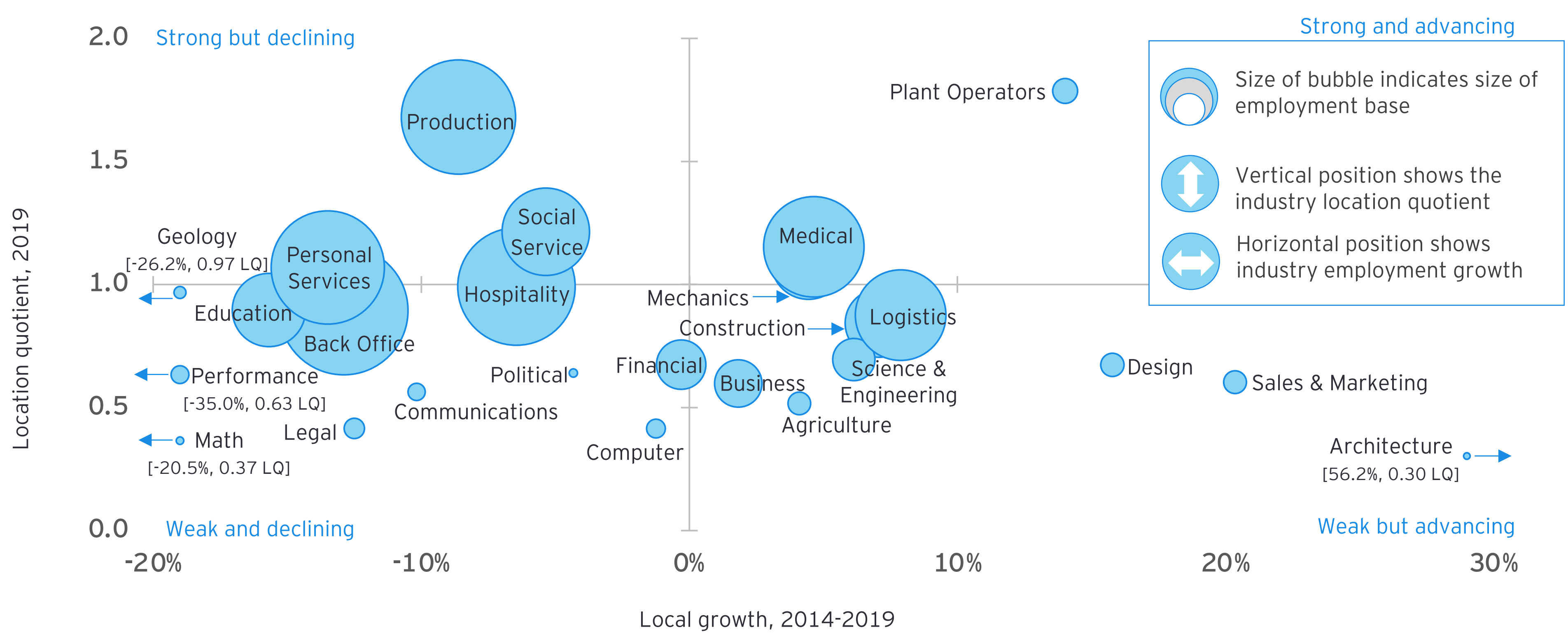
Cluster	Employment (2019)	Employment growth (2014-2019)	Location quotient (2019)
Government	19,750	0.0%	0.94
Healthcare	52,956	2.1%	1.40
Industrial Machinery	9,004	-11.7%	1.50
Materials	8,023	-0.6%	2.30
Metalworking	18,217	-12.3%	5.19
Mining & Logging	435	16.7%	1.11
Non-Profits	4,691	1.5%	1.81
Professional Services	4,282	3.4%	0.52
Research	899	23.1%	0.21
Retail	36,138	-7.7%	1.04
Software / Info. Tech.	990	11.4%	0.16
Telecom Services	513	-39.0%	0.39
Transportation & Logistics	7,467	-6.9%	0.74
Total	**274,767**	**-2.5%**	**1.00**

Source: EMSI

Occupation composition

A complement to industry cluster analysis, occupational analysis provides a viewpoint on the skills required by employers. Logistics-related occupations are growing significantly primarily due to demand for truck drivers and material movers at manufacturers. Science & Engineering positions are also growing as are medical occupations. Small but high-growth, emerging occupational skill clusters are in Architecture, Sales & Marketing, Design, and Plant Operators. Financial and Business occupations are also experiencing modest growth.

Northwest Pennsylvania Region occupational bubble chart, 2019



Source:
EMSI

Research

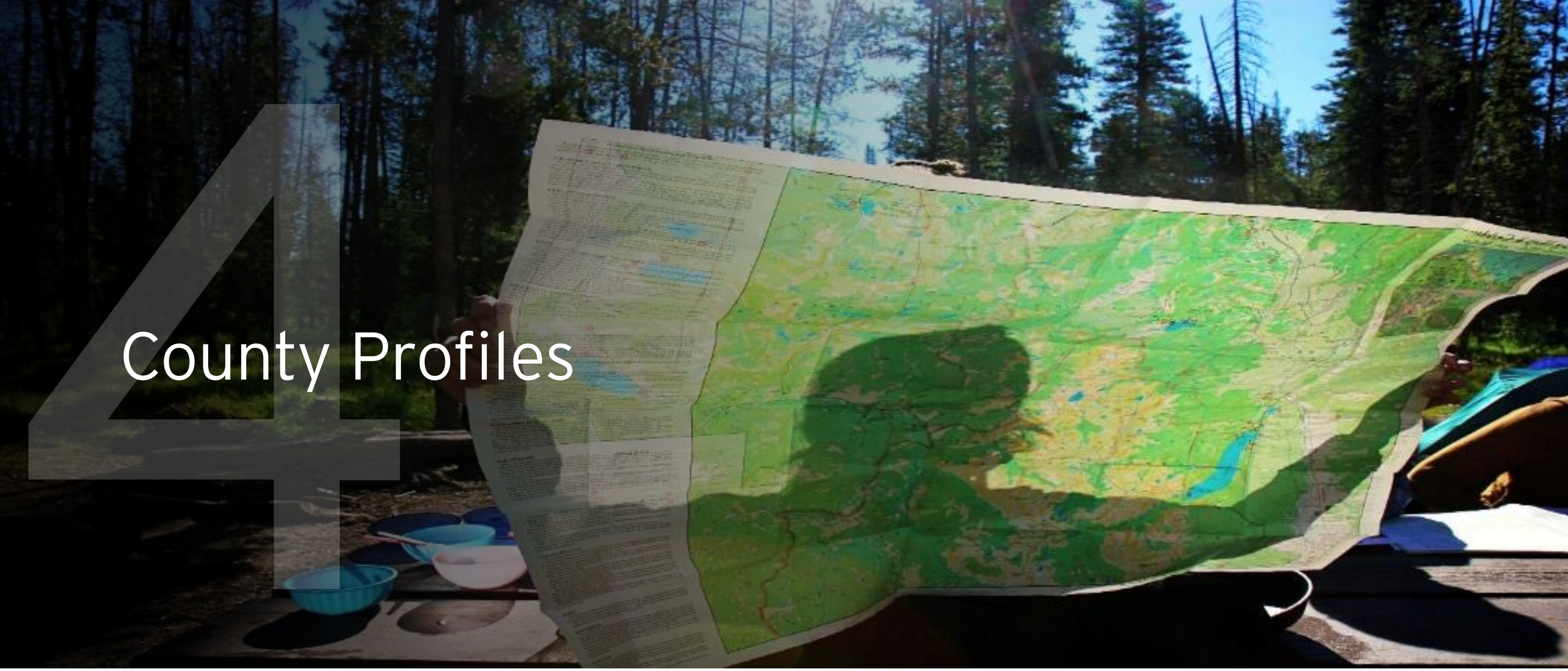
Occupation composition

Some of the region's largest occupation clusters in declining significantly, such as the large Back Office cluster. Production occupations (workers on manufacturing lines) are declining likely due to continued investments in automation which drives growth in Mechanics positions. Hospitality and Personal Services clusters are also shedding jobs. Social Service and Education clusters are losing jobs, likely due to overall population loss.

Northwest Pennsylvania Region occupational cluster performance

Cluster	Employment (2019)	Employment growth (2014-2019)	Location quotient (2019)	Cluster	Employment (2019)	Employment growth (2014-2019)	Location quotient (2019)
Agriculture	1,102	4.1%	0.52	Legal	893	-12.5%	0.42
Architecture	103	56.2%	0.30	Logistics	16,981	7.9%	0.88
Back Office	34,078	-12.9%	0.89	Math	135	-20.5%	0.37
Business	4,699	1.8%	0.60	Mechanics	11,515	4.4%	1.09
Communications	646	-10.2%	0.56	Medical	20,853	4.6%	1.15
Computer	762	-1.2%	0.41	Plant Operators	1,327	14.0%	1.79
Construction	9,642	7.1%	0.84	Sales & Marketing	1,114	20.4%	0.60
Design	1,162	15.8%	0.67	Performance	689	-35.0%	0.63
Education	11,141	-15.7%	0.90	Political	160	-4.3%	0.64
Engineering	3,744	6.1%	0.70	Production	26,946	-8.6%	1.68
Financial	5,097	-0.3%	0.67	Personal Services	26,460	-13.5%	1.07
Geology	322	-26.2%	0.97	Social Service	15,823	-5.4%	1.21
Hospitality	28,451	-6.5%	0.99	**All Occupations**	**273,382**	**-3.5%**	**1.00**

Source: EMSI



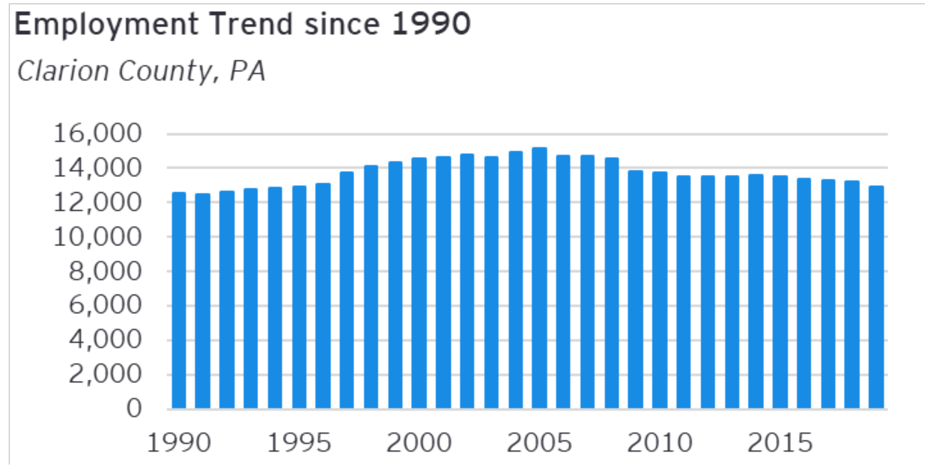
4 County Profiles

Each of the 8 counties in the Northwest Pennsylvania region are profiled individually across the following metrics:

- Employment growth since 1990
- Industry job growth over the past 5 and 20 years
- Population breakdown by age group and growth for the past 10 years
- Population breakdown by race and growth for the past 10 years

Economic Profile
Clarion County, PA

Clarion County experienced sustained growth from 1990 through 2005, reaching a peak employment of 15,100 jobs. But by 2019, the employment base fell to 12,900 jobs – about the same number of jobs 40 years prior. Health Services, Trade/Transp./Utilities and Government are the largest employers in the county. Some industries registered modest growth in the past 5 years: Construction, Leisure and Hospitality, and Manufacturing (the only county in the region that increased its manufacturing base). Natural Resources & Mining and Government registered the largest loss in jobs between 2014 and 2019.



Employment by Industry

Clarion County, PA

	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	219	-15.3%	4.6%	-284	101
Construction	585	0.9%	6.9%	25	159
Manufacturing	1,446	0.3%	-9.4%	25	-905
Trade, transportation, and utilities	2,408	-0.7%	-3.5%	-86	-484
Information	77	-5.5%	0.8%	-25	4
Financial activities	432	-0.7%	1.8%	-16	39
Professional and business services	473	-0.4%	7.2%	-9	142
Health Services & Priv. Ed.	2,810	-1.1%	14.0%	-155	1,422
Leisure and hospitality	1,441	0.6%	2.7%	45	176
Other services	641	1.4%	13.2%	43	276
Government	2,403	-1.7%	-1.3%	-214	-181
Total, all industries	12,934	-1.0%	1.1%	-653	751

Source: US Bureau of Labor Statistics (QCEW)

Age and Race Profile
Clarion County, PA

Clarion County's population declined by 2.7% over the 10-year period through 2019. Still, some age groups grew: the 25-34 year-old population grew much faster than the US rates, and the 60-69 year-old population grew the fastest of all county age groups. Still, populations between 35-54 years declined significantly.

With the presence of Clarion University, the population is heavily skewed toward college-aged students. Some of the high rates of growth in the 25-34 year-old population may reflect an increasing ability to retain graduates in recent years.

Clarion County is predominantly White but its population is diversifying. Individuals of Two or More Races added the most new population to the county over the past 10 years and was also the fastest-growing race group, followed by Hispanics.

Population by Race

Clarion County, PA

	Population 2019	% Share	% Growth '09-'19
All Races	38,438		-2.7%
White	36,835	95.8%	-3.6%
Black	457	1.2%	-1.9%
Hispanic	419	1.1%	40.6%
Asian	261	0.7%	37.4%
Nat. Am./Pac. Isl.	68	0.2%	-6.8%
Two or More Races	398	1.0%	51.3%

Source: US Census (Population and Housing Unit Estimates)

Population Pyramid

Clarion County, PA

	Population 2019	LQ '19	New Pop. '09-'19	% Growth '09-'19	US Comp
All ages	38,438		-1,068	-2.7%	7.0%
0-4	1,978	0.86	-18	-0.9%	-7.8%
5-9	1,977	0.84	107	5.7%	-1.9%
10-14	1,996	0.82	-218	-9.8%	4.2%
15-19	2,876	1.17	-526	-15.5%	-2.7%
20-24	3,316	1.31	-1,265	-27.6%	-0.2%
25-29	2,267	0.82	401	21.5%	8.7%
30-34	2,189	0.83	322	17.2%	13.4%
35-39	1,950	0.77	-240	-11.0%	6.3%
40-44	1,900	0.81	-478	-20.1%	-4.6%
45-49	2,257	0.94	-485	-17.7%	-10.2%
50-54	2,450	1.02	-380	-13.4%	-5.4%
55-59	2,719	1.06	66	2.5%	15.7%
60-64	2,767	1.15	584	26.8%	30.1%
65-69	2,542	1.24	670	35.8%	47.7%
70-74	1,832	1.12	153	9.1%	55.0%
75-79	1,410	1.25	97	7.4%	31.4%
80-84	1,023	1.38	54	5.6%	8.1%
85-	989	1.28	88	9.8%	16.7%

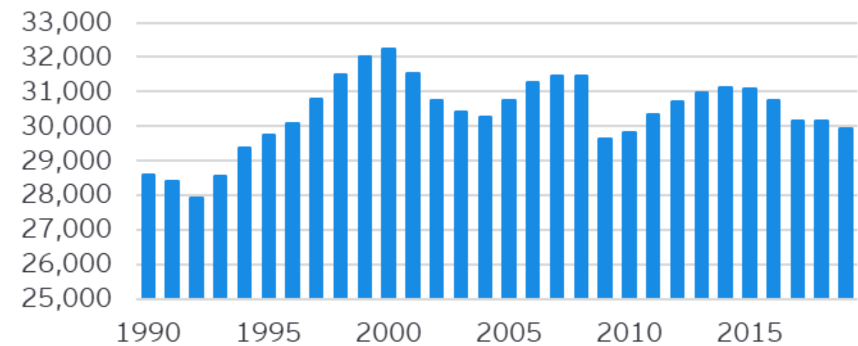
Economic Profile

Crawford County, PA

Since 1990, Crawford County has seen multiple cycles of job growth and decline. The longest stretch of growth observed since 1990 was from 1992 to 2000. During that time, Crawford County had a period of growth with employment reaching a peak of 32,225 jobs in 2000. Since 2014, overall employment has been on the decline, losing over 1,100 jobs. Manufacturing is the largest industry in the county and has experienced only negligible job losses. Professional and Business Services and Leisure and Hospitality industries have lost the most jobs. Still, the large Health Services sector has grown, along with Construction.

Employment Trend since 1990

Crawford County, PA



Employment by Industry

Crawford County, PA	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	703	2.7%	10.6%	88	244
Construction	870	2.1%	-4.3%	86	-191
Manufacturing	7,442	-0.3%	-1.6%	-116	-621
Trade, transportation, and utilities	4,438	-0.8%	0.1%	-187	21
Information	326	3.9%	-8.6%	57	-153
Financial activities	734	-3.1%	-0.5%	-124	-22
Professional and business services	1,383	-6.4%	7.3%	-543	571
Health Services & Priv. Ed.	6,292	0.3%	6.3%	83	1,624
Leisure and hospitality	2,594	-2.5%	-0.1%	-348	-8
Other services	1,278	1.6%	6.1%	99	302
Government	3,871	-1.4%	-0.2%	-274	-51
Total, all industries	29,930	-0.8%	1.1%	-1,179	1,716

Source: US Bureau of Labor Statistics (QCEW)

EY

Age and Race Profile

Crawford County, PA

Crawford County's population declined by 4.4% over the 10-year period through 2019. Still, the 60-79 year-old population has grown significantly. The middle-age population has declined significantly in the past 10 years – much moreso than seen in the US. Overall, the county's population is heavily skewed toward older age groups.

Crawford County is predominantly White but its population is diversifying. Individuals of Two or More Races added the most new population to the county over the past 10 years, while Asians are the fastest-growing race group.

Population by Race

Crawford County, PA

	Population 2019	% Share	% Growth '09-'19
All Races	84,629		-4.4%
White	80,099	94.6%	-4.9%
Black	1,618	1.9%	-15.2%
Hispanic	1,195	1.4%	13.1%
Asian	530	0.6%	55.9%
Nat. Am./Pac. Isl.	189	0.2%	-17.1%
Two or More Races	998	1.2%	35.8%

Population Pyramid

Crawford County, PA

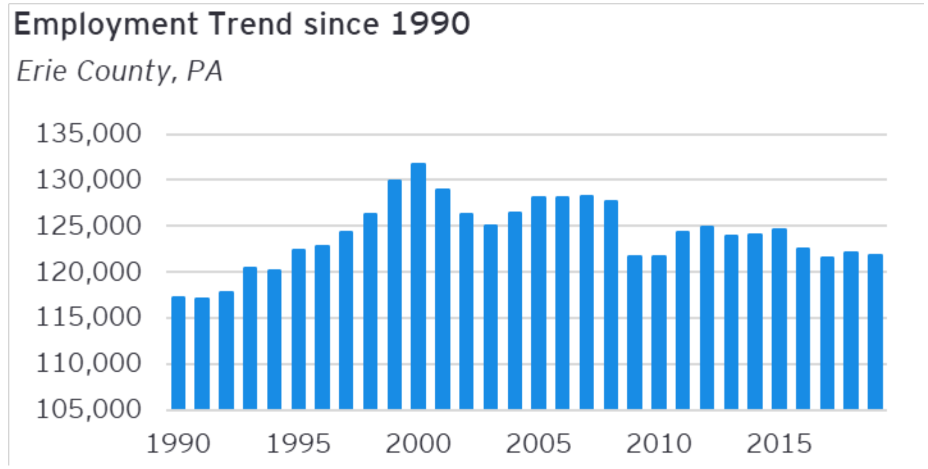
	Population 2019	LQ '19	New Pop. '09-'19	% Growth '09-'19	US Comp
All ages	84,629		-3,866	-4.4%	7.0%
0-4	4,659	0.92	-431	-8.5%	-7.8%
5-9	4,561	0.88	-556	-10.9%	-1.9%
10-14	4,964	0.93	-462	-8.5%	4.2%
15-19	5,567	1.03	-1,239	-18.2%	-2.7%
20-24	5,099	0.91	-398	-7.2%	-0.2%
25-29	4,849	0.80	-24	-0.5%	8.7%
30-34	4,593	0.79	-30	-0.6%	13.4%
35-39	4,596	0.82	-774	-14.4%	6.3%
40-44	4,395	0.86	-1,456	-24.9%	-4.6%
45-49	5,185	0.99	-1,261	-19.6%	-10.2%
50-54	5,615	1.06	-1,183	-17.4%	-5.4%
55-59	6,160	1.09	-124	-2.0%	15.7%
60-64	6,423	1.21	869	15.6%	30.1%
65-69	5,831	1.30	1,412	32.0%	47.7%
70-74	4,775	1.32	1,526	47.0%	55.0%
75-79	3,369	1.35	646	23.7%	31.4%
80-84	1,988	1.22	-235	-10.6%	8.1%
85-	2,000	1.17	-146	-6.8%	16.7%

Source: US Census (Population and Housing Unit Estimates)

Economic Profile

Erie County, PA

Erie County grew its economy to a peak of 132,000 jobs in 2000 and then experience declining peaks for subsequent growth cycles. Currently with 122,000 jobs, Erie County remains heavily reliant on Manufacturing despite long-term downward trends for the sector. More recently, Erie County has not experience job growth in the most recent growth cycle through 2019, losing 4,300 Manufacturing jobs and 1,000 jobs in the broad category of Trade, Transportation and Utilities. Positive recent growth in Health Care (+950 new jobs in 5 years) and Leisure and Hospitality (+280) bode well for the county's transition to new sectors.



Employment by Industry

Erie County, PA

	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	413	-3.6%	7.6%	-82	152
Construction	3,943	0.8%	-0.2%	149	-47
Manufacturing	19,830	-2.1%	-8.1%	-2,173	-11,623
Trade, transportation, and utilities	20,451	-1.0%	0.8%	-1,005	853
Information	932	-4.7%	-10.9%	-254	-927
Financial activities	6,117	-0.2%	1.4%	-56	410
Professional and business services	9,030	0.3%	1.6%	129	692
Health Services & Priv. Ed.	27,424	0.7%	8.1%	954	8,574
Leisure and hospitality	14,142	0.4%	6.2%	277	3,595
Other services	4,716	0.0%	3.6%	0	759
Government	14,815	-0.3%	2.1%	-235	1,507
Total, all industries	121,812	-0.4%	0.6%	-2,298	3,942

Source: US Bureau of Labor Statistics (QCEW)

Age and Race Profile

Erie County, PA

Erie County's population declined by 3.5% over the 10-year period through 2019. This decline, while not the largest percentage change in the region, translated to the largest absolute net loss in the region, losing nearly 10,000 people. Growth rates by age varied widely, with 40-54 year-olds declining by more than 20%. This age group experienced the most significant declines as shown by the double-digit gap beyond US growth rates. Populations under 25 years also exhibited much larger declines than the US trend. In terms of distribution, Erie County has a much less varied concentration across age groups versus other counties in the region – an indication that the county is attractive to all age levels. High growth in retiree populations will increase the average age for the county. Erie County is also home to a State Correctional Institution which can contribute to population variations.

Population by Race

Erie County, PA

	Population 2019	% Share	% Growth '09-'19
All Races	269,728		-3.5%
White	226,584	84.0%	-8.2%
Black	19,661	7.3%	10.0%
Hispanic	11,904	4.4%	35.7%
Asian	5,121	1.9%	114.3%
Nat. Am./Pac. Isl.	571	0.2%	-0.3%
Two or More Races	5,887	2.2%	76.3%

Source: US Census (Population and Housing Unit Estimates)

Population Pyramid

Erie County, PA

	Population 2019	LQ '19	New Pop. '09-'19	% Growth '09-'19	US Comp
All ages	269,728		-9,917	-3.5%	7.0%
0-4	15,052	0.94	-1,933	-11.4%	-7.8%
5-9	15,453	0.93	-1,398	-8.3%	-1.9%
10-14	16,472	0.96	-1,084	-6.2%	4.2%
15-19	18,627	1.08	-3,359	-15.3%	-2.7%
20-24	17,531	0.99	-2,354	-11.8%	-0.2%
25-29	17,739	0.92	-342	-1.9%	8.7%
30-34	17,384	0.94	1,018	6.2%	13.4%
35-39	16,073	0.90	-682	-4.1%	6.3%
40-44	14,535	0.89	-3,795	-20.7%	-4.6%
45-49	15,777	0.94	-4,448	-22.0%	-10.2%
50-54	16,848	1.00	-4,677	-21.7%	-5.4%
55-59	18,601	1.03	-522	-2.7%	15.7%
60-64	19,386	1.15	4,428	29.6%	30.1%
65-69	16,767	1.17	5,420	47.8%	47.7%
70-74	12,276	1.06	3,438	38.9%	55.0%
75-79	8,597	1.08	1,099	14.7%	31.4%
80-84	5,785	1.11	-988	-14.6%	8.1%
85-	6,825	1.26	262	4.0%	16.7%

Erie County is predominantly White but its population is diversifying. Hispanics added the most new population to the county over the past 10 years, while Asians are the fastest-growing race group, more than doubling in size.

EY

Economic Profile

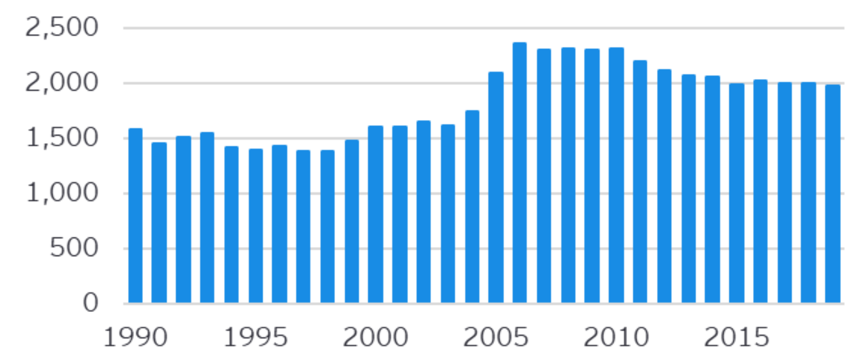
Forest County, PA

Forest County experienced a relatively stable period of employment between 1990 and 2004 with a spike to a peak of 2,350 jobs in the county. However, starting in 2005, the job base has been steadily declining, with about 2,000 jobs in the county now. Given the county's relatively small size, jobs data isn't available for industries with few employers (to ensure data confidentiality). Still, the data that is available shows industries in Health Services, Leisure and Hospitality, and Manufacturing.

In 2017, Government was reported to have 1,006 employees in Forest County. This is an increase of over 150% since 2009.

Employment Trend since 1990

Forest County, PA



Employment by Industry

Forest County, PA	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	54	-15.5%		-71	125
Construction	NA	NA	NA	NA	NA
Manufacturing	136	NA	NA	136	-261
Trade, transportation, and utilities	133	-3.7%	2.3%	-28	17
Information	NA	NA	NA	NA	NA
Financial activities	20	-1.0%	NA	-1	21
Professional and business services	NA	NA	NA	-15	15
Health Services & Priv. Ed.	382	-0.1%	NA	-1	383
Leisure and hospitality	162	NA	NA	162	-168
Other services	11	NA	NA	11	-11
Government	NA	NA	NA	NA	-409
Total, all industries	1,976	-0.8%	7.7%	-76	635

Source: US Bureau of Labor Statistics (QCEW)
Missing data for Forest County is due to bureau data suppression to ensure employer confidentiality.

Age and Race Profile

Forest County, PA

Forest County was the only county within the Northwest Pennsylvania region that experienced population growth between 2009 and 2019. At 3.2%, the growth rate in Forest County was greater than that of the State of Pennsylvania during the same time. Forest County is also home to a State Correctional Institution which can contribute to population variations.

The population is heavily skewed toward retirees, with the 75-84 year-old age group being more than 50% larger than the US per capita average. Growth rates for retiree populations match or exceed US growth rates. Also notable is the relative low numbers of children under 14. High LQs for 20-34 year-olds may indicate commuting college students or young workers. But, large declines in 35-44 year-olds may indicate the lack of career opportunities for middle-age workers.

Population by Race

Forest County, PA

	Population 2019	% Share	% Growth '09-'19
All Races	7,247		3.2%
White	5,188	71.6%	0.6%
Black	1,491	20.6%	10.1%
Hispanic	492	6.8%	23.9%
Asian	13	0.2%	-60.6%
Nat. Am./Pac. Isl.	21	0.3%	-22.2%
Two or More Races	42	0.6%	-14.3%

Source: US Census (Population and Housing Unit Estimates)

Population Pyramid

Forest County, PA

	Population 2019	LQ '19	New Pop. '09-'19	% Growth '09-'19	US Comp
All ages	7,247		228	3.2%	7.0%
0-4	137	0.32	-34	-19.9%	-7.8%
5-9	155	0.35	-30	-16.2%	-1.9%
10-14	198	0.43	-35	-15.0%	4.2%
15-19	435	0.94	-217	-33.3%	-2.7%
20-24	652	1.37	69	11.8%	-0.2%
25-29	728	1.40	149	25.7%	8.7%
30-34	562	1.13	-7	-1.2%	13.4%
35-39	459	0.96	-154	-25.1%	6.3%
40-44	387	0.88	-189	-32.8%	-4.6%
45-49	454	1.01	-51	-10.1%	-10.2%
50-54	424	0.94	-17	-3.9%	-5.4%
55-59	504	1.04	90	21.7%	15.7%
60-64	501	1.10	145	40.7%	30.1%
65-69	468	1.21	101	27.5%	47.7%
70-74	453	1.46	158	53.6%	55.0%
75-79	370	1.74	165	80.5%	31.4%
80-84	221	1.58	70	46.4%	8.1%
85-	139	0.95	15	12.1%	16.7%

Forest County is predominantly White but has a larger proportion of the population that is Black as compared to other counties within the region. Hispanics are the fastest growing race group, while Asians are declining fastest.

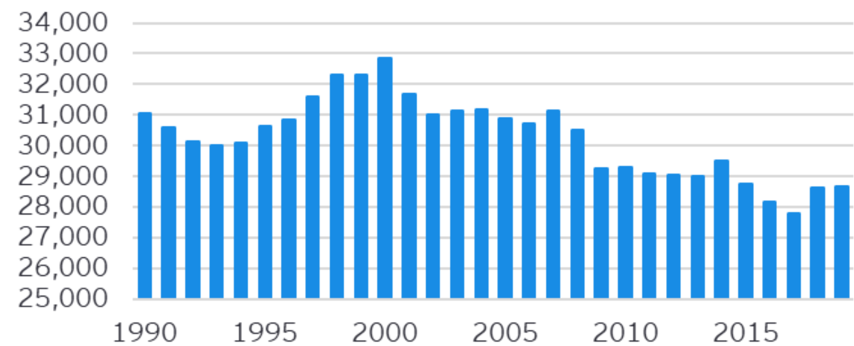
Economic Profile

Lawrence County, PA

After experiencing a strong upswing in the 1990s, Lawrence County's employment base has largely been on the decline since 2000. A modest employment increase in 2014 was followed by three years of job losses but employment stabilized leading up the pandemic. For the 5-year period 2014 to 2019, Construction and Leisure and Hospitality industries grew. On a percentage basis, Financial Services, Professional Services, and Government have declined the most.

Employment Trend since 1990

Lawrence County, PA



Employment by Industry

Lawrence County, PA

	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	214	3.5%	1.5%	34	13
Construction	2,176	3.2%	4.6%	317	375
Manufacturing	3,585	-0.8%	-7.3%	-153	-1,723
Trade, transportation, and utilities	4,942	-1.7%	-2.6%	-430	-755
Information	201	-11.5%	-5.5%	-170	-121
Financial activities	1,230	-2.3%	-2.1%	-150	-158
Professional and business services	2,678	-1.5%	8.2%	-217	946
Health Services & Priv. Ed.	6,436	-0.1%	5.0%	-22	1,393
Leisure and hospitality	2,763	1.1%	0.4%	148	55
Other services	1,025	0.4%	3.5%	21	157
Government	3,417	-1.2%	-3.7%	-212	-759
Total, all industries	28,666	-0.6%	-0.4%	-836	-577

Source: US Bureau of Labor Statistics (QCEW)

Age and Race Profile
Lawrence County, PA

Lawrence County's population declined by 5% between 2009 and 2019, losing 4,500 individuals. The age groups to experience meaningful growth were 60-74 years old.

Still, the county' population is generally well-distributed across age groups, an indication of its attractiveness across different generations. 25-39 year-olds are less represented in the county's population. The largest gaps with US growth trends are in the 35-54 year-olds, where local growth is 15 percentage points less than the US trend.

Lawrence County is predominantly White but is diversifying. Individuals of Two or More Races grew significantly, adding the most new people to the population. White and Native American/Pacific Islander populations experienced declines.

Population by Race

Lawrence County, PA

	Population 2019	% Share	% Growth '09-'19
All Races	85,512		-5.0%
White	78,364	91.6%	-6.8%
Black	3,577	4.2%	2.4%
Hispanic	1,376	1.6%	33.2%
Asian	384	0.4%	7.9%
Nat. Am./Pac. Isl.	111	0.1%	-16.5%
Two or More Races	1,700	2.0%	86.6%

Source: US Census (Population and Housing Unit Estimates)

Population Pyramid

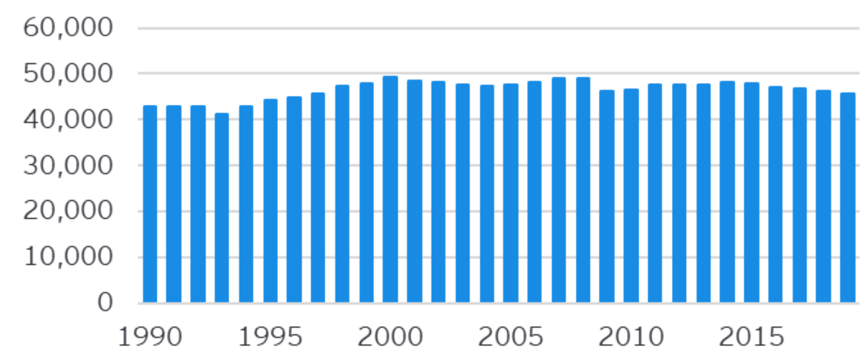
Lawrence County, PA

	Population 2019	LQ '19	New Pop. '09-'19	% Growth '09-'19	US Comp
All ages	85,512		-4,476	-5.0%	7.0%
0-4	4,541	0.89	-212	-4.5%	-7.8%
5-9	4,567	0.87	-483	-9.6%	-1.9%
10-14	4,827	0.89	-659	-12.0%	4.2%
15-19	5,060	0.92	-1,099	-17.8%	-2.7%
20-24	4,837	0.86	-486	-9.1%	-0.2%
25-29	4,904	0.80	4	0.1%	8.7%
30-34	4,592	0.79	-102	-2.2%	13.4%
35-39	4,585	0.81	-603	-11.6%	6.3%
40-44	4,600	0.89	-1,131	-19.7%	-4.6%
45-49	5,118	0.96	-1,467	-22.3%	-10.2%
50-54	5,533	1.04	-1,726	-23.8%	-5.4%
55-59	6,255	1.10	-428	-6.4%	15.7%
60-64	6,824	1.27	1,519	28.6%	30.1%
65-69	5,982	1.32	1,757	41.6%	47.7%
70-74	4,616	1.26	1,026	28.6%	55.0%
75-79	3,307	1.32	46	1.4%	31.4%
80-84	2,518	1.53	-471	-15.8%	8.1%
85-	2,846	1.65	39	1.4%	16.7%

Economic Profile

Mercer County, PA

Mercer County has not had drastic cycles of growth nor decline since 1990. While there has been some decline in overall employment between 2014 and 2019, the overall employment landscape has remained relatively stable. Since 2014, the Construction industry has seen the largest growth, adding 250 jobs between 2014 and 2019. Financial Activities have also grown. Hardest hit has been the large Trade, Transportation, and Utilities industry, losing 1,150 job. Manufacturing and Health Services & Private Education are the second and third largest industries in the county and have largely maintained their employment levels.



Employment by Industry

Mercer County, PA	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	371	-0.4%	5.4%	-7	88
Construction	1,472	3.7%	1.1%	246	68
Manufacturing	8,398	-0.4%	-3.7%	-170	-1,764
Trade, transportation, and utilities	9,163	-2.3%	3.8%	-1,147	1,755
Information	331	-2.8%	-5.3%	-50	-119
Financial activities	1,930	1.5%	5.0%	135	388
Professional and business services	2,417	-4.7%	7.5%	-654	934
Health Services & Priv. Ed.	10,590	-0.7%	7.8%	-393	3,441
Leisure and hospitality	4,687	-0.8%	3.1%	-185	697
Other services	1,421	1.3%	-2.8%	89	-205
Government	4,969	-0.6%	-0.2%	-146	-54
Total, all industries	45,749	-1.0%	2.3%	-2,281	5,185

Source: US Bureau of Labor Statistics (QCEW)

Age and Race Profile
Mercer County, PA

Mercer County's population declined by 5.8% over the 10-year period through 2019. This percentage change translated to a loss of 6,800 individuals and was the second largest loss of population in the region in terms of percentage change, as well as, on an absolute basis. Large population declines occurred for the 40-54 age groups as well as children and teenagers. Large increases occurred in the 60-74 age groups.

The county's population pyramid is skewed toward retiree populations, but the county has its fair share of 15-24 year-olds due to local college populations.

Mercer County is predominantly White but its population is diversifying. While individuals of Two or More Races added the most new people to the population, growth was strong among other major minority groups. Mercer County is also home to a State Correctional Institution which can contribute to population variations.

Population by Race
Mercer County, PA

	Population 2019	% Share	% Growth '09-'19
All Races	109,424		-5.8%
White	98,515	90.0%	-7.5%
Black	6,247	5.7%	1.5%
Hispanic	1,759	1.6%	17.3%
Asian	781	0.7%	17.8%
Nat. Am./Pac. Isl.	205	0.2%	5.1%
Two or More Races	1,917	1.8%	63.3%

Source: US Census (Population and Housing Unit Estimates)

Population Pyramid
Mercer County, PA

	Population 2019	LQ '19	New Pop. '09-'19	% Growth '09-'19	US Comp
All ages	109,424		-6,770	-5.8%	7.0%
0-4	5,379	0.82	-687	-11.3%	-7.8%
5-9	5,409	0.80	-1,166	-17.7%	-1.9%
10-14	6,063	0.87	-937	-13.4%	4.2%
15-19	7,278	1.04	-1,436	-16.5%	-2.7%
20-24	7,299	1.01	-511	-6.5%	-0.2%
25-29	5,898	0.75	-85	-1.4%	8.7%
30-34	5,654	0.76	-40	-0.7%	13.4%
35-39	5,812	0.80	-838	-12.6%	6.3%
40-44	5,783	0.87	-1,800	-23.7%	-4.6%
45-49	6,563	0.97	-2,166	-24.8%	-10.2%
50-54	7,296	1.07	-1,937	-21.0%	-5.4%
55-59	8,146	1.12	-90	-1.1%	15.7%
60-64	8,521	1.24	1,659	24.2%	30.1%
65-69	7,469	1.28	1,919	34.6%	47.7%
70-74	5,791	1.24	1,279	28.3%	55.0%
75-79	4,362	1.36	308	7.6%	31.4%
80-84	3,064	1.45	-521	-14.5%	8.1%
85-	3,637	1.65	279	8.3%	16.7%

EY

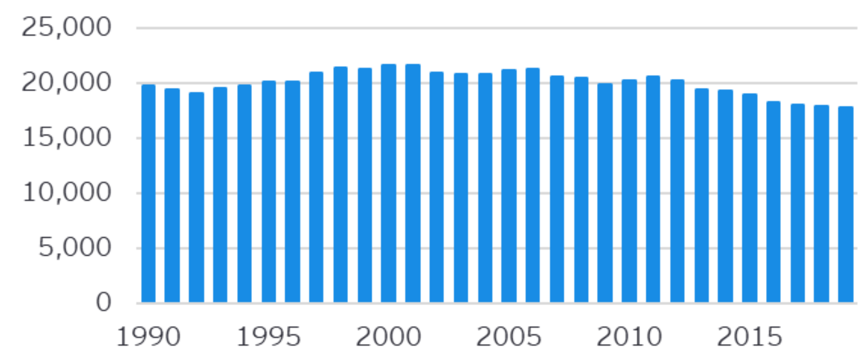
Economic Profile

Venango County, PA

Venango County has experienced minor cycles of growth and decline since 1990. Peak employment was in 2001 with 21,500 jobs followed by undulating declines. In 2019, with approximately 17,800, employment levels were at the lowest since 1990. Between 2014 and 2019, only two industries, Professional Services and Health Services and Private Education have maintained employment levels. Job losses have been most pronounced in large industries Trade, Trans. & Utilities, Manufacturing, and Government.

Employment Trend since 1990

Venango County, PA



Employment by Industry

Venango County, PA

	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	120	-8.9%	4.7%	-71	39
Construction	421	-1.6%	1.6%	-36	35
Manufacturing	3,746	-1.9%	-1.1%	-377	-224
Trade, transportation, and utilities	3,584	-3.4%	2.2%	-681	446
Information	133	-0.1%	-13.9%	-1	-150
Financial activities	477	-1.7%	-8.6%	-42	-296
Professional and business services	924	0.2%	0.2%	7	9
Health Services & Priv. Ed.	3,235	0.1%	3.7%	21	532
Leisure and hospitality	1,358	-0.2%	1.9%	-15	121
Other services	698	0.0%	-2.8%	-1	-105
Government	3,092	-1.7%	-4.3%	-272	-822
Total, all industries	17,788	-1.6%	-0.4%	-1,467	-416

Source: US Bureau of Labor Statistics (QCEW)

Age and Race Profile
Venango County, PA

Venango County's population fell by 6.5% over the last 10 years – the largest percentage decline in the region. This loss of 3,500 individuals was primarily due to a shrinking 45-54 year-old age group. Population losses across all age groups less than 54 years were contrasted with strong growth in age groups 60-74.

Overall, the county's population is heavily skewed toward older populations, particular young retirees 60-69 years old.

Venango County is predominantly White. Between 2009 and 2019, White, Black, Hispanic, and Native American / Pacific Islander populations declined. Only Asian and individuals with Two or More Races saw growth during this time.

Population by Race
Venango County, PA

	Population 2019	% Share	% Growth '09-'19
All Races	50,668		-6.5%
White	48,574	95.9%	-6.5%
Black	561	1.1%	-32.1%
Hispanic	559	1.1%	-2.8%
Asian	224	0.4%	7.2%
Nat. Am./Pac. Isl.	115	0.2%	-21.2%
Two or More Races	635	1.3%	42.1%

Population Pyramid
Venango County, PA

	Population 2019	LQ '19	New Pop. '09-'19	% Growth '09-'19	US Comp
All ages	50,668		-3,510	-6.5%	7.0%
0-4	2,401	0.79	-626	-20.7%	-7.8%
5-9	2,646	0.85	-309	-10.5%	-1.9%
10-14	2,842	0.89	-345	-10.8%	4.2%
15-19	2,815	0.87	-866	-23.5%	-2.7%
20-24	2,369	0.71	-548	-18.8%	-0.2%
25-29	2,674	0.74	-212	-7.3%	8.7%
30-34	2,628	0.76	-136	-4.9%	13.4%
35-39	2,706	0.81	-293	-9.8%	6.3%
40-44	2,751	0.89	-655	-19.2%	-4.6%
45-49	3,012	0.96	-1,315	-30.4%	-10.2%
50-54	3,405	1.08	-1,237	-26.6%	-5.4%
55-59	4,207	1.25	12	0.3%	15.7%
60-64	4,511	1.42	1,038	29.9%	30.1%
65-69	3,860	1.43	1,140	41.9%	47.7%
70-74	2,915	1.35	660	29.3%	55.0%
75-79	2,038	1.37	181	9.7%	31.4%
80-84	1,361	1.40	-236	-14.8%	8.1%
85-	1,527	1.50	237	18.4%	16.7%

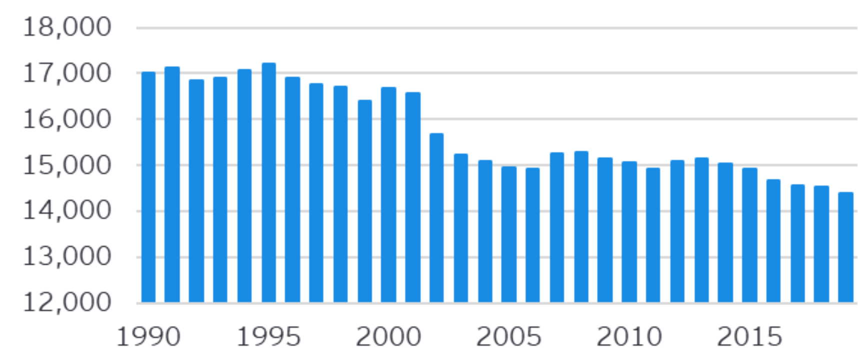
Source: US Census (Population and Housing Unit Estimates)

Economic Profile
Warren County, PA

Warren County experienced large job looses in the early 2000s, followed by relatively stable employment for the next 10 years. Since 2014, overall employment has declined with the largest job losses Trade/Transp./Utilities, Leisure and Hospitality, and Manufacturing. Some industries grew over the 5-year period: Financial Activities (+3.7%), Professional Services (+1.2%) and Health Services/Private Education (+0.9%). While overall employment has declined, there does seem to be more diverse employment across industries.

Employment Trend since 1990

Warren County, PA



Employment by Industry

Warren County, PA

	Jobs 2019	Ann. % Growth 5-year	Previous 20 Years	Net New Jobs 5-year	Previous 20 Years
Natural resources and mining	235	-5.1%	5.0%	-71	66
Construction	271	0.2%	4.3%	3	51
Manufacturing	2,506	-1.1%	-9.1%	-142	-1,613
Trade, transportation, and utilities	2,995	-3.6%	-5.2%	-608	-1,095
Information	70	-2.9%	-6.8%	-11	-34
Financial activities	949	3.7%	15.9%	157	414
Professional and business services	1,184	1.2%	5.4%	70	257
Health Services & Priv. Ed.	2,801	0.9%	9.9%	120	1,006
Leisure and hospitality	955	-1.2%	-1.8%	-58	-97
Other services	512	0.1%	-1.6%	2	-42
Government	1,908	-1.1%	-7.4%	-106	-944
Total, all industries	14,387	-0.9%	-2.5%	-642	-2,031

Source: US Bureau of Labor Statistics (QCEW)

Age and Race Profile
Warren County, PA

Warren County's population declined by 3.4% over the 10-year period through 2019. The county's population pyramid is heavily skewed toward older worker, with 55-64 year-olds having the largest population in their age groups. Retiree populations are the fastest-growing, particularly young retirees 65-74 years old.

Older Millennials and young Gen X populations shrunk the most, with decline gaps of more that 17 percentage points from US trends.

Warren County is predominantly White but is diversifying. While the White and Black populations declined between 2009 and 2019, all other race and ethnicity groups saw double-digit growth during the same time period.

Population by Race
Warren County, PA

	Population 2019	% Share	% Growth '09-'19
All Races	39,191		-3.4%
White	37,875	96.6%	-3.9%
Black	195	0.5%	-28.3%
Hispanic	450	1.1%	31.6%
Asian	184	0.5%	10.2%
Nat. Am./Pac. Isl.	131	0.3%	22.4%
Two or More Races	356	0.9%	29.9%

Source: US Census (Population and Housing Unit Estimates)

Population Pyramid
Warren County, PA

	Population 2019	LQ '19	New Pop. '09-'19	% Growth '09-'19	US Comp
All ages	39,191		-1,393	-3.4%	7.0%
0-4	2,071	0.89	97	4.9%	-7.8%
5-9	2,020	0.84	-180	-8.2%	-1.9%
10-14	2,130	0.86	-227	-9.6%	4.2%
15-19	2,115	0.84	-485	-18.7%	-2.7%
20-24	1,908	0.74	-294	-13.4%	-0.2%
25-29	2,105	0.75	27	1.3%	8.7%
30-34	1,981	0.74	66	3.4%	13.4%
35-39	2,105	0.81	-187	-8.2%	6.3%
40-44	1,978	0.83	-755	-27.6%	-4.6%
45-49	2,327	0.96	-850	-26.8%	-10.2%
50-54	2,737	1.12	-802	-22.7%	-5.4%
55-59	3,147	1.20	-36	-1.1%	15.7%
60-64	3,351	1.36	575	20.7%	30.1%
65-69	2,862	1.37	634	28.5%	47.7%
70-74	2,261	1.35	555	32.5%	55.0%
75-79	1,743	1.51	328	23.2%	31.4%
80-84	1,147	1.52	-10	-0.9%	8.1%
85-	1,203	1.53	151	14.4%	16.7%

5 Appendix

Included in the Appendix are:

- Industry cluster definitions
- Occupation cluster definitions

Industry Cluster Descriptions

Aerospace: Operations engaged in research, design, and manufacturing aerospace and space technology, products, and parts, including commercial aircraft, military craft, and unmanned aerial vehicles (UAVs).

Agribusiness & Food: Operations engaged in raising, harvesting, processing, and manufacturing crops, food, and beverage products. Operations include farming, dairy, ranching, hunting, fishing, and all support activities, such as pesticide manufacturing. Also includes manufacture of tobacco and processed food products, such as sugar, flour, and canned goods.

Apparel & Textiles: Operations engaged in processing natural products such as cotton and leather into consumer textiles and apparel products. These include fabric mills, textile mills, and cut and sew apparel manufacturing.

Back Office: Operations engaged in support activities for the day-to-day operations of other businesses, including office administration, facilities support, employment services, and business support.

Biomedical Supplies & Labs: Operations engaged in manufacture and wholesale of medicine, pharmaceuticals, and medical equipment. Also includes medical and diagnostics laboratories.

Construction: Operations engaged in construction of buildings and engineering projects, such as highways and utility systems. Also includes operations manufacturing products related to construction, such as lumber, clay, glass, cement, and lime.

Consumer Goods Mfg.: Operations engaged in manufacture of household appliances and other miscellaneous nondurable goods for consumers.

Creative Content: Operations engaged in creative and information sectors such as movie and music production, radio and television programming, newspaper and magazine production, and internet publishing.

Education: Operations engaged in education institutions, including elementary and secondary schools (government and private), colleges, universities, professional schools, trade schools, and educational support services.

Industry Cluster Descriptions

Electronics: Operations engaged in manufacture, wholesale, and repair of electronic equipment, including computers, televisions, semiconductors, and other electronic components.

Energy: Operations engaged in all vertically aligned elements of the energy sector, including oil extraction, coal mining, pipeline transportation of oil and gas, and electric power generation, transmission, and distribution.

Entertainment: Operations engaged in leisure and accommodation, including hotels, restaurants, bars, casinos, museums, performing arts, and sporting facilities. Also includes independent performers, artists, and direct tourist activities.

Finance: Operations engaged in financial, insurance, and real estate activities, such as banks, insurance carriers, and real estate brokers.

Furniture: Operations engaged in manufacture and wholesale of household, office, and commercial furniture and cabinets.

Government: Operations of federal, state, and local government agencies, waste collection and management, and water treatment. Military employment is not included in these numbers.

Healthcare: Operations engaged in direct provision of healthcare and social services, including private hospitals, doctor offices, elderly care, child day care, family services, and home nursing care.

Industrial Machinery: Operations engaged in manufacture and wholesale of industrial application machinery, including agricultural and mining equipment, HVAC systems, metalworking machinery, turbines, lighting, and other equipment.

Mining & Logging: Operations engaged in forestry, logging, and mining: not including oil, gas, and coal extraction.

Materials: Operations engaged in design, wholesale, and manufacture of traditional and complex materials, including paper, chemicals, plastics, rubber, and other advanced materials.

Industry Cluster Descriptions

Metalworking: Operations engaged in processing minerals into metal products and manufacture of components and products from metal. This includes steel mills, foundries, fabricated metal and structural metal manufacturing, and hand-tool manufacturing.

Non-Profits: Operations engaged in non-profit activities, including churches, social advocacy, and civic and professional associations.

Professional Services: Operations engaged in architecture, engineering, legal, accounting, management, and other technical services.

Research: Operations engaged in scientific research and development and scientific consulting services.

Retail: Operations engaged in retail sale of goods and services to consumers, including car dealers, grocery stores, clothing stores, gas stations, auto repair, personal care, and equipment rental.

Shipbuilding: Operations engaged in construction of ships and boats.

Software / Information Technology: Operations engaged in information technology sectors, including software publishing, internet service providers, computer system design, data processing and hosting, and other information services.

Telecom Services: Operations engaged in wired, wireless, and satellite telecommunications, including cell phone and cable providers.

Transportation & Logistics: Operations engaged in transportation of goods and individuals; warehousing and storage of goods; and delivery of post and packages. This includes commercial, personal, and tourism transportation on air, rail, water, and roads.

Occupation Cluster Descriptions

Agriculture: Includes farm, fishing, and forestry labor, as well as farm management and agricultural production occupations. Most Agriculture occupations do not require any post-secondary educational attainment.

Architecture: Includes residential, commercial, industrial, and landscape architects. Architecture occupations require a bachelor's degree.

Back Office: Encompasses a variety of business support occupations, including clerks, human resource professionals, and office administration staff in a variety of industries. Most Back Office occupations require at least a high school diploma and a significant number require a bachelor's degree.

Business: Includes chief executives, managers, and analysts. Virtually all Business occupations require at least bachelor's degree and several occupations require a master's degree.

Communications: Includes advertising and public relations occupations, as well supporting writers, editors, and analysts. Nearly all Communications occupations require a bachelor's degree.

Computer: Encompasses electrical engineers, hardware engineers, network support specialists, software and web-based developers, and related computer programmers and security analysts. The majority of Computer occupations require a bachelor's degree.

Construction: Includes construction managers and laborers, equipment operations, and specialized trade contractors. Most construction occupations require a high school diploma and an apprenticeship or some on-the-job training.

Design: Includes artists and animators, graphic and industrial designers, and audiovisual production professionals. Educational requirements within the Design cluster vary widely.

Education: Includes teachers, related administrators, and library science professionals. Virtually all Education occupations require a bachelor's degree and a significant number require a master's degree.

Occupation Cluster Descriptions

Engineering: Includes virtually all engineers, with the exception of those directly related to computers. The majority of engineering occupations require a bachelor’s degree.

Financial: Includes financial advisors and analysts, accountants, loan officers, and real estate professionals. Most Financial occupations require a bachelor’s degree.

Geology: Includes operators of oil, gas, and mining equipment. The majority of Geology occupations require a high school diploma, with remaining occupations only requiring on-the-job training.

Hospitality: Includes food related occupations such as cooks and wait staff, as well as laborers and maintenance workers in industries such as gaming and lodging. Hospitality occupations typically require a high school diploma or some on-the-job training.

Legal: Includes lawyers, judges, paralegals and related support staff. Educational requirements within the Legal cluster vary widely.

Logistics: Includes air passenger and cargo workers, drivers, laborers in the shipping and rail industries, and transportation-related machine operators. Most Logistics occupations do not require a post-secondary education.

Math: A narrow occupation cluster involving actuaries, mathematicians, and statisticians. Math occupations require at least a bachelor’s degree.

Mechanics: Includes technicians and repair personnel for a host of industries, including automotive, aircraft, telecommunications, electrical, and electronic products. Most Mechanics occupations do not require a post-secondary education.

Medical: Includes doctors, nurses, aids and attendants, equipment technicians, and therapists (both physical and psychological). Medical occupations also include veterinarians as well as dentists and related workers. Educational requirements within the Medical cluster vary widely.

Occupation Cluster Descriptions

Performance: Includes occupations involved with athletic, dance, musical, televised, and theatrical performances. Performance occupations typically require at least a high school diploma.

Personal Services: Includes personal appearance professionals, childcare providers, and retail salespersons, clerks, and cashiers. Most Personal Service occupations require either a high school diploma or postsecondary non-degree award.

Political: Includes occupations typically related to public policy, including urban planners, geographers, and political scientists. The majority of Political occupations require a master's degree.

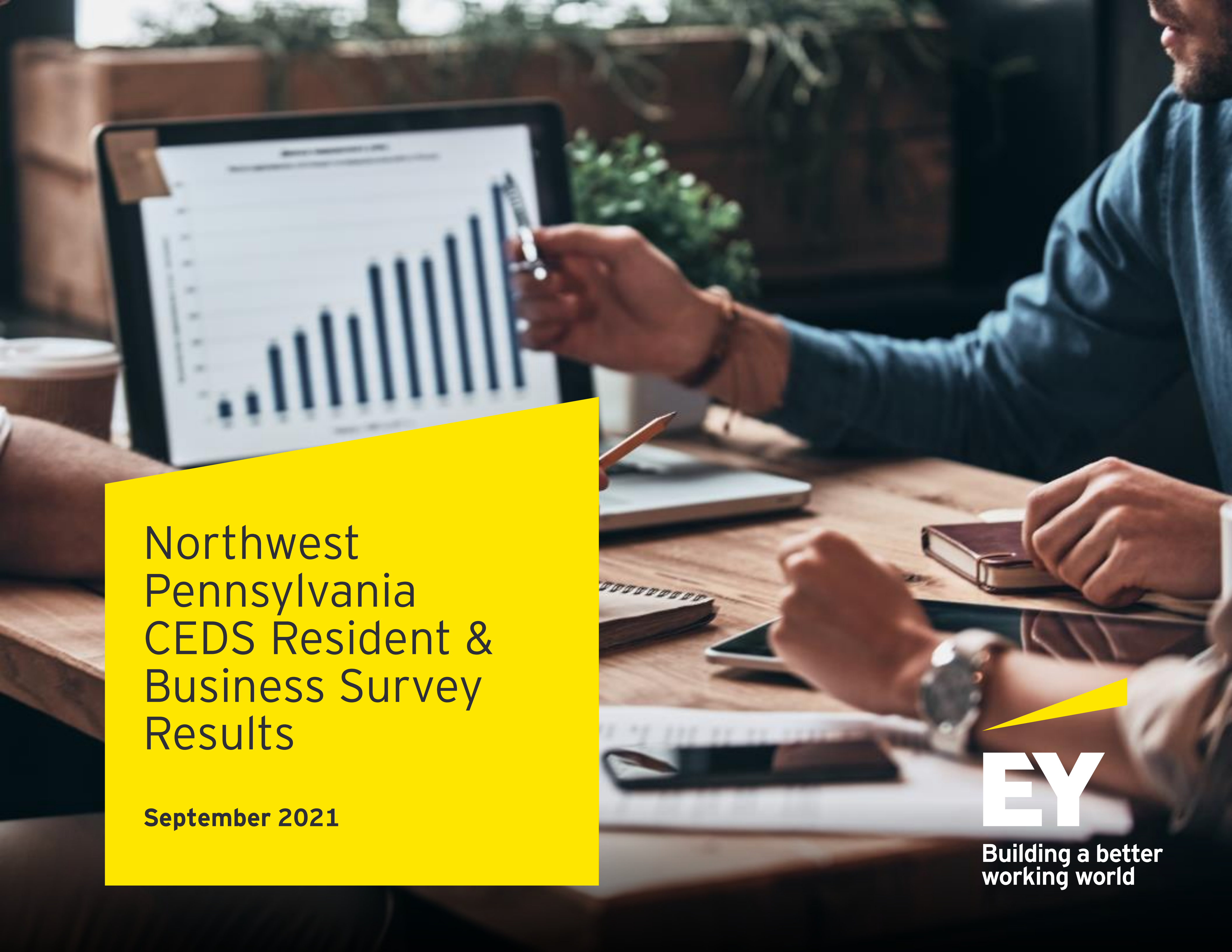
Plant Operators: Includes operators of large-scale chemical, gas, nuclear, and water systems.

Production: Includes assembly workers, machinists, and equipment operators in a variety of manufacturing-oriented industries.

Sales & Marketing: Includes sales and marketing managers. These positions typically require a bachelor's degree.

Social Service: Include public safety workers such as firefighters and police officers as well as postal workers and religious officials. Social Service occupations typically require at least a high school diploma.

Appendix: Community Survey



Northwest Pennsylvania CEDS Resident & Business Survey Results

September 2021

Building a better working world

1 Key findings

Key findings

Survey respondents were largely representative of the region's population; the share of respondents by county was largely aligned with the 2019 percentage share of population by county. Erie County had the largest share of respondents while Forest County had the lowest share of respondents.

Over 88% of respondents felt that the region's economy pre-COVID-19 average or below.

More than half of respondents felt that the Northwest PA region rated "Not Well" in the areas listed below:

- Job / population growth
- High-speed internet access
- Wage levels
- Public transportation system
- Career / job opportunities

Across all areas, more respondents rated the Northwest PA region as "Average" as compared to "Very Well".

The top three economic development priorities for the next five years were:

- Recruiting new businesses to the region
- Creating higher-paying jobs / raising income levels
- Increasing high-speed internet access

The top five most desirable target industry clusters to fuel future economic development in the region were:

- Agriculture
- Information technology / telecommunications
- Clean energy
- Hospitality / tourism
- Distribution and logistics

> "Our region offers the potential for solid employment and quality of living.

Key findings, continued

Of the 279 respondents, 97 respondents stated that they owned or managed a business in the region and were asked to participate in 11 additional survey questions.

The type of operations was varied with Professional Services having the largest share of respondents.
Most of the respondents had fewer than 10 employees in the region.
Three of the respondents stated that they had 500 employees or more in the region.

Nearly 65% of respondents anticipated local spending in the region to increase over the next five years.
Less than 10% of respondents stated that they anticipate there to be a decrease in the following areas:

- Local spending in this region
- Employment headcount in this region
- Capital investment in this region
- Workforce training in this region

Respondents felt that having more workers and customers in the region would benefit their company. While having more investors/funding sources and suppliers also ranked as being beneficial, having more customers was perceived as being most beneficial.

Nearly 37% of respondents felt that their company's ability to fill job vacancies in next five years was going to be more difficult than the previous five years. However, 12% of respondents felt that they were facing a crisis situation in which some positions will go unfilled.

The top three reasons for why respondent's companies chose to locate in the region are as follows:

- Competitive cost of doing business
- Attractive lifestyle amenities
- Wage levels

Key findings, continued

When looking at some of the demographic characteristics of the respondents, we saw the following:

- Over 52% of respondents were between 45 and 64 years of age
- Females made up nearly 50% of respondents
- Respondents overwhelmingly identified as being White or Caucasian (93%)
- Over 42% of respondents reported household incomes of $100,000 or higher

Open-ended Question

Overall, there was an understanding that there was a declining population and a need to attract more young professionals to the community. Additionally, respondents stated that they hoped to see more partnerships and cooperation in the future among a number of public and private organizations.

Improving infrastructure and lowering taxes were also themes that came up often in the free response questions.
A need to increase wages was noted.

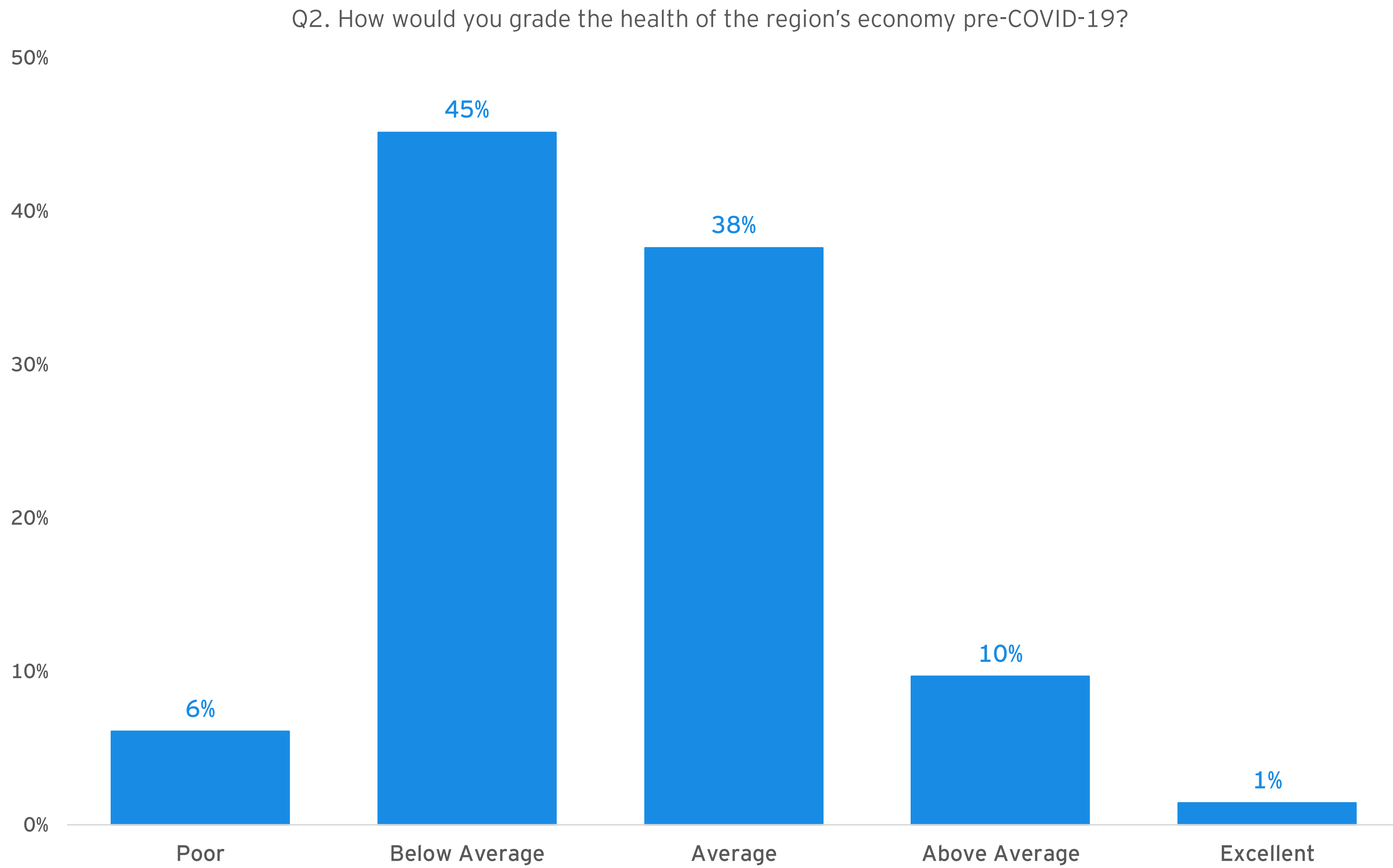
A mix of both hard and soft skills was noted as needing improvement. Trades and IT skills came up frequently as skillsets that employers would like to see more of in the region.

Low wages, lack of affordable housing and lack of entertainment amenities were all noted as concerns that potential hires have when being recruited from outside of the region.

When asked about what positions are most difficult to fill, respondents provided a mix of high and low skilled jobs, as well as, high and low paying positions indicating that many employers are facing difficulty with overall hiring.

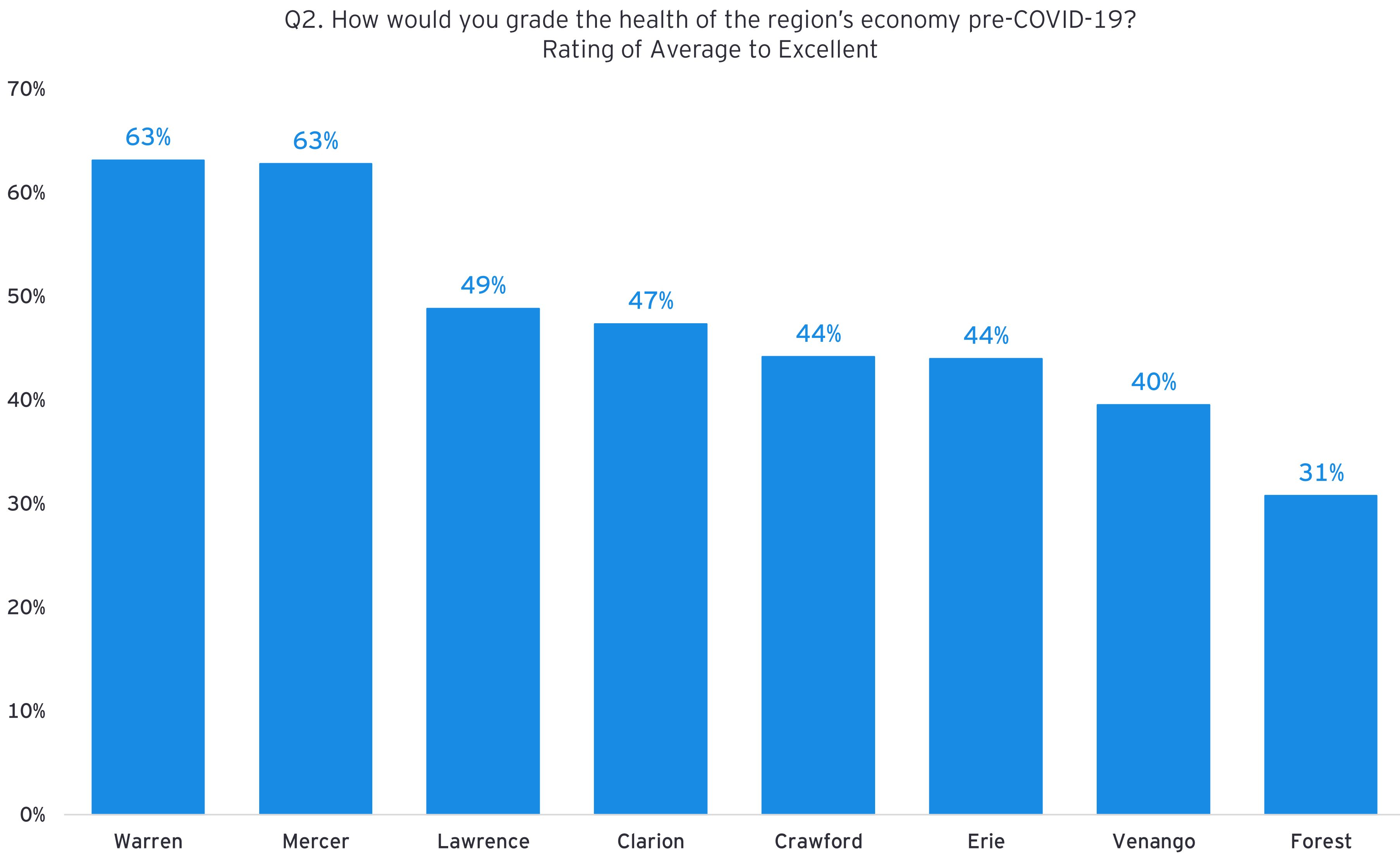
2 Detailed Survey Results

Survey results



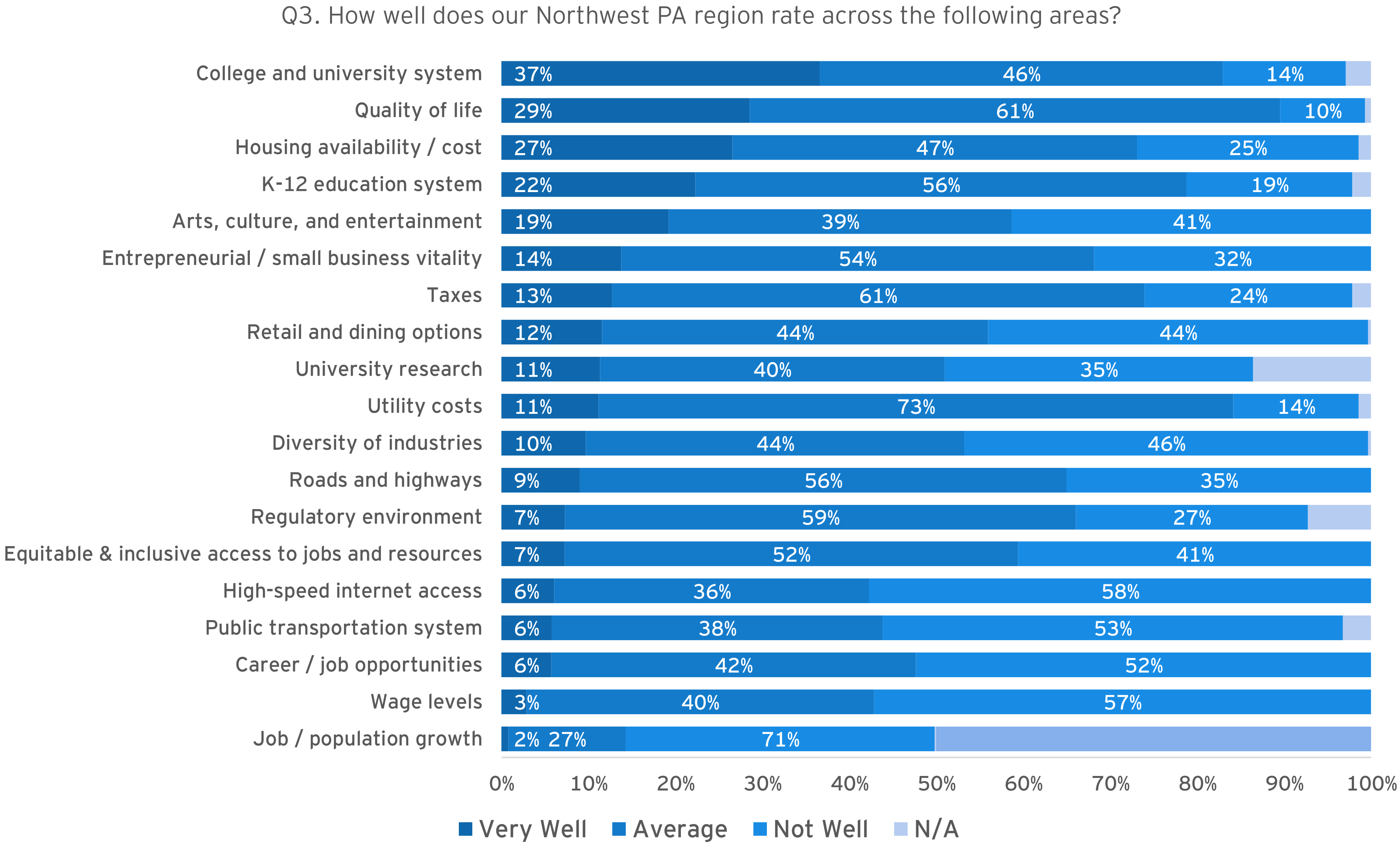
Source: Resident and business survey

Survey results



Source: Resident and business survey

Survey results



Source: Resident and business survey

Survey results

Q3. How well does our Northwest PA region rate across the following areas?

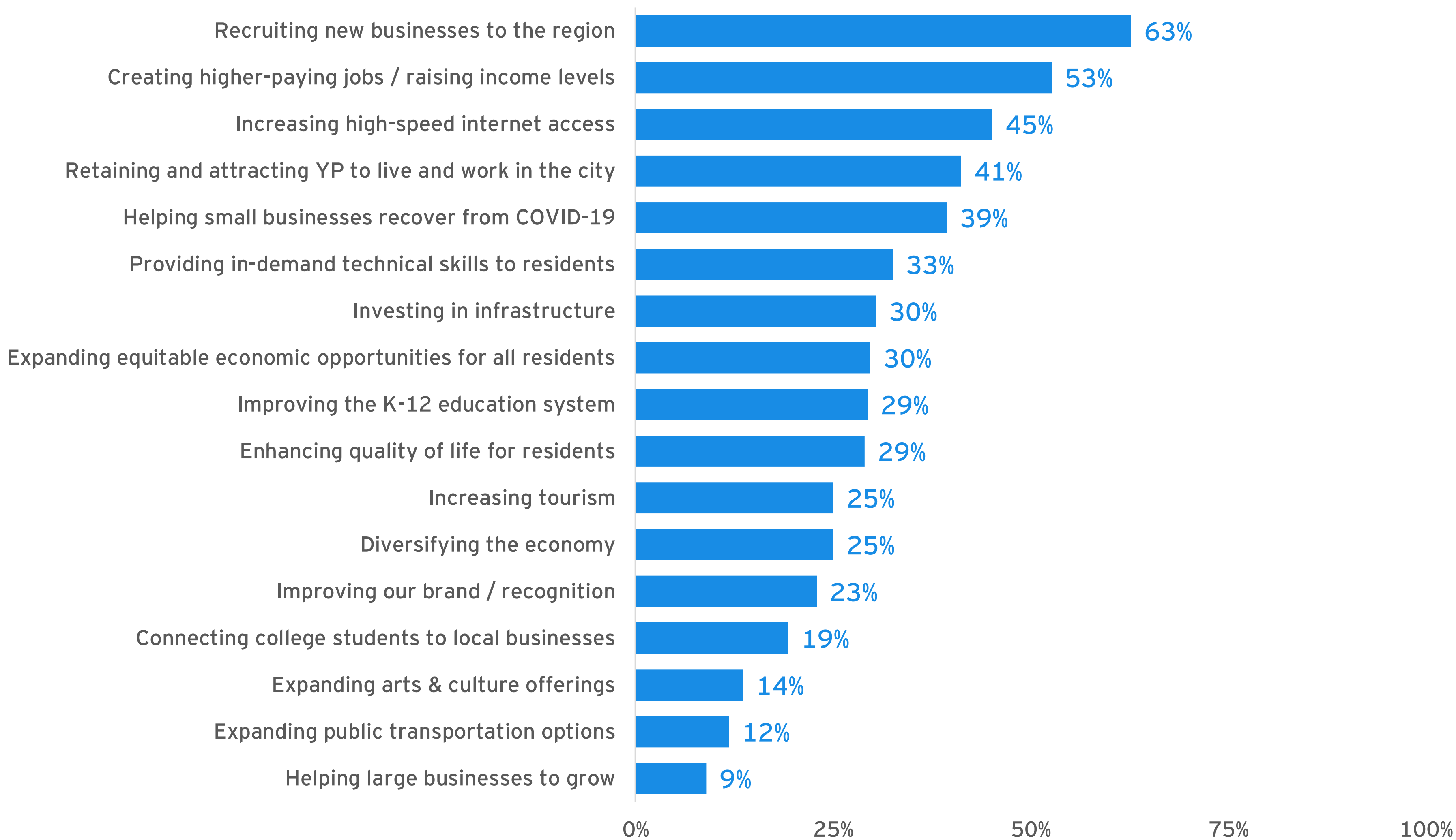
Average to Very Well

	Clarion	Crawford	Erie	Forest	Lawrence	Mercer	Venango	Warren
College and university system	84%	79%	90%	67%	86%	93%	81%	53%
Quality of life	89%	98%	92%	85%	81%	86%	95%	79%
Housing availability / cost	63%	67%	75%	75%	84%	86%	67%	53%
K-12 education system	89%	86%	56%	69%	76%	98%	86%	68%
Arts, culture, and entertainment	37%	53%	84%	46%	50%	47%	67%	58%
Entrepreneurial / small business vitality	53%	55%	72%	58%	64%	70%	88%	63%
Taxes	79%	71%	73%	100%	64%	79%	81%	53%
Retail and dining options	37%	42%	90%	31%	45%	60%	53%	53%
University research	39%	44%	64%	46%	55%	66%	38%	26%
Utility costs	89%	90%	86%	69%	77%	79%	95%	74%
Diversity of industries	26%	40%	52%	46%	56%	69%	60%	53%
Roads and highways	79%	68%	66%	85%	58%	63%	60%	58%
Regulatory environment	63%	53%	71%	50%	64%	77%	64%	68%
Equitable & inclusive access to jobs & resources	68%	51%	33%	62%	62%	81%	65%	58%
High-speed internet access	21%	23%	46%	38%	70%	53%	26%	37%
Public transportation system	32%	40%	51%	31%	56%	28%	42%	63%
Career / job opportunities	37%	37%	40%	46%	60%	58%	42%	53%
Wage levels	47%	30%	22%	42%	65%	60%	30%	42%
Job / population growth	26%	24%	31%	15%	24%	38%	26%	21%

Source: Resident and business survey

Survey results

Q4. What should be our region's top economic development priorities for the next five years?



Source: Resident and business survey

Survey results

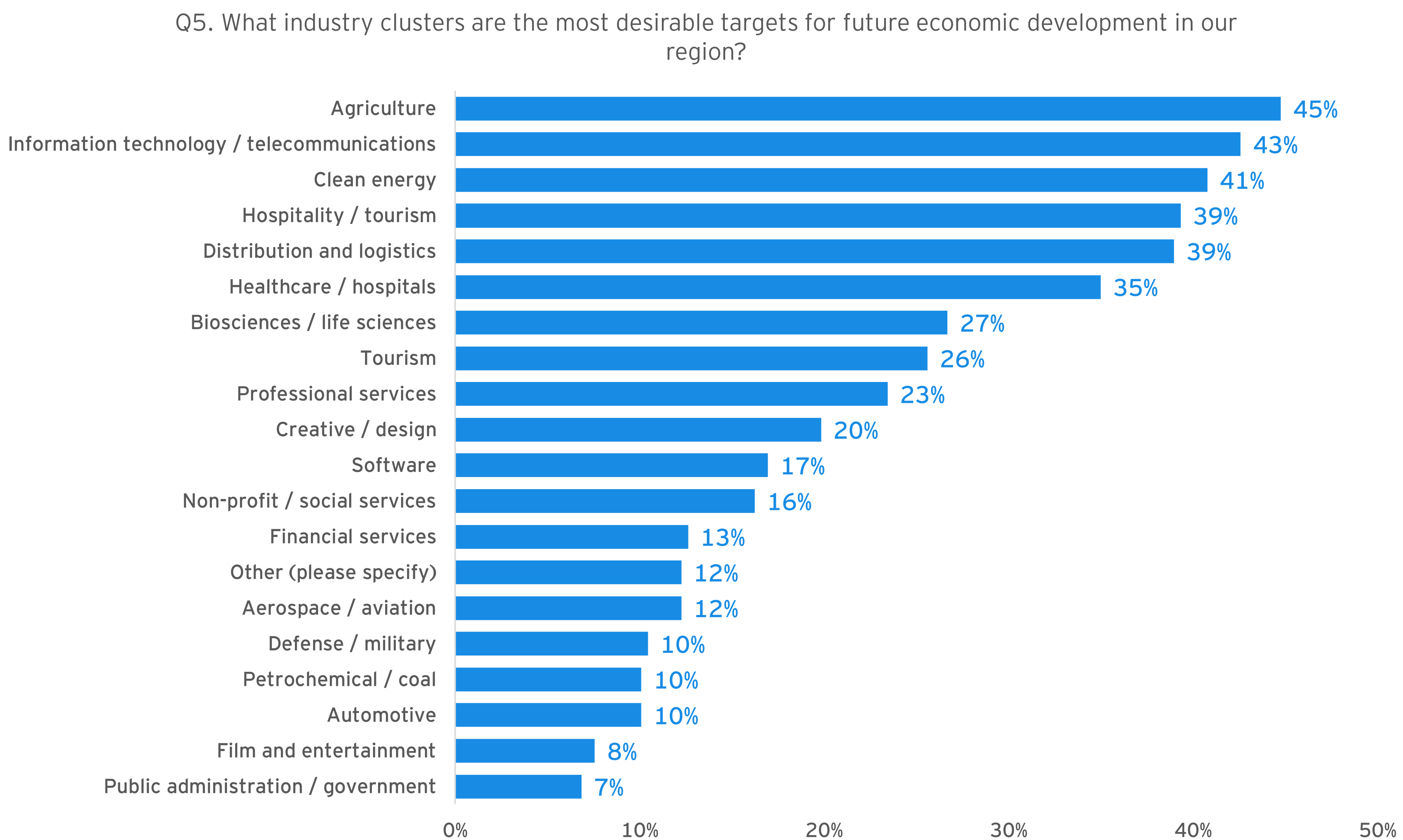
Q4. What should be our region's top economic development priorities for the next five years?

(Please pick up to 5)

	Clarion	Crawford	Erie	Forest	Lawrence	Mercer	Venango	Warren
Recruiting new businesses to the region	74%	65%	44%	69%	74%	67%	56%	74%
Creating higher-paying jobs / raising income levels	53%	47%	64%	54%	35%	51%	63%	53%
Increasing high-speed internet access	79%	53%	42%	69%	26%	28%	53%	58%
Helping small businesses recover from COVID-19	32%	23%	40%	31%	53%	44%	35%	53%
Retaining and attracting YP to live and work in the city	47%	40%	34%	15%	53%	49%	40%	32%
Improving the K-12 education system	32%	21%	38%	46%	35%	21%	21%	47%
Providing in-demand technical skills to residents	37%	40%	38%	15%	40%	28%	28%	26%
Investing in infrastructure	21%	42%	26%	15%	35%	19%	37%	37%
Expanding equitable economic opportunities for all residents	26%	35%	54%	31%	26%	16%	21%	21%
Enhancing quality of life for residents	26%	23%	22%	31%	51%	28%	23%	21%
Diversifying the economy	26%	33%	40%	15%	26%	14%	19%	21%
Increasing tourism	21%	37%	18%	15%	9%	33%	35%	21%
Improving our brand / recognition	5%	21%	26%	23%	26%	21%	30%	21%
Connecting college students to local businesses	11%	23%	8%	31%	23%	26%	12%	26%
Expanding arts & culture offerings	11%	19%	6%	8%	23%	14%	9%	16%
Expanding public transportation options	11%	14%	18%	8%	9%	14%	12%	0%
Helping large businesses to grow	5%	2%	8%	15%	16%	9%	7%	11%

Source: Resident and business survey

Survey results



Source: Resident and business survey

Survey results

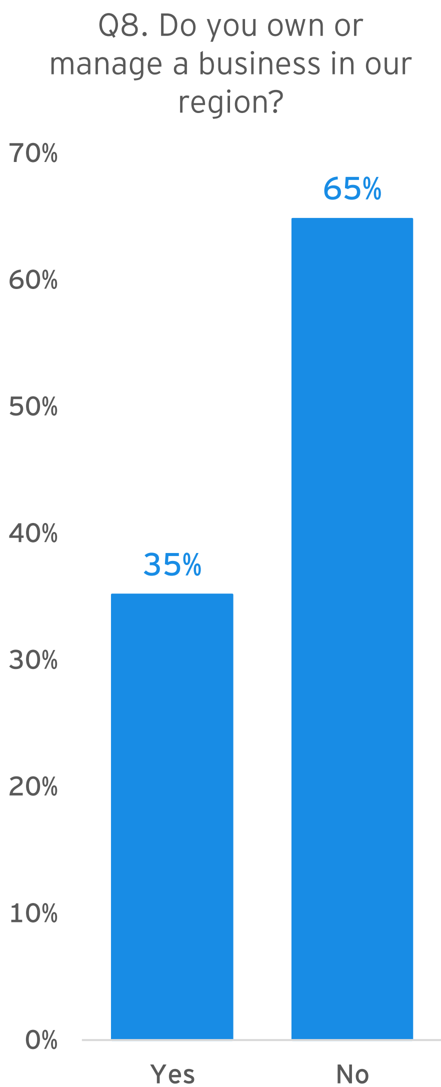
Q5. What industry clusters are the most desirable targets for future economic development in our region?

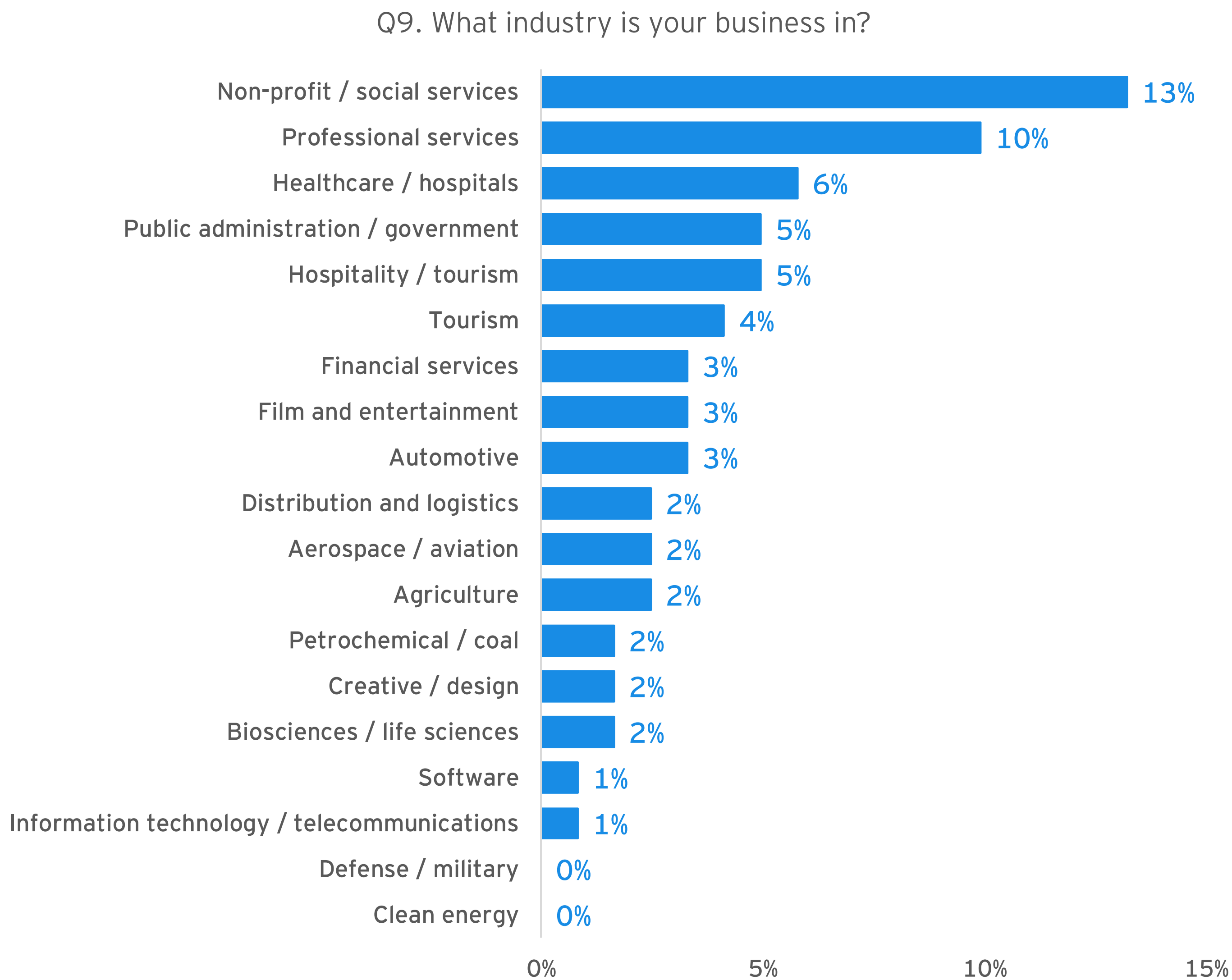
(Please pick up to 5)

	Clarion	Crawford	Erie	Forest	Lawrence	Mercer	Venango	Warren
Agriculture	68%	44%	36%	50%	48%	40%	42%	58%
Hospitality / tourism	63%	51%	36%	67%	17%	42%	40%	32%
IT / telecommunications	53%	35%	50%	25%	45%	42%	47%	37%
Clean energy	26%	44%	68%	42%	31%	23%	44%	26%
Distribution and logistics	37%	30%	50%	33%	48%	42%	30%	32%
Healthcare / hospitals	47%	28%	30%	42%	36%	42%	30%	37%
Tourism	26%	28%	24%	58%	10%	16%	44%	21%
Biosciences / life sciences	5%	35%	28%	33%	29%	21%	23%	37%
Professional services	16%	19%	20%	42%	33%	37%	12%	16%
Non-profit / social services	26%	12%	10%	25%	14%	16%	16%	37%
Creative / design	11%	30%	20%	17%	14%	21%	21%	16%
Software	5%	16%	16%	0%	19%	19%	26%	11%
Financial services	0%	19%	6%	8%	19%	14%	2%	26%
Petrochemical / coal	21%	9%	2%	17%	12%	2%	16%	11%
Aerospace / aviation	16%	19%	20%	0%	10%	9%	12%	0%
Defense / military	16%	7%	10%	0%	17%	12%	7%	16%
Automotive	0%	7%	0%	8%	17%	28%	7%	5%
Film and entertainment	0%	5%	12%	8%	12%	7%	9%	0%
Public administration / government	5%	9%	6%	0%	7%	12%	2%	11%

Source: Resident and business survey

Survey results

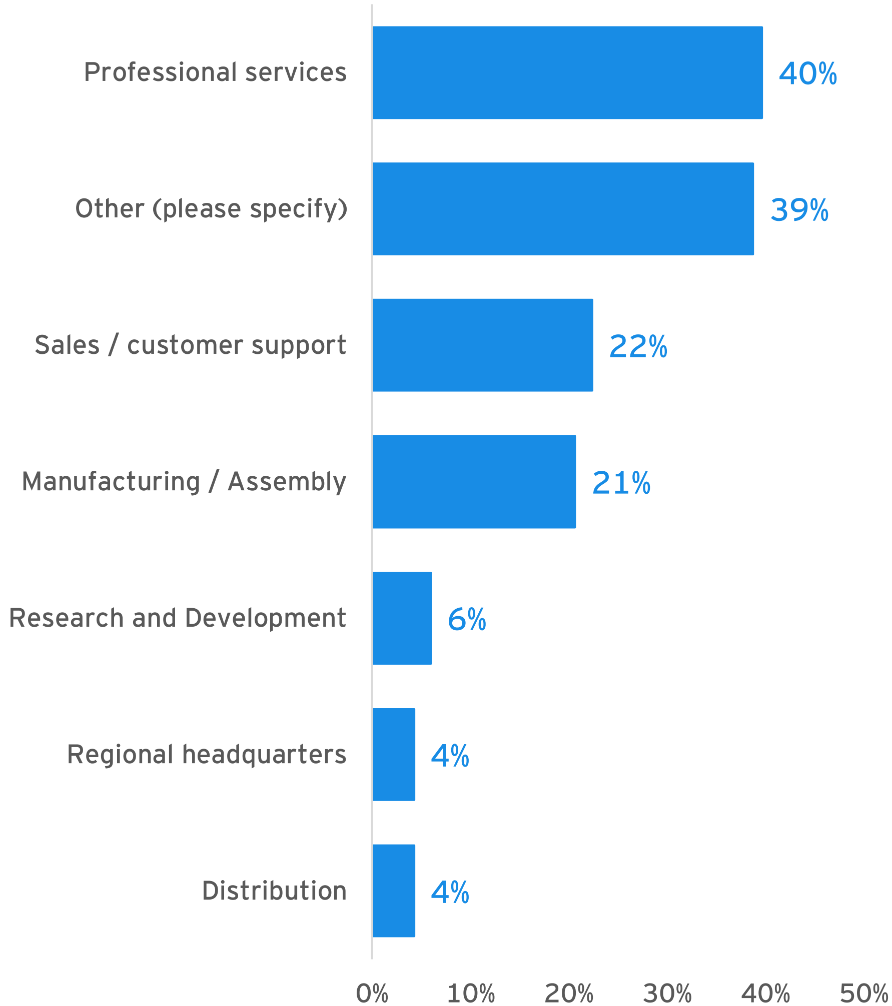




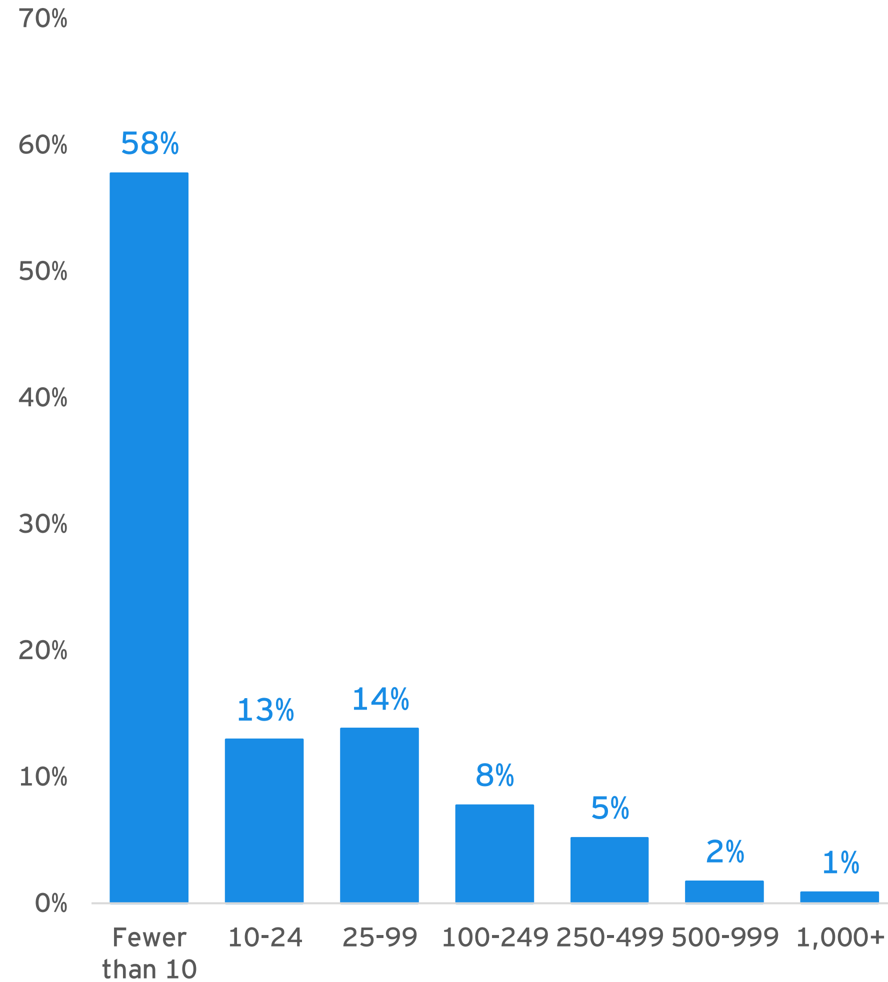
Note: A third of respondents for Q9. stated "Other" as their response
Source: Resident and business survey

Survey results

Q10. What type of operations do you have here?

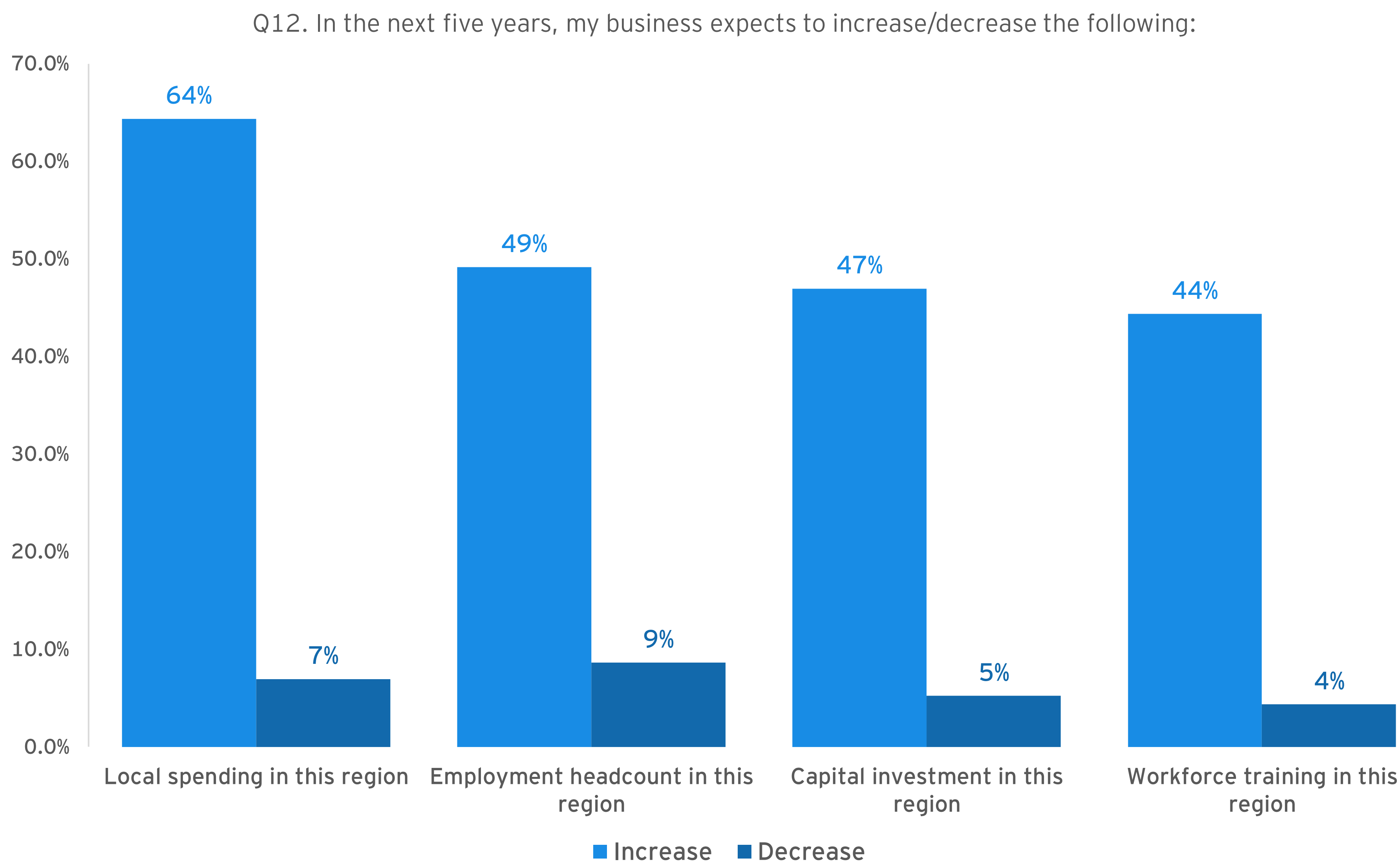


Q11. Approximately how many people does your company employ in our region?



Source: Resident and business survey

Survey results

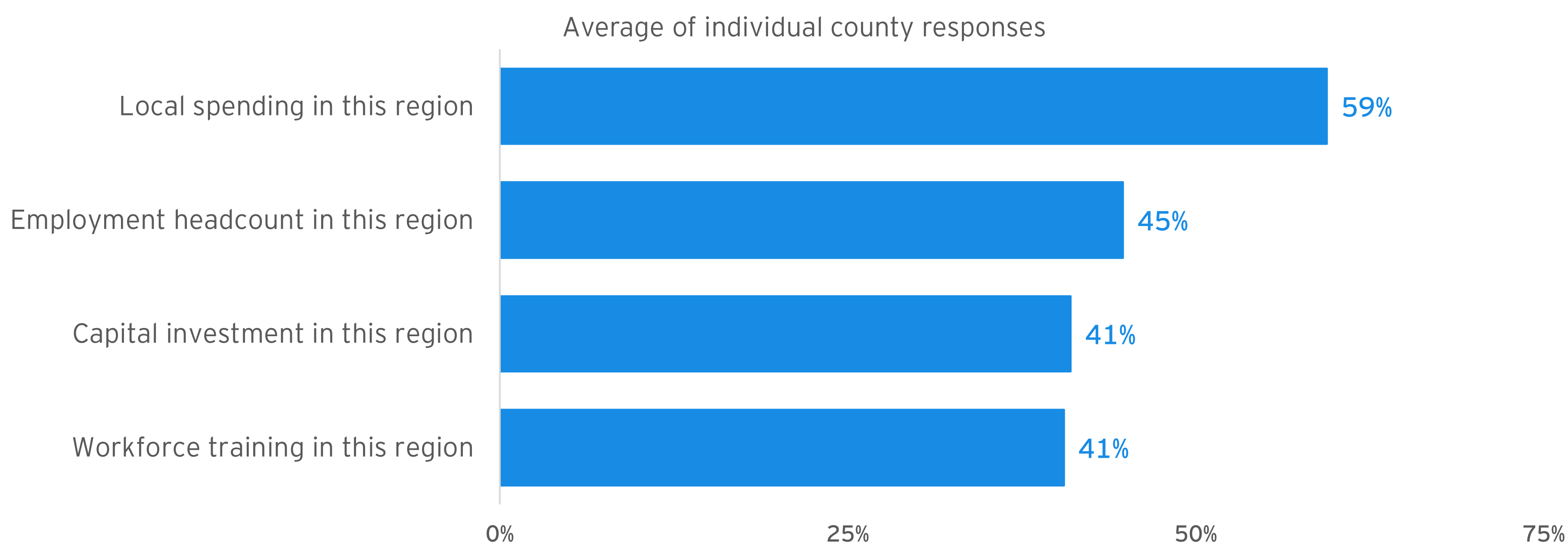


Source: Resident and business survey

Survey results

Q12. In the next five years, my business expects to increase the following:

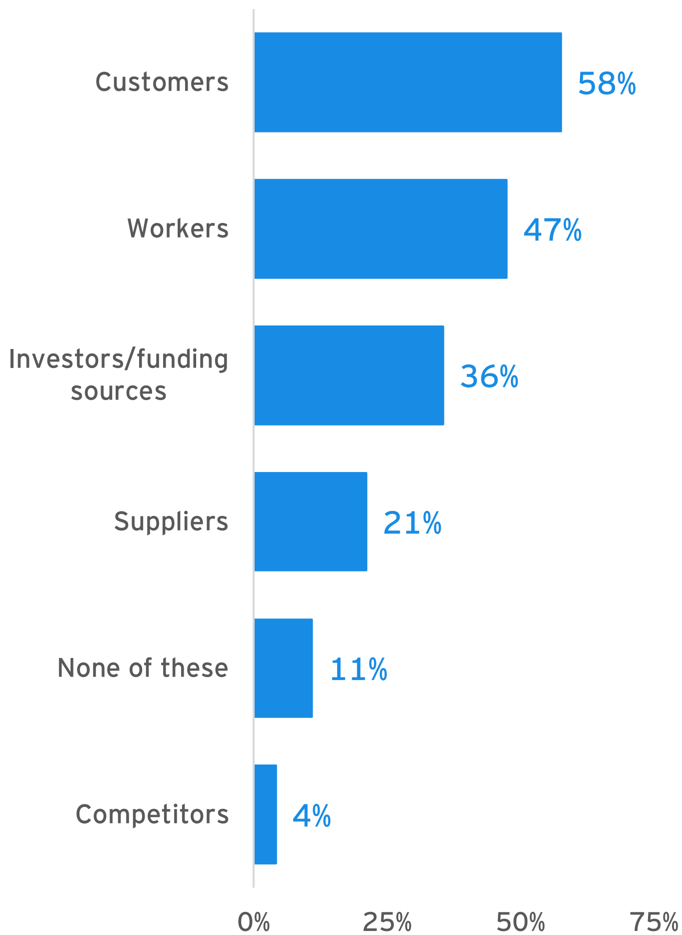
	Clarion	Crawford	Erie	Forest	Lawrence	Mercer	Venango	Warren
Local spending in this region	57%	76%	85%	33%	68%	50%	69%	38%
Employment headcount in this region	29%	48%	69%	17%	57%	44%	62%	33%
Capital investment in this region	29%	52%	69%	17%	57%	33%	46%	25%
Workforce training in this region	14%	43%	31%	33%	48%	61%	38%	56%



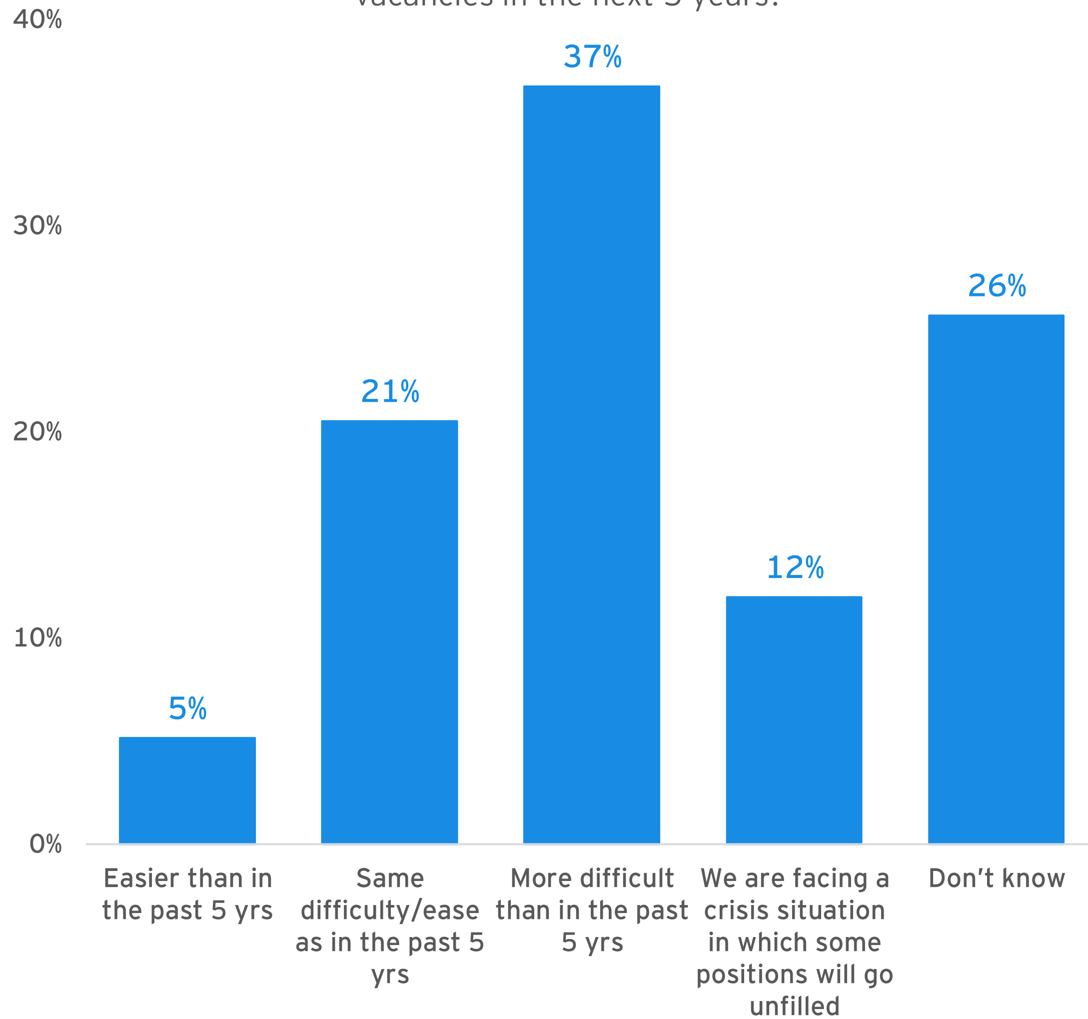
Source: Resident and business survey

Survey results

Q13. Which of the following would benefit your company if more were located in this region?



Q14. How would you rate your company's ability to fill job vacancies in the next 5 years?



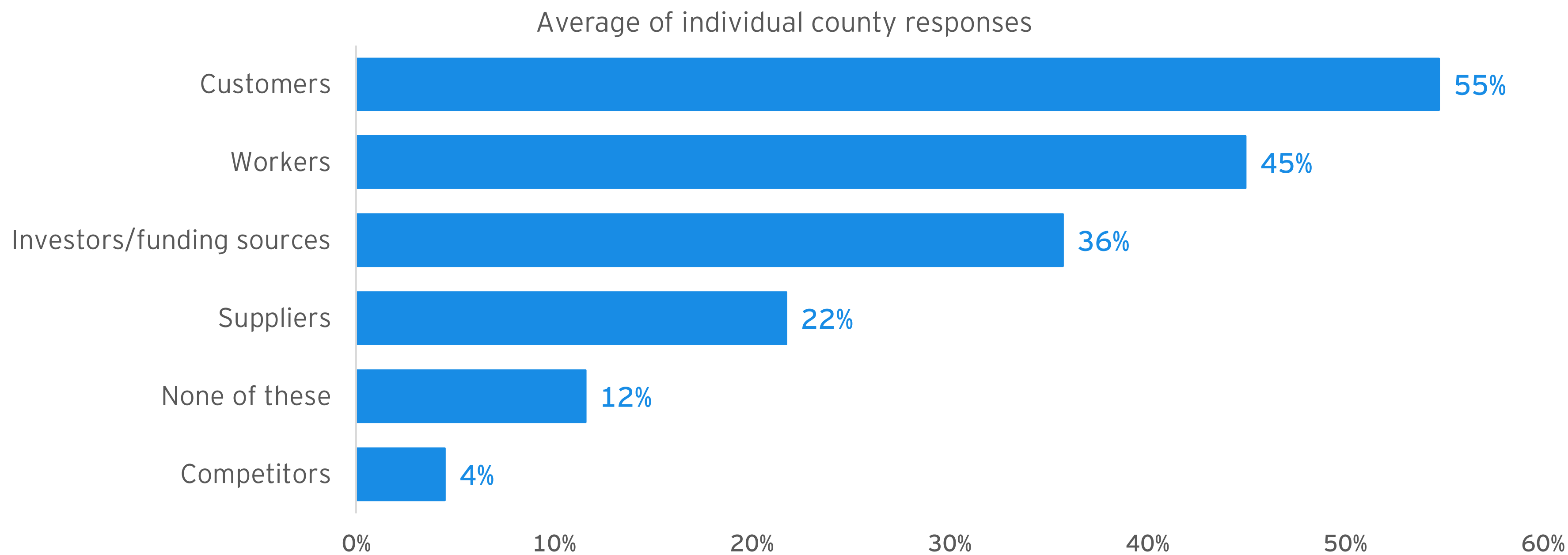
Source: Resident and business survey

Survey results

Q13. Which of the following would benefit your company if more were located in this region?

(Check all that apply)

	Clarion	Crawford	Erie	Forest	Lawrence	Mercer	Venango	Warren
Customers	88%	52%	29%	20%	64%	68%	62%	56%
Workers	38%	38%	43%	40%	61%	58%	38%	44%
Investors/funding sources	25%	52%	64%	40%	25%	26%	31%	22%
Suppliers	13%	24%	29%	20%	14%	26%	15%	33%
None of these	13%	10%	7%	20%	14%	11%	8%	11%
Competitors	0%	0%	14%	0%	0%	11%	0%	11%

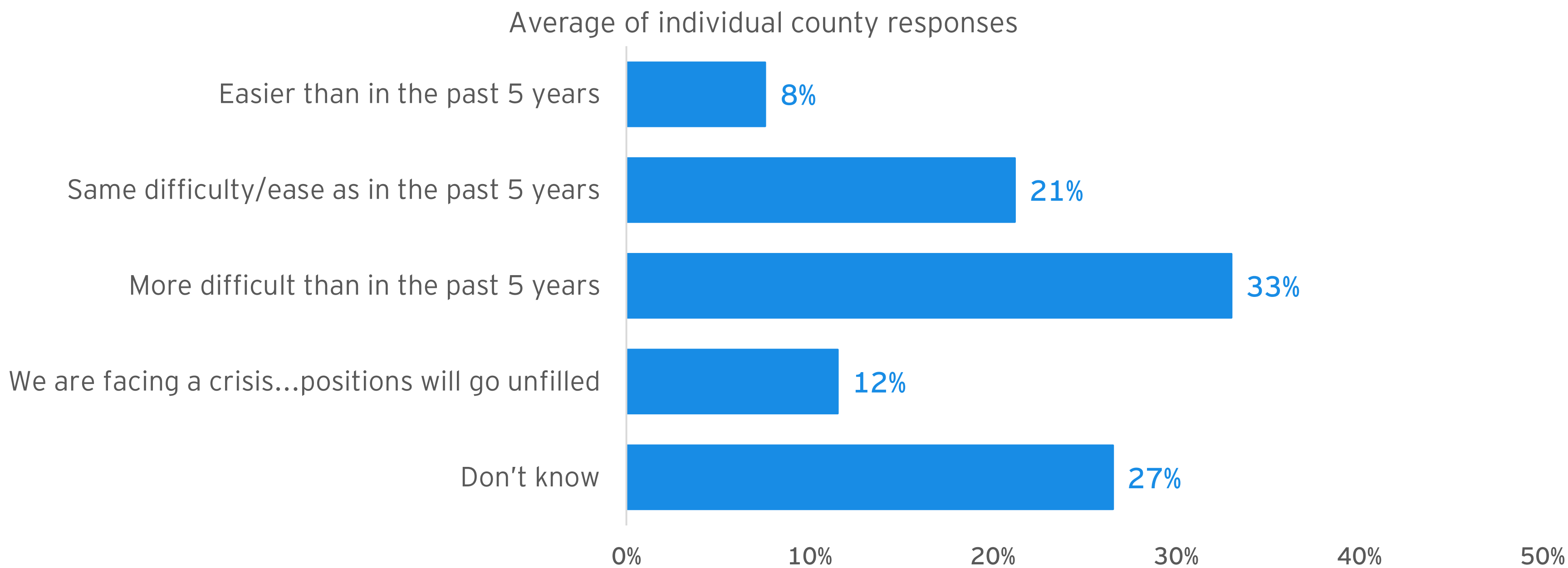


Source: Resident and business survey

Survey results

Q14. How would you rate your company's ability to fill job vacancies in the next 5 years?

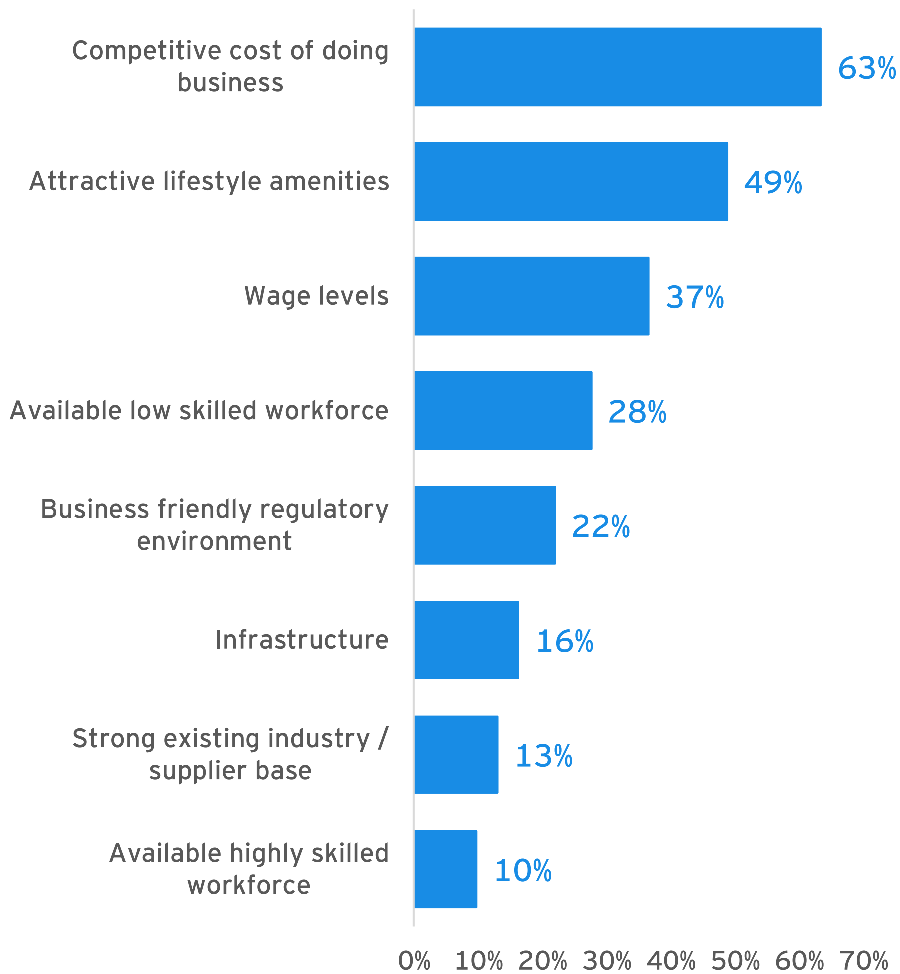
	Clarion	Crawford	Erie	Forest	Lawrence	Mercer	Venango	Warren
Easier than in the past 5 years	25%	0%	7%	20%	4%	5%	0%	0%
Same difficulty/ease as in the past 5 years	13%	24%	50%	20%	7%	20%	25%	11%
More difficult than in the past 5 years	25%	43%	14%	20%	44%	40%	33%	44%
We are facing a crisis...positions will go unfilled	0%	10%	7%	20%	19%	15%	0%	22%
Don't know	38%	24%	21%	20%	26%	20%	42%	22%



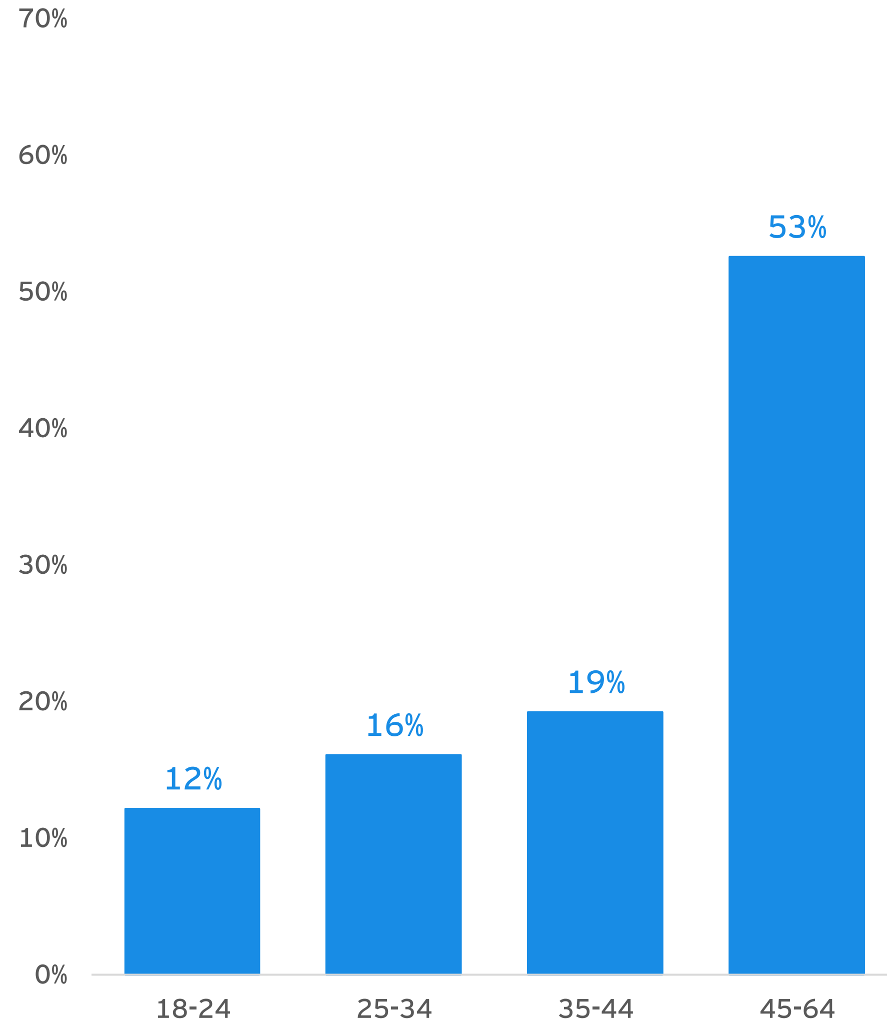
Source: Resident and business survey

Survey results

Q18. What are the top 3 reasons why companies should choose to locate in this region?

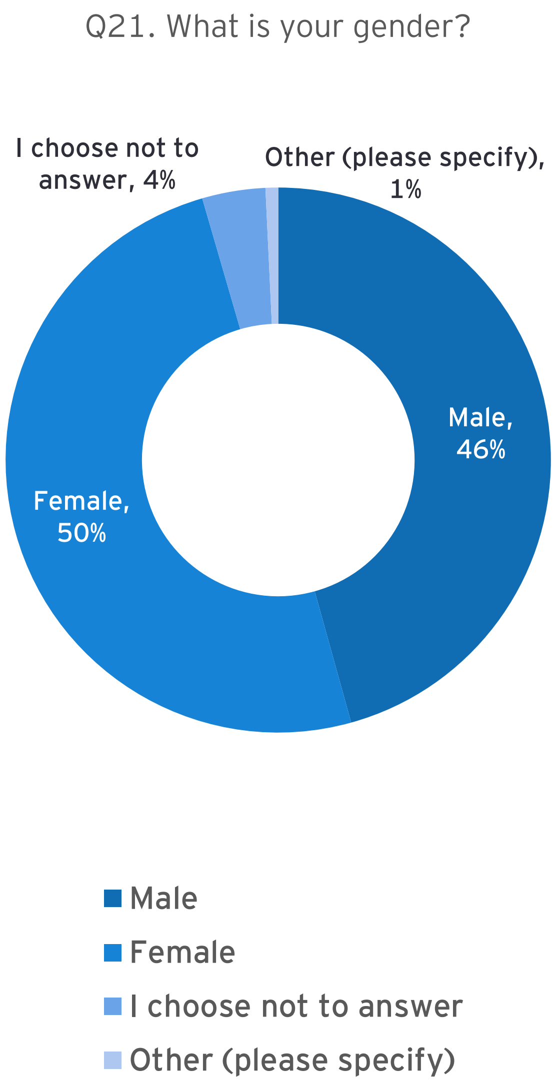


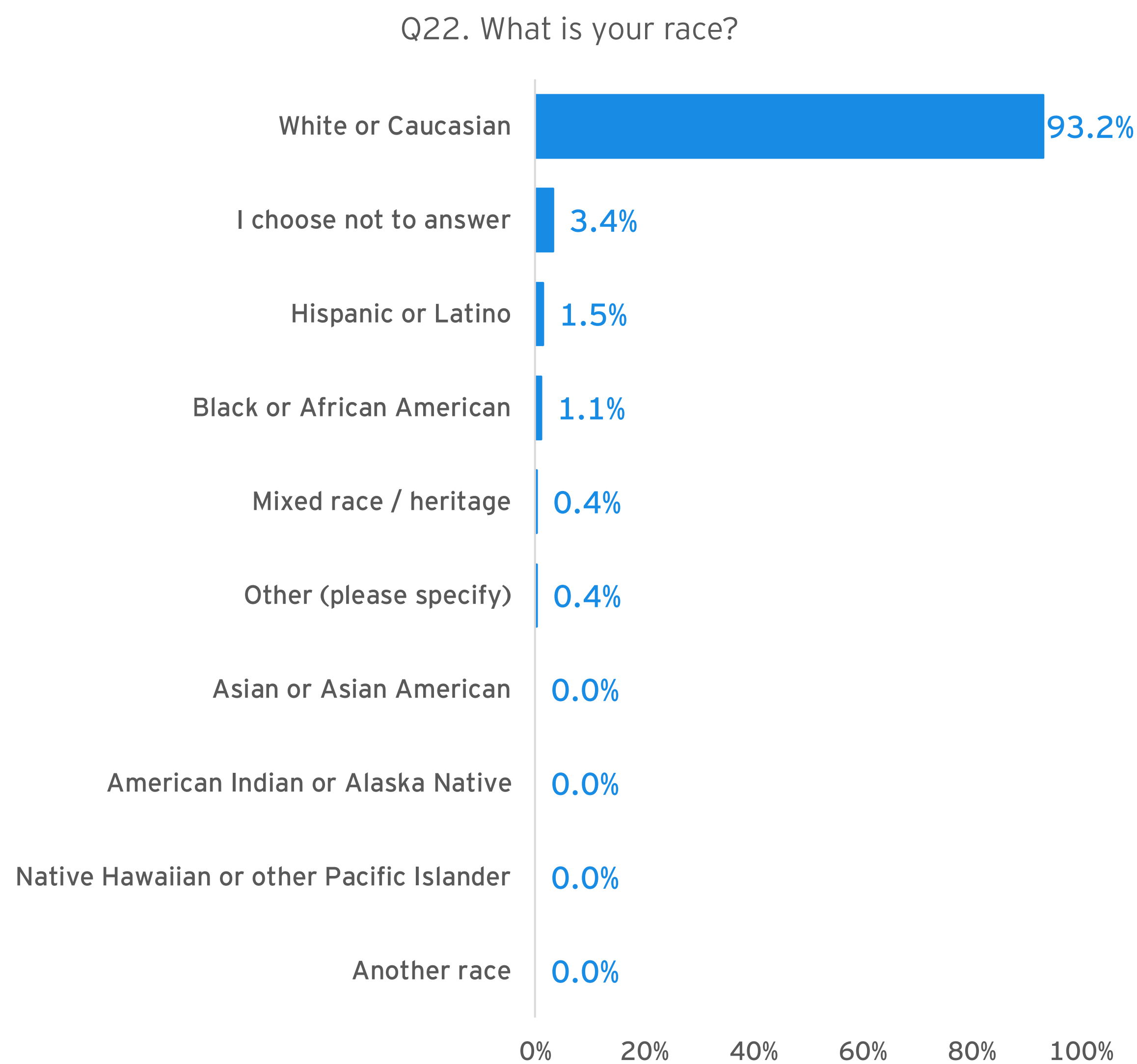
Q20. What is your age range?



Source: Resident and business survey

Survey results

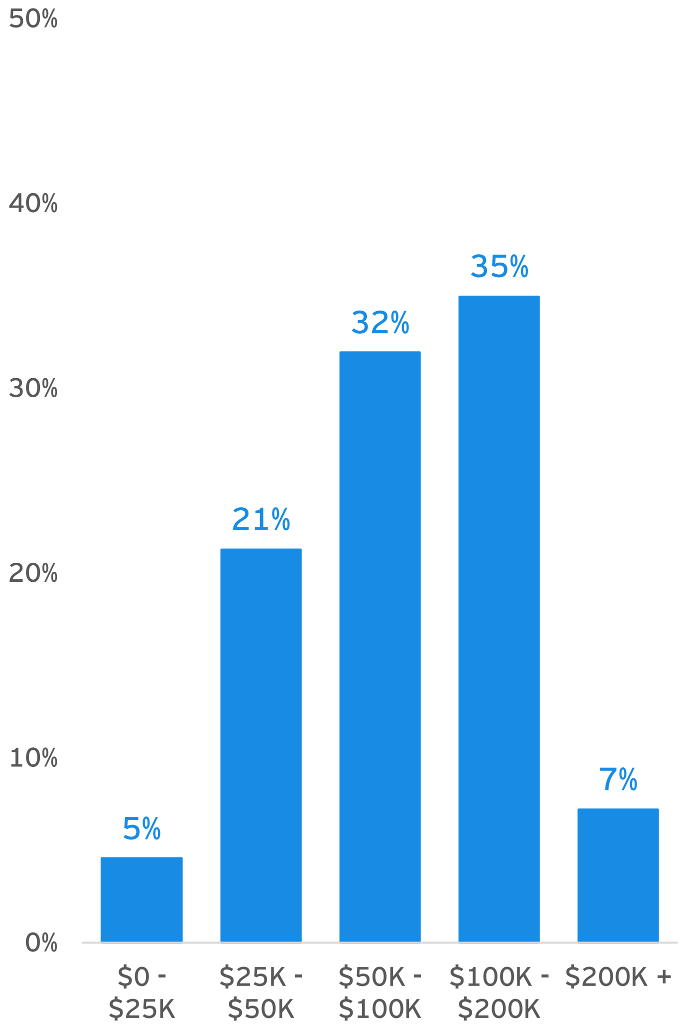




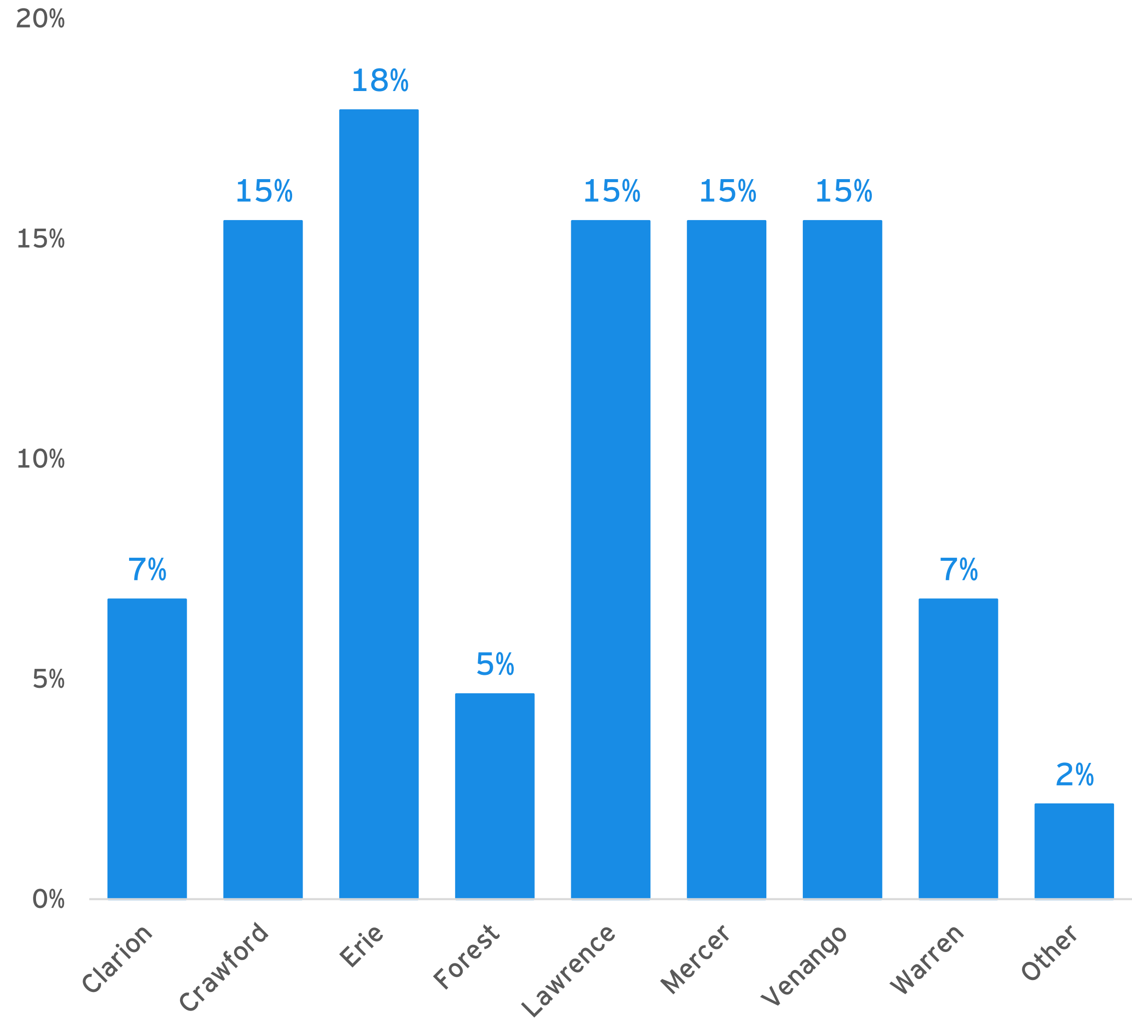
Source: Resident and business survey

Survey results

Q23. What is your household income?



Q1. What county to you live in?



Source: Resident and business survey

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About EY Economic Development

The mission and passion of EY Economic Development is to help communities create more prosperous economies. We work with governments, economic development organizations, chambers of commerce, and workforce agencies. Our services include strategic planning, competitive assessments, benchmarking, global market insights and innovative custom solutions. We help communities create and deploy economic development strategies and practical tools to achieve higher-performing economies that generate opportunities for all of their residents.

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