



An Overview of Buffalo Niagara's Economy, Labor Force and Target Industries



Report prepared for Invest Buffalo Niagara by UB Regional Institute





Commissioned by





An Overview of Buffalo Niagara's Economy, Labor Force and Target Industries

PROJECT TEAM

Buffalo Niagara's 2017 labor market assessment was commissioned by Invest Buffalo Niagara. The research was led by the University at Buffalo Regional Institute (UBRI), and completed in partnership with Make Communities, The John R. Oishei Foundation's Mobile Safety-Net Team and The Pathfinders. The project team acknowledges and expresses gratitude to members of the Project Advisory Group for generously contributing their time, perspectives and feedback over the course of the nine-month effort. Appreciation is also extended to members of the Labor-Management Roundtable and countless other employers, workforce trainers and individuals from across the eight-county region who completed surveys or took part in interviews as part of this important regional initiative.











SPONSORS















A SUITE OF REPORTS THAT EXPLORE THE BUFFALO NIAGARA LABOR MARKET

A suite of four reports presents research findings on various aspects of Buffalo Niagara's labor market. Who's Our Economy? offers an overview of the region's economy, labor force, trends, target industries, and a comparison of these factors for each of the region's eight counties. Where Are Our Opportunities? explores underemployment, labor availability, the landscape of workforce training, and credential building for high-demand jobs in the region's target industries. What Role Does Labor Management Play? offers a look at labormanagement relations trends and best practices from within the region. Finally, How Competitive Are Payroll Costs? presents information on wages, payroll trends, and employee benefits in Buffalo Niagara.









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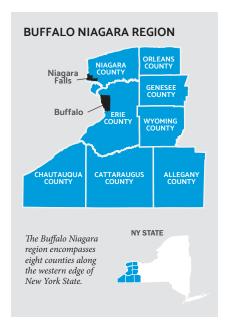
Melissa Tucker. HealthNow New York Inc.

Understanding geographic scopes, industry definitions and benchmarks

The eight-county Buffalo Niagara Region is the geographic scope for the analysis presented in this report, unless otherwise noted. Situated along the western edge of New York State and along the state's border with Ontario, Canada, the region includes the Buffalo-Niagara Falls MSA (metropolitan statistical area) encompassing Erie and Niagara counties. It is the largest metro area in New York State outside of New York City.

In addition to a comprehensive overview of the economy, the report offers county-by-county comparisons of key labor market indicators and trends. It also offers an indepth look at seven target industries. These industries were selected by Invest Buffalo Niagara for their performance and growth potential in Buffalo Niagara.

Selected data and trends within the report are benchmarked against comparable state and national trends.





TARGET INDUSTRIES

Advanced Business Services Advanced Manufacturing

Agribusiness

Cleantech

Life Sciences

Logistics

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Tourism

WHAT WENT INTO THE REPORT

Labor Market Assessment 2017 culminates nine months of research led by the University at Buffalo Regional Institute, in partnership with Make Communities, The John R. Oishei Foundation's Mobile Safety-Net Team and The Pathfinders. Data and information from various sources inform the findings in this report.

New York State Department of Labor

The New York State Department of Labor provided regional and county-level data on industry firms, employment and wages, wages by occupation, industry staffing patterns, and employment by firm size.

Additional Data Sources

Additional data and information were gathered from diverse sources, including the U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, U.S. Census, National Center for Education Statistics, Reference USA Business Database, and O*Net Database.

Surveys of Buffalo Niagara Employers, Workforce Trainers and Residents

Over 200 employers representing all eight counties and diverse industries participated in an online survey providing data on hiring trends, hard-to-find workers, and the availability and cost of employee benefits. 74 workforce trainers participated in an online survey collecting information on programs, capacity, outcomes, and future opportunities. Finally, 550 residents participated in a telephone survey compiling information on labor availability, including underemployment, unemployment and those considering workforce re-entry.



An Overview of Buffalo Niagara's Economy, Labor Force and Target Industries

- KEY FINDINGS
- WHAT DOES OUR ECONOMY LOOK LIKE?
- HOW IS OUR ECONOMY CHANGING?
- WHAT IS THE REGIONAL DEMAND FOR LABOR?
- WHAT IS THE REGIONAL SUPPLY FOR LABOR?
- WHO IS ENTERING AND EXITING THE WORKFORCE?
- WHAT ARE WAGES LIKE IN THE REGION?
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- Allegany
- Cattaraugus
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- *Erie*
- Genesee
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- Orleans
- Wyoming

DATA SOURCES & NOTES

KEY FINDINGS

WHAT DOES OUR IS OUR

HOWECONOMY ECONOMY LOOK LIKE? CHANGING?

WHATIS THE REGIONAL DEMAND **FOR** LABOR?

WHAT IS THE REGIONAL SUPPLY OF LABOR?

Buffalo Niagara is a significant contributor to New York State's economy. The region's nearly 38,000 firms generate over 672,000 jobs across diverse and large industries. Manufacturing, Professional & Business Services, and Health Services are among the largest industries in the region, in terms of jobs.

The region's economy has seen steady growth in recent years. Since 2009, Buffalo Niagara has experienced growth in the number of firms and jobs, as well as the dollar value of output and exports. Though the economy has been expanding, growth rates were slower than state and national benchmarks.

This may be attributed to the region's shrinking labor force, or the total number of people who are working or looking for work.

A majority of industry sectors experienced double digit job growth over the past five years. Combined, these expanding industries added over 25,000 jobs to the regional economy since 2009. Service providers, particularly those supporting the regional tourism industry, were among the fastest growing. Manufacturing also grew overall. Across all industries, growth was most notable in the region's metro core.

The potential labor supply in **Buffalo Niagara is stronger** than it was in 2010, with a larger number of working age people (16 and up). More young adults (age 25-34) have a college education and expanded opportunities for higher-wage work. However, the region's labor participation rate-which reflects the percentage of people who are working or looking for work-is down to 58 percent, following statewide and national trends. The region's aging population, growing number of retirees and the number of young adults who are opting out of the regional labor force, contribute to this trend.

WHO IS ENTERING AND EXITING THE WORKFORCE?

WHAT ARE WAGES LIKE IN THE REGION?

WHAT
IS THE
QUALITY
OF LABOR
IN THE
REGION?

Over the next ten years, approximately a fifth of all jobs across Buffalo Niagara-over 137,000- may be impacted by retiring workers. Manufacturing could be among those industries hardest hit, as it has more older workers than almost any other industry in the region. It also has the smallest proportion of younger workers. This poses a threat to the industry, which will need to fill job openings and maintain operations and productivity over the next decade.

Wages in Buffalo Niagara compare favorably to regions across the nation. At \$43,580, the region's average wage is 6% less than the national average. This gap is even greater in higher-paying occupations. For instance, in occupational categories such as Architecture and Engineering, Computer and Mathematics, and Business and Financial Operations, wages here are more than 10% below the national average.

By many indicators, labor quality in Buffalo Niagara is high. Productivity, which measures how efficient a labor force is, compares favorably to the New York State average, and is higher than average in large industries such as Manufacturing, Finance and Insurance, and Healthcare & Social Assistance. Labor turnover is lower than the national average, indicating that workers in Buffalo Niagara are reliable. Engagement of individuals with higher levels of education and skills is also a strength, as labor force participation rates in the region are positively correlated with educational attainment.

WHAT DOES OUR ECONOMY LOOK LIKE?

BY THE NUMBERS

Population (2015)

1,532,925

Labor Force (2015)

734,900

Number of Jobs (2014)

672,466

Number of Firms (2014)

37,985

GMP, Erie and Niagara Counties (2014)

\$54.9B

Exports (2014)

\$9.3B

Source: See Data Sources & Notes

With over 672,400 jobs and nearly 38,000 firms, Buffalo Niagara's economy is the largest in New York State outside of the New York metropolitan area. The region continues to boast a diverse mix of manufacturing and service-based industries such as Professional & Business Services, Health Services and Leisure & Hospitality. The 14 sectors that comprise the regional economy range in size from nearly 1,000 jobs to almost 100,000. All sectors offer a sizable employment base with opportunities for specialization and growth.

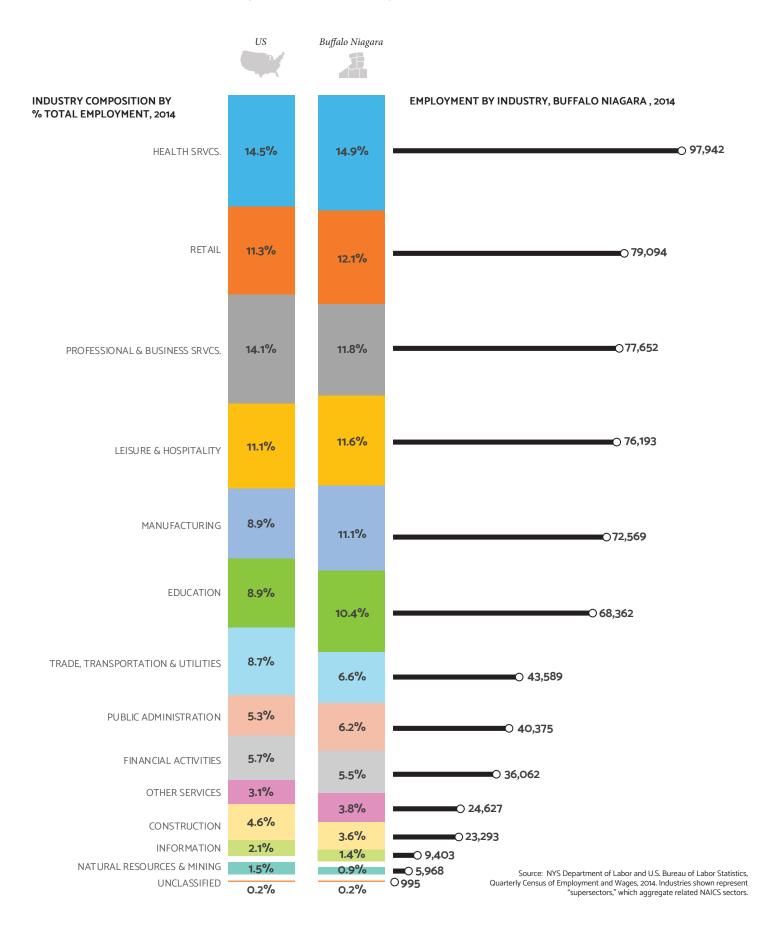
Decades ago, Buffalo Niagara's economy was heavily reliant on manufacturing. Though manufacturing remains a strength, the regional economy today is less reliant on any one industry sector and closely mirrors the nation's diverse economy.

Despite this overall parity, several sectors stand out for higher employment concentrations in Buffalo Niagara. These include Health Services, Retail, Leisure & Hospitality, Manufacturing, and Education. The region's comparatively high employment concentration in these five sectors supports tens of thousands more jobs across the region.

This and other factors benefit the productivity of companies and industries. Firms in Buffalo Niagara's metropolitan core—Erie and Niagara counties—produced \$54.9 billion in goods and services in 2014. This ranks Buffalo Niagara in the top 15% of all metros across the United States.

Global exports comprise a notable share of the regional economy. Companies across the eight county area—including those with a global and national presence such as General Motors, Moog, and M&T Bank—exported \$9.3 billion in goods and services in 2014. While manufacturing companies dominate the region's export market, export growth has been propelled by tradable service sectors, particularly Health, Professional & Business Services, Leisure & Hospitality, Education and Financial Activities.

Buffalo Niagara's diverse economy largely matches the nation's industry composition, while also offering comparative strengths.



HOW IS OUR ECONOMY CHANGING?



Now we have an opportunity to be thoughtful and strategic.

- Local Economic Development Official Buffalo Niagara's economy has been expanding. Since 2009, the regional population increased by 5,500 while the regional economy added nearly 10,000 new jobs and over 1,200 new firms. Businesses are producing and exporting more. The gross metropolitan product grew by more than 6% on an inflation-adjusted basis, representing a higher level of goods and services generated by businesses in the bi-county metropolitan area. Greater production levels supported an expansion of global exports, which grew 8% since 2009.

While many indicators point to resurgence, regional trends lag behind statewide and national benchmarks. One constraint on growth is the nearly 7% decline in the regional labor force between 2009 and 2015. The region has fewer people working or seeking work, despite the slight overall population growth seen in recent years. Contributing factors include a growing older population who are aging out of the workforce, a slight increase in younger adults (ages 25-34) who are opting out of the labor force, and a declining population of prime age (35-54) adults.

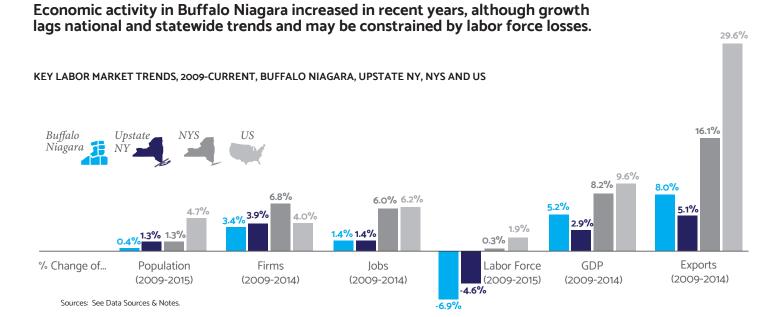
While reduced labor force participation may contribute to slower growth, economic expansion is buttressed by many regional industry specializations. Specializations are seen in industries where the regional share of employment is greater than the national average. Regional specializations help attract workers and investments, positioning industries and businesses for productivity and growth.

Over half of all industries in Buffalo Niagara exhibit some degree of specialization, with many connected to target industries for regional growth like Manufacturing and Leisure & Hospitality. With the exception of Education and Health Services, regional specializations have grown since 2009, reflecting an increasing share of employment relative to national trends. Increasing specialization is also seen in Financial Activities, Construction and Trade, and Transportation and Utilities. Each of these sectors have rates of employment change that fare better than national trends.

Numerous industries in Buffalo Niagara became more specialized between 2009 and 2014. Many represent existing specializations such as Manufacturing and Leisure & Hospitality.



Source: NYS Department of Labor and U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2009 and 2014. Industries shown represent "supersectors," which aggregate related NAICS sectors.



WHAT IS THE REGIONAL DEMAND FOR LABOR?



Half of employers across Buffalo Niagara project job openings at their company to increase over the next five years.

> - 2016 Employer Survey

The majority of industries in Buffalo Niagara experienced employment growth between 2009 and 2014. Expanding industries added over 25,000 jobs to the regional economy, contributing to net regional employment growth over this period. Percentage gains were largest in Agriculture & Forestry Support Activity (+52%), Museums, Parks and Historical Sites (+36%), Wood Product Manufacturing (+34%), and Performing Arts and Spectator Sports (+29%).

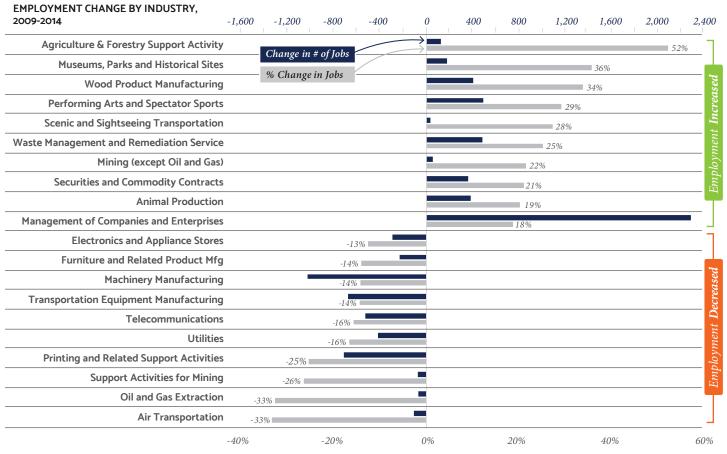
Service providers accounted for six out of the 10 fastest growing industries, and continue to account for about nine out of 10 net job gains across Buffalo Niagara. While goods producers grew overall, these industries also accounted for seven out of 10 industries that reported the largest percentage of employment declines. Over a thousand jobs were shed in Machinery Manufacturing and another 667 were cut in Transportation Equipment Manufacturing. Still, manufacturing grew overall, making Buffalo Niagara one of two regions in NYS where manufacturing was a growth industry over the past five years.¹

Larger firms with 50 or more employees have been a driver in the region's economic expansion over the past half decade. Since 2009, larger employers have grown from making up 6% of all firms to 18% of all firms in the third quarter of 2015. Today, seven out of 10 Buffalo Niagara workers are employed by a firm with at least 50 employees, a trend that has grown 10 percentage points since 2009. Overall, the average firm in Buffalo Niagara has 22 employees.

Though growth in demand for labor has been greatest in the Buffalo-Niagara Falls Metropolitan Area, a quarter of all firms are located outside of Erie and Niagara counties. Notable growth can be seen in places like Jamestown and Batavia.

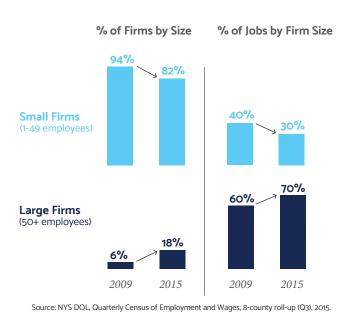
¹ State of New York Comptroller, "New York State Employment Trends," August 2015.

Buffalo Niagara's fastest growing industries are dominated by service providers while many of the fastest declining industries are goods producers.

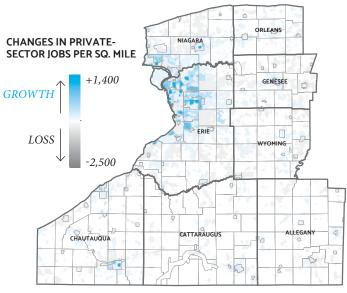


Source: NYS DOL, Quarterly Census of Employment and Wages, 2009 and 2014. Industries shown follow the North American Industry Classification System (NAICS) at the three-digit level.

Bigger businesses account for a growing share of firms and employment.



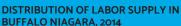
Private sector job growth is most notable in the Buffalo-Niagara Falls Metropolitan Area.

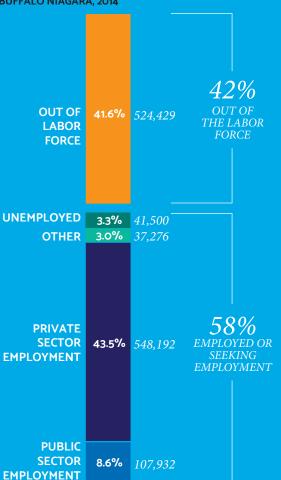


Source: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, LODES Data, 2014.

WHAT IS THE REGIONAL SUPPLY FOR LABOR?

While Buffalo Niagara has 1.3 million individuals age 16+ who can potentially work, only slightly more than half are in the labor force.





Source: Population and labor force are from the American Community Survey, 1 and 5-year estimates, 2014. Employment is from the NYS DOL, QCEW, 8-county roll-up (Q3), 2015. Unemployment is from the NYS DOL, LAUS, 2015. "Other" refers to those in the labor force whose employment is not covered by unemployment insurance.

By many measures, the region's supply of labor is more robust than it was in 2009. Across Buffalo Niagara, there are 1.3 million individuals age 16 or older who can potentially work. This represents a 2% increase in labor supply from 2009. Nearly 550,000 work in the private sector, pointing to considerable expansion that tempered public sector employment losses. The unemployed population declined by over 25,000 and represents 3% of the regional labor supply.

Yet individuals who are working or actively seeking work account for 58% of all potential workers in Buffalo Niagara. This is a five percentage point decline from 2009. While this trend is not unique to Buffalo Niagara—it follows statewide and national trends—it does pose both challenges and opportunities for engaging greater numbers of potential workers, especially since the majority of those not in the labor force across Buffalo Niagara are younger than retirement age (65+).

For instance, while the region's population of young adults (age 25-34) is on the rise and is more likely to hold a bachelor's degree than older workers and their peers across the nation, larger percentages have opted out of the workforce. While the region's population in this age cohort increased by 10% overall since 2009, the number of 25-34 year olds who opted out of the labor force increased at nearly three times that pace (27%). Jobs and skills training that help bring more of these younger adults into the labor market present a regional opportunity to support growing employers and industries.

Geographically, workers in Buffalo Niagara reside largely in Erie and Niagara Counties. At the same time, tens of thousands of workers commute into the region for work, particularly from the City of Rochester and surrounding areas of Monroe County where over 17,000 of Buffalo Niagara's private sector workers live.

The proportion of workers age 25-34 in Buffalo Niagara has been on the rise and is now nearly on par with the nation's.

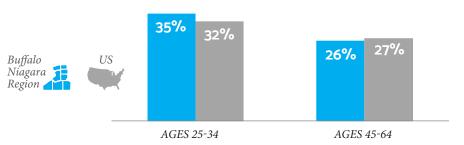


METRO	% WORKORCE, AGES 25-34		% WORKOR AGES 5.
ОМАНА	23.7%	PITTSBURGH	25.2%
ALBUQUERQUE	23.5%	CLEVELAND	23.7%
US	22.1%	BUFFALO NIAGARA	22.7%
CHARLOTTE	21.8%	PROVIDENCE	21.9%
BUFFALO NIAGARA	21.3%	US	21.0%
PITTSBURGH	21.1%	ALBUQUERQUE	20.8%
PROVIDENCE	20.6%	DETROIT	20.6%
DETROIT	20.3%	ОМАНА	20.3%
CLEVELAND	19.7%	CHARLOTTE	18.6%

Source: American Community Survey, 2014 (1 yr estimates).

% POPULATION BY AGE WITH A BACHELOR'S DEGREE OR HIGHER, BUFFALO NIAGARA AND U.S., 2014

Compared to the U.S., younger adults in Buffalo Niagara are more likely to hold a bachelor's or graduate degree.



Source: American Community Survey, 1 and 5 yr estimates, 2014.

CONCENTRATION OF THE REGION'S PRIVATE-SECTOR WORKERS BY LOCATION OF RESIDENCE, 2014

While the majority of ORLEANS NIAGARA private-sector workers HIGH live in Erie and Niagara Counties, notable GENESEE concentrations can be Worker found across the entire Concentration region. Many workers even travel here from outside WYOMING the region. LOW Source: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, LODES Data, 2014. CATTARAUGUS ALLEGANY

WHO IS ENTERING AND EXITING THE WORKFORCE?

EMERGING WORKERS

Recent HS Dropouts, 2015

1,689

Recent HS completers with post-graduate employment plans, 2015

1,738

Recent college graduates, 2014

27,683

New residents, Age 25-64, 2013-2014

10,532

Labor Force Re-Entrants, 2016

17,100

EXISTING WORKERS

Currently underemployed, 2016

132,100

Currently unemployed, 2016

33,000

Source: See Data Sources & Notes

Over the next 10 years, more than 137,600 Buffalo Niagara workers will be 65 years or older. If all of these workers were to retire, a fifth of current jobs would become vacant. Under this scenario, over half of all job vacancies would be seen in four industries: Health, Manufacturing, Education and Professional & Business Services.

Out of the four, Manufacturing is poised to be impacted the hardest, where older workers outnumber younger ones (ages 25-34) by nearly a margin of two to one. Education and Health also has a greater share of older workers, but gaps are less severe, as these industries offer career entry that thousands of college graduates seek each year with newly granted degrees in health and education. Similarly, while Professional & Business Services could see over 15,000 retirees over the next decade, the pipeline of younger workers in that field is strong as well. Younger employees actually outnumber older ones in this industry, supported by a steady flow of college graduates entering the labor market each year with a business degree. In fact, business is the most common field of study for higher education students in the region, with over 4,300 business degrees granted by regional colleges and universities in 2014.

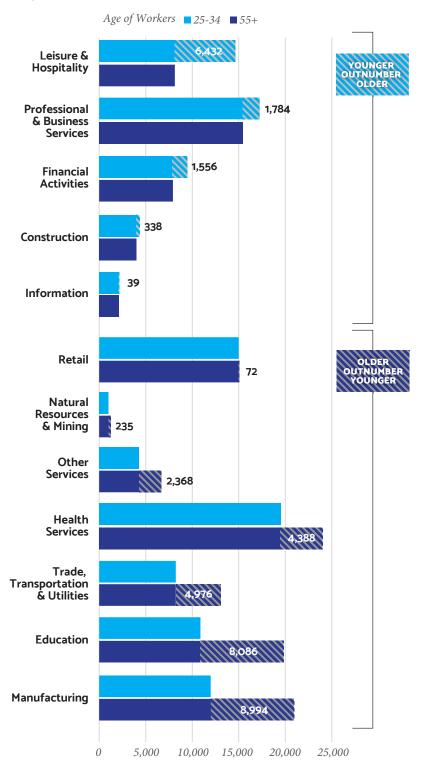
Preparing workers to advance into job openings created by retirement offers an opportunity for the region to strengthen worker pipelines into target industries like Advanced Manufacturing where a skills gap could impact productivity and stifle growth. Buffalo Niagara employers who are hiring can draw on a large number of emerging workers entering the labor market each year. This includes the nearly 28,000 degree earners produced by area colleges and universities, the estimated 17,100 individuals who are not in the labor force but would consider re-entering for the right opportunity, nearly 11,000 working-age individuals who relocate to the region each year, as well as recent high school graduates or dropouts.

In addition to emerging workers, businesses in Buffalo Niagara have the potential to tap into the 33,000 individuals who are unemployed but looking for work, and the 132,100 underemployed individuals who seek employment advancement that more fully utilizes their credentials. Nearly half or more of underemployed workers in Buffalo Niagara have skills in management, warehousing/logistics, office operations and manufacturing, assembly and/or fabrication.

Combined, emerging workers and existing labor force participants that are unemployed or underemployed could fill every vacancy created by retirement over the next ten years.

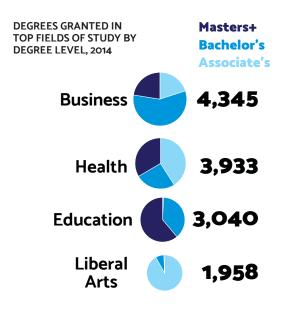
Across all industries, 137,682 workers could retire in the next ten years. Collectively, these jobs represent \$6.9 billion in annual wages.

NUMBER OF JOBS BY INDUSTRY AND AGE OF WORKER, BUFFALO NIAGARA, 2014



Source: U.S. Census Bureau, Local Employment Dynamics, Quarterly Workforce Indicators, 2014. Industries shown represent "supersectors," as defined by the U.S. Bureau of Labor Statistics. Supersectors aggregate related NAICS sectors.

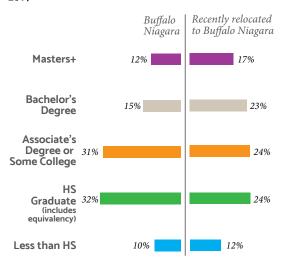
Nearly half of college degrees granted by Buffalo Niagara's colleges and universities in 2014 are in these four fields of study.



Source: National Center for Education Statistics, Integrated Postsecondary Education Data System, 2014

Buffalo Niagara's newest residents from out of state are more likely to have a college degree.

EDUCATIONAL ATTAINMENT OF INDIVIDUALS AGE 25+ NEWLY RELOCATED TO BUFFALO NIAGARA FROM OUT OF STATE OR ABROAD, 2014



Source: American Community Survey, 5-year estimates, 2014.

WHAT ARE WAGES LIKE IN THE REGION?

The average wage in Buffalo Niagara is 6% lower than it is across the nation.

AVERAGE ANNUAL WAGE, 2015 (Q1)



Source: NYS Department of Labor and U.S. Bureau of Labor Statistics, 2015. The national average wage was adjusted to reflect the occupations and occupational mix that exist in Buffalo Niagara.

Niagara Region Wages in Buffalo Niagara compare favorably to what employers face across the nation. The average annual wage in Buffalo Niagara is 6% less than the national average. This is true even after adjusting for variation in the region's occupational mix. This wage gap between Buffalo Niagara and the nation doubled since 2009 when wages here were 3% lower than the nation's. Since 2009, wages in Buffalo Niagara increased by nine percent, or over \$3,700 per worker, per year. However, employees lost ground since this rise did not keep pace with the 10% rate of inflation between 2009 and 2015. On an inflation-adjusted basis, the average regional wage declined slightly, by one percent, between 2009 and 2015.

Wages in only four occupational categories exceeded the rate of inflation. These include Life, Physical and Social Science (up by five percent), Healthcare Practitioners and Technical (up by three percent), Business and Financial Operations (up by two percent) and Healthcare Support (up by one percent). Wages in the region's other 18 occupational categories were either stagnant, just keeping pace with inflation, or declining. Workers in below-average-paying occupational categories were impacted the greatest. With the exception of Healthcare Support, no lower-paying employment categories experienced a wage increase of 1% or more.

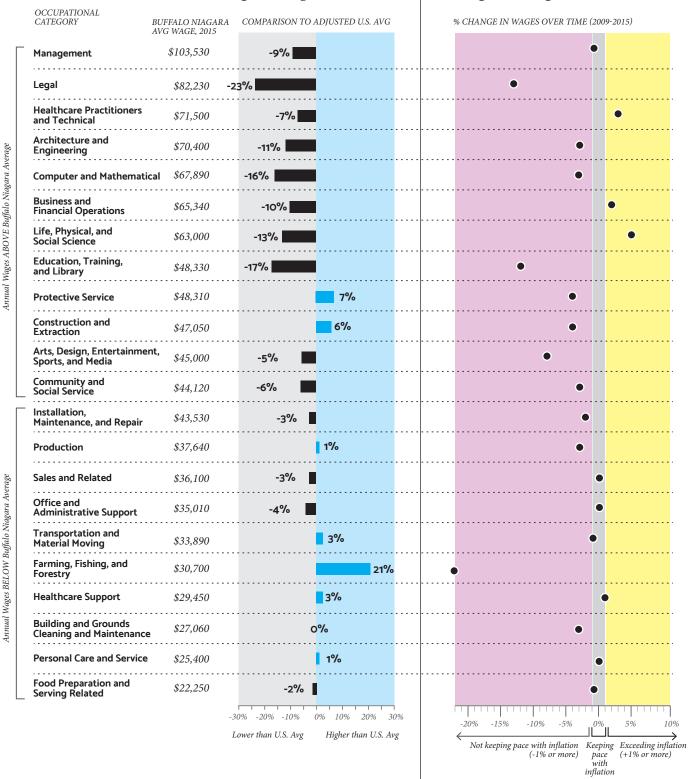
Though wage growth in lower-paying occupations has languished, compensation tends to be more in line with what is paid across the country. In higher-paying occupational categories, where wages have been on the rise, wages in the region are between 7-13% below wages for comparable jobs across the nation. Comparatively lower wages can make it difficult for employers to recruit higher-skill workers to the region.

Most occupational categories in Buffalo Niagaraespecially higher paying ones-pay notably lower wages than the national average.

Wages grew beyond inflation for only a small number of Buffalo Niagara's occupational categories.

How do Buffalo Niagara wages compare to U.S.?

How much have Buffalo Niagara wages changed since 2009?



Source: NYS Department of Labor and U.S. Bureau of Labor Statistics, 2009 and 2015. Occupational categories follow the 2010 Standard Occupational System (SOC) used by federal and state agencies for classifying workers into related occupations or occupational categories.

WHAT IS THE QUALITY OF LABOR IN THE REGION?



Three-quarters of new hires in Buffalo Niagara are still employed with the company 6 months after they are hired.

> - 2016 Employer Survey

Buffalo Niagara's workforce is productive, reliable, and has high engagement levels among its most educated workers.

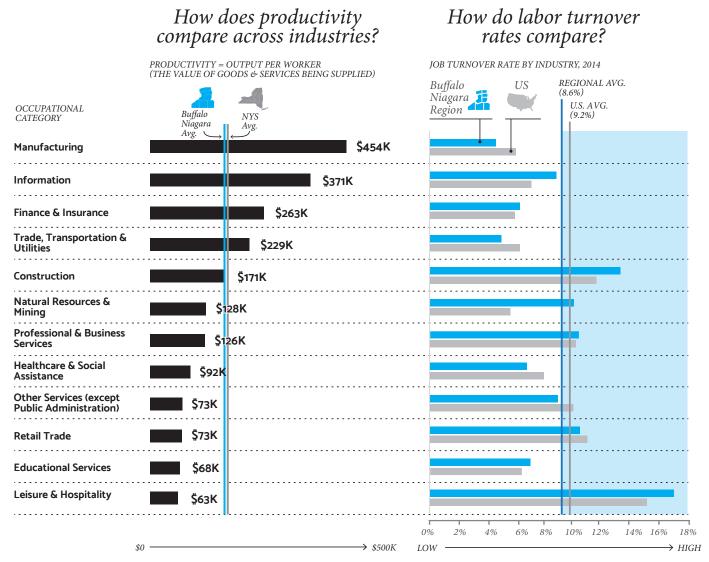
Productivity, which measures how efficient a labor force is, compares favorably to the New York State average, and is higher than average in large industries such as Manufacturing, Finance and Insurance, and Trade, Transportation & Utilities. Manufacturing is by far the most productive industry, with a productivity rate that is more than double regional and statewide averages.

Regional productivity is supported by a more favorable (lower) turnover rate than is seen nationally. Labor turnover is lowest in the region's most highly productive industries where high turnover could threaten production and profits. More labor-stable industries like Manufacturing also have older workforces. Leisure & Hospitality, where younger workers gravitate, accounts for over a fifth of all labor turnover (separations and hires) in Buffalo Niagara.

Labor force participation rates in Buffalo Niagara are highest for those with a bachelor's or graduate degree. The region does a good job equipping and attracting workers with the advanced credentials businesses seek. Nearly nine out of 10 individuals with a four-year degree or more participate in the workforce, meaning they are either working or actively seeking work. This is a proportion that remained relatively steady since 2009. The region does less well integrating potential workers that face educational barriers and other challenges. Less than half of working age individuals without a high school diploma participate in the regional labor force, and this has declined by over 10 percentage points since 2009.

Labor force participation rates also vary by race and ethnicity. Rates are highest for whites (77%) and lowest for Asian/Pacific Islanders (57%), African Americans, (60%), Hispanics (61%), Native Americans (63%) and individuals of multi/other races (58%). Closing the gap in labor force participation rates between persons of color and whites could benefit the region through nearly 35,000 additional individuals in the labor force.

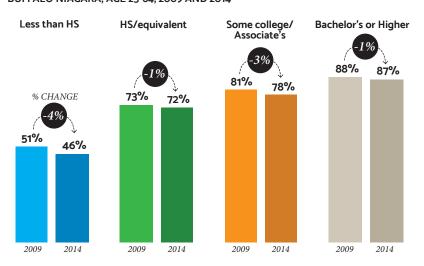
The most productive industries in Buffalo Niagara are characterized by higher levels of labor stability and comparatively lower job turnover rates.



Source: U.S. Census Bureau, Local Employment Dynamics, Quarterly Workforce Indicators, 2014. Industries shown represent "supersectors," which aggregate related NAICS sectors.

Labor force participation continues to be positively correlated with educational attainment. While participation rates fell slightly across all levels of education, the biggest dip is reported for those with the most limited level of education.

LABOR FORCE PARTICIPATION RATES BY EDUCATIONAL ATTAINMENT IN BUFFALO NIAGARA, AGE 25-64, 2009 AND 2014



Source: American Community Survey, 1 and 5-year estimates, 2009 and 2014.

TARGET INDUSTRIES

This is an in-depth look at the region's seven target industries. These industries represent comparatively large and/or high growth segments of Buffalo Niagara's economy, positioned for expansion and investment by the work of Invest Buffalo Niagara and others. This includes the WNY Regional Economic Development Council which has focused additional development efforts around many of these industries.



ADVANCED MANUFACTURING

AGRIBUSINESS



Advanced Business Services offers professional support services to businesses. These include telecommunications, data processing, banking, insurance, payroll and financial.

In the 2010 Labor Market Assessment, this target industry was called "Back Office."

Advanced Manufacturing utilizes production processes that automate goods and parts production with innovative techniques facilitated through R&D and high-tech facilities.

Agribusiness involves all aspects of food and beverage production, from food processing to food and drink manufacturing and the production of machinery needed to support the foodproducing industry. Cleantech offers an umbrella for the range of industries that are potentially involved in green manufacturing and construction, alternative energy and renewable resources.

In the 2010 Labor Market Assessment, this target industry was called "Green."



Life Sciences covers the research and development of medicine, medical equipment, and biomedical supplies that support human life.

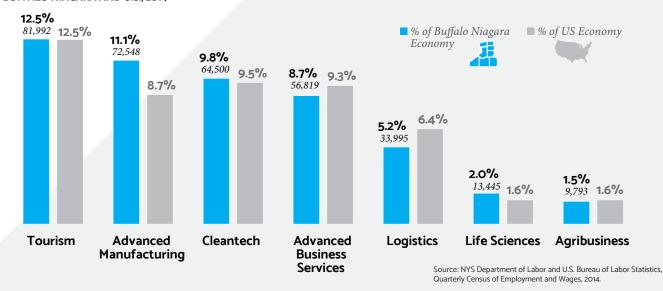


Logistics involves getting goods from one place to another. The industry is comprised of wholesalers, warehousing, trucking and other forms of transportation (air, rail, water, and couriers).



Tourism encompasses services aimed at attracting and accommodating visitors. It includes gaming, recreation and entertainment, as well as lodging, eating and travel. Collectively, target industries comprise 40% of the Buffalo Niagara regional economy and exceed national shares in Advanced Manufacturing, Cleantech and Life Sciences.

EMPLOYMENT AND PERCENT EMPLOYMENT AS A SHARE OF THE TOTAL ECONOMY, BUFFALO NIAGARA AND U.S., 2014



Four out of every 10 jobs in Buffalo Niagara is in one of these seven target industries. The number of jobs in target industries range from nearly 10,000 (Agribusiness) to over 81,000 (Tourism). Several target industries represent industries where Buffalo Niagara's concentration of employment exceeds what is present in the U.S. economy. For instance, the region's share of employment in Advanced Manufacturing, Cleantech and Life Sciences surpasses what is found across the nation by up to 2.4 percentage points. These target industries reflect areas of economic specialization in Buffalo Niagara which offer competitive advantages to industries and employers.

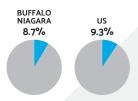
TARGET INDUSTRY

Advanced Business Services



Advanced Business Services includes nearly 57,000 workers across 3,249 firms in Buffalo Niagara. While employment in Advanced Business Services, as a share of the total economy, remains nearly the same today as it did in 2009, the industry experienced job losses in each of its four subsectors. While employment in Advanced Business Services declined overall since 2009, the industry added nearly 150 jobs between 2013 and 2014. Employment gains in Banking, Accounting & Insurance and Technical Professional Services contributed. Advanced Business Services also gained 254 firms since 2009. The region remains an attractive location for Advanced Business Services firms, with the access it offers to thousands of new graduates annually.

Industry employment as a share of total economy in...

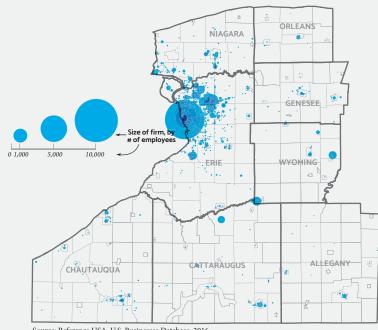


FIRMS AND EMPLOYEES BY INDUSTRY SUBSECTOR

SUBSECTOR	# OF FIRMS	# OF EMPLOYEES		CHANGE IN # O	F EMPLOYE	ES, 2009-2014	
			-800	-600	-400	-200	0
Technical Professional Services	1,137	11,121					
Data & Telecommunications	90	3,595					
Banking, Accounting & Insurance	1,395	30,758					
General Business Support	627	11,345					
TOTAL	3,249	56,819		Source: NYS DOL, Qu	arterly Census of Ei	nployment and Wages	, 2009 and 2014.

ADVANCED BUSINESS SERVICES FIRMS ACROSS THE REGION

The City of Buffalo and its surrounding suburbs contain the highest concentration of firms providing Advanced **Business Services.**



Common jobs offer workers annual salaries starting at nearly \$40,000.

TOP 10 OCCUPATIONS IN ADVANCED BUSINESS SERVICES

Customer Service Representatives	Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints
Tellers	Receive and pay out money
Accountants and Auditors	Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others
First-Line Supervisors of Office and Administrative Support Workers	Directly supervise and coordinate the activities of clerical and administrative support workers
Insurance Sales Agents	Sell life, property, casualty, health, automotive, or other types of insurance
Bill and Account Collectors	Locate and notify customers of delinquent accounts by mail, telephone, or personal visit to solicit payment
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Perform routine clerical and administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining files
Securities, Commodities, and Financial Services Sales Agents	Buy and sell securities or commodities in investment and trading firms, or provide financial services to businesses and individuals
Office Clerks, General	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures
General and Operations Managers	Plan, direct, or coordinate the operations of public or private sector organizations

Wage Range for Top 10 Occupations

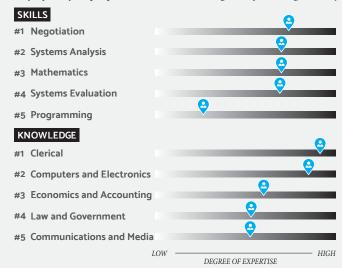


Source: NYS DOL, Quarterly Census of Employment and Wages, 2014; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015; NYS DOL, Staffing Patterns, 2014; O*Net 20.2 Database, 2015.

Higher than average competencies in these specialized areas characterize jobs in this target industry.

TOP 5 SPECIALIZED SKILLS AND KNOWLEDGE IN ADVANCED BUSINESS SERVICES

Level of expertise for top 5 specialized skills and knowledge areas for this target industry



Source: O*NET 20.2 Database, "Skills by Occupation" and "Knowledge by Occupation", 2015; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015.

Thousands of new graduates annually earn degrees related to Advanced Business Services.

ADVANCED BUSINESS SERVICES-RELATED DEGREES GRANTED IN BUFFALO NIAGARA

	Associate's	Bachelor's	Master's	Doctoral/ Professional	TOTAL '13-'14
Business, management, marketing, and related support services	871	2,497	968	9	4,345
Engineering	38	743	363	61	1,205
Computer and information sciences and support services	263	259	152	25	699
Public administration and social service professions	166	167	225	14	572

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System, 2014.

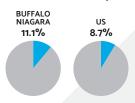
TARGET INDUSTRY

Advanced Manufacturing



With over 72,000 employees across 1,748 firms, Advanced Manufacturing is a major economic contributor in Buffalo Niagara. Although this industry is declining across the U.S., it is growing in Buffalo Niagara. Manufacturers added over 2,700 jobs between 2009 and 2014, representing a 4% employment growth rate. Computer & Electronics and Machinery added over 1,000 jobs each. Most occupations in Advanced Manufacturing offer higher than average wages. Jobs typically require specialized skills and knowledge exceeding those of the average Buffalo Niagara worker. Degrees granted by area colleges in fields such as business, engineering, and precision production contribute to the landscape of workforce development. Apprenticeship and other community-based training programs also play an important role in preparing individuals for top jobs such as machinists and welders that don't require a degree but do demand specialized skills.

Industry employment as a share of total economy in...

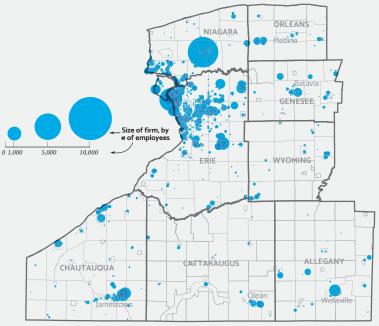


FIRMS AND EMPLOYEES BY INDUSTRY SUBSECTOR

SUBSECTOR	# OF FIRMS	# OF EMPLOYEES	CHANG	E IN # OF EMPLO	OYEES, 2009-2014	4
			-1,000	0	1,000	2,000
Computers & Electronics	112	6,580				
Machinery	192	10,144				
Transportation Manufacturing	34	6,068				
Metal-based	435	14,740				
Textiles & Apparel	49	945		1		
Furniture & Other Manufacturing	230	5,689				
Wood, Paper & Printing Production	238	5,804				
Food, Beverage & Tobacco	210	9,494				
Chemical-based	248	13,084				
TOTAL	1,748	72,548	Sou	urce: NYS DOL, Quarterly	Census of Employment and	Wages, 2009 and 2014.

ADVANCED MANUFACTURING FIRMS ACROSS THE REGION

While firms are concentrated in the Metro core, places like Batavia, Jamestown, Medina and Wellsville are also sites for Advanced Manufacturing.



Source: Reference USA, U.S. Businesses Database, 2016.

Jobs in Advanced Manufacturing pay, on average, nearly \$15,000 above the regional annual average.

TOP 10 OCCUPATIONS IN ADVANCED MANUFACTURING

Team Assemblers	Work as part of a team to assemble an entire product or component of a product
First-Line Supervisors of Production and Operating Workers	Supervise and coordinate the activities of production and operating workers
Machinists	Set up and operate a variety of machine tools to produce precision parts and instruments
Packaging and Filling Machine Operators and Tenders	Operate or tend machines to prepare industrial or consumer products for storage or shipment
Inspectors, Testers, Sorters, Samplers, and Weighers	Inspect, test, sort, sample or weigh nonagricultural raw materials
General and Operations Managers	Plan, direct, or coordinate the operations of public or private sector organizations
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	Sell goods for wholesalers or manufacturers to businesses or groups of individuals
Laborers and Freight, Stock, and Material Movers, Hand	Manually move freight, stock, or other materials or perform other general labor
Welders, Cutters, Solderers, and Brazers	Use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams
Electrical and Electronic Equipment Assemblers	Assemble or modify electrical or electronic equipment, such as computers, test equipment telemetering systems, electric motors, and batteries

Wage Range for Top 10 Occupations

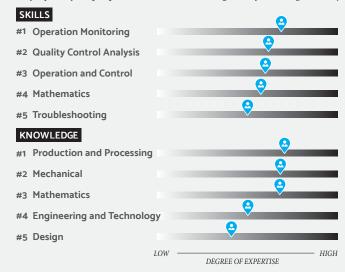


Source: NYS DOL, Quarterly Census of Employment and Wages, 2014; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015; NYS DOL, Staffing Patterns, 2014; O*Net 20.2 Database, 2015.

Skills and knowledge needed in Advanced Manufacturing requires specialized training of workers.

TOP 5 SPECIALIZED SKILLS AND KNOWLEDGE IN ADVANCED MANUFACTURING

Level of expertise for top 5 specialized skills and knowledge areas for this target industry



Source: O*NET 20.2 Database, "Skills by Occupation" and "Knowledge by Occupation", 2015; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015.

Thousands of degrees granted by area colleges help prepare students to enter this industry.

ADVANCED MANUFACTURING-RELATED DEGREES GRANTED IN BUFFALO NIAGARA

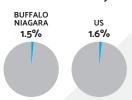
	Associate's	Bachelor's	Master's	Doctoral/ Professional	TOTAL '13-'14
Business, management, marketing, and related support services	871	2,497	968	9	4,345
Engineering	38	743	363	61	1,205
Engineering technologies and engineering-related fields	249	128	0	0	377
Precision Production	36	0	0	0	36

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System, 2014.

TARGET INDUSTRY **Agribusiness**

With just under 10,000 workers across 238 firms, Agribusiness remains the region's smallest target industry. Yet, it continues to leverage one of the region's largest natural assets: 1.3 million acres of farmland and nearly 7,000 farms. While industry employment as a share of the total regional economy dipped slightly since 2009, and is just under the national average, two of the three subsectors comprising the industry expanded between 2009 and 2014, together adding hundreds of new jobs. This represents double-digit job growth since 2009 for Agricultural, Machinery & Chemical and Agribusiness Support Activities. While 660 jobs were cut in Food & Beverage Production between 2009 and 2014, the number of firms in this subsector remained unchanged.

Industry employment as a share of total economy in...

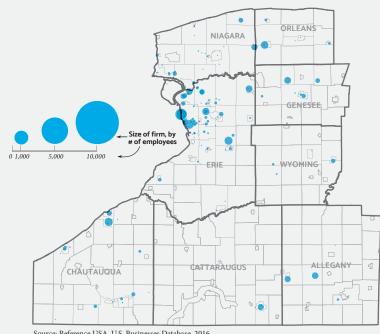


FIRMS AND EMPLOYEES BY INDUSTRY SUBSECTOR

SUBSECTOR	# OF FIRMS	# OF EMPLOYEES	CHANGE IN # OF EMPLOYEES, 2009-14
			-600 -400 -200 0 200
Agricultural, Machinery & Chemical	12	816	
Agribusiness Support Activities	28	353	
Food & Beverage Production	198	8,624	
TOTAL	238	9,793	Source: NYS DOL, Quarterly Census of Employment and Wages, 2009 and 2014. Farms and farmland acreage across Buffalo Niagara is from the USDA National Agriculture Statistics Serv 2012 Census of Agriculture.

AGRIBUSINESS FIRMS ACROSS THE REGION

While agriculture contributes to the backbone of the economy in many rural areas, many Agribusiness firms are located in northern Erie County.



Source: Reference USA, U.S. Businesses Database, 2016.

Workers in five out of 10 common jobs in Agribusiness earn more than \$40,000 per year, on average.

TOP 10 OCCUPATIONS IN AGRIBUSINESS

_	
Packaging and Filling Machine Operators and Tenders	Operate or tend machines to prepare industrial or consumer products for storage or shipment
Food Batchmakers	Set up and operate equipment that mixes or blends ingredients used in the manufacturing of food products
Food Cooking Machine Operators and Tenders	Operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers, to prepare food products
Industrial Truck and Tractor Operators	Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location
First-Line Supervisors of Production and Operating Workers	Directly supervise and coordinate the activities of production and operating workers
Packers and Packagers, Hand	Pack or package by hand a wide variety of products and materials
Team Assemblers	Work as part of a team having responsibility for assembling an entire product or component of a product
Industrial Machinery Mechanics	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems
Bakers	Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods
Laborers and Freight, Stock, and Material Movers, Hand	Manually move freight, stock, or other materials or perform other general labor

Wage Range for Top 10 Occupations

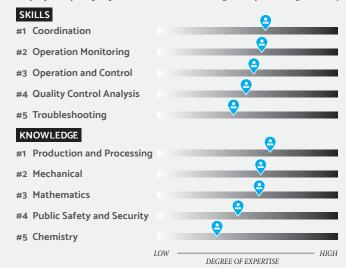


Source: NYS DOL, Quarterly Census of Employment and Wages, 2014; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015; NYS DOL, Staffing Patterns, 2014; O*Net 20.2 Database, 2015.

Training that develops areas of expertise beyond the average worker will support growth of Agribusiness.

TOP 5 SPECIALIZED SKILLS AND KNOWLEDGE IN AGRIBUSINESS

Level of expertise for top 5 specialized skills and knowledge areas for this target industry



Source: O*NET 20.2 Database, "Skills by Occupation" and "Knowledge by Occupation", 2015; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015.

Thousands of graduates earned Agribusiness-related degrees in 2014.

AGRIBUSINESS-RELATED DEGREES GRANTED IN BUFFALO NIAGARA

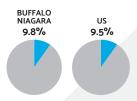
Associate's	Bachelor's	Master's	Doctoral/ Professional	TOTAL '13-'14
871	2,497	968	9	4,345
156	0	0	0	156
134	0	0	0	134
45	4	0	o	49
	871 156	871 2,497 156 O 134 O	871 2,497 968 156 0 0 134 0 0	871 2,497 968 9 156 O O O 134 O O O

 $Source: National\ Center\ for\ Education\ Statistics,\ Integrated\ Postsecondary\ Education\ Data\ System,\ 2014.$

TARGET INDUSTRY Cleantech

Buffalo Niagara's Cleantech industry contributes nearly one-tenth of all jobs in the economy, a proportion that now exceeds the industry's employment share in the national economy. Cleantech firms added nearly 4,300 net new jobs between 2009 and 2014, a growth rate of over seven percent. Employment in goods-producing firms expanded the most, followed by gains in Professional & Scientific Consulting Services where 413 jobs were added. This upward trend of the industry is anticipated to continue as SolarCity launches production at what will be the largest solar panel manufacturing plant in the nation.

Industry employment as a share of total economy in...

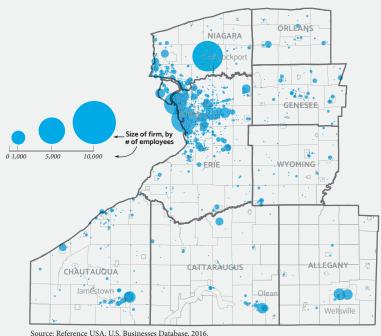


FIRMS AND EMPLOYEES BY INDUSTRY SUBSECTOR

SUBSECTOR	# OF FIRMS	# OF EMPLOYEES	СНА	NGE IN #	OF EMPL	OYEES, 20	009-2014	
			-1,000	0	1,000	2,000	3,000	4,000
Goods Producing	648	39,940						
Professional & Scientific Consulting	993	10,754						
Waste Processing & Recycling	120	2,481						
Agricultural	43	513						
Wholesalers & Rental	220	3,379						
Construction	1,111	5,443						
Energy	49	1,990						
TOTAL	3,184	64,500		Source: NYS	DOL, Quarterly	Census of Emp	oloyment and W	ages, 2009 and 2014

CLEANTECH FIRMS ACROSS THE REGION

The region's largest Cleantech firms are in Lockport, Buffalo, Jamestown, Olean and Wellsville.



Source: Reference USA, U.S. Businesses Database, 2016.

Common jobs in Cleantech are higher paying, with average salaries nearly \$20,000 above the regional average.

TOP 10 OCCUPATIONS IN CLEANTECH

Team Assemblers	Work as part of a team having responsibility for assembling an entire product or component of a product
General and Operations Managers	Plan, direct, or coordinate the operations of public or private sector organizations
First-Line Supervisors of Production and Operating Workers	Directly supervise and coordinate the activities of production and operating workers
Laborers and Freight, Stock, and Material Movers	Manually move freight, stock, or other materials or perform other general labor
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	Sell goods for wholesalers or manufacturers to businesses or groups of individuals
Inspectors, Testers, Sorters, Samplers, and Weighers	Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products
Construction Laborers	Perform tasks involving physical labor at construction sites
Carpenters	Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms, building frameworks
Office Clerks, General	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures
Machinists	Set up and operate a variety of machine tools to produce precision parts and instruments

Wage Range for Top 10 Occupations

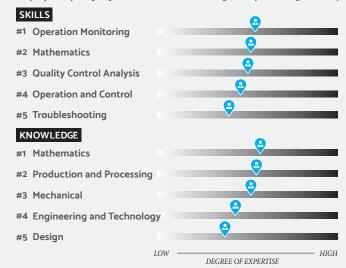


Source: NYS DOL, Quarterly Census of Employment and Wages, 2014; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015; NYS DOL, Staffing Patterns, 2014; O*Net 20.2 Database, 2015.

Jobs in Cleantech require training to develop the level specialization that workers in the industry have.

TOP 5 SPECIALIZED SKILLS AND KNOWLEDGE IN CLEANTECH

Level of expertise for top 5 specialized skills and knowledge areas for this target industry



Source: O*NET 20.2 Database, "Skills by Occupation" and "Knowledge by Occupation", 2015; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015.

Over 6,000 degrees were granted in 2014 in fields of study that support Cleantech.

CLEANTECH-RELATED DEGREES GRANTED IN BUFFALO NIAGARA

	Associate's	Bachelor's	Master's	Doctoral/ Professional	TOTAL '13-'14
Business, management, marketing, and related support services	871	2,497	968	9	4,345
Engineering	38	743	363	61	1,205
Engineering technologies and engineering-related fields	249	128	0	0	377
Architecture and related services	0	93	74	0	167

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System, 2014.

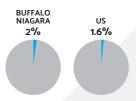
TARGET INDUSTRY

Life Sciences



Over 250 life sciences companies contribute over 13,400 jobs to Buffalo Niagara's economy. This represents an increasing share of the overall economy and a greater share than national trends. Between 2009 and 2014, life sciences companies added nearly 500 jobs in Medical Devices Manufacturing. This gain largely offset smaller employment losses in Pharmaceutical & Medical Manufacturing and Research & Development over the past five years. Over the past year, over 100 jobs were added in Pharmaceutical & Medical Manufacturing, reversing a couple of years of small employment declines. The region's annual supply of new graduates with degrees in health, engineering and the sciences offer a competitive advantage to hiring companies in Life Sciences in Buffalo Niagara.

Industry employment as a share of total economy in...

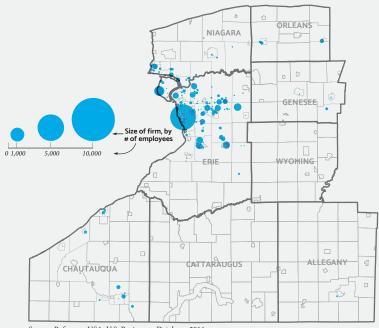


FIRMS AND EMPLOYEES BY INDUSTRY SUBSECTOR

SUBSECTOR	# OF FIRMS	# OF EMPLOYEES	CHANGE IN # OF EMPLOYEES, 2009-2014
			-200 0 200 400
Medical Devices Manufacturing	108	4,468	
Pharmaceutical & Medical Manufacturing	75	4,840	
Research & Development	70	4,137	
TOTAL	253	13,445	Source: NYS DOL, Quarterly Census of Employment and Wages, 2009 and 2014.

LIFE SCIENCES FIRMS ACROSS THE REGION

A hub for Life Sciences exists in the Buffalo Niagara metro area, anchored by the Buffalo Niagara Medical Campus.



Annual salaries for common jobs range from about \$25K to \$100K+, offering varied career options.

TOP 10 OCCUPATIONS IN LIFE SCIENCES

Team Assemblers	Work as part of a team having responsibility for assembling an entire product or component of a product
Packaging and Filling Machine Operators and Tenders	Operate or tend machines to prepare industrial or consumer products for storage or shipment
Inspectors, Testers, Sorters, Samplers, and Weighers	Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products
First-Line Supervisors of Production and Operating Workers	Directly supervise and coordinate the activities of production and operating workers
Social Science Research Assistants	Assist social scientists in laboratory, survey, and other social science research
Medical Scientists, Except Epidemiologists	Conduct research dealing with the understanding of human diseases and the improvement of human health
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	Perform routine clerical and administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining files
Office Clerks, General	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	Set up, operate, or tend metal or plastic molding, casting, or coremaking machines to mold or cast metal or thermoplastic parts or products
General and Operations Managers	Plan, direct, or coordinate the operations of public or private sector organizations

Wage Range for Top 10 Occupations

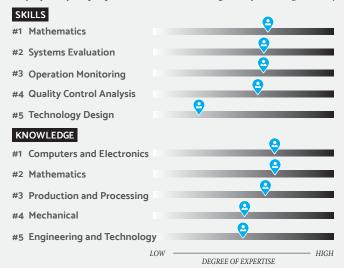


Source: NYS DOL, Quarterly Census of Employment and Wages, 2014; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015; NYS DOL, Staffing Patterns, 2014; O*Net 20.2 Database, 2015.

Demand for advanced skills and knowledge underscores the importance of training for jobs in Life Sciences.

TOP 5 SPECIALIZED SKILLS AND KNOWLEDGE IN LIFE SCIENCES

Level of expertise for top 5 specialized skills and knowledge areas for this target industry



Source: O*NET 20.2 Database, "Skills by Occupation" and "Knowledge by Occupation", 2015; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015.

6,700+ degrees were granted in 2014 in fields of study related to Life Sciences.

LIFE SCIENCES-RELATED DEGREES GRANTED IN BUFFALO NIAGARA

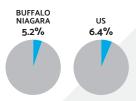
	Associate's	Bachelor's	Master's	Doctoral/ Professional	TOTAL '13-'14
Health professions and related programs	1,612	1,005	706	610	3,933
Engineering	38	743	363	61	1,205
Biological and biomedical sciences	5	728	114	50	897
Computer and information sciences and support services	263	259	152	25	699

 $Source: National\ Center\ for\ Education\ Statistics,\ Integrated\ Postsecondary\ Education\ Data\ System,\ 2014.$

TARGET INDUSTRY Logistics

The Logistics industry accounts for about one of every 20 jobs in Buffalo Niagara. With nearly 34,000 employees working across 2,082 companies, Logistics has added 1,286 jobs since 2009, representing a 4% growth in employment. Wholesalers reported the largest absolute gain, adding 517 jobs over that period. The largest percentage gain was reported by Support Activities for Freight Transportation. This relatively small subsector expanded its employment base by sixteen percent, four times the industry average. Growth in the Logistics industry is supported by a range of workforce trainers, and area colleges that annually prepare thousands of new graduates with degrees related to Logistics.

Industry employment as a share of total economy in...

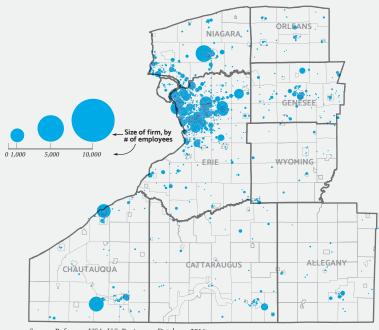


FIRMS AND EMPLOYEES BY INDUSTRY SUBSECTOR

SUBSECTOR	# OF FIRMS	# OF EMPLOYEES	CHA	ANGE IN # OF EMPL	OYEES, 2009-20	14
			0	200	400	600
Wholesale	1,334	21,631				
Support Activities for Freight Transportation	168	2,861				
Freight Movement & Storage	580	9,503				
TOTAL	2,082	33,995	So	urce: NYS DOL, Quarterly Cens	sus of Employment and Wag	ges, 2009 and 2014.

LOGISTICS FIRMS ACROSS THE REGION

Most Logistics companies in the region locate in the region's two counties that contain international border crossings to Canada.



Source: Reference USA, U.S. Businesses Database, 2016.

Half of the most common jobs in Logistics pay close to \$35,000 or more per year.

TOP 10 OCCUPATIONS IN LOGISTICS

Heavy and Tractor-Trailer Drive a tractor-trailer combination Truck Drivers or a truck Sales Representatives, Sell goods for wholesalers or manufacturers to businesses or Wholesale and groups of individuals Manufacturing, Except Technical and Scientific Products Laborers and Freight, Stock, Manually move freight, stock, or and Material Movers, Hand other materials or perform other general labor Drive a light vehicle, such as a Light Truck or Delivery truck or van Services Drivers **Customer Service** Interact with customers to provide information in response Representatives to inquiries about products and services and to handle and resolve complaints Office Clerks, General Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures Stock Clerks and Order Receive, store, and issue sales floor merchandise, materials, **Fillers** equipment, and other items General and Operations Plan, direct, or coordinate the operations of public or private Managers sector organizations Shipping, Receiving, and Verify and maintain records on incoming and outgoing shipments Traffic Clerks Bookkeeping, Accounting, Compute, classify, and record numerical data to keep financial and Auditing Clerks records complete

Wage Range for Top 10 Occupations

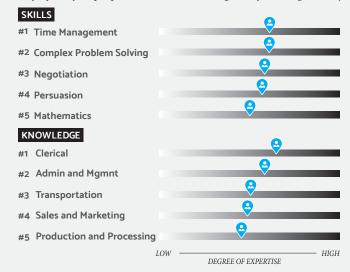


Source: NYS DOL, Quarterly Census of Employment and Wages, 2014; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015; NYS DOL, Staffing Patterns, 2014; O*Net 20.2 Database, 2015.

Training that develops expertise in these areas will support continued growth of the Logistics industry.

TOP 5 SPECIALIZED SKILLS AND KNOWLEDGE IN LOGISTICS

Level of expertise for top 5 specialized skills and knowledge areas for this target industry



Source: O*NET 20.2 Database, "Skills by Occupation" and "Knowledge by Occupation", 2015; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015.

Area colleges granted nearly 5,300 degrees in 2014 that support the Logistics industry.

LOGISTICS-RELATED DEGREES GRANTED IN BUFFALO NIAGARA

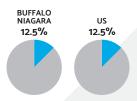
	Associate's	Bachelor's	Master's	Doctoral/ Professional	TOTAL '13-'14
Business, management, marketing, and related support services	871	2,497	968	9	4,345
Computer and information sciences and support services	263	259	152	25	699
Mechanic and repair tech/technicians	222	0	0	0	222
Transportation and materials moving	2	0	0	0	2

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System, 2014.



Tourism is the region's largest target industry, accounting for approximately one out of eight jobs in Buffalo Niagara. It is a growing industry too, with close to 9,400 jobs added between 2009 and 2014. Eating & Drinking Establishments reported the greatest expansion, followed by Gaming, Rec. & and Entertainment. These and other tourism subsectors offer entry-level careers, with fewer specialized skill and knowledge requirements than those of the average regional workers. Credential building for jobs in tourism is supported by area colleges and universities, which granted over 5,600 degrees in related programs in 2014. Community-based trainers such as the Niagara Global Tourism Institute also offer training for the industry.

Industry employment as a share of total economy in...

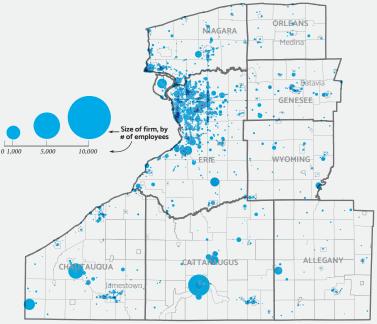


FIRMS AND EMPLOYEES BY INDUSTRY SUBSECTOR

SUBSECTOR	# OF FIRMS	# OF EMPLOYEES	CHANGE IN # OF EMPLOYEES, 2009-2014			
			0	2,000	4,000	6,0
Eating & Drinking Establishments	2,895	55,162				
Gaming, Rec. & Entertainment	681	14,888				
Accommodations	213	6,023				
Tourism Support Services	382	5,919				
TOTAL	4,171	81,992		Source: NYS DOL, Qua	arterly Census of Employme	ent and Wages,

TOURISM FIRMS ACROSS THE REGION

Visitor attractions and supports are present in every county of the region but concentrated in the Buffalo-Niagara Falls area.



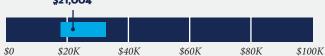
Many workers enter the tourism industry through jobs in Eating & Drinking Establishments.

TOP 10 OCCUPATIONS IN TOURISM

Take orders and serve food and Waiters and Waitresses beverages to patrons at tables in dining establishments Combined Food Preparation Perform duties which combine and Serving Workers, preparing and serving food and nonalcoholic beverages Including Fast Food Cooks, Restaurant Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts **Bartenders** Mix and serve drinks to patrons First-Line Supervisors of Directly supervise and coordinate activities of workers Food Preparation and engaged in preparing and Serving Workers serving food Dishwashers Clean dishes, kitchen, food preparation equipment, or utensils Food Preparation Workers Perform a variety of food preparation duties other than Facilitate food service. Clean Dining Room and Cafeteria tables, remove dirty dishes, Attendants and Bartender replace soiled table linens, set Helpers tables, replenish supplies, serve items Counter Attendants, Serve food to diners Cafeteria, Food Concession, and Coffee Shop Prepare and cook food in a fast Cooks, Fast Food food restaurant

Wage Range for Top 10 Occupations

Target Industry Avg. \$21,004



Source: NYS DOL, Quarterly Census of Employment and Wages, 2014; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015; NYS DOL, Staffing Patterns, 2014; O*Net 20.2 Database, 2015.

Jobs in Tourism offer entry-level opportunities with lower skill and knowledge requirements.

TOP 5 SPECIALIZED SKILLS AND KNOWLEDGE IN TOURISM

Level of expertise for top 5 specialized skills and knowledge areas for this target industry



Source: O*NET 20.2 Database, "Skills by Occupation" and "Knowledge by Occupation", 2015; NYS DOL, Occupational Employment Statistics, 8-county roll-up (Q1), 2015.

Thousands of degrees granted in 2014 support the region's growing Tourism industry.

TOURISM-RELATED DEGREES GRANTED IN BUFFALO NIAGARA

	Associate's	Bachelor's	Master's	Doctoral/ Professional	TOTAL '13-'14
Business, management, marketing, and related support services	871	2,497	968	9	4,345
Visual and performing arts	137	715	89	5	946
Parks, recreation, leisure, and fitness studies	41	120	96	0	257
Family and consumer sciences/Human Sciences	26	75	0	0	101

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System, 2014.

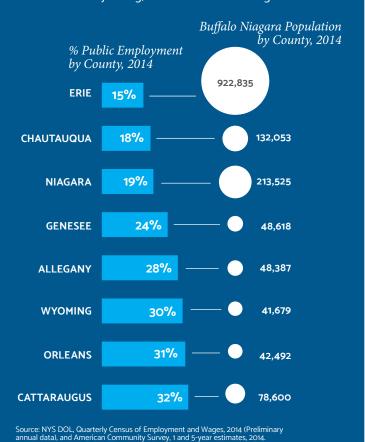
COUNTY COMPARISONS



Variation across Buffalo Niagara's eight counties can sometimes be masked when looking at regional averages, especially with 75% of the labor force, 76% of all firms, and 91% of total jobs located in the region's metropolitan core of Erie and Niagara counties. This section takes a closer look at labor market patterns at the county level, assessing how the eight counties compare to one another.

PUBLIC SECTOR EMPLOYMENT

Public employment tends to be highest, as a proportion of all employment, in the region's less populated counties like Wyoming, Orleans and Cattaraugus.



IOB CONCENTRATION

Job concentrations are highest in Erie and Genesee where there are 5 jobs for every 10 people. The other counties have lower ratios of jobs to people.

For every 10 people	
in the Buffalo Niagara region, there are about	4 jobs
in Erie County	5 jobs
in Genesee County	5 jobs
in Cattaraugus County	4 jobs
in Chautauqua County	4 jobs
in Niagara County	3 jobs
in Wyoming County	3 jobs
in Orleans County	3 jobs
in Allegany County	3 jobs

Educational Attainment, Labor EDUCATIONAL Force Participants (25-64), 2014

ERIE COUNTY



REMAINDER OF REGION



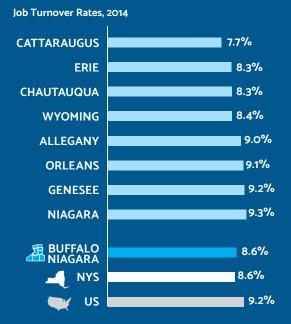
HS degree or lower Some college or Assoc. degree Bachelor's degree or higher

ATTAINMENT

Nearly three-quarters of labor force participants in Erie County have a college degree or some college experience. In Erie County, the share of the labor force with a college education is higher than both regional and national averages.

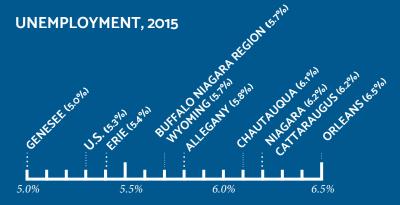
Source: American Community Survey, 1 and 5-year estimates, 2014.

JOB TURNOVER RATES



Source: US Census, Quarterly Workforce Indicators Data, 2014.

Workforce stability is important for both employers and employees. It allows employers to keep hiring costs under control and focus on improving worker productivity and business growth. This is especially important in tight labor markets, where the supply of workers is lower than demand. For employees, workforce stability is a reflection of job satisfaction, healthy work environments, and access to benefits and other opportunities.



Source: U.S. Department of Labor: Bureau of Labor Statistics, "Local Area Unemployment Statistics", 2015.

Genesee County continues to have the lowest rate of unemployment and is the only county in the region with a rate below the nation's. The unemployment rate in Erie County, where job concentrations are high, is also below the regional average.

AVERAGE ANNUAL PRIVATE-SECTOR WAGE

Erie County workers earn an average annual wage exceeding average wages in any other county by \$6,033 per worker. Wages are lowest in Chautauqua and Orleans where workers earn under \$34,000 a year. Average wages in the remaining five counties range from \$34,000 to just over \$37,000, with workers in more rural counties earning less than more populous counties, in general.

Erie	\$43,182
Cattaraugus	\$37,149
Niagara	\$36,382
Genesee	\$35,172
Wyoming	\$34,455
Allegany	\$34,083
Orleans	\$33,494
Chautauqua	\$33,420

Source: NYS DOL, Quarterly Census of Employment and Wages, 2014 (Preliminary annual data).

Regionwide, 26% of jobs are filled by workers with a bachelor's degree or higher. The percentage is highest in Erie (28%) and lowest in rural Wyoming (21%). Counties where the percentage of the labor force with a college degree at least matches that for jobs (Erie, Niagara, Chautauqua and Cattarauqus) are most poised for job growth of high-skill occupations.

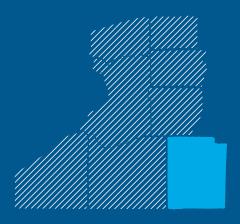
BACHELOR'S DEGREE+: SHARE OF LABOR FORCE THAT HAS IT AND IOBS THAT NEED IT

Labor Force who have a Bachelor's				cattaraugus 25%					NIAGARA
degree or higher	JU /0	20/0	40/0	40/0	22/0	40/0	10/0	4 0 /0	JJ /0
Jobs in County requiring a Bachelor's degree or higher	28%	23%	22%	23%	23%	23%	21%	24%	26%
+ SURPLUS/ - DEFICIT OF WORKERS	+10%	+5%	+3%	+2%	-1%	5%*	-3%	-4%	+7%

Source: American Community Survey, 1 and 5-year estimates, 2014, and U.S. Census Bureau, Local Employment Dynamics, Quarterly Workforce Indicators, 2014.

*Reflects difference of unrounded numbers (23.4%-.22.9%).

ALLEGANY COUNTY



Allegany County is situated in the southwest corner of the region about 75 miles from the City of Buffalo in the region's Southern Tier. Large employers like Alfred University, Alfred State, Houghton College, Empire Cheese, Friendship Dairies, Dresser-Rand, and Cuba Memorial Hospital contribute to an economy that is home to nearly 1,000 firms, 13,700 jobs, a population of nearly 50,000, and a labor force of 23,300. The majority of Allegany County jobs (56%) are filled by workers who live in the county, concentrated in and around Wellsville where two major universities are located in the southern portion of the county. Another 15% of workers travel from adjacent counties where they live near major thoroughfares adjacent to the county border. Hundreds of other privatesector workers travel from Erie County, but account for a relatively small share of Allegany County's workers.

Concentration of private-sector workers by location of residence, 2014

BY THE NUMBERS, 2014

PRIVATE-SECTOR EMPLOYMENT, 2014

Population 48,387

> Number of Firms 954

Number of Jobs

13,679

Number of People in the Labor Force (2015)

23,300

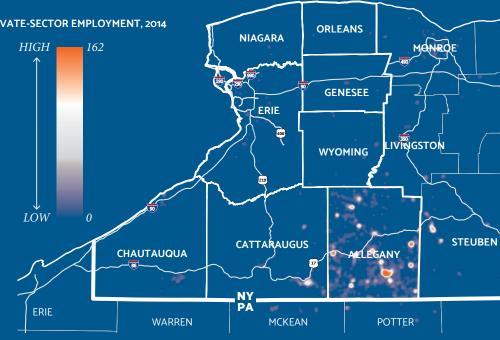
% Employment in Public Sector

28%

Average Private-Sector Wage

\$34,083

Source: See Data Sources & Notes for the various data sources.



TOP 5 COUNTIES IN WHICH ALLEGANY COUNTY WORKERS RESIDE

counties	workers commuting
Allegany County	56%
Steuben County	8%
Cattaraugus County	7%
Erie County	3%
Monroe County	3%
All Other Locations	23%

Source: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, OnTheMap Application, 2014.

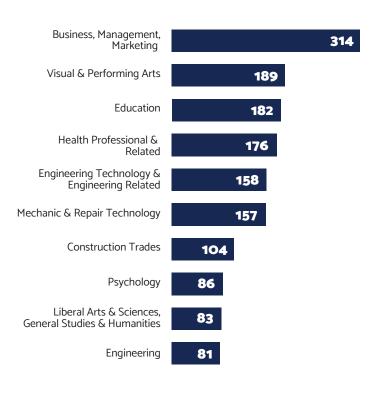
% of Allegany County

Workforce development in Allegany County benefits from the presence of three institutions of higher education. Together, Houghton College, Alfred University and Alfred State College granted over 2,081 degrees and certificates to students in 2014. Ten broad fields of study accounted for about three-quarters of the total, with Business, Management, Marketing granting the most degrees. Many top fields of study support Allegany County's five industry specializations, which together comprise nearly half of the county's employment base.

Retaining more of these college graduates has the potential to support growing industries in Allegany County. Numbers suggest that many college graduates with a bachelor's degree or higher leave the county upon graduation. Only 22% of the county's workforce has a bachelor's degree or more, lagging regional and national benchmarks by over 10 percentage points.

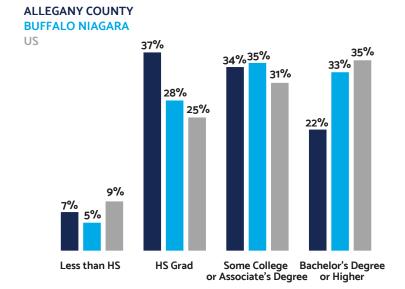
TOP 10 FIELDS OF STUDY

DEGREES AND CERTIFICATES AWARDED AT ALLEGANY COUNTY COLLEGES, 2014



Source: National Center for Education Statistics; Integrated Postsecondary Education Data System, 2014.

EDUCATIONAL ATTAINMENT OF LABOR FORCE



Source: American Community Survey, 1 and 5-year estimates, 2014. NOTE: Percentages are based on the total number of workers in the labor force, ages 25-64.

INDUSTRY SPECIALIZATIONS FOR ALLEGANY COUNTY

Educational Services

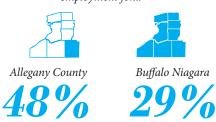
Manufacturing

Agriculture, Forestry, Fishing and Hunting

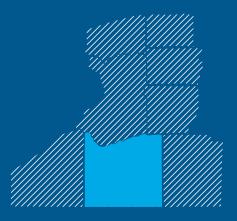
Utilities

Accommodation and Food Service

These industry specializations as a % of total employment for...



CATTARAUGUS COUNTY



Cattaraugus County is located in the region's Southern Tier, north of the Pennsylvania border and about one hour south of the City of Buffalo. With large employers like CUTCO Corporation, Holiday Valley Resort, Seneca Allegany Resort and Casino Center, and St. Bonaventure University, the county's economy generates nearly 30,000 jobs across 1,800+ firms. About one in three jobs in Cattaraugus are public sector jobs, with hundreds at a Gowanda-based correctional facility. The majority of private sector workers live in Cattaraugus County. Another quarter live in a neighboring county, with Allegany County to the east supplying the largest number of workers. Route 219 and Interstate Route 86 facilitate business travel in and out of Cattaraugus County from all directions. Three-quarters of workers in Cattaraugus County report their commute time to be under 30 minutes.

BY THE NUMBERS, 2014

78,600

Number of Firms

1,822

Number of Jobs

29,628

Number of People in the Labor Force (2015)

36,300

% Employment in Public Sector

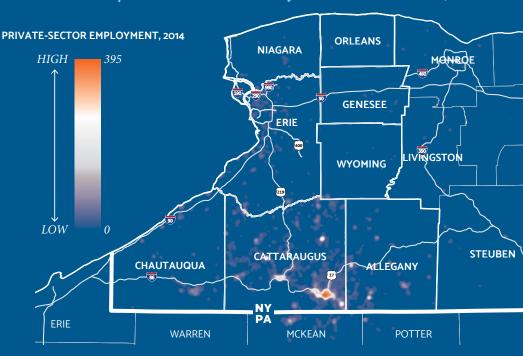
32%

Average Private-Sector Wage

\$37,149

Source: See Data Sources & Notes for the various data sources.

Concentration of private-sector workers by location of residence, 2014



TOP 5 COUNTIES IN WHICH CATTARAUGUS COUNTY WORKERS RESIDE

counties	workers commuting
Cattaraugus County	56%
Allegany County	9%
Erie County	8%
Chautaqua County	6%
McKean County, PA	5%
All Other Locations	16%

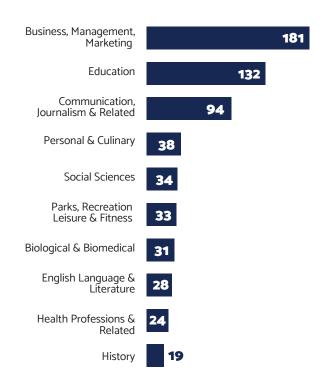
Cattaraugus County's three institutions of higher education granted nearly 700 degrees and certificates in 2014, with the majority awarded by St. Bonaventure University. Business, Education and Communications are the largest programs of study.

Many top fields of study support employers in Cattaraugus County's five industry specializations which contribute over 50% of the county's employment base, compared to 40% across the region. Specializations include Manufacturing, Retail Trade, Agriculture, Forestry and Hunting and Accommodation and Food Services.

While the county's colleges play an important role in developing the workforce, community-based trainers such as Cattaraugus-Allegany BOCES are also important in this county, where almost half of the workforce lacks any college education.

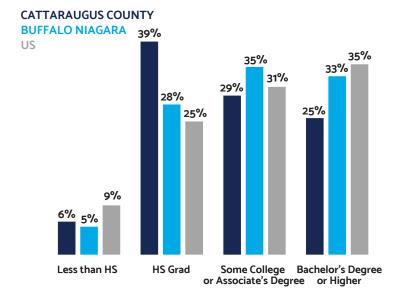
TOP 10 FIELDS OF STUDY

DEGREES AND CERTIFICATES AWARDED AT CATTARAUGUS COUNTY COLLEGES, 2014



Source: National Center for Education Statistics; Integrated Postsecondary Education Data System, 2014.

EDUCATIONAL ATTAINMENT OF LABOR FORCE



Source: American Community Survey, 1 and 5-year estimates, 2014. NOTE: Percentages are based on the total number of workers in the labor force, ages 25-64.

INDUSTRY SPECIALIZATIONS FOR CATTARAUGUS COUNTY

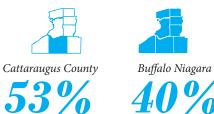
Manufacturing

Mining, Quarrying, and Oil and Gas Extraction

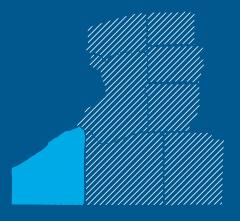
Retail Trade

Agriculture, Forestry, Fishing and Hunting Accommodation and Food Services

These industry specializations as a % of total employment for...



CHAUTAUQUA COUNTY



Chautauqua is the largest of the three counties in the region's Southern Tier. It has more jobs, firms and people than Allegany and Cattaraugus Counties combined. Large employers like SUNY Fredonia, Cummins Inc., Cott Corporation and the Chautauqua Institution contribute to the county's nearly 50,000 jobs and 3,242 firms. Even with the presence of a large public university, Chautauqua County has the second highest percentage of private-sector employment in all eight counties in the region. Nearly three-quarters of private-sector workers reside in the county. Another one-tenth travel from neighboring counties, facilitated by Interstate 90, which readily connects employers in Chautauqua with workers in population centers like Buffalo, just over an hour's drive to the north. About half of workers in Chautauqua report commute times of 15 minutes or less.

BY THE NUMBERS, 2014

Concentration of private-sector workers by location of residence, 2014

132,053

Number of Firms

3,242

Number of Jobs

49,720

Number of People in the Labor Force (2015)

57,900

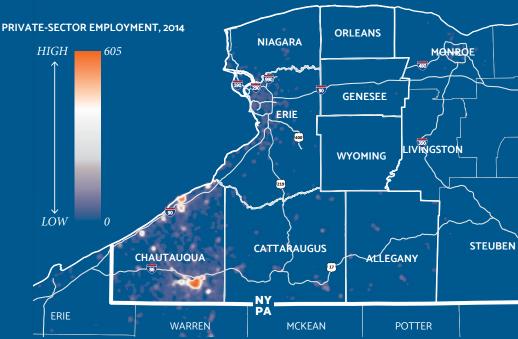
% Employment in Public Sector

18%

Average Private-Sector Wage

\$33,420

Source: See Data Sources & Notes for the various data sources.



TOP 5 COUNTIES IN WHICH CHAUTAUQUA COUNTY WORKERS RESIDE

counties	workers commuting
Chautauqua County	72%
Erie County	6%
Cattaraugus County	4%
Warren County, PA	3%
Erie County, PA	2%
All Other Locations	13%

Higher education in Chautauqua County benefits from the presence of a community college, a state university and a business school. Together, Chautauqua's three colleges and universities granted nearly 2,400 degrees and certificates in 2014.

Seven broad degree programs reported more than 100 graduates each, with Business, Management, Marketing being the largest. Chautauqua County industry specializations such as Manufacturing, Retail Trade and Accommodations and Food Services also benefit from new graduates with in-depth knowledge of business, marketing, and communications.

Institutions of higher education in Chautauqua contribute to educational attainment levels that are three-to-seven percentage points higher than regional and national benchmarks for workers with some college or an associate's degree.

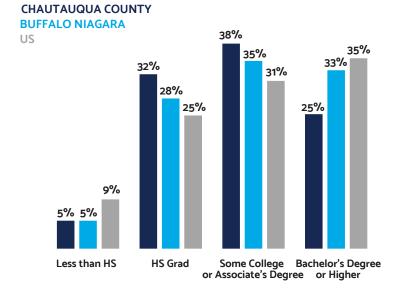
TOP 10 FIELDS OF STUDY

DEGREES AND CERTIFICATES AWARDED AT CHAUTAUQUA COUNTY COLLEGES, 2014



Source: National Center for Education Statistics; Integrated Postsecondary Education Data System, 2014.

EDUCATIONAL ATTAINMENT OF LABOR FORCE



Source: American Community Survey, 1 and 5-year estimates, 2014. NOTE: Percentages are based on the total number of workers in the labor force, ages 25-64.

INDUSTRY SPECIALIZATIONS FOR CHAUTAUQUA COUNTY

Utilities

Manufacturing
Agriculture, Forestry, Fishing and Hunting
Retail Trade
Accommodation and Food Services

These industry specializations as a % of total employment for...



Chautauqua County

Buffalo Niagara

55%

ERIE COUNTY



Erie is the region's economic powerhouse, with more people, firms and jobs than the other seven counties combined. Large private employers like General Motors, Kaleida, M&T, and Moog help contribute close to half a million jobs and over 24,000 firms do business here. Many are located in Buffalo—the county's largest city—and its surrounding suburbs. Private-sector employers generally do not have to look far to fill jobs. About three-quarters of jobs are filled by workers who live in the county. An additional 10% commute from Niagara County, particularly from the cities of Niagara Falls and Lockport. Outside the region, Monroe County supplies 3% of Erie County's private-sector workers. Commutes from Monroe to Erie are facilitated by Interstate 90, which connects Buffalo and Rochester. Erie has the largest proportion of workers in the region with commute times between 30 and 45 minutes.

BY THE NUMBERS, 2014

922,835

Number of Firms

24,086

Number of Jobs

456,767

Number of People in the Labor Force (2015)

 $449,\!200$

% Employment in Public Sector

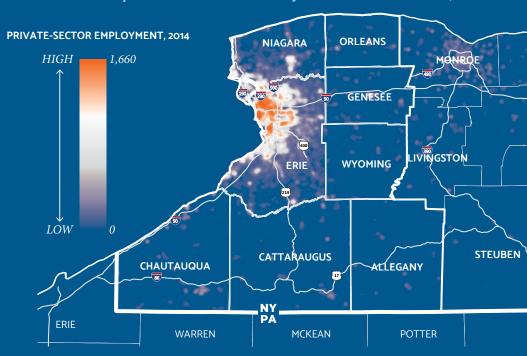
15%

Average Private-Sector Wage

\$43,182

Source: See Data Sources & Notes for the various data sources.

Concentration of private-sector workers by location of residence, 2014



TOP 5 COUNTIES IN WHICH ERIE COUNTY WORKERS RESIDE

76% Erie County 10% Niagara County 3% Monroe County 3% Cattaraugus County 1% Chautauqua County 7% All Other Locations	. counties	workers commuting
3% Monroe County 3% Cattaraugus County 1% Chautauqua County	Erie County	76%
3% Cattaraugus County 1% Chautauqua County	Niagara County	10%
1% Chautauqua County	Monroe County	3%
	Cattaraugus County	3%
7% All Other Locations	Chautauqua County	1%
	All Other Locations	7%

Nearly two dozen institutions of higher education are located in Erie County. This includes the University at Buffalo, New York's largest public research university. Colleges and universities in Erie County granted over 20,000 degrees and certificates in 2014. Health, business, education, social sciences and engineering are among the largest programs of study. These and other degrees support the county's large and diverse employment base and industry specializations such as Finance and Insurance, Professional, Scientific and Technical Services. and Management of Companies and Enterprises.

Erie County's large base of institutions and degree programs helps to retain and attract students to the county. It also contributes to a highly educated workforce. Nearly 40% of the labor force has a bachelor's degree or higher, exceeding regional and national benchmarks.

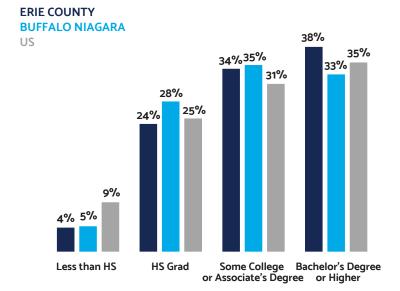
TOP 10 FIELDS OF STUDY

DEGREES AND CERTIFICATES AWARDED AT ERIE COUNTY COLLEGES, 2014



Source: National Center for Education Statistics; Integrated Postsecondary Education Data System, 2014.

EDUCATIONAL ATTAINMENT OF LABOR FORCE



Source: American Community Survey, 1 and 5-year estimates, 2014. NOTE: Percentages are based on the total number of workers in the labor force, ages 25-64.

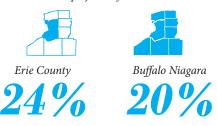
INDUSTRY SPECIALIZATIONS FOR ERIE COUNTY

Management of Companies and Enterprises
Finance and Insurance

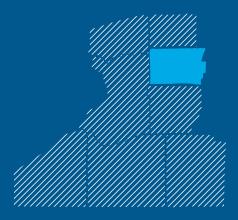
Professional, Scientific, and Technical Services

Wholesale Trade
Educational Services

These industry specializations as a % of total employment for...



GENESEE COUNTY



Genesee County is situated on the region's eastern edge, west of the City of Rochester in Monroe County and about 45 miles east of Buffalo. Genesee's proximity to two urban centers contributes to low unemployment—lower than the region's other counties. Genesee County also has its own employment base, with larger employers like Bonduelle, Torrey Farms and Graham Corporation. These and other employers contribute to the county's 14,071 firms and 23,400 jobs. Genesee County's concentration of jobs to people is equal to that of neighboring Erie. About half of private-sector jobs are filled by county residents. Another one-fifth are filled by commuters from Erie and Monroe Counties, with slightly more drawn from the Rochester area than the Buffalo area. A quarter of workers in Genesee County report commute times of 30 minutes or more.

BY THE NUMBERS, 2014

48,618

Number of Firms

1,471

Number of Jobs

23,406

Number of People in the Labor Force (2015)

30,200

% Employment in Public Sector

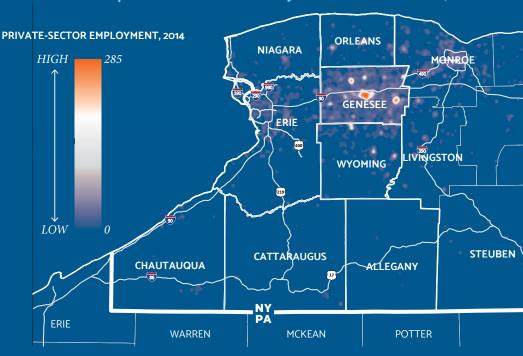
24%

Average Private-Sector Wage

\$35,172

Source: See Data Sources & Notes for the various data sources.

Concentration of private-sector workers by location of residence, 2014



TOP 5 COUNTIES IN WHICH GENESEE COUNTY WORKERS RESIDE

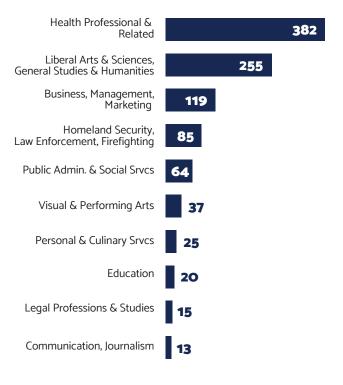
counties	workers commuting	
Genesee County	50%	
Monroe County	11%	
Erie County	9%	
Wyoming County	8%	
Orleans County	4%	
All Other Locations	18%	

Genesee County's three institutions of higher education granted over 1,000 degrees and certificates in 2014. Most were awarded by Genesee Community College. Degrees in Health, Liberal Arts and Business accounted for the largest numbers. These and other degree programs of schools in the county support industry specializations such as Manufacturing and Arts, Entertainment, and Recreation.

Colleges and universities help to contribute to a county workforce that exceeds regional and national benchmarks for its proportion of workers with some college or an associate's degree. Postsecondary programs offered by community-based trainers such as Genesee Valley BOCES and Cornell Cooperative Extension of Genesee County offer additional options for vocational instruction.

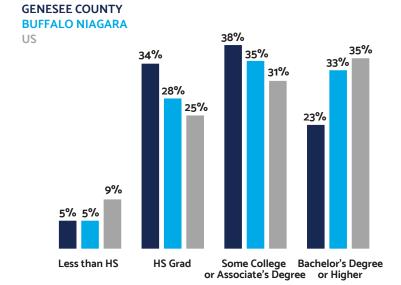
TOP 10 FIELDS OF STUDY

DEGREES AND CERTIFICATES AWARDED AT GENESEE COUNTY COLLEGES, 2014



Source: National Center for Education Statistics; Integrated Postsecondary Education Data System, 2014.

EDUCATIONAL ATTAINMENT OF LABOR FORCE

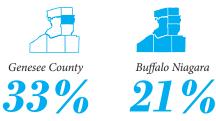


Source: American Community Survey, 1 and 5-year estimates, 2014. NOTE: Percentages are based on the total number of workers in the labor force, ages 25-64.

INDUSTRY SPECIALIZATIONS FOR GENESEE COUNTY

Agriculture, Forestry, Fishing and Hunting
Arts, Entertainment, and Recreation
Utilities
Wholesale Trade
Manufacturing

These industry specializations as a % of total employment for...



NIAGARA COUNTY



Situated north of Erie County on the U.S. border with Canada, Niagara County is part of the Buffalo-Niagara Falls MSA, along with Erie County. It is the region's second most populous county, with over 213,00 people, nearly 73,000 jobs and 4,800 firms. Large employers like General Motors, Delphi and Niagara University support the economic base, which has strengthened in recent years. Niagara County's unemployment rate dropped 3.1 percentage points since 2009, one of the largest declines reported regionwide. Nearly nine out of 10 private-sector workers in the county live in the Buffalo-Niagara Falls MSA, with over half residing in Niagara County. Small but notable proportions (one to three percent) travel to Niagara County from as far away as Monroe and Chautauqua Counties, contributing to the 22% of workers in the county reporting travel times to work of 30 minutes or more.

BY THE NUMBERS, 2014

Concentration of private-sector workers by location of residence, 2014

213,525

Number of Firms

4,755

Number of Jobs

72,750

Number of People in the Labor Force (2015)

101,600

% Employment in Public Sector

19%

Average Private-Sector Wage

\$36,382

Source: See Data Sources & Notes for the various data sources.



% of Niagara County

TOP 5 COUNTIES IN WHICH NIAGARA COUNTY WORKERS RESIDE

workers commuting	counties
60%	Niagara County
26%	Erie County
3%	Monroe County
2%	Orleans County
1%	Chautauqua County
8%	All Other Locations

from these

Postsecondary institutions in Niagara County granted over 2,500 degrees and certificates in 2014. Most were awarded by Niagara County Community College and Niagara University, a private fouryear school just north of Niagara Falls. Business, Education, Health, Liberal Arts and Homeland Security are programs that attract and educate the largest number of students. These and other higher education programs help to support the county's industry specializations which include Health Care and Social Assistance, Agriculture, Forestry, Fishing and Hunting and Retail Trade.

Niagara County's workforce is comparable or better than regional and national benchmarks for its proportion of workers with some college or an associate's degree. Community-based trainers such as the Isaiah 61 Project and the YWCA of Niagara offer additional options for those seeking vocational training.

TOP 10 FIELDS OF STUDY

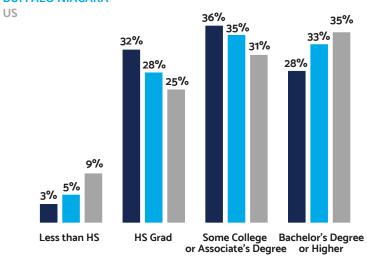
DEGREES AND CERTIFICATES AWARDED AT NIAGARA COUNTY COLLEGES, 2014



Source: National Center for Education Statistics; Integrated Postsecondary Education Data System, 2014.

EDUCATIONAL ATTAINMENT OF LABOR FORCE

NIAGARA COUNTY BUFFALO NIAGARA



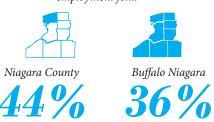
Source: American Community Survey, 1 and 5-year estimates, 2014. NOTE: Percentages are based on the total number of workers in the labor force, ages 25-64.

INDUSTRY SPECIALIZATIONS FOR NIAGARA COUNTY

Utilities

Agriculture, Forestry, Fishing and Hunting
Retail Trade
Construction
Health Care and Social Assistance

These industry specializations as a % of total employment for...



ORLEANS COUNTY



Located in the northeastern corner of the region along the Lake Ontario shore and about one hour from Buffalo, Orleans County is largely rural. It is also the smallest county in the region, in terms of firms and jobs. Nearly one in three jobs here is in the public sector, with a state correctional facility and local school districts being some of the largest employers. Others include Brunner International Inc. and Sigma International, both international companies based in Medina. Over half of private sector workers in Orleans County reside in the county, with largest concentrations in and around the Village of Medina along the Erie Canal. About another quarter of workers commute in from neighboring Niagara and Monroe Counties. A slightly larger share commute from Niagara where many workers live in Lockport and other communities near the Orleans border. Orleans has one of the highest percentages of workers in the region reporting travel times to work of 45 minutes or more.

BY THE NUMBERS, 2014

Concentration of private-sector workers by location of residence, 2014

42,492

Number of Firms

759

Number of Jobs

12,597

Number of People in the Labor Force (2015)

 $18,\!000$

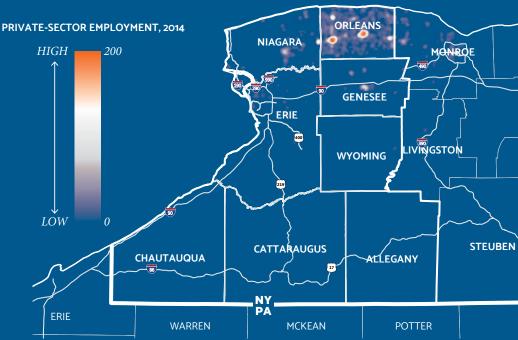
% Employment in Public Sector

31%

Average Private-Sector Wage

\$33,494

Source: See Data Sources & Notes for the various data sources.



TOP 5 COUNTIES IN WHICH ORLEANS COUNTY WORKERS RESIDE

workers commuting	counties
60%	Orleans County
12%	Niagara County
10%	Monroe County
6%	Genesee County
5%	Erie County
7%	All Other Locations

from these

Source: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, OnTheMap Application, 2014.

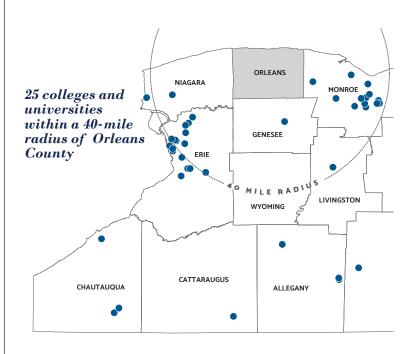
% of Orleans County

While none of the region's colleges and universities are located in Orleans County, 25 institutions of higher education exist within a 40-mile radius. These nearby institutions of higher education support the county's workforce and most specialized industries such as Manufacturing and Agriculture, Forestry, Fishing and Hunting, with the skilled human capital employers need.

Community-based trainers also play an important role in this county where the proportion of workers with a bachelor's degree lags significantly behind regional and national benchmarks. Orleans County Job Development Agency and Iroquois Job Corps are some of the trainers offering shorter-term vocational training options.

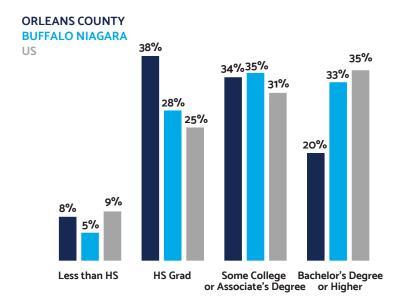
COLLEGES AND UNIVERSITIES

WITHIN A 40-MILE RADIUS OF ORLEANS COUNTY, 2014



Source: National Center for Education Statistics; Integrate d PostSecondary Education Data System, 2014.

EDUCATIONAL ATTAINMENT OF LABOR FORCE

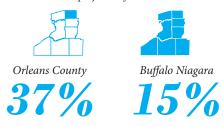


Source: American Community Survey, 1 and 5-year estimates, 2014. NOTE: Percentages are based on the total number of workers in the labor force, ages 25-64.

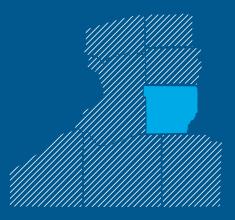
INDUSTRY SPECIALIZATIONS FOR ORLEANS COUNTY

Agriculture, Forestry, Fishing and Hunting Mining, Quarrying, and Oil and Gas Extraction Manufacturing

These industry specializations as a % of total employment for...



WYOMING COUNTY



Wyoming County is home to nearly 14,000 jobs across about 900 firms. Situated in the middle eastern portion of the region, about an hour's drive from the urban core, this largely rural county is home to Letchworth State Park which spans neighboring Livingston County. Nearly one in three jobs here are in the public sector, many of which are supported by the state park and a state correctional facility. Larger private-sector employers include Pioneer Credit Recovery, Morton Salt and the Wyoming County Community Health Facility. Unlike most counties of the region with workers that live and work within the same county, the majority of private-sector jobs here are filled by residents from outside the county. Nearly a quarter commute in from Erie County and places in northeastern Cattaraugus County. About a quarter of workers in Wyoming County report travel times to work of 30 minutes or more.

Concentration of private-sector workers by location of residence, 2014

BY THE NUMBERS, 2014

PRIVATE-SECTOR EMPLOYMENT, 2014

Population 41,679

Number of Firms

Number of Jobs

13,919

Number of People in the Labor Force (2015)

 $18,\!400$

% Employment in Public Sector

30%

Average Private-Sector Wage

\$34,455

Source: See Data Sources & Notes for the various data sources.



counties worker's commuting... **Wyoming County** 46% TOP 5 COUNTIES IN WHICH WYOMING 13% **Erie County** COUNTY WORKERS RESIDE 10% **Cattaraugus County** 6% **Genesee County** 6% **Livingston County**

% of Wyoming County

... from these

All Other Locations

Source: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, OnTheMap Application, 2014.

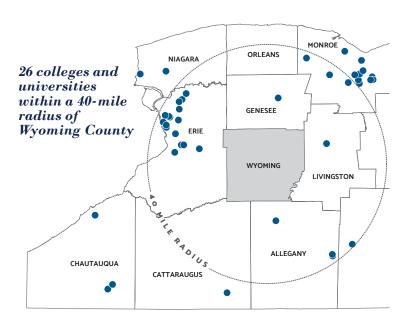
19%

Residents and employers in Wyoming County have access to 26 colleges, universities and other institutions of higher learning within a 40-mile radius. The large majority are in Buffalo Niagara, concentrated in Erie County. Several in the Finger Lakes Region are also within proximity, less than an hour's drive from Wyoming County.

These diverse institutions of higher education produce an ample supply of new labor each year to fill job openings, particularly in the county's industry specializations such as Manufacturing, Transportation and Warehousing, and Agriculture, Forestry, Fishing, and Hunting. Workforce developers such as the Wyoming County Business Center play an important role in developing career skills in the county's comparatively large workforce segment who did not continue their education beyond high school education.

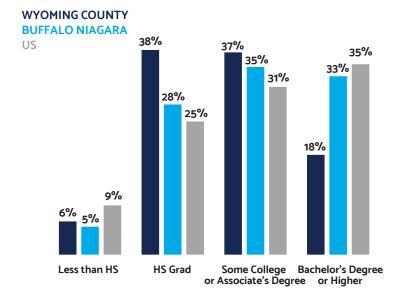
COLLEGES AND UNIVERSITIES

WITHIN A 40-MILE RADIUS OF WYOMING COUNTY



 $Source: National\ Center\ for\ Education\ Statistics;\ Integrated\ Postsecondary\ Education\ Data\ System,\ 2014.$

EDUCATIONAL ATTAINMENT OF LABOR FORCE



Source: American Community Survey, 1 and 5-year estimates, 2014. NOTE: Percentages are based on the total number of workers in the labor force, ages 25-64.

INDUSTRY SPECIALIZATIONS FOR WYOMING COUNTY

Agriculture, Forestry, Fishing and Hunting

Administrative and Support and Waste Management and Remediation Services

Transportation and Warehousing

Manufacturing

Other Services (except Public Administration)

These industry specializations as a % of total employment for...



Wyoming County

590/

Buffalo Niagara

DATA SOURCES & NOTES

UNIVERSE FOR JOBS AND FIRMS

New York State Department of Labor, "Quarterly Census of Employment and Wages" (8-county roll-up), 2009-2014: New York State Department of Labor provided counts of jobs by industry subsector at the four-digit North American Industry Classification System (NAICS) code levels for the eight-county Buffalo Niagara region. Jobs that are covered by unemployment insurance or are in industries with fewer than three firms are not included in this universe. Unlike publicly available data for individual counties, however, these data were "rolled up" to include employment and firm counts where there are three or more firms in total across the eight counties.

"Supersectors"

To provide a broad view of the regional economy, industry classification is based on aggregated groupings referred to as "supersectors." The supersectors analyzed in this report are consistent with those defined by the U.S. Economic Classification Policy Committee, with the exception of Education & Health Services, which were separated, and Retail, which was disaggregated from Trade, Transportation & Utilities. To remain consistent, supersector classification was based on the eight-county roll-up data provided by the New York State Department of Labor and combines both public and private employment.

DEMOGRAPHIC DATA

With the exception of population counts for which 2009 estimates are available, the most recent American Community Survey (ACS) three-year estimates (2006-08) from the U.S. Census Bureau were used for all demographic findings. Workforce data from the ACS refers to the "Civilian Labor Force." While these numbers are only estimates, they represent the most accurate and current figures available at the county level.

OCCUPATION AND WAGE DATA

New York State Department of Labor, "Occupational Employment Statistics" (8-county roll-up) 2009

Because publicly available data at the regional level aggregates together only five of the region's eight counties, "rolled-up" data that encompasses all eight counties were provided by the New York State Department of Labor for use in this report.

Occupational categories follow the 2010 Standard Occupational Classification (SOC) system, which organizes all occupations in the economy into broad occupational categories which include jobs requiring similar skills, training, or educational levels. The SOC system is used by federal and state agencies to track occupational data. SOC codes for the occupational categories used in this report include: Management (11-0000), Business and Financial Operations (13-0000), Computer and Mathematical (15-0000), Architecture and Engineering (17-0000), Life, Physical and Social Science (19-0000), Community and Social Service (21-0000), Legal (23-0000), Education,

Training and Library (25-0000), Arts, Design, Entertainment, Sports and Media (27-0000), Healthcare Practitioners and Technical (29-0000), Healthcare Support (31-0000), Protective Service (33-0000), Food Preparation and Serving (35-0000), Building Grounds and Cleaning (37-0000), Personal Care and Service (39-0000), Sales and Related (41-0000), Office and Administrative Support (43-0000), Farming, Fishing and Forestry (45-0000), Construction and Extraction (47-0000), Installation, Maintenance, and Repair (49-0000), Production (51-0000), and Transportation and Material Moving (53-0000).

TARGET INDUSTRIES

Industry NAICS codes were used to define target industries per the recommendations of Invest Buffalo Niagara. Using these NAICS codes, the top 50 jobs were derived by listing the jobs that exist in the greatest numbers within the target industry based on 2014 industry staffing patterns provided by the NYS Department of Labor. As per recommendation by Invest Buffalo Niagara, the following NAICS codes were used to define each Target Industry:

Agribusiness: Agricultural Machinery and Chemical Manufacturing (3253, 3331), Agribusiness Support Activities (1151, 1152), Food & Beverage production (3113, 3114, 3115, 3116, 3118, 3119, 3121)

Advanced Business Services: General Business Support (5611, 5612, 5614), Banking, Accounting & Insurance (5221, 5222, 5223, 5231, 5241, 5242, 5412), Technical Professional Services (5414, 5415, 5419, 5413), Data & Telecommunications (5171, 5172, 5179, 5182).

Advanced Manufacturing: Food, Beverage & Tobacco (3111 – 3121), Textiles & Apparel (3132 – 3152), Wood, Paper & Printing Production (3211 – 3231), Chemical-based (3241 – 3279), Metal based (3311 – 3329), Machinery (3331 – 3339), Computers & Electronics (3341 – 3359), Transportation Manufacturing (3362 – 3369), Furniture & Other Manufacturing (3371 – 3399).

Cleantech: Professional & Scientific Consulting (5413, 5414, 5416, 5417), Construction (2361, 2362, 2371), Waste Processing & Recycling (5621, 5622, 5629), Agricultural (1111, 1119, 1151), Energy (2111, 2211, 2213), Wholesalers & Rental (4237, 4239, 5324), Goods Producing (3211, 3219, 3222, 3241, 3251, 3252, 3261, 3272, 3279, 3312, 3314, 3315, 3321, 3323, 3324, 3329, 3331, 3332, 3334, 3336, 3339, 3341, 3344, 3345, 3351, 3353, 3359, 3363, 3365).

Life Sciences: Research & Development (5417), Medical Devices Manufacturing (3345, 3391), Pharmaceutical & Medical Manufacturing (3254, 3261)

Logistics: Freight Movement & Storage (4921, 4811, 4812, 4831, 4841, 4842, 4931), Wholesale (4231, 4232, 4233, 4234, 4235, 4236, 4237, 4238, 4239, 4241, 4242, 4243, 4244, 4245, 4246, 4247, 4248, 4249, 4921), Support Activities for Freight Transportation (4881, 4882, 4883, 4884, 4885, 4889).

Tourism: Gaming, Recreation & Entertainment (7111, 7112, 7121, 7131, 7132, 7139, 5121, 7212), Accommodations (7211, 7213), Eating & Drinking Establishments (7223,7224,7225), Tourism Support Services (4852, 4853, 4855, 4859, 4871, 4872, 5321, 5615, 4532, 4811, 4812, 4831, 4881, 4884).

WHAT DOES THE REGIONAL ECONOMY LOOK LIKE?

Bv the Numbers

Population: U.S. Census Bureau, "Current Population Survey, Annual Population Estimates," 2015.

Number of Firms and Jobs: New York State Department of Labor, "Quarterly Census of Employment and Wages," 2014.

Labor Force: U.S. Department of Labor: Bureau of Labor Statistics, "Local Area Unemployment Statistics," 2015.

GMP: U.S. Department of Commerce: Bureau of Economic Analysis, "GDP in Current Dollars," 2014.

Exports: Brookings Institution, "Export Monitor 2015". Represents "Real export value" which accounts for inflation.

Industry Composition by Total % Employment, 2014: New York State Department of Labor, "Quarterly Census of Employment and Wages," (8-county roll-up), 2014. U.S. Department of Labor: Bureau of Labor Statistics, "Quarterly Census of Employment and Wages," 2014.

The New York Metropolitan Area referred to in the text includes New York City, Long Island and Mid- and Lower Hudson Valley.

HOW IS THE ECONOMY CHANGING?

Industry Specialization and Specialization Growth between 2009 and 2014 in Buffalo Niagara

New York State Department of Labor, "Quarterly Census of Employment and Wages," (8-county roll-up), 2009 and 2014.

U.S. Department of Labor: Bureau of Labor Statistics, "Quarterly Census of Employment and Wages," 2009 and 2014.

Key Labor Market Trends, 2009-Current, Buffalo Niagara

Upstate NY includes all parts of NYS outside of New York City and Long Island. Unless otherwise noted, figures for Upstate NY are calculated by subtracting totals for the seven downstate counties from the NYS total.

Population: U.S. Census Bureau, "Current Population Survey, Annual Population Estimates," 2009 and 2015.

Firms and Jobs: U.S. Department of Labor: Bureau of Labor Statistics, "Quarterly Census of Employment and Wages," 2009 and 2014. New York State Department of Labor, "Quarterly Census of Employment and Wages," 2009 and 2014.

Labor Force: U.S. Department of Labor: Bureau of Labor Statistics, "Local Area Unemployment Statistics," 2009 and 2015.

GDP: U.S. Department of Commerce: Bureau of Economic Analysis, "GDP in Chained 2009 Dollars," 2009 and 2014 (Figures account for inflation). GDP data is only available for metropolitan areas. Buffalo Niagara numbers represent the Buffalo-Niagara Falls metro area (Erie and Niagara counties). Upstate NY includes all metro areas in NYS beyond the NYC metropolitan area.

Exports: Brookings Institution, "Export Monitor 2015". Represents "Real export value" which accounts for inflation.

WHAT IS THE REGIONAL DEMAND FOR LABOR?

Employment Change by Industry, 2009-2014

New York State Department of Labor, "Quarterly Census of Employment and Wages," 2009 and 2014.

% of Firms by Size and % of Jobs by Firm Size

New York State Department of Labor, "Quarterly Census of Employment and Wages," (8-county roll-up), 2009 and 2014.

Changes in Private Sector Jobs

U.S. Census Bureau: Longitudinal Employer-Household Dynamics Program, "LEHD Origin-Destination Employment Statistics (LODES): Workforce Area Characteristics," 2009 and 2014.

Map illustrates spatial patterns of private sector employment change from 2009 to 2014. LODES data provides the annual average number of private sector jobs within each census block. This data is used to calculate the change in employment at the census block level from 2009 to 2014. ArcGIS software is used to plot the calculated change in jobs from 2009 to 2014 at the census block level and produce the "heat map" shown.

WHAT IS THE REGIONAL SUPPLY FOR LABOR?

Distribution of Labor Supply in Buffalo Niagara, 2014

Population and labor force are from the American Community Survey, 1- and 5-year estimates, 2014. Employment is from the NYS DOL, QCEW, 8-county roll-up (Q3), 2015. Unemployment is from the NYS DOL, LAUS, 2015. "Other" refers to those in the labor force whose employment is not covered by unemployment insurance.

The Proportion of younger and older workers benchmarked

U.S. Census Bureau, American Community Survey, 2014 (1-year estimates)

Benchmark metros were selected based on the preference of Invest Buffalo Niagara and similarities with the economic, demographic or geographic characteristics of the Buffalo Niagara region. In order to maintain consistency, comparisons use figures from the metropolitan region (consisting of Erie and Niagara counties). Benchmark regions are consistent with those used for the 2010 Buffalo Niagara Labor Market Assessment and in selected other reports within the LMA/17 suite of reports.

% of Population by Age with a Bachelor's Degree or Higher

U.S. Census Bureau, "American Community Survey, 1-year estimates (2014)" and "5-year estimates (2010-2014)."

Concentration of the Region's Private Sector Workers by Location of Residence

U.S. Census Bureau: Longitudinal Employer-Household Dynamics Program, "LEHD Origin-Destination Employment Statistics (LODES): Residential Area Characteristics," 2014.

Map illustrates where workers live who are currently employed in private sector jobs in the Buffalo Niagara region. Map precision is at the census block level.

WHO IS ENTERING AND EXITING THE WORKFORCE?

Emerging Workers

National Center for Education Statistics, NYS Department of Education, American Community Survey, NYS Department of Labor, and Internal Revenue Service.

Existing Workers

The Pathfinders Study, "The Western New York Region Labor Availability Report," July 2016, page 5. Data reflect estimates for 2016.

Number of Jobs by Industry and Age of Worker, Buffalo Niagara, 2014 U.S. Census Bureau: Local Employment Dynamics, "Quarterly Workforce Indicators," 2014. Accessed March, 2016 at http://ledextract.ces.census.gov/

College Degrees Granted by Buffalo Niagara's Colleges and Universities by Top Fields of Study and Degree Level, 2014

National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), 2014. Does not include degrees from institutions defined through IPEDS as "Less than 2 year Institutions." Does not include certificates.

Education Attainment of Individuals Ages 25+ Newly Relocated to Buffalo Niagara from Out of State or Abroad

U.S. Census Bureau, American Community Survey, 2014 (5-year estimates)

"Master's +" shown in the charts on this page includes all degrees granted beyond the bachelor's level. This include master's degrees, doctoral degrees and professional degrees (such as in law, medicine, dentistry and pharmacy).

WHAT ARE WAGES LIKE IN THE REGION?

Average wage in Buffalo Niagara versus the average wage in the U.S. NYS Department of Labor, "Occupational Employment Statistics" (8-county roll up)," 2009 and 2015.

U.S. Department of Labor, Bureau of Labor Statistics, "Occupational Employment Statistics," 2015.

Average wage for the Buffalo Niagara region represents the average for all jobs in the region. The average national wage was adjusted for the occupations and occupational mix that exist in the region, therefore controlling for wage differences attributable to different occupations and/or different concentrations of higher- or lower paying occupations.

How do Buffalo Niagara Wages Compare to the U.S.?

NYS Department of Labor, "Occupational Employment Statistics" (8-county roll up)," 2009 and 2015.

U.S. Department of Labor, Bureau of Labor Statistics, "Occupational Employment Statistics," 2015.

Average wage for the Buffalo Niagara region represents the average for all jobs in the region. The average national wage was adjusted for the

occupations and occupational mix that exist in the region, therefore controlling for wage differences attributable to different occupations and/or different concentrations of higher- or lower paying occupations.

How much have Buffalo Niagara wages changed since 2009?

NYS Department of Labor, "Occupational Employment Statistics" (8-county roll up)," 2009 and 2015. Wage trends over time were adjusted for inflation using the consumer price index for the nation.

U.S. Department of Labor, Bureau of Labor Statistics, "Consumer Price Index," 2000-2016.

Wage trends by occupational category are influenced by various factors. In addition to demand for labor, wage trends may be impacted by retirements of large numbers of higher-paid workers, or other shifts in employment towards higher-paying or lower-paying workers within occupational categories. Changes in the OES survey sample composition can also affect wages since occupational wages can differ by business size and sector (public vs. private).

WHAT IS THE QUALITY OF LABOR LIKE IN THE REGION?

Productivity by Industry Sector, Output per Worker

UBRI Analysis of IMPLAN data files. An IMPLAN to NAICS crosswalk was used to relate IMPLAN data to NAICS Sectors. Does not include output from public IMPLAN sectors or owner-occupied dwellings.

Productivity by Industry Sector, Job Turnover Rate by Industry

U.S. Census Bureau, Local Employment Dynamics, Quarterly Workforce Indicators, 2014.

Labor Force Participation Rates by Educational Attainment in Buffalo Niagara, Age 25-64, 2009 and 2014

U.S. Census Bureau, "American Community Survey, 1-year estimates (2009) and (2014)" and "5-year estimates (2005-2009) and (2010-2014)."

Labor force participation rates by race and ethnicity for individuals ages 16-64 (mentioned in the text) are from U.S. Census 2014 American Community Survey (5-year estimates). It was estimated that nearly 35,000 individuals across Buffalo Niagara could be added to the labor force if labor force participation rates for persons of every race and ethnicity between ages 16 and 64 equaled that for whites (77%) in 2014.

TARGET INDUSTRIES

Target industry employment and share of employment as a share of the total economy.

New York State Department of Labor, "Quarterly Census of Employment and Wages," (8-county roll-up), 2014.

U.S. Department of Labor Bureau of Labor Statistics, "Quarterly Census of Employment and Wages," 2014.

The goods-producing subsector for Cleantech includes all industries falling within NAICS 31 and 33.

Firms and Employees by Industry Subsector

New York State Department of Labor, "Quarterly Census of Employment and Wages," (8-county roll-up), 2009 and 2014.

Map of Firms across the Region

Reference USA, "Business Database," 2016. Retrieved March, 2016.

Firms were selected based on their primary NAICS code, according to Reference USA. Map excludes firms with less than five employees.

Top Ten Occupations in Target Industry

New York State Department of Labor, Quarterly Census of Employment and Wages. 2014.

The occupations selected have the most workers of all occupations in the region, identified using industry staffing patterns provided by the NYS Department of Labor. The wage range was based on the lowest and highest wages for these occupations. The average annual wage was calculated by dividing the total wages of all employees in the target industry by the total number of workers in the target industry.

Most Specialized Skills and Knowledge in Target Industry

U.S. Department of Labor: O*NET Resources Center, "O*NET 20.2 Database: Knowledge, Skills and Abilities," 2016.

New York State Department of Labor, "Occupational Employment Statistics, by Industry," 2015.

Specialized skills and knowledge fields are those that are relatively most important for top occupations of the target industry. The typical importance and level of skills/knowledge areas associated with an occupation are provided by the O*NET Resource Center. The skill level and importance of each skill/ knowledge area for each occupation is rated on a O to 7 scale, with O being no skill/knowledge and 7 being the highest level a job could require. The average skill/knowledge importance for top occupations in the target industry is found by weighting the skill/knowledge importance level assigned to each occupation by the share of employment each occupation accounts for in the target industry. This is compared to a similar weighted average of the overall skill/knowledge importance across the entire regional economy. Dividing the average importance of each skill/knowledge in the target industry to the overall economy reveals the top five most specialized skills and knowledge areas shown. For each selected skill/knowledge area, the chart shows the average skill level required in the target industry's top occupations, weighted by occupational employment levels.

COUNTY COMPARISONS

Public Sector Employment

New York State Department of Labor, "Quarterly Census of Employment and Wages," 2014. Employment figures are preliminary and subject to change, U.S. Census Bureau, "American Community Survey, 1-year estimates (2014)" and "5-year estimates (2010-2014)."

lob Concentration

New York State Department of Labor, "Quarterly Census of Employment and Wages," 2014. Employment figures are preliminary and subject to change.

U.S. Census Bureau, "American Community Survey, 1-year estimates (2014)" and "5-year estimates (2010-2014)."

Educational Attainment

U.S. Census Bureau, "American Community Survey, 1-year estimates (2014)" and "5-year estimates (2010-2014)."

Unemployment

U.S. Department of Labor: Bureau of Labor Statistics, "Local Area Unemployment Statistics," 2015.

Average Annual Private Sector Wage

New York State Department of Labor, "Quarterly Census of Employment and Wages," 2014. Average annual wages are preliminary and subject to change.

Job Turnover Rates

 $\hbox{ U.S. Census, ``Quarterly Workforce Indicators,'' 2014.}\\$

Bachelor's Degree: Share of Workers that Have it and Jobs that Need it

U.S. Census Bureau: Longitudinal Employer-Household Dynamics Program, "LEHD Origin-Destination Employment Statistics (LODES): Workforce Area Characteristics," 2014 (for educational attainment of jobs).

U.S. Census Bureau, "American Community Survey, 5-year estimates (2010-2014)." (for educational attainment of workers).

COUNTY BY COUNTY

Population

U.S. Census Bureau, "American Community Survey, 1-year estimates (2014)" and "5-year estimates (2010-2014)."

Number of Firms and Jobs

New York State Department of Labor, "Quarterly Census of Employment and Wages", 2014. Employment figures are preliminary and subject to change.

Labor Force

U.S. Department of Labor: Bureau of Labor Statistics, "Local Area Unemployment Statistics," 2015.

% Employment in Public Sector

New York State Department of Labor, "Quarterly Census of Employment and Wages," 2014. Employment figures are preliminary and subject to change.

Average Private Sector Wage

New York State Department of Labor, "Quarterly Census of Employment and Wages," 2014. Average annual wages are preliminary and subject to change.

Concentration of private-sector workers by location of residence

U.S. Census Bureau: Longitudinal Employer-Household Dynamics Program, "LEHD Origin-Destination Employment Statistics (LODES): Workforce Area Characteristics," 2014. Labor shed analysis for private-sector jobs in the selected county using the "On the Map" application.

Top 10 Fields of Study and Colleges and Universities

National Center for Education Statistics, Integrated Postsecondary Education Data System, 2014. Awards reflect total degrees and certificates granted in the academic year ending in 2014 across all levels of study at degree-granting institutions within the geography. In counties where no institution of higher education exists, a 40-mile radius was applied using geospatial analysis to used to identify institutions of higher education within this proximity.

Educational Attainment of Labor Force

U.S. Census Bureau, "American Community Survey, 1-year estimates (2014)" and "5-year estimates (2010-2014)." Percentages are based on the total number of workers in the labor force ages 25-64.

Industry Specializations

New York State Department of Labor, "Quarterly Census of Employment and Wages," 2015. Data are preliminary and subject to change.

A county's industry specializations are the industries in which the share of total employment in the county is higher than across the 8-county Buffalo Niagara region. Specializations exclude industries that comprise less than 0.5% of the county's employment. The degree of specialization across these industries is highlighted by comparing the county's total share of employment in these industries against the total share of employment in these same industries in the regional economy.



An Overview of Buffalo Niagara's Economy, Labor Force and Target Industries