



Southern Tier West Regional Planning & Development Board
4039 Route 219, Suite 200, Salamanca NY 14779

2019 Southern Tier West Region

Comprehensive Economic Development Strategy

2019 Comprehensive Economic Development Strategy

Prepared for Allegany, Cattaraugus, and Chautauqua Counties of New York State

By The

Southern Tier West Regional Planning and Development Board



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Introduction

The **Southern Tier West Regional Planning and Development Board ("Southern Tier West")** is a regional planning council, a unit of government created pursuant to New York State General Municipal Law section 239-h. Southern Tier West was designated an Economic Development District (EDD) by the U.S. Department of Commerce Economic Development Administration ("EDA") in 1977. The functions of the EDD include, but are not limited to, preparing and maintaining a Comprehensive Economic Development Strategy ("CEDS"), assisting in the implementation strategies identified in the CEDS, and providing technical assistance to Economic Development Organizations throughout New York State's Southern Tier West Region (Allegany, Cattaraugus, and Chautauqua Counties). As members of the Southern Tier West EDD, these three counties and the municipalities located within these counties are designated by EDA as redevelopment areas and are eligible for financial assistance from EDA for eligible and appropriate economic development projects.

This **2019 Comprehensive Economic Development Strategy ("2019 CEDS")** is a strategic plan for economic development for New York State's Southern Tier West Region, prepared and published by Southern Tier West. The CEDS is developed by the Southern Tier West CEDS Strategy Committee, which is comprised of a broad range of public sector, regional economic development, business, civic, education and workforce development professionals.

The purpose of the implementation of the CEDS is to create an economic environment that fosters job creation, a more diversified economy, and improves the quality of life for the residents of the three county Southern Tier West region. The CEDS outlines appropriate strategies and projects for implementation by local governments, private industry, organizations and individuals concerned with economic development. By their inclusion in the CEDS, and their identification by Southern Tier West as priority economic development projects for funding by EDA, economic development projects in the Southern Tier West region qualify for grant funding from EDA.

Southern Tier West annually prepares the CEDS per a contract with EDA. In 2015, EDA changed its requirements for the CEDS planning process, document format, and document content. Accordingly, the 2015 CEDS was prepared through a comprehensive planning process per the revised EDA CEDS requirements, and subsequent annual editions, including this 2019 CEDS, have been annual updates of the 2015 CEDS. This 2019 CEDS conforms to EDA's revised requirements.

The 2019 CEDS has two primary sections. The first section, the **Strategy Report**, is a concise presentation of the region's economic development strategy. The second section, the **Technical Report**, provides more detail, replicating but also expanding on the Strategy Report so as to elaborate on the specifics contained in the Strategy Report section.

The **Strategy Report** section of the 2019 CEDS, a relatively concise summary exposition of the region's economic development strategy, contains the following sub-sections:

- **Summary Background:** A summary background of the economic conditions of the region.
- **SWOT Analysis:** A summary analysis of regional strengths, weaknesses, opportunities and threats (commonly known as a "SWOT" analysis) as they pertain to economic development.
- **Strategic Direction/Action Plan:** A summary of the region's economic development strategy, an action plan for implementing the strategy, and a list of priority strategic project, programs, and activities. The strategy contains a vision statement, economic development goals, economic development objectives, and economic development strategies. This sub-section builds on the SWOT analysis and incorporates and integrates elements from other plans relevant to the region as appropriate. The action plan and list of priority strategic project, programs, and activities of also identify the stakeholder(s) responsible for implementation, timetables, and opportunities for the integrated use of other local, state, and federal funds. The listing of priority projects also includes a listing of the region's current priorities for EDA investment.



- **Evaluation Framework:** A statement of performance measures used to evaluate Southern Tier West’s and the region’s implementation of the CEDS and impact on the regional economy.
- **Economic Resilience:** A discussion of the region’s capacity and strategies to avoid, withstand, and recover from economic shifts, natural disasters, the impacts of climate change, etc.

The **Technical Report** section of the 2019 CEDS provides a more detailed analysis of much of the topics covered in the Strategy Report section, and contains the following sub-sections:

- **An expanded Summary Background:** An expanded discussion of the economic conditions of the region.
- **An expanded SWOT Analysis:** A discussion that includes a more detailed analysis of economic opportunities and problems/constraints and strategic analysis thereof. This discussion provides additional breadth to the Summary Background and SWOT Analysis sections of the Strategy report.
- **An Expanded Strategic Direction/Action Plan:** This discussion provides additional detail to the Strategic Direction/Action Plan section of the Strategy report, by adding a more detailed presentation of the region’s economic development action plan.
- **An expanded Economic Resilience discussion:** An expanded discussion of the region’s economic resilience strategies, primarily involving more detail on recommended resilience project initiatives.

The **Appendix** of the 2019 CEDS contains the following content:

- An identification of the **members of the Southern Tier West Board of Directors**, who, as EDA planning grantee, ultimately are responsible for the publication of this document, and who sit on the CEDS Committee.
- Further notes on the 2019 CEDS as an update of the 2015, 2016, 2017, and 2018 CEDS, including an identification of the **members of the CEDS Committee**, who were specifically tasked with responsibility for the development of the 2015 CEDS, and a **description of the 2015 CEDS planning process**.
- **Maps** showing various characteristics of the region.
- **Descriptive data** supporting the analysis of the region’s economic condition, which is used to inform the SWOT Analysis and the strategic content of the CEDS.
- **County economic profiles**, containing county-level economic data.
- **A basic bibliography of local, regional, state, and federal strategic planning documents** utilized in developing this CEDS.
- **An identification of other relevant recent planning documents published by Southern Tier West.**

It should be noted that public and private sector partnerships are critical to the development and implementation of the CEDS, and both EDA and Southern Tier West direct and encourage economic development entities in the region to pursue such partnerships to catalyze collaborative economic development within the region.

Note: Throughout this document, content from the most recently available (2017) Seneca Nation of Indians CEDS document has been incorporated as appropriate.



Executive Summary

For decades, the rural three-county Southern Tier West region, located in southwestern New York State at the northern tip of the historically economically distressed Appalachian region, has experienced economic distress that very often has exceeded that of either the State or the nation as a whole. In recent decades, regional unemployment rates often have exceeded State and national unemployment rates; regional per capita income levels often have been significantly below State and national per capita income levels; regional per capita income levels often have failed to keep pace with inflation; and businesses and residents have emigrated from the region.

The nation's economy continues to recover from a recession. The Southern Tier West region's economy also has experienced a revival of its economy of sorts, but our region nonetheless continues to be more economically depressed than the State and the nation as a whole. Our region continues to experience economic dislocation in the form of business closures / outmigrations (often non-locally owned plants), layoffs, unemployment, and population outmigration. Our region struggles to remain economically competitive with other regions and the global economy, and struggles to maintain and grow value added, high paying jobs.

In the future, our region's economic health and quality of life will be dependent upon its ability to regain and improve on its economic competitiveness, a goal whose achievement is made more difficult because of the dynamic restructuring of and challenges facing the regional, national, and global economies. Our region, like the nation as a whole, is experiencing a long-term transformation from a commodity-based manufacturing-based economy into a technology-based and service-based economy. Developing foreign economies, domestic relative comparative disadvantages, and the restructuring of the global financial, product, and services markets all present challenges to domestic regional economies such as ours.

To maintain and improve its standard of living, our region must transform its regional economy into a regional-net-export-surplus, knowledge-based, innovation-based economy that is more internally self-sufficient, i.e., that is less dependent upon the extra-regional economy. It is essential for our region to maintain and cultivate the value-added regional-net-export-surplus sectors of the regional economy – be they manufacturing, service, or agricultural – in industry clusters and occupation clusters in which our region enjoys a competitive or niche advantage, in which there is opportunity and capacity for innovation, and in which there is significant growth potential.

Traditional economic development strategies generally fall into one of two camps: needs-based economic development or asset-based economic development. Needs-based economic development focuses on identifying gaps and deficiencies in the local economy and attracting new investment or industries to fill those gaps. Needs-based economic development can be more sensitive to the boom-and-bust cycle or to changes in State or federal policy environments, and it is a strategy that often will have a lower probability of success. In contrast, asset-based economic development builds on existing local resources ("assets") to strengthen the regional economy. Asset-based economic development typically is easier to motivate, is a higher-probability-of-success type of strategy, and is more likely to result in long-term sustained economic growth. This CEDS essentially is primarily an asset-based economic development strategy.

Fortunately, our region has a number of significant economic and human resource assets that form the foundation for our current regional economy and can be utilized to achieve sustainable and globally competitive economic development. It is essential that, at the regional, county, and local levels, our region builds upon these assets to capture opportunities that are available.

This CEDS sets forth the following **Vision** for the future of the Southern Tier West region:

The Southern Tier West region will become a region whose economy is globally competitive, is dynamic and growing, and provides meaningful and sustaining employment for its residents. The Southern Tier West region will transform its regional economy into a regional-net-export-surplus, knowledge-based, innovation-based economy that is more internally self-sufficient, i.e., that is less dependent upon the extra-regional economy. The Southern Tier West region will maintain and cultivate the value-added regional-net-export-surplus sectors of the regional economy – be they manufacturing, service, or agricultural – in industry clusters and occupation



clusters in which our region enjoys a competitive or niche advantage, in which there is opportunity and capacity for innovation, and in which there is significant growth potential.

To inform this economic development strategy, and as a means of making progress toward achieving this Vision, this CEDS sets forth the following five **economic development goals**:

1. **Human Capital** – to develop a skilled labor force capable of creating a knowledge-based and innovation-based economy, and that encourages businesses to start, locate, and expand in the region
2. **Traditional and Non-Traditional Infrastructure** – to maintain and improve the region’s built environment and services that are requisite for retaining and expanding existing businesses and attracting new businesses
3. **Innovation and Entrepreneurship** – to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses
4. **Quality, Connected Places** – to create quality, connected, safe, convenient and healthy places to live and work, that make the region attractive as a place to live, work and do business
5. **Collaborative Leadership** – to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives

The strategic recommendations (i.e., strategies, projects, programs, and other activities) contained in this CEDS are consistent with and designed to achieve these five stated goals.

This CEDS document uses data-driven analytical techniques to inform its SWOT analysis, to evaluate the region’s capacity for innovation, to identify significant target industry clusters, to identify significant target occupational clusters, and to discuss the development of strategies and projects based on these analytical results.

By incorporating these analytical techniques relating to innovation and clusters, and by incorporating the Vision of moving toward a more regional-net-export-surplus, knowledge-based, innovation-based economy, Southern Tier West is using this CEDS to attempt to transform the paradigm of economic development within our region from a philosophy that often is “deal-driven” or “specific-opportunity-driven” – sometimes even reactive – to a philosophy that clearly also embraces and encourages – as a primary strategy – a reinvigorated emphasis on proactive initiatives related to economic inputs, knowledge, and innovation.

The result is the following **CEDS strategic foci**:

1. Target economic development activities and initiatives toward significant regional **industry clusters and occupation clusters** that are value-added and net export clusters
2. Promote and catalyze **entrepreneurship**
3. Increase the quantity and quality of **human capital** through education and job training, to develop a highly skilled, tech-savvy regional labor force
4. Augment our region’s educational services to encourage improved **STEAM skills** (Science, Technology, Engineering, Arts, and Mathematics skills) and **entrepreneurial skills**
5. Maintain and improve **transportation infrastructure**, consistent with smart growth principles
6. Maintain and improve **utility infrastructure**, including **broadband and energy infrastructure**, consistent with smart growth principles and with green infrastructure principles
7. Develop, improve, and expand **industrial sites, acreage, parks, and buildings** (“shovel readiness”), consistent with smart growth principles
8. **Improve communities** through initiatives including **downtown revitalization and building renovation / redevelopment; development of more sustainable neighborhoods and walkable communities; brownfield remediation and redevelopment; protection and restoration of water resources, waterfronts, open spaces, and habitats; enhancement of public access to waterfront areas; and enhancement of recreational / tourism assets**



9. *Incentivize and catalyze **innovation, technology transfer, and adoption of new technologies***
10. *Provide adequate and innovative **development finance resources and technical assistance** as needed to catalyze and incentivize (new and existing) private sector business development*
11. *Assist in the **retention and expansion of existing regional businesses***
12. ***Attract new businesses** to the region*
13. *Maintain and improve the **region's cornerstone and community-based and civic institutions and quality of life assets, capacities, and services** to improve area quality of life*
14. *Encourage, at the community, county, and regional levels, **comprehensive and strategic economic development planning**; and develop and implement **community and economic development projects** consistent with those plans and with **smart growth principles and sound environment principles***
15. *Improve **quality of life assets** that impact economic development*
16. *Improve **collaborative leadership**, including increased **strategic comprehensive planning and economic development planning and project implementation**; enhanced levels of **partnership and collaboration**; increased investment in **business development / business assistance capacity, entrepreneurial development, and innovation**; and **innovation with respect to government operating practices***
17. ***Capture the potential of the Seneca Nation of Indians as a driver of economic development***

It is Southern Tier West's hope that in the months and years to come, this refocusing of strategic emphasis onto developing a more regional-net-export-surplus, knowledge-based, innovation-based economy will lead to a broader portfolio of strategic economic development initiatives (i.e., projects and programs) designed to build on regional strengths and enhance regional competitiveness. This paradigm shift will require forward thinking and a willingness to invest in the future by building capacity and enhancing regional assets. The results of this paradigm shift should include:

- A stronger, more comprehensive CEDS containing higher impact projects and programs.
- Increased utilization of the EDA Regional Investment Portfolio Tool as an objective methodology for prioritizing projects and programs, resulting in a consensus approach to selecting the highest impact projects.
- A stronger monitoring and evaluation process for refining our knowledge of what the results of our economic development strategy has been, and for developing and implementing new initiatives moving forward.

and most importantly,

- Increased success in our shared regional economic development mission, which will be reflected in an increased economic growth and an improvement in economic indicators.

It will be a challenge in our rural, economically challenged region, which often must limit the expenditure of its financial resources to essential services, programs, and initiatives, to bring about an evolution of the region's economic development paradigm. Future returns from building economic development capacity initially may not seem as guaranteed or even as intuitive as a case-by-case development focus on immediate opportunities. However, it is Southern Tier West's hope that this CEDS will encourage an ongoing regional dialogue that will result in a shared consensus that capacity building is essential to the region's economic future. As this vision becomes more generally accepted and incorporated into our regional strategy, our region will become a national leader in making progress toward becoming a rural region with a healthy, competitive, and sustainable economy.



In developing this CEDS, Southern Tier West is pleased to play a coordinating and catalyzing role in helping to guide the region's future.

- September 2019

Southern Tier West Regional Planning and Development Board

H. Kier Dirlam, Chairman

Richard Zink, Executive Director

Thomas Barnes, Senior Regional Economic Development Coordinator



STRATEGY REPORT



Summary Background

This chapter provides a description of the current economic development situation of the region. The reader is encouraged to review the Summary Background sub-section of the Technical Report section of the CEDS for a more detailed discussion, and the Appendix sub-section on regional data for additional information on various data sets referenced herein.

Demographic Profile

- **Population**

- Per the Census, the estimated populations in 2018 of the three counties are as follows: Chautauqua, 127,939; Cattaraugus, 76,840; and Allegany, 46,430. These numbers are down from corresponding 2017 population numbers: Chautauqua, 129,046; Cattaraugus, 77,348; and Allegany, 46,894.
- Per US Census estimates, in 2017 the largest municipalities were Jamestown (Chautauqua County, population 29,591), Dunkirk/Fredonia (Chautauqua County, combined population 22,415), Olean (Cattaraugus County, population 13,711), Salamanca (Cattaraugus County, population 5,532), and Wellsville Town and Village (Allegany County, population 7,049). These numbers are down from corresponding 2010 Census population numbers: Jamestown, 31,146; Dunkirk/Fredonia, 23,793; Olean, 14,452; Salamanca, 5,815; and Wellsville Town and Village (7,397). With certain exceptions (e.g., the recreation-based economy of Ellicottville in Cattaraugus County, etc.), these communities are the largest centers of economic activity in the region.
- The enrolled membership of the Seneca Nation continues to grow and currently stands at 8,313 members, based on matrilineal lineage (Seneca Nation of Indians Tribal Enrollment, May 2017). Among the Nation's territories, 4,310 enrolled members live on territorial lands, with a substantial portion of the remaining membership living in Western New York State (Seneca Nation of Indians Tribal Enrollment, July 2014). These counts are included in the region's population counts for all enrolled members who are residents of one of the three counties.
- The region is experiencing several **structural population changes**:
 - **Decreasing total population:** Population in all three counties has been decreasing over the past several decades, in contrast with both the State and the nation as a whole, both of which have experienced population increases. The declining regional population negatively impacts the region's labor force. The long-term population decline between 1980 and 2017 has been the largest in Chautauqua County, both in absolute and percentage terms. The region's more populated communities also are experiencing a population decrease
 - **Outmigration of population:** The long-term trend has been outmigration of population from the region. This is especially true of the young, working-age segment of the population, the high-skill white collar/professional worker segment of the population, and the college graduate segment of the population. These segments of the population are leaving primarily in search of employment elsewhere. Additionally, the loss of manufacturing jobs is simultaneously causing skilled manufacturing workers and even lower skilled workers to leave. However, in recent years the region's outmigration rate is slowing in relation to the outmigration rate that the State as a whole is experiencing (although the most recent data seems to indicate that the region's outmigration rate has begun to exceed the State's rate by a larger margin).
 - **Aging of the region's population / increasing dependent population (particularly the 65+ age cohort) as a percentage of total regional population:** The implications of this trend include a smaller labor force, a growing public assistance burden, and a less attractive economic development environment. These demographic changes to the labor force increasingly pose challenges to regional business operations and business development activity.



- **Ongoing increase in both racial diversity and diversity of origin:** Increasing population diversity will stimulate richer cultural diversity and sensitivity, increasing regional quality of life through expanding access to a wider variety of cultural offerings, and increasing the intellectual and creative capacity of the region as a whole. A more diverse population should increase the attractiveness of the region to potential labor force talent considering migrating into the region.
- **Educational Attainment**
 - Overall, the region’s population has high levels of primary and secondary school educational attainment, and high levels of post-secondary associate’s degree attainment, compared to State and national levels. However, compared to State and national levels, the region’s overall population does lag both the State and nation as a whole in terms of the percentage of residents with bachelors and advanced degrees.

Economic Profile

- **Labor Force**
 - **Size of the labor force:**
 - Consistent with the region’s decreasing population, the size of the region’s labor force decreased between 1990 and 2018. Since 1990, the regional labor force decreased in size by 22,990 persons, a 17.5% decrease in size. However, most of the loss of the region’s labor force has occurred since 2010.
 - Since 1990, all three counties’ labor forces both decreased in size, with Chautauqua County losing the most persons from its labor force.
 - In more recent years (since 2010), all three counties have lost a significant amount of their labor force, with Allegany County experiencing the largest percentage decrease in the size of the county labor force. However, in absolute numbers, Chautauqua County lost the most persons from its labor force between 2010 and 2017.
 - These recent trends may pose problems for businesses attempting to find qualified employees, at a time when the labor force is growing elsewhere, i.e., in both the State and the nation as a whole.
 - **Age of the labor force:**
 - The region’s labor force has a slightly higher percentage of workers in the 16 to 19 age range, the 20 to 24 age range, the 55 to 59 age range, and the 60 to 64 age range than do the State and nation as a whole. The 55 to 64 age ranges are considered to be some of the prime productivity age ranges. The workers in the 55 to 64 age ranges are nearing retirement age. Their replacements in the regional labor force will be younger, potentially more educated individuals. However, these workers in the 55 to 64 age range may well be difficult to replace in terms of experience, overall productivity, and working culture.
 - The region’s labor force has a significantly lower percentage of workers in the 25 to 29 age range, the 30 to 34 age range, the 35 to 44 age range, and the 45 to 54 age range than do the State and nation as a whole. The 25 to 54 age ranges are considered to be some of the prime productivity age ranges. The younger age ranges identified here are a wide age range (i.e., it is almost a 30-year range), so other things equal, the region’s labor force will have this large segment of relatively younger prime-working-age workers in place for many years to come. However, because this segment is a lower percentage of the overall labor force than the State and nation as a whole, the State and nation as a whole will be more advantaged in this regard than will the region.
 - **Educational attainment of the labor force**
 - The region has a lower (percentage) incidence of individuals in the labor force that have less than a high school diploma than do either the State or nation as a whole.



- The region’s labor force has a higher (percentage) incidence of individuals in the labor force that have a high school diploma (or equivalency) than do either the State or nation as a whole. From one perspective, this is a plus, since it indicates a higher level of minimum labor force preparation. However, other things equal, it also indicates that the region’s labor force has more individuals without advanced educational backgrounds.
- The region’s labor force has a higher (percentage) incidence of individuals in the labor force that have an associate’s college degree (or some college) than do either the State or nation as a whole. This is a strength of the region’s labor force, probably due to the presence of Jamestown Community College, Jamestown Business College, and Alfred State College in the region.
- Despite the presence of several educational institutions granting four-year degrees (St. Bonaventure University, Alfred University, SUNY Fredonia, Houghton College, Jamestown Business College, and Alfred State College), the region’s labor force has a significantly lower (percentage) incidence of individuals in the labor force that have a bachelor’s degree or advanced degree than do either the State or nation as a whole. This indicates that the region’s labor force has fewer individuals, as a percentage of the labor force, who have attained this level of education than do other regions in the State or nation as a whole. This is a relative weakness of the region’s labor force and presents an obstacle to attracting employers requiring a high-skill labor force to the region. Either regional residents are not obtaining four year or advanced degrees, or they are obtaining these degrees but are leaving the region (“brain drain”). It also may be indicative of a problem with attracting college-educated and experienced labor to migrate into the region to accept employment.
- Over the long term, the lower incidence of bachelor’s or advanced degrees in the labor force will result in lower labor force productivity, relative to other regions. Low-tech low-skill workers do not position the region to capture technology-based-business opportunities.
- This is a Catch-22 demand side/supply side problem: A relatively low-tech-skill labor pool results in high-tech firms avoiding or leaving the region, while the shortage of high-tech firms prevents a high-skill labor pool from developing. Skilled and educated workers leave the region in search of jobs. This self-reinforcing cycle constrains business development.
- Overall, the workforce is productive with a good work ethic, relative to other regions. However, there are issues with respect to basic employment skills, certain vocational skills, and certain advanced technical skills.
- **Employment / Unemployment**
 - **Employment**
 - Employment in the region actually increased between 1990 and 2000, and then decreased thereafter. In comparison, between 1990 and 2017, employment at the State and national levels actually increased overall, and in virtually every sequential interim measurement year (the lone exception being a decrease in employment at the State level between 2017 and 2018).
 - The most significant regional employment sectors as of 2017 are:
 - Government
 - Education and Health Services
 - Trade, Transportation, and Utilities
 - Manufacturing
 - Leisure and Hospitality

At the county level, there are some differences from the above list. Certain sectors are more important in some counties than others, based on local differences.



Alternatively, in terms of total earnings, the most significant regional economic sectors as of 2017 are:

- Manufacturing
- Retail Trade
- Construction

○ **Unemployment**

- The unemployment rate in the region often has exceeded the unemployment rate of both the State and nation, and this has been uniformly true since 2012.

Unemployment Rates in 2018

Allegany County	5.6%
Cattaraugus County	5.3%
Chautauqua County	5.0%
New York State	4.1%
United States	3.9%

Source: NYS Department of Labor; U.S. data is from the U.S. Bureau of Labor Statistics

Current (2018) unemployment rate data for the Seneca Nation of Indians is not available. However, in 2015, when the unemployment rate for Cattaraugus County was 8.2% and the unemployment rate for Chautauqua County was 7.8%, the unemployment rate for the Allegany Territory of the Seneca Nation was 13.5% and the unemployment rate for the Cattaraugus Territory of the Seneca Nation was 22.5%. Data source: U.S. Census American Community Survey 5-Year Estimates, Table S2301.

- In recent years (2017 being the exception), the region’s unemployment rate has been decreasing, while simultaneously the size of the labor force has been decreasing, total employment in the region has been decreasing, and the total number unemployed has been decreasing. This only can be explained by outmigration, most probably in search of jobs elsewhere.

Annual Total Covered Employment in NAICS Sub Categories, 2018

	Allegany County	Cattaraugus County	Chautauqua County
Employed	18,365	32,200	52,227
5-Year % Change	-16.6 %	-7.6 %	-5.7 %
10-Year % Change	-18.7 %	-17.9 %	-17.9 %

Source: US Bureau of Labor Statistics (www.statsamerica.org)

- Additionally, the region has a significant amount of under-employed labor force due to job dislocations and the regional economy’s shift away from high-skilled, high-wage manufacturing jobs. However, certain geographic segments, certain sectors, and certain industry clusters in the region have experienced less cyclical variability in labor force, employment, and unemployment, than have the State and nation as a whole.

○ **Income Levels**

- Historically, between 1970 and 2017, per capita personal income in the region’s counties has been uniformly lower than State and national per capita personal income levels.
- The general trend was for regional per capita personal income levels to decline as a percentage of State per capita personal incomes between 1970 and 2000, followed by regional per capita personal income



levels generally increasing as a percentage of State per capita personal incomes between 2000 and 2015. However, there was a stark decrease in regional per capita personal income levels to decline as a percentage of State per capita personal incomes in 2016 and 2017. Regional per capita personal income had fallen to 58.5% of the State level in 2017. The same general trends also are true for regional per capita personal income levels as a percentage of national per capita personal income levels between 1970 and 2000, from 2000 to 2015, and in 2016 and 2017, respectively.

- In the most recent 10-year period ending in 2017, the region's adjusted (i.e., real dollar) per capita personal income continues to be around three quarters of the national rate.
- County per capita personal income rankings (2017):

Chautauqua County	48 th out of 62 New York State counties
Cattaraugus County	54 th out of 62 New York State counties
Allegany County	62 nd out of 62 New York State counties
- Median household income has been declining slightly in two of the region's three counties between 2000 and 2017, similar to the national experience, although State median household income levels actually increased over this period.
- The region historically has experienced average sectoral wage levels that are lower than analogous average sectoral wage levels in other parts of the State.
- Over time, the region has experienced, and continues to experience, individual and family poverty rates that are above State and national levels. Seneca Nation of Indians poverty rates are much higher than analogous county-level poverty rates for the three counties in the region.
- The region also is experiencing relatively high public assistance and income assistance burdens, although the incidence of social service transfer payments is lower than it had been several decades ago in the past.

- **Environmental, Geographic, Climatic, Cultural, Historic Preservation, and Natural Resource Profile**

- **Environmental profile**

- There are no specific environmental elements that generally or comprehensively affect and/or constrain the regional economy. However, there are localized environmental elements that may have such an impact locally, including:
 - County-designated agriculture districts
 - Localized environmental contamination
 - Localized endangered species of plants or animals
 - Localized historical or cultural assets that must be preserved and conserved
 - Tribal lands that require tribal approval from and oversight by the Seneca Nation of Indians for development to proceed. Contra: certain types of development may be facilitated by tribal involvement and/or location on tribal lands.
- The region has several physical environmental assets that provide economic opportunity, including outdoor recreational assets; water resources; timber resources; oil, gas, gravel, and mineral resources; and arable soils and land available for cultivation.
- The region also is sensitive to several actual or potential threats to the ongoing availability of these physical environmental assets and resources, from both quality of life and economic development perspectives. These threats include pollution, sprawl, overutilization, and inappropriate utilization.



○ **Geographic profile**

- At the western edge of the region, Chautauqua County is characterized by a somewhat flat plateau, giving rise to a more hilly terrain moving eastward into the heart of the region. In fact, most of the region has a hilly topography, which can limit the location and expansion of large scale enterprises requiring large amounts of flat land. The region is the northern-most region of the Appalachian Mountain range.
- The region's primary land uses include forest/woodland and agriculture. There are significant amounts of acreage devoted to publicly owned forests, and, as noted above, several agricultural districts in each county of the region.
- The region endorses smart growth concepts of avoiding sprawl into greenfield sites. However, development in existing municipal centers also can present challenges in terms of land availability, incompatible adjacent land uses, adequacy of infrastructure, transportation access, other negative environmental impacts, and environmental contamination.

○ **Climatic profile**

- The region's northern location and adjacency to the Great Lakes (Lake Erie) influences the climate and weather, and hence the economy. The region's climate is classified as humid continental, reflecting significant seasonal temperature differences, including hot and humid summers and cold winters.
- The region's short growing season can constrain or prohibit certain types of agricultural crop production. However, certain crops are economically feasible to cultivate, and certain types of agricultural sector activity, e.g., livestock and timber, thrive in the region's climate.
- Winters can be harsh, which can negatively impact transportation and increase heating costs and hence business operating costs. Lake effect snow falls are heaviest in the western part of the region, due to its proximity to Lake Erie. However, this winter snowfall has led to a healthy winter-based recreational economy.

○ **Cultural profile**

- The region's cultural assets for economic development include a variety of assets, from the region's diversity to its cultural institutions and its cultural access.
- Diversity can be a regional economic asset, as a diversified cultural base and accessibility to diverse cultures can broaden and enrich regional quality of life, making a region more attractive as a place to live and do business. Overall, however, the region is relatively homogeneous, and not very diverse in terms of racial diversity or diversity of place of origin. Nonetheless, the region also has significant ethnic diversity, and racial and ethnic diversity has been increasing in recent decades. The region's ethnic and racial communities reflect the history of the country as a whole, beginning with the original Native American communities, augmented over time with immigrant ethnic and racial immigration. The region was settled primarily by northern Europeans, which remain the region's primary population base. Until recently, the region's single largest minority population group was the Native American population group. However, in recent years, the region's African American population group has become larger in size than the Native American population group. The region also has other smaller yet significant racial and ethnic populations or communities, which tend to be clustered in small pockets, often within individual communities, but which most often are integrated into the larger local and regional communities.
- The region also is home to a number of significant cultural institutions. Perhaps first and foremost in the region is the Chautauqua Institution. Other significant cultural institutions in the region include the region's universities and colleges, museums and galleries, localized historical and cultural facilities, and non-profit arts organizations. There also are a number of cultural and arts festivals throughout the region on a seasonal basis.



- Sporting and recreational events and assets also are an important cultural asset in the region. In addition to high school and college athletics, the region is home to several minor league professional sports clubs and a number of adult recreational athletic leagues in various sports. These sporting events are played in college or community facilities throughout the region. There also are a number of publicly and privately owned recreational facilities in various locations throughout the region.
- **Historic preservation profile**
 - As a region of the country that was settled and developed earlier than the more western regions of the country, the region has a significant built environment characterized by significant historical and cultural assets. The region is sensitive to the need for preservation of these assets, and New York State has a well-defined and functional State and federal system in place for ensuring that development doesn't jeopardize the preservation of these significant assets for future generations. Current county comprehensive plans recognize the importance of historic preservation, both in terms of maintaining cultural assets and in terms of the economic development (tourism) opportunity such assets represent. Economic development occasionally can conflict with historic preservation, requiring a measured approach to preserve historic assets while achieving desired economic development
- **Natural resource profile**
 - The region's natural resources include climate and soils, oil, petroleum, natural gas, gravel, water, forest products, and natural recreational assets. These resources present significant economic development opportunities.
 - The region does not have substantial fisheries resources, at least at the level to sustain significantly increased commercial fishery operations. Lake Erie does have some potential for increased commercial fishing, but this may be limited and species-specific. However, in both Lake Erie and the region's other lakes and streams, the region does have adequate fishery resources to sustain active recreational fishing, which contributes to the region's tourism industry, and as such the resource represents a source of value-added regional export activity and job and wealth creation. The region does not have significant aquaculture activity.
 - Although there is a significant level of recreational tourism in the region, by and large this is not eco-tourism, which is under-represented as such in the tourism industry's profile. There is an opportunity for increased development and marketing of specific eco-tourism opportunities, and for the labelling of these opportunities specifically as eco-tourism in any marketing initiatives.
- **Infrastructure Assets of the Region that Relate to Economic Development**
 - **Water and wastewater**
 - Most of the region's population centers (cities and villages) are served by infrastructure, including some combination of water, sewer, telecommunications/broadband, natural gas, electricity, steam, transportation modes, etc.
 - Certain communities have issues with utility infrastructure service capacity and maintenance, but for the most part, municipal utility infrastructure capacity and service is adequate to serve local residents, institutions, and the existing business community. Certain communities also have utility infrastructure capacity that also is sufficient to permit and even catalyze business development.
 - However, in certain locations across the region, utility infrastructure capacity and/or service is inadequate for local residential and business uses and/or cannot support or permit additional economic development in terms of capacity or cost of utilization, without repair, expansion, or improvement. County health departments maintain a database of municipal systems and their need for maintenance and/or improvement/expansion, primarily on health grounds.



- **Telecommunications/broadband**
 - Because of the region’s rural character and distance from major metropolitan markets, telecommunications and broadband infrastructure in particular are seen as being significant and essential drivers of economic development in the region and also with respect to improving and maintaining global competitiveness. The region’s broadband network is seen as being an infrastructure asset that helps level the playing field between the region and surrounding urban regions. The ION fiber cable backbone trunk line through the region provides both improved access to high speed internet and service redundancy. However, the region must act to capitalize on this economic asset.
 - There are deficiencies in the regional broadband infrastructure and service levels. Top speed broadband service in excess of several hundred MBPS is not readily available in most of the region (contrast with Gbps speeds in certain select domestic cities and countries). Also, in some rural areas, only satellite or wireless service is available, and competitive last mile broadband service still is needed in some of the more rural areas of the region. Additionally, competitive service options currently are not present in many areas in the region.
- **Energy distribution systems**
 - The region’s electrical and natural gas service is provided primarily by several privately owned companies, although there are a number of municipal electric utilities in the region. Electricity is available throughout the region, but natural gas service is not available in the more rural areas of the region.
- **Transportation modes**
 - The region’s distance from metropolitan centers, primary passenger airports, and global ports requires an efficient and high quality inter-regional passenger and freight transportation system.
 - The region’s large geographic size and low population density also requires an efficient intra-regional passenger and freight transportation system.
 - The region is served by two interstate highways, a network of federal, state and local highways, two Class 1 rail lines and three short line rail lines, one airport with scheduled passenger service, several general aviation airports, and an evolving mobility management (public transportation) infrastructure.
 - There have been ongoing improvements to the region’s highway, freight railroad, air, and mobility management infrastructure. Continuing deficiencies need to be addressed through appropriate planning and investment, so as to effectively serve residents and the existing institutional and business communities, and to catalyze additional economic development.
- **Emerging or Declining Clusters / Industry Sectors**
 - **Sectoral trends**
 - **Shifting sectoral composition:** The region has been undergoing a transformation from an economy featuring many high-skill, high-wage unionized jobs to an economy that features an increasing number of relatively low-skill, low-wage service and commercial employment, often part-time in nature and offering few benefits, such as health insurance and retirement benefits.
 - **Decline of manufacturing sector:** As a component of this shift in sectoral composition, the region's manufacturing sector is experiencing an ongoing decline in terms of employment. There has been significant outsourcing of manufacturing production and jobs both domestically and overseas. The decline of the region’s manufacturing sector has greatly threatened the standard of living in the region. As a vital primary value-added sector, manufacturing incorporates regional resources into products sold to regional and extra-regional markets. Extra-regional sales (i.e., exports to other



regions) bring new wealth into the region and have been a traditional foundation for the region's standard of living.

- **Growth of services and trade sector:** The services and trade sector is becoming an increasingly central element of the region's economy. However, a number of these service and trade jobs are part time or seasonal jobs with no benefits, eroding salaries and contributing to the weak regional growth of per capita personal income the region is experiencing as compared to New York State. Further, unlike the manufacturing sector, a substantial portion of the region's services and trade sector does not involve export activity, and thus does not bring new wealth into the region.
- **Significant industry clusters**
 - As of 2012, the region's most significant industry clusters, as measured by common high location quotients (LQs) in both the number of companies ("establishment LQ") and number of employees ("employment LQ"), were:
 - Machinery manufacturing
 - Fabricated metal product manufacturing
 - Glass and ceramics
 - Agribusiness, food processing and technology
 - Forest and wood products
 - Implications: These five industry clusters represent very significant competitive advantage assets (i.e., target clusters) for economic development in the region. The implication is that the region should focus increased strategic economic development attention on increasing value-added, net-export economic activity in the significant industry clusters identified above, so as to try and build upon the region's competitive advantage to enhance the vitality and economic development impact of these clusters, and to capitalize upon them as drivers of economic development.
 - Of course, the individual counties may have a slightly different mix of significant industry clusters. For example, the tourism sector (more formally, the "Arts, Entertainment, Recreation & Visitor Industries" cluster) is considered to be a significant economic cluster in several counties and specific areas within several counties. The implication is that the region should focus increased strategic economic development attention on increasing value-added, net-export economic activity in these locally significant clusters as well, so as to try and build upon the region's competitive advantage to enhance the vitality and economic development impact of these locally significant clusters, and to capitalize upon them as drivers of economic development.
- **Significant occupation clusters**
 - As of 2010, the region's most significant occupation clusters ("employment LQ") were:
 - Agribusiness and food technology
 - Primary/secondary and vocational education, remediation and social services
 - Postsecondary education and knowledge creation
 - Public safety and domestic security
 - Personal services occupations
 - Skilled production worker
 - Health care and medical science (therapy, counseling and rehabilitation)
 - Of course, the individual counties may have a slightly different mix of significant occupation clusters.
 - Implications: This information allows the region to:
 - Understand the workforce and educational situation within the broader regional economic development context so as to bridge the gap between workforce and economic development.



- Use the regional occupation cluster mix to diagnose how well positioned the region is to participate effectively in a knowledge-based innovation economy, and to develop strategic initiatives to improve the regional workforce's knowledge and technology skills.
- Determine how well occupation cluster strengths align with the region's industry cluster strengths.

In our case, the second through fourth occupation clusters, which represent education and public safety occupations, are not typically present in primary private sector industry clusters that might have growth and export potential for our region. Our focus thus has to be on the first occupation cluster in the list, agribusiness and food technology, and to a lesser extent personal service occupations; skilled production worker occupations; and medical therapy, counseling and rehabilitation occupations, which do have various levels of private sector industry clusters associated with them, and which can present production or service export value added industry clusters presenting economic development opportunity for the region. This is especially true of the agribusiness and food technology occupation cluster, which matches up with the related industry cluster.

The region's most significant occupation clusters do not include many of the most significant knowledge-based occupations. This is a function at least in part of the occupational demand of the current mix of industries and companies in the region. However, not having a significant concentration of workers in knowledge-based clusters constrains the region from growing the knowledge-based segment of the regional economy.

For each of the region's significant industry clusters, we should examine what level of employment and occupation cluster LQs are present and determine what labor force initiatives we can undertake to bridge the labor force gap for those target industry clusters.

- **Projected cluster impacts on the region's competitive advantages**
 - The glass and ceramics cluster, being a technology-centric sector, is particularly well situated for developing ongoing comparative advantage, particularly owing to the presence of a global research institution at Alfred University.
 - The agribusiness, food processing and technology is poised for additional development, owing to the trend toward increased utilization of locally grown and processed foods, with shorter transportation distances (lower cost to the ultimate customer) presenting a comparative advantage. The high occupation cluster LQ in this industry cluster also indicates that the region's labor force has a concentration of workers that would permit further expansion of the industry cluster.
 - The forest and woods products cluster also provides potential for additional development in terms of increased secondary processing (most of the harvested timber is exported from the region as un-processed logs). The comparative advantages that the region has are short transportation distances from the forest to potential regional secondary processing facilities, the ability to utilize regionally scrap from processing (e.g., pellet fuels, particle board, etc.), and significant species of hardwoods present in the region.
 - Machinery manufacturing and fabricated metal product manufacturing clusters also provides potential for additional development, provided that companies can remain globally competitive, incorporating new technologies and growing market base.
- **Ability to build capacity for economic development**
 - A cluster-based economic development strategy would direct resources to the vertically and horizontally integrated cluster, building networks, strengthening individual firms and supply chains, and improving the cluster-specific labor force. A targeted approach is recommended, beginning with developing communication and consensus between the industry cluster members, the economic development community, and the educational and job training community.



- Two significant and important elements of such a strategy will be the facilitation of technology adoption and improvements by the cluster and the enhancement of labor force skills. Productivity enhancement will be essential to achieving and maintaining dynamic long-term competitiveness.
- Because of the region's inability to compete with lower cost offshore commodity-based manufacturing operations, it is in knowledge-based and technology-based manufacturing and service businesses where perhaps much of the region's sustainable, globally competitive future economic growth in the global marketplace will occur. As it may be difficult to seize opportunities in these technology growth clusters without a strong technology base in our region, without a strong human resource base with requisite skill sets, and without a threshold level of existing technology activity in our region, it is imperative that as a primary regional economic development strategy, the region develop this technology base, including a technology business sector and a skilled labor force.
- More generally, with respect to clusters, the five county Western New York Regional Economic Development Council strategic economic development plan identifies the following eight industry clusters as being both significant currently and having potential as an asset to future economic development:
 - Advanced manufacturing
 - Agriculture
 - Bi-national logistics
 - Energy
 - Health and life sciences
 - Higher education
 - Professional services
 - Tourism

These eight industry clusters perhaps collectively are more representative of the entire five county western New York region, which is dominated by the (larger) Erie and Niagara County economies, than they are of the three county region. However, there is some overlap with the primary industry clusters identified for the three southern tier (i.e., regional) counties. Nonetheless, many of these five county clusters still have at least some relevance to the three county region, and the overarching import of the five county plan to the three county region with respect to industry clusters is that the three county region still can work in conjunction with the larger region, while also focusing on its more localized target industry clusters.

- **Relationship of the Region's Economy to the Economy of the Surrounding Larger Region / State**
 - **Local advantages / disadvantages**
 - The region is located in the northeast, within a day's travel of large eastern metropolitan areas, placing the region in proximity to a large domestic market.
 - However, despite this proximity, the extra-regional domestic market still requires transportation to and from the region, which takes time and poses additional costs when compared with competing businesses located inside larger metropolitan areas.
 - Additionally, the distance from urban areas in the past has contributed to difficulties in attracting certain types of skilled labor.
 - The proximity of the region to the larger Buffalo metro economy exerts significant impact on the region's economy. The anticipated growth in the advanced manufacturing, clean energy (primarily solar energy), and health and life sciences (primarily biomedical and bioinformatics) clusters of the northern counties of western New York may well have some impacts on the three counties. There could be positive spin-off business development in the southern tier counties, which would be a positive impact. A number of regional residents do commute to Buffalo for employment, and this can be expected to continue to occur as growth in the advanced manufacturing, clean energy, and health



and life sciences clusters in the northern counties of western New York. This growth could have a negative impact if it causes skilled regional labor to sell their services out of the region to the counties to the north, reducing the availability of skilled labor in the region.

- **Global perspective**
 - Global competition and general macroeconomic conditions have negatively impacted the region's economy in both the longer and shorter terms, resulting in job losses, business closures, and increased absentee business ownership. Additional negative events in the world economy will continue to place pressure on domestic regional (especially rural) economies such as ours.
 - Non-local business ownership also contributes to less corporate commitment to local business operations within the region.
- **Factors that Directly Affect Regional Economic Performance**
 - **Workforce issues**
 - The region has a labor supply surplus of unutilized and underutilized workers, and, compared to many other domestic regions, the region has a productive work force with a good work ethic. According to New York State Empire State Development, New York State ranks 9th in the nation for worker productivity in the manufacturing sector. However, there is an ongoing need to improve regional labor force productivity.
 - There are shortages of skilled labor in specific occupations and skills sets. Some of these shortages are localized; others are region-wide in nature. The Chautauqua workforce plan specifically notes skills gaps in the County as employees in the manufacturing and trades sector retire. The Cattaraugus-Allegany workforce plan specifically notes skills gaps in the two counties ranging from a lack of computer skills to advanced manufacturing/STEM skills, plus a lack of soft skills.
 - Some of the workforce issues and/or programs in place to address these issues that are noted in the two workforce plans with respect to the two target populations indicated below include:
 - Adult and Dislocated Workers
 - Skill and training/education gaps
 - Adaptive technologies and services for individuals with disabilities
 - Veterans service
 - Career guidance and counseling
 - Childcare and transportation services
 - Financial aid
 - Pre-vocational skills such as resume preparation, interviewing skills, basic computer, punctuality, and communication
 - Supportive services, including such as transportation assistance (mileage, bus passes/tokens) for attending training, clothing allowance, and other items necessary for employment (such as tools and other items), and childcare assistance.
 - Youth
 - Goal setting
 - Alternative secondary education, including high school equivalency diplomas
 - Tutoring, study skills and dropout prevention
 - Alternative secondary education, including high school equivalency diplomas
 - Summer youth employment opportunities
 - Paid/unpaid work experience
 - Occupational skill training
 - Leadership development



- Supportive services for both in and out of school youth with obtaining post-secondary education and employment preparation
 - Adult mentoring
 - Follow-up services for 12 months to increase the chances of success once youth exit the program
 - Comprehensive guidance and counseling, including alcohol and substance abuse, smoking cessation, transitioning from middle school to high school, behavioral and emotional issues, parenting and life skills, mental illness, etc.
- **Innovation assets**
- A region’s capacity to innovate is a precursor to the development of a healthy, globally competitive, sustainable regional economy. Unfortunately, the region has a lower capacity to innovate (“Innovation Index”) than the state and nation as a whole. This implies that the region is less prepared and capable to generate innovation-based economic development, which is essential for a healthy economy over the long-term. Accordingly, the region’s inadequate innovation capacity should be considered a structural weakness of the region’s economy and a constraint to economic development. This is manifested in inadequate levels of entrepreneurship, technology transfer and adoption, and export activity.
 - The region’s lower capacity to innovate is in part a function of its relative inadequacies in both human capital and economic assets. Human capital (labor force) shortcomings include a low incidence of bachelor’s degrees amongst the region’s residents, a significantly higher rate of decrease in the region’s population of younger working age persons (ages 25 to 44), a lower percentage representation of high-tech employees in the employment base, and a lower tech-based knowledge occupation cluster employment share. Economic asset shortcomings include the unavailability and/or lack of use of venture capital for business ventures in the region, low broadband penetration rates (despite reasonable levels of broadband availability), low rates of establishment churn in the region, a lower incidence of small-sized businesses establishments as compared to the state, and a higher incidence of large establishments as compared to the state.
 - The region’s lower capacity to innovate also is in part a function of its inability to translate inputs into productive outcomes, e.g., employment in high-technology firms, greater output per worker, the creation of patents, etc. On the one hand, the region lags the state and nation in changes in high tech employment, job growth, GDP per worker, and average patents per worker. But on the other hand, the region is fairly close to and competitive with the state and nation in terms of economic well-being. This is borne out by mixed results for the region’s average poverty rate (higher than the state and national rates), the region’s average unemployment rate (higher than the state rate but lower than the national rate), net in-migration rates into the region (lower than state rates), the region’s average per capita personal income growth rate (comparable to the national rate, and only slightly lower than the state rate), and the region’s compensation growth rates (lower than state and national rates).
 - At the state level, New York State is not as competitive with other states with respect to the resources available to entrepreneurs and businesses (as measured by the number of science and engineering graduates and R&D intensity).
 - The following factors appear to be especially important for increasing economic growth in the region:
 - educational attainment
 - young-adult population growth
 - high-tech employment growth
 - venture capital availability and use
 - availability of business development funding
 - broadband density and penetration
 - the number of small establishments (i.e., small businesses)



Based on the innovation capacity analytical model, the region should consider the above list to be strategic economic development focus areas.

- The region does have certain significant assets that could catalyze innovation, and certain specific ongoing and proposed initiatives in the region that are intended to address these situations.
 - Examples of significant innovation assets
 - NYS College of Ceramics at Alfred University, Inamori School of Engineering
 - Ceramics Corridor Innovation Center
 - Fredonia Technology Incubator
 - Insyte Consulting
 - Manufacturers Association of the Southern Tier / Manufacturing Technology Institute
 - Alfred State College School of Applied Technology
 - Examples of existing and proposed innovation initiatives
 - STW Manufacturers Productivity Improvement Program
 - START-UP NY Program
 - New York State Innovation Hot Spot Program
 - Jamestown Community College Manufacturing Technology Institute (Olean)
 - Olean Business Incubation Center Project
 - Sugar Hill Industrial Park
 - Alfred Center for Technology Transfer Project
 - Sustainable Advanced Manufacturing Center Project (Alfred)
 - Sustainable Advanced Manufacturing Center Project (Wellsville)
- Constraints to Innovation
 - Innovation can be constrained within individual companies by inadequate financial wherewithal, inadequate technical skills, management absorption in daily operations, competitive issues, inadequate physical plant, lack of access to specialized expertise, etc.
 - The issues can be addressed through, for example:
 - Improved access to financial resources
 - Increased networking opportunities
 - Cost reduction / productivity enhancement programs
 - Incentivizing innovative marketing strategies for existing and new products
 - Incentivizing innovative employment management practices
 - Enhancing access to information and opportunities for collaboration
 - Minimizing risk of innovation
 - Enhancing access to specialist expertise
 - **Industry supply chains**
 - Any supply chain that relies on extra-regional vendors results in money leaving the regional economy (“leakage”). A good bit of leakage is unavoidable, especially in rural regions, but it is to the advantage of the region to identify these sources of leakage and attempt to promote fulfillment of supply chains from internal regional sources, to the extent possible.
 - The greatest impact will result from working with regionally significant industry clusters. This may entail matching purchasers with existing internal regional vendors or working with companies to attempt to incentivize the location of vendor firms within the region.



○ **State and local laws**

- Despite the many good reasons for their existence, the existence of certain New York State laws and regulations can have the result of raising business operating costs or otherwise constraining operations. The most commonly heard complaints relate to taxes, workman’s compensation, and environmental regulations. New York State is working to ease some of these impediments to business operations, but certain will remain, leaving the State at a disadvantage as compared to other regions or countries without similar regulations.
- At the local level, businesses may face local laws or circumstances that are impediments to operations. It is appropriate for the economic development community to communicate with major employers and entrepreneurs to discover and examine these issues and attempt to resolve them in appropriate manners.

○ **Financial resources**

- There is an ongoing need for increased availability of private and public equity and debt capital to support entrepreneurship and business development in the region.

○ **Transportation systems**

- Cost effective and efficacious transportation solutions are essential to the regional business community. Although the region has a somewhat effective intra-regional and inter-regional transportation system in all relevant modalities (highway, aviation, railroad, and mobility management), improvements to the system infrastructure would benefit the regional economy. Additionally, system maintenance is an issue, due to expense.

○ **Energy costs**

- In 2013, New York had the fourth highest average electricity prices in the United States. New York electricity generators are mostly independent power producers with diverse energy sources of generation. Natural gas, nuclear power, and hydroelectricity typically provide more than four-fifths of generation, with coal, wind, biomass, and fuel oil making up the balance.
- More than half the state's energy is supplied from other states and Canada. New York has developed a 10-year-forward plan to maintain energy reliability while reducing costs and environmental impacts. Among the plan's strategies are developing in-state resources, including renewables and natural gas, and increasing energy efficiency.

○ **Business, personal, and property taxes**

- Despite improvements in recent years, New York State remains a relatively high-cost business operating environment, including tax, regulatory, and workman’s compensation burdens.
- Overall, New York State places the third highest tax burden on businesses of any of the fifty states.
- Overall, New York State places the highest tax burden on individual taxpayers of any of the fifty states. New York State's (2012) tax burden of 12.7% ranks highest out of 50 states, and is above the national average of 9.8%.
- New York State levies a 4% general sales or use tax on consumers, which is below the national median of 5.95%. The average local sales tax rate is an additional 4.48%. According to Taxfoundation.org, New York's state and local governments collect \$1,276 per person in general sales taxes and \$674 per person in excise taxes, for a combined figure of \$1,950, which ranks 7th highest nationally. New York's gasoline tax stands at 45.1¢ (3rd highest nationally), while its cigarette tax stands at \$4.35 (highest nationally.)
- Residential property taxes in many New York State jurisdictions are among the highest in the nation. New York's state and local governments collected approximately \$2,435 per person in property taxes in 2012, which ranks 4th highest nationally.



○ **Bonding capacity**

- Most municipalities in the region are not close to their constitutional bond capacity. However, historically the primary limiting factor constraining the issuance of bonds has been the financial wherewithal of municipalities to repay those bonds. This historically has constrained many municipalities from undertaking community and economic development projects.

○ **Land use patterns**

- Despite ongoing population losses, the region's communities over time have experienced unwanted and unplanned growth, most commonly "sprawl" into forest land, farmland, and green spaces. However, eager or in some cases desperate for growth, many communities have accommodated the sprawl despite the direct costs and externalities.
- The impacts of sprawl include not only the environmental impacts of reducing the amount of acreage available for forest land, agricultural production, and green space; the impacts also include financial impacts on municipalities. Positive financial impacts include increased property tax base and increases in sales taxes flowing from increased development. Negative financial impacts include increased municipal obligations for construction and maintenance of larger infrastructure systems, transportation systems, and public services. Additionally, in some cases, sprawl may remove developable lands from their highest valued uses, constraining higher valued development. And it can become more difficult to attract businesses to poorly planned, sprawling communities. For these reasons, the region must embrace smart growth principles to limit sprawl.

• **Other Factors that Relate to Regional Economic Performance**

Regional economic performance also is a function of other quality of life variables. Although rural regions often can be at a disadvantage with respect to economic development relative to urban regions, to dismiss the Southern Tier West region simply because it is a rural region would be too simplistic and in many ways incorrect.

Overall, the Southern Tier West region enjoys a positive and attractive quality of life, with an attractive small-town rural lifestyle, engaging cultural and recreational resources, low-crime rates, a relatively clean environment, stable housing markets, and relatively high quality health care. However, as a consequence of the ongoing structural changes that the region is experiencing, certain cornerstone institutions (e.g., hospitals, schools, and other community institutions) face threats from decreases in population and standard of living.

Like many other regions across the country, each of these components of the region's quality of life has challenges, constraints, and/or room for improvement, as follows:

○ **Housing**

- The region's housing stock presents both positive and negative indicators. On the positive side, the region's housing market is stable, and hasn't experienced the over-valuation and subsequent price-depression cycle experienced by many regions. Median housing prices are significantly lower than State and national median housing prices, which is a partial indicator of a lower cost of living. Also, the region did not experience the over-inflation of housing prices in the last decade, although housing prices seem to be increasing in recent months. Further, since the region has a lower percentage of houses mortgaged than the State and nation as a whole, the region has not experienced the mortgage default crisis of recent years as severely as have other regions. Consequently, the region has a more stable housing market than the State and nation as a whole, other things equal.
- On the negative side, as mentioned, median housing prices in the region are significantly lower than State and national median housing prices, which in the past has been taken to be indicative of a weak housing market. The region's housing stock also has a historically slower housing turnover rate than State and national housing turnover rates, which also can be taken to be an indicator of a weak housing market. Further, the region's housing stock is an aging housing stock that is older than State



and national housing stocks, with lower new housing construction rates than State and national housing construction rates.

○ **Health services**

- Regional residents typically have access to high quality health care, either within the region or by traveling to larger municipalities outside the region. However, there are issues: although the larger communities in the region typically are centers for health care with service levels proportional to their size, the adequacy of the regional healthcare system in fact varies across the region. Certain communities are underserved by comprehensive health care services. Certain health care institutions in the region face ongoing challenges to their viability and competitiveness in response to the dynamics of technology advances and insurance and regulatory environments. In certain areas, there are shortages of certain health care providers, e.g., doctors, nurses, and specialists.
- Health care costs increasingly are a burden to regional employers and residents. Despite the Patient Protection and Affordable Care Act, a number of regional residents still do not have adequate health care insurance or cannot afford proper treatment. Although many of these health care services issues are local manifestations of the macro-level (i.e., national) structural health care industry environment, and are not capable of being successfully remediated exclusively through local initiatives, there remain significant local opportunities for improving health care access across the region, which the region should attempt to address.

○ **Educational resources**

- Although the region possesses a significant primary, secondary, and post-secondary educational infrastructure, the region feels that improvements still are needed with respect to educational performance at the primary and secondary levels, and with respect to preparing residents for current and future jobs.
- Primary and secondary educational performance is a function of both the social environment (e.g., including the home life) of children and of the educational system. New York State is experiencing an ongoing dialogue with respect to common core standards, which is not resolved in a positive manner as of the date of publication of this CEDS. At the local level, financial constraints are causing local schools to make difficult choices in terms of investment in educational resources and services. These issues are not unique to the region. Although there are a number of high performing schools within the region, others' performance could be improved.
- With respect to preparing residents for current and future jobs, in particular there is room for increased emphasis on STEAM (science, technology, engineering, arts, and mathematics) education and entrepreneurial education at the primary, secondary, and post-secondary educational levels. The region also finds itself with a labor force shortage related to skilled labor jobs (welding trades, engineering, etc.), indicating an additional need for certain types of vocational training and for advanced STEAM education. The region also should encourage its population to obtain post-secondary bachelors and advanced degrees to improve the availability of high skill level persons in the workforce.
- Certain of the region's post-secondary institutions are centers of technology research (e.g., ceramics, advanced materials, etc.), which could lead to business development through technology transfer and thorough preparation of the future labor force for jobs in technology-based businesses and in sectors that will or at least may develop from emerging technologies. Additionally, at a more basic level, innovative programs are being developed that fill the gaps between traditional educational and job training programs.



- **Networks and connectivity**
 - As has been noted elsewhere, educated and skilled people and high-growth companies are mobile and can locate virtually anywhere. Other things equal (e.g., economic opportunity, presence of family, access to cultural amenities, etc.), they often choose to locate in regions that value connected, safe, convenient and healthy places to live, work, and do business. Connectivity requires basic infrastructure (e.g., strategic transportation links and information technology connections), but it also requires networks among people, that is, “civic spaces” in both the physical environment sense and the non-physical environment sense. As a region that clearly values quality of life, our region has many civic spaces, and should continue to develop even more of them to improve its positioning as a place to live, work, and do business. There is an opportunity in the region for additional development of both enhanced connective infrastructure and networks.
- **Recreational and cultural assets and services**
 - For a rural region, the region has a surprising number of recreational and cultural assets that contribute both to quality of life and economic development. Nonetheless, the region also has underutilized recreational and cultural assets, and there are gaps in the provision of, marketing of, and access to certain types of cultural assets, especially in the more rural areas of the region. There is a perception that the region needs to continue to invest in recreational and cultural assets and services for both economic development and quality of life.
- **Public safety**
 - While the region’s crime rate is low relative to that of more urban areas, the region nonetheless does have public safety concerns. In recent years, the region has experienced higher levels of drug use and associated crime, and higher incidence of gang activity.
- **Community centers**
 - Many communities in the region have downtown centers that continue to be idyllic small town environments for living and working. However, many communities are experiencing threats to their downtown business districts, including urban sprawl, the entry of “big box” and other non-locally-owned competitors into local marketplace, and the migration of downtown retail and service business out of downtown business districts (i.e., sprawl). There is a perception that, consistent with smart growth principles, the region needs to concentrate economic and community development initiatives toward preserving and enhancing the vitality and centrality of these downtown centers.
- **Community comprehensive plans**
 - Southern Tier West has been an advocate for increased levels of planning at the community and county level. In the last several years, Allegany, Cattaraugus, and Chautauqua Counties have completed updates of their county comprehensive plans. A number of municipalities also are updating or creating comprehensive plans. This process is extremely important, as it creates a shared local consensus about direction and strategies and can provide a list of priority strategic initiatives for achieving the goals of the comprehensive plan.
- **Environment**
 - Although the region’s environment is largely a clean, rural environment not subject to many of the issues experienced by many urban regions, the region’s environmental quality of life is threatened to various degrees by air, soil and water contamination. There is a perception that the region must do more, not only to maintain and preserve its regional environment, but also to improve its regional environment. These environmental interests sometimes are seen as being incompatible with economic development, but in the long term, a failure to address environmental issues appropriately will be counterproductive as regards maintaining a healthy regional economy.



SWOT Analysis

Intro

Summary Background section of this CEDS Strategy Report provided an overview of the region's economic situation. This SWOT Analysis (i.e., an analysis of regional strengths, weaknesses, opportunities, and threats) builds on the data in the Summary Background section and provides an analytical evaluation of the regional economy, including the opportunities and threats posed by internal and external trends and forces, and the availability of resources for economic development.

SWOT analysis elements are commonly understood in the following terms:

- **Strengths** are a region's relative competitive advantages (e.g., industry supply chains and clusters, extensive rail and broadband assets, specialized workforce skills, higher education levels, collaboration among stakeholders) and often are internal in nature;
- **Weaknesses** are a region's relative competitive disadvantages (e.g., a risk-averse or change-resistant regional culture), also often internal in nature;
- **Opportunities** are chances or occasions for regional improvement or progress (e.g., expansion of an advanced materials research lab in the region), often external in nature; and
- **Threats** are chances or occasions for negative impacts on the region or regional decline (e.g., companies in the region considering moving to other regions), also often are external in nature.

In each of the four subsections herein – Regional Strengths, Regional Weaknesses, Regional Opportunities, and Regional Threats – the content is further classified under one of the following five areas:

- ***Human Capital***
- ***Traditional and Non-Traditional Infrastructure***
- ***Innovation and Entrepreneurship***
- ***Quality, Connected Places***
- ***Collaborative Leadership***

These five areas will form the five prime strategic goals and, hence, areas of strategic focus of this CEDS.

A more detailed presentation of the following content is provided in the Technical Report section of this CEDS.

Regional Strengths

1. **Human Capital:** These regional strengths relate to the region's labor force, which needs to have the skills necessary to create a knowledge-based and innovation-based economy:
 - A. **Presence of a labor force with certain skills**
 - B. **Presence of a high productivity labor force**
 - C. **Educational attainment**
 - D. **Education and employee training system**
 - E. **Positive migration dynamics in recent years**
2. **Traditional and Non-Traditional Infrastructure:** These regional strengths relate to the region's built environment and services that are requisite for retaining and expanding existing businesses and attracting new businesses to the region.
 - A. **Strategic location of the region** (region's proximity to both the eastern metro markets and the Midwest)



- B. Transportation infrastructure** (served by two interstate highways, two Class 1 railroads, and three short line railroads, the region can parlay this transportation infrastructure into transportation and logistics business development – development sites that should be targets would include acreage near the region’s interstate highway exits and acreage along the region’s railroad corridors)
- C. Information and communication infrastructure** (broadband, wireless), which could catalyze the development of internet-related, location-neutral businesses in our rural region
- D. Significant natural resource base and physical development assets** (including farmland and agricultural resources, forest assets, water, Marcellus and Utica shale gas, solar energy, geothermal resources, wind resources, and Lake Erie coastland)
- E. Tourism assets** (including numerous events and natural and man-made tourism destination facilities, recreational, and cultural assets. These assets are both privately owned and publicly owned. Publicly owned lands include forests, lakes, parkland, trails, etc. Ag-tourism and eco-tourism are tourism sectors with significant growth potential.)

F. Significant existing industrial base

G. Significant industry clusters

- Machinery manufacturing
- Fabricated metal product manufacturing
- Glass and ceramics
- Agribusiness, food processing and technology
- Forest and wood products

Note: The individual counties may have a slightly different mix of significant industry clusters. For example, the tourism sector (more formally, the “Arts, Entertainment, Recreation & Visitor Industries” cluster) is considered to be a significant economic cluster in several counties and specific areas within several counties.

H. Significant occupation clusters

- Agribusiness and food technology
- Primary/secondary and vocational education, remediation and social services
- Postsecondary education and knowledge creation
- Public safety and domestic security
- Personal services occupations
- Skilled production worker
- Health care and medical science (therapy, counseling and rehabilitation)

- I. Growth sectors** (including private sector growth occurring over the long term in the region primarily in the service-providing sectors – primarily in the education and health services sector, the professional and business services sector, the leisure and hospitality sector, and other services sectors – which indicate some potential for additional market-based growth, which could be facilitated by the region)
- J. Business acumen** (an asset in entrepreneurial development, through mentoring, ambassadors, networked support groups, and participation in boards of directors of startups)
- K. Technical acumen:** (current businesses, proximity to regional and extra-regional research institutions can be an asset to entrepreneurial development)
- L. Global linkages:** (current exporting businesses are an asset to help generating additional export activity on the part of businesses not currently exporting)
- M. Presence of the Seneca Nation of Indians** (including history, culture, arts and crafts that appeal to travel and tourism industry, Class II and Class III {Las Vegas style} gaming, Class II and Class III gaming revenues, developable land and sites, status as a sovereign nation, localized permitting requirements / regulatory control, tax exempt status, financial incentives for business development, qualification for preferred



status for government procurement processes, natural resources, and specialized economic development infrastructure, resources, and assets that the Seneca Nation can utilize to catalyze business development activity such as the Seneca Holdings, LLC; the Seneca Nation of Indians Economic Development Corporation; the Seneca Nation Center for Business Growth; and the Seneca Commission for Economic Development; the Seneca Nation Housing Authority; and the Seneca Nation Mortgage Program)

3. **Innovation and Entrepreneurship:** These regional strengths relate to the region's capacity to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses.
 - A. **Entrepreneurial development capacity** (including business non-technical assistance providers {e.g., business planning assistance, etc.}, business incubators, and specialized business development programs {e.g., Insyte Consulting, STW Manufacturers Productivity Improvement Program, START-UP NY, New York State Innovation Hot Spot Programs, etc.}, revolving loan funds, etc.)
 - B. **Innovation capacity** (including both research and development enterprise – e.g., the region's capacity to conduct cutting-edge research and transfer commercializable technologies to the private sector business community and the entrepreneurial community – and productivity enhancement programs and assistance programs)
4. **Quality, Connected Places:** These regional strengths relate to the region's capacity to create quality, connected, safe, convenient and healthy places to live and work.
 - A. **Livable, walkable, smaller communities** with an attractive mix of commercial and residential districts, amenities, and the natural environment
 - B. **Low crime rates**
 - C. **Affordable cost of living**
 - D. **Clean environment**
 - E. **Recreational and tourism assets**
 - F. **Historic assets**
5. **Collaborative Leadership:** These regional strengths relate to the region's capacity to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives.
 - A. **Community mindset** (including collaboration at various levels of governance, leadership with a strong "pride of place" commitment to the region, a sense of positivity about the region and its potential future, amenability to transformational change)
 - B. **Willingness to consider proactive investment in economic development** (a demonstrated regional willingness to invest in proactive strategic economic development, exemplified in a recent round of strategic comprehensive planning, investment in incubators, investment in broadband infrastructure capacity, encouragement of STEAM education, investment in business development / business assistance capacity, and systemic investment in targeted economic development initiatives)

Regional Weaknesses

1. **Human Capital:** These regional weaknesses relate to the region's population and labor force.
 - A. **Structural population and labor force changes** (including population loss, outmigration, and an aging of the population, resulting in a smaller regional labor force)
 - B. **Inadequate regional higher educational attainment** (low rates of attainment of bachelor's and graduate degrees)
 - C. **Inadequate supply of a highly-skilled, technically-trained workforce** in many job titles.



- D. Labor force productivity issues**
- E. Low per capita income and high poverty rate**
- 2. Traditional and Non-Traditional Infrastructure:** These regional weaknesses relate to the region’s built environment and services that are requisite for retaining and expanding existing businesses and attracting new businesses to the region.
 - A. Physical infrastructure constraints to development:** (including deficiencies in certain water and wastewater, energy utility, broadband, and transportation infrastructure and service; shortage of industrial sites and buildings; and a shortage of physical facilities geared toward technology-based businesses)
 - B. Capital market constraints to development** (including private entrepreneurial and venture equity capital, private debt capital, and public debt and equity capital)
 - C. Global linkages** (low levels of export activity and partnering/collaboration activities with foreign entities)
- 3. Innovation and Entrepreneurship:** These regional weaknesses relate to the region’s capacity to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses.
 - A. Inadequate regional innovation capacity and activity** (including inadequate research and development enterprise capacity, inadequate technology commercialization competence and activity, inadequate innovation culture, and inadequate networking opportunities)
 - B. Inadequate regional entrepreneurial capacity** (including lack of an adequate-sized “pipeline” of potential entrepreneurs)
 - C. Barriers to entry and entrepreneurship** (including inadequate access to startup capital (including venture capital funding and commercial bank funding), regulatory/permitting/tax barriers at the county and state levels, specialized technical assistance, incubator availability, management expertise, workforce limitations, etc.)
 - D. Productivity and competitiveness issues** (failure of both the private and public sector to adopt newer technologies)
- 4. Quality, Connected Places:** These regional weaknesses relate to the region’s capacity to create quality, connected, safe, convenient and healthy places to live and work.
 - A. Quality of life forces and issues**
 - **Community centers** (including a need to preserve and reinvigorate main streets and downtown business centers to avoid sprawl, improve quality of life, and reduce the cost of service provision, and to create and improve creative districts within its communities, improve amenities within its communities, improve the walkability of its communities, and improve the relationship within communities of the built environment and the natural environment, e.g., public parks space and green space, trails, etc.)
 - **Community institutions** (including a need for the stabilization, improvement and sustainability of many community institutions, including hospitals/emergency care facilities, schools, fire departments, community buildings, religious organizations, housing and housing organizations, social service organizations, libraries, parks, cultural institutions {e.g., museums and community arts centers}, community foundations and other locally-focused philanthropies, volunteer associations, cooperatives, primary private sector businesses (e.g., groceries, pharmacies, gas stations, etc.), man-made and natural recreational assets, and even virtual organizations and networks)
 - **Recreation assets** (including a need to further develop the region’s recreational infrastructure and make older communities walkable so as to facilitate healthy activities and lifestyles)



- **Cultural assets** (including a need to provide adequate support for the region’s arts and cultural organizations, artists, and festivals and events, and other cultural assets and cultural life)
- **Housing and building stock** (including weaknesses in the region’s housing and building stock, e.g., increasing age and inadequate new construction rates, substandard and non-code-compliant housing, lack of variety of alternative types of housing options to meet varied individual tastes and requirements, increasing prevalence of manufactured and/or mobile housing, increasing conversion of large homes to apartments, affordability of rental and purchase properties, absentee ownership of rental properties, desire for architectural preservation, necessary maintenance and desired improvements {e.g., energy conservation improvements, etc.}, etc.)
- **Public education** (including a potential duplication of services and high costs resulting from the large number of school districts)
- **Health care** (including a need to improve health care outcomes {e.g., issues with high teen pregnancy and smoking rates, chronic disease, childhood and adult obesity, etc.}, lack of access to hospitals, emergency care facilities, and even local doctors in smaller communities, lack of access to specialists, need for improved transportation options to help people travel to appointments, need to transition from a disease management focus to a prevention focus, recruitment and retention of doctors and other health care workers, and a shortage of funds to improve aging and out-of-date hospitals and nursing homes)
- **Environment and conservation practices** (including a need for proper conservation practices, a need to limit overuse or inappropriate land development, a need to limit certain potentially environmentally damaging business practices, and a need to limit inappropriate development patterns and infrastructure design)
- **Social capital** (the resources of the “social infrastructure” of community organizations and volunteer groups engaged in activities to benefit the community are becoming stretched)
- **Negative and divisive community attitudes:** (including a need for resolution of certain regional divisions – political, geographic, ethnic, racial, etc. – that negatively impact quality of life in the region, a rationalization of the number of government entities {e.g., by consolidation, regionalization, shared services, etc.}, improving regional self-image, and reducing public apathy)

B. Other Structural Forces and Issues

- **State-created business climate** (Despite improvements in recent years, New York State remains a relatively high-cost business operating environment. The business climate has not actively fostered the growth of technology companies in the region. There has been a failure to provide sufficient innovation-based business incentives that address identified market failures or gaps. There also has been a failure to provide sufficient strategic entrepreneurial encouragement, so as to catalyze sufficient entrepreneurial activity within the region.)
- **State and local government operating costs** (There are too many layers of government creating an inefficient and costly environment for residents and businesses. Certain local municipal operating costs originate from unfunded State mandates, regulatory and compliance requirements, and other miscellaneous municipal operating issues {e.g., rising health care costs, State pension fund costs, etc.}. Additionally, some levels of government, especially smaller rural community governments, seem to be slow to innovate with respect to operating practices. There is a need to reduce/consolidate/share services to promote better service delivery and reduce taxes.)
- **State labor force climate and legal environment** (There is a perception that New York State’s labor force and labor legal environment both may be more unfriendly toward business and management than they actually are, which may be a lingering deterrent to regional business development.)



- **Government service delivery** (including a shortage of local government financial resources and staff capacity to deliver needed services, and a need for increased innovation and entrepreneurship within government operations)
 - **Government policies and levels of collaboration** (There is a need for more collaboration between units of government in the region {e.g., shared services, etc.} and between government and other sectors of the economy {including the educational community, economic development organizations, workforce development organizations, the business community, including larger and smaller companies; public, private, and philanthropic sectors; academia and industry; "old" and "new" sources of wealth within the region; and the broadest possible composition of community by several socio-demographic characteristics (i.e., diversity)}. The region has not strategically identified market failures or gaps and instituted innovation-based business incentives that address these market failures / gaps. The region also needs to externalize entrepreneurial/innovation support whenever it is practical so as to grow the innovation support community and catalyze innovation and entrepreneurship. These types of government policies would help catalyze the creation and growth of technology companies.)
 - **Macroeconomic issues** (Economic issues that are being experienced nationwide or statewide or even globally {i.e., that are not necessarily a consequence of locally caused circumstances} constrain economic development in the region.)
 - **Distressed areas** (including pockets of distress in the region's communities, both large and small, which constrain economic activity and economic development)
 - **Problems with the region's image** (including a need to develop a better regional self-image, both externally and internally)
5. **Collaborative Leadership:** These regional weaknesses relate to the region's capacity to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives.
- A. **Inadequate proactive government strategic economic development** (including a shortage of local government financial resources and staff capacity to undertake economic development initiatives; a need for government to be proactive instead of reactive in its strategic economic development initiatives; a need for more strategic economic development planning {culminating in the creation of a portfolio of prioritized economic development initiatives, and the designation and appropriation of capital funds to implement these initiatives in a rational fashion}, and a need to develop a collective frame of mind focused on commitment to common long-term/sustaining goals, and on proactive, strategic economic transformation; proactive initiatives should include initiatives focused on target clusters, entrepreneurship, and innovation)
 - B. **Need for an increased governmental focus on collaboration and consolidation** (including a need for the region's governments at all levels to develop a collective collaborative frame of mind)

Regional Opportunities

1. **Human Capital:** These regional opportunities relate to opportunities for economic development that are created by the region's labor force, or to opportunities to further develop the region's labor force.
 - A. **Opportunities for economic development that are created by the region's labor force** (including focusing strategic initiatives on significant regional occupation clusters and linking available and displaced workers to employment and entrepreneurship opportunities)
 - B. **Opportunities to further develop the region's labor force** (including retention and employment of the region's college graduates, expansion of apprenticeship programs, expansion of mentoring programs, establishment of a regional sourcing portal for job and training opportunities, increasing support and accessibility for on-the-job training, focusing job and training opportunities on local workers, creation of



transferable skill training programs, investment in career talent pipeline initiatives, investment in entrepreneurial development, and enhancing STEAM education)

2. **Traditional and Non-Traditional Infrastructure:** These regional opportunities relate to opportunities for economic development that are created by the region’s built environment and services, which are requisite for retaining and expanding existing businesses and attracting new businesses to the region.
 - A. **Investment in traditional physical infrastructure consistent with “smart growth” principles** (including water and wastewater service, transportation infrastructure, natural gas and electricity service, broadband service, etc.)
 - B. **Expansion and / or improvement of non-traditional physical infrastructure** (including specialized space, dedicated equipment, information and communication technologies, business networks, linkages to the education/research/labor force training system, and logistics; and also including the development of physical facilities geared toward technology-based businesses, including specialized shared-use physical facilities, especially as regards technology development {i.e., prototype development, shared testing and manufacturing equipment, test beds, etc.}, shortage of diverse and affordable physical space with specialized amenities {e.g., broadband, shared conference space, shared operating and office equipment, etc.})
 - C. **Shovel readiness** (including site development / industrial park expansion / infrastructure expansion / permitting / development along rail and highway corridors and broadband backbone corridor / interstate interchange development / spec building development)
 - D. **Downtown revitalization and building renovation / redevelopment**
 - E. **Development of more sustainable neighborhoods and walkable communities**
 - F. **Brownfield remediation and redevelopment**
 - G. **Encouragement of “green infrastructure”**
 - H. **Implementation of sustainable energy improvements from the Western New York Regional Sustainability Plan**
 - I. **Protection and restoration of water resources, waterfronts, open spaces, and habitats**
 - J. **Enhancement of public access to waterfront areas**
 - K. **Enhancement of recreational / tourism assets** (including Lake Erie, Chautauqua Lake, Cuba Lake, Rushford Lake, the Allegany and Genesee Rivers, State, county, and municipal parks, ski resorts, and snowmobile/hiking/bicycle/recreational trails)
 - L. **Capturing the potential of the Seneca Nation of Indians as a driver of economic development**, including
 - Cultural tourism (history, culture, arts and crafts)
 - Utilization of Class II and Class III gaming revenues to diversify the Nation’s economic base
 - Development of Seneca nation of Indians’ developable land and sites, including sites with adjacency to land assets including Allegany State Park, the Allegany River, Cuba Lake, and Lake Erie.
 - Utilization of the Seneca Nation of Indians’ status as a sovereign nation, tax exempt status, and localized permitting requirements / regulatory control as a development advantage, including Nation-owned and joint venture opportunities with non-Native American partners.
 - Utilization of the Seneca Nation of Indians’ financial incentives for business development
 - Utilization of qualification for preferred status for government procurement processes
 - Utilization of the Seneca Nation of Indians’ specialized economic development infrastructure and resources (The Seneca Holdings, LLC; the Seneca Nation of Indians Economic Development



Corporation; the Seneca Nation Center for Business Growth; and the Seneca Commission for Economic Development; the Seneca Nation Housing Authority; and the Seneca Nation Mortgage Program)

3. Innovation and Entrepreneurship: These regional opportunities relate to opportunities for economic development that are created by the region's capacity to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses.

A. Target industry clusters: The region has opportunities for development in certain specific industry clusters that are regionally significant, that have growth potential, and that are clusters of value added regional export activity, such as:

- Machinery manufacturing
- Fabricated metal product manufacturing
- Glass and ceramics
- Agribusiness, food processing and technology
- Forest and wood products

The region also has significant opportunities for development of the following clusters:

- Tourism
- Value-added export service sectors, including personal service occupations and medical occupations (e.g., therapy, counseling and rehabilitation occupations, etc.)

The region's opportunities for capitalizing on significant industry clusters could include the following development strategies:

- Catalyzing the creation of additional value-added vertical supply chain and horizontal complementary companies in the relevant significant industry clusters and significant occupation clusters.
- Encouraging and incentivizing the attraction or local development of food processing businesses utilizing local food producing resources and transportation infrastructure.
- Encouraging and incentivizing the attraction or local development of secondary forest products processing businesses utilizing local forest producing resources and transportation infrastructure.
- Encouraging and incentivizing the attraction or local development of glass and ceramics manufacturing businesses utilizing technology and research capacity.
- Catalyzing tourism development through:
 - expansion and improvement of public tourism destination facilities, recreational assets (including waterfront accessibility), and festivals / events (number and variety)
 - encouraging and incentivizing privately owned tourism destination facilities and recreational assets
 - revitalizing downtowns, creating special districts (e.g., arts, entertainment, specialized shopping, etc.) and improving walkability
 - Improving accessibility and wayfinding
 - Developing or improving gateway, visitor, and information centers that provide comprehensive information needed by tourists
 - expansion and improvement of publicly owned, privately owned, and non-profit cultural and historical organizations, community assets, and programs
 - incentivizing the expansion and improvement of the tourism, recreation, and leisure support sector
 - regional and localized tourism branding/utilization, expanded tourism marketing (including



specialized marketing, such as coordination of multiple complementary and cross-sectional events and facilities, eco-tourism, agricultural tourism, arts tourism, recreational tourism, etc.), improved coordination between destinations and events and the support sector, improved coordination of regional event scheduling (to encourage extended visitor stays)

B. Entrepreneurship: The region has opportunities for increasing the level of entrepreneurship through:

- development of an entrepreneurship and innovation culture through recognizing, supporting, incentivizing, and celebrating entrepreneurship and innovation
- creation of a formalized system of cluster-based business and entrepreneurial networks wherein members in a cluster (e.g., businesses, educational institutions, trade groups, employee organizations, etc.) can interact in an environment that fosters synergies and connections, including the scheduling of meetings (scheduled participatory talks on specific topics, delivering programmatic assistance, etc.), provision of meeting space and encouraging and incentivizing attendance and participation, creation of mentoring and ambassador programs, and creation of virtual meeting and networking spaces.
- undertaking increased entrepreneurship education at all levels (e.g., primary and secondary education, colleges, and adult education)
- expanding and enhancing non-technical entrepreneurial and small business assistance resources and providers (e.g., business planning assistance, etc.) and business development programs, and encouraging the utilization of these assets
- enhancing entrepreneurial funding vehicles
- improving links between colleges and economic development organizations and private industry
- encouraging incubator development/expansion
- undertaking a regional business plan competition

C. Innovation

- Technology transfer and commercialization opportunities, consulting, contract research, short courses/workshops/conferences/other professional development opportunities to promote workforce development, etc., with Alfred University and other regional and non-regional centers of technology research and development
- Expanded and enhanced productivity enhancement programs and resources

D. General business development opportunities (including improving regional business capital market accessibility, expanded and enhanced productivity enhancement programs and small business and entrepreneurial assistance resources, enhancement of export activity, , and encouragement and incentivization of the development of internet-related, location-neutral businesses)

4. Quality, Connected Places: These regional opportunities relate to opportunities for economic development that are created by the region’s capacity to create quality, connected, safe, convenient and healthy places to live and work.

A. Regionalization of infrastructure services

B. Community centers (including preservation and reinvigoration of main streets and downtown business centers to avoid sprawl {“smart growth”}, improve quality of life, and reduce the cost of service provision, including redevelopment and repair of buildings and public spaces, catalyzing commercial and services providers to locate in downtowns, increasing the availability of housing stock in downtowns, creating and improving creative districts, improving walkability and wayfinding, and improving the relationship within communities of the built environment and the natural environment (e.g., public parks space and green space, trails, etc.)



- C. **Community institutions** (including planning for stabilizing and growing these institutions, and addressing any gaps in their presence in the region's communities)
 - D. **Recreation assets** (including further developing the region's recreational infrastructure and making older communities walkable)
 - E. **Cultural assets** (including providing greater public and private support for the region's cultural assets and cultural life)
 - F. **Housing and building stock** (increasing addressing weaknesses in the region's housing and building stock, through catalyzing new construction and repair / renovation, incentivizing increased variety of alternative types of housing options to meet varied individual tastes and requirements, removing blight, reducing absentee ownership of rental properties, incentivizing energy conservation improvements and adaptive reuse, and incentivizing increased supply and variety of the region's commercial building stock through adaptive reuse, renovation and repair, and speculative building construction)
 - G. **Public education** (including consolidation of schools and increase sharing to avoid potential duplication of services and high costs of education provision while making it easier to deliver state-of-the-art education services and facilities, and consideration of charter and private schools as alternatives)
 - H. **Health care** (including improvement of health care outcomes, through reducing teen pregnancy and smoking rates, chronic disease, childhood and adult obesity, etc.; improving access to hospitals, emergency care facilities, and even local doctors in smaller communities; improving access to specialists in the region; improving transportation options to help people travel to appointments; transitioning from a disease management focus to a prevention focus; encouraging active lifestyles by creating walkable communities; enhancing the recruiting and retaining of doctors and other health care workers, and improving aging and out-of-date hospitals and nursing homes)
 - I. **Environment and conservation practices** (including encouragement of and requiring proper conservation practices, limiting overuse or inappropriate land development, regulating certain potentially damaging business practices, encouraging sound business and government environmental and conservation practices, and limiting inappropriate development patterns and infrastructure design.
 - J. **Social capital** (including encouraging the development of the resources of the "social infrastructure" of community organizations and volunteer groups engaged in activities to benefit the community)
 - K. **Improvement of community attitudes** (including improving certain negative and divisive community attitudes; reduce the amount of government through centralization, regionalization, and shared services; and improvement of regional self-image and reduction of public apathy and negativity)
5. **Collaborative Leadership:** These regional opportunities relate to opportunities for economic development that are created by the region's capacity to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives.
- A. **Strategic comprehensive planning and economic development planning** (including prioritized strategic economic development initiatives and designation and appropriation of sufficient capital resources to implement these initiatives, and systemic investment in these targeted economic development initiatives)
 - B. **Enhanced levels of partnership and collaboration** (including increasing the levels of partnership and collaboration between units of government and between government and the business community (including larger and smaller companies); the educational community; economic development organizations; workforce development organizations; public, private, and philanthropic sectors; and diverse communities within the region)
 - C. **Investment in business development / business assistance capacity, entrepreneurial development, and innovation** (including focusing on catalyzing entrepreneurship and innovation, creating a regional identity or brand that focuses on entrepreneurial activity, and engage in regional marketing of that brand as a means of encouraging entrepreneurship)



- D. **Innovation with respect to government operating practices** (including a need for the region’s governments at all levels to innovate with respect to operating practices, including adoption of new technologies and reducing/consolidating/sharing services to promote better service delivery and reduce taxes)

Regional Threats

1. **Human Capital:** The region faces several potential economic threats created by labor force issues.
 - A. **Changing demographics** (including a decrease in the size of and an aging of the region’s population, an outmigration of its productive age population and youth, a “brain drain” of individuals with advanced education and specific talents, knowledge, training and skills from the region and a loss of some of the region’s younger demographic in search of education and/or employment opportunities outside of the region)
 - B. **Labor force issues** (including a decrease in the size of the region’s labor and issues with workforce skills and preparedness)
2. **Traditional and Non-Traditional Infrastructure**
 - A. **Age of infrastructure**
 - B. **Inadequate financial wherewithal to support maintenance and improvement of strategic infrastructure**
 - C. **Potential disasters/dislocations** (including economic dislocations caused by natural and man-made disasters, plant closures/downsizing, etc.)
3. **Innovation and Entrepreneurship:** The region faces several potential economic threats created by issues related to the region’s capacity to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses.
 - A. **Relocation** (including relocation of innovators and entrepreneurs to other regions perceived as more friendly or facilitative to their development activities, or which offer greater technical, financial or workforce resources and incentives or less costly operating environments)
 - B. **Absentee ownership** (including downsizing or closure of operations by non-local owners)
 - C. **Succession planning** (including downsizing or closure of locally owned business operations that are inadequately prepared for succession or transition)
4. **Quality, Connected Places:** The region faces several potential economic threats created by issues related to the region’s capacity to create quality, connected, safe, convenient and healthy places to live and work.
 - A. **Economy** (including a lagging of economic recovery in the region)
 - B. **Global competition and competition from other domestic regions** (including the potential loss of businesses relocating to other areas, and potential downsizing or exit of companies impacted by foreign and domestic competition)
 - C. **Rural quality of life** (including relocation of employees or business owners based upon personal considerations related to the region’s quality of life)
5. **Collaborative Leadership:** The region faces several potential economic threats created by issues related to the region’s capacity to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives. In this area, the region’s threats are as follows:
 - A. **Financial constraints** (including a high cost of provision of government services, too many levels of government {need for consolidation and service sharing}, and lower amounts of financial resources available for community projects {including infrastructure maintenance and improvements and economic development incentives})



- B. Lack of leadership** (including the difficulties that many smaller communities face related to obtaining qualified and committed leaders with vision, expertise and experience to occupy leadership and governance positions)

Strategic Implications

In sum, the above SWOT Analysis suggests the following **strategic regional economic development foci**:

1. Target economic development activities and initiatives toward significant regional **industry clusters** and **occupation clusters** that are value-added and net export clusters
2. Promote and catalyze **entrepreneurship**
3. Increase the quantity and quality of **human capital** through education and job training, to develop a highly skilled, tech-savvy regional labor force
4. Augment our region's educational services to encourage improved **STEAM skills** (Science, Technology, Engineering, Arts, and Mathematics skills) and **entrepreneurial skills**
5. Maintain and improve **transportation infrastructure**, consistent with smart growth principles
6. Maintain and improve **utility infrastructure**, including **broadband and energy infrastructure**, consistent with smart growth principles and with green infrastructure principles
7. Develop, improve, and expand **industrial sites, acreage, parks, and buildings** ("shovel readiness"), consistent with smart growth principles
8. **Improve communities** through initiatives including **downtown revitalization and building renovation / redevelopment; development of more sustainable neighborhoods and walkable communities; brownfield remediation and redevelopment; protection and restoration of water resources, waterfronts, open spaces, and habitats; enhancement of public access to waterfront areas; and enhancement of recreational / tourism assets**
9. Incentivize and catalyze **innovation, technology transfer, and adoption of new technologies**
10. Provide adequate and innovative **development finance resources** and **technical assistance** as needed to catalyze and incentivize (new and existing) private sector business development
11. Assist in the **retention and expansion of existing regional businesses**
12. **Attract new businesses** to the region
13. Maintain and improve the **region's cornerstone and community-based and civic institutions and quality of life assets, capacities, and services** to improve area quality of life
14. Encourage, at the community, county, and regional levels, **comprehensive and strategic economic development planning**; and develop and implement **community and economic development projects** consistent with those plans and with **smart growth principles** and **sound environment principles**
15. Improve **quality of life assets** that impact economic development
16. Improve **collaborative leadership**, including increased **strategic comprehensive planning and economic development planning and project implementation**; enhanced levels of **partnership and collaboration**; increased investment in **business development / business assistance capacity, entrepreneurial development, and innovation**; and **innovation with respect to government operating practices**
17. **Capture the potential of the Seneca Nation of Indians as a driver of economic development**



Seneca Nation of Indians SWOT Analysis

The following summarizes the SWOT analysis found in the Seneca Nation of Indians' 2017 CEDS. A more recent version of the Seneca Nation of Indians CEDS was not available at the time of preparation of this CEDS.

Strengths

- Location in the middle of major transportation corridors
- Railroad infrastructure
- The proximity to major metropolitan areas such as Buffalo, Niagara Falls, Rochester, and Toronto
- WNYREDC growth sectors (advanced manufacturing, agriculture, bi-national logistics, energy, health and life sciences, higher education, professional services, and tourism), which provide enormous opportunity for economic diversification
- The low cost of living
- The high quality of life
- The resources available at area universities
- Tremendous potential as a tourism destination
- History, culture, arts and crafts that appeal to the travel and tourism industry
- Increased traffic generated by visitor attractions
- The natural beauty of the region and rural, country-like setting
- Varied recreational opportunities
- Support services for the large resorts and attractions
- Potential growth in retail, including destination retail and boutique shops
- SNIDEC; Seneca Holdings, LLC (an investment holding company); the Seneca Nation Center for Business Growth (a small business incubator); and the Seneca Commission for Economic Development (a tribally chartered corporation serving as the Nation's primary instrument for implementation and management of Nation economic development initiatives and projects)
- Tax and other financial incentives for business development
- Entrepreneurial spirit
- Available workforce
- Access to higher education and workforce training opportunities
- Class II and Class III (Las Vegas style) gaming
- A proud history that the community wants to preserve

Weaknesses

- High unemployment rates (higher than surrounding counties in Western New York)
- High poverty rates (higher than surrounding counties in Western New York)
- Need for increasing post-secondary education rates to alleviate poverty faced by high school graduates
- High incidences of nutrition-related and other health issues



- Contamination of former railroad and industrial land and buildings
- West Valley Demonstration Project and Peter Cooper Site, which are contaminating Nation lands downstream via Cattaraugus Creek
- Workforce with inadequate skills for today's new economies
- High state personal and corporate taxes, workers compensation, and disability program dates
- Lack of complete build-out of broadband service
- Aging and poor condition water and wastewater infrastructure

Opportunities

- Clean energy technologies - manufacturing space in Cuba, New York has been identified as a potential site for the manufacturing of clean energy technology.
- Ongoing job training and workforce development programs
- Additional investment in tourism infrastructure may lead to opportunities in the recreation, gaming and tourism markets
- Potential opportunities to increase natural gas production through new wells on both Territories
- 2 megawatt Solar Array in Steamburg, NY on the Allegany Territory

Threats

- Threats by NYS to long standing treaties with the Federal government
- Legislation supporting the interests of mega-monopolies over minority entrepreneurs
- Threats by NYS to the Nation's tax-free retail status
- Environmental threats on the Nation's territories (include poor water and air quality, abandoned underground and aboveground storage tanks, solid waste sites, brownfields, and pesticide use)
- Passage of the Federal PACT Act (Prevent All Cigarette Trafficking) has halted Nation distribution of tobacco products and mail-order sales through the U.S. Postal Service, resulting in the loss of over 1,500 on-territory jobs.
- New gaming enterprises in neighboring Pennsylvania and Ohio, as well as the operation of state-sanctioned casinos in New York, have curtailed the Seneca Gaming Corporation's casino market share, contributing to declining gaming revenue for the Nation and negatively impacting regional employment levels. Now more than ever, diversification of the economy is vital to the Seneca Nation's ability to survive and prosper.
- Housing shortages, substandard housing, and inadequate infrastructure, causing many enrolled Senecas to live off-territory.

Strategic Implications

The Seneca Nation of Indians' economic development vision, goals, objectives, and action plan strategies, as set forth in the Seneca Nation's 2017 CEDS, are included in the following section of this CEDS (Strategic Direction and Action Plan).



Strategic Direction / Action Plan

“Dream no small dreams, for they have no power to move the hearts of men.”
--Johann Wolfgang von Goethe, German author and statesman

Vision, Goals, and Objectives

Vision

The Southern Tier West region seeks to become a region whose economy is globally competitive, is dynamic and growing, and provides meaningful and sustaining employment for its residents. The Southern Tier West region seeks to transform its regional economy into a regional-net-export-surplus, knowledge-based, innovation-based economy that is more internally self-sufficient, i.e., that is less dependent upon the extra-regional economy. The Southern Tier West region seeks to maintain and cultivate the value-added regional-net-export-surplus sectors of the regional economy – be they manufacturing, service, or agricultural – in industry clusters and occupation clusters in which our region enjoys a competitive or niche advantage, in which there is opportunity and capacity for innovation, and in which there is significant growth potential. Finally, the Southern Tier West region seeks to create a regional economy that is a sustainable economy, which does not compromise the quality of life and regional economy of future generations.

Additionally, the Seneca Nation of Indians’ [2017 CEDS](#) document contains the following vision statement:

To promote income diversification, job creation and improve the quality of life and economic welfare of the people within the Seneca Nation’s Territories and surrounding host communities. This will be achieved by actively promoting, attracting, encouraging, developing, and investing in economically sound commerce and industry.

(A more recent version of the Seneca Nation of Indians CEDS was not available at the time of preparation of this CEDS.)

Goals

Goals are broad, primary regional expectations that are essential to achieving the region’s vision. This CEDS sets forth the following five economic development goals:

1. **Human Capital** – to develop a skilled labor force capable of creating a knowledge-based and innovation-based economy, and that encourages businesses to start, locate, and expand in the region
2. **Traditional and Non-Traditional Infrastructure** – to maintain and improve the region’s built environment and services that are requisite for retaining and expanding existing businesses and attracting new businesses
3. **Innovation and Entrepreneurship** – to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses
4. **Quality, Connected Places** – to create quality, connected, safe, convenient and healthy places to live and work, that make the region attractive as a place to live, work and do business
5. **Collaborative Leadership** – to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives

Additionally, the Seneca Nation of Indians’ [2017 CEDS](#) document contains the following economic development goal:



The Seneca Nation will improve the Seneca economy with increased employment and mean income and create a stable diverse local economy through partnerships, infrastructure and training/educational opportunities.

Objectives

Objectives are more specific than goals, clearly measurable, and provide milestone parameters against which the region's progress in attaining its economic goals can be evaluated. This CEDS sets forth the following fourteen economic development objectives:

1. Achieve per capita income levels exceeding state and national levels.
2. Achieve poverty rate levels less than state and national levels.
3. Achieve and sustain income transfer payment rates that are less than state and national levels.
4. Achieve unemployment rates less than state and national levels.
5. Reduce the level of underemployment and part time employment to levels that are less than state and national levels.
6. Reduce population outmigration to levels less than state levels and stabilize and augment regional population levels.
7. Increase the percentage of the region's population that is represented by the 18-to-64 age demographic to levels exceeding state and national levels.
8. Achieve and sustain secondary and post-secondary (associates, bachelors, and graduate) education levels in excess of state and national levels.
9. Increase the average high-tech employment share to levels equal to or exceeding state and national averages.
10. Increase the technology-based knowledge occupations as a share of total employment to levels equal to or exceeding state and national averages.
11. Increase the utilization of venture capital investment in the region to state levels.
12. Increase broadband density and penetration levels to levels equal to or exceeding state and national averages.
13. Increase establishment churn rates to a level that exceeds state and national rates as a means to diversification as insurance against closures and dislocations of large employers.
14. Increase gross domestic product (GDP) per worker in the region to levels equal to or exceeding state and national averages.

Additionally, the Seneca Nation of Indians' 2017 CEDS document contains the following economic development objectives:

1. Profit maximization by deploying \$28 million in capital committed by the Nation in a diversified framework
2. Actively promote, attract, encourage, develop, and invest in economically sound commerce and industry.
3. Increase recreational activities connecting to local and regional green and blue trail networks.
4. Re-purpose Brownfield areas that have been cleaned up.



5. Expand economic development opportunities with High Banks Campground creating a year-round tourist site.
6. Work with SNI Transportation expanding bus routes for employment and shopping commutes.
7. Develop Bus Garage/Hub to protect bus investment and provide shelter for commuters.
8. Increase the attractiveness of the Seneca Territories as places to do business.
9. Support increased travel and traffic through the territories and upgrade and expand infrastructure.

Strategies

Strategies are more specific types of activities and initiatives that the region endorses as a means to achieve the above objects, so as to attain its economic goals. This CEDS sets forth the following thirty-two primary economic development strategies, categorized under the five primary regional economic development goal areas presented above. Each group of strategies is prefaced by a restatement of the specific goal.

Human Capital – to develop a skilled labor force capable of creating a knowledge-based and innovation-based economy, and that encourages businesses to start, locate, and expand in the region

1. Retain and stabilize the regional population to provide a sufficient population base to ensure the continuing viability of regional institutions and communities, and to provide sufficient labor force to ensure that the region's economy can grow and develop. By and large, this is a function of economic opportunity, infrastructure (broadband, utility and transportation improvements), business climate, cost of living, and quality of life.
2. Improve regional population demographics, i.e., attract a skilled, younger demographic population, to stabilize and grow the region's population and labor force, and to reduce the impact of the region's dependent population demographic.
3. Improve regional educational attainment through enhancing our region's educational system and services; increasing the percentage of the population acquiring advanced educational degrees at the associate, bachelors, masters and doctoral levels; encouraging the region's best and brightest to stay in the region to pursue their careers and lives; encouraging enhanced STEAM (Science, Technology, Engineering, Arts, and Mathematics) education, leadership, technology-based education, and entrepreneurial education at the primary, secondary, post-secondary, and adult education levels; and encouraging enhanced career development planning early on during education to help guide the younger demographic into careers with futures.
4. Increase the quantity and quality of human capital through education, workforce training, job training, internships, and other mechanisms so as to develop a highly skilled, tech-savvy regional labor force that meets current and future employer needs
5. Focus on building and capitalizing on regionally significant occupational clusters as a development asset.

Traditional and Non-Traditional Infrastructure – to maintain and improve the region's built environment and services that are requisite for retaining and expanding existing businesses and attracting new businesses

6. Maintain and improve transportation infrastructure, consistent with smart growth principles and sustainability principles, and utilize the region's transportation infrastructure as a driver of economic development
7. Maintain and improve utility infrastructure, including water and wastewater service, natural gas and electricity service, and broadband and alternative energy infrastructure; whenever possible, such investments should be consistent with smart growth principles, sustainability principles, and green infrastructure principles



8. Improve the region's "shovel readiness" through activities including site development / industrial park and acreage expansion / infrastructure expansion / permitting / development along rail and highway corridors and broadband backbone corridor / interstate interchange development / spec building development / building redevelopment, all consistent with smart growth principles
9. Develop, improve, and expand non-physical or non-traditional infrastructure, including specialized space, dedicated equipment, information and communication technologies, business networks, linkages to the education/research/labor force training system, and logistics; and also including the development of physical facilities geared toward technology-based businesses, including specialized shared-use physical facilities, especially as regards technology development (i.e., prototype development, shared testing and manufacturing equipment, test beds, etc.), shortage of diverse and affordable physical space with specialized amenities (e.g., broadband, shared conference space, shared operating and office equipment, etc.)
10. Improve communities through initiatives including downtown and neighborhood revitalization and redevelopment; building renovation / adaptive redevelopment / re-purposing and reuse; encouragement of improved sustainability of communities and neighborhoods, complete streets, and walkable communities; brownfield remediation and redevelopment; protection and restoration of water resources, waterfronts, open spaces, and habitats; enhancement of public access to waterfront areas; increasing and improvement of housing stock and building stock; creation and improvement of creative districts and neighborhoods; improvement of wayfinding; and enhancement of recreational / tourism assets (including public parks space, green space, trails, etc.)

Innovation and Entrepreneurship – to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses

11. Target economic development activities and initiatives toward significant regional industry clusters and occupation clusters that are value-added and net export clusters
12. Promote and catalyze entrepreneurship
13. Incentivize and catalyze enhanced business productivity, innovation, technology transfer, technology adoption and commercialization, and collaboration/partnerships between the university, business, and economic development communities
14. Provide adequate and innovative business development finance resources, technical assistance, and outreach as needed to catalyze and incentivize new private sector business development and assist in the retention and expansion of existing regional businesses
15. Assist in the retention and expansion of existing regional businesses
16. Attract new businesses to the region

Quality, Connected Places – to create quality, connected, safe, convenient and healthy places to live and work, that make the region attractive as a place to live, work and do business

17. Maintain and improve the region's cornerstone and community-based and civic institutions and quality of life assets, capacities, and services to improve area quality of life and positively impact economic development
18. Develop, maintain and promote a range of housing choices and opportunities for all residents; efficient public transportation systems; safe pedestrian networks; access to quality health care and educational facilities; and other quality of life amenities
19. Utilize smart growth principles to insure cost effective growth and development while minimizing sprawl
20. Promote the region's diversity



21. Enhance and promote the region’s cultural, arts, history, and tourism assets, destinations, organizations, and services
22. Develop, maintain and promote integrated connections between communities both across the region and external to the region
23. Promote and protect the region’s natural resources in a sustainable manner
24. Streamline and reform permitting, development review, and other regulatory processes to provide a predictable legal and regulatory environment for businesses
25. Ensure regional and local agencies provide collaborative, seamless, consistent and timely customer service to business
26. Develop a business-friendly regulatory and tax system and business assistance/incentive programs
27. Enhance regional marketing capacity and activities

Collaborative Leadership – to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives

28. Encourage, at the community, county, and regional levels, comprehensive and strategic economic development planning; develop and implement community and economic development projects consistent with those plans and with smart growth principles and sound environment principles; and create capital funds to implement projects
29. Improve coordination and collaboration between and among all levels of government as well as the private sector, including enhancing public-private partnerships, and make strategic investments that are aligned with and further regional priorities
30. Improve leadership training and enhance public involvement in coordinating decision-making and investments at the regional level
31. Seneca Nation of Indians initiatives
32. Improve economic resilience through appropriate steady-state actions (avoidance, prevention, and mitigation of economic disruptions) and response actions (response to economic disruptions)

Action Plan

The CEDS action plan answers the question “How do we get there?” The CEDS action plan is a portfolio of potential initiatives and projects – consistent with the above goals, objectives, and strategies – that the CEDS identifies formally as being primary actions for achieving the region’s goals.

The CEDS action plan identifies – for each of the thirty-two strategies identified above – a list of representative potential initiatives and/or projects, the primary stakeholder(s) responsible for the implementation of the initiatives/projects, a timetable for the implementation of initiatives/projects, and the opportunities for the integrated use of other local, state, and federal funds.

A full presentation of the CEDS action plan is provided in the Technical Report section of this CEDS.



Priority Strategic Projects, Programs, and Activities

The region's Action Plan is made more specific by the specification of certain priority strategic projects, programs, and activities. This CEDS provides four separate project lists: (1) a list of priority EDA projects, (2) a list of priority ARC projects, (3) a comprehensive list of all priority economic development projects in the region (including but not limited to the EDA and ARC priority projects from the other two lists), and (4) a list of economic resilience projects. A full presentation of these four project lists may be found in the Technical Report section of this CEDS. The following presentation summarizes the content of these four project lists, by providing project titles. The comprehensive project list also indicates the highest priority projects for each geographical category.

Priority EDA Projects

Allegany County

1. Alfred Center for Technology Transfer Project
2. Crossroads Development Infrastructure System Project

Cattaraugus County

1. Portville (Town) Water Line Extension Project
2. Allegany (Town) Exit 24 Wastewater Infrastructure Project

Chautauqua County

1. Dunkirk Harbor Multi-Modal Commercial Development Project
2. Ripley Gateway Project

Regional Projects

1. Transload Facility Project Phase 1 (EDA public works funding)
2. Broadband Development Project (EDA public works funding)
3. Southern Tier Extension Railroad Authority Railroad Rehabilitation Project (EDA public works funding)
4. Site Development Planning Project Phase 1 (EDA technical assistance funding)

Priority ARC Projects

Highest Priority Category

1. Workforce Readiness for Emerging Sectors Project
2. New Mechatronics Technology Lab and Programs Project
3. UPMC Chautauqua Rural Family Medicine Residency Program
4. Applied Technology and Building Trades Project

High Priority Category

5. FCS Grown STEMS
6. Drone Certification and Licensing Course for Secondary Students

Priority Category

7. Historic Hollywood Theater Transition Project



Comprehensive Project List of Economic Development Projects

Allegany County

A. Priority Projects

1. Alfred Center for Technology Transfer Project
2. Crossroads Development Infrastructure System Project
3. Alfred University Integrated Manufacturing Center Project
4. Last Mile Broadband Project
5. New Mechatronics Technology Lab and Programs Project
6. Applied Technology and Building Trades Project
7. FCS Grown STEMS
8. Drone Certification and Licensing Course for Secondary Students

B. Other Projects

1. Van Campen Industrial Park Railroad Spur and Switch Gears Project
2. Van Campen Industrial Park Industrial Access Road Project
3. Swain - Canaseraga Sewer Mainline and Collection System Project
4. Sugar Hill Water Tank Project
5. Wellsville Mainline Bridge Obstruction Remediation Project
6. Zero Energy Manufactured Home Assembly Facility Project
7. STAR Career Pathways Project
8. Access to Self Sufficiency and Economic Security Project
9. Alfred (Village) Wastewater Treatment Plant Upgrade Project
10. Cuba Hospital/Stonebridge Crossing [Independent & Assisted Living Complex] Project
11. Friendship Downtown Redevelopment Project
12. Rushford School Building Reuse Project
13. Allentown School Renovation and Reuse Project
14. Angelica School Renovation and Reuse Project
15. Belmont School Renovation and Reuse Project
16. CNG Fleet Conversion and Fueling Facilities Project
17. Genesee River Wilds River Access Parks Project

Cattaraugus County

A. Priority Projects

1. Portville (Town) Water Line Extension Project
2. Allegany (Town) I-86 Exit 24 Interchange Wastewater Infrastructure Development Project
3. Little Valley (Village) Wastewater Infrastructure Project
4. Salamanca (City) State Park Avenue Upgrade Project
5. Ellicottville (Town) Regional Water Project
6. Olean Business Incubation Center Project Phase 2
7. Envisioning Center Project
8. Historic Hollywood Theater Transition Project

B. Other Projects

1. Allegheny River Canoe & Kayak Launch Project
2. BOA Downtown Redevelopment Project
3. North Union Street Streetscape
4. West State Street Streetscape Improvements
5. South Union Street Gateway Corridor
6. Walkable Olean Phase III (East State Street)
7. Oak Hill Park Improvements



8. Allegheny River Syphon Decommissioning & Pump Station Construction Project
9. Comprehensive Water Distribution System Plan
10. Downtown Revitalization & Rehabilitation Fund
11. Olean Downtown Revitalization Project Phase 2
12. Seneca Allegany Boulevard Access Road Project
13. Ashford (Town) Water System Upgrade Project
14. Forness Park Pedestrian and Bicycle Path Project
15. Portville Transportation Improvement Project
16. Onoville Marina Expansion Project
17. Cultural and Performing Arts Center Planning Project
18. Cultural and Performing Arts Center Construction Project
19. Community Composting Enterprise Demonstration Project
20. New Forest Economy Biorefinery Planning Project
21. New Forest Economy Biorefinery Construction Project

Chautauqua County

A. Priority Projects

1. Dunkirk Harbor Multi-Modal Commercial Development Project
2. Ripley Gateway Project
3. Chautauqua Lake Sewer Integration Project
4. Northern Chautauqua County Water District Project
5. Dunkirk Harbor Dredging and Breakwall Extension Project
6. Edgewood Redevelopment (remediation/demolition/rehab) Project
7. Ripley Interstate Site Infrastructure Project
8. Chautauqua Institution Master Plan Implementation Project
9. CARTS Workforce Transportation Project
10. Northern Chautauqua County Industrial Park Development Project
11. Multi-Modal Tourism Transportation Hub at Jamestown's McCrea Point Project
12. Battery Point Villas Project
13. Chadwick Bay Hospitality Project
14. Hispanic Success Center Project
15. Making It Real: Girls & Manufacturing Project
16. Mason Industrial Park Expansion Project
17. SUNY Fredonia 2020 Project
18. Jamestown Furniture Mart Redevelopment Project
19. Riverfront Development Property Acquisition Project
20. Workforce Readiness for Emerging Sectors Project
21. UPMC Chautauqua Rural Family Medicine Residency Program

B. Other Projects

1. Westfield West Main Water/Sewer Extension Project
2. Westfield Business Park Project
3. Routes 5 & 20, Irving Area Commercial Development Project
4. Traffic Calming/Streetscape Enhancements Project (from 2nd to 5th Streets on Washington Avenue in Jamestown, NY)
5. Barcelona Harbor to Chautauqua Institution Shared Use Trail Project
6. Wright Park Improvements Phase 2 Project
7. Point Gratiot Park Beach Improvements Project
8. Pier Improvements Project
9. Central Connections Marketing and Signage Project
10. North County Harbor Study Project
11. Lake Shore Dr. Mixed Use Project



12. Route 5 Complete Streets Project
13. Central Avenue Façade and Building Improvements Project
14. Early Child Care Education
15. Sherman (Village) Wastewater Treatment Plant Upgrade Project
16. E. Lake Road Water Extension Project
17. Westfield Water System Improvements Project
18. Phase II - Implementation of the Northern Chautauqua County LWRP
19. Welch Field Facilities Upgrade Project
20. Recreational Dredging Project (Sunset Bay at Cattaraugus Creek)
21. Recreational Dredging Project (Dunkirk Harbor)
22. Lister Street (Jamestown) Closure and Rail Siding Installation Project
23. Passenger Railroad Feasibility Study and Business Plan Project
24. Westfield Train Station Passenger Stop Project
25. Lucy Trail Boardwalk Project
26. Grape Discovery Center Phase III Building Expansion Project
27. Bemus Point (Village) Casino Renovation Project
28. Westfield Main Street Revitalization – Phase II Project
29. Westfield Pedestrian Hub and Municipal Parking Lot Upgrade Project
30. Rural Areas Revitalization Project
31. Chautauqua County Education Coalition Project
32. Northern Chautauqua County Community & Economic Development Grant Leveraging Fund Project
33. Northern Chautauqua County Grant Oversight and Administration Management Coalition Project
34. Northern Chautauqua County Small Business Development Fund Project

Regional Projects

- A. Priority Projects
 1. US Route 219 Supplemental EIS Funding Project
 2. US Route 219 Construction Project
 3. STEDO Small Business RLF Capitalization Project
 4. Commercial Bio-Refinery Resource Assessment Project
- B. Other Projects
 1. Food Aggregation Facility Implementation Project
 2. Dream It Do It Western New York Project
 3. Social Media Project
 4. Transload Facility Project Phase 1
 5. Rail Siding and Interchange Access Project
 6. Railroad Rehabilitation Project
 7. Site Development Planning Project Phase 1

Seneca Nation of Indians Projects

(from 2017 SNI CEDS; more recent versions of SNI CEDS not available at the time of preparation of this CEDS)

- A. Priority Projects
 1. 2MW Solar Array Project (Steamburg)
 2. 2MW Solar Array Project (community solar/net meter)
 3. LED Lighting Project
 4. Natural Gas Distribution Base System Buildout Project
 5. Cattaraugus Broadband Project
 6. Seneca Telecommunications, LLC (Seneca Holdings Portfolio Company)
 7. SCMC, LLC (Seneca Holdings Portfolio Company)



8. Executive Protection Systems, LLC (Seneca Holdings Portfolio Company)
 9. Seneca Global Services, LLC (Seneca Holdings Portfolio Company)
 10. Seneca Holdings, LLC projects
 11. Clear Creek Project
 12. Red House Bridge Replacement
 13. Vandalia Bridge Replacement
 14. Routine maintenance of roads on SNI lands, replacement of culverts on Old Route 17 Breed Run, replace Upper Indian Hill culvert with bridge
 15. Development of use of Native American Community Development Financial Institution (CDFI)
- B. Other Projects
1. SNI Entity Consolidation Project
 2. Customs Logistics Project
 3. E-Commerce 777 Partners Project
 4. Jani King Project
 5. Nederlander Project
 6. Mas Tec Project
 7. Vortex Immersive Media Project
 8. McGovern Companies Project
 9. Reger Investment Project
 10. 1 Market 190/180 Perry Street Project
 11. Control Environment Project
 12. Web Site Development Project
 13. Tiny Home Project
 14. Tiny Home Community (or additional tiny home builds)
 15. Bio-Generator Project
 16. Wind Turbine Project
 17. Old Council/Court House Project
 18. LAX statue Project
 19. Long House Project
 20. Highbanks Campground/Resort Improvement Project
 21. Salamanca Main Street Improvement Project
 22. Trails Development Project
 23. Upgrades to I-90, Oasis Project

Economic Resilience Projects

1. County-Level Economic Resilience (Disaster Response and Recovery) Planning Project
2. GIS Project to Identify Major Employers in Floodplains
3. Business Risk Assessment Project
4. Agricultural Business Risk Assessment / Information Dissemination Project
5. Business Risk Self-Assessment Web Cookbook Project
6. Surge Capital/Credit Fund Project
7. Community Infrastructure/Asset Mitigation Project
8. Utility/Broadband Infrastructure Mitigation Project



Consistency with Other Government-Sponsored or Supported Plans Affecting the Region

This CEDS is prepared to be consistent with eight primary government-sponsored economic development plans supporting the region, one sustainability plan affecting the region, one transportation plan affecting the region, three workforce development plans, and three county-level hazard mitigation plans, as follows:

1. Economic development plans:

- A. New York State’s Appalachian Regional Commission Area Development Program Implementing Strategies**, New York State Department of State, 2018
Report access: https://www.dos.ny.gov/lg/arc/ARC_GoalsNYS_Strategies2018-2019.pdf
- B. New York State Appalachian Region Strategy Statement (Fiscal Year 2013)**, New York State Department of State, 2013
Report access: <https://www.arc.gov/images/grantsandfunding/StatePlans/NewYorkStrategyStatement2013.pdf>
- C. New York State Appalachian Region Development Plan 2011-2014**, New York State Department of State, 2012
Report access: <https://www.arc.gov/images/grantsandfunding/StatePlans/NewYork20112014AppalachianDevelopmentPlan.pdf>
- D. A Strategy for Prosperity in Western New York**, Western New York Regional Economic Development Council, 2011
Report access: https://regionalcouncils.ny.gov/sites/default/files/2017-11/A_Strategy_for_Prosperty_in_Western_New_York_November_2011.pdf
- E. A Strategy for Prosperity – 2017 Progress Report**, Western New York Regional Economic Development Council, 2017
Report access: <https://regionalcouncils.ny.gov/sites/default/files/2017-11/2017ProgressReportWesternNY.pdf>
- F. Allegany County Comprehensive Plan – Our Vision, Our Mission: Outlook for 2030**, Allegany County Comprehensive Planning Committee, 2019
Report access: <https://www.alleganyco.com/wp-content/uploads/Our-Vision-Our-Mission-Outlook-for-2030-Allegany-County-Comprehensive-Plan.pdf>
- G. Allegany County Comprehensive Plan – A Plan for 2013 – 2023**, Allegany County Comprehensive Planning Committee, 2013
Report access: <https://www.alleganyco.com/departments/planning/reports/>
- H. Cattaraugus County Comprehensive Plan Vision 2025**, Cattaraugus County Department of Economic Development, Planning and Tourism
Report access: <http://www.cattco.org/files/downloads/planning/20160328-cattaraugus-county-comp-plan.pdf>
- I. Chautauqua 20/20 Comprehensive Plan**, Chautauqua County, 2011
Report access: http://www.planningchautauqua.com/pdf/CompPlan/FinalReport/Chautauqua_CompPlan.pdf
- J. Seneca Nation of Indians 2017 Comprehensive Economic Development Strategy (CEDS)**, Seneca Nation of Indians, 2017
Report access: not available online

2. Sustainability plan:

- A. Western New York Regional Sustainability Plan**, Regional Plan Consortium, 2013



Report access: <http://uploads.oneregionforward.org/content/uploads/2013/06/Western-New-York-Regional-Sustainability-Plan.pdf>

3. Transportation plan:

A. Southern Tier West Regional Transportation Strategy, Southern Tier West Regional Planning and Development Board, 2009

Report access: <http://www.southerntierwest.org/pdfs/transportation/stwtransstrategy.pdf>

4. Workforce Development Plans:

A. Cattaraugus-Allegany Workforce Investment Area Local Plan, July 1, 2014 - June 30, 2015, Cattaraugus-Allegany Workforce Investment Board, draft published August 2014

Report access: <http://www.cawfny.com/files/news/Catt-Allegany%20PY14%20Local%20Plan%208-5-14.pdf>

B. Chautauqua Workforce Investment Area Local Plan, July 1, 2014 - June 30, 2015, Chautauqua Workforce Investment Board, July 2014

Report access: <http://www.chautauquaworks.com/Uploads/File/Chautauqua%20Local%20Plan%207-1-14%20to%206-30-15.pdf>

C. WNY Region Local Workforce Investment Board 2014 Regional Workforce Plan, prepared jointly by the four Western New York Workforce Investment Boards, 2014

Report access: <http://www.labor.ny.gov/workforcenypartners/PDFs/wny-regional-planPY14.pdf>

5. County Hazard Mitigation Plans:

A. Allegany County Multi-Jurisdictional Hazard Mitigation Plan 2011-2015, Allegany County Office of Emergency Services, Office of Development and Planning, Department of Public Works, Soil and Water Conservation District, and the SWNY Chapter of American Red Cross, 2010

Report access: <https://www.alleganyco.com/departments/planning/reports/> (Appendix O of Comprehensive Plan)

B. Cattaraugus County Multi-Jurisdictional Hazard Mitigation Plan, Cattaraugus County Departments of Public Works; Economic Development, Planning and Tourism; Real Property/GIS; and Emergency Services, August 2013

Report access: http://www.co.cattaraugus.ny.us/files/cattaraugusco_mjhm_plan.pdf

C. Chautauqua County Multi-Jurisdictional Hazard Mitigation Plan, Chautauqua County Office of Emergency Services, 2006

Report access: <http://www.chautcofire.org/2006MitigationPlan.html>

A number of other documents – many not publicly prepared or sponsored – were used as source documents for the preparation of this CEDS, and are listed in the Bibliography section of the Appendix.



Identification of and Consistency with Past and Present Economic Development Investments in the Region

The region's CEDS utilizes the region's strengths and opportunities to present a strategy to achieve maximum potential economic development. However, another important element of the construction of this CEDS document is building on past and present economic development investments in the region to ensure that the impact and value of those investments is maintained, and to capture additional impact from continuing to build on those investments. Accordingly, this CEDS also is consistent with the following significant past and present economic investments in the region, which have included:

- Investment in various types of infrastructure, including:
 - The ongoing improvements being made to the region's highway infrastructure, including construction of I86 and ongoing improvements to US 219
 - The ongoing improvements being made to the region's short line and mainline railroad system
 - The ongoing improvements being made to the region's airports
 - The ongoing evolution and improvements being made to the region's mobility management system
 - The construction and/or expansion of industrial parks in all three counties of the region
 - Municipal infrastructure service systems, including extensions of water and wastewater service and access roads to serve scattered site industrial firms, development sites, and business parks
 - The expansion of broadband service and service alternatives to a larger portion of the region
 - The construction of certain specific industrial buildings
 - The retrofitting of older buildings into modern productive facilities
 - The construction and operation of business incubators in all three counties, and the offering of assistance and incentives to the creation and growth of businesses that utilize these incubators
 - The remediation of brownfield acreage and buildings and redevelopment of these assets into productive uses
- Investment in colleges and universities in the region, notably expansion of community college campus centers
- Employee and labor force training programs and projects
- Business development zones, industrial development agencies, and incentive programs including industrial incentive financing, industrial revenue bonds, revolving loan funds, etc.
- Technical assistance to business and entrepreneurs, including business planning, counseling, procurement, export, and marketing assistance
- Marketing of the region and specific individual buildings and sites
- Investment in creating and improving publicly-owned and privately-owned parks and recreational facilities and cultural and tourism attractions, including the region's ski resort facilities and other recreational businesses and infrastructure
- Development of the five-county Western New York Region "Cleaner, Greener Communities Regional Sustainability Planning Program," funded through NYSERDA, to create a comprehensive smart growth plan for regional sustainability.
- Construction by Seneca Nation of Indians of the Seneca Allegany Casino Resort complex and the Oil Spring gaming center



Evaluation Framework

Identification of Performance Measures

Southern Tier West will use the following four traditional performance metrics to evaluate the success of the region's comprehensive economic development strategy. However, there are additional non-traditional performance metrics that can be used to provide additional depth and richness in the evaluation process, as follows.

Additionally, Southern Tier West will review (a) progress in implementing CEDS strategies or strategies consistent with the CEDS, along with any quantitative or qualitative impacts, (b) progress in implementing projects in the CEDS or projects consistent with the CEDS strategies, along with any quantitative or qualitative impacts, and (c) progress in creating regional wealth (i.e., any increase or growth in intellectual, individual, social, natural, built environment, political, financial, and cultural assets), along with any quantitative or qualitative impacts.

1. Traditional Performance Metrics

- A. **Job creation and retention** – Identify sources of jobs created and/or retained that were induced or catalyzed by CEDS and/or CEDS economic development initiatives, and provide specific numbers of jobs created/retained.
- B. **Per capita income levels** – Do per capita income levels exceed state and national levels?
- C. **Unemployment rates** – Are unemployment rates less than state and national levels?
- D. **Private investment** – Identify sources of significant private investment induced or catalyzed by CEDS and/or CEDS economic development initiatives, and provide dollar amounts of investment.

2. Non-Traditional Performance Metrics

- A. **Poverty rate levels** – Are poverty rates less than state and national levels?
- B. **Underemployment and part time employment** – Have underemployment and part time employment rates decreased?
- C. **Labor force participation rate** – Has labor force participation rate increased?
- D. **Wealth creation (GDP per capita)** – Has wealth creation increased?
- E. **Transfer payment rates** – Are transfer payment rates less than state and national levels?
- F. **Secondary and post-secondary (associates, bachelors, and graduate) education levels** – Are Secondary and post-secondary (associates, bachelors, and graduate) education levels in excess of state and national levels?
- G. **Population outmigration and regional population levels** – Has regional population stabilized and has the population outmigration rate decreased?
- H. **Percentage of the region's population that is represented by the 18-to-64 age demographic** – Has this demographic cohort decreased?
- I. **Average high-tech employment share** – Has the average high-tech employment share increased levels equal to or exceeding state and national averages?
- J. **Technology-based knowledge occupations** – Has the share of technology-based knowledge occupation employment compared with total employment to levels increased, and is it equal to or exceeding state and national averages?
- K. **Venture capital investment** – Has venture capital investment utilization increased in the region to state levels?
- L. **Broadband density and penetration** – Have broadband density and penetration in the region increased to levels equal to or exceeding state and national averages?
- M. **Establishment churn rates** – Have establishment churn rates increased to a level that exceeds state and national rates?
- N. **Gross domestic product (GDP) per worker** – Has gross domestic product (GDP) per worker in the region increased to levels equal to or exceeding state and national averages?



3. Progress in Implementing CEDS Strategies

- A. What strategies in the CEDS, or consistent with the CEDS, have been implemented? Identify any quantitative or qualitative impacts.

4. Progress in Implementing Projects Consistent with CEDS Strategies

- A. What projects in the CEDS, or consistent with the CEDS, have been implemented? Identify any quantitative or qualitative impacts.

5. Progress in Creating Regional Wealth

- A. Has there been an increase or growth in intellectual, individual, social, natural, built environment, political, financial, and cultural assets? Identify any quantitative or qualitative impacts.

Performance Evaluation

Southern Tier West tracks performance metrics (e.g., leverage, jobs, investment, etc.) for each CEDS project post-implementation and includes this information in the Annual Report that Southern Tier West submits to EDA.

A cursory examination of the economic environment of the region (e.g., unemployment rates, per capita income levels, poverty levels, median household income levels, net migration levels etc.) could lead the observer to the perspective that cumulatively, over the past three to four decades, the Southern Tier West region's economic development community has not been very successful in addressing the region's long-term economic distress. The region still has higher-than-state-and-federal-average unemployment rates, and per capital income continues to decline as a percentage of state per capita income. The region's youth leaves the region in search of jobs.

However, such a simplistic viewpoint does not consider the opportunity cost of the region not undertaking the economic development initiatives that it in fact has undertaken over the last three to four decades. The region's economy would probably be much more distressed if there had been no economic development strategy in place, and if the region had not undertaken an ongoing strategic economic development effort over the last three to four decades. Thus, the focus perhaps ought not to be on the fact that the region still is economically distressed, but rather, recognizing that we have made some progress, we should focus on how we can do better in the future. History can teach us which economic development initiatives did not work, and which are likely to hold promise.

On an annual basis, the CEDS project performance metrics, along with updated regional economic data, may suggest revising economic development priorities and CEDS goals / objectives / strategies, and also may suggest new projects, programs, and initiatives. Consequently, the CEDS is a living document, updated and monitored on an ongoing basis by the Southern Tier West Regional Planning and Development Board.

Some of the lessons we have learned in the strategic planning and development process, in no particular order, are as follows:

- **Economic development always must be considered in contemplation of the future.** The region must prepare for the economic development opportunities and jobs of tomorrow, not those of yesterday or even of today. This cannot be accomplished with the resources of yesterday.
- **Economic development should be both proactive and reactive, not just reactive.** Too often, because of a focus on responding to the pressures of the day and situations as they arise, and because of the perceived difficulties in being proactive in terms of planning, project development, and funding appropriation, we focus on "putting out fires" (i.e., reactive economic development, for example, responding to an announced plant closure), as opposed to being proactive (building capacity and readiness for growth). While reactive activities are essential, the failure to act proactively will predispose the region to a lower potential for future economic growth, and in the worst case, perpetuate and even exacerbate economic difficulties that the region is experiencing

Readiness for economic development is essential. We must be proactive, and prepare for and engage in economic development activities prior to having "birds in hand." If we delay preparation and public



investment until a specific private sector beneficiary company appears, we will be unable to respond in time to meet the company's development timetable. In some sense, therefore, readiness equates to speculative investment in economic development. However, because of the scarcity of economic resources, such speculative investment must be made judiciously.

- **We must undertake strategic planning on a regular basis.** A corollary of proactive economic development is the need for comprehensive planning and strategic economic development planning. Comprehensive planning at the county and municipal level is essential, as it provides a roadmap for the future, and generate consensus locally as to strategic direction.

There is a similar need for strategic economic development planning, i.e., setting forth goals, objectives, strategies, and an action plan containing a timetable for implementation and identifying essential financial resources. Without a strategic economic development plan, there is no consensus about strategic economic development direction, and there is no formula for projects and initiatives that must be undertaken to arrive at goals. Without a strategic economic development plan, any economic development initiatives that are undertaken are not part of a reasoned strategy for the type of development that is desired. Therefore, investment in such initiatives cannot necessarily be expected to achieve the optimal level of economic development impact for the resources invested.

Strategic economic development planning also should occur at the regional, county, and municipal levels. At the regional level, the CEDS acts as a regional strategic economic development plan. However, counties and municipalities also need to have a plan in place to avoid less-than-optimal results.

Additionally, we must develop a means of investing in economic development. To support strategic economic development plans, we must develop and implement multi-year county-level capital and non-capital investment plans. In this regard, the creation of capital and non-capital reserve funds and annual budgetary commitments of resources for economic development investment is most beneficial. Many economic development initiatives consist of phased approaches that require an ongoing annual commitment of resources.

- **Economic development requires more than bricks and mortar.** Effective economic development requires attention to human resource and technology issues, as well as productivity, market, and financial issues. We must have the flexibility to bring resources to bear on all these fronts for any given economic development opportunity as it arises. Often, investment must be funneled into an initiative in a coordinated, multi-agency approach. This has been referred to as a "critical mass theory of economic development," in which many organizations, many programs, and varied funding all are directed "as a team" toward solving an issue or realizing an economic development opportunity, under the assumption that such a coordinated, collaborative, and focused approach is the most effective approach to achieve success.
- **We must improve our region's capacity for innovation.** Gains in domestic value-added activity in the future may well not be in manufacturing industries (unless proprietary technologies or other comparative advantages are involved), but in information technology or knowledge-based industries, or in other clusters where a long-term competitive advantage can be created and maintained. We must position ourselves appropriately to capitalize on any opportunities in this regard. This is a broad category encompassing everything from improving telecommunications infrastructure, encouraging use of broadband by the region's businesses and institutions, encouraging technology transfer between the educational and business communities, improving entrepreneurial rates and improving entrepreneurial performance, etc.
- **We must build on the strengths represented by our significant regional industry clusters and occupation clusters.** As has been indicated elsewhere herein, these clusters provide a competitive advantage for economic development in our region.
- **We must "widen the entrepreneurial pipeline."** As the region currently has too low a rate of entrepreneurship to support an innovation economy, we must act to increase the levels of entrepreneurship in our region, and to assist entrepreneurs so that their failure rate decreases.



- **We must improve the skill sets and capacities of our regional labor force.** Economic development in any region is constrained by the quality and quantity of its labor force. Our region is hindered by a lack of quality jobs requiring higher skill levels. Nonetheless, if we are to achieve a sustainable globally competitive regional economy, we must improve the skill level of our regional labor force. This is both a training issue and an education issue. Vocational and specialized skills training, STEAM education, and entrepreneurial education should be foci.
- **We must encourage value-added and export activities.** Only by value-added activity can we create wealth in our region, and only by bringing new money into our region from outside the region (i.e., goods and services export), can we maintain our quality of life and standard of living.
- **We must encourage local production to reduce reliance on imports.** In the same way that only by bringing new money into our region from outside the region (i.e., goods and services export), can we maintain our quality of life and standard of living, by encouraging production of goods and services within the region, we can reduce our reliance on imports and have a similar impact on the net flow of wealth between our region and other regions. This also is a sustainability practice (reducing carbon emissions related to shorter transportation distances for goods) and can be an improved health practice (e.g., increased reliance on locally produced foods, which can be healthier and fresher).
- **We must improve the region's transportation infrastructure.** As a rural region that is spread out over a large geographic area, we must concern ourselves with passenger and freight transportation, both within the region, and to-and-from points outside the region. Service must be timely and cost effective.
- **We must continue to work toward the retention and expansion of our region's existing manufacturing base.** We have a substantial investment of both public and private capital invested in this manufacturing base, not to mention the economic health of many direct and indirect employees and their families, and all of this is at competitive risk in the global marketplace. We must improve communications between our economic development community and the region's manufacturing base. We must encourage a progressive attitude on the part of our business community, and we must be prepared to do likewise ourselves.
- **Economic development requires innovation in financial packaging and tools.** The traditional tools available in our region sometimes are not competitive with those of neighboring states, let alone the rest of the world. We must develop alternative financial tools, and we must invest in our financial tools.
- **Each county health department should act as a central clearinghouse for municipal water and wastewater projects within the county.** The county health departments are good overseers of municipal water and wastewater systems and are aware when certain systems need improvements. The county planning and development departments can be good sources of assistance to municipalities with respect to development and implementation of needed projects.

Southern Tier West's practice is to use its performance measuring system over time on a rolling basis to measure the dynamic implementation efficacy of the CEDS planning process.

However, several general observations can be made.

First, although the sponsors of projects appearing in the CEDS indicate that they plan to implement the projects within a 12 to 18 month time frame, this often does not occur, often because of the unpredictable lengths of planning phases and the uncertainty of the availability of funds from various funding sources. Accordingly, projects often appear in several successive editions of the CEDS before being implemented (or else removed from the CEDS as no longer reflecting development priorities). Once implemented, projects often take one to three years before they are completed (especially with respect to construction projects), and the full economic development impact (e.g., jobs created, private sector investment, etc.) may be felt at a still later time. Thus, the full impacts of a project normally are lagged by several years or more from the project's first appearance in the region's CEDS.

Second, certain types of projects (e.g., projects funded by ARC, NYS DOT, and FAA) typically are the most likely to have been completed and to have met targets, because of the higher relative certainty of the funding stream.



Other projects, such as EDA projects, are less likely to have been completed or even implemented because EDA funding is less certain.

Third, most infrastructure projects have longer time frames to implementation and final completion than do non-infrastructure and non-construction projects, other things equal, measured from the date of their appearance in the CEDS. This is because the overall process (planning, funding, engineering, environmental review, bidding, and construction, etc.) is a longer process than the process involved with non-construction projects. Some of these projects occasionally evolve into significantly different projects over a period of several years.

Fourth, economic development projects often seem to have a shorter and more certain path to implementation than do other sorts of projects (i.e., non-economic-development projects), owing to the economic development projects being based on and constrained by beneficiary company timeframe windows and the often-stronger linkage to funding availability. Further, once these economic development projects are completed, they normally meet their job and investment targets. (However, the shortness of the private sector's timeframe window sometimes works against economic development projects being successfully implemented, as sometimes it is impossible to satisfy the private sector in the timeframe required.)

Fifth, although the water and wastewater projects of many small municipalities may be high priorities for implementation, owing to health and public safety concerns, these projects often languish in the planning phase awaiting funding for several years, owing to inexperienced municipal project sponsorship, changeovers in local administrations (affecting continuity), insufficient local match funding, funding priorities of varied funding sources, and inability to obtain funding packages that are perceived as affordable by the municipalities. This is less true, however, if the project can be primarily categorized as an economic development project, for the reasons noted above.

Sixth, the Seneca Nation of Indians' has had an active, dynamic portfolio of projects over the recent years. Certain projects have been completed, others are no longer priorities, and some continue to be active projects. In recent years, the Seneca Nation has proposed several new projects related to casino resort development, and other new projects have been made possible because of casino revenues. A driving philosophy of the Seneca Nation of Indians is the diversification of its economic base. This CEDS does include significant participation by the Seneca Nation of Indians. Monitoring data (including performance metrics) on Seneca Nation economic development projects is not always available.

Seventh, because certain project sponsors (counties, municipalities, agencies, etc.) may not participate in the planning process in a given year, Southern Tier West cannot include their projects in the CEDS or evaluate their projects.

Finally, Southern Tier West generally has seen CEDS projects meet job and investment targets upon completion.



Economic Resilience

The region's economic prosperity is dependent upon its ability to prevent, withstand, and quickly recover from major disruptions (i.e., "shocks") to its economic base. Economic resilience includes the ability to avoid the shock, the ability to withstand a shock, and the ability to recover quickly from a shock. This section of the CEDS deals with economic resilience in terms of economic disruptions (1) arising from natural disasters and (2) arising from other causes. In both cases, the focus should be on both steady state (i.e., avoidance or mitigation or minimization in advance of a natural disaster) and response to a disaster. Additionally, the focus herein is on the economic disruption, as opposed to human safety or property damage or governmental operations, all of which are equally essential (or even more important) and all of which are beyond the focus and limited scope of this CEDS and perhaps more properly the province of other types of public safety plans.

Economic Disruptions Arising from Natural Disasters

The types of natural disasters that could occur in the region include:

- Flood events
- Winter storm events
- Fire events
- High wind events
- Earthquake events

Of these types of disasters, flood events and winter storm events are the most common in the region.

The region has a county-level approach to economic resilience with respect to natural disasters. In each county in the region, the County department of economic development and the county industrial development agency have a relationship with the county office of emergency services that involves pre-planning for natural disasters and, once a natural disaster occurs, that provides for a coordinated response to that disaster.

The focus of the county offices of emergency services is planning for mitigating and responding to natural disasters, as they impact both publicly and privately owned assets; governmental, community, and business operations; and the general public. With respect to natural disasters, each county has both a hazard mitigation plan and a hazard response plan.

The hazard mitigation plan in one sense is a function of the FEMA and NYS Office of Emergency Management focus on publicly owned assets. Accordingly, the county hazard mitigation plans focus primarily on preventing or minimizing damage to publicly owned assets in the event of a natural disaster. Economic resilience per se (i.e., with respect to a natural disaster's impact on private businesses) is not an element of the county hazard mitigation plans. However, damage to publicly owned assets not only can negatively impact governmental or community facility operations; it also can disrupt private sector (business operations). Accordingly, there is a role for county economic development organizations with respect to mitigation planning and assistance to businesses and communities with respect to helping them avoid or minimize the negative impacts of natural disasters on the business community.

Economic Disruptions Arising from Other Than Natural Disasters

Other types of economic disruptions can be just as damaging to local and regional economies as can disruptions arising from natural disasters. Economic disruptions typically involve plant closures or downsizings/layoffs or production hiatuses arising from various causes.

Examples of potential causes for these other types of economic disruptions include:

- Persistent internal regional structural issues including:
 - Excessive local dependencies on single employers or industries
 - Non-local ownership of certain major employers



- Inadequate transportation access/options in some communities
- Inadequate broadband availability in some communities
- Labor force issues, including an inadequately educated workforce
- Barriers to entrepreneurship and small business expansion
- Inadequate access to small business finance
- Circumstantial issues, typically external but sometimes internal, including:
 - Economic downturns
 - Customer issues (domestic and international)
 - Technological obsolescence or competitiveness issues
 - Labor force issues, including labor stoppages
 - Supply chain issues or interruptions
 - Infrastructure service disruption
 - Water shortages
 - Chemical spills, etc.
 - Climate change

The region must address these types of business risks through both steady state (mitigation or avoidance or minimization) initiatives and response initiatives (once disruptions occur). The following two sub-sections address these two topics.

Steady State Initiatives – Planning for and Implementing Economic Resilience Initiatives

1. Role of businesses in steady state planning and implementation

- A. Identification of primary business risks relating to or caused by natural disasters, for example:
 - energy supply disruptions
 - facility damage or accessibility issues
 - telecommunications or utility service disruptions
 - etc.
- B. Identify primary business risks relating to disruptions other than natural disasters, often the result of persistent economic challenges or deficiencies, for example:
 - Plant closures, downsizings, or interruptions of production
 - Reduction of purchasing from local vendors in the supply chain
- C. Development of plans for avoid or minimize disruptions from natural disasters, for example:
 - backup energy supplies
 - strengthening potentially physically challenged elements of facilities
 - improving accessibility infrastructure / accessibility redundancy
 - telecommunications redundancy
 - improving utility infrastructure
 - etc.
- D. Communication of risks and plans to communities, county emergency services offices, and economic development organizations

2. Role of communities in steady state planning and implementation

- A. Identification of primary business risks relating to natural disasters. Determine which publicly owned assets, if damaged by natural disaster, could disrupt local business operations. Examples are culverts and bridges that are key element of accessibility to business facilities, etc.
- B. Participate in county hazard mitigation planning process with respect to these publicly owned assets that, if damaged by natural disaster, could disrupt local business operations. Include mitigation projects relating to these assets in the county hazard mitigation plan so as to avoid disruption of local business



operations. Implement these mitigation projects. Project examples could include improving and reinforcing stream channels to avoid flooding damage, GIS database of municipal infrastructure, database of facility utility shut offs, etc.

- C. Continuation of safe development practices, including land use/zoning ordinances requiring the location of structures outside of floodplains, stormwater policies that effectively manage stormwater so as not to create potentially disrupting flooding, the preservation of natural lands that act as buffers from storms, the protection of community built environments from the impacts of extreme weather, etc.

3. Role of economic development organizations in steady state planning and implementation

- A. Create network to facilitate active and regular communication between the relevant sectors to (a) collaborate, (b) collect and disseminate information about key elements (such as supply-chain relationships), and (c) ensure that the public, private, education, and nonprofit sectors are aware of each other's roles and responsibilities with respect to existing and potential future challenges
 - County emergency management offices
 - County offices of economic development
 - County industrial development agencies
 - County workforce management office
 - Local government officials (CEO, DPW, etc.) of affected communities
 - Major employers and cornerstone institutions (e.g. hospitals, colleges, etc.)
 - Southern Tier West
- B. Create business database
 - Database should begin with largest employers
 - Database should be GIS-based and served over the web by controlled access
 - Data fields should include location, description of operations, description of any hazardous operations or materials, contact information, location of utility services, employee information
- C. Identify primary business risks relating to natural disasters. Recognize and collect business and community mitigation plans and county hazard mitigation plans.
- D. Identify pre-disruptions activities or initiatives that could help avoid or minimize disruptions, for example:
 - working with businesses to encourage off-site storage of critical data
 - working with businesses to encourage redundancy in telecommunications and broadband networks
 - working with businesses to encourage planning to resolve any post-disruption employee accessibility issues
 - working with businesses to identify and implement pre-disaster business activities or initiatives that could complement community or county hazard mitigation plans and projects
 - broadening the industrial base with diversification initiatives, such as targeting the development of significant industrial clusters with growth potential that could provide stability during downturns that disproportionately impact any single cluster or major employer
 - undertaking business retention and expansion programs
 - putting in place a means of availability of surge capital/credit resources in case they may be needed by local governments and/or major employers
 - creating cluster networks, industrial ambassador programs, and financial capital funds to assist businesses with economic recovery post-disruption
 - establishing formalized mechanisms to realign and retrain any displaced workers post-disruption
 - improving workforce skills and cross training



- tracking establishment “churn” and other data elements
- E. Regularly prepare a current assessment of the regional economy, monitor the state of preparedness to mitigate and respond to disruptions, and measure and evaluate pre-disaster planning/preparedness and post-disaster response

As a regional resource, Southern Tier West can serve as a source for information; technical, funding, and grantsmanship assistance; provider of GIS services and web-based serving of information; convener of teams for mitigation planning efforts, etc.

Response Initiatives – Planning for and Implementing Economic Resilience Initiatives

The focus of the county hazard response plans is recovery from natural disasters. In the case of the hazard response plan, the contents of the plans are not disseminated publicly, so as to avoid sensitive information becoming available to entities that might engage in terrorist or criminal behavior. However, the plans do include components involving government operations, community institutions (e.g., hospitals, etc.), businesses, and the general public.

In a natural disaster, the county emergency services offices, the police departments (State Police, county sheriffs, and local police), and local public works departments, augmented in extreme cases by the National Guard, are the first responders and entities that are in charge of the immediate response activity, per a pre-determined hierarchy. Their activities can be supplemented by private sector services, e.g., contractors, etc. Their first concern is human safety, followed by property damage. Economic disruptions are the focus of the economic development organizations, which can become involved with working with businesses and communities as soon as it is safe to do so.

1. Role of economic development organizations in response planning and implementation

The county economic development organizations should convene planning meetings with stakeholders (including the business community, community leaders, police, and public works officials, etc.) to determine appropriate procedures and/or protocols for responses. This already is in place for natural disaster; if it is not present, this planning also needs to be put in place for other types of economic disruptions. Protocols should include:

- The general process for economic response to natural disasters is that county economic development organizations are informed of disaster, and then develop a team comprised of primary stakeholders, including community officials, key personnel from the business community, and others as needed. Roles and responsibilities are assigned, and key response actions are identified and implemented. Regular communication occurs between team members, so that additional issues can be addressed as they arise.
- Economic development organizations should serve as an information hub (collecting data and convening the appropriate players to facilitate recovery post-disruption) and a Business Emergency Operation Center (BEOC) or Business Recovery One-Stop Center. Economic development organizations should utilize information networks among the various stakeholders in their counties for active and regular communications to collaborate on response initiatives, determining business and community needs, and monitoring of implementation of response.
- Economic development organizations should assist communities and businesses with undertaking response projects. Assistance can include (but should not be limited to) help with accessing funding, contacting elected officials and regulatory officials, working with workforce organizations, etc.

As a regional resource, Southern Tier West can serve as a source for information; technical, funding, and grantsmanship assistance; provider of GIS services and web-based serving of information; convener of teams for mitigation planning efforts, to gather data and encourage collaboration post-disruption, etc.



Measuring Resilience

The region should measure its resilience through various standardized resilience measures, including the degree of regional income equality (i.e., how evenly income is distributed across a regional population) and the degree of regional economic diversification (i.e., degree to which economic activity is spread across sectors). As needed, the region should obtain and regularly update resiliency data with which to benchmark the region against national averages.

In our region, there is a relatively homogenous distribution of income, relative to other regions. However, because of the generally lower-than-state-and-national-average per capita incomes and relatively higher-than-state-and-national poverty rates, it can be said that the region is perhaps less resilient than its income distribution would suggest.

In our region, there has been a somewhat disturbing reduction in economic diversification, as manufacturing jobs are being replaced by service and commercial jobs, which often are lower wage, and which often do not provide benefits. Both the decreasing diversification rates and economic restructuring imply that the region might be less resilient than would be desirable.

Summary

1. Region's key vulnerabilities

- A. Natural disasters, especially flood and winter storm events and their direct impacts to businesses and indirect impacts to businesses via their direct impacts on infrastructure and community institutions
- B. Economic disruptions, especially the exit or downsizing of major employers and non-local ownership of some major employers, inadequate workforce skills, need for businesses to become more productive and adopt new technologies, low innovation rates, and low levels of entrepreneurship

2. Region's resilience-building goal

- A. Improve economic resilience through appropriate steady-state actions (avoidance, prevention, and mitigation of economic disruptions) and response actions (response to economic disruptions)

3. Region's resilience-building objectives

- A. Avoid disruptions (plant closures, plant downsizings, production hiatuses, etc.)
- B. Reduce severity and duration of disruptions post-incident (plant closures, plant downsizings, production hiatuses, etc.)

4. Region's resilience-building strategies

- A. Create county-level networks, that integrate emergency management personnel, economic development personnel, and other key stakeholders, to actively and regularly communicate and collaborate regarding proactive mitigation and post-disruption response
- B. Undertake appropriate infrastructure capital investment projects to mitigate potential disruptions due to natural disasters
- C. Diversify economy
- D. Upgrade labor force skills and job transferability
- E. Promote innovation, adoption of new technologies and productivity enhancement, and entrepreneurship
- F. Target development of emerging clusters
- G. Establish formalized mechanisms to realign and retrain local workforces post-disruption



5. Region's resilience action plan projects

A. "Steady-State Initiatives" that seek to bolster the community or region's long-term ability to withstand or avoid a shock

- **County-Level Economic Resilience (Disaster Response and Recovery) Planning Project:** Create formal detailed and tested county-level (for economic development organizations regarding employers throughout the county) and local-government-level (regarding specific local employers) disaster response and recovery plans, which identify goals, initiatives/projects, roles and responsibilities, time frame, funding, and measurable objectives
- **Business-specific risk assessment projects, initially targeting major employers**
 - Business Risk Assessment Project
 - Agricultural Business Risk Assessment / Information Dissemination Project
 - Business Risk Self-Assessment Web Cookbook Project
- **GIS Project to Identify Major Employers in Floodplains:** GIS project targeting confluence of floodplain and built environment (especially major employers, cornerstone community institutions, and community commercial centers)
- **Community Infrastructure/Asset Mitigation Project:** Continually update county hazard mitigation plans and implement hazard mitigation projects contained in the county hazard mitigation plans
- **Utility/Broadband Infrastructure Mitigation Project:** Develop plan to address other risks to infrastructure/assets/etc. not appropriate for inclusion in County Hazard Mitigation Plans
- **Surge Capital/Credit Fund Project:** Develop surge capital/credit funding mechanism
- **Continue employment of safe development practices**
- **Develop and utilize early warning tools system**
- **Prioritize and implement mitigation capital investment projects**
- **Develop and implement a program to develop businesses in targeted emerging clusters**

B. "Responsive Initiatives" that establish and utilize capabilities for an economic development organization to be responsive to the region's recovery needs post-disruption.

- **Develop GIS-based business database served over the web**
- **Assembly county level teams, information hubs, and key contacts**
- **Create GIS-based business database served on the web that can be utilized post-disruption to expedite response**
- **Establish formalized mechanisms to realign and retrain workforce post-disruption**

6. Measureable objectives

A. **Natural disasters:** Ability to minimize job losses, property damage, plant closures, plant production disruptions

B. **Other disruptions:** Ability to minimize job losses, plant closures, plant production disruptions



TECHNICAL REPORT

Summary Background

This sub-section of the Technical Report section of the CEDS provides a description of the current economic development situation of the region. The content of this sub-section is summarized in the corresponding sub-section of the Strategy Report of the CEDS. The reader may wish to review the maps and data sections of the Appendix for additional information.

Demographic Profile

- **Population**

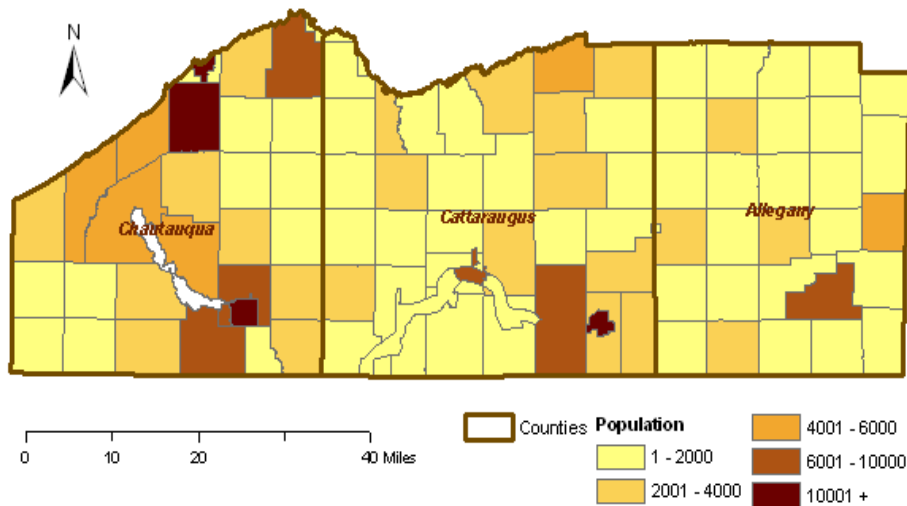
Per the Census, the estimated populations in 2018 of the three counties are as follows: Chautauqua, 127,939; Cattaraugus, 76,840; and Allegany, 46,430. These numbers are down from corresponding 2017 population numbers: Chautauqua, 129,046; Cattaraugus, 77,348; and Allegany, 46,894.

Per US Census estimates, in 2017 the largest municipalities were Jamestown (Chautauqua County, population 29,591), Dunkirk/Fredonia (Chautauqua County, combined population 22,415), Olean (Cattaraugus County, population 13,711), Salamanca (Cattaraugus County, population 5,532), and Wellsville Town and Village (Allegany County, population 7,049). These numbers are down from corresponding 2010 Census population numbers: Jamestown, 31,146; Dunkirk/Fredonia, 23,793; Olean, 14,452; Salamanca, 5,815; and Wellsville Town and Village (7,397). With certain exceptions (e.g., the recreation-based economy of Ellicottville in Cattaraugus County, etc.), these communities are the largest centers of economic activity in the region.

The enrolled membership of the Seneca Nation continues to grow and currently stands at 8,313 members, based on matrilineal lineage (Seneca Nation of Indians Tribal Enrollment, May 2017). Among the Nation's territories, 4,310 enrolled members live on territorial lands, with a substantial portion of the remaining membership living in Western New York State (Seneca Nation of Indians Tribal Enrollment, May 2017). These counts are included in the region's population counts for all enrolled members who are residents of one of the three counties.

The region has a low population density, owing to its rural character and large geographic size.

Population Density and Distribution





The region is experiencing several **structural population changes**:

- Decreasing total population
- Outmigration of population, especially the skilled and young population, in search of employment
- Aging of the region’s population / increasing dependent population (particularly the 65+ age cohort) as a percentage of total regional population
- Ongoing increase in both racial diversity and diversity of origin

The negative implications of the first three of these trends include a smaller labor force, a growing public assistance burden, and a less attractive economic development environment. These demographic changes to the labor force increasingly pose challenges to regional business operations and business development activity. On the other hand, as will be discussed below, the increasing diversity of the population should have a positive impact on the regional economy.

With respect to **total population trends**, the following time series show that population in all three counties has been decreasing over the past several decades, in contrast with both the State and national population trends over this period. The long term population decline between 1980 and 2017 has been the largest in Chautauqua County, both in absolute and percentage terms.

Population Trend Data

<u>Population</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>United States</u>
2018	46,430	76,840	127,939	19,542,209	327,167,434
2017	46,894	77,348	129,046	19,849,399	325,719,178
2010	48,946	80,317	134,905	19,378,105	308,745,538
2000	49,927	83,955	139,750	18,976,457	281,421,906
1990	50,470	84,234	141,895	17,990,778	248,790,925
1980	51,742	85,697	146,925	17,558,165	226,542,250

Source: U.S. Census Bureau (www.statsamerica.org)

Population Trend Data

<u>Population Change</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>United States</u>
2017 to 2018 changes	-1.0%	-0.7%	-0.9%	-1.6%	0.4%
2000 to 2018 changes	-7.0%	-8.5%	-8.5%	3.0%	16.3%
2000 to 2010 % change	-2.0%	-4.3%	-3.5%	2.1%	9.7%
1990 to 2010 % change	-3.0%	-4.7%	-4.9%	7.7%	24.1%
1980 to 2010 % change	-5.4%	-6.3%	-8.2%	10.4%	36.3%

Source: U.S. Census Bureau (www.statsamerica.org)

The tables above show a continuing erosion of the region’s population base. The declining regional population negatively impacts the region’s labor force (labor force trends are discussed in the next sub-section of the Technical Report).

Consistent with the countywide population decreases, the region's more populated communities also are experiencing a population decrease, as may be seen in the table below.

Population Change in Urban Centers

	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>Est.</u> <u>2016</u>	<u>Est.</u> <u>2017</u>	<u>Total</u> <u>Change</u>	<u>Percentage</u> <u>Change</u>
City of Jamestown	34,681	31,730	31,146	29,775	29,591	-5,090	-14.7%
City of Olean	16,946	15,347	14,452	13,794	13,711	-3,235	-19.1%
City of Salamanca	6,566	6,097	5,815	5,552	5,532	-1,034	-15.8%
City of Dunkirk/ Village of Fredonia	24,425	23,837	23,793	22,579	22,415	-2,010	-8.2%
Town and Village of Wellsville	8,115	7,678	7,397	7,089	7,049	-1,066	-13.1%

Source: U.S. Census Bureau (1990, 2000, 2010 Census; 2016 and 2017 Census Estimate) (www.statsamerica.org)

With respect to **outmigration**, the region is experiencing outmigration (especially the skilled and young population, in search of employment). Using a long term historical perspective (i.e., between 1980 and 2011), the region lost 19,877 residents and had a net migration rate of -13.88%. This compares to only a -7.85% net migration rate for the State as a whole over this same period, indicating that the region had a much higher percentage outmigration rate than the State as a whole. However, using a shorter term historical perspective (i.e., between 2000 and 2011, or between 2010 and 2014), while both the region and the State experienced outmigration, the gap in the net migration rate is much smaller. Between 2000 and 2011, the region lost 9,145 residents and had a net migration rate of -4.43% (compared to a -3.88% net migration rate for the State as a whole for this same period). And more recently, between 2010 and 2014, the region lost 5,782 residents and had a net migration rate of -2.26% (compared to a -0.01% net migration rate for the State as a whole for this same period, which implies a more recent widening of the migration rate gap). Thus, while the region continues to experience outmigration, in relation to the outmigration that the State as a whole is experiencing, the region's outmigration seems to have slowed in relative terms, although most recent data seems to indicate that the rate has begun to widen once again. As is noted elsewhere herein, a high percentage of young, working-age persons and high-skill white collar/professional workers and college graduates are leaving the region in search of employment in other regions. Additionally, the loss of manufacturing jobs is simultaneously causing skilled manufacturing workers and even lower skilled workers to leave.

Components of Population Change in 2018

	<u>Allegany</u> <u>County</u>	<u>Cattaraugus</u> <u>County</u>	<u>Chautauqua</u> <u>County</u>	<u>New York</u>
Net Domestic Migration (from 2017 to 2018)	-307	-367	-873	-180,306
Net International Migration (from 2017 to 2018)	40	39	357	70,375
Natural Increase (births minus deaths)	9	-76	-136	61,371
Births	474	782	1,281	227,099
Deaths	465	858	1,417	165,728

Source: U.S. Census Bureau (www.statsamerica.org)

With respect to the **aging of the region's population** and the **increasing dependent population**, the region's population is aging and doing so at a faster rate than the State as a whole. The region also is experiencing an increase in the dependent population (particularly the 65+ age cohort).

Population Estimates by Age in 2018

Age Group	Allegany County			Cattaraugus County			Chautauqua County		
	Number	Pct Dist	Pct Dist. in USA	Number	Pct Dist	Pct Dist. in USA	Number	Pct Dist	Pct Dist. in USA
Preschool (0 to 4)	2,432	5.2%	6.1%	4,272	5.6%	6.1%	6,915	5.4%	6.1%
School Age (5 to 17)	6,958	15.0%	16.4%	12,661	16.5%	16.4%	19,082	14.9%	16.4%
College Age (18 to 24)	6,821	14.7%	9.3%	6,963	9.1%	9.3%	12,565	9.8%	9.3%
Young Adult (25 to 44)	9,407	20.3%	26.6%	16,871	22.0%	26.6%	28,398	22.2%	26.6%
Older Adult (45 to 64)	11,997	25.8%	25.6%	21,398	27.8%	25.6%	35,275	27.6%	25.6%
Older (65 plus)	8,815	19.0%	16.0%	14,729	19.2%	16.0%	25,704	20.1%	16.0%
Median Age	39.8		38.2	42.2		38.2	42.8		38.2

Source: U.S. Census Bureau (www.statsamerica.org)

Median Ages of Population of Region, States and Nation, 1980-2015

	Southern Tier West Region	New York State	United States
Median Age, 1980	30.3	33.4	30.0
Median Age, 1990	33.4	33.8	32.8
Median Age, 2000	37.2	36.9	35.3
Median Age, 2010	40.3	38.0	37.2
Median Age, 2015 (est)	40.5	N/A	37.6

Source: U.S. Census Bureau (1980, 1990, 2000, 2010 Census; 2015 estimate)

Prior to 2000, the region's median age was below that of the State average; however, in 2000 the region's median age surpassed State and national averages, and the difference continues to widen since then. The following chart indicates that this trend is borne out by a similar instance of higher levels of dependent population, driven primarily by the 65+ age cohort, as a percentage of total population for the region as compared to the State as a whole.

Dependent Population as a Percent of Total Population, 2018 (ages 0 to 17 and 65+)

Allegany County	39.2%
Cattaraugus County	41.2%
Chautauqua County	40.4%
New York State	37.2%
USA	38.5%

Source: U.S. Census Bureau (www.statsamerica.org)

The implications of this trend include a smaller labor force, a growing public assistance burden, and a less attractive economic development environment. These demographic changes to the labor force increasingly pose challenges to regional business operations and business development activity.

With respect to **racial composition**, the region is experiencing an ongoing increase in both racial diversity and diversity of origin. Please refer to the Appendix for a more comprehensive presentation of population composition data and notes on US Census Bureau classifications of racial diversity and diversity of origin.

Racial Composition of Population as a Percentage of Total Population of STW Region, 2000, 2010, and 2017

	<u>2000</u> <u>Total</u>	<u>2000</u> <u>Percent</u>	<u>2010</u> <u>Total</u>	<u>2010</u> <u>Percent</u>	<u>2017</u> <u>Total</u>	<u>2017</u> <u>Percent</u>
White	262,062	95.8%	250,957	95.0%	236,834	93.5%
Black or African American	5,321	1.9%	7,061	2.7%	5,434	2.1%
American Indian and Alaska Native	4,059	1.5%	4,873	1.8%	3,764	1.5%
Asian	1,595	0.6%	2,236	0.8%	2,178	0.9%
Native Hawaiian & Other Pacific Islander	119	0.0%	156	0.1%	106	0.0%
Some other race	3,615	1.3%	3,861	1.5%	4,962	2.0%
Total population	273,632	100.0%	264,168	100.0%	253,288	100.0%

Source: U.S. Census Bureau (2000, 2010 Census)

Population Estimates by Race and Hispanic Origin, 2018

<u>Race / Origin</u>	<u>Allegany County</u>			<u>Cattaraugus County</u>			<u>Chautauqua County</u>		
	<u>Number</u>	<u>Pct Dist.</u>	<u>Pct Dist. in U.S.</u>	<u>Number</u>	<u>Pct Dist.</u>	<u>Pct Dist. in U.S.</u>	<u>Number</u>	<u>Pct Dist.</u>	<u>Pct Dist. in U.S.</u>
Total Population	46,420			76,840			127,939		
White Alone	44,368	95.6%	76.5%	70,569	91.8%	76.5%	119,804	93.6%	76.5%
Black Alone	666	1.4%	13.4%	1,178	1.5%	13.4%	3,532	2.8%	13.4%
American Ind. or Alaskan Native Alone	147	0.3%	1.3%	2,726	3.5%	1.3%	912	0.7%	1.3%
Asian Alone	601	1.3%	5.9%	670	0.9%	5.9%	871	0.7%	5.9%
Native Hawaiian and Other Pac. Isl. Alone	19	0.0%	0.2%	29	0.0%	0.2%	67	0.1%	0.2%
Two or More Race Groups	629	1.4%	2.7%	1,668	2.2%	2.7%	2,753	2.2%	2.7%

Source: U.S. Census Bureau (www.statsamerica.org)



Hispanic or Latino (can be of any race), 2018

	<u>Allegany County</u>			<u>Cattaraugus County</u>			<u>Chautauqua County</u>		
	<u>Number</u>	<u>Pct Dist.</u>	<u>Pct Dist. in U.S.</u>	<u>Number</u>	<u>Pct Dist.</u>	<u>Pct Dist. in U.S.</u>	<u>Number</u>	<u>Pct Dist.</u>	<u>Pct Dist. in U.S.</u>
Hispanic or Latino	779	1.7%	18.3%	1,632	2.1%	18.3%	10,006	7.8%	18.3%
Non-Hispanic or Latino	45,651	98.3%	81.7%	75,208	97.9%	81.7%	117,934	92.2%	81.7%

Source: U.S. Census Bureau (www.statsamerica.org)

Minority Population as Percent of Total Population, 2018

Allegany County	4.4%
Cattaraugus County	8.2%
Chautauqua County	6.4%
New York State	30.3%
USA	23.5%

Source: U.S. Census Bureau (www.statsamerica.org)

Increasing population diversity will stimulate richer cultural diversity and sensitivity, increasing regional quality of life through expanding access to a wider variety of cultural offerings, and increasing the intellectual and creative capacity of the region as a whole. A more diverse population should increase the attractiveness of the region to potential labor force talent considering migrating into the region.

• **Educational Attainment**

The region has high levels of primary and secondary school educational attainment, and high levels of post-secondary associate's degree attainment, compared to State and national levels. However, as can be seen from the table on the next page, compared to State and national levels, the region does lag both the State and nation as a whole in terms of the percentage of residents with bachelors and advanced degrees, which is an obstacle to attracting employers requiring a high-skill labor force to the region.

Educational Attainment in 2017

	<u>Allegany County</u>			<u>Cattaraugus County</u>			<u>Chautauqua County</u>		
	<u>Number</u>	<u>% of Pop 25+</u>	<u>U.S. % of Pop 25+</u>	<u>Number</u>	<u>% of Pop 25+</u>	<u>U.S. % of Pop 25+</u>	<u>Number</u>	<u>% of Pop 25+</u>	<u>U.S. % of Pop 25+</u>
Total Population, 25 and Older	30,331	100%	100%	53,201	100%	100%	90,242	100%	100%
Less than 9th Grade	1,082	3.6%	5.4%	2,008	3.8%	5.4%	3,572	4.0%	5.4%
9th to 12th, No Diploma	2,137	7.0%	7.2%	4,180	7.9%	7.2%	6,796	7.5%	7.2%
High School Graduate (includes equiv.)	11,464	37.8%	27.3%	21,015	39.5%	27.3%	32,162	35.6%	27.3%
Some College, No Degree	5,687	18.7%	20.8%	9,261	17.4%	20.8%	16,619	18.4%	20.8%
Associate Degree	3,958	13.0%	8.3%	6,669	12.5%	8.3%	11,947	13.2%	8.3%
Bachelor's Degree	3,012	9.9%	19.1%	5,702	10.7%	19.1%	10,576	11.7%	19.1%
Graduate, Professional or Doctorate Degree	2,991	9.9%	11.8%	4,366	8.2%	11.8%	8,570	9.5%	11.8%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates (www.statsamerica.org)

The following tables present comparative educational attainment data for the three counties, state and nation, in both absolute numbers and percentages.

Educational Attainment, Population 25 and Older, 2016

<u>Level of Attainment</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>U.S.</u>
Total Population 25 and Older	30,449	53,233	90,235	13,653,592	215,015,000
Less Than 9th Grade	1,067	2,265	3,678	865,976	9,492,000
9th to 12th, No Diploma	2,268	4,033	6,968	1,002,316	13,961,000
High School Grade (incl. equiv.)	11,508	21,434	32,310	3,574,814	62,002,000
Some College, No Degree	5,477	9,334	16,855	2,150,858	36,003,000
Associate Degree	3,893	6,517	11,618	1,191,816	21,657,000
Bachelor's Degree	3,085	5,525	10,220	2,749,619	44,778,000
Graduate Degree or Higher	3,151	4,125	8,586	2,118,193	27,122,000
Total Receiving a High School Diploma or More	27,114	46,935	79,589	11,785,300	191,562,000
Total Completing a Bachelor's Degree or More	6,236	9,650	18,806	4,867,812	71,900,000

Educational Attainment as a Percentage of Population 25 and Older, 2016

<u>Level of Attainment</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>U.S.</u>
Less Than 9th Grade	3.5%	4.3%	4.1%	6.3%	4.4%
9th to 12th, No Diploma	7.4%	7.6%	7.7%	7.3%	6.5%
High School Grade (incl. equiv.)	37.8%	40.3%	35.8%	26.2%	28.8%
Some College, No Degree	18.0%	17.5%	18.7%	15.8%	16.7%
Associate Degree	12.8%	12.2%	12.9%	8.7%	10.1%
Bachelor's Degree	10.1%	10.4%	11.3%	20.1%	20.8%
Graduate Degree or Higher	10.3%	7.7%	9.5%	15.5%	12.6%
Total Receiving a High School Diploma or More	89.0%	88.2%	88.2%	86.3%	89.1%
Total Completing a Bachelor's Degree or More	20.5%	18.1%	20.8%	35.7%	33.4%

Sources: U.S. Census Bureau, American Community Survey One-Year Estimates, National Science Foundation

In addition to a goal of improving the rates of attainment of bachelor's and advanced degrees, the region also should attempt to reduce the rates of failure to obtain at minimum a high school diploma. And for those with high school diplomas or high school equivalencies, the region should encourage them to obtain some level of college degrees.

Additionally, as a consequence of many factors, including State assistance, the region's primary and secondary educational system is at a critical juncture with respect to the fiscal viability. These challenges pose economic development problems for the region, as the ability of a region to provide adequate educational services facilitates the retention and attraction of both residents (i.e., employees) and businesses.

Education is the key to development of not only economic opportunity but a means by which people can explore their human potential and purpose, contribute to their community, and enhance their quality of life. Lifelong learning is a key to the development of quality communities and robust economies.

The regional availability of skilled workers becomes increasingly important as firms are now more likely to make location decisions based on the presence of a skilled (e.g. high quality, high productivity) workforce than on traditional economic development conditions such as taxes.

The overall economic competitiveness of the region is contingent upon young people being prepared to work in STEM-related occupations, which nationwide are forecasted to grow significantly faster than employment in other occupations. The region needs to prepare an adequate supply of qualified future workers for employment in STEM fields. The region needs to further expand STEM education reform across various educational disciplines, and reform STEM courses from traditional lecture style to active learning environments (which have shown greater success). The region needs to focus on enhancing math and science teachers' skills to better prepare them for providing STEM education.

The arts can transform our region into a more dynamic and diverse new cultural center of southwestern New York and the adjacent northwestern Pennsylvania. To sustain such a growing economic engine, it will be necessary to continue to develop new talent to grow and sustain the creative industries. Accordingly, the region should expand STEM education to STEAM (Science, Technology, Engineering, Arts, and Math) education. There is a continuing need to strengthen efforts regionally to improve STEAM education.

Skill-set development is supported in our region by an extensive vocational education system consisting of public schools, BOCES, community colleges, and universities. Vocational education can prepare a person for immediate employment in high demand occupational clusters. The documented shortages of skilled workers in vocational trades also argues for refocusing on skilled vocational trades as desirable career paths and educating the workforce in these skilled vocational trades.



Workforce development organizations and the economic development community need to continue to undertake research and analysis of current local labor force trends, business needs and strategies planning to better facilitate and enhance economic development efforts. The whole talent supply chain needs to work collaboratively and more closely with economic development agencies and community organizations to establish a systematic approach for preserving and growing high-pay jobs. The feedback mechanism between the business community and education providers needs to be improved to quickly adapt the training programs to match the needs of existing and emerging industries. Targeted industry partnerships need to be formed among major employers and public sector partners such as economic development organizations, workforce development organizations, and educational institutions. Certain types of vocational training are needed to address skilled labor force shortages.

The region also needs to make a concerted effort to increase and improve entrepreneurial education and technology-competency.

The issues of STEAM, vocational and skills training, entrepreneurial education, and technological competency should be addressed at all levels of education – primary, secondary, post-secondary (college), and adult education.

Economic Profile

- Labor Force**

The long term trend since 1990 has been a decrease in the **size of the region's labor force**. Between 1990 and 2010, the region's labor force remained relatively flat, fluctuating at a level above 130,000 persons in the labor force. However, **in the years since 2010, the region's labor force has decreased in size annually**, with a significant decrease between 2010 and 2015, with smaller annual decreases thereafter.

Labor Force Average Annual Figures for the Population Aged 16 Years and Older

<u>Year</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>STW Region</u>	<u>New York</u>	<u>United States</u>
1990	22,400	39,000	68,100	131,490	8,808,900	125,840,000
1995	23,200	39,700	67,600	130,500	8,676,800	132,304,000
2000	22,800	41,100	68,100	131,500	9,167,000	142,583,000
2005	23,600	42,200	67,200	132,500	9,421,400	149,320,000
2010	24,200	39,700	63,900	130,300	9,595,400	153,889,000
2015	20,500	35,400	57,900	113,500	9,644,600	157,130,000
2016	20,200	35,100	56,500	111,600	9,688,700	159,187,000
2017	19,900	34,700	55,900	110,500	9,704,700	160,320,000
% Change,						
1990-2017	-11.2%	-11.0%	-17.9%	-16.0%	10.2%	27.4%
% Change,						
2010-2017	-17.8%	-12.6%	-12.5%	-15.2%	1.1%	4.2%
% Change,						
2015-2017	-2.9%	-2.0%	-3.5%	-2.6%	0.6%	2.0%

Source: NYS Department of Labor; U.S. data is from the U.S. Bureau of Labor Statistics

Since 2010, the regional labor force decreased in size by 19,800 persons, a 15.2% decrease in size. However, as noted above, most of this change (12.6%) occurred between 2010 and 2015. To compare this change to State and national data, between 2010 and 2017, the region's labor force decreased by 15.2% while the State labor force actually increased by 1.1% and the US labor force increased by 4.2%. Similarly, between 2015 and 2017, the regional labor force shrank by 2.6%, while the State's and nation's labor forces grew by 0.6% and 2.0%, respectively. The contrast between the regional and State/national change in labor force is very stark.

These recent trends may pose problems for businesses attempting to find qualified employees, at a time when the labor force is growing elsewhere in the nation as a whole.

In terms of county level data, it can be seen from the table below that between 2010 and 2017, all three counties lost labor force, with Chautauqua losing the most persons from its labor force.

Labor Force			
<u>County</u>	<u>2010</u>	<u>2018</u>	<u>Net Change</u>
Allegany County	24,200	19,500	- 4,700
Cattaraugus County	39,700	34,700	- 5,000
Chautauqua County	63,900	55,900	- 8,000

Source: NYS Department of Labor

The gradual shifting nature of the counties' relative labor force sizes also is reflected in the following table.

Percentage of Regional Labor Force			
Year	Allegany County	Cattaraugus County	Chautauqua County
1990	17.0%	29.7%	51.8%
1995	17.8%	30.4%	51.8%
2000	17.3%	31.3%	51.8%
2005	17.8%	31.8%	50.7%
2010	18.6%	30.5%	49.0%
2015	18.1%	31.2%	51.0%
2016	18.1%	31.5%	50.6%
2017	18.0%	31.4%	50.6%

Source: NYS Department of Labor

In sum, the region's counties have been experiencing recent decreases in the size of their labor force, while the State and national labor forces have been growing. As noted previously, the region is experiencing a declining population, a net outmigration of population, and a net migration of the skilled and young population. These demographic changes are reflected directly in the size of the region's labor force, increasingly posing challenges to regional business operations and business development activity.

The following two tables present data related to the **age of the region's labor force** between 2012 and 2016. Several observations can be made from this data.

- First, the region's labor force has a slightly higher percentage of workers in the 16 to 19 age range, the 20 to 24 age range, the 55 to 59 age range, and the 60 to 64 age range than do the State and nation as a whole. The latter three age ranges are among the most productive age ranges. However, the latter two age ranges are nearing retirement age. Their replacements in the regional labor force will be younger, potentially more educated individuals. However, these workers in the 55 to 64 age ranges may well be difficult to replace in terms of experience, overall productivity, and working culture.
- Second, the region's labor force has a slightly lower percentage of workers in the 25 to 29 age range, the 30 to 34 age range, the 35 to 44 age range, and the 45 to 54 age range than do the State and nation as a whole. These age ranges are among the most productive age ranges. Because these are consecutive age ranges, from young adults to middle age, as years pass, this lower percentage of workers in these productive age ranges relative to the State and nation as a whole will continue to be present. Relative to other regions, this acts as a weakness in the region's labor force.

Age of Labor Force

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>USA</u>
Labor Force	39,224	62,702	107,545	15,964,950	253,323,709
16 to 19 years	1,335	1,576	2,763	319,722	6,421,987
20 to 24 years	3,032	3,572	6,798	975,366	16,743,343
25 to 29 years	1,998	3,447	6,204	1,205,937	18,071,035
30 to 34 years	1,905	3,470	5,342	1,137,426	17,587,597
35 to 44 years	3,837	7,118	10,979	2,073,189	33,412,121
45 to 54 years	4,765	8,608	14,049	2,241,923	34,852,761
55 to 59 years	2,396	4,290	7,512	978,396	15,341,580
60 to 64 years	1,648	2,904	4,970	669,725	10,425,141
65 to 69 years	726	1,062	1,947	308,316	4,791,903
70 to 74 years	265	501	751	125,661	1,927,745
75 years +	200	367	531	87,417	1,243,527

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>USA</u>
16 to 19 years	3.4%	2.5%	2.6%	2.0%	2.5%
20 to 24 years	7.7%	5.7%	6.3%	6.1%	6.6%
25 to 29 years	5.1%	5.5%	5.8%	7.6%	7.1%
30 to 34 years	4.9%	5.5%	5.0%	7.1%	6.9%
35 to 44 years	9.8%	11.4%	10.2%	13.0%	13.2%
45 to 54 years	12.1%	13.7%	13.1%	14.0%	13.8%
55 to 59 years	6.1%	6.8%	7.0%	6.1%	6.1%
60 to 64 years	4.2%	4.6%	4.6%	4.2%	4.1%
65 to 69 years	1.9%	1.7%	1.8%	1.9%	1.9%
70 to 74 years	0.7%	0.8%	0.7%	0.8%	0.8%
75 years +	0.5%	0.6%	0.5%	0.5%	0.5%

Source: Base data from U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates; calculations by Southern Tier West

The following table presents data related to the **educational background of the region's labor force** between 2012 and 2016. Several observations can be made from this data.

- First, the region has a lower (percentage) incidence of individuals in the labor force that have less than a high school diploma than do either the State or nation as a whole. This indicates that the region's labor force has fewer individuals, as a percentage of the labor force, who have the least educational background, and who, other things equal, correspondingly are least likely to possess the skillsets or educational readiness requisite for employment, in comparison with other regions in the State or with the nation as a whole.
- Second, the region's labor force has a higher (percentage) incidence of individuals in the labor force that have a high school diploma (or equivalency) than do either the State or the nation as a whole. This indicates, on the one hand, that the region's labor force has more individuals, as a percentage of the labor force, who have attained this minimum level of education indicating, other things equal, the possession of a base level of skillsets or educational readiness for employment, than do other regions in the State or nation as a whole. On the other hand, it also indicates that the region has a higher (percentage) incidence of individuals in the labor force who have not received additional post-secondary educational training

than other regions in the State or nation as a whole, which could be a relative deficiency of the region’s labor force, depending on the job title involved.

- Third, the region’s labor force has a higher (percentage) incidence of individuals in the labor force that have an associate’s college degree (or some college) than do either the State or nation as a whole. This indicates that the region’s labor force has more individuals, as a percentage of the labor force, who have attained this level of education, which can include education for specific employment-related educational skillsets indicating, than do other regions in the State or nation as a whole. This may indicate a strength of the region’s labor force relative to other regions in the State and nation as a whole. This factor is probably related to the presence of Jamestown Community College, Jamestown Business College, and Alfred State College in the region.
- Finally, the region’s labor force has a much lower (percentage) incidence of individuals in the labor force that have a bachelor’s degree or advanced degree than do either the State or nation as a whole. This probably indicates a weakness of the region’s labor force relative to other regions in the State and nation as a whole. This factor is true despite the presence of a number of four year colleges in the region (e.g., St. Bonaventure University, SUNY Fredonia, Houghton College, Alfred University, Alfred State College, and Jamestown Business College). This may indicate that a substantial portion of regional residents are not attending local colleges and remaining in the area. If true, this would be consistent with the perceived “brain drain” outmigration of college graduates from the region, and/or the region’s perceived difficulty in attracting college-educated and experienced labor to migrate into the region to accept employment.

Educational Attainment of Labor Force

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>USA</u>
Labor Force	37,942	60,628	104,194	15,471,048	244,945,724
Less than high school graduate	3,861	7,546	12,496	2,143,489	32,145,211
High school graduate (includes equivalency)	13,053	23,976	36,101	4,076,826	68,210,886
Some college or associates	14,413	19,138	35,796	4,260,039	76,640,939
Bachelor’s degree or higher	6,615	9,968	19,801	4,990,694	67,948,688
Less than high school graduate	10.2%	12.4%	12.0%	13.9%	13.1%
High school graduate (includes equivalency)	34.4%	39.5%	34.6%	26.4%	27.8%
Some college or associates	38.0%	31.6%	34.4%	27.5%	31.3%
Bachelor’s degree or higher	17.4%	16.4%	19.0%	32.3%	27.7%

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates; calculations by Southern Tier West

Despite having what is perceived to be a relatively high productivity and trainable labor force in comparison with other regions of the country, the region nonetheless is experiencing a decline in the relative productivity of its work force, owing to the aging of the workforce, the retirement of experienced and skilled workers, and the failure to replenish the workforce with younger, higher skilled workers with backgrounds in technical skills and technology. The region’s labor force also still includes an abundance of (largely older) workers whose skill sets often may be tailored to low-skill, industry-specific jobs, which in part is a function of the region’s historical smokestack industry base (e.g., steel, furniture, automotive, etc.). The presence of these low-tech low-skill workers – and the shortage of high-tech high skill workers – does not position the region to capture technology-based business opportunities. Certain employers not only have noted a difficulty or even an inability to recruit local workers possessing certain specific skills, they also on occasion have indicated an inability to recruit skilled workers and young professionals to move to the region to accept employment. Accordingly, the region has a need to continue to upgrade the skills of its existing labor force (including those younger persons entering the labor force), to address both existing employer needs and the need to have workers with the knowledge-based skills that will increasingly be in demand in the future. The region must anticipate the skills needed by tomorrow’s companies in order to train the labor force in the skills needed to attract technology-based businesses. The region



must work aggressively to develop a high-tech, high-skill labor force that can catalyze the growth of the region's technology business sector.

Although this is a supply side problem, in practice it also creates demand side issues. With few high-tech, high-skill jobs available in technology-oriented companies within the region, residents who go to school to develop such skills or who gain them in the workplace typically leave the region in search of employment. A relatively low-tech-skill labor pool results in high-tech firms avoiding the region, while the shortage of high-tech firms prevents a high-skill labor pool from developing. This self-reinforcing cycle constrains business development.

However, the need to develop a high-skill labor pool in order to develop a knowledge-based technology-based economy is not the only labor force need. A 2012 National Education Association report examined the job distribution of the U.S. labor force and students' academic and career paths and presents the following key findings:

- The vast majority (70%) of the U.S. Labor force do not have a bachelor's degree.
- Only one in four (26%) are currently working in high-skill jobs that normally require a bachelor's degree, while the remaining majority (74%) are working in middle-skill (42%) or low-skill jobs (32%) that typically require only some college, or even less, high school education.
- One-half (51%) of high school students do not go to college.
- Almost three out of ten (28%) do not graduate from high school.
- It is not easy to earn a college degree. Close to half of four-year college students do not complete a bachelor's degree within six years, while 70% of community college students fail to complete an associate's degree within three years.
- High school graduates have been taking fewer credits in vocational education since 1990, but they are taking more academic credits during the same time span.

The report indicates that the following conclusions may be derived from the above findings:

- While the nation has been emphasizing the importance of students getting college degrees, it is equally important to develop policies to provide more high-quality vocational education in high schools, given that more than two-thirds of the jobs in the nation do not require a bachelor's degree.
- Enhanced vocational education at the high school level would provide an alternate career path to one-half of the student population who have chosen not to go to college.
- Well-developed vocational education programs should help prevent students from dropping out and help them land a job soon after graduation, thereby potentially reducing a broad range of social, economic, and political problems.

In addition of a shortage of high-tech high-skill workers, our region also has a shortage of certain non-high-tech skilled workers (e.g., welders, CNC machine operators, etc.). This shortage also constrains business development in industry clusters dependent upon such labor skills. There is a need to educate and inform secondary school students and adults about career opportunities in skilled trades and provide them the vocational training to obtain employment in the skilled trades.

Overall, the region's workforce is productive with a good work ethic, relative to other regions. However, there are issues with respect to basic employment skills, certain vocational skills, and certain advanced technical skills.



• **Employment / Unemployment**

Historically, the region typically has experienced higher unemployment rates compared to the State and the nation as a whole. Additionally, the region has a significant amount of under-employed labor force, due to job dislocations and the regional economy’s shift away from high-skilled, high-wage manufacturing jobs. However, certain geographic segments, certain sectors, and certain industry clusters in the region have experienced less cyclical variability in labor force, employment, and unemployment, than have the State and nation as a whole.

The tables on the following two pages provide time series labor force, employment, unemployment, and unemployment rate data for the three counties, region, State and nation between 1990 and 2018. Consistent with the region’s decreasing population, the size of the region’s labor force decreased between 1990 and 2018. However, the size of the region’s labor force was fairly constant between 1990 and 2010, with by far the bulk of the loss of the region’s labor force occurring since 2010. Interestingly, between 1990 and 2018, the size of the State and nation’s labor force grew.

Employment in the region has decreased between 2000 and 2018. Over that same period, employment at the State and national levels generally increased overall, the exception being a decrease in employment at the State level from 2017 to 2018.

The unemployment rate in the region for many decades often has exceeded the unemployment rate of both the State and nation. While there were exceptions to this general observation in the late 1990’s and early 2000’s, this once again has been uniformly true since 2015. In fact, during 2015 through 2017, the unemployment rate in the region has remained pretty much flat, while the unemployment rate in the State and nation have steadily decreased each year. Between 2017 and 2018, the unemployment rate in all three counties, the State, and nation as a whole decreased; however, the unemployment rate in all three counties remains significantly higher than the State and national unemployment rates.

In terms of county level labor force and employment, the tables indicate that the size of the counties’ labor forces mirrors the relative sizes of their populations. However, in 1990, the size of the labor force in the most populous county, Chautauqua County, was more than three times that of the least populous county, Allegany County. But at the end of the period, in 2018, that gap had lessened somewhat. Since 2010, as can be seen from the table below, county level population decreases have been mirrored by large decreases in the size of the county level labor force and total employment. However, reductions in county level population also has resulted in a decrease in unemployment, despite the reduction in employment.

Change in Population, Labor Force, Employment and Unemployment, 2010 to 2018

	<u>Population Change</u>	<u>Labor Force Change</u>	<u>Employment</u>	<u>Unemployment</u>
Allegany County	-3,497	-4,700	-3,600	-1,100
Cattaraugus County	-7,115	-5,700	-3,700	-2,000
Chautauqua County	-11,811	-8,900	-6,100	-2,900

Source: Population data is from the U.S. Census Bureau (www.statsamerica.org); labor force data is from the NYS Department of Labor

In terms of the unemployment rate, Allegany County historically has had the highest unemployment rate of the three counties. That trend continues in the interval years represented in the table on the second page following. All three counties experienced a decrease in the unemployment rate between 2010 and 2018.

**Labor Force, Employment, Unemployment, and Unemployment Rate
(Average Annual Figures for the Population Aged 16 Years and Older)**

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>% Change, 1990-2010</u>
Allegany County						
Labor Force	22,400	23,200	22,800	23,600	24,300	8.48%
Employed	20,900	21,400	21,700	22,200	22,100	5.74%
Unemployed	1,500	1,800	1,100	1,300	2,200	46.67%
Unemployment Rate (%)	6.50%	7.70%	4.90%	5.90%	9.10%	40.00%
% of Regional Labor Force	17.30%	17.78%	17.34%	17.81%	18.21%	5.26%
Cattaraugus County						
Labor Force	39,000	39,700	41,100	42,200	41,200	5.64%
Employed	36,500	36,700	39,300	39,900	37,500	2.74%
Unemployed	2,500	3,000	1,900	2,300	3,700	48.00%
Unemployment Rate (%)	6.30%	7.60%	4.50%	5.40%	9.10%	44.44%
% of Regional Labor Force	30.12%	30.42%	31.25%	31.85%	31.00%	2.92%
Chautauqua County						
Labor Force	68,100	67,600	68,100	67,200	64,800	-4.85%
Employed	64,200	63,600	65,400	64,000	59,100	-7.94%
Unemployed	3,900	4,000	2,700	3,300	5,700	46.15%
Unemployment Rate (%)	5.70%	5.90%	4.00%	4.90%	8.80%	54.39%
% of Regional Labor Force	52.59%	51.80%	51.79%	50.72%	48.61%	-7.57%
Southern Tier West Region						
Labor Force	131,490	130,500	131,500	132,500	130,300	-0.91%
Employed	121,600	121,700	126,400	125,600	118,700	-2.38%
Unemployed	7,900	8,800	5,700	7,500	11,600	46.84%
Unemployment Rate (%)	6.17%	7.07%	4.47%	5.40%	8.90%	44.25%
New York State						
Labor Force	8,808,900	8,676,800	9,167,000	9,421,400	9,586,900	8.83%
Employed	8,339,800	8,125,800	8,751,400	8,947,100	8,762,300	5.07%
Unemployed	469,100	551,000	415,500	474,300	824,700	75.80%
Unemployment Rate (%)	5.30%	6.40%	4.50%	5.00%	8.60%	62.26%
United States						
Civilian Labor Force	125,840,000	132,304,000	142,583,000	149,320,000	153,885,100	22.29%
Employed	118,793,000	124,900,000	136,891,000	141,730,000	139,069,500	17.07%
Unemployed	7,047,000	7,404,000	5,692,000	7,591,000	14,815,400	110.24%
Unemployment Rate (%)	5.60%	5.60%	4.00%	5.10%	9.63%	71.49%

Source: NYS Department of Labor; U.S. data is from the U.S. Bureau of Labor Statistics

(Additional Labor Force time series data continues on next page)

Labor Force, Employment, Unemployment, and Unemployment Rate
(Average Annual Figures for the Population Aged 16 Years and Older, continued from prior page)

	<u>2010</u>	<u>2015</u>	<u>2017</u>	<u>2018</u>	<u>% Change, 2015-2018</u>
Allegany County					
Labor Force	24,200	20,500	19,900	19,500	-4.9%
Employed	22,000	19,100	18,500	18,400	-3.7%
Unemployed	2,200	1,300	1,300	1,100	-15.4%
Unemployment Rate (%)	9.2%	6.5%	6.7%	5.6%	-13.8%
% of Regional Labor Force	18.9%	18.0%	18.0%	18.0%	-0.2%
Cattaraugus County					
Labor Force	39,700	35,400	34,700	34,000	-4.0%
Employed	35,900	33,200	32,500	32,200	-3.0%
Unemployed	3,800	2,200	2,200	1,800	-18.2%
Unemployment Rate (%)	9.5%	6.3%	6.2%	5.3%	-15.9%
% of Regional Labor Force	31.1%	31.1%	31.4%	31.3%	0.8%
Chautauqua County					
Labor Force	63,900	57,900	55,900	55,000	-5.0%
Employed	58,300	54,400	52,500	52,200	-4.0%
Unemployed	5,700	3,500	3,400	2,800	-20.0%
Unemployment Rate (%)	8.9%	6.0%	6.1%	5.0%	-16.7%
% of Regional Labor Force	50.0%	50.9%	50.6%	50.7%	-0.4%
Southern Tier West Region					
Labor Force	130,300	113,500	110,500	108,500	-4.4%
Employed	118,700	106,500	103,500	102,800	-3.5%
Unemployed	11,700	7,000	6,900	5,700	-18.6%
Unemployment Rate (%)	9.2%	6.2%	6.2%	5.3%	-15.3%
New York State					
Labor Force	9,595,400	9,644,600	9,704,700	9,574,700	-0.7%
Employed	8,769,700	9,136,200	9,249,200	9,181,100	0.5%
Unemployed	825,600	508,500	455,500	393,600	-22.6%
Unemployment Rate (%)	8.60%	5.3%	4.7%	4.1%	-22.6%
United States					
Civilian Labor Force	153,889,000	157,130,000	160,320,000	162,075,000	3.1%
Employed	139,064,000	148,834,000	153,337,000	155,761,000	4.7%
Unemployed	14,825,000	8,296,000	6,982,000	6,314,000	-23.9%
Unemployment Rate (%)	9.6%	5.3%	4.4%	3.9%	-26.4%

Source: NYS Department of Labor; U.S. data is from the U.S. Bureau of Labor Statistics (www.statsamerica.org)



The following table excerpts the unemployment rates from the above tables.

Unemployment Rates (Summary)

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2017</u>	<u>2018</u>
Allegany County	6.5%	7.7%	4.9%	5.9%	9.2%	6.5%	6.7%	5.6%
Cattaraugus County	6.3%	7.6%	4.5%	5.4%	9.5%	6.3%	6.2%	5.3%
Chautauqua County	5.7%	5.9%	4.0%	4.9%	8.9%	6.0%	6.1%	5.0%
New York State	5.3%	6.4%	4.5%	5.0%	8.60%	5.3%	4.7%	4.1%
United States	5.6%	5.6%	4.0%	5.1%	9.6%	5.3%	4.4%	3.9%

Source: NYS Department of Labor; U.S. data is from the U.S. Bureau of Labor Statistics

Using a different dataset, the following table summarizes annual average employment data in 2018 and indicates the same relative changes in employment in the three counties in the 5- and 10-year periods ending in 2018.

Annual Total Covered Employment in NAICS Sub Categories, 2018

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>
Employed	18,365	32,200	52,227
5-Year % Change	-16.6 %	-7.6 %	-5.7 %
10-Year % Change	-18.7 %	-17.9 %	-17.9 %

Source: US Bureau of Labor Statistics (www.statsamerica.org)

The table below provides data on sector trends for regional employment. Employment in goods producing sectors, and especially manufacturing, has been decreasing significantly over the past 27 years in the region. Other sectors that have experienced employment losses over this period are natural resources, mining and construction; trade, transportation, and utilities; information; financial activities, and other services. Sectors that have experienced employment growth over this period are primarily service sectors, including professional and business services; education and health services; leisure and hospitality; and government. There are differences at the individual county level; please see the individual county data in the Appendix.

STW Region Employment by Sector
(1,000's)

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Total Nonfarm	105.1	104.5	110.3	108.3	105.6	99.3	98.3	97.4
Total Private	83.9	82.9	85.6	82.2	79.0	74.6	73.7	72.7
Goods Producing	30.4	26.0	25.8	21.5	19.5	18.1	17.5	17.0
Service-Providing	74.7	78.5	84.5	86.8	86.0	81.2	80.8	80.5
Private Service-Providing	53.5	56.8	59.8	60.8	59.6	56.6	56.3	55.7
Natural Resources, Mining and Construction	3.7	2.9	3.1	3.1	3.9	2.9	2.9	2.9
Manufacturing	26.7	23.0	22.7	18.4	15.6	15.2	14.7	14.2
Trade, Transportation, and Utilities	18.4	18.2	18.1	17.8	15.8	15.5	15.2	14.8
Information	1.9	1.5	1.4	1.3	1.0	0.9	0.8	0.8
Financial Activities	2.6	2.4	2.5	2.5	2.5	2.4	2.4	2.4
Professional and Business Services	3.9	5.2	5.7	5.2	5.4	5.3	4.9	4.7
Education and Health Services	13.6	15.6	16.6	17.9	19.8	19.2	19.7	19.9
Leisure and Hospitality	9.0	9.3	9.9	9.9	9.3	10.1	10.1	9.8
Other Services	4.2	4.7	5.5	6.1	5.8	3.2	3.3	3.4
Government	21.2	21.6	24.8	26.1	26.5	24.5	24.5	24.8

Source: New York State Department of Labor; regional calculations by Southern Tier West

The appendix provides time series employment data (1990 – 2017) for the above sectors at the individual county level, which is very useful in looking at the individual counties' county-level economy.

The table below provides data related to sector earnings in various industries at the county level in 2016. This alternate “sectoral-earnings-based” approach provides a relatively simplistic indication of the importance of various industry sectors to the county level and regional economies. **In terms of earnings, the most important sectors in the region are:**

Manufacturing
Retail
Construction

However, more comprehensive data identifying more sharply defined significant county and regional industry clusters is presented later in this Technical Report. **In terms of industry cluster analysis, the most important sectors in the region are:**

Manufacturing
Retail
Educational services
Health care and social assistance
Arts, entertainment, and recreation
Accommodation and food services
Other services, excluding public administration
Public administration

At the county level, there are some differences, and certain sectors are more important in some counties than others, based on local differences.

Bureau of Economic Analysis (BEA) NAICS Major Sector Earnings in 2017 (by place of work, \$000)

BEA Industry Sector / Name	Allegany County	Cattaraugus County	Chautauqua County
Earnings by place of work - 35	\$838,023	\$1,839,392	\$2,971,916
Wage and salary disbursements - 50	\$535,909	\$1,207,576	\$1,968,203
Proprietors' income - 70	\$87,348	\$185,106	\$336,630
Farm proprietors' income - 71	\$7,472	\$2,535	\$32,087
Nonfarm proprietors' income - 72	\$79,876	\$182,571	\$304,543
Farm earnings - 81	\$12,900	\$10,885	\$52,994
Nonfarm earnings - 82	\$825,123	\$1,828,507	\$2,918,922
Private earnings - 90	\$518,641	\$1,156,055	\$2,201,423
Forestry, fishing, related activities, and other - 100	\$3,331	\$3,457	\$13,571
Mining - 200	\$2,668	\$8,384	\$6,668
Utilities - 300	\$7,376	\$10,309	\$32,495
Construction - 400	\$60,858	\$85,654	\$151,784
Manufacturing - 500	\$131,794	\$270,916	\$675,060
Retail Trade - 700	\$42,737	\$147,214	\$225,916
Transportation and warehousing - 800	\$14,848	\$28,013	\$63,675
Information - 900	\$3,391	\$13,640	\$31,024

Source: U.S. Bureau of Economic Analysis (BEA) (www.statsamerica.org)

D = Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

L = Less than 10 jobs, but the estimates for this item are included in the totals.

N/A = Not available or not applicable.

* = "Other" consists of the number of jobs held by U.S. residents employed by international organizations and foreign embassies and consulates in the United States.

- **Income Levels**

The region historically has experienced low per capita incomes in comparison with State and national per capita incomes. In addition to negatively impacting the quality of life of employees and residents in the region, the region's low relative per capita income and median household income and afford residents and entrepreneurs little equity capital to invest in the regional economy, an obstacle to regional economic development.

Total Personal Income and Employment by Major Component (2017)

Description	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>
Income by place of residence (thousands of dollars)			
Personal income	1,591,664	2,989,066	5,113,310
Nonfarm personal income 1/	1,579,705	2,979,633	5,063,930
Farm income 2/	11,959	9,433	49,380
Population (persons) 3/	46,894	77,348	129,046
Per capita personal income (dollars) 4/	33,942	38,644	39,624
Derivation of personal income (thousands of dollars)			
Earnings by place of work	838,023	1,839,392	2,971,916
Less:			
Contributions for government social insurance 5/	98,266	211,514	353,225
Employee and self-employed contributions for government social insurance	52,120	110,128	181,235
Employer contributions for government social insurance	46,146	101,386	171,990
Plus:			
Adjustment for residence 6/	122,513	36,407	184,603
Equals: Net earnings by place of residence	862,270	1,664,285	2,803,294
Plus: Dividends, interest, and rent 7/	239,202	449,690	753,447
Plus: Personal current transfer receipts	490,192	875,091	1,556,569
Components of earnings by place of work (thousands of dollars)			
Wages and salaries	535,909	1,207,576	1,968,203
Supplements to wages and salaries	214,766	446,710	667,083
Employer contributions for employee pension and insurance funds 8/	168,620	345,324	495,093
Employer contributions for government social insurance	46,146	101,386	171,990
Proprietors' income 9/	87,348	185,106	336,630
Farm proprietors' income	7,472	2,535	32,087
Nonfarm proprietors' income	79,876	182,571	304,543
Employment (number of jobs)			
Total employment	19,111	38,308	64,247
Wage and salary employment	14,102	30,426	50,746
Proprietors employment	5,009	7,882	13,501

Source: US Bureau of Economic Analysis

Notes:

1/ Nonfarm personal income is total personal income less farm income.

2/ Farm income is farm earnings less farm employer contributions for social insurance.

3/ Census Bureau midyear population estimates. Estimates for 2010-2017 reflect county population estimates available as of March 2018.

4/ Per capita personal income is total personal income divided by total midyear population.

5/ Employer contributions for government social insurance are included in earnings by industry and earnings by place of work, but they are excluded from net earnings by place of residence and personal income. Employee and self-employed contributions are subtractions in the calculation of net earnings by place of residence and all of the income measures.

6/ The adjustment for residence is the net inflow of the earnings of interarea commuters. For the United States, it consists of adjustments for border workers and US residents employed by international organizations and foreign embassies.

7/ Rental income of persons includes the capital consumption adjustment.

8/ Includes actual employer contributions and actuarially imputed employer contributions to reflect benefits accrued by defined benefit pension plan participants through service to employers in the current period.

9/ Proprietors' income includes the inventory valuation adjustment and the capital consumption adjustment.

Note-- All dollar estimates are in current dollars (not adjusted for inflation). Statistics presented in thousands of dollars do not indicate more precision than statistics presented in millions of dollars.

Last updated: March 6, 2019 -- revised statistics for 1969-2000.

Some numbers may not match published or USA Counties in Profile numbers exactly because rates and other figures may be recalculated.

The above table provides a description of the relationship between earnings by place of work and income by place of residence.

The next three tables provide a time series of per capita personal income for the three counties, both in absolute terms and in comparison with the State and nation. In all cases, per capita personal income in the region's counties is less than State and national per capita personal income levels. The gap between county per capita personal incomes and State per capita personal incomes is greater than the gap between county per capita personal incomes and national per capita personal incomes. The trend was for regional per capita personal income levels as a percentage of State per capita personal incomes to decline between 1980 and 2000 (with 1995 being an anomaly), followed by regional per capita personal income levels generally increasing as a percentage of State per capita personal incomes between 2000 and 2010, followed by a significant decrease in regional per capita personal income levels generally increasing as a percentage of State per capita personal incomes in 2016. The same general trends also are true for regional per capita personal income levels as a percentage of national per capita personal income levels between 1970 and 2000, the increasing from 2000 to 2005 to 2010, then decreasing significantly in 2017.

Per Capita Personal Income

	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2017</u>
Allegany County	\$3,216	\$4,510	\$ 6,968	\$ 9,667	\$13,495	\$16,289	\$19,758	\$23,194	\$28,527	\$33,942
Cattaraugus County	\$3,324	\$4,915	\$ 7,619	\$10,921	\$14,821	\$17,690	\$21,801	\$27,698	\$34,860	\$38,644
Chautauqua County	\$3,717	\$5,350	\$ 8,519	\$12,198	\$15,625	\$18,573	\$21,977	\$25,981	\$31,628	\$39,624
Southern Tier West Region	\$3,516	\$5,069	\$7,965	\$11,350	\$14,991	\$17,884	\$21,519	\$25,989	\$32,035	\$38,272
New York	\$4,935	\$7,066	\$10,994	\$16,796	\$23,986	\$27,604	\$35,307	\$41,578	\$49,582	\$65,392
United States	\$4,196	\$6,312	\$10,150	\$14,717	\$19,584	\$23,551	\$30,587	\$35,888	\$40,144	\$51,731

Per Capita Personal Income as a Percentage of NYS Per Capita Personal Income

	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2017</u>
Allegany County	65.17%	63.83%	63.38%	57.56%	56.26%	59.01%	55.96%	55.78%	57.53%	51.91%
Cattaraugus County	67.36%	69.56%	69.30%	65.02%	61.79%	64.08%	61.75%	66.62%	70.31%	59.10%
Chautauqua County	75.32%	75.71%	77.49%	72.62%	65.14%	67.28%	62.25%	62.49%	63.79%	60.59%
Southern Tier West Region	71.25%	71.74%	72.45%	67.58%	62.50%	64.79%	60.95%	62.51%	64.61%	58.53%

Per Capita Personal Income as a Percentage of US Per Capita Personal Income

	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2017</u>
Allegany County	76.64%	71.45%	68.65%	65.69%	68.91%	69.16%	64.60%	64.63%	71.06%	65.61%
Cattaraugus County	79.22%	77.87%	75.06%	74.21%	75.68%	75.11%	71.28%	77.18%	86.84%	74.70%
Chautauqua County	88.58%	84.76%	83.93%	82.88%	79.78%	78.86%	71.85%	72.39%	78.79%	76.60%
Southern Tier West Region	83.79%	80.31%	78.47%	77.12%	76.55%	75.94%	70.35%	72.42%	79.80%	73.98%

Source for above three tables: U.S. Bureau of Economic Analysis (www.statsamerica.org)

Note: All dollar estimates are in current dollars (not adjusted for inflation).

Last updated: July 2019

The following table provides a snapshot view of per capita personal income in 1985 and 2016, and two intervening interval years. It also provides percentage increases in per capita personal income over various interval ranges and provides an indication of each county's per capita personal income as a percentage of the nation's per capita personal income over these intervals. The differing volatility of each county's per capita personal income as a percentage of the nation's per capita personal income over these intervals stands out.

Per Capita Personal Income (PCPI)

	<u>Allegany County</u>		<u>Cattaraugus County</u>		<u>Chautauqua County</u>	
	<u>Number</u>	<u>Percent of U.S.</u>	<u>Number</u>	<u>Percent of U.S.</u>	<u>Number</u>	<u>Percent of U.S.</u>
2017	\$33,942	65.7%	\$38,644	74.8%	\$39,624	76.7%
2007	\$25,044	62.9%	\$29,251	73.4%	\$28,000	70.3%
1997	\$17,536	67.6%	\$19,349	74.6%	\$19,709	75.9%
1987	\$11,001	67.6%	\$12,319	75.7%	\$13,232	81.4%
10-Year % Change	35.5%		32.1%		41.5%	
20-Year % Change	93.6%		99.7%		101.0%	
30-Year % Change	208.5%		213.7%		199.5%	

Source: U.S. Bureau of Economic Analysis (www.statsamerica.org)

The following table is revealing with respect to the three counties' per capita income levels in comparison with other counties in New York State. All three counties are ranked toward the bottom of the list, which is ordered in descending order of per capita personal income.

Per Capita Personal Income, New York State and Counties, 2017
(nominal dollars)

New York state total	64,540				
New York	175,960	Rensselaer	47,633	Chenango	41,118
Westchester	101,542	Queens	46,829	Montgomery	41,070
Nassau	84,763	Greene	46,210	Cayuga	40,797
Suffolk	65,758	Jefferson	45,069	Schuyler	40,458
Saratoga	65,288	Sullivan	44,707	Herkimer	40,320
Putnam	63,469	Wayne	44,332	Chautauqua	39,624
Rockland	58,133	Tioga	43,928	Cortland	39,465
Albany	58,048	Niagara	43,866	Schoharie	38,855
Richmond	54,908	Essex	43,857	Wyoming	38,825
Dutchess	54,093	Steuben	43,528	Washington	38,783
Columbia	53,436	Oneida	43,198	Oswego	38,671
Hamilton	52,436	Livingston	43,071	Cattaraugus	38,644
Ontario	51,321	Broome	42,825	Yates	38,601
Monroe	50,894	Lewis	42,814	Delaware	37,981
Warren	50,690	Clinton	42,720	Orleans	37,736
Onondaga	50,244	Chemung	42,577	Seneca	37,037
Orange	50,113	Madison	42,380	Franklin	36,617
Schenectady	49,389	Tompkins	42,373	St. Lawrence	36,371
Erie	49,330	Genesee	42,365	Bronx	35,564
Ulster	48,811	Fulton	42,020	Allegany	33,942
Kings	48,758	Otsego	41,941		

Ranks:

Chautauqua County	48 th out of 62 counties
Cattaraugus County	54 th out of 62 counties
Allegany County	62 nd out of 62 counties

Source: U.S. Bureau of Economic Analysis, 2017

Median income seems to be deteriorating in comparison to the nation as a whole, as can be seen from the following table.

	Allegany County		Cattaraugus County		Chautauqua County	
	Number	Percent of U.S.	Number	Percent of U.S.	Number	Percent of U.S.
	Median Household Income (2017)	\$46,491	77.1%	\$47,875	79.3%	\$45,840
Median Household Income (2000)	\$32,876	78.3%	\$34,673	82.6%	\$34,422	82.0%
Percent Change from 2000 to 2017	41.4%		38.1%		33.2%	

Source: U.S. Census Bureau (www.statsamerica.org)

The region historically has experienced average sectoral wage levels that are lower than analogous average sectoral wage levels in other parts of the State. The following table showing select average sectoral wages in 2017 demonstrates this.

	Allegany County	Cattaraugus County	Chautauqua County	New York
Covered Employment	13,336	29,288	48,701	9,275,006
Average Wage per Job	\$38,294	\$39,519	\$38,737	\$70,538
Manufacturing - % All Jobs	14.7%	11.4%	18.2%	4.8%
Average Wage per Job	\$52,245	\$63,979	\$53,600	\$65,911
Transportation & Warehousing - % All Jobs	1.5%	2.0%	2.7%	3.9%
Average Wage per Job	\$44,353	\$39,877	\$40,794	\$56,946
Health Care, Social Assist. - % All Jobs	11.3%	2.3%	15.9%	17.4%
Average Wage per Job	\$31,115	\$43,857	\$36,609	\$51,260
Finance and Insurance - % All Jobs	1.5%	2.2%	1.6%	5.5%
Average Wage per Job	\$38,173	\$58,554	\$50,536	\$234,994

Source: www.statsamerica.org

The following table provides similar average sectoral wage data by NAICS code in 2017. This data set is slightly different from the above table.

Average Wage by NAICS Industry Sector, 2017

	<u>Allegany</u>	<u>Cattaraugus</u>	<u>Chautauqua</u>	<u>STW Region</u>	<u>NYS</u>	<u>STW Region as a Percent of NYS</u>
Total	\$38,294	\$39,519	\$38,737	\$38,850	\$70,538	55.1%
Agriculture, Forestry, Fishing and Hunting	\$32,156	\$29,671	\$29,953	\$30,593	\$71,852	42.6%
Mining	\$43,555	\$51,128	\$42,395	\$45,693	\$35,125	130.1%
Utilities	\$91,666	\$122,830	\$97,039	\$103,845	\$65,669	158.1%
Construction	\$79,537	\$46,968	\$47,791	\$58,099	\$71,523	81.2%
Manufacturing	\$52,245	\$63,979	\$53,600	\$56,608	\$65,911	85.9%
Wholesale Trade	\$46,451	\$47,588	\$48,938	\$47,659	\$84,476	56.4%
Retail Trade	\$22,538	\$26,105	\$25,396	\$24,680	\$35,129	70.3%
Transportation & Warehousing	\$44,353	\$39,877	\$40,794	\$41,675	\$56,946	73.2%
Information	\$22,731	\$49,437	\$38,396	\$36,855	\$119,554	30.8%
Finance and Insurance	\$38,173	\$58,554	\$50,536	\$49,088	\$117,203	41.9%
Real Estate and Rental and Leasing	\$27,504	\$26,379	\$31,041	\$28,308	\$234,994	12.0%
Professional, Scientific, and Technical Services	\$43,993	\$56,849	\$45,993	\$48,945	\$71,880	68.1%
Management of Companies and Enterprises	\$0	\$39,797	\$33,997	N/A	\$111,574	N/A
Admin/Support Waste Mgt/Rem. Services	\$0	\$49,359	\$25,006	N/A	\$147,739	N/A
Educational Services	\$43,367	N/A	\$51,629	N/A	\$50,818	N/A
Health Care and Social Services	\$31,115	\$43,857	\$36,609	\$37,194	\$59,294	62.7%
Arts, Entertainment, and Recreation	\$11,881	\$15,684	\$15,074	\$14,213	\$51,260	27.7%
Accommodation and Food Services	\$14,679	\$17,260	\$15,787	\$15,909	\$53,085	30.0%
Other Services (Except Public Administration)	\$19,470	\$23,906	\$21,825	\$21,734	\$27,652	78.6%
Public Administration	\$58,558	\$41,143	\$44,792	\$48,164	\$40,477	119.0%
Unallocated	\$27,010	\$20,354	\$18,983	\$22,116	\$66,416	33.3%

Notes:

1. "STW Region as a Percent of NYS" refers to the STW Region's average wage for each sector expressed as a percentage of the New York State average wage for that sector.
2. N/A = data not reported for this sector in this county; regional average wage calculation does not include this county.
3. STW Region average wages are averages of the three county average wages in each sector, unadjusted for number of workers in those sectors in each county.

Source: US BLS via www.statsamerica.org. STW Region average wages are prepared by Southern Tier West.

The region is experiencing individual poverty rates that are above State and national levels. This has been true over time.

Poverty Levels, Percentage of Individuals in Poverty

	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2016</u>
Allegany County	15.5%	16.7%	16.5%	18.4%
Cattaraugus County	13.7%	15.1%	16.0%	14.6%
Chautauqua County	13.8%	16.2%	17.1%	19.2%
New York	14.6%	14.0%	14.2%	14.7%
USA	12.4%	13.3%	13.8%	12.7%

Source: US Census Bureau

Poverty Estimates

	<u>Allegany County</u>		<u>Cattaraugus County</u>		<u>Chautauqua County</u>	
	<u>Number</u>	<u>Percent Change</u>	<u>Number</u>	<u>Percent Change</u>	<u>Number</u>	<u>Percent Change</u>
Poverty Rate in 2017	16.3%	--	15.8%	--	17.7%	--
Poverty Rate In 2000	15.4%	5.8%	12.8%	23.4%	13.5%	31.1%
Poverty Rate for Children under 18 in 2017	25.0%	--	23.4%	--	27.5%	--
Poverty Rate for Children under 18 In 2000	20.9%	19.6%	18.3%	27.9%	19.7%	39.6%

Source: U.S. Census Bureau (www.statsamerica.org)

The region also is experiencing relatively high public assistance and income assistance burdens, although the incidence of social service transfer payments is lower than it had been several decades ago in the past.

Percentage of Population Receiving Public Assistance, 2016

	<u>With Supplemental Security Income</u>	<u>With Cash Public Assistance Income</u>	<u>With Food Stamp (Snap) Benefits in the Past 12 Months</u>
Allegany County	7.7%	3.8%	15.9%
Cattaraugus County	7.5%	2.5%	17.7%
Chautauqua County	7.4%	4.6%	18.9%
New York State	6.3%	3.4%	15.4%
USA	5.4%	2.7%	13.0%

Source: U.S. Census Bureau, American Community Survey



- **Environmental, Geographic, Climatic, Cultural, Historic Preservation, and Natural Resource Profile**
 - **Environmental profile**

With respect to considering an environmental baseline for the region, which would identify environmental elements that may affect and/or constrain the regional economy, it should be noted that the region is a mix of developed and undeveloped lands, which have issues environmental issues specific to their type, and, within type, have issues that are unique to specific locations. It is too complex a matter to identify one specific environmental baseline that is appropriate for all locales within the region. However, it can be said that in all cases, the region is interested in economic development that is consistent with sound environmental, preservation, and conversation practices.

The region has a number of physical environmental assets that provide economic opportunity, including outdoor recreational assets; water resources; timber resources; oil, gas, gravel, and mineral resources; and arable soils and land available for cultivation. These resources normally may be found in the less populated areas of the region. The individual counties have designated agricultural districts to encourage the continued use of farmland for agricultural production. This designation is done per a New York State program and provides both landowner incentives and protections, all of which are designed to prevent the use of designated farmland for non-agricultural uses. The program's benefits include preferential real property tax treatment (agricultural assessment and special benefit assessment) and protections against overly restrictive local laws, government funded acquisition or construction projects, and private nuisance suits involving agricultural practices. The Appendix contains maps of each county's agriculture districts.

The region also is sensitive to a number of actual or potential threats to the ongoing availability of these physical environmental assets and resources, from both quality of life and economic development perspectives. These threats include pollution, sprawl, overutilization, and inappropriate utilization.

There is too large a body of relevant published literature for the region to cite specific environmental factors in this CEDS, as many such factors vary in their relevance with location. However, the reader is directed to certain specific reference documents in the bibliography included in this CEDS, and to publications provide by environmental regulators at the local, state and federal levels, including the U.S. Environmental Protection Agency (EPA); the U.S. Fish & Wildlife Service (USFWS); the U.S. Department of Energy Office of Environmental Management (DOE OEM); the New York State Department of Environmental Conservation (NYS DEC); the New York State Office of Parks, Recreation, and Historic Preservation (NYS OPRHP); and the Seneca Nation of Indians departments of Conservation, Environmental Protection, Community Planning and Development, and Historic Preservation. Again, many such relevant environmental factors are localized factors specific to specific sites.

Several comments can be made regarding the specific regulatory missions of these organizations as they affect economic development, and the types of publications that they provide that may be relevant to economic development in the region.

The U.S. Environmental Protection Agency (EPA, <http://www.epa.gov/>) has a mission to protect human health and the environment. It does so by enforcing laws passed by Congress and by drafting, promulgating and enforcing environmental regulations. EPA also provides grants to fund New York State environmental programs and programs sponsored by certain non-profits, educational institutions, and other organizations. EPA has a number of publications related to its primary focus areas of brownfield remediation, climate change, green living, green infrastructure, water quality, air quality, pesticides, toxic and hazardous substances, hazardous and non-hazardous waste, and sustainability. EPA provides a database of environmental information searchable by zip code at <http://www.epa.gov/myenvironment>. EPA also provides resource materials for local officials and community members at <http://www2.epa.gov/communities>. In particular, EPA provides a link to on this page to the National Resource Network (NRN, <http://www.nationalresourcenetwork.org/en/home>), which provides information and technical assistance to support economic growth and revitalization in communities.

The U.S. Fish & Wildlife Service (USFWS, <http://www.fws.gov/>) has a mission to conserve, develop, and manage fish and wildlife resources. USFWS manages species covered by the Endangered Species Act (ESA); see <http://www.fws.gov/angered/>. USFWS also issues regulations to implement the ESA. USFWS also provides grants for certain species and habitat conservation programs and projects. USFWS has a variety of programs and



arrangements relevant to landowners interested in undertaking activities on their lands, related to species and habitat conservation.

The U.S. Department of Energy Office of Environmental Management (DOE OEM, <http://energy.gov/em/office-environmental-management>) addresses the nation's environmental considerations resulting from decades of nuclear weapons production and government-sponsored nuclear energy research. In the region, these issues are specifically relevant to northern Cattaraugus County, which is the location of the West Valley Demonstration Project (WVDP, <http://www.wv.doe.gov/>). The WVDP focuses on the cleanup and containment of radioactive waste left behind after the abandonment in 1980 of a commercial nuclear fuel reprocessing plant. The project is a cooperative effort between the United States Department of Energy and the New York State Energy Research and Development Authority (NYSERDA). Ongoing since 1980, much cleanup work remains to be done, and remaining contamination continues to pose a threat to water quality and public health. The WVDP focuses on 200 acres of the larger, approximately 3,300-acre Western New York Service Center, which is owned by NYSERDA. A nuclear fuel reprocessing center was operated at the Western New York Service Center site from 1966 to 1972. Radioactive waste from atomic weapons and commercial nuclear power plants was shipped there from other regions of the U.S. The nuclear waste must be removed from the site, or at minimum stored properly, so that it will not eventually leak into the region's creeks and migrate to the Great Lakes, contaminating the drinking water for millions of people in Western New York and southern Ontario. Local preference is for removal of all waste and contamination to be removed from the site.

The New York State Department of Environmental Conservation (NYS DEC, <http://www.dec.ny.gov/>) is New York State's environmental protection and regulatory agency. The New York State Environmental Conservation Law (ECL) established NYS DEC and authorizes NYS DEC's programs. NYS DEC further defines the ECL by drafting, promulgating and enforcing environmental regulations. The ECL and NYS DEC regulations include provisions related to fish and wildlife, lands and forests, air quality and water pollution, pesticides, solid wastes and solid waste management, landfills, hazardous wastes and hazardous waste management, remediation, radiation pollution, mineral resources and mined land reclamation, noise, permits, environmental justice, land use, water quality and water pollution, State Environmental Quality Review (SEQR), and the participation of minorities and women as workers and businesses in programs funded or assisted by the New York State Environmental Quality Bond Act of 1986. The ECL also contains specific references and provisions to the following drainage basins in the region: Conewango Creek, French Creeks and Brokenstraw Creeks Drainage Basins; Olean Creek Drainage Basin; Allegheny River Drainage Basin; Genesee River Drainage Basin; Silver Creek Drainage Basin; Cattaraugus Creek Drainage Basin; and the Lake Erie (West End) Drainage Basin.

The NYS DEC regulates and issues permits for commercial fishing and aquaculture activities, wastewater treatment, water withdrawal and distribution, oil and gas wells, mining of minerals/sand/gravel, storage of petroleum and chemicals, applications of pesticides, air emissions permits, dry cleaning operations, and solid/hazardous/electronic/radioactive waste management and recycling. The NYS DEC also makes funding available for approved projects in the following areas: water quality improvement projects, air quality improvement projects, wetlands restoration projects, solid waste recovery and management projects, environmental conservation programs and activities, environmental management councils, conservation advisory councils, and green building tax credits.

The NYS DEC publishes a number of publications related to

- Outdoor recreation – hunting, trapping, fishing, boating, camping and places to visit
- Chemical and pollution control – includes policy documents, regulations, and requirements for use by the public and by regulated facilities, relating to air quality/pollution, acid rain, water quality/pollution, wastewater and other point source pollution discharge (waste management), stormwater management, brownfields chemical storage, recycling, pesticides, radiation, mercury and pollution prevention.
- Lands and waters – includes information on NYS DEC's regulations and policy advice pertaining to managing forest land; open space; lakes, rivers and watersheds; water supply and conservation; and mining and land reclamation



- Energy – includes information on NYS DEC’s regulations and policy advice pertaining to oil, gas and solution mining, and other regulated well types

The NYS DEC maintains GIS-based data sets for the following categories that may impact the regional economy:

- Watersheds – indicates locations where construction activity may be covered and therefore constrained under the NYS DEC’s State Pollutant Discharge Elimination Discharge System (SPDES) General Permit Requirements for Storm Water Discharges from Construction Activity
- Accessible recreation sites, lands, and campgrounds throughout New York State that are owned, maintained or jointly managed by NYS DEC
- Citizens Statewide Lake Assessment Program – indicates locations and water quality assessments of the lakes participating in the Citizen Statewide Lake Monitoring Assessment Program (CSLAP). CSLAP is a volunteer lake monitoring and education program that is managed by DEC and New York State Federation of Lake Associations (NYSFOLA). Lake quality may indicate suitability for outdoor recreational uses.
- Air quality monitoring
- Ecological regional zones of New York State
- Mining data
- Oil, gas, and other regulated wells – indicates locations of oil, gas, storage, solution salt, stratigraphic, geothermal, and other service wells
- Hydrology data
- Natural heritage community occurrences – indicates occurrences of rare or high-quality natural communities (ecological communities, i.e., flora), as recorded by the New York Natural Heritage Program.
- Potential environmental justice areas
- Primary aquifers (i.e., classified as highly productive aquifers presently being utilized as sources of water supply by major municipal water supply systems)
- Unconsolidated aquifers – These aquifers are those in upstate NY that consist of sand and gravel and yield large supplies of water to wells. Bedrock aquifers, although significant in some areas, are not addressed here. Together with the NYS Geological Survey surficial and bedrock geology maps, these maps form a consistent set of geologic and groundwater maps for use in regional management of the groundwater resources of the State.
- Regulatory freshwater wetlands – indicates the locations of wetlands, on which development may be constrained or prohibited
- Remediation sites in New York State – indicates sites which have had or are currently undergoing cleanup under the oversight of NYS DEC. This includes single point locations of sites which are currently included in one of the Remedial Programs being overseen by the NYS DEC Division of Environmental Remediation. The NYS DEC classifies six sites in Cattaraugus County as “Class 2 Superfund” sites, meaning they pose a current threat to human health and are being remediated.
- Water Inventory/Priority Waterbodies List – The Waterbody Inventory/Priority Waterbodies List (WI/PWL) is an inventory of the state's surface water quality. The WI/PWL provides a summary of general water quality conditions, tracks the degree to which a water body supports its designated uses, and monitors progress toward the identification and resolution of water quality problems, pollutants, and sources. The WI/PWL reports are produced for each of the 17 major drainage basins in the state on a schedule that allows each to be updated every 5 years. The review and updating of these reports include a public participation component. The data are displayed in four themes, representing the types of water bodies included on the WI/PWL. They include Shoreline, Rivers/Streams, Lakes/Reservoirs, and Estuary.



- Water quality classifications – indicates the water quality classifications of New York State's lakes, rivers, streams and ponds, collectively referred to as water bodies. All water bodies in the state are provided a water quality classification based on existing, or expected best usage, of each water body or water body segment. Under New York State's Environmental Conservation Law (ECL), Title 5 of Article 15, certain waters of the state are protected on the basis of their classification; certain streams and small water bodies located in the course of a stream that are designated as "protected streams."
- Water wells and water withdrawals – indicates locations and attributes for water wells and water withdrawals in New York State. The State requires a NYS DEC permit and annual usage reporting for all facilities using water for any purpose and having the capacity to withdraw 100,000 gallons or more per day of surface or groundwater. These facilities may or may not be permitted with other agencies that regulate water supplies in the State.

The New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP, <http://parks.ny.gov/>) has several primary areas of focus, as is suggested by its name. According to the NYS OPRHP web site, the overall mission of NYS OPRHP is to provide safe and enjoyable recreational and interpretive opportunities for all New York State residents and visitors and to be responsible stewards of the State's valuable natural, historic and cultural resources. The NYS OPRHP is responsible for conserving, protecting and enhancing these resources for public enjoyment today and into the future. The NYS OPRHP owns more than 225 properties across the State, offering visitors a variety of campgrounds, swimming beaches, golf courses, swimming pools, nature centers and more than 1,400 miles of trails. These properties are also home to a variety of plant and animal life. Approximately 90% of NYS OPRHP's properties remain natural, with natural lakes, streams, rivers, ocean beaches and dunes, as well as scenic waterfalls, gorges, springs and bluffs.

- The NYS OPRHP Environmental Management Bureau (EMB) assists in the responsible stewardship of the State's natural resources. The EMB assists in protecting outdoor resources such as water and land; plants and animals; the environmental health and safety of patrons and employees; and in ensuring compliance with environmental laws and regulations. The EMB works in three general program areas: natural resource stewardship, environmental compliance with various environmental laws, such as the State Environmental Quality Review Act (SEQR) and the State Agency Environmental Audit, and environmental health (limited to water quality in state parks, including drinking water, bathing beach, and pool water quality).
- The Historic Preservation Division oversees historic preservation in New York State, and it is comprised of:
 - the Bureau of Historic Sites, which provides technical and program support to New York's state parks and historic sites,
 - the Historic Preservation Field Services Bureau, which also acts as the New York State Historic Preservation Office (SHPO) and which manages all state and federal historic preservation programs that help communities, municipalities, and individuals identify, evaluate, preserve, protect, and revitalize their historic, archeological and cultural resources; and which administers both state and national historic preservation programs, including the New York State and National Registers of Historic Places, the historic rehabilitation tax credits, the Certified Local Government program, preservation planning, and environmental review, and
 - the NYS Heritage Area system (which is a state-local partnership established to promote special areas of natural, historic, and cultural significance across New York State).

According to NYS OPRHP's web site, historic preservation is recognized as playing an important function as an economic catalyst, and the "breadth and scope of historic resources and historic preservation in New York State spans over 400 years of history, and includes Natives Americans, founding fathers, architectural masterpieces, and small town and big city Main Streets and residential neighborhoods."



The Seneca Nation of Indians (SNI, <https://sni.org/>) has promulgated a number of laws, ordinances and codes dealing with hunting, fishing, conservation, environmentally impactful activities, sand and gravel, and solid waste. These various regulations are enforced through two specific departments within the SNI:

- The SNI Environmental Protection Department provides a wide array of services for the SNI communities, along with regulating and permitting environmentally sensitive issues within all territories of the SNI. The Department protects the natural environment of the SNI territories, restores and enhances environmental quality in areas that have been subject to degradation, and ensures that no proposed development that might cause significant environmental degradation will be permitted prior to the completion of a thorough environmental review in which alternatives and mitigation measures are fully considered. The Department houses the following programs: Water and Air Quality Standards, Underground/Aboveground Storage Tanks, Wildlife Habitat, Solid Waste, NEPA, Brownfields, Pesticides and a regulatory permit section.
- The Allegany Tribal Utilities Department is responsible for the management and operation of drinking water production and transmission systems.

- **Geographic profile**

The region is comprised of three counties (Chautauqua, Cattaraugus, and Allegany), located in New York State. The region's total size is 3,467 square miles. The sizes of each of the three counties are as follows: Chautauqua, 1,062 square miles; Cattaraugus, 1,309 square miles; and Allegany, 1,030 square miles.

The region is bounded at the west by Lake Erie. At the western edge of the region, Chautauqua County is characterized by a somewhat flat plateau, giving rise to a more hilly terrain moving eastward into the heart of the region. In fact, most of the region has a hilly topography, which can limit the location and expansion of large scale enterprises requiring large amounts of flat land. The region is the northern-most region of the Appalachian Mountain range. The region's northern and eastern borders are other regions of New York State, with Buffalo to the direct north of the region. The region's southern border is the Commonwealth of Pennsylvania.

The region's primary land uses include forest/woodland and agriculture. There are significant amounts of acreage devoted to publicly owned forests, and, as noted above, a number of agricultural districts in each county of the region.

The region has two primary rivers flowing through it, the Allegany (sometimes spelled Allegheny) and the Genesee. There are three primary aquifers in the region

The region endorses smart growth concepts of avoiding sprawl into greenfield sites. However, development in existing municipal centers also can present challenges in terms of land availability, incompatible adjacent land uses, adequacy of infrastructure, transportation access, other negative environmental impacts, and environmental contamination.

- **Climatic profile**

The region's northern location and adjacency to the Great Lakes (Lake Erie) influences the climate and weather, and hence the economy. The region's climate is classified as humid continental, reflecting significant seasonal temperature differences, including hot and humid summers and cold winters.

The normal climate for the region includes a somewhat short season that can constrain or prohibit certain types of agricultural crop production. However, certain crops are economically feasible to cultivate, and certain types of agricultural sector activity, e.g., livestock and timber, thrive in the region's climate.

Winters can be harsh, which can negatively impact transportation, and which can increase heating costs and hence business operating costs. Lake effect snow falls are heaviest in the western part of the region, due to its proximity to Lake Erie. However, this winter snowfall has led to a healthy winter-based recreational economy, which includes skiing and snowmobiling. New York State averages 40 inches of precipitation annually. This is a little higher along western Chautauqua County, due to lake effect snowfall.



○ Cultural profile

A region's cultural assets for economic development include a variety of assets, from the region's diversity to its cultural institutions and its cultural access.

Diversity can be a regional economic asset, as a diversified cultural base and accessibility to diverse cultures can broaden and enrich regional quality of life, making a region more attractive as a place to live and do business. Overall, however, the region is relatively homogeneous, and not very diverse in terms of racial diversity or diversity of place of origin. Nonetheless, the region also has significant ethnic diversity, and racial and ethnic diversity has been increasing in recent decades. The region's ethnic and racial communities reflect the history of the country as a whole, beginning with the original Native American communities, augmented over time with immigrant ethnic and racial immigration. The region was settled primarily by northern Europeans, which remain the region's primary population base. Until recently, the region's single largest minority population group was the Native American population group. However, in recent years, the region's African American population group has become larger in size than the Native American population group. The region also has other smaller yet significant racial and ethnic populations or communities, which tend to be clustered in small pockets, often within individual communities, but which most often are integrated into the larger local and regional communities.

As noted above, until recent years the region's largest single minority population group, and hence cultural group, has been its Native American population. The region is home to three territories (formerly known as "reservations") of the Seneca Nation of Indians totaling more than 60 square miles of land, which are loci of Native American population, although Native Americans reside throughout the region. The Allegany Territory, which includes most of the City of Salamanca, is located within Cattaraugus County. The Cattaraugus Territory is located in Cattaraugus, Chautauqua, and Erie Counties. The Oil Spring Territory is located in Allegany County.

The enrolled membership of the Seneca Nation continues to grow and currently stands at 8,313 members, based on matrilineal lineage (Seneca Nation of Indians Tribal Enrollment, May 2017). Among the Nation's territories, 4,310 enrolled members live on territorial lands, with a substantial portion of the remaining membership living in Western New York State (Seneca Nation of Indians Tribal Enrollment, May 2017). These counts are included in the region's population counts for all enrolled members who are residents of one of the three counties. As the only minority population group in the region that is formally organized on a social and political basis, the Seneca Nation has been working diligently to preserve its language and culture in the face of assimilation into the broader national culture.

Despite not being formally organized, the other ethnic and racial communities in the region nonetheless also provide a rich cultural foundation for the region, with numerous festivals, cuisine, and social activities. These more informal cultural offerings also are fighting against assimilation, although the preservation initiatives are not as formally or centrally planned or organized as those of the Seneca Nation of Indians. Examples of significant ethnic communities in the region are the Swedish and Italian communities in Jamestown, the Polish community in Dunkirk, and the Polish, Italian, and Lebanese communities in Olean. Accessibility to these and to the Seneca Nation community cultures provides a richer cultural environment for the region.

The region also is home to a number of significant cultural institutions. Perhaps first and foremost in the region is the Chautauqua Institution, which for many decades has been a globally significant educational and cultural asset, with offerings in the fine and performing arts (e.g., theater, symphony, ballet, opera, popular music, and visual arts), literature, education, religion, current events, recreation, and popular entertainment. The Institution is listed on the National Register of Historic Places and was further designated a National Historic Landmark, and is the genesis of the Chautauqua movement, which proliferated throughout the United States and at its peak was a primary source of cultural access in many communities throughout the country.

Other significant cultural institutions in the region include the region's universities and colleges, museums and galleries, localized historical and cultural facilities, and non-profit arts organizations. In addition to their educational function, the region's universities and colleges are direct and indirect sources of cultural activity, whose impacts are felt both inside and outside the region. Museums, galleries, and localized historical and cultural facilities may be either publicly owned or owned by the for-profit or non-profit communities. Museum and gallery offerings include historical, natural, and arts offerings. As an older region of the country, the region has many



localized historical facilities and significant historical locations. The region also is host to a wide variety of non-profit arts organizations that offer a wide variety of cultural offerings, including performing arts (theater, symphony, ballet, opera, and popular music) and visual arts. As noted previously, there are a number of cultural and arts festivals throughout the region on a seasonal basis. In terms of attendance, some of the more popular festivals include the seasonal festivals held in Ellicottville, performing arts festivals held in various communities, and the maple and ethnic festivals held in various communities. These festivals are sponsored variously by the public sector, by non-profits and religious organizations, and the private sector.

Sporting and recreational events and assets also are an important cultural asset in the region. In addition to high school and college athletics, the region is home to several minor league professional sports clubs and a number of adult recreational athletic leagues in various sports. These sporting events are played in college or community facilities throughout the region. Jamestown has been home to the Babe Ruth Baseball 13-Year-Old World Series since 1980. There are a number of publicly and privately owned recreational facilities in various locations throughout the region. Significant publicly owned recreational resources include the region's lakes, reservoirs, rivers/creeks, and state/county/local parks, waterfronts, athletic fields, and trails. Significant privately-owned recreational resources include the region's ski resorts, the Seneca Allegany Casino Resort, hunting lands, and specialized recreational businesses.

There is a need for continuing and increased investment in the region's significant historical, cultural, arts, and recreational assets, and for better marketing, coordination of scheduling of events, and tourism packaging so as to capture the full economic development potential of these assets. Overall, however, the region's significant historical, cultural, arts, and recreational offerings provide an attractive quality of life for its residents, and a significant asset for its tourism industry. As a rural region, the region's rural character and rural quality of life is a paramount virtue of its quality of life, with recreation a significant activity. However, despite its lack of a large urban cultural center, the region nonetheless has a wide variety of cultural offerings, and good accessibility to these offerings throughout the region. As such, the region's cultural assets are important not only to its quality of life; they also are an asset to its economic development.

- **Historic preservation profile**

As a region of the country that was settled and developed earlier than the more western regions of the country, the region has a significant built environment characterized by significant historical and cultural assets. The region is sensitive to the need for preservation of these assets, and New York State has a well-defined and functional State and federal system in place for ensuring that development doesn't jeopardize the preservation of these significant assets for future generations. **Current county comprehensive plans recognize the importance of historic preservation, both in terms of maintaining cultural assets and in terms of the economic development (tourism) opportunity such assets represent.** Economic development occasionally can conflict with historic preservation, requiring a measured approach to preserve historic assets while achieving desired economic development

- **Natural resources profile**

The region's natural resources include climate and soils, oil, petroleum, natural gas, gravel, water, forest products, and natural recreational assets. These resources represent economic development opportunities.

The region's climate and soils are advantages to certain agricultural (dairy, apple, grape, etc.) production and forest products industries, which is a significant industrial sector despite the region's short growing season.

The region has several world-class varieties of hardwoods, including maple, ash, red oak, and black cherry. However, much of these and other species that are currently harvested are exported out of the region as logs. Accordingly, the region is not capitalizing on the full economic development potential of this resource, which would involve various types of value-added secondary processing.

The region is home to a significant oil, natural gas, and gravel extraction cluster. Marcellus and Utica shale represent significant natural gas resources that have not yet been tapped in the region. There is disagreement as to the potential environmental impacts of extracting shale gas, and the actual level of economic development opportunity that this resource presents. Some feel that these resources are potential sources of value-added regional export activity and job and wealth creation. A supporting view is that the perceived danger from



environmental contamination is exaggerated. Others feel that this potential in the region is overstated given the actual quantity and accessibility of the resource in the region and also given the current depressed price of natural gas. A supporting view is that even if the resource presents substantial economic development potential, the risk and cost of environmental contamination makes extraction of the gas an undesirable endeavor. Currently, New York State has prohibited extraction of the resource on environmental grounds.

The region also has substantial gravel resources, which are being extracted and which represent a source of value-added regional export activity and job and wealth creation.

The region also has substantial wind, solar, biomass, and geothermal resources that could represent energy sources and potentially drive economic development. Current and potential future state and federal incentives for increased capture and utilization of these energy resources will impact their impact in the region, as will Buffalo-metro-area solar and other renewable energy initiatives, whose development impact should spillover into the region.

The region does not have substantial fisheries resources, at least at the level to sustain significantly increased commercial fishery operations. Lake Erie does have some potential for increased commercial fishing, but this may be limited and species-specific. However, in both Lake Erie and the region's other lakes and streams, the region does have adequate fishery resources to sustain active recreational fishing, which contributes to the region's tourism industry, and as such the resource represents a source of value-added regional export activity and job and wealth creation. The region does not have significant aquaculture activity.

The region has abundant supplies of fresh potable water in underground aquifers. This resource does present an economic development opportunity, as compared to other regions that experience water shortages. However, the region's aquifers may face threats to their quality from contamination from various sources. In the future, Lake Erie may prove to be an even more important regional water supply resource. However, Lake Erie water quality itself is an issue, and the ability to draw water from Lake Erie currently is constrained by regulation and in the future may be constrained further by regulation.

The region's natural recreational assets (lakes, parks, trails, ski and snowmobile areas, etc.) provide assets for tourism business development. There is a need for continuing investment in these assets, and for better marketing and coordination of scheduling of events and tourism packaging across natural and man-made assets, so as to capture the full economic development potential of these assets.

Although there is a significant level of recreational tourism in the region, by and large this is not eco-tourism, which is under-represented as such in the tourism industry's profile. There is an opportunity for increased development and marketing of specific eco-tourism opportunities, and for the labelling of eco-tourism opportunities as eco-tourism in any marketing initiatives.

Overall, the region has a relatively clean environment with an abundance of greenfield development sites. However, the region's environment faces varying levels of threats from air, soil and water contamination, and from development in floodplains and wetlands. Additionally, as noted previously, the region endorses smart growth concepts of avoiding sprawl into greenfield sites. However, development in existing municipal centers also can present challenges.

A number of brownfield sites, including Superfund sites, have been identified within the region. The region should remediate these sites, some of which could represent economic development assets once they have been properly remediated. Redevelopment of brownfield sites could avoid sprawl into greenfield areas and contribute to the preservation of the region's environment.

One specific significant localized environmental issue is the ongoing process of clean-up of the former West Valley Nuclear Services Center facility.

- **Infrastructure Assets**
 - **Water and wastewater systems**

Most of the region’s population centers (cities and villages) are served by infrastructure, including some combination of water, sewer, telecommunications/broadband, natural gas, electricity, steam, transportation modes, etc. Certain communities have issues with utility infrastructure service capacity and maintenance, but for the most part, municipal utility infrastructure capacity and service is adequate to serve local residents, institutions, and the existing business community. Certain communities also have utility infrastructure capacity that also is sufficient to permit and even catalyze business development.

However, in certain locations across the region, utility infrastructure capacity and/or service is inadequate for local residential and business uses and/or cannot support or permit additional economic development in terms of capacity or cost of utilization, without repair, expansion, or improvement. Aging infrastructure, often nearing the end of or even exceeding its useful life, and damaged infrastructure, also pose problems for some municipalities. County health departments maintain a database of municipal systems and their need for maintenance and/or improvement/expansion, primarily on health grounds.

- **Telecommunications/broadband systems**

Because of the region’s rural character and distance from major metropolitan markets, telecommunications and broadband infrastructure in particular are seen as being significant and essential drivers of economic development in the region and also with respect to improving and maintaining global competitiveness. The region’s broadband network is seen as being an infrastructure asset that helps level the playing field between the region and surrounding urban regions. The ION fiber cable backbone trunk line through the region provides both improved access to high speed internet and service redundancy. However, the region must act to capitalize on this economic asset.

There are deficiencies in the regional broadband infrastructure and service levels in some areas of the region. Top speed broadband service in excess of several hundred MBPS is not readily available in most of the region (contrast with Gbps speeds in certain select domestic cities and countries). Also, in some rural areas, only satellite or wireless service is available, and competitive last mile broadband service still is needed in some of the more rural areas or the region. Additionally, competitive service options currently are not present in many areas in the region. Southern Tier West has been active in developing public-private partnerships to address the lack of competitive broadband service in the more rural parts of the region.

Presence of a Computer and Type of Internet Subscription in Household

	<u>Allegany County</u>		<u>Cattaraugus County</u>		<u>Chautauqua County</u>		<u>New York State</u>		<u>USA</u>	
	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>
Total	18,032	100.0%	31,174	100.0%	51,579	100.0%	7,233,694	100.0%	118,208,250	100.0%
Has a computer	14,945	82.9%	24,612	79.0%	43,701	84.7%	6,265,912	86.6%	102,589,480	86.8%
With dial-up internet	235	1.6%	434	1.8%	251	0.6%	27,534	0.4%	647,073	0.6%
With broadband internet	12,422	83.1%	19,850	80.7%	35,847	82.0%	5,576,072	89.0%	89,987,564	87.7%
Without internet	2,288	15.3%	4,326	17.6%	7,603	17.4%	662,306	10.6%	11,954,843	11.7%
No Computer	3,067	17.0%	6,562	21.0%	7,878	15.3%	967,782	13.4%	15,618,770	13.2%

Source: U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates; percentage calculations by Southern Tier West



- **Energy distribution systems**

The region's electrical and natural service is provided primarily by a number of privately owned companies, although there are a number of municipal electric utilities in the region. Electricity is available throughout the region, but natural gas service is not available in the more rural areas of the region.

- **Transportation modes**

The region's distance from metropolitan centers, primary passenger airports, and global ports requires an efficient and high quality inter-regional passenger and freight transportation system. The region's large geographic size and low population density also requires an efficient intra-regional passenger and freight transportation system. The lack of passenger transportation options can make commuting problematic in some of the more rural areas of the region. The region is served by two interstate highways, a network of federal, state and local highways, two Class 1 rail lines and three short line rail lines, one airport with scheduled passenger service, several general aviation airports, and an evolving mobility management (public transportation) infrastructure. There have been ongoing improvements to the region's highway, freight railroad, air, and mobility management infrastructure. Continuing deficiencies need to be addressed through appropriate planning and investment, so as to effectively serve residents and the existing institutional and business communities, and in order to catalyze additional economic development.

- **Emerging or Declining Clusters / Industry Sectors**

- **Sectoral trends**

- **Shifting sectoral composition**

Mirroring the national economic transformation, the region has been undergoing a transformation from an economy featuring many high-skill, high-wage unionized jobs to an economy that features an increasing number of relatively low-skill, low-wage service and commercial employment, often part-time in nature and offering few benefits, such as health insurance and retirement benefits.

- **Decline of manufacturing sector**

As a component of this shift in sectoral composition, the region's manufacturing sector is experiencing an ongoing decline in terms of employment. There has been significant outsourcing of manufacturing production and jobs both domestically and overseas. The decline of the region's manufacturing sector has greatly threatened the standard of living in the region. As a vital primary value-added sector, manufacturing incorporates regional resources into products sold to regional and extra-regional markets. Extra-regional sales (i.e., exports to other regions) bring new wealth into the region and have been a traditional foundation for the region's standard of living.

- **Growth of services and trade sector**

As noted above, as in many other parts of the country, the services and trade sector is becoming an increasingly significant regional economic sector. Unfortunately, many service and trade jobs are part time or seasonal jobs with no benefits, eroding salaries and contributing to the weak growth of per capita personal income that the region is experiencing as compared to New York State. Further, unlike the manufacturing sector, a substantial portion of the region's services and trade sector does not involve export activity, and thus does not bring new wealth into the region.

- **Significant industry clusters**

One of the basic tenets of current thinking in economic development is that regions should invest resources in industry clusters in their regions (a) that exhibit the opportunity for growth, (b) in which companies can maintain comparative advantages with respect to competitors outside the region, and (c) that involve value-added net export activity that brings new money into the region. Such significant industry clusters are regional economic assets, and as such the region should consider them to be target or niche clusters toward which the region should focus strategic economic development initiatives.

Regionally significant industry clusters can be identified using the data-driven analytical techniques developed by Purdue University, Indiana University, and others (see www.statsamerica.org/innovation/). One such analytical technique is the Location Quotient (LQ), which quantifies the level of concentration of a particular industry, cluster, occupation, or demographic group in a region as compared to the nation. The LQ describes what makes a particular region "unique" in comparison to the national average. LQ's can be determined, for example, for the number of companies ("establishment LQ") in a cluster or the number of workers ("employment LQ") in a cluster. An establishment LQ greater than 1.0 indicates that the region has proportionately more companies than the nation as a whole in a specific industry cluster. An employment LQ greater than 1.0 indicates that the region has proportionately more workers than the nation as a whole employed in a specific industry cluster. An LQ greater than 1.0 implies that the region is producing more of a product or service than is consumed by regional residents. The excess is available for export outside the region. An LQ of at least 1.25 is required to consider classifying a regional industry cluster as an export cluster. Identifying area export industries (LQ > 1.25) provides a measure of the degree of industry specialization within the region.

A high location quotient (LQ > 1.25) in a specific industry cluster may translate into a competitive advantage in that industry cluster for the regional economy. Economic development opportunities may exist for additional growth of the exporting or related industry clusters because of the presence of an existing skilled labor pool or other resources such as suppliers, facilities, transportation hubs, etc. in the region.

Industry Cluster Data for Southern Tier West Region and Counties, 2012

Southern Tier West Region Data

Cluster Name	QCEW Cluster - Establishments	Industry Cluster Establishment LQ	QCEW Cluster - Employment	Industry Cluster Employment LQ	QCEW Cluster - Wages	Industry Cluster Annual Wages LQ
Total All Industries	5,988	1.00	94,014	1.00	\$3,296,706,564	1.00
Advanced Materials	92	1.08	4,634	1.52	\$ 262,679,028	1.61
Agribusiness, Food Processing & Technology	161	1.78	4,263	1.98	\$ 181,700,848	3.05
Apparel & Textiles	10	0.29	136	0.35	\$ 8,431,616	0.62
Arts, Entertainment, Recreation & Visitor Industries	209	1.20	4,286	1.15	\$ 113,880,476	1.18
Biomedical/Biotechnical (Life Sciences)	254	1.15	10,618	1.03	\$ 392,549,014	1.08
Business & Financial Services	516	0.54	2,209	0.27	\$ 159,688,326	0.30
Chemicals & Chemical Based Products	43	1.03	1,212	0.90	\$ 78,578,623	1.24
Defense & Security	109	0.47	2,092	0.40	\$ 124,293,217	0.46
Education & Knowledge Creation	97	1.13	3,735	1.05	\$ 195,698,570	1.50
Energy (Fossil & Renewable)	272	1.03	3,114	0.73	\$ 197,601,252	0.84
Forest & Wood Products	64	1.57	1,506	1.72	\$ 61,268,468	2.06
Glass & Ceramics	7	1.78	276	2.48	\$ 13,154,611	3.45
Information Technology & Telecommunications	97	0.41	1,609	0.45	\$ 97,671,089	0.39
Transportation & Logistics	123	0.85	1,346	0.47	\$ 57,976,731	0.58
Manufacturing Supercluster	120	1.62	7,589	2.15	\$ 451,723,392	2.58
Primary Metal Mfg	4	2.30	91	0.76	\$ 4,235,503	0.87
Fabricated Metal Product Mfg	74	2.09	3,232	3.61	\$ 170,675,117	5.25
Machinery Mfg	25	1.88	3,125	5.18	\$ 219,662,178	7.95
Computer & Electronic Product Mfg	9	0.95	742	1.18	\$ 31,182,827	0.70
Electrical Equipment, Appliance & Component Mfg	6	1.29	243	0.94	\$ 15,693,278	1.47
Transportation Equipment Mfg	2	0.53	156	0.32	\$ 10,274,488	0.42
Mining	17	2.10	113	0.78	\$ 5,948,124	0.85
Printing & Publishing	51	0.41	683	0.47	\$ 45,362,367	0.65

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages (QCEW) and Purdue Center for Regional Development (cluster definitions).

Notes:

- Cluster names:** Industrial classification data are classified in accordance with the 2002 North American Industry Classification System (NAICS), which has replaced the long-standing Standard Industrial Classification (SIC) system.
- QCEW:** The Quarterly Census of Employment and Wages (QCEW) program (also known as ES-202) collects employment and wage data from employers covered by NYS's Unemployment Insurance (UI) Law, in cooperation with the U.S. Bureau of Labor Statistics. QCEW data encompass approximately 97 percent of NYS's nonfarm employment, providing a virtual census of employees and their wages as well as the most complete universe of employment and wage data, by industry, at the State, regional and county levels. QCEW data are derived from quarterly tax reports submitted by all employers subject to UI laws. All covered employers are required to submit monthly employment figures representing the number of people either working during or receiving pay for the payroll period including the 12th of the month, and the total wages paid during the quarter. The QCEW program conducts ongoing surveys to verify the location and type of economic activity occurring at each of the more than 500,000 reporting units (establishments) in the state. An employer may operate in a number of different locations. In New York State, QCEW report data are confidential. In order to ensure the anonymity of individual employers, employment and wage data are not released for any industry level in any location that a) consists of fewer than three reporting units; or b) contains a single unit that accounts for 80 percent or more of the industry's employment.
- LQ:** The Location Quotient (LQ) quantifies how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. The above table provides LQ's for the number of companies ("establishment LQ") in a cluster, for the number of workers ("employment LQ") in a cluster, and for annual wages ("annual wages LQ") in a cluster. An establishment LQ greater than 1.0 indicates that the region has proportionately more companies than the nation as a whole in a specific industry cluster. An employment LQ greater than 1.0 indicates that the region has proportionately more workers than the nation as a whole employed in a specific industry cluster. An annual wages LQ greater than 1.0 indicates that the region has proportionately more wages in the cluster than the nation as a whole in a specific industry cluster.

Industry Cluster Data for Southern Tier West Region and Counties, 2012

County Data

<u>Cluster Name</u>	<u>QCEW Cluster - Establishments</u>	<u>Industry Cluster Establishment LQ</u>	<u>QCEW Cluster - Employment</u>	<u>Industry Cluster Employment LQ</u>	<u>QCEW Cluster - Wages</u>	<u>Industry Cluster Annual Wages LQ</u>
Total, All Industry Clusters						
Allegany	961	1.00	13,502	1.00	\$ 460,513,890	1.00
Cattaraugus	1,828	1.00	29,814	1.00	\$1,090,662,252	1.00
Chautauqua	3,199	1.00	50,698	1.00	\$1,745,530,422	1.00
Advanced Materials						
Allegany	13	0.95	442	1.01	\$ 24,250,870	1.07
Cattaraugus	25	0.96	2,575	2.67	\$ 158,732,690	2.95
Chautauqua	54	1.19	1,617	0.98	\$ 79,695,468	0.93
Agribusiness, Food Processing & Technology						
Allegany	23	1.58	696	2.25	\$ 30,553,953	3.67
Cattaraugus	42	1.52	449	0.66	\$ 15,951,187	0.81
Chautauqua	96	1.98	3,118	2.69	\$ 135,195,708	4.28
Apparel & Textiles						
Cattaraugus	5	0.40	28	0.19	\$ 2,993,905	0.57
Chautauqua	5	0.23	108	0.44	\$ 5,437,711	0.65
Arts, Entertainment, Recreation & Visitor Industries						
Allegany	32	1.14	211	0.40	\$ 7,627,933	0.56
Cattaraugus	53	1.00	2,406	2.04	\$ 75,063,727	2.34
Chautauqua	124	1.33	1,669	0.83	\$ 31,188,816	0.61
Biomedical/Biotechnical (Life Sciences)						
Allegany	53	1.50	1,764	1.19	\$ 75,992,027	1.49
Cattaraugus	87	1.29	3,033	0.93	\$ 122,335,747	1.02
Chautauqua	114	0.97	5,821	1.05	\$ 194,221,240	1.01
Business & Financial Services						
Allegany	71	0.46	259	0.22	\$ 22,550,098	0.31
Cattaraugus	153	0.52	644	0.24	\$ 48,876,043	0.28
Chautauqua	292	0.57	1,306	0.29	\$ 88,262,185	0.32
Chemicals & Chemical Based Products						
Allegany	8	1.19	245	1.26	\$ 13,640,317	1.54
Cattaraugus	11	0.86	424	0.99	\$ 32,408,524	1.54
Chautauqua	24	1.07	543	0.75	\$ 32,529,782	0.97
Defense & Security						
Allegany	22	0.59	263	0.35	\$ 18,542,872	0.49
Cattaraugus	26	0.37	335	0.20	\$ 17,464,531	0.19
Chautauqua	61	0.50	1,494	0.54	\$ 88,285,814	0.61
Education & Knowledge Creation						
Allegany	26	1.89	1,363	2.66	\$ 71,442,137	3.91
Cattaraugus	22	0.84	670	0.59	\$ 36,775,497	0.85
Chautauqua	49	1.07	1,702	0.89	\$ 87,480,936	1.26

County Data (continued)

<u>Cluster Name</u>	<u>QCEW Cluster - Establishments</u>	<u>Industry Cluster Establishment LQ</u>	<u>QCEW Cluster - Employment</u>	<u>Industry Cluster Employment LQ</u>	<u>QCEW Cluster - Wages</u>	<u>Industry Cluster Annual Wages LQ</u>
Energy (Fossil & Renewable)						
Allegany	64	1.51	1,066	1.75	\$ 72,281,029	2.19
Cattaraugus	75	0.93	649	0.48	\$ 35,480,027	0.45
Chautauqua	133	0.94	1,399	0.61	\$ 89,840,196	0.72
Forest & Wood Products						
Allegany	9	1.38	125	1.00	\$ 6,200,381	1.50
Cattaraugus	25	2.01	468	1.69	\$ 17,697,457	1.80
Chautauqua	30	1.38	913	1.94	\$ 37,370,630	2.38
Glass & Ceramics						
Allegany	2	2.20	138	5.9	\$ 6,622,559	8.33
Chautauqua	5	1.65	138	1.57	\$ 6,532,052	2.17
Information Technology & Telecommunications						
Allegany	18	0.47	124	0.24	\$ 8,646,355	0.25
Cattaraugus	21	0.29	475	0.42	\$ 23,329,293	0.28
Chautauqua	58	0.46	1,010	0.52	\$ 65,695,441	0.49
Transportation & Logistics						
Allegany	13	0.56	157	0.38	\$ 9,704,719	0.69
Cattaraugus	39	0.88	280	0.31	\$ 10,773,482	0.32
Chautauqua	71	0.92	909	0.59	\$ 37,498,530	0.70
Manufacturing Supercluster						
Allegany	12	1.01	942	1.86	\$ 64,360,938	2.64
Cattaraugus	24	1.06	2,287	2.05	\$ 134,375,804	2.32
Chautauqua	84	2.13	4,360	2.29	\$ 252,986,650	2.73
Primary Metal Manufacturing						
Cattaraugus	1	1.58	59	1.33	\$ 2,538,961	1.35
Chautauqua	3	2.71	32	0.43	\$ 1,696,542	0.56
Fabricated Metal Product Manufacturing						
Allegany	9	1.58	505	3.93	\$ 29,172,054	6.42
Cattaraugus	8	0.74	682	2.4	\$ 38,814,996	3.61
Chautauqua	57	3.01	2,045	4.23	\$ 102,688,067	5.96
Machinery Manufacturing						
Allegany	2	0.94	362	4.18	\$ 30,624,520	7.94
Cattaraugus	9	2.22	1,147	6.00	\$ 75,786,747	8.30
Chautauqua	14	1.97	1,616	4.97	\$ 113,250,911	7.75
Computer & Electronic Product Manufacturing						
Cattaraugus	5	1.45	302	1.30	\$ 9,903,810	0.58
Chautauqua	4	0.66	440	1.11	\$ 21,279,017	0.77
Electrical Equipment, Appliance & Component Manufacturing						
Allegany	1	1.34	75	2.03	\$ 4,564,364	3.07
Cattaraugus	1	0.70	97	1.19	\$ 7,331,289	2.08
Chautauqua	4	1.61	71	0.51	\$ 3,797,625	0.67
Transportation Equipment Manufacturing						
Chautauqua	2	0.53	156	0.32	\$ 10,274,488	0.42

County Data (continued)

<u>Cluster Name</u>	<u>QCEW Cluster - Establishments</u>	<u>Industry Cluster Establishment LQ</u>	<u>QCEW Cluster - Employment</u>	<u>Industry Cluster Employment LQ</u>	<u>QCEW Cluster - Wages</u>	<u>Industry Cluster Annual Wages LQ</u>
Mining						
Allegany	4	3.08	13	0.62	\$ 714,724	0.73
Cattaraugus	9	3.64	58	1.25	\$ 2,964,442	1.28
Chautauqua	4	0.93	42	0.53	\$ 2,268,958	0.61
Printing & Publishing						
Allegany	6	0.30	164	0.78	\$ 10,212,273	1.05
Cattaraugus	17	0.44	215	0.46	\$ 13,909,169	0.60
Chautauqua	28	0.42	304	0.38	\$ 21,240,925	0.57

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages (QCEW) and Purdue Center for Regional Development (cluster definitions).

Notes:

- Cluster names:** Industrial classification data are classified in accordance with the 2002 North American Industry Classification System (NAICS), which has replaced the long-standing Standard Industrial Classification (SIC) system.
- QCEW:** The Quarterly Census of Employment and Wages (QCEW) program (also known as ES-202) collects employment and wage data from employers covered by NYS's Unemployment Insurance (UI) Law, in cooperation with the U.S. Bureau of Labor Statistics. QCEW data encompass approximately 97 percent of NYS's nonfarm employment, providing a virtual census of employees and their wages as well as the most complete universe of employment and wage data, by industry, at the State, regional and county levels. QCEW data are derived from quarterly tax reports submitted by all employers subject to UI laws. All covered employers are required to submit monthly employment figures representing the number of people either working during or receiving pay for the payroll period including the 12th of the month, and the total wages paid during the quarter. The QCEW program conducts ongoing surveys to verify the location and type of economic activity occurring at each of the more than 500,000 reporting units (establishments) in the state. An employer may operate in a number of different locations. In New York State, QCEW report data are confidential. In order to ensure the anonymity of individual employers, employment and wage data are not released for any industry level in any location that a) consists of fewer than three reporting units; or b) contains a single unit that accounts for 80 percent or more of the industry's employment.
- LQ:** The Location Quotient (LQ) quantifies how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. The above table provides LQ's for the number of companies ("establishment LQ") in a cluster, for the number of workers ("employment LQ") in a cluster, and for annual wages ("annual wages LQ") in a cluster. An establishment LQ greater than 1.0 indicates that the region has proportionately more companies than the nation as a whole in a specific industry cluster. An employment LQ greater than 1.0 indicates that the region has proportionately more workers than the nation as a whole employed in a specific industry cluster. An annual wages LQ greater than 1.0 indicates that the region has proportionately more wages in the cluster than the nation as a whole in a specific industry cluster.
- Absence of a county in above table:** A county may not be listed in a specific industry cluster if no establishments report qualifying employment in that cluster.

The following two tables summarize the regional data in the penultimate table, identifying the most significant industry clusters, based on two parameters: number of companies present and number of employees.

Most Significant Regional Industry Clusters, 2012
(ranked in order of descending Establishment Location Quotient (LQ); minimum LQ = 1.25)

<u>Industry Cluster</u>	<u>Industry Cluster Establishment LQ</u>
Primary Metal Manufacturing	2.30
Mining	2.10
Fabricated Metal Product Manufacturing	2.09
Machinery Manufacturing	1.88
Glass & Ceramics	1.78
Agribusiness, Food Processing & Technology	1.78
Forest & Wood Products	1.57
Electrical Equipment, Appliance & Component Manufacturing	1.29

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages (QCEW) and Purdue Center for Regional Development (cluster definitions).

Most Significant Regional Industry Clusters, 2012
(ranked in order of descending Employment Location Quotient (LQ); minimum LQ = 1.25)

<u>Industry Cluster</u>	<u>Industry Cluster Employment LQ</u>
Machinery Manufacturing	5.18
Fabricated Metal Product Manufacturing	3.61
Glass & Ceramics	2.48
Agribusiness, Food Processing & Technology	1.98
Forest & Wood Products	1.72
Advanced Materials	1.52

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages (QCEW) and Purdue Center for Regional Development (cluster definitions).

The data in the two tables above are not entirely consistent; for example, mining has a high establishment LQ, but a low employment LQ, owing to the small number of employees working in this cluster. But there is a relatively consistent indication that in 2012, the region's most significant industry clusters are:

- Machinery manufacturing
- Fabricated metal product manufacturing
- Glass and ceramics
- Agribusiness, food processing and technology
- Forest and wood products

Of course, the individual counties may have a slightly different mix of significant industry clusters. For example, the tourism sector (more formally, the "Arts, Entertainment, Recreation & Visitor Industries" cluster) is considered to be a significant economic cluster in several counties and specific areas within several counties. The implication is that the region should focus increased strategic economic development attention on increasing value-added, net-export economic activity in these locally significant clusters as well, so as to try and build upon the region's



competitive advantage to enhance the vitality and economic development impact of these locally significant clusters, and so as to capitalize upon them as drivers of economic development.

- **Significant occupation clusters**

As compared to industry clusters, occupation clusters are a relatively new concept in economic development thinking. **Occupation clusters essentially are groups of occupations based on common and complementary knowledge and skills. Similar to current thinking in economic development relative to industry clusters, the implication is that regions should invest resources in occupation clusters in their regions (a) in which they have significant strengths and hence comparative advantage with respect to other regions from a business inputs perspective and (b) that exhibit the opportunity for growth, and (c) that involve value-added net export activity that brings new money into the region. Research to date suggests that occupation clusters may be at least as important as industry clusters in driving regional competitive advantage. Significant occupation clusters also are regional economic assets, and as such the region should consider them to be target or niche clusters toward which the region should focus strategic economic development initiatives.**

Regionally significant occupation clusters can be identified using the data-driven Location Quotient (LQ) analytical technique developed by Purdue University, Indiana University, and others (see www.statsamerica.org/innovation/). As noted above with respect to industry clusters, the Location Quotient (LQ) quantifies the level of concentration of a particular industry, cluster, occupation, or demographic group in a region as compared to the nation. With respect to occupation clusters, we use the number of workers (“employment LQ”) in an occupation cluster. An employment LQ greater than 1.0 indicates that the occupation cluster has proportionately more workers than the nation as a whole employed in that specific occupation cluster. When using occupation location quotients, an LQ of 1.2 is usually considered the base point for determining whether an occupation cluster has a “concentration” in the region. If it does, then the region may have a competitive advantage in that particular occupation cluster. Economic development opportunities may exist for additional growth of the exporting or related industry clusters because of the presence of an existing skilled labor pool or other resources such as suppliers, facilities, transportation hubs, etc. in the region.

The following two tables present occupation cluster data for the region and for the individual counties.

Occupation Cluster Data for Southern Tier West Region and Counties, 2010

Southern Tier West Region Data

<u>Cluster Name</u>	<u>Occupation Cluster Employment</u>	<u>Occupation Cluster Share of Total Employment</u>	<u>Occupation Cluster Employment LQ</u>
Managerial, Sales, Marketing and HR	7,638	5.8%	0.74
Skilled Production Workers	10,326	7.8%	1.11
Health Care and Medical Science (Aggregate)	7,185	5.4%	0.96
Health Care and Medical Science (Medical Practitioners and Scientists)	1,193	0.9%	0.81
Health Care and Medical Science (Medical Technicians)	1,090	0.8%	0.68
Health Care and Medical Science (Therapy, Counseling and Rehabilitation)	4,902	3.7%	1.10
Mathematics, Statistics, Data and Accounting	1,995	1.5%	0.61
Legal and Financial Services, and Real Estate (L & FIRE)	8,324	6.3%	0.80
Information Technology (IT)	947	0.7%	0.36
Natural Sciences and Environmental Management	225	0.2%	0.63
Agribusiness and Food Technology	4,056	3.1%	2.02
Primary/Secondary and Vocational Education, Remediation & Social Services	10,312	7.8%	1.48
Building, Landscape and Construction Design	509	0.4%	0.86
Engineering and Related Sciences	1,033	0.8%	0.86
Personal Services Occupations	3,603	2.7%	1.12
Arts, Entertainment, Publishing and Broadcasting	2,409	1.8%	0.78
Public Safety and Domestic Security	2,166	1.6%	1.36
Postsecondary Education and Knowledge Creation	2,117	1.6%	1.41
Technology-Based Knowledge Clusters	7,509	5.7%	0.72

Source: Economic Modeling Specialists, Inc. Complete Employment Statistics

Occupation Cluster Data for Southern Tier West Region and Counties, 2010

County Data

<u>Cluster Name</u>	<u>Occupation Cluster Employment</u>	<u>Occupation Cluster Share of Total Employment</u>	<u>Occupation Cluster Employment LQ</u>
Managerial, Sales, Marketing and HR			
Allegany	1,237	5.4%	0.70
Cattaraugus	2,305	5.7%	0.73
Chautauqua	4,097	5.9%	0.76
Skilled Production Workers			
Allegany	1,710	7.5%	1.07
Cattaraugus	2,968	7.3%	1.05
Chautauqua	5,647	8.1%	1.17
Health Care and Medical Science (Aggregate)			
Allegany	1,078	4.7%	0.83
Cattaraugus	2,188	5.4%	0.95
Chautauqua	3,920	5.7%	1.00
Health Care and Medical Science (Medical Practitioners and Scientists)			
Allegany	155	0.7%	0.61
Cattaraugus	359	0.9%	0.80
Chautauqua	679	1.0%	0.88
Health Care and Medical Science (Medical Technicians)			
Allegany	137	0.6%	0.50
Cattaraugus	323	0.8%	0.66
Chautauqua	630	0.9%	0.76
Health Care and Medical Science (Therapy, Counseling and Rehabilitation)			
Allegany	786	3.4%	1.03
Cattaraugus	1,506	3.7%	1.11
Chautauqua	2,611	3.8%	1.12
Mathematics, Statistics, Data and Accounting			
Allegany	300	1.3%	0.53
Cattaraugus	608	1.5%	0.61
Chautauqua	1,087	1.6%	0.64
Legal and Financial Services, and Real Estate (L & FIRE)			
Allegany	1,166	5.1%	0.65
Cattaraugus	2,737	6.7%	0.86
Chautauqua	4,422	6.4%	0.81

Occupation Cluster Data for Southern Tier West Region and Counties, 2010

County Data (continued)

<u>Cluster Name</u>	<u>Occupation Cluster Employment</u>	<u>Occupation Cluster Share of Total Employment</u>	<u>Occupation Cluster Employment LQ</u>
Information Technology (IT)			
Allegany	162	0.7%	0.35
Cattaraugus	268	0.7%	0.33
Chautauqua	517	0.7%	0.37
Natural Sciences and Environmental Management			
Allegany	53	0.2%	0.86
Cattaraugus	69	0.2%	0.63
Chautauqua	102	0.1%	0.55
Agribusiness and Food Technology			
Allegany	930	4.1%	2.68
Cattaraugus	1,226	3.0%	1.99
Chautauqua	1,900	2.7%	1.81
Primary/Secondary and Vocational Education, Remediation & Social Services			
Allegany	2,569	11.2%	2.14
Cattaraugus	3,664	9.0%	1.72
Chautauqua	4,078	5.9%	1.12
Building, Landscape and Construction Design			
Allegany	93	0.4%	0.92
Cattaraugus	157	0.4%	0.87
Chautauqua	259	0.4%	0.84
Engineering and Related Sciences			
Allegany	167	0.7%	0.81
Cattaraugus	322	0.8%	0.88
Chautauqua	544	0.8%	0.87
Personal Services Occupations			
Allegany	673	2.9%	1.21
Cattaraugus	1,052	2.6%	1.07
Chautauqua	1,878	2.7%	1.11
Arts, Entertainment, Publishing and Broadcasting			
Allegany	508	2.2%	0.95
Cattaraugus	660	1.6%	0.70
Chautauqua	1,242	1.8%	0.77

Occupation Cluster Data for Southern Tier West Region and Counties, 2010

County Data (continued)

<u>Cluster Name</u>	<u>Occupation Cluster Employment</u>	<u>Occupation Cluster Share of Total Employment</u>	<u>Occupation Cluster Employment LQ</u>
Public Safety and Domestic Security			
Allegany	375	1.6%	1.37
Cattaraugus	900	2.2%	1.86
Chautauqua	890	1.3%	1.07
Postsecondary Education and Knowledge Creation			
Allegany	615	2.7%	2.37
Cattaraugus	740	1.8%	1.61
Chautauqua	761	1.1%	0.97
Technology-Based Knowledge Clusters			
Allegany	1,452	6.4%	0.81
Cattaraugus	2,366	5.8%	0.74
Chautauqua	3,691	5.3%	0.67

Source: Economic Modeling Specialists, Inc. Complete Employment Statistics

The following table summarizes the regional data in the penultimate table, identifying the most significant occupation clusters in 2010:

Most Significant Regional Occupation Clusters, 2010 (ranked in order of descending Employment Location Quotient (LQ); minimum LQ = 1.20)

<u>Industry Cluster</u>	<u>Industry Cluster Establishment LQ</u>
Agribusiness and Food Technology	2.02
Primary/Secondary and Vocational Education, Remediation & Social Services	1.48
Postsecondary Education and Knowledge Creation	1.41
Public Safety and Domestic Security	1.36
Personal Services Occupations	1.12
Skilled Production Workers	1.11
Health Care and Medical Science (Therapy, Counseling and Rehabilitation)	1.10

Source: Economic Modeling Specialists, Inc. Complete Employment Statistics

Of course, the individual counties may have a slightly different mix of significant industry clusters.



However, only the first four occupation clusters in the above list have LQs > 1.2. We can think of these four occupation clusters as representing the most significant competitive advantage assets (i.e., target clusters) for economic development in the region.

Generally, we can use occupation cluster LQs to:

- Understand the workforce and educational situation within the broader regional economic development context so as to bridge the gap between workforce and economic development.
- Use the regional occupation cluster mix to diagnose how well positioned the region is to participate effectively in a knowledge-based innovation economy.
- Determine how well occupation cluster strengths align with the region's industry cluster strengths.

In our region's case, the second through fourth occupation clusters, which represent education and public safety occupations, are not typically present in primary private sector industry clusters that might have growth and export potential for our region. Our focus thus has to be on the first occupation cluster in the list, agribusiness and food technology, and to a lesser extent personal service occupations; skilled production worker occupations; and medical therapy, counseling and rehabilitation occupations, which do have various levels of private sector industry clusters associated with them, and which can present production or service export value added industry clusters presenting economic development opportunity for the region. This is especially true of the agribusiness and food technology occupation cluster, which matches up with the related industry cluster.

For each of the region's significant industry clusters, we can examine what level of employment and occupation cluster LQs are present and determine what labor force initiatives we can undertake to bridge the labor force gap for those target industry clusters.

In sum, occupation clusters also provide guidance for focusing the region's strategic economic development attention so as to take advantage of the opportunity for development of increased value-added, net-export economic activity in the region's significant industry clusters, to capitalize upon these industry clusters as economic development assets and drivers.

For more information on industry and occupation clusters, cluster theory, and suggestions for economic development initiatives based on clusters, please contact Southern Tier West directly.

- **Past, present, and projected impacts on the region's competitive advantages**

The restructuring of the regional economy away from commodity-based manufacturing and toward knowledge-based manufacturing and service businesses has dramatically impacted the regional economy and is expected to continue to do so.

The **glass and ceramics cluster**, being a technology-centric sector, is particularly well situated for developing ongoing comparative advantage, particularly owing to the presence of a global research institution at Alfred University.

The **agribusiness, food processing and technology cluster** is poised for additional development, owing to the trend toward increased utilization of locally grown and processed foods, with shorter transportation distances (lower cost to the ultimate customer) presenting a comparative advantage. The high occupation cluster LQ in this industry cluster also indicates that the region's labor force has a concentration of workers that would permit further expansion of the industry cluster.

The **forest and woods products cluster** also provides potential for additional development in terms of increased secondary processing (most of the harvested timber is exported from the region as un-processed logs). The comparative advantages that the region has are short transportation distances from the forest to potential regional secondary processing facilities, the ability to utilize regionally scrap from processing (e.g., pellet fuels, particle board, etc.), and significant species of hardwoods present in the region.

Machinery manufacturing and fabricated metal product manufacturing clusters also provides potential for additional development, provided that companies can remain globally competitive, incorporating new technologies and growing market base.



More generally, with respect to clusters, the five county Western New York Regional Economic Development Council strategic economic development plan identifies the following eight industry clusters as being both significant currently and having potential as an asset to future economic development:

- Advanced manufacturing
- Agriculture
- Bi-national logistics
- Energy
- Health and life sciences
- Higher education
- Professional services
- Tourism

These eight industry clusters perhaps collectively are more representative of the entire five county western New York region, which is dominated by the (larger) Erie and Niagara County economies, than they are of the three county region. However, there is some overlap with the primary industry clusters identified for the three southern tier (i.e., regional) counties. Nonetheless, many of these five county clusters still have at least some relevance to the three county region, and the overarching import of the five county plan to the three county region with respect to industry clusters is that the three county region still can work in conjunction with the larger region, while also focusing on its more localized target industry clusters.

- **Ability to build capacity for economic development**

A cluster-based economic development strategy would direct resources to the vertically and horizontally integrated cluster, building networks, strengthening individual firms and supply chains, and improving the cluster-specific labor force. A targeted approach is recommended, beginning with developing communication and consensus between the industry cluster members, the economic development community, and the educational and job training community.

Two significant and important elements of such a strategy will be the facilitation of technology adoption and improvements by the cluster and the enhancement of labor force skills. Productivity enhancement will be essential to achieving and maintaining dynamic long-term competitiveness.

Also, because of the region's inability to compete with lower cost offshore commodity-based manufacturing operations, it is in knowledge-based and technology-based manufacturing and service businesses where perhaps much of the region's sustainable, globally competitive future economic growth in the global marketplace will occur.

As it may be difficult to seize opportunities in these technology growth clusters without a strong technology base in our region, without a strong human resource base with requisite skill sets, and without a threshold level of existing technology activity in our region, it is imperative that as a primary regional economic development strategy, the region develop this technology base, including a technology business sector and a skilled labor force.



- **Relationship of the Region's Economy to the Economy of the Surrounding Larger Region / State**
 - **Location advantages / disadvantages**

The region is located in the northeast, within a day's travel of large eastern metropolitan areas (New York, Boston, Philadelphia, Pittsburgh, Cleveland, Buffalo, Rochester, Binghamton, Toronto, and Hamilton). The region's location places it within a day's travel of 60% of the nation's population, placing the region in proximity to a large domestic market.

However, despite this proximity, the extra-regional domestic market still requires transportation to and from the region, which takes time and poses additional costs when compared with competing businesses located inside larger metropolitan areas.

Additionally, the distance from urban areas in the past has contributed to difficulties in attracting certain types of skilled labor.

The proximity of the region to the larger Buffalo metro economy exerts significant impact on the region's economy. The anticipated growth in the advanced manufacturing, clean energy (primarily solar energy), and health and life sciences (primarily biomedical and bioinformatics) clusters of the northern counties of western New York may well have some impacts on the three counties. There could be positive spin-off business development in the southern tier counties, which would be a positive impact. A number of regional residents do commute to Buffalo for employment, and this can be expected to continue to occur as growth in the advanced manufacturing, clean energy, and health and life sciences clusters in the northern counties of western New York. This growth could have a negative impact if it causes skilled regional labor to sell their services out of the region to the counties to the north, reducing the availability of skilled labor in the region.

- **Global perspective`**

Global competition and general macroeconomic conditions have negatively impacted the region's economy in both the longer and shorter terms, resulting in job losses, business closures, and increased absentee business ownership. Additional negative events in the world economy will continue to place pressure on domestic regional (especially rural) economies such as ours.

Non-local business ownership also contributes to less corporate commitment to local business operations within the region.



- **Factors that Directly Affect Regional Economic Performance**

- **Workforce issues**

The region has a labor supply surplus of unutilized and underutilized workers, and, compared to many other domestic regions, the region has a productive work force with a good work ethic. According to New York State Empire State Development, New York State ranks 9th in the nation for worker productivity in the manufacturing sector, with workers generating a value of more than \$6 of output for every dollar earned. However, while a number of studies do indicate that the region's workforce is productive relative to other regions, there is an ongoing need to improve regional labor force productivity.

The region's labor force also is capable of being trained for new skills required for current and future employment opportunities. However, there are shortages of skilled labor in specific occupations and skills sets. Some of these shortages are localized; others are region-wide in nature. The Chautauqua workforce plan specifically notes skills gaps in the County as employees in the manufacturing and trades sector retire. The Cattaraugus-Allegany workforce plan specifically notes skills gaps in the two counties ranging from a lack of computer skills to advanced manufacturing/STEM skills, plus a lack of soft skills.

Some of the workforce issues and/or programs in place to address these issues that are noted in the plan with respect to the two target populations indicated below include:

1. Adult and Dislocated Workers

- Skill and training/education gaps
- Adaptive technologies and services for individuals with disabilities
- Veterans service
- Career guidance and counseling
- Childcare and transportation services (especially commuting in more rural areas of the region)
- Financial aid
- Pre-vocational skills such as resume preparation, interviewing skills, basic computer, punctuality, and communication
- Supportive services, including such as transportation assistance (mileage, bus passes/tokens) for attending training, clothing allowance, and other items necessary for employment (such as tools and other items), and childcare assistance.

2. Youth

- Goal setting
- Alternative secondary education, including high school equivalency diplomas
- Tutoring, study skills and dropout prevention
- Alternative secondary education, including high school equivalency diplomas
- Summer youth employment opportunities
- Paid/unpaid work experience
- Occupational skill training
- Leadership development
- Supportive services for both in and out of school youth with obtaining post-secondary education and employment preparation
- Adult mentoring
- Follow-up services for 12 months to increase the chances of success once youth exit the program
- Comprehensive guidance and counseling, including alcohol and substance abuse, smoking cessation, transitioning from middle school to high school, behavioral and emotional issues, parenting and life skills, mental illness, etc.

The region has an aggressive network of public and private human resource and training organizations that provide workforce training and other human resource assistance, including the Workforce Investment Boards, Board of Cooperative Educational Services, colleges, the Regional Technology Development Center for Western New York



(Insyte Consulting), etc.

- **Innovation assets**

The economic development community at large widely agrees that a region's capacity to innovate is a precursor to the development of a healthy, globally competitive, sustainable regional economy.

- **Innovation rate**

Unfortunately, the region is experiencing inadequate levels of entrepreneurship, technology transfer and adoption, and export activity.

- **Evidence: inadequate regional innovation capacity**

The economic development community at large widely agrees that a region's capacity to innovate is a precursor to the development of a healthy, globally competitive, sustainable regional economy. Southern Tier West has utilized an EDA funded data-driven analytical tool (the "Innovation Index") to evaluate the innovative capacity of our region. This analysis is presented in a report titled, "Southern Tier West Regional Innovation Analysis, May 2012," which is available at:

<http://www.southerntierwest.org/pdf/reports/STW%20Regional%20Innovation%20Analysis.pdf>

The following are the summary results of the Innovation Index analysis for the three Southern Tier West counties, in comparison to the state and nation as a whole, as found in this report:

1. **The Southern Tier West region has a lower cumulative Innovation Index than the state and nation as a whole. This implies that the region is less prepared and capable to generate innovation-based economic development, which economic thinking asserts is essential for a long-term healthy economy.** Accordingly, the region's inadequate innovation capacity should be considered a structural weakness of the region's economy and a constraint to economic development.
2. **The Southern Tier West region's lower cumulative Innovation Index is in part a function of its relative inadequacies in both human capital and economic assets. Human capital (labor force) shortcomings** include a low incidence of bachelor's degrees amongst the region's residents, a significantly higher rate of decrease in the region's population of younger working age persons (ages 25 to 44), a lower percentage representation of high-tech employees in the employment base, and a lower tech-based knowledge occupation cluster employment share. **Economic asset shortcomings** include the unavailability and/or lack of use of venture capital for business ventures in the region, low broadband penetration rates (despite reasonable levels of broadband availability), low rates of establishment churn in the region, a lower incidence of small-sized businesses establishments as compared to the state, and a higher incidence of large establishments as compared to the state.
3. **At the state level, New York State is not as competitive with other states with respect to the resources available to entrepreneurs and businesses (as measured by the number of science and engineering graduates and R&D intensity).**
4. **The Southern Tier West region's lower cumulative Innovation Index is in part a function of its inability to translate inputs into productive outcomes, e.g., employment in high-technology firms, greater output per worker, the creation of patents, etc.** On the one hand, the region lags the state and nation in changes in high tech employment, job growth, GDP per worker, and average patents per worker. But on the other hand, the region is fairly close to and competitive with the state and nation in terms of economic well-being. This is borne out by mixed results for the region's average poverty rate (higher than the state and national rates), the region's average unemployment rate (higher than the state rate but lower than the national rate), net in-migration rates into the region (lower than state rates), the region's average per capita personal income growth rate (comparable to the national rate, and only slightly lower than the state rate), and the region's compensation growth rates (lower than state and national rates).

The data-driven regional innovation analysis indicates that the following factors appear to be especially important for increasing economic growth in the Southern Tier West region:



- educational attainment
- young-adult population growth
- high-tech employment growth
- venture capital availability and use
- availability of business development funding
- broadband density and penetration
- the number of small establishments (i.e., small businesses)

Based on the innovation capacity analytical model, the region should consider the above list to be target areas for economic development objectives that strategic economic development initiatives / projects should be designed to improve upon.

However, the region does have certain significant assets that could catalyze innovation, that there are certain specific ongoing and proposed initiatives in the region that are intended to address these situations.

- **Examples of significant regional innovation assets**

- **NYS College of Ceramics at Alfred University, Inamori School of Engineering** research and professional programs (<http://engineering.alfred.edu/research/>): Research in the Inamori School of Engineering advances the frontiers of knowledge and supports economic growth. With projects ranging from basic science to product development, the School manages approximately \$5M in research awards from industry, foundations, and government agencies each year. The Center for Advanced Ceramic Technology (CACT), which facilitates most of the Inamori School's interactions with industry, has averaged 40:1 return on investment on state funds. The Center for High Temperature Characterization (CHTC) offers fee-based analytical services and access to sophisticated characterization equipment. The School also offers short courses/workshops, conferences, and other professional development opportunities to promote workforce development.
- **Ceramics Corridor Innovation Center** (<http://www.ceramicscorridor.org/>): The ceramics, glass and advanced materials incubator at Alfred is a 30,000 square foot Hot Spot-designated incubation facility operated by Alfred Technology Resources, whose mission is to catalyze business development and job growth by providing incubation program services and facilities to foster growth of entrepreneurial businesses in ceramics, glass, advanced materials, and related technology-based industries. The facility is subdivided into individual suites ranging from 350 sq. ft. office space to 1,400 sq. ft. laboratory space suitable for R&D or light manufacturing.
- **Fredonia Technology Incubator** (<http://www.fredonia.edu/incubator/>): The incubator is a 22,000 square foot LEED-certified building and an economic development project of the State University of New York at Fredonia, located off-campus in Dunkirk, NY, whose mission is to catalyze business development and job growth by providing a wide range of business support services to new, technology-based businesses.
- **Insyte Consulting** (<http://www.insyte-consulting.com/>): A NIST MEP Network Affiliate and a NYSTAR affiliate, Insyte Consulting is a non-profit consulting organization that assists manufacturing and technology companies with productivity enhancement and other operational needs. Innovation-related services include engineering, design and prototyping, new product development, entrepreneurial assistance, SBIR/STTR funding assistance, tech matching (identification of technologies that will improve products and processes), and provision of and access to a portal to an extensive national database of intellectual property.
- **Manufacturers Association of the Southern Tier** (<http://www.mast-wny.com/>): MAST assists manufacturers with workforce development needs, environmental issues, infrastructure development, workers compensation, health care cost containment or tax relief. MAST is a privately funded membership driven organization. MAST manages the **Manufacturing Technology Institute** (<http://www.sunyicc.edu/academics/manufacturing-technology-institute>),



a 10,000 square feet simulated manufacturing space. MAST and Jamestown Community College have developed certificate and associate degree offerings in Welding Technology, Machine Tool Technology, Design Technology and Industrial Machine Technology. Mast brought Dream It Do It (DIDI), a national initiative to promote advanced manufacturing careers, to the three counties in the region.

- **Alfred State College School of Applied Technology** (<http://www.alfredstate.edu/>): Part of the State University of New York system, the Wellsville campus educates 800 students annually in skilled trades programs (automotive trades, culinary arts, building trades, electrical trades, drafting (CAD, welding and machine tool) where student focus on learn by doing using primarily live projects. Student work includes 3D printing, prototyping and small production runs in welding and machine tool shops. Building trades student conduct work for not for profit organizations, build and sell homes, and have built three zero energy homes. Electrician program students work with industry and have built automation prototypes and installed small wind and photovoltaic systems. Graduates are prepared for employment in and for making contributions to innovation-focused businesses.

- **Examples of significant regional innovation initiatives**

- **STW Manufacturers Productivity Improvement Program** (<http://www.southerntierwest.org/pdfs/brochures/2014/MPI.pdf>): The program proposes to improve the economic viability, productivity, and competitiveness of small and medium-sized manufacturers (less than 250 employees) by providing matching funding for companies desiring to undertake workforce training, productivity enhancement, ISO (International for Standardization) certification initiatives, or other consulting services that would enhance administrative or operational capacity of their company.
- **START-UP NY** (<http://startup-ny.com/>) and **New York State Innovation Hot Spot Programs** (<http://www.wnyinnovationhotspot.com/>): The START-UP NY program provides major tax incentives for businesses to relocate, start or expand in the state. The New York State Innovation Hot Spot Support Program provides financial support for business incubators in the state. At the current time, the Ceramics Corridor Innovation Center and the Fredonia Technology Incubator are the two incubators that have been designated as Hot Spots under the State program. The designation provides various benefits for start-up companies within the Hot Spot, including state income and sales tax benefits for a period of five years, and potential access to other state programs, such as the NY Innovation Venture Capital Fund. The goal of the program is to improve the quantity and quality of incubator services provided to young companies, thereby enabling these businesses to successfully transition from their start-up phase to larger scale commercialization of their products and services. Both State programs are part of the overall environment developed to catalyze innovation in the region.
- **Jamestown Community College Advanced Manufacturing Institute / Training Center Project (Olean)**: This facility will house manufacturing training programs for students and employees of regional businesses, to provide them with training in advanced manufacturing technologies.
- **Olean Business Incubation Center Project**: This incubator facility is operated by a private non-profit corporation and will have a mission to catalyze business development and job growth by providing incubation program services and facilities to foster growth of entrepreneurial businesses in Olean, with particular emphasis on entrepreneurs coming through Jamestown Community College's Olean Campus.
- **Sugar Hill Industrial Park**: Industrial park whose mission is to provide locations for Ceramics Corridor Innovation Center graduates
- **Alfred Center for Technology Transfer Project**: This project is intended to catalyze transfer of technologies generated at Alfred University to entrepreneurs and companies.



- **Sustainable Advanced Manufacturing Center Project (Alfred):** This facility is intended to facilitate advanced manufacturing technologies.
- **Sustainable Advanced Manufacturing Center Project (Wellsville):** This facility is intended to facilitate advanced manufacturing technologies.

- **Constraints to Innovation**

Innovation can be constrained within individual companies by inadequate financial wherewithal, inadequate technical skills, management absorption in daily operations, competitive issues, inadequate physical plant, lack of access to specialized expertise, etc.

The issues can be addressed through, for example:

- Improved access to financial resources
- Increased networking opportunities
- Cost reduction / productivity enhancement programs
- Incentivizing innovative marketing strategies for existing and new products
- Incentivizing innovative employment management practices
- Enhancing access to information and opportunities for collaboration
- Minimizing risk of innovation
- Enhancing access to specialist expertise

- **Industry supply chains**

A key element of regional supply chain analysis, which necessarily is industry-specific, is the determination of how much inputs an industry purchases inside the region versus outside the region. Any supply chain that relies on extra-regional vendors results in money leaving the regional economy (“leakage”). A good bit of leakage is unavoidable, especially in rural regions, but it is to the advantage of the region to identify these sources of leakage and attempt to promote fulfillment of supply chains from internal regional sources, to the extent possible. The greatest impact will result from working with regionally significant industry clusters. This may entail matching purchasers with existing internal regional vendors or working with companies to attempt to incentivize the location of vendor firms within the region.

- **State and local laws**

Despite the many good reasons for their existence, the existence of certain New York State laws and regulations can have the result of raising business operating costs or otherwise constraining operations. The most commonly heard complaints relate to taxes, workman’s compensation, and environmental regulations. New York State is working to ease some of these impediments to business operations, but certain will remain, leaving the State at a disadvantage as compared to other regions or countries without similar regulations.

At the local level, businesses may face local laws or circumstances that are impediments to operations. It is appropriate for the economic development community to communicate with major employers and entrepreneurs to discover and examine these issues and attempt to resolve them in appropriate manners.

- **Financial resources**

There is an ongoing need for increased availability of equity and debt capital to support entrepreneurship and business development in the region.

- **Private equity capital**

With respect to equity capital, the capacity of the private sector to undertake economic development projects is in part a function of personal and commercial credit availability. In addition to negative quality of life implications of low relative per capita incomes, low relative median household incomes, and high relative poverty levels, the economic implication is that there is little unencumbered equity capital available for use as risk capital for investment in the regional economy, creating an obstacle to regional economic development. This is compounded by inadequate private equity capital funding resources (e.g., venture capital), including especially initial stage funding, micro-equity venture capital, and non-traditional community venture capital.



- **Private debt capital**

Commercial debt financing also appears to be inadequate to satisfy demand. Entrepreneurs often are unable to attract commercial bank funding, and coupled with inadequate equity funding sources, entrepreneurs often are forced to rely on personal borrowing, and often start businesses with a too-highly-leveraged (i.e., debt-heavy) financial capital structure. Highly leveraged financial structures result in elevated business failure rates and reinforce the commercial lending culture that exhibits a reluctance to lend to prospective entrepreneurs that cannot guarantee higher probabilities of successful operations.

Commercial asset-based lending in the region also is constrained by perceived higher default risks and weak collateral salvage markets, both common features of depressed rural economies. In many other regions, real estate is a prime source of collateral because it maintains good resale value in strong real estate markets. However, liquidation values of foreclosed assets in our rural region are low, since resale markets for commercial real estate and other business assets are not strong. This reduces the availability of asset-based commercial debt financing.

Symptoms of these inadequate equity and debt capital markets are (1) the frequent use of SBA 7(a) loan guarantees and (2) steady demand and occasional waiting lists for many local public sector revolving loan funds. However, despite the participation of public sector loan funds in commercial lending packages, leveraging commercial banks into senior collateral positions on larger collateral asset bases, commercial banks often are unwilling to undertake what they perceive to be risky loans, even with public sector loan guarantees. Additionally, despite this unwillingness on the part of lenders to lend, there actually may be an under-reliance by the business and entrepreneurial community on loan guarantees, resulting in a lower-than-optimal project implementation rate and a lower-than-optimal business start-up rate.

- **Public debt and equity capital**

Inadequate public sector financial resources also constrain business development. First, some local public sector loan funds are under-capitalized relative to the demand for funds. Second, there are gaps in or obstacles to the State’s provision of direct business loan incentive financing, including well-intended compliance requirements that often act as a barrier to obtaining financing. Third, there are gaps in the State’s provision of grant and loan funds for municipal economic projects and infrastructure projects, especially for projects with speculative or unspecified impact.

- **Transportation systems**

As has been discussed elsewhere herein, cost effective and efficacious transportation solutions are essential to the regional business community. Although the region has a somewhat effective intra-regional and inter-regional transportation system in all relevant modalities (highway, aviation, railroad, and mobility management), improvements to the system infrastructure would benefit the regional economy. Additionally, system maintenance is an issue, due to expense.

- **Energy costs**

The unit cost of energy varies by type of energy utilized and by the sector of the end user. According to Chooseenergy.com, “residential power in New York is expensive. New York is home to the second highest electricity prices in the nation (after Hawaii), where residential electricity prices are 54% more expensive than the national average. This contributes to the combined utility bills that can cost over \$2,000 per year for an average-sized New York home. Natural gas prices are slightly better, but still above the national average. ... Since 1996, 78% of New Yorkers have the option to switch to an alternative energy provider (to save money on energy costs). ... Currently, the most popular suppliers in New York are Gateway Energy Services, North American Power, and Direct Energy.”

Additionally, Chooseenergy.com provides the following New York State Energy Profile:

Consumption per capita:	50 th
Natural gas prices:	19 th



Electricity prices:	2 nd
Carbon dioxide emissions:	10 th
Renewable energy ranking:	4 th (hydro and wind)
Most generated electricity source:	Nuclear

According to the U.S. Energy Information Administration:

- In 2011, New York was the eighth largest energy consumer among the 50 states, but, due in part to its widely used mass transportation systems, it had the second lowest energy consumption per capita after Rhode Island.
- The Marcellus shale, which underlies southwestern New York and extends southward through Pennsylvania, West Virginia, and Ohio, is estimated to hold at least 141 trillion cubic feet in technically recoverable natural gas.
- The 2,441-megawatt Robert Moses Niagara hydroelectric power plant is the second largest hydroelectric power plant in the United States and, in 2013, New York produced more hydroelectric power than any other state east of the Rocky Mountains.
- New York's Renewable Portfolio Standard requires that 30% of electricity come from renewable energy resources by 2015; in 2013, 23% of the state's electricity generation came from renewable energy resources.
- In 2013, New York had the fourth highest average electricity prices in the United States.
- More than half of New York households (53 percent) use individual window or wall air conditioning units, while only 20 percent have a central air conditioning system, according to EIA's Residential Energy Consumption Survey.

Additionally:

“The commercial and residential sectors lead state energy demand, followed by transportation. The state's key business sectors—construction, computer and electronic manufacturing, financial services, professional services, education, and health care—are not among the most energy-intensive, and industrial consumption is near the national median.

“More than half the state's energy is supplied from other states and Canada. New York has developed a 10-year-forward plan to maintain energy reliability while reducing costs and environmental impacts. Among the plan's strategies are developing in-state resources, including renewables and natural gas, and increasing energy efficiency. State emissions from electricity generation have declined steeply since 2000 because of increased natural gas use and compliance with the Regional Greenhouse Gas Initiative. New York ranks among the lowest one-fifth of states in power plant emissions per megawatt-hour.

“New York is among the top consuming states for petroleum products, which it uses mainly for transportation and home heating.

“New York was an important center for oil production and refining in the 19th century, feeding the state's industrial regions around New York City and along the Erie Canal from as many as 56 refineries, but, by the end of the 20th century, all refineries were closed. The state continues to produce small amounts of crude oil.

“New York's petroleum products are supplied by refineries in New Jersey and Pennsylvania, the Colonial Pipeline system from the Gulf Coast, and imports that originate mainly from Canada but may come from refineries worldwide. However, future operations at some of those Mid-Atlantic refineries have been in question, raising issues for New York's future refined petroleum products supply, especially ultra-low-sulfur diesel (ULSD) which has come principally from regional refineries. ...



“The electric power, residential, and commercial sectors consume most of the natural gas used in New York. More than half of New York households are heated with natural gas.

“The Marcellus Shale, extending under parts of New York, Pennsylvania, Ohio, and West Virginia, is estimated to contain at least 141 trillion cubic feet of natural gas. The total amount of retrievable natural gas under New York State is unclear. In 2008, the state government placed a moratorium on hydraulic fracturing, or “fracking,” a technique used to produce shale gas, while the state developed safety and environmental regulations. Fracking has been highly controversial in New York. Some local governments have enacted fracking bans, while others have invited natural gas development.

“Western New York has historically produced small amounts of natural gas, but most natural gas consumed is supplied by pipeline from other states and Canada. Virtually all major interstate pipelines from the Gulf Coast and Canada reach New York, both to supply in-state customers and to transmit supplies onward to Connecticut and Massachusetts.

“With Pennsylvania natural gas production more than doubling in 2011 alone, pipeline companies are expanding their capabilities to access the nearby Marcellus gas to serve customers in New York State and New England. This expansion includes major pipeline extensions in New York State. New York has more than two dozen natural gas underground storage facilities, mainly in depleted gas fields. Along with storage in Pennsylvania and West Virginia, those facilities are key to meeting Northeastern winter heating demand. ...

“Coal has been providing progressively less of New York State's net electricity generation because new generating capacity has been mostly natural gas-fired. In recent years, less than one-tenth of New York's net generation has been fueled by coal. New York has adopted carbon dioxide limits for new generating plants, and the state is supporting development of both technology and a legal framework for carbon capture and sequestration. ...

“New York electricity generators are mostly independent power producers with diverse energy sources of generation. Natural gas, nuclear power, and hydroelectricity typically provide more than four-fifths of generation, with coal, wind, biomass, and fuel oil making up the balance. Electricity usually flows east and south because half of New York's power demand is in the New York City region but only about two-fifths of generation originates there. About three in four New York households use air conditioning, and the same proportion operates at least one computer. But few use electricity for heating, and, per capita, New Yorkers are among the lowest electricity users in the nation.

“New York has been a net importer of electricity from neighboring states and Canada, but demand has declined since the recession. The New York State grid operator says in-state generating resources can meet demand, but, because of transmission system constraints, maintaining capability to exchange electricity with neighboring grids remains vital to power reliability.

“The bulk of current renewable generation in New York comes from hydroelectricity, with small but growing amounts from wind and biomass. The state is home to the largest hydroelectric power plant in the eastern United States, the 2,353-megawatt Robert Moses Niagara plant, and produces more hydroelectric power than any other state east of the Rocky Mountains. New York is also among the top states using landfill gas and municipal solid waste to fuel electricity generation.

“New York's Renewable Portfolio Standard (RPS) requires that 30% of electricity sold in the state come from renewable sources by 2015. New York initiated its RPS in 2004, when 19.3% of electricity consumed came from renewable sources. The state counts that power toward the RPS, but all other electricity to satisfy the RPS must be generated by renewable capacity that started operation after 2003. The state expects voluntary customer purchases of renewable energy to fulfill 1% of the RPS. In addition to the 30% RPS, New York is mandating a 15% reduction from forecast electricity consumption through increased energy efficiency, also by 2015. Together the requirements are called the “45 x 15” initiative.

“Most new renewable electricity is being obtained competitively from utility-scale projects by the New York State Energy Research & Development Authority (NYSERDA), and most new power is from wind. The state's first wind farm began operating in 2000, and more than two dozen wind farms are operating or in



development around the state. The state has an estimated potential for 8,000 megawatts of wind energy, particularly around Lakes Erie and Ontario, on peaks in the Adirondacks and Catskills, and along the Long Island shoreline. Other new renewable electricity is being obtained from biomass, biogas, and hydroelectric resources.

“New York regulators require that about 5% of new RPS generation come from “customer-sited” facilities, such as solar photovoltaic (PV) and solar thermal systems, fuel cells, anaerobic digester systems, and wind of less than 2 megawatts’ capacity. The state offers consumers incentives for these “behind-the-meter” installations.

“Solar PV installations nearly tripled in 2011, placing New York among the top 10 states nationwide. Although most solar installations are small, the 32-megawatt Long Island Solar Farm was the largest PV generator in the eastern United States in 2011.”

Energy Indicators

	<u>Period</u>	<u>USA</u>	<u>NYS</u>
Demography			
Population (million)	2014	318.9	19.7
Civilian Labor Force (million)	Mar-2015	157.3	9.6
Economy			
Gross Domestic Product (GDP) (\$ billion)	2013	16,701	1,310
GDP for the Manufacturing Sector (\$ million)	2013	2,079,518	67,907
Per Capita Personal Income (\$)	2013	44,543	54,063
Vehicle Miles Traveled (million miles)	2013	2,988,323	129,737
Land in Farms (million acres)	2012	914.6	7.2
Prices			
Petroleum			
Domestic Crude Oil First Purchase (\$/barrel)	Feb-2015	44.35	W
Natural Gas			
City Gate (\$/thousand cu ft)	Feb-2015	4.55	4.41
Residential (\$/thousand cu ft)	Feb-2015	9.10	9.79
Coal			
Average Sales Price (\$/short ton)	2013	37.24	--
Delivered to Electric Power Sector (\$/million Btu)	Feb-2015	2.25	3.15
Electricity			
Residential (cents/kWh)	Feb-2015	12.29	19.76
Commercial (cents/kWh)	Feb-2015	10.62	7.82
Industrial (cents/kWh)	Feb-2015	6.88	7.82
Consumption by End Use Sector			
Residential (trillion Btu)	2012	19,925	1,024
Commercial (trillion Btu)	2012	17,343	1,100
Industrial (trillion Btu)	2012	31,004	339
Transportation (trillion Btu)	2012	26,700	1,051
Expenditures by End Use sector			
Residential (\$ million)	2012	235,381	17,968
Commercial (\$ million)	2012	172,126	15,537
Industrial (\$ million)	2012	225,512	3,120
Transportation (\$ million)	2012	722,657	28,509

-- = No data reported.

* = Number less than 0.5 rounded to zero.

NA = Not available.

NM = Not meaningful due to large relative standard error or excessive percentage change.

W = Withheld to avoid disclosure of individual company data.

Note: Small differences between source data and values displayed here may be due to independent rounding.

Source: U.S. Energy Information Administration

New York State Residential Energy Prices in Nominal Dollars, 1998–2012

(in physical units)

Year	Coal	Distillate	Kerosene	Propane	Natural Gas	Electricity	GDP Deflator
	<u>\$/Ton</u>	<u>Cents/Gal.</u> ¹	<u>Cents/Gal.</u>	<u>Cents/Gal.</u>	<u>\$/Mcf</u>	<u>Cents/kWh</u>	<u>(2012=1)</u> ²
1998	70.27	98.61	59.94	112.29	9.62	13.62	0.710
1999	76.65	100.83	73.58	114.08	9.12	13.27	0.726
2000	75.56	149.92	127.44	143.25	9.80	13.97	0.750
2001	85.19	141.74	117.99	150.58	11.70	14.04	0.771
2002	83.35	126.62	106.92	132.22	9.85	13.55	0.784
2003	76.07	149.51	134.60	151.73	11.61	14.31	0.801
2004	80.37	169.62	162.14	168.06	12.49	14.54	0.823
2005	115.73	219.13	214.92	188.07	14.92	15.72	0.851
2006	105.03	255.61	260.15	211.43	15.44	16.89	0.878
2007	105.05	278.07	289.85	244.32	15.77	17.10	0.903
2008	122.13	342.43	365.31	286.15	16.86	18.30	0.938
2009	121.99	260.46	281.21	259.39	15.10	17.50	0.934
2010	102.58	300.96	320.90	275.10	14.04	18.74	0.950
2011	N/A	354.91	379.76	312.45	13.64	18.26	0.980
2012	N/A	394.30	399.87	323.69	12.87	17.62	1.000

(in \$/million Btu)

Year	Coal	Distillate	Kerosene	Propane	Natural Gas	Electricity	GDP Deflator
	<u>\$/MMBtu</u>	<u>\$/MMBtu</u> ¹	<u>\$/MMBtu</u>	<u>\$/MMBtu</u>	<u>\$/MMBtu</u>	<u>\$/MMBtu</u>	<u>(2012=1)</u> ²
1998	3.25	7.11	4.44	13.05	9.31	39.91	0.710
1999	3.21	7.27	5.45	13.25	8.87	38.90	0.726
2000	3.02	10.81	9.44	16.68	9.55	40.95	0.750
2001	3.42	10.22	8.74	17.50	11.37	41.14	0.771
2002	3.63	9.13	7.92	15.37	9.61	39.71	0.784
2003	3.42	10.78	9.97	17.56	11.28	41.94	0.801
2004	3.60	12.23	12.01	19.51	12.17	42.62	0.823
2005	5.18	15.80	15.92	21.82	14.51	46.08	0.851
2006	4.76	18.43	19.27	24.64	15.02	49.51	0.878
2007	4.76	20.05	21.47	26.75	15.36	50.11	0.903
2008	5.58	24.69	27.06	31.33	16.42	53.63	0.938
2009	5.53	18.78	20.83	28.40	14.73	51.28	0.934
2010	4.70	21.70	23.77	30.12	13.72	54.92	0.950
2011	N/A	25.59	28.13	34.21	13.35	53.52	0.980
2012	N/A	28.43	29.62	35.44	12.56	51.63	1.000

Notes:

¹ Home heating oil

² To convert prices to 2012 dollars, divide the selected price by the deflator factor in the same row.

Source: New York State Energy Research and Development Authority

New York State Commercial Energy Prices in Nominal Dollars, 1998–2012

(in physical units)

Year	Coal \$/Ton	Distillate Cents/Gal. ¹	Residual \$/bbl	Kerosene Cents/Gal.	Propane Cents/Gal.	Natural Gas \$/Mcf	Electricity Cents/kWh	GDP Deflator (2012=1) ²
1998	31.79	60.89	14.96	59.94	81.92	6.11	11.04	0.710
1999	31.09	65.32	17.48	73.58	83.51	5.15	10.33	0.726
2000	37.12	110.40	28.92	127.44	106.66	7.73	12.10	0.750
2001	37.59	93.62	25.59	117.99	113.24	9.57	12.24	0.771
2002	44.55	88.35	25.90	106.92	101.68	6.42	11.79	0.784
2003	40.84	109.84	34.20	134.60	120.53	8.61	12.93	0.801
2004	43.39	134.81	33.70	162.14	134.47	10.10	12.98	0.823
2005	48.26	188.48	47.59	214.92	151.09	11.82	14.36	0.851
2006	66.82	215.39	55.26	260.15	166.73	11.98	15.51	0.878
2007	64.04	236.33	61.74	289.85	193.44	11.85	15.92	0.903
2008	104.18	324.54	83.43	365.31	233.36	12.93	16.84	0.938
2009	134.58	206.79	62.49	281.21	188.33	10.75	15.51	0.934
2010	137.13	254.50	81.10	320.90	215.82	10.87	16.31	0.950
2011	134.11	339.93	109.46	379.76	237.83	9.28	15.81	0.980
2012	N/A	354.35	115.43	399.87	220.48	7.79	15.06	1.000

(in \$/million Btu)

Year	Coal \$/MMBtu	Distillate \$/MMBtu ¹	Residual \$/MMBtu	Kerosene \$/MMBtu	Propane \$/MMBtu	Natural Gas \$/MMBtu	Electricity \$/MMBtu	GDP Deflator (2012=1) ²
1998	1.37	4.39	2.38	4.44	9.52	5.91	32.36	0.710
1999	1.34	4.71	2.78	5.45	9.70	5.01	30.28	0.726
2000	1.60	7.96	4.60	9.44	12.42	7.53	35.46	0.750
2001	1.62	6.75	4.07	8.74	13.16	9.30	35.88	0.771
2002	1.92	6.37	4.12	7.92	11.82	6.26	34.55	0.784
2003	1.76	7.92	5.44	9.97	13.95	8.37	37.89	0.801
2004	1.87	9.72	5.36	12.01	15.61	9.84	38.04	0.823
2005	2.08	13.59	7.57	15.92	17.53	11.50	42.08	0.851
2006	2.88	15.53	8.79	19.27	19.43	11.65	45.46	0.878
2007	2.76	17.04	9.82	21.47	21.18	11.54	46.65	0.903
2008	4.49	23.40	13.27	27.06	25.55	12.59	49.35	0.938
2009	5.80	14.91	9.94	20.83	20.62	10.49	45.45	0.934
2010	5.91	18.35	12.90	23.77	23.63	10.63	47.80	0.950
2011	5.78	24.51	17.41	28.13	26.04	9.08	46.33	0.980
2012	N/A	25.55	18.36	29.62	24.14	7.60	44.13	1.000

Notes:

¹ Home heating oil

² To convert prices to 2012 dollars, divide the selected price by the deflator factor in the same row.

Source: New York State Energy Research and Development Authority

New York State Industrial Energy Prices in Nominal Dollars, 1998–2012

(in physical units)

Year	Coal \$/Ton	Distillate Cents/Gal.¹	Residual \$/bbl	Kerosene Cents/Gal.	Propane Cents/Gal.	Natural Gas \$/Mcf	Electricity Cents/kWh	GDP Deflator (2012=1)²
1998	29.75	57.97	14.96	54.14	81.66	4.03	4.94	0.710
1999	30.12	64.77	17.48	62.51	83.51	3.90	4.76	0.726
2000	33.43	105.27	28.92	111.51	108.81	6.10	5.37	0.750
2001	33.76	91.67	25.59	90.86	111.95	7.69	5.55	0.771
2002	38.86	88.48	25.90	81.41	105.90	5.54	5.18	0.784
2003	36.35	107.90	34.20	109.76	130.56	7.36	7.14	0.801
2004	39.16	127.46	33.70	137.97	147.39	8.04	7.04	0.823
2005	45.37	190.14	47.59	181.85	160.92	10.77	8.23	0.851
2006	59.20	218.85	55.26	213.17	177.71	10.62	9.39	0.878
2007	57.94	238.55	61.74	243.27	220.66	11.46	8.71	0.903
2008	67.81	327.17	83.43	306.86	264.41	12.37	10.14	0.938
2009	78.28	197.77	62.49	204.39	217.46	9.55	8.98	0.934
2010	87.13	263.51	81.10	251.24	249.07	8.54	8.78	0.950
2011	91.68	324.40	109.46	331.56	278.57	8.15	7.83	0.980
2012	90.29	341.87	115.43	346.55	273.09	6.87	6.69	1.000

(in \$/million Btu)

Year	Coal \$/MMBtu	Distillate \$/MMBtu¹	Kerosene \$/MMBtu	Propane \$/MMBtu	Natural Gas \$/MMBtu	Electricity \$/MMBtu	GDP Deflator (2012=1)²
1998	3.25	7.11	4.44	13.05	9.31	39.91	0.710
1999	3.21	7.27	5.45	13.25	8.87	38.90	0.726
2000	3.02	10.81	9.44	16.68	9.55	40.95	0.750
2001	3.42	10.22	8.74	17.50	11.37	41.14	0.771
2002	3.63	9.13	7.92	15.37	9.61	39.71	0.784
2003	3.42	10.78	9.97	17.56	11.28	41.94	0.801
2004	3.60	12.23	12.01	19.51	12.17	42.62	0.823
2005	5.18	15.80	15.92	21.82	14.51	46.08	0.851
2006	4.76	18.43	19.27	24.64	15.02	49.51	0.878
2007	4.76	20.05	21.47	26.75	15.36	50.11	0.903
2008	5.58	24.69	27.06	31.33	16.42	53.63	0.938
2009	5.53	18.78	20.83	28.40	14.73	51.28	0.934
2010	4.70	21.70	23.77	30.12	13.72	54.92	0.950
2011	N/A	25.59	28.13	34.21	13.35	53.52	0.980
2012	N/A	28.43	29.62	35.44	12.56	51.63	1.000

Notes:

¹ Home heating oil

² To convert prices to 2012 dollars, divide the selected price by the deflator factor in the same row.

Source: New York State Energy Research and Development Authority

New York State Transportation Energy Prices in Nominal Dollars, 1998–2012

(in physical units)

Year	Motor		Jet	Residual	Electricity	GDP Deflator (2012=1) ⁵
	Gasoline	Distillate	Fuel			
	Cents/Gal.	Cents/Gal. ¹	Cents/Gal. ²	\$/bbl ³	Cents/kWh ⁴	
1998	106.23	113.73	45.90	12.20	8.21	0.710
1999	118.74	122.05	57.11	15.53	8.14	0.726
2000	152.33	157.00	93.15	25.78	8.15	0.750
2001	143.15	145.90	78.17	19.93	8.25	0.771
2002	135.53	135.92	74.79	21.82	7.95	0.784
2003	156.95	159.22	91.26	28.48	9.38	0.801
2004	187.37	186.82	122.31	29.61	7.92	0.823
2005	224.37	242.15	176.85	42.63	11.40	0.851
2006	256.68	273.22	201.02	49.10	11.94	0.878
2007	275.93	284.32	222.21	49.35	10.97	0.903
2008	325.63	389.30	312.26	75.95	12.64	0.938
2009	235.31	251.31	170.64	51.80	13.13	0.934
2010	277.30	299.02	221.81	68.28	13.74	0.950
2011	350.60	382.51	307.40	93.11	13.45	0.980
2012	365.46	395.27	312.66	96.82	14.20	1.000

(in \$/million Btu)

Year	Motor		Jet	Residual	Electricity	GDP Deflator (2012=1) ⁵
	Gasoline	Distillate	Fuel			
	Cents/Gal.	Cents/Gal. ¹	Cents/Gal. ²	\$/bbl ³	Cents/kWh ⁴	
1998	8.56	8.20	3.40	1.94	24.07	0.710
1999	9.57	8.80	4.23	2.47	23.85	0.726
2000	12.28	11.32	6.90	4.10	23.90	0.750
2001	11.54	10.52	5.79	3.17	24.18	0.771
2002	10.93	9.80	5.54	3.47	23.29	0.784
2003	12.66	11.48	6.76	4.53	27.49	0.801
2004	15.09	13.47	9.06	4.71	23.21	0.823
2005	18.06	17.46	13.10	6.78	33.40	0.851
2006	20.66	19.70	14.89	7.81	34.98	0.878
2007	22.21	20.50	16.46	7.85	32.14	0.903
2008	26.21	28.07	23.13	12.08	37.06	0.938
2009	18.94	18.12	12.64	8.24	38.47	0.934
2010	22.32	21.56	16.43	10.86	40.28	0.950
2011	28.22	27.58	22.77	14.81	39.41	0.980
2012	29.22	28.50	23.16	15.40	41.63	1.000

Notes:

¹ Diesel

² Kerosene-based

³ Bunker fuel

⁴ Railroad use

⁵ To convert prices to 2012 dollars, divide the selected price by the deflator factor in the same row.

Source: New York State Energy Research and Development Authority



○ **Business, personal, and property taxes**

Despite improvements in recent years, New York State remains a relatively high-cost business operating environment, including tax, regulatory, and workman’s compensation burdens. The following table provides a summary index representation of New York State’s tax burden on businesses. Overall, New York State places the third highest tax burden on businesses of any of the fifty states (New Jersey has the highest business tax burden). This represents a slight improvement from being rated the third highest tax burden on businesses of any of the fifty states in 2015.

**NYS’s State Business Tax Climate Index 2019
As of July 1, 2018**

NYS’s Ranking Out of 50 States on Five Component Taxes

Overall Index Rank	48
Corporate Tax	7
Individual Income Tax	48
Sales Tax	42
Unemployment Insurance Tax	31
Property Tax	47

Note: A rank of 1 indicates the state’s tax system is more favorable for business; a rank of 50 indicates the state’s tax system is less favorable for business. Snapshot data is per tax laws as of July 1, 2018. Component rankings do not average to total.

Source: Tax Foundation, 2019 State Business Tax Climate Index (July. 2019), TaxFoundation.org/Index.

New York State ranks 48th in the Tax Foundation's State Business Tax Climate Index. The Index compares the states in five areas of taxation that impact business: corporate taxes, individual income taxes, sales taxes, unemployment insurance taxes, and taxes on property, including residential and commercial property.

The following table provides a summary index representation of the individual tax burden that New York State and its localities place on individual taxpayers. Overall, New York State places the highest tax burden on individual taxpayers of any of the fifty states. New York State's (2011) tax burden of 12.6% ranks highest out of 50 states and is above the national average of 9.8%.

**NYS’s State and Local Tax Burden Per Capita and as a Percentage of Income
Fiscal Year 2012**

State-Local Tax Burden as a Share of State Income	12.7%
Rank	1
Total Tax Burden (per capita)	\$6,993

Note: Data for years 1977 to present are available at TaxFoundation.org. Payments made to out-of-state governments are tallied in taxpayers’ state of residence where possible. For methodology and a complete list of data sources, see Tax Foundation Working Paper No. 10.

Source: Tax Foundation, Annual State-Local Tax Burdens FY 2012 (January 2016), TaxFoundation.org/Burdens. As of August 2016, the 2012 data is the most recent available.

New York State levies a 4% general sales or use tax on consumers, which is below the national median of 5.95%. The average local sales tax rate is an additional 4.48%. According to Taxfoundation.org, New York's state and local governments collect \$1,276 per person in general sales taxes and \$674 per person in excise taxes, for a combined figure of \$1,950, which ranks 7th highest nationally. New York's gasoline tax stands at 45.1¢ (3rd highest nationally), while its cigarette tax stands at \$4.35 (highest nationally.)

Residential property taxes in many New York State jurisdictions are among the highest in the nation. According to Taxfoundation.org, New York's state and local governments collected approximately \$2,435 per person in property taxes in 2012, which ranks 4th highest nationally. In 2009, of 10 counties in the U.S. with the highest ratio of median real estate taxes to median home values, 9 were located in New York State, and one of those 9 (Chautauqua) was located in the region. Property taxes as a percent of median home values in these 9 counties ranged from 2.43% to 2.89%; the U.S. average was 1.04%.

Although NYS does not levy a State real property tax, it has a major role in determining the structure and administration of local property taxes. In recent years, the State has attempted to reign in the impact of property taxes by providing STAR exemptions to the general public, with older residents receiving larger exemptions. Also, the State has encouraged municipalities to cap property tax increases at 2% per annum, with State aid to complying municipalities used as an incentive.

In sum, New York State has the third-least-favorable business tax climate of all 50 states and the highest state/local tax burden on individuals of all states.

- **Bonding capacity**

“Limitations on municipal indebtedness are set forth in Article VIII of the New York State Constitution and are implemented by the Local Finance Law. The provisions of Article VIII are generally applicable to all towns and villages and cities in the State and the obligations authorized by their legislative bodies in their capacity as the finance board. Most local governments, including certain school districts, have a constitutionally established debt limit (and those which do not, have a statutory limit). In addition, there are constitutionally based rules on the loan of town, village or city credit, uses of borrowed monies and the pledge of faith and credit.” (source: “Bond Basics for Towns, Villages and Cities in New York State,” Orrick)

Most municipalities in the region are not close to their constitutional bond capacity. However, historically the primary limiting factor constraining the issuance of bonds has been the financial wherewithal of municipalities to repay those bonds. This historically has constrained many municipalities from undertaking community and economic development projects.

- **Land use patterns**

Despite ongoing population losses, the region's communities over time have experienced unwanted and unplanned growth, most commonly “sprawl” into forest land, farmland, and green spaces. However, many communities, eager or in some cases desperate for growth, have accommodated the sprawl despite the direct costs and externalities.

The impacts of sprawl include not only the environmental impacts of reducing the amount of acreage available for forest land, agricultural production, and green space; the impacts also include financial impacts on municipalities. Positive financial impacts include increased property tax base and increases in sales taxes flowing from increased development. Negative financial impacts include increased municipal obligations for construction and maintenance of larger infrastructure systems, transportation systems, and public services. Additionally, in some cases, sprawl may remove developable lands from their highest valued uses, constraining higher valued development. And it can become more difficult to attract businesses to poorly planned, sprawling communities.

For these reasons, the region must embrace smart growth principles to limit sprawl.



- **Other Factors that Relate to Regional Economic Performance**

In addition to the above-mentioned factors, regional economic performance also is a function of other quality of life variables. Although rural regions often can be at a disadvantage with respect to economic development relative to urban regions, to dismiss a rural region such as the Southern Tier West region simply because it is a rural region would be too simplistic and in many ways incorrect.

Overall, the Southern Tier West region enjoys a positive and attractive quality of life, with an attractive small-town rural lifestyle, engaging cultural and recreational resources, low-crime rates, a relatively clean environment, stable housing markets, and relatively high quality health care. However, because of the ongoing structural changes that the region is experiencing, certain cornerstone institutions (e.g., hospitals, schools, and other community institutions) face threats from decreases in population and standard of living.

Like many other regions across the country, each of these components of the region's quality of life has challenges, constraints, and/or room for improvement, as follows:

- **Housing**

The region's housing stock presents both positive and negative indicators. On the positive side, the region's housing market is stable, and hasn't experienced the over-valuation and subsequent price-depression cycle experienced by many regions. Median housing prices are significantly lower than State and national median housing prices, which is a partial indicator of a lower cost of living. Also, the region did not experience the over-inflation of housing prices in the last decade, although housing prices are increasing in recent years. Further, since the region has had a somewhat lower percentage of houses mortgaged than the State and nation as a whole, the region did not experience the mortgage default crisis several years back as severely as did other regions. Consequently, the region has a more stable housing market than the State and nation as a whole, other things equal.

On the negative side, as mentioned, median housing prices in the region are significantly lower than State and national median housing prices, which in the past has been taken to be indicative of a weak housing market. Additionally, the region's housing stock has a historically slower housing turnover rate than State and national housing turnover rates, which also can be taken to be an indicator of a weak housing market. Further, the region's housing stock is an aging housing stock that is older than State and national housing stocks, with (typically) lower new housing construction rates than State and national housing construction rates.

The housing situation on the two Seneca Nation of Indians territories also is somewhat mixed. The Seneca Nation has a housing shortage, overcrowding of shared housing spaces, a higher-than-desirable incidence of mold conditions, and inadequate utility infrastructure to support additional housing unit construction. However, the Seneca Nation of Indians has created a mortgage program to assist members with home building and home purchases. Also, the Seneca Nation of Indians is embarking on a Tiny Home project to improve housing accessibility to enrolled members.

Housing Data, 2013 - 2017

	<u>Allegany County</u>		<u>Cattaraugus County</u>		<u>Chautauqua County</u>		<u>New York State</u>		<u>United States</u>	
	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>
HOUSING OCCUPANCY										
Total housing units	26,324	100.0%	41,431	100.0%	67,422	100.0%	8,255,911	100.0%	135,393,564	100.0%
Occupied housing units	18,124	68.8%	31,723	76.6%	52,983	78.6%	7,302,710	88.5%	118,825,921	87.8%
Vacant housing units	8,200	31.2%	9,708	23.4%	14,439	21.4%	953,201	11.5%	16,567,643	12.2%
Homeowner vacancy rate	2	(X)	2.3	(X)	2.7	(X)	1.7	(X)	1.7	(X)
Rental vacancy rate	6.2	(X)	5.9	(X)	7.7	(X)	4.3	(X)	6.1	(X)
UNITS IN STRUCTURE										
Total housing units	26,324	100.0%	41,431	100.0%	67,422	100.0%	8,255,911	100.0%	135,393,564	100.0%
1-unit, detached	18,976	72.1%	27,756	67.0%	45,980	68.2%	3,466,614	42.0%	83,547,309	61.7%
1-unit, attached	204	0.8%	1,288	3.1%	1,134	1.7%	413,868	5.0%	7,903,046	5.8%
2 units	1,164	4.4%	2,729	6.6%	7,383	11.0%	859,648	10.4%	4,948,642	3.7%
3 or 4 units	878	3.3%	1,727	4.2%	4,063	6.0%	592,719	7.2%	5,950,261	4.4%
5 to 9 units	434	1.6%	1,040	2.5%	1,404	2.1%	428,067	5.2%	6,440,975	4.8%
10 to 19 units	210	0.8%	372	0.9%	1,100	1.6%	341,453	4.1%	6,053,982	4.5%
20 or more units	298	1.1%	1,175	2.8%	1,877	2.8%	1,955,765	23.7%	11,924,671	8.8%
Mobile home	4,146	15.7%	5,337	12.9%	4,437	6.6%	194,410	2.4%	8,509,712	6.3%
Boat, RV, van, etc.	14	0.1%	7	0.0%	44	0.1%	3,367	0.0%	114,966	0.1%
YEAR STRUCTURE BUILT										
Total housing units	26,324	100.0%	41,431	100.0%	67,422	100.0%	8,255,911	100.0%	135,393,564	100.0%
Built 2014 or later	126	0.5%	99	0.2%	191	0.3%	30,059	0.4%	1,190,169	0.9%
Built 2010 to 2013	254	1.0%	432	1.0%	488	0.7%	106,773	1.3%	3,112,243	2.3%
Built 2000 to 2009	2,099	8.0%	3,044	7.3%	3,865	5.7%	537,449	6.5%	19,663,902	14.5%
Built 1990 to 1999	2,747	10.4%	4,493	10.8%	4,266	6.3%	506,962	6.1%	18,945,953	14.0%
Built 1980 to 1989	2,568	9.8%	4,642	11.2%	5,229	7.8%	629,885	7.6%	18,399,296	13.6%
Built 1970 to 1979	3,871	14.7%	4,945	11.9%	5,971	8.9%	823,748	10.0%	20,920,173	15.5%
Built 1960 to 1969	2,355	8.9%	2,830	6.8%	5,347	7.9%	1,034,330	12.5%	14,577,264	10.8%
Built 1950 to 1959	2,070	7.9%	3,576	8.6%	8,566	12.7%	1,224,735	14.8%	14,229,384	10.5%
Built 1940 to 1949	1,639	6.2%	2,527	6.1%	5,359	7.9%	697,185	8.4%	6,903,420	5.1%
Built 1939 or earlier	8,595	32.7%	14,843	35.8%	28,140	41.7%	2,664,785	32.3%	17,451,760	12.9%
HOUSING TENURE										
Occupied housing units	18,124	100.0%	31,723	100.0%	52,983	100.0%	7,302,710	100.0%	118,825,921	100.0%
Owner-occupied	13,463	74.3%	22,617	71.3%	37,098	70.0%	3,942,483	54.0%	75,833,135	63.8%
Renter-occupied	4,661	25.7%	9,106	28.7%	15,885	30.0%	3,360,227	46.0%	42,992,786	36.2%
AVERAGE HOUSEHOLD SIZE										
Owner-occupied unit	2.4	(X)	2.5	(X)	2.4	(X)	2.8	(X)	2.7	(X)
Renter-occupied unit	2.2	(X)	2.2	(X)	2.2	(X)	2.5	(X)	2.5	(X)
HOUSE HEATING FUEL										
Occupied housing units	18,124	100.0%	31,723	100.0%	52,983	100.0%	7,302,710	100.0%	118,825,921	100.0%
Utility gas	9,744	53.8%	16,599	52.3%	36,367	68.6%	4,228,093	57.9%	57,294,573	48.2%
Bottled, tank, or LP gas	2,000	11.0%	4,121	13.0%	3,992	7.5%	274,348	3.8%	5,663,929	4.8%
Electricity	1,911	10.5%	4,203	13.2%	7,378	13.9%	820,554	11.2%	45,252,635	38.1%
Fuel oil, kerosene, etc.	1,083	6.0%	2,256	7.1%	1,217	2.3%	1,663,074	22.8%	6,068,906	5.1%
Coal or coke	489	2.7%	368	1.2%	118	0.2%	18,375	0.3%	128,511	0.1%
Wood	2,576	14.2%	3,482	11.0%	2,827	5.3%	139,739	1.9%	2,362,351	2.0%
Solar energy	0	0.0%	14	0.0%	44	0.1%	4,179	0.1%	120,950	0.1%
Other fuel	296	1.6%	597	1.9%	854	1.6%	81,024	1.1%	587,805	0.5%
No fuel used	25	0.1%	83	0.3%	186	0.4%	73,324	1.0%	1,346,261	1.1%



SELECTED CHARACTERISTICS

Occupied housing units	18,124	100.0%	31,723	100.0%	52,983	100.0%	7,302,710	100.0%	118,825,921	100.0%
Lacking complete plumbing facilities	284	1.6%	428	1.3%	349	0.7%	29,255	0.4%	470,774	0.4%
Lacking complete kitchen facilities	403	2.2%	587	1.9%	693	1.3%	56,862	0.8%	980,238	0.8%
No telephone service available	825	4.60%	1,126	3.50%	1,280	2.40%	153,201	2.10%	2,775,560	2.3%

VALUE

Owner-occupied units	13,463	100.0%	22,617	100.0%	37,098	100.0%	3,942,483	100.0%	75,833,135	100.0%
Less than \$50,000	3,567	26.5%	4,102	18.1%	6,441	17.4%	211,369	5.4%	6,323,346	8.3%
\$50,000 to \$99,999	6,010	44.6%	9,678	42.8%	15,791	42.6%	422,125	10.7%	10,539,890	13.9%
\$100,000 to \$149,999	1,849	13.7%	4,241	18.8%	6,611	17.8%	439,347	11.1%	11,157,888	14.7%
\$150,000 to \$199,999	993	7.4%	2,363	10.4%	3,907	10.5%	384,970	9.8%	11,090,587	14.6%
\$200,000 to \$299,999	657	4.9%	1,404	6.2%	2,490	6.7%	550,098	14.0%	14,206,037	18.7%
\$300,000 to \$499,999	300	2.2%	571	2.5%	1,213	3.3%	934,978	23.7%	13,090,934	17.3%
\$500,000 to \$999,999	81	0.6%	226	1.0%	506	1.4%	749,626	19.0%	7,353,702	9.7%
\$1,000,000 or more	6	0.0%	32	0.1%	139	0.4%	249,970	6.3%	2,070,751	2.7%
Median (dollars)	73,300	(X)	86,500	(X)	85,800	(X)	293,000	(X)	193,500	(X)

MORTGAGE STATUS

Owner-occupied units	13,463	100.0%	22,617	100.0%	37,098	100.0%	3,942,483	100.0%	75,833,135	100.0%
Housing units with a mortgage	6,451	47.9%	11,392	50.4%	19,424	52.4%	2,439,523	61.9%	48,185,314	63.5%
Housing units without a mortgage	7,012	52.1%	11,225	49.6%	17,674	47.6%	1,502,960	38.1%	27,647,821	36.5%

SELECTED MONTHLY OWNER COSTS (SMOC)

Housing units with a mortgage	6,451	100.0%	11,392	100.0%	19,424	100.0%	2,439,523	100.0%	48,185,314	100.0%
Less than \$500	275	4.3%	352	3.1%	563	2.9%	26,498	1.1%	755,268	1.6%
\$500 to \$999	3,050	47.3%	4,817	42.3%	9,738	50.1%	298,004	12.2%	9,304,185	19.3%
\$1,000 to \$1,499	2,082	32.3%	3,947	34.6%	5,570	28.7%	464,621	19.0%	13,698,835	28.4%
\$1,500 to \$1,999	643	10.0%	1,442	12.7%	2,214	11.4%	387,588	15.9%	9,858,438	20.5%
\$2,000 to \$2,499	286	4.4%	432	3.8%	642	3.3%	335,021	13.7%	5,856,392	12.2%
\$2,500 to \$2,999	47	0.7%	236	2.1%	395	2.0%	292,067	12.0%	3,494,948	7.3%
\$3,000 or more	68	1.1%	166	1.5%	302	1.6%	635,724	26.1%	5,217,248	10.8%
Median (dollars)	987	(X)	1,053	(X)	975	(X)	2,064	(X)	1,515	(X)

Housing units without a mortgage

Housing units without a mortgage	7,012	100.0%	11,225	100.0%	17,674	100.0%	1,502,960	100.0%	27,647,821	100.0%
Less than \$250	749	10.7%	1,450	12.9%	1,959	11.1%	125,314	8.3%	3,632,492	13.1%
\$250 to \$399	2,194	31.3%	2,834	25.2%	5,255	29.7%	171,971	11.4%	6,899,706	25.0%
\$400 to \$599	2,304	32.9%	3,735	33.3%	5,984	33.9%	293,698	19.5%	7,943,094	28.7%
\$600 to \$799	1,154	16.5%	1,899	16.9%	2,904	16.4%	250,164	16.6%	4,286,265	15.5%
\$800 to \$999	340	4.8%	786	7.0%	876	5.0%	193,367	12.9%	2,138,586	7.7%
\$1,000 or more	271	3.9%	521	4.6%	696	3.9%	468,446	31.2%	2,747,678	9.9%
Median (dollars)	448	(X)	465	(X)	444	(X)	728	(X)	474	(X)

SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI)

Housing units with a mortgage (excluding units where SMOCAPI cannot be computed)	6,427	100.0%	11,379	100.0%	19,367	100.0%	2,428,289	100.0%	47,932,589	100.0%
Less than 20.0 percent	3,437	53.5%	5,887	51.7%	10,160	52.5%	940,449	38.7%	20,992,031	48.3%
20.0 to 24.9 percent	774	12.0%	1,831	16.1%	2,703	14.0%	358,166	14.7%	7,607,075	15.9%
25.0 to 29.9 percent	557	8.7%	1,110	9.8%	1,823	9.4%	266,058	11.0%	5,202,903	10.9%
30.0 to 34.9 percent	405	6.3%	674	5.9%	1,156	6.0%	186,139	7.7%	3,459,412	7.2%
35.0 percent or more	1,254	19.5%	1,877	16.5%	3,525	18.2%	677,477	27.9%	10,671,168	22.3%
Not computed	24	(X)	13	(X)	57	(X)	11,234	(X)	252,725	(X)



Housing unit without a mortgage (excluding units where SMOCAPI cannot be computed)

	6,932	100.0%	11,117	100.0%	17,473	100.0%	1,486,097	100.0%	27,259,804	100.0%
Less than 10.0 percent	2,669	38.5%	4,181	37.6%	6,902	39.5%	519,257	34.9%	11,889,330	43.6%
10.0 to 14.9 percent	1,549	22.3%	2,322	20.9%	3,520	20.1%	279,113	18.8%	5,326,647	19.5%
15.0 to 19.9 percent	949	13.7%	1,561	14.0%	1,966	11.3%	183,781	12.4%	3,100,800	11.4%
20.0 to 24.9 percent	459	6.6%	938	8.4%	1,606	9.2%	118,843	8.0%	1,904,462	7.0%
25.0 to 29.9 percent	328	4.7%	568	5.1%	959	5.5%	81,816	5.5%	1,230,056	4.5%
30.0 to 34.9 percent	248	3.6%	339	3.0%	547	3.1%	59,158	4.0%	833,791	3.1%
35.0 percent or more	730	10.5%	1,208	10.9%	1,973	11.3%	244,129	16.4%	2,974,718	10.9%
Not computed	80	(X)	108	(X)	201	(X)	16,863	(X)	388,017	(X)

GROSS RENT

Occupied units

paying rent	4,242	100.0%	8,398	100.0%	14,847	100.0%	3,239,340	100.0%	40,768,931	100.0%
Less than \$500	979	23.1%	2,338	27.8%	3,617	24.4%	362,181	11.2%	4,295,540	10.5%
\$500 to \$999	2,831	66.7%	5,224	62.2%	9,886	66.6%	857,761	26.5%	16,741,754	41.1%
\$1,000 to \$1,499	386	9.1%	717	8.5%	1,244	8.4%	949,880	29.3%	11,685,037	28.7%
\$1,500 to \$1,999	29	0.7%	45	0.5%	64	0.4%	557,863	17.2%	4,789,482	11.7%
\$2,000 to \$2,499	8	0.2%	58	0.7%	36	0.2%	246,621	7.6%	1,822,982	4.5%
\$2,500 to \$2,999	6	0.1%	13	0.2%	0	0.0%	115,145	3.6%	733,525	1.8%
\$3,000 or more	3	0.1%	3	0.0%	0	0.0%	149,889	4.6%	700,611	1.7%
Median (dollars)	633	(X)	626	(X)	631	(X)	1,194	(X)	982	(X)
No rent paid	419	(X)	708	(X)	1,038	(X)	120,887	(X)	2,223,855	(X)

GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI)

Occupied units

paying rent (excluding units where GRAPI cannot be computed)	4,144	100.0%	8,293	100.0%	14,606	100.0%	3,163,962	100.0%	39,799,272	100.0%
Less than 15.0 percent	693	16.7%	1,343	16.2%	1,952	13.4%	415,993	13.1%	5,011,892	12.6%
15.0 to 19.9 percent	536	12.9%	942	11.4%	2,068	14.2%	353,281	11.2%	5,004,777	12.6%
20.0 to 24.9 percent	372	9.0%	1,000	12.1%	1,642	11.2%	362,695	11.5%	5,062,386	12.7%
25.0 to 29.9 percent	393	9.5%	1,047	12.6%	1,220	8.4%	338,955	10.7%	4,581,896	11.5%
30.0 to 34.9 percent	421	10.2%	653	7.9%	1,193	8.2%	290,681	9.2%	3,633,936	9.1%
35.0 percent or more	1,729	41.7%	3,308	39.9%	6,531	44.7%	1,402,357	44.3%	16,504,385	41.5%
Not computed	517	(X)	813	(X)	1,279	(X)	196,265	(X)	3,193,514	(X)

Data Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates, Selected Housing Characteristics

Residential Building Permits in 2018

	Allegany County			Cattaraugus County			Chautauqua County		
	Units	Pct Dist.	Pct Dist. In U.S.	Units	Pct Dist.	Pct Dist. In U.S.	Units	Pct Dist.	Pct Dist. In U.S.
Total Permits Filed	42	100%	100%	85	100%	100%	135	100%	100%
Single Family	42	100.0%	64.4%	83	97.6%	64.4%	133	98.5%	64.42%
Two Family	0	0.0%	1.6%	2.4	2.4%	1.6%	2	1.5%	1.6%
Three and Four Family	0	0.0%	1.3%	0	0.0%	1.3%	0	0.0%	1.3%
Five Families and More	0	0.0%	32.6%	0	0.0%	32.6%	0	0.0%	32.6%

Source: U.S. Census Bureau (www.statsamerica.org)



o **Health care**

Regional residents typically have access to high quality health care, either within the region or by traveling to larger municipalities outside the region. However, there are issues: although the larger communities in the region typically are centers for health care with service levels proportional to their size, the adequacy of the regional healthcare system in fact varies across the region. Certain communities are underserved by comprehensive health care services. Certain health care institutions in the region face ongoing challenges to their viability and competitiveness in response to the dynamics of technology advances and insurance and regulatory environments. In certain areas, there are shortages of certain health care providers, e.g., doctors, nurses, and specialists.

Health care costs increasingly are a burden to regional employers and residents. Despite the Patient Protection and Affordable Care Act, a number of regional residents still do not have adequate health care insurance or cannot afford proper treatment. Although many of these health care services issues are local manifestations of the macro-level (i.e., national) structural health care industry environment, and are not capable of being successfully remediated exclusively through local initiatives, there remain significant local opportunities for improving health care access across the region, which the region should attempt to address.

o **Educational Resources**

Although the region possesses a significant primary, secondary, and post-secondary educational infrastructure, the region feels that improvements still are needed with respect to educational performance at the primary and secondary levels, and with respect to preparing residents for current and future jobs.

Primary and secondary educational performance is a function of both the social environment (e.g., including the home life) of children and of the educational system. New York State is experiencing an ongoing dialogue with respect to common core standards, which is not resolved in a positive manner as of the date of publication of this CEDS. At the local level, financial constraints are causing local schools to make difficult choices in terms of investment in educational resources and services. These issues are not unique to the region. Although there are a number of high performing schools within the region, others' performance could be improved.

With respect to preparing residents for current and future jobs, in particular there is room for increased emphasis on STEAM (science, technology, engineering, arts, and mathematics) education and entrepreneurial education at the primary, secondary, and post-secondary educational levels. The region also finds itself with a labor force shortage related to skilled labor jobs (welding trades, engineering, CNC, machining, etc.), indicating an additional need for certain types of vocational training and for advanced STEAM education. The region also should encourage its population to obtain post-secondary bachelors and advanced degrees to improve the availability of high skill level persons in the workforce.

Certain of the region's post-secondary institutions are centers of technology research (e.g., ceramics, advanced materials, etc.), which could lead to business development through technology transfer and thorough preparation of the future labor force for jobs in technology-based businesses and in sectors that will or at least may develop from emerging technologies. Additionally, at a more basic level, innovative programs are being developed that fill the gaps between traditional educational and job training programs, such as Dream It Do It, the Career Pathways structure of Literacy West, and the Community Opportunities for Rural Education (CORE) Collaborative among over 75 local agencies and departments.

o **Networks and connectivity**

As has been noted elsewhere, educated and skilled people and high-growth companies are mobile and can locate virtually anywhere. Other things equal (e.g., economic opportunity, presence of family, access to cultural amenities, etc.), they often choose to locate in regions that value connected, safe, convenient and healthy places to live, work, and do business. Connectivity requires basic infrastructure (e.g., strategic transportation links and information technology connections), but it also requires networks among people, that is, "civic spaces" in both the physical environment sense and the non-physical environment sense. As a region that clearly values quality of life, our region has many civic spaces, and should continue to develop even more of them to improve its positioning as a place to live, work, and do business. There is an opportunity in the region for additional development of both enhanced connective infrastructure and networks.



- **Recreational and cultural assets and services**

For a rural region, the region has a surprising number of recreational and cultural assets that contribute both to quality of life and economic development. Nonetheless, the region also has underutilized recreational and cultural assets, and there are gaps in the provision of, marketing of, and access to certain types of cultural assets, especially in the more rural areas of the region. There is a perception that the region needs to continue to invest in recreational and cultural assets and services for both economic development and quality of life.

- **Public safety**

While the region's crime rate is low relative to that of more urban areas, the region nonetheless does have public safety concerns. In recent years, the region has experienced higher levels of drug activities and associated crime, and higher incidence of gang activity.

- **Community centers**

Many communities in the region have downtown centers that continue to be idyllic small town environments for living and working. However, many communities are experiencing threats to their downtown business districts, including urban sprawl, the entry of "big box" and other non-locally-owned competitors into local marketplace, and the migration of downtown retail and service business out of downtown business districts (i.e., sprawl). There is a perception that, consistent with smart growth principles, the region needs to concentrate economic and community development initiatives toward preserving and enhancing the vitality and centrality of these downtown centers.

- **Community comprehensive plans**

Southern Tier West has been an advocate for increased levels of planning at the community and county level. In the last several years, Allegany, Cattaraugus, and Chautauqua Counties all have completed updates of their county comprehensive plans. Several municipalities also are updating or creating comprehensive plans. This process is extremely important, as it creates a shared local consensus about direction and strategies and provides a list of strategic initiatives for achieving the goals of the comprehensive plan. Southern Tier West actively encourages comprehensive planning and makes use of these comprehensive plans when developing its regional CEDS. Additionally, the Seneca Nation of Indians annually updates its own Comprehensive Economic Development Strategy (CEDS) document, which Southern Tier West uses in the preparation of its own CEDS.

- **Environment**

Although the region's environment is largely a clean, rural environment not subject to many of the issues experienced by many urban regions, the region's environmental quality of life is threatened to various degrees by air, soil and water contamination. There is a perception that the region must do more, not only to maintain and preserve its regional environment, but also to improve its regional environment. These environmental interests sometimes are seen as being incompatible with economic development, but in the long term, a failure to address environmental issues appropriately will be counterproductive as the region's goal is to maintain a healthy regional economy.



SWOT Analysis

Intro

The detailed discussion in the previous Summary Background section of this CEDS Technical Report provided an overview of the region’s economic situation. This detailed SWOT Analysis (i.e., an analysis of regional strengths, weaknesses, opportunities, and threats) builds on the data in the Summary Background section and provides an analytical evaluation of the regional economy, including the opportunities and threats posed by internal and external trends and forces, and the availability of resources for economic development.

SWOT analysis elements are commonly understood in the following terms:

- **Strengths** are a region’s relative competitive advantages (e.g., industry supply chains and clusters, extensive rail and broadband assets, specialized workforce skills, higher education levels, collaboration among stakeholders) and often are internal in nature;
- **Weaknesses** are a region’s relative competitive disadvantages (e.g., a risk-averse or change-resistant regional culture), also often internal in nature;
- **Opportunities** are chances or occasions for regional improvement or progress (e.g., expansion of an advanced materials research lab in the region), often external in nature; and
- **Threats** are chances or occasions for negative impacts on the region or regional decline (e.g., companies in the region considering moving to other regions), also often are external in nature.

In each of the four subsections herein – Regional Strengths, Regional Weaknesses, Regional Opportunities, and Regional Threats – the content is further classified under one of the following five areas:

- **Human Capital**
- **Traditional and Non-Traditional Infrastructure**
- **Innovation and Entrepreneurship**
- **Quality, Connected Places**
- **Collaborative Leadership**

These five areas also will be the five prime strategic goal areas of this CEDS, and hence the areas of strategic regional economic development focus.

Regional Strengths

1. **Human Capital:** These regional strengths relate to the region’s labor force, which needs to have the skills necessary to create a knowledge-based and innovation-based economy, so as to encourage businesses to start, locate, and expand in the region. In this area, the region’s strengths are as follows:
 - A. **Presence of a labor force with certain skills:** The region has a labor supply surplus of unutilized and underutilized workers, many with significant skills. Because of layoffs and plant closures, many workers are looking for jobs that can utilize their specific skills and experiences. Such jobs are not always present within the region, so many displaced workers either leave the region in search of employment, accept a job for which they effectively are under-employed, or seek retraining for other jobs. The region’s labor force is capable of being retrained. In any event, these workers represent a regional asset that can be capitalized upon.
 - B. **Presence of a high productivity labor force:** According to New York State Empire State Development, New York State ranks 9th in the nation for worker productivity in the manufacturing sector, with workers generating a value of more than \$6 of output for every dollar earned.
 - C. **Educational attainment:** Although the data indicate that the region’s labor force has certain deficiencies with respect to educational attainment (i.e., low rates of attainment of bachelor’s degrees and advanced



degrees), the region's population's and labor force's high rates of attainment of associate's degrees nonetheless is an economic development asset.

- D. **Education and employee training system:** The region has an aggressive network of public and private human resource and training organizations that provide workforce training and other human resource assistance, including the Workforce Investment Boards, Board of Cooperative Educational Services, colleges and universities, the Regional Technology Development Center for Western New York (Insyte Consulting), etc. This system provides a relevant, high-quality curriculum that is increasingly responsive to business needs. Entrepreneurial education and training also is available from certain sources (primarily economic development organizations).
 - E. **Positive migration dynamics:** Although the region still is experiencing a loss of population, which translates into a shrinking labor force, the outmigration is slowing somewhat in recent years.
2. **Traditional and Non-Traditional Infrastructure:** These regional strengths relate to the region's built environment and services that are requisite for retaining and expanding existing businesses and attracting new businesses to the region. Infrastructure includes not only traditional physical infrastructure (e.g., water and wastewater service, natural gas and electricity service, broadband service, etc.), but also non-physical infrastructure and services (e.g., specialized space, dedicated equipment, information and communication technologies, business networks, linkages to the education/research/labor force training system, logistics, etc.), all of which are essential for the region to attract and expand business and support entrepreneurial development. In this area, the region's strengths are as follows:
- A. **Strategic location of the region:** The region's proximity to both the eastern metro markets and the midwest is a regional strength. The region is located less than 500 miles from 41% of the US population and 59% of Canada's population. Access to key population centers is important to the region's success. This predisposes the region to being able to reach markets for regionally produced goods and services, and for attracting tourism to the region.

The midwest also is the location of the nation's agricultural resource base, or "breadbasket." This could be an advantage for the location of businesses needing accessibility to agricultural inputs, for production of final food products for sale in the eastern metro-markets.
 - B. **Transportation infrastructure:** The region is served by two interstate highways and two Class 1 railroads, and three short line rail operators also serve much of the region. Because of the proximity of the region to a large market base in the northeast, the region can parlay this transportation infrastructure into transportation and logistics business development. Development sites that should be targets would include acreage near the region's interstate highway exits and acreage along the region's railroad corridors.
 - C. **Information and communication technologies (broadband, wireless):** The region has significant broadband infrastructure in the more populated communities, which are perhaps the most likely locations for broadband-dependent business development. The completed fiber backbone that traverses the region provides reliable high-volume and service-redundant service (i.e., in the event of a primary connection going down), and accordingly it has potential for catalyzing additional business development at or near nodes, or that needs reliable and redundant broadband service. Overall, our region's improved and service-redundant broadband service allows for the development of internet-related, location-neutral businesses in our rural region. Broadband investment affords an opportunity for regional businesses to utilize broadband connectivity when communicating with vendors and customers, moving high-volume data, conducting research, developing strategic partnerships, and performing any number of activities to bring value to their business.
 - D. **Significant natural resource base and physical development assets:** The region's significant natural resources and development assets include:
 - **Farmland and agricultural resources:** The climate, soils, and topography of the region has contributed to the region being a center of activity in dairy, vegetable, fruit (including especially



grapes), maple syrup, livestock (including poultry and equine), nursery/greenhouse and other agricultural production crops. Increasing the amount of secondary processing would provide substantial economic benefit to the region.

- **Forest assets:** The climate, soils, and topography of the region also has made the region a resource for world-class forest products in several choice hardwood species (maple, ash, red oak and black cherry).

**Top five species ranked by all live sound volume
and percentage of total volume in unit on forest land, by FIA unit,
Southwest Highlands of New York State, 2007**

Sugar maple	17%
Red maple	16%
White ash	11%
Black cherry	8%
Northern red oak	7%

Source: "New York's Forests 2007," Resource Bulletin NRS-65,
US Department of Agriculture Forest Service, 2007

In 2007, approximately 62% of southwestern New York State's land acreage (including the three counties in the region and several to the east of the region) was classified by New York State Department of Environmental conservation as being timberland (i.e., forested land without legal harvesting restrictions).

Over the long run, the acreage of timberland in New York State actually has increased, as land use dedicated to agriculture (farming) has decreased and farm land has reverted to forests through natural regeneration. However, because of increased development and a slowing in farm land losses, gains in total forest land have slowed. These trends may indicate that the area of forest land in the State and the region may be nearing a peak. In 2007, 87% of the timberland in southwestern New York was owned by the private sector.

Growing-stock volume on New York State's timberland has steadily increased since 1950, with an estimated 34% increase in growing stock volume between 1993 and 2007. Over this period, the portion of growing stock volume large enough to produce saw logs has increased by 41%. The western southern tier counties are one of the regions of the State that have experienced the largest gains in forest land acreage.

Presently, only approximately 41% of the region's annual net timber growth is being removed through harvesting.

**Average annual net growth, removals, and net change (1993-2007)
as a percentage of current volume on timberland,
Southwest Highlands in New York**

<u>Gross growth</u>	<u>Mortality</u>	<u>Net Growth</u>	<u>Removals</u>	<u>Net Change</u>
3.7	-0.5	3.2	-1.3	1.9

Source: "New York's Forests 2007," Resource Bulletin NRS-65,
US Department of Agriculture Forest Service, 2007

In fact, the growth/removal rate in southwestern New York State was 2.4:1 between 1993 and 2007. This implies that the current (2007) level of removals is sustainable and that increases in timber volumes can and most likely will continue. As the growth of trees in southwestern New York is outpacing tree mortality and removals (harvesting), this implies that there is significant potential for



increased harvesting, export use, and domestic secondary processing. Although export of harvested logs does provide wealth creation to the region, increasing the amount of secondary processing (e.g., dimensioning, furniture manufacturing, etc.) in the region could provide even greater economic benefit to the region.

However, despite the substantial increase in sawtimber volume, trends in tree quality, species composition, and sustainability of some high value species raise concern. Regeneration of some important timber species—northern red oak, white pine, and black cherry—lags behind that of other species. Although the number of ash trees has increased, this species is threatened by the emerald ash borer, which potentially could cause large decreases in the number of this important species.

- **Water resources:** The region has an abundant supply of clean uncontaminated fresh water suitable for both potable and process needs.
- **Marcellus and Utica shale gas resources:** The region is located in a larger multi-state region of deposits of shale gas resources, which could provide both energy opportunities and business development opportunities. There is, however, significant disagreement about the environmental implications of extracting this resource. However, in 2015, New York State issued a findings statement that says that the high-volume hydraulic fracturing process that is used to extract Marcellus shale gas has significant potential negative environmental and health impacts. New York State has prohibited high-volume hydraulic fracturing in New York State.
- **Solar energy resources:** This is a relatively untapped energy source that is available in the region, which can be used for heating, heating water, and electricity generation. Per NYS Department of Environmental Conservation, “solar technologies can be applied at both large and small scales. Large commercial scale solar power plants feed electricity directly to the utility electric grid. Smaller distributed solar electricity generation by individual homes, institutions or businesses is economically feasible because New York has adopted ‘net metering,’ which allows excess electricity generated on sunny days to flow back into the electric grid, with credit or payment from the utility company for the power generated. ... New York State and the federal government offer financial incentives that help businesses, schools and homeowners defray the upfront cost of installing on-grid solar energy facilities.”
- **Geothermal energy resources:** This is a relatively untapped energy source that is available in the region, which can be used for both heating and cooling buildings. There is a federal tax credit for homeowners who install geothermal heat pump systems, and a similar incentive program is being discussed at the State level as well.
- **Wind energy resources:** The location of the region just east of Lake Erie positions the region (and especially the western-most portion of the region) as a good location for wind energy generation. There is, however, significant disagreement in certain localities about the desirability of wind farm siting to exploit this resource (e.g., noise; aesthetics; and potential impacts on wildlife, ecosystems, and local roadways and bridges), and also concern about the economic viability of wind farms absent federal incentives.
- **Biomass / Biofuels resources:** Per NYS Department of Environmental Conservation,
“Biofuels are solid, liquid or gas fuels made from recently-harvested biological material (biomass). Most biofuel is derived from plants, either crops grown specifically for fuel use or material left over from plants harvested for other uses. Burning biofuel releases carbon dioxide to the atmosphere, just as burning any other fuel does. However, unlike fossil fuel, biofuel can be renewable and low in carbon intensity -- if it is derived from plants that are grown sustainably (with new growth continuously replacing harvested material).

“In New York State there is some unproductive and marginal farmland with the potential for growing dedicated energy crops for cellulosic biofuels production. In addition, more than 18.5 million acres of New York timberland are being renewed at a rate greater than 3 to 1, meaning



that low-grade timber can be harvested in a sustainable manner for producing energy.

“Emissions, health effects and land use impacts associated with biofuels are not well understood. ... (There is a need to) examine environmental impacts of biofuel production, particularly on local water and air quality, as well as the land use impact from diversion of crops and the larger impact on the agricultural industry. ...

“Biofuels can be low in carbon intensity (the net amount of carbon released to the atmosphere) – as long as uptake by other growing plants balances the carbon that is released in biofuel production and use. Locally-grown biofuel can enhance energy security by increasing independence from petroleum. Some biofuels may burn more cleanly than fossil fuels, though considerable study is still needed to identify all biofuel combustion products and pollutants. Marketing of biofuel feedstocks can boost the profitability of farming and logging and improve the economies of rural communities.”

The land availability in the region for biomass cultivation and harvesting makes this an asset for potential economic development.

- **Lake Erie coastland asset.** This holds potential for increased development to support tourism and commercial activity, and perhaps for freight and passenger shipping facilities and operations.
- E. **Tourism assets:** The region’s tourism assets include numerous events and natural and man-made tourism destination facilities, recreational, and cultural assets. These assets are both privately owned and publicly owned. Publicly owned lands include forests, lakes, parkland, trails, etc. Outdoor recreation, eco-tourism, and agricultural tourism represent significant opportunities for regional economic development.
- F. **Significant manufacturing base:** The region has a number of manufacturing businesses with significant market presence, if not market leadership, in both domestic and global markets. The region also has a number of manufacturing businesses that are technology leaders in their markets. Several manufacturing businesses in the region are experiencing moderate growth. All these companies and their workforces have significant manufacturing expertise. The presence of these companies reflects a comparative advantage for the region, which should undertake a development strategy involving catalyzing the creation of additional value-added vertical supply chain and horizontal complementary companies in the relevant significant industry clusters and significant occupation clusters.
- G. **Significant industry clusters:** The region’s significant industry clusters, as measured by common high location quotients (LQs) in both the number of companies (“establishment LQ”) and number of employees (“employment LQ”), were:
 - Machinery manufacturing
 - Fabricated metal product manufacturing
 - Glass and ceramics
 - Agribusiness, food processing and technology
 - Forest and wood products

Note: Of course, the individual counties may have a slightly different mix of significant industry clusters. For example, the tourism sector (more formally, the “Arts, Entertainment, Recreation & Visitor Industries” cluster) is considered to be a significant economic cluster in several counties and specific areas within several counties. The implication is that the region should focus increased strategic economic development attention on increasing value-added, net-export economic activity in these locally significant clusters as well, so as to try and build upon the region’s competitive advantage to enhance the vitality and economic development impact of these locally significant clusters, and so as to capitalize upon them as drivers of economic development.
- H. **Significant occupation clusters:** The region’s significant occupation clusters, as measured by (“employment LQ”) were:



Agribusiness and food technology
Primary/secondary and vocational education, remediation and social services
Postsecondary education and knowledge creation
Public safety and domestic security
Personal services occupations
Skilled production worker
Health care and medical science (therapy, counseling and rehabilitation)

- I. **Growth sectors:** Although there are some differences as between the counties, on the whole the region's top private sector growth sectors since 1990, in terms of employment, are the service-providing sectors, primarily the education and health services sector, the professional and business services sector, the leisure and hospitality sector, and other services. There obviously is some market-based justification for this data, implying that the region might be able to parlay this advantage into greater growth through thoughtful facilitation. A growing skilled and experienced labor force in these sectors traditionally is thought to present a development asset.
- J. **Business acumen:** The region has a significant presence of business knowledge in the form of company owners, management, and senior management staff; in terms of business departments at regional colleges; in terms of business development experts at economic development organizations; in terms of leadership development programs throughout the region; in terms of consulting organizations and management experts; and in terms of organizational specialists and specialized professional advisors (attorneys, accountants, etc.). The region can use this resource as an asset in entrepreneurial development, through mentoring, ambassadors, networked support groups, and participation in boards of directors of startups. Specific assistance can be found at economic development organizations with respect to business planning, raising capital, financial projections and evaluations, marketing assessment, marketing strategy development, and regulatory compliance.
- K. **Technical acumen:** The region has a significant presence of technical knowledge in the form of company owners, management, and senior technical staff at regional businesses; in terms of technical staff (educators, researchers, and support staff) at certain regional colleges; and in terms of specialized professional advisors (attorneys, accountants, etc.). The region is advantageously located in the center of a number of research institutions (in the villages of Alfred and Fredonia in Allegany and Chautauqua Counties, respectively, and in nearby Pittsburgh, Cleveland, Buffalo, Rochester, and Ithaca) which afford the region's business community significant opportunity for technological advancement, and which also offer opportunities for technology transfer leading to new business development. Within the region, the Inamori School of Engineering at Alfred University is a significant teaching and research institution, with programs in biomaterials engineering, ceramic engineering, glass engineering science, mechanical engineering, materials science and engineering, and renewable energy engineering. The technology-based research with perhaps the most significant economic development potential is being done in the ceramics, glass, and advanced materials cluster the Inamori School of Engineering. The region can use these technical resources as an asset in entrepreneurial development, through consulting, contract research, etc.
- L. **Global linkages:** In addition to the more generalized business acumen asset indicated above, the region also has a certain number of businesses – typically the region's larger employers – with a global presence, i.e., involved in exporting their products/processes/services. These businesses have found a way to be competitive and participate on the global stage. If the region could use this export capacity as a means of generating additional export activity on the part of businesses not currently exporting, perhaps through export mentoring programs, this could lead to greater regional economic growth potential. As such the presence of these existing global linkages represents a regional economic development asset.
- M. **Presence of the Seneca Nation of Indians:** The Seneca Nation of Indians presents certain specific developmental assets, in addition to the assets described elsewhere herein, as follows:
- **History, culture, arts and crafts that appeal to travel and tourism industry**



- **Class II and Class III (Las Vegas style) gaming**
 - **Class II and Class III gaming revenues:** The Nation has an opportunity to utilize revenues from gaming and casino resort operations to diversify the Nation’s economic base so as to provide more diverse employment opportunities for members of the Seneca Nation and for the general non-Native American population, and also to insulate itself from external threats to tobacco and gasoline sales and casino operations.
 - **Land:** The Nation has developable land, and certain sites have adjacency to land assets including Allegany State Park, the Allegany River, Cuba Lake, and Lake Erie.
 - **Status as a sovereign nation:** The Nation’s unique position in this regard provides a number of advantages that can be utilized for development.
 - **Localized permitting requirements / regulatory control:** The Nation’s regulatory control provides certain advantages for development.
 - **Tax exempt status:** The tax exempt status of the Nation is an advantage to Nation-owned and joint venture opportunities with non-Native American partners. Tax efficiencies can provide business operating cost advantages.
 - **Financial incentives for business development:** The Nation has significant financial resources that can be used to catalyze business development on the tribal territories.
 - **Qualification for preferred status for government procurement processes:** This can provide an advantage for securing business opportunity.
 - **Natural resources:** These include natural gas deposits, sand and gravel deposits, wildlife and fish resources, and the potential for wind energy and ground source heat pumps.
 - **Specialized economic development infrastructure and resources:** The Seneca Holdings, LLC; the Seneca Nation of Indians Economic Development Corporation; the Seneca Nation Center for Business Growth; and the Seneca Commission for Economic Development; the Seneca Nation Housing Authority; and the Seneca Nation Mortgage Program are assets that the Seneca Nation can utilize to catalyze business development activity.
3. **Innovation and Entrepreneurship:** These regional strengths relate to the region’s capacity to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses. In this area, the region’s strengths are as follows:
- A. **Entrepreneurial capacity:** As noted in the Summary Background section, the region does have a certain infrastructure in place to nurture entrepreneurship, including:
- **Business non-technical assistance providers (e.g., business planning assistance, etc.)**
 - ACCORD Corporation
 - Cattaraugus Business Development Corporation
 - Jamestown Community College Small Business Development Center
 - **Business incubators**
 - Ceramics Corridor Innovation Center (<http://www.ceramicscorridor.org/>) / Sugar Hill Industrial Park
 - Fredonia Technology Incubator (<http://www.fredonia.edu/incubator/>)
 - Seneca Nation Center for Business Growth, Small Business Incubator
 - Olean Business Incubation Center



- **Business development programs**

- Insyte Consulting (<http://www.insyte-consulting.com/>)
- Manufacturers Association of the Southern Tier (<http://www.mast-wny.com/>) / Manufacturing Technology Institute (<http://www.sunyicc.edu/academics/manufacturing-technology-institute>)
- STW Manufacturers Productivity Improvement Program (<http://www.southerntierwest.org/pdfs/brochures/2014/MPI.pdf>)
- START-UP NY (<http://startup-ny.com/>) and New York State Innovation Hot Spot Programs (<http://www.wnyinnovationhotspot.com/>)
- Jamestown Community College Manufacturing Technology Institute (Olean)
- Alfred Center for Technology Transfer Project (proposed)
- Sustainable Advanced Manufacturing Center Project (Alfred, proposed)
- Sustainable Advanced Manufacturing Center Project (Wellsville, proposed)
- Various revolving loan funds and small business funding programs operating throughout the region

B. Innovation

- **Research and development enterprise:** The region is somewhat limited in terms of its capacity to conduct cutting-edge research and transfer commercializable technologies to the private sector business community and the entrepreneurial community. The primary center for such activity is the **Alfred University Inamori School of Engineering** research and professional programs (<http://engineering.alfred.edu/>), which has programs in biomaterials engineering, ceramic engineering, glass engineering science, mechanical engineering, materials science and engineering, and renewable energy engineering, and which has a research focus in biomaterials and polymers, ceramic and powder processing/manufacturing, design optimization, diffraction, electronic ceramics, electronic engineering, glass, mechanical engineering, mechanics of materials, microscopy and surface characterization, optical ceramics, renewable energy, solid-state chemistry, thin-film processing, THz materials science, and ultrafast material science, at the **Center for Advanced Ceramic Technology** (CACT, <http://cact.alfred.edu/>). The Inamori School of Engineering manages approximately \$5M in research awards from industry, foundations, and government agencies each year. The CACT, which facilitates most of the Inamori School's interactions with industry, has averaged 40:1 return on investment on state funds. The Center for High Temperature Characterization (CHTC) offers fee-based analytical services and access to sophisticated characterization equipment. The School also offers short courses/workshops, conferences, and other professional development opportunities to promote workforce development.
 - **Productivity enhancement programs and assistance:** These programs include State technical and funding assistance programs and the technical assistance programs operated by the regional Technology Development Center for Western New York (Insyte Consulting).
4. **Quality, Connected Places:** These regional strengths relate to the region's capacity to create quality, connected, safe, convenient and healthy places to live and work, that make the region attractive as a place to live, work and do business. The region has an attractive rural quality of life, making the region an attractive place to operate a business and raise a family, exemplified by the following:
- A. **Livable, walkable, smaller communities** with an attractive mix of commercial and residential districts, amenities, and the natural environment
 - B. **Low crime rates**
 - C. **Affordable cost of living**



D. Clean environment

E. Recreational and tourism assets

- Lake Erie, Chautauqua Lake, Cuba Lake, Rushford Lake
- Allegany and Genesee Rivers
- State, county, and municipal parks
- Ski resorts
- Snowmobile, hiking, bicycle, and recreational trails

F. Cultural assets

- Numerous arts and cultural institutions and organizations
- Numerous community festivals and events
- Colleges and universities
- Chautauqua Institution

G. Historic assets: The region's historic assets – unique cultural heritage, building stock and architecture, natural environments and prime agricultural lands, cultural sites and industrial heritage – are assets that contribute to the region's quality of life and, as tourism destinations, can be an economic driver.

5. Collaborative Leadership: These regional strengths relate to the region's capacity to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives. In this area, the region's strengths are as follows:

A. Community mindset: The region has levels of governance that reflect a need to collaborate and rationally seek solutions to problems and achieving goals. There is an increased level of collaboration and services and equipment sharing amongst municipalities in the region. Many community and industrial leaders have a strong "pride of place" commitment to region and a desire to see the region prosper. Most leaders live here because they choose to live here; they raise families and generations here. They are positive about the region and its potential future and are amenable to transformational change.

B. Indications of willingness to consider proactive investment in economic development: The region has begun to demonstrate a willingness to invest in proactive strategic economic development, exemplified in a recent round of strategic comprehensive planning, investment in incubators, investment in broadband infrastructure capacity, encouragement of STEM education, investment in business development / business assistance capacity, and systemic investment in targeted economic development initiatives. Examples of strategic comprehensive planning include the recently updated Allegany, Cattaraugus, and Chautauqua County comprehensive plans and the Jamestown Urban Design Plan. Examples of proactive investment in economic development include the Ripley shovel-ready site development and the investment in the community and in economic development that the Jamestown area foundations are making.

Regional Weaknesses

1. Human Capital: These regional weaknesses relate to the region's population and labor force. The region's labor force needs to have the skills necessary to create a knowledge-based and innovation-based economy, so as to encourage businesses to start, locate, and expand in the region. In this area, the region's weaknesses are as follows:

A. Structural population and labor force changes: The region has been experiencing population loss and aging of the population, resulting in a smaller regional labor force. The outmigration of the population, and especially the younger demographic, because of inadequate employment opportunities, also



contributes to a smaller, less skilled labor force.

- B. Inadequate regional educational attainment:** Although the region has a high level of attainment on individuals with associate's degrees, there is too high a percentage of individuals with a high school diploma or less, and too few individuals with bachelor's or advanced degrees. Research suggests that eight of ten people with at least a bachelor's degree are in the workforce while fewer than half without a high school diploma are employed. As the regional economy shifts away from manufacturing and toward service jobs, the labor force will need to be more educated to attract higher paying service sector clusters and employers.
 - C. Inadequate supply of a highly-skilled, technically-trained workforce** in many job titles.
 - D. Labor force productivity issues:** There is room for improved labor force productivity, especially regarding technological or advanced technical skills. Lower-than-optimal labor productivity levels also may be the result of the failure of employers to implement productivity enhancement programs or to invest in and utilize productivity-enhancing capital assets.
 - E. Low per capita income and high poverty rate:** The region's low per capita income levels and high poverty rates constrain economic activity (consumption, savings, and investment) and entrepreneurial activity.
2. **Traditional and Non-Traditional Infrastructure:** These regional weaknesses relate to the region's built environment and services that are requisite for retaining and expanding existing businesses and attracting new businesses to the region. Infrastructure includes not only traditional physical infrastructure (e.g., water and wastewater service, natural gas and electricity service, broadband service, etc.), but also non-traditional and/or non-physical infrastructure and services (e.g., specialized space, dedicated equipment, information and communication technologies, business networks, linkages to the education/research/labor force training system, logistics, etc.), all of which are essential for the region to attract and expand business and support entrepreneurial development. In this area, the region's weaknesses are as follows:
- A. Physical infrastructure constraints to development:** Some communities have infrastructure service capacities (including water and wastewater systems, natural gas capacity, electric service capacity, and broadband telecommunications capacity) that can sustain economic growth. However, the basic infrastructure (roads, communications, wastewater collection and treatment, water treatment and delivery) in many communities in the region is aging and costly to repair and maintain, and in many cases it is inadequate to supply the needs of new and/or expanding businesses, or may not be cost competitive with other municipalities or regions. Where infrastructure capacity is limited or not cost-competitive, addressing these situations may require considerable investment. There is an ongoing need for investment in the region's infrastructure capacity in many communities in the region so that the region can remain competitive – both with other domestic regions and with respect to the global marketplace – as a location that can support competitive business activity. Investments in infrastructure services create the environment necessary for new business development opportunities, as prospective entrants and entrepreneurs see that the region has the capacity to accommodate their investment and business activity.
 - **Water and wastewater:** The water and wastewater systems in a few of the region's communities are not only inadequate to support business development, they also may be inadequate to the point of posing health issues. Other communities do not have health-related infrastructure issues, yet still have water and/or wastewater infrastructure service capacities that are limited or that are not cost competitive.
 - **Energy utilities:** Natural gas service is unavailable in several of the region's smaller communities, and in the more rural areas of the region. This is problematic given that natural gas currently is a cost competitive heating solution for many businesses. With respect to electricity, some communities offer municipal electricity at low costs, but in some of these communities, adding new users of large amounts of electricity can cause rate levels to increase for all users. And notwithstanding energy supply capacity issues and local pricing issues, other regions occasionally can offer lower cost energy



rates than our region can, placing the region at a competitive disadvantage in terms of retaining and attracting businesses.

- **Broadband service:** In many of the region’s larger communities (cities and many villages), broadband service is adequate to support business activity. However, despite service improvements made in recent years, broadband service still is not uniformly available throughout the region, especially in the more rural areas of the region. Aggregate service capacity problems and a lack of system redundancy in some communities can constrain business development. Further, a lack of competitive alternate service providers in certain communities may keep broadband service costs high in those communities, also potentially constraining business development.
 - **Transportation infrastructure:** The region’s transportation infrastructure (federal, State, and local highway and bridge system, mainline and shortline railroad system, air transportation system, and mobility management system) needs constant maintenance and improvement to function as an effective intra-regional and inter-regional transportation system. Local highways and bridges are issues, especially with the financial resources available for maintenance. There is limited passenger air service within the region; many travelers need to travel outside the region to airports. There is no passenger rail service within the region; travelers must travel outside the region to passenger rail stations. As a sizable percentage of the region’s population have no or inadequate access to a personal vehicle, there is a need for high quality public transportation and safe opportunities to walk and bicycle to meet daily needs. This is especially true because of the size of the region and the often somewhat lengthy commuting distances. Local mobility management (public transportation) services may need to provide more frequent, attractive, visible flexible service, including better coordination of with employment needs such as plant shifts and business centers.
 - **Shortage of industrial sites and buildings:** The region has a limited number of adequately serviced shovel-ready industrial sites and competitive, move-in-ready buildings of various types, sizes, and amenities, which constrains economic development in the region.
 - **Shortage of physical facilities geared toward technology-based businesses:** There is an absence of specialized shared-use physical facilities, especially as regards technology development (i.e., prototype development, shared testing and manufacturing equipment, test beds, etc.), which constrains technology-based economic development. Also, there is a shortage of diverse and affordable physical space with specialized amenities (e.g., broadband, shared conference space, shared operating and office equipment, etc.) that, due to clustering and proximity, if it were present, would provide synergies between and among research enterprise and entrepreneurial community and catalyze technology-based business development.
- B. Capital market constraints to development.** There is an ongoing need for increased availability of equity and debt capital to support entrepreneurship and business development in the region.
- **Private equity capital.**
 - **Entrepreneurial capital:** The region appears to face the same issues that other regions have with respect to the capacity of entrepreneurs to contribute equity capital: this is a primary barrier to entrepreneurship. Entrepreneurs typically have little ability to contribute significant equity to a potential business development (a function of the region’s economic conditions and typical wealth inequality conditions).
 - **Venture capital:** There are few private equity capital funding resources capable of providing risk capital (e.g., angels, pre-seed funds, seed-funds, venture capital funds, micro-equity venture capital funds, non-traditional community venture capital funds, and venture debt/ venture lending organizations) to finance high-risk, high-growth entrepreneurial endeavors.
 - **Private debt capital.** Commercial debt financing also appears to be inadequate to satisfy demand. Entrepreneurs often are unable to attract commercial bank funding, and coupled with inadequate equity funding sources, entrepreneurs often are forced to rely on personal borrowing, and often start



businesses with a too-highly-leveraged (i.e., debt-heavy) financial capital structure. Highly leveraged financial structures result in elevated business failure rates and reinforce the commercial lending culture that exhibits a reluctance to lend to prospective entrepreneurs that cannot guarantee higher probabilities of successful operations.

Commercial asset-based lending in the region also is constrained by perceived higher default risks and weak collateral salvage markets, both common features of depressed rural economies. In many other regions, real estate is a prime source of collateral because it maintains good resale value in strong real estate markets. However, liquidation values of foreclosed assets in our rural region are low, since resale markets for commercial real estate and other business assets are not strong. This reduces the availability of asset-based commercial debt financing.

Symptoms of these inadequate equity and debt capital markets are (1) the frequent use of SBA 7(a) loan guarantees and (2) steady demand and occasional waiting lists for many local public sector revolving loan funds. However, despite the availability of the SBA 7(a) and other loan guarantees, there actually may be an under-reliance by the business and entrepreneurial community on loan guarantees. Additionally, despite the participation of public sector loan funds in commercial lending packages (leveraging commercial banks into senior collateral positions on larger collateral asset bases), commercial banks often appear unwilling to undertake what they perceive to be risky loans, even with public sector loan guarantees. As a consequence, there perhaps is a lower-than-optimal project implementation rate and a lower-than-optimal business start-up rate.

- **Public debt and equity capital.** Inadequate public sector financial resources also constrain business development. First, some local public sector loan funds are under-capitalized relative to the demand for funds. Second, at the State level, there are gaps in or obstacles to the State's provision of direct business loan incentive financing. Third, also at the State level, there are gaps in or obstacles to the State's provision of grant and loan funds for municipal economic projects and infrastructure projects, especially for projects with speculative or unspecified impact. Fourth, also at the State level, the regulatory mandates attendant with State financial assistance (e.g., MWBE procurement, reporting requirements, etc.) can make utilization of State incentive financing unattractive.
 - C. **Global linkages:** Although, as noted above, there are a certain number of regional businesses actually involved in exporting their products and services to foreign markets, overall the region seems under-represented in this regard. Very few firms in the region have a global presence. Additionally, there appears to be less-than-optimal rates of collaboration and participation of regional businesses with the region's university community with respect to export activities, and less-than-optimal participation of the foreign world at large with the region's universities and colleges with respect to research and business development activities. This negatively impacts the region's capacity to compete and participate on the global stage, and consequently leads to lower regional economic growth potential.
3. **Innovation and Entrepreneurship:** These regional weaknesses relate to the region's capacity to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses. In this area, the region's weaknesses are as follows:
- A. **Inadequate regional innovation capacity and activity:** The regional does not have in place a strategy or system of encouraging innovation by regional businesses. Accordingly, the region is experiencing inadequate levels of innovation. Indicia of a systemic lack of capacity in this regard include:
 - **Inadequate research and development enterprise capacity:** R&D enterprise capacity is the capacity of a region's economy to conduct cutting-edge research, combined with the desire to see that research applied to solve real-world problems. Examples of the presence of this capacity could include universities, research centers, private industry (both for profit and non-profit), medical centers, and federal labs. These types of infrastructure are either not present in the region or are inadequately represented. As mentioned earlier, the primary asset in this regard is the Inamori School of Engineering at Alfred University; the lack of additional centers of research limits the region's overall innovation capacity. Certain companies also have a history of regular or occasional



- innovation related to their specific products; however, overall this is not indicative of a universal climate of innovation. There are no private or federal labs in the region, or medical research facilities in the region. There also perhaps is not an environment in the region that fosters institutional openness (open innovation), information turbulence/knowledge spillovers, R&D know-how, industrial relations, entrepreneurial spirit, and adoption of new technologies.
- **Inadequate technology commercialization competence and activity:** Technology commercialization competence is the capacity to streamline and accelerate the process by which market-driven research is translated into products or processes that create economic value. In addition to the innovation-creation supply side issues (i.e., R&D enterprise capacity) indicated above, the region also has issues with innovation-distribution (i.e., commercialization) activity. Innovations that are developed at, for example, Inamori School of Engineering at Alfred University, are not making their way at a desirable pace into the private sector business community. Causes of this problem include inadequate support for commercialization and licensing of innovations, inadequate levels of “take up” of innovations by the private sector business community, the difficulties inherent in adopting new technologies into businesses’ operations, etc. The region does not have specific resources in abundance in the areas of legal expertise (i.e., with respect to transactions focused on joint ventures, acquisitions, mergers, investments, and intellectual property protection) and product commercialization (i.e., including product development, prototype development, regulatory compliance, and risk assessments for new products and new markets). Despite the presence of the Ceramics Corridor Innovation Center, which in part is intended to be a facilitator of technologies developed at the Inamori School, the region could do more to address these issues. Allegany County has proposed several technology commercialization initiatives, but this not a type of strategic initiative that is being adopted across the region. There is a technology incubator in Fredonia in Chautauqua County, but perhaps there needs to be complementary commercialization initiatives dovetailing with this incubator to enable it to realize its potential as a technology firm incubator.
 - **Inadequate innovation culture:** The region does not seem to have an intrinsic culture that celebrates entrepreneurship, which in turn generates an environment where startup businesses can thrive and where the pipeline for future entrepreneurs grows. The region currently does not firmly and intentionally celebrate the entrepreneurial spirit. There are not visible and charismatic entrepreneurs who are lauded publicly as role models. Entrepreneurial risk taking is not celebrated and encouraged, with visible encouragements signaling to and encouraging other potential entrepreneurs. There also are no visible and celebrated serial entrepreneurs in the region. The region could actively encourage this type of culture to develop as a means of generating additional entrepreneurship and innovation.
 - **Inadequate networking opportunities:** The region does not have a formalized system of cluster-based networking wherein members in a cluster (e.g., businesses, educational institutions, trade groups, employee organizations, etc.) can interact in an environment that fosters synergies and connections. It is known that such networks can lead to innovation, business growth, and new business development, so accordingly, the absence of such networks is a regional economic weakness. Without networks, businesses and entrepreneurs must operate as single actors without any support. The region could facilitate the creation of networks through scheduling of meetings (scheduled participatory talks on specific topics, delivering programmatic assistance, etc.), provision of meeting space and encouraging and incentivizing attendance and participation, and creation of virtual meeting and networking spaces. However, although the development of networks can be catalyzed, for them to have impact, they ultimately must be private-sector driven, and for that to happen, there must be value to the participants. The key will be developing a recognition that the face-to-face exchange of ideas and synergies can lead to the creation of new business opportunities, that diversity is important, that ideas only get better when they are openly discussed and considered by a mix of people, and that large scale and sustainable innovation is the product of collaboration.



- B. Inadequate regional entrepreneurial capacity:** The region does not have a strategy or system in place for “developing an adequate-sized pipeline” of individuals with the requisite skills and knowledge and intentions necessary to catalyze a high level of entrepreneurship in the region. As a consequence, the region is experiencing inadequate levels of entrepreneurship. Research has shown that an entrepreneurial culture within a region is essential to creating an innovation culture within the regional economy. The region’s entrepreneurial pipeline approach focuses primarily on assisting adult entrepreneurs interested in starting a business and on providing counseling and other technical assistance to existing businesses. While these are essential elements of an environment that nurtures entrepreneurial culture, these are not by themselves sufficient to develop and sustain an entrepreneurial culture. There should be additional entrepreneurial education programs instituted at all levels of the region’s educational system. There also should be a culture of celebrating entrepreneurship, and a network of aspiring and established entrepreneurs, which functions as an internally self-sustaining and self-reinforcing community.
- C. Barriers to entry:** There is a need to remove barriers to entrepreneurship, including inadequate access to startup capital (including venture capital funding and commercial bank funding), regulatory/permitting/tax barriers at the county and state levels, specialized technical assistance, incubator availability, management expertise, workforce limitations, etc.
- D. Productivity and competitiveness issues.** Certain significant portions of the region's (private and public sector) economic base utilize older technologies and practices and have not adopted newer technologies and practices. For the private sector, this can make companies unable to compete globally or even domestically, and may even lead to their demise. While some companies and units of government are constrained by a lack of capital, others are constrained by an inability to understand the importance of technological advancement and/or by the unwillingness or lack of capacity to embrace change. Comfort with the status quo has led certain companies and units of government in the region to operate with decades-old thinking, technologies, and practices. To become competitive, the region’s private and public sectors both need to adopt the technologies practices of the future.
- 4. Quality, Connected Places:** These regional weaknesses relate to the region’s capacity to create quality, connected, safe, convenient and healthy places to live and work, that make the region attractive as a place to live, work and do business. Although the residents of the region find the region an attractive place to live, work and do business, there are shortcomings in quality of life and structural factors that could be improved upon, as the targets for encouragement are not only current residents and business that the region would like to retain, but also potential residents and businesses that the region would like to attract, and that the region needs to convince. In this area, the region’s weaknesses are as follows:
- A. Quality of life forces and issues**
- **Community centers:** There is a need to preserve and reinvigorate main streets and downtown business centers to avoid sprawl, improve quality of life, and reduce the cost of service provision. However, there is a need for redevelopment and repair of downtowns, an additional need for enhanced commercial and services provision and increased availability of housing stock in downtowns, and a need to address high commercial vacancy rates in downtowns. There also is recognition that population has decreased in some communities, and redevelopment must be based upon this new reality. The region needs to create and improve creative districts within its communities, improve amenities within its communities, improve the walkability of its communities, and improve the relationship within communities of the built environment and the natural environment (e.g., public parks space and green space, trails, etc.).
 - **Community institutions:** A number of communities have a need for the improvement of many community institutions, including hospitals/emergency care facilities, schools, fire departments, community buildings, religious organizations, housing and housing organizations, social service organizations, libraries, parks, cultural institutions (e.g., museums and community arts centers), community foundations and other locally-focused philanthropies, volunteer associations, cooperatives, primary private sector businesses (e.g., groceries, pharmacies, gas stations, etc.), man-



made and natural recreational assets, and even virtual organizations and networks. With the erosion of net-export sectoral activity and the reduction in the bringing of new wealth into the region, many community institutions of all types may face threats related to the financial capacity of the region to maintain and improve them. These cornerstone institutions are essential to retaining and attracting the region's population and, especially, the younger skilled demographic. The region should have a plan for stabilizing and growing these institutions and addressing any gaps in their presence in the region's communities.

- **Recreation assets:** There is a need to further develop the region's recreational infrastructure and make older communities walkable so as to facilitate healthy activities and lifestyles. Recreational infrastructure can be both privately and publicly owned, and the region should encourage the development of both types of recreational infrastructure.
- **Cultural assets:** Although there are a number of arts and cultural organizations, artists, and festivals and events, overall there is inadequate public and private support for the region's cultural assets and cultural life. Many such organizations and events are sponsored by non-profits, volunteers, or communities, and as such are not monetized by profit-driven motivations; accordingly, the region needs to find ways of supporting financially these initiatives, and to grow them as a means of improving quality of life as an economic development vehicle. A side benefit is that many cultural assets also are bases for tourism activity, so support for cultural initiatives also has a tourism-based economic development element.
- **Housing and building stock:** The region's housing stock has several specific weaknesses: increasing age and inadequate new construction rates, substandard and non-code-compliant housing, lack of variety of alternative types of housing options to meet varied individual tastes and requirements, increasing prevalence of manufactured and/or mobile housing, increasing conversion of large homes to apartments, affordability of rental and purchase properties, absentee ownership of rental properties, etc. Despite an expressed desire for architectural preservation, there is a concern that the age of the region's building stock increases the cost of preservation and rehabilitation activities. Many residents and landlords cannot afford necessary maintenance and desired improvements (e.g., energy conservation improvements, etc.), and there is a lack of local knowledge about adaptive reuse practices.

The regional housing stock and housing market is not only a concern for quality of life; it is also a business location and employee recruitment parameter. It is difficult to recruit executives and professionals to live in an area without significant high-end housing stock, or to encourage executives and professionals to invest in a housing market that is weak and that does not offer the potential of capital gains from home ownership. In sum, the region's aging and limited housing stock is in need of replenishment as a means of retaining and attracting employees and employers in the region.

The region's commercial building stock also is inadequate to satisfy the wide range of potential purchasers' requirements. Although there are vacancies, the region often cannot respond to site and building inquiries because of a lack of building stock that satisfies the search parameters.

- **Public education:** There is potential duplication of services and high costs resulting from the large number of school districts. Consolidation and sharing could reduce operating costs and taxes, while making it easier to deliver state-of-the-art education services and facilities to students in larger sized individual schools.
- **Health care:** Health care outcomes throughout the region are not where they need to be (e.g., there are issues with high teen pregnancy and smoking rates, chronic disease, and childhood and adult obesity). Smaller communities may not have access to hospitals, emergency care facilities, and even local doctors. The regional population needs better access to specialists; presently, residents often travel to Buffalo, Rochester, Erie, and Cleveland for specialist services. There is a need for improved transportation options to help people travel to appointments. There is a need to transition from a disease management focus to a prevention focus. Amongst other things, this would entail



encouraging active lifestyles by creating walkable communities and obtaining additional funding to support chronic disease prevention programs. Recruitment and retention of doctors and other health care workers is a challenge due to low reimbursement rates and salary levels; the average age of doctors in the region is increasing substantially, and replacement of retiring health care workers may be problematic. There is a shortage of funds to improve aging and out-of-date hospitals and nursing homes.

Much like housing stock, health care is not only a quality of life issue; it also is a business location and employee recruitment parameter. Adequate health care is a requisite for retaining and attracting both employees and employers. When the region's health care system experiences critical challenges, the region's economy also will face (lagged) critical challenges. In addition to being an obstacle to new business development, the ultimate result of these challenges may be the outmigration of existing businesses and employees. Although this issue is not exclusive to our region, businesses nonetheless may compare health care environments (and especially health care costs) between regions and states when making location decisions. These considerations will continue after the implementation of the provisions of the Affordable Health Care Act.

- **Environment and conservation practices:** As a rural region, our region does not experience many of significant environmental issues present in more urban environments. However, our region is not immune to environmental and conservation issues.

Proper conservation practices are critical to preserving the environment, retaining the natural resource base, and preserving the rural aesthetic value. Although economic development and sound environmental and conservation practices can at times be at odds with one another, this is not always the case. One specific instance in which environmental considerations seem to be at odds with economic development issues, at least in the public and industry perceptions, is Marcellus and Utica shale gas extraction.

There also is a concern that overuse or inappropriate land development is perceived as a threat to the carrying capacity of the natural environment, requiring a delicate balance between use and conservation of natural resources and agricultural lands. There is a concern that certain business practices are damaging to the environment, and that land, air, and water resources are threatened by such practices, and by inappropriate development patterns and infrastructure design.

Finally, although certain sound environmental and conservation practices can raise business operating costs and thereby limit the achievement of maximum economic growth rates, from a societal perspective, sound environmental and conservation practices in fact minimize long-term socio-economic costs. In this sense, sound environmental and conservation practices are the optimal long-term course of action, despite the limiting impact on short-term and intermediate-term economic growth rates.

Sound environmental practices should be continually emphasized in both the business community and the public sector. An attractive and healthy environment is an asset to promoting regional business development.

- **Social capital:** The resources of the "social infrastructure" of community organizations and volunteer groups engaged in activities to benefit the community are becoming stretched.
- **Negative and divisive community attitudes:** There is a perception that the region has certain divisions – political, geographic, ethnic, racial, etc. – that negatively impact quality of life in the region. There is a concern that there is too much government, and that government is ineffective and often corrupt. There is a concern that the private sector is too motivated by profits to be concerned with social utility. There is a concern that there is too much public apathy.



B. Other Structural Forces and Issues

- **State-created business climate:** Despite improvements in recent years, New York State remains a relatively high-cost business operating environment. Relative to the business operating environments in other states, New York State's corporate and personal income tax burdens, regulatory and compliance requirements, workman's compensation burdens, utility costs, winter heating costs, high transportation costs, rising health care costs, etc. remain burdensome to businesses and constrain business attraction, retention, and development. The tax structure imposes high tax burdens on individuals and businesses and does not create a level playing field between technology start-ups and old-line industries. Regulations (e.g., environmental, etc.) result in high business operating costs. Multiple levels of government and regulatory entities result in multiple levels of permitting, which can make development projects or starting a business difficult. The business climate has not actively fostered the growth of technology companies in the region. There has been a failure to provide sufficient innovation-based business incentives that address identified market failures or gaps, so as to catalyze sufficient activity in this regard within the region. There also has been a failure to provide sufficient strategic entrepreneurial encouragement, so as to catalyze sufficient entrepreneurial activity within the region.

- **State and local government operating costs:** There are too many layers of government creating an inefficient and costly environment for residents and businesses. High state and local municipal operating costs are passed on to individuals and businesses, making businesses less competitive and discouraging residents from living in the State. Certain local municipal operating costs originate from unfunded State mandates, regulatory and compliance requirements, and other miscellaneous municipal operating issues (e.g., rising health care costs, State pension fund costs, etc.). The effects on businesses of the State's own fiscal situation also have been somewhat problematic for the private sector business community.

Additionally, some levels of government, especially smaller rural community governments, seem to be slow to innovate with respect to operating practices. There is a need to reduce/consolidate/share services to promote better service delivery and reduce taxes.

- **State labor force climate and legal environment:** New York State's labor force and labor legal environment both are sometimes perceived to be more unfriendly toward business and management than they actually are. As a consequence, some businesses may consider other less-unionized states with fewer labor laws and regulations to be better locations for their business operations.

However, although New York does have comprehensive labor regulations and a relatively empowered labor force, any cost disadvantages attendant to these factors often are offset by the relatively high productivity and strong work ethic of the State's labor force. In fact, recent studies show that western New York is a leader in positive labor relations, which should positively position our region in this regard. Furthermore, these studies indicate that joint labor-management problem solving is a core characteristic of western New York labor relations, and that western New York is world-class in terms of workforce quality and workplace practices. These studies also confirm the results of earlier academic studies that show that unions contribute to the success of high-performance workplaces.

In sum, while the negative perception of New York's labor climate and legal environment is perhaps overstated, its persistence may be a lingering deterrent to regional business development.

- **Government service delivery:** There is a shortage of local government financial resources and staff capacity to deliver needed services. There also is some openness to innovation within government operations, but there is room for increased innovation and entrepreneurship in this regard.
- **Government policies:** Although there is an increasing rate of collaboration between units of government in the region (e.g., shared services, etc.), there is still an incidence of parochialism in this regard, and there is an inadequate level of collaboration in the region between government and



other sectors of the economy (including collaboration between government and the educational community, economic development organizations, workforce development organizations, and the business community). The region has not strategically identified market failures or gaps and instituted innovation-based business incentives that address these market failures / gaps. The region also needs to externalize entrepreneurial/innovation support whenever it is practical so as to grow the innovation support community and catalyze innovation and entrepreneurship. These types of government policies would help catalyze the creation and growth of technology companies.

- **Macroeconomic issues:** Economic issues that are being experienced nationwide or statewide or even globally (i.e., that are not necessarily a consequence of locally caused circumstances) constrain economic development. Examples include general macroeconomic conditions (i.e., global and national recession, which the region has not yet recovered from), global competition, the transition away from manufacturing, the downturn in agricultural prices, global political and financial instability, etc. All these factors have negatively impacted the region's economy, resulting in job losses, business closures, and increased absentee business ownership.
 - **Distressed areas:** There are pockets of distress in the region's communities, both large and small, which constrain economic activity and economic development.
 - **Problems with the region's image:** There is a perception in some corners that the region has an image problem – being seen as “an economically devastated rural backwater that has limited potential for economic development” – that contributes to the region's difficulty in attracting firms, skilled workers, students, and visitors, and that discourages our own residents. The region needs to develop a better image, both externally and internally, so that it can move beyond this defeatist external perception and self-image.
5. **Collaborative Leadership:** These regional weaknesses relate to the region's capacity to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives. In this area, the region's weaknesses are as follows:
- A. **Inadequate proactive government strategic economic development:** There is a shortage of local government financial resources and staff capacity to undertake economic development initiatives. Government also seems often to be reactive, as opposed to proactive, in its strategic economic development initiatives. There is inadequate strategic economic development planning culminating in the creation of a portfolio of prioritized economic development initiatives, and the designation and appropriation of capital funds to implement these initiatives in a rational fashion. The region's governments at all levels need to develop a collective frame of mind focused on commitment to common long-term/sustaining goals, and on proactive, strategic economic transformation. Proactive strategic economic development initiatives should focus on the following areas:
- **Target clusters:** The region's governments – especially at the county level economic development organizations – need to focus on, talk about, encourage, incentivize, facilitate, recognize, and celebrate the region's significant industry and occupation clusters. The region's county level economic development organizations should develop and implement cluster-based economic development initiatives that help build these clusters and incentivize further development within these clusters.
 - **Entrepreneurship:** The region's governments at all levels and the region's community and civic leaders need to focus on, talk about, encourage, incentivize, facilitate, recognize, and celebrate entrepreneurship. The region's governments at all levels and the region's community and civic leaders need to create a regional identity or brand that focuses on entrepreneurial activity and engage in regional marketing of that brand as a means of encouraging entrepreneurship. Entrepreneurial success stories should be told in regional media outlets as well as newer social media outlets (blogs, tweets, etc.) and should become known widely throughout the community and region. The region should position itself as a home for entrepreneurs, creating a "sense of place" with well-publicized locations of entrepreneurial activity (e.g., incubators, virtual networks, districts, etc.) and



discernable nodes of creativity/activity/establishment churn. The region should seek to be recognized as a hotbed of entrepreneurial activity.

- **Innovation:** The region's governments at all levels and the region's community and civic leaders need to focus on, encourage, incentivize, facilitate, recognize, and celebrate innovation. There needs to be engagement in cross-fertilization of sectors (e.g., the business community, academia, economic development organizations, etc.) for innovation, and in problem solving and creation of solutions and opportunities by participants from different business groups and industrial sectors.
- B. **Need for an increased governmental focus on collaboration:** The region's governments at all levels need to develop a collective frame of mind focused on collaboration with each other and with other sectors, including larger and smaller companies; public, private, and philanthropic sectors; academia and industry; "old" and "new" sources of wealth within the region; and the broadest possible composition of community by several socio-demographic characteristics (i.e., diversity).

Regional Opportunities

1. **Human Capital:** These regional opportunities relate to opportunities for economic development that are created by the region's labor force, or to opportunities to further develop the region's labor force, so that it has the skills necessary to create a knowledge-based and innovation-based economy, so as to encourage businesses to start, locate, and expand in the region. In this area, the region's opportunities are as follows:
 - A. **Opportunities for economic development that are created by the region's labor force:** These opportunities include:
 - Focusing strategic initiatives on significant regional occupation clusters
 - Linking available and displaced workers to employment and entrepreneurship opportunities
 - B. **Opportunities to further develop the region's labor force:** The opportunities include:
 - Retention and employment of the region's college graduates
 - Expansion of apprenticeship programs
 - Expansion of mentoring programs
 - Establishment of a regional sourcing portal for job and training opportunities
 - Increase support and accessibility for on-the-job training
 - Focusing job and training opportunities on local workers
 - Creation of transferable skill training programs
 - Investment in career talent pipeline initiatives
 - Investment in entrepreneurial development
 - Enhancing STEAM education
2. **Traditional and Non-Traditional Infrastructure:** These regional opportunities relate to opportunities for economic development that are created by the region's built environment and services, which are requisite for retaining and expanding existing businesses and attracting new businesses to the region. Infrastructure includes not only traditional physical infrastructure (e.g., water and wastewater service, natural gas and electricity service, broadband service, etc.), but also non-physical infrastructure and services (e.g., specialized space, dedicated equipment, information and communication technologies, business networks, linkages to the education/research/labor force training system, logistics, etc.), all of which are essential for the region to attract and expand business and support entrepreneurial development. In this area, the region's opportunities are as follows:



- A. **Investment in traditional physical infrastructure consistent with “smart growth” principles** – water and wastewater service, transportation infrastructure, natural gas and electricity service, broadband service (including encouraging competitive alternate service providers), etc.
- B. **Expansion and / or improvement of non-traditional physical infrastructure** – specialized space, dedicated equipment, information and communication technologies, business networks, linkages to the education/research/labor force training system, and logistics. The region has an opportunity to encourage the development of physical facilities geared toward technology-based businesses, including specialized shared-use physical facilities, especially as regards technology development (i.e., prototype development, shared testing and manufacturing equipment, test beds, etc.), shortage of diverse and affordable physical space with specialized amenities (e.g., broadband, shared conference space, shared operating and office equipment, etc.).
- C. **Shovel readiness** – site development / industrial park expansion / infrastructure expansion / permitting / development along rail and highway corridors and broadband backbone corridor / interstate interchange development / spec building development
- D. **Downtown revitalization and building renovation / redevelopment** – An example is the work that is being done in Jamestown with respect to the implementation of the Urban Design Plan, which can be seen as representing an opportunity for Jamestown and as an example for other municipalities across the region.
- E. **Development of more sustainable neighborhoods and walkable communities** – Two examples are the work that is being done in Jamestown (implementing the Neighborhood plan in coordination with the County Land Bank, the Jamestown Urban Renewal Agency and the various Jamestown area foundations) and the work that is being done in the City of Olean with respect to the Walkable Olean plan to reconstruct and reimagine the North Union Street central business district. Both of these initiatives can be seen as representing opportunities for these two communities and as examples of opportunities for other municipalities across the region.
- F. **Brownfield remediation and redevelopment**
- G. **Encouragement of “green infrastructure”**
- H. **Implementation of sustainable energy improvements from the Western New York Regional Sustainability Plan**
- I. **Protection and restoration of water resources, waterfronts, open spaces, and habitats** – An example is the work that is being done in Jamestown with respect to the Jamestown River Walk, which can be seen as representing an opportunity for Jamestown and as an example for other municipalities across the region.
- J. **Enhancement of public access to waterfront areas** – Again, an example is the work that is being done in Jamestown with respect to the Jamestown River Walk, which can be seen as representing an opportunity for Jamestown and as an example for other municipalities across the region.
- K. **Enhancement of recreational / tourism assets**, including Lake Erie, Chautauqua Lake, Cuba Lake, Rushford Lake, the Allegany and Genesee Rivers, State, county, and municipal parks, ski resorts, and snowmobile/hiking/bicycle/recreational trails
- L. **Capturing the potential of the Seneca Nation of Indians as a driver of economic development, including:**
 - Cultural tourism (history, culture, arts and crafts)
 - Utilization of Class II and Class III gaming revenues to diversify the Nation’s economic base
 - Development of Seneca nation of Indians’ developable land and sites, including sites with adjacency to land assets including Allegany State Park, the Allegany River, Cuba Lake, and Lake Erie.



- Utilization of the Seneca Nation of Indians' status as a sovereign nation, tax exempt status, and localized permitting requirements / regulatory control as a development advantage, including Nation-owned and joint venture opportunities with non-Native American partners.
- Utilization of the Seneca Nation of Indians' financial incentives for business development
- Utilization of qualification for preferred status for government procurement processes
- Utilization of the Seneca Nation of Indians' specialized economic development infrastructure and resources (The Seneca Holdings, LLC; the Seneca Nation of Indians Economic Development Corporation; the Seneca Nation Center for Business Growth; and the Seneca Commission for Economic Development; the Seneca Nation Housing Authority; and the Seneca Nation Mortgage Program)

3. **Innovation and Entrepreneurship:** These regional opportunities relate to opportunities for economic development that are created by the region's capacity to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses. In this area, the region's opportunities are as follows:

A. **Target industry clusters:** The region has opportunities for development in certain specific industry clusters that are regionally significant, that have growth potential, and that are clusters of value added regional export activity, such as:

- Machinery manufacturing
- Fabricated metal product manufacturing
- Glass and ceramics
- Agribusiness, food processing and technology
- Forest and wood products

The region also has significant opportunities for development of the following clusters:

- Tourism
- Value-added export service sectors, including personal service occupations and medical occupations (e.g., therapy, counseling and rehabilitation occupations, etc.)

The region's opportunities for capitalizing on significant industry clusters could include the following development strategies:

- Catalyzing the creation of additional value-added vertical supply chain and horizontal complementary companies in the relevant significant industry clusters and significant occupation clusters.
- Encouraging and incentivizing the attraction or local development of food processing businesses utilizing local food producing resources and transportation infrastructure.
- Encouraging and incentivizing the attraction or local development of secondary forest products processing businesses utilizing local forest producing resources and transportation infrastructure.
- Encouraging and incentivizing the attraction or local development of glass and ceramics manufacturing businesses utilizing technology and research capacity.
- Catalyzing tourism development through:
 - expansion and improvement of public tourism destination facilities, recreational assets (including waterfront accessibility), and festivals / events (number and variety)
 - encouraging and incentivizing privately owned tourism destination facilities and recreational assets
 - revitalizing downtowns, creating special districts (e.g., arts, entertainment, specialized shopping, etc.) and improving walkability



- Improving accessibility and wayfinding
 - Developing or improving gateway, visitor, and information centers that provide comprehensive information needed by tourists
 - expansion and improvement of publicly owned, privately owned, and non-profit cultural and historical organizations, community assets, and programs
 - incentivizing the expansion and improvement of the tourism, recreation, and leisure support sector
 - regional and localized tourism branding/utilization, expanded tourism marketing (including specialized marketing, such as coordination of multiple complementary and cross-sectional events and facilities, eco-tourism, arts tourism, recreational tourism, etc.), improved coordination between destinations and events and the support sector, improved coordination of regional event scheduling (to encourage extended visitor stays)
- B. Entrepreneurship:** The region has opportunities for increasing the level of entrepreneurship through:
- development of an entrepreneurship and innovation culture through recognizing, supporting, incentivizing, and celebrating entrepreneurship and innovation
 - creation of a formalized system of cluster-based business and entrepreneurial networks wherein members in a cluster (e.g., businesses, educational institutions, trade groups, employee organizations, etc.) can interact in an environment that fosters synergies and connections, including the scheduling of meetings (scheduled participatory talks on specific topics, delivering programmatic assistance, etc.), provision of meeting space and encouraging and incentivizing attendance and participation, creation of mentoring and ambassador programs, and creation of virtual meeting and networking spaces.
 - undertaking increased entrepreneurship education at all levels (e.g., primary and secondary education, colleges, and adult education)
 - expanding and enhancing non-technical entrepreneurial and small business assistance resources and providers (e.g., business planning assistance, etc.) and business development programs, and encouraging the utilization of these assets
 - enhancing entrepreneurial funding vehicles
 - improving links between colleges and economic development organizations and private industry
 - encouraging incubator development/expansion
 - undertaking a regional business plan competition
- C. Innovation**
- Technology transfer and commercialization opportunities, consulting, contract research, short courses/workshops/conferences/other professional development opportunities to promote workforce development, etc., with Alfred University and other regional and non-regional centers of technology research and development
 - Expanded and enhanced productivity enhancement programs and resources
- D. General business development opportunities**
- Improving regional business capital market accessibility, through creation and expansion of various stage private and community venture capital funds, expansion of revolving loan fund capitalization, increased utilization of loan guarantees to leverage commercial bank financing, and assistance to businesses with accessing private and public funding sources
 - Expanded and enhanced productivity enhancement programs and small business and entrepreneurial



assistance resources

- Enhancement of export activity, through facilitation of export assistance from federal and other sources, export mentoring by regional businesses currently involved in exporting, and increased collaboration and participation of regional businesses with the region's university community with respect to export activities, increased financial assistance to support export activity, foreign outreach events, assistance with developing export marketing materials, assistance with export research, and assistance with export transportation logistics and foreign regulatory issues
- Broadband-dependent businesses: The region could encourage and incentivize the development of internet-related, location-neutral businesses.

4. **Quality, Connected Places:** These regional opportunities relate to opportunities for economic development that are created by the region's capacity to create quality, connected, safe, convenient and healthy places to live and work, that make the region attractive as a place to live, work and do business. In this area, the region's opportunities are as follows:

- Regionalization of infrastructure services:** The region could increase regionalization of infrastructure services so as to improve cost efficiencies in local service delivery.
- Community centers:** The region has an opportunity to preserve and reinvigorate main streets and downtown business centers to avoid sprawl ("smart growth"), improve quality of life, and reduce the cost of service provision. This would include redevelopment and repair of buildings and public spaces, catalyzing commercial and services providers to locate in downtowns, increasing the availability of housing stock in downtowns, creating and improving creative districts, improving walkability and wayfinding, and improving the relationship within communities of the built environment and the natural environment (e.g., public parks space and green space, trails, etc.).
- Community institutions:** The region has an opportunity to plan for stabilizing and growing these institutions, and addressing any gaps in their presence in the region's communities.
- Recreation assets:** The region has an opportunity to further develop the region's recreational infrastructure and make older communities walkable so as to facilitate healthy activities and lifestyles. Recreational infrastructure can be both privately and publicly owned, and the region should encourage the development of both types of recreational infrastructure.
- Cultural assets:** The region has an opportunity to provide greater public and private support for the region's cultural assets and cultural life.
- Housing and building stock:** The region has an opportunity to address weaknesses in the region's housing and building stock, through:
 - catalyzing new construction and repair / renovation
 - incentivizing increased variety of alternative types of housing options to meet varied individual tastes and requirements
 - removing blight
 - reducing absentee ownership of rental properties
 - incentivizing energy conservation improvements and adaptive reuse
 - incentivizing increased supply and variety of the region's commercial building stock through adaptive reuse, renovation and repair, and speculative building construction
- Public education:** The region has an opportunity to consolidate schools and increase sharing to avoid potential duplication of services and high costs of education provision while making it easier to deliver state-of-the-art education services and facilities. Charter and private schools also are alternatives that can be considered.



- H. **Health care:** The region has an opportunity to improve health care outcomes through:
- reducing teen pregnancy and smoking rates, chronic disease, and childhood and adult obesity through obtaining additional funding to support chronic disease prevention programs
 - improving access to hospitals, emergency care facilities, and even local doctors in smaller communities
 - improving access to specialists in the region
 - improving transportation options to help people travel to appointments
 - transitioning from a disease management focus to a prevention focus
 - encouraging active lifestyles by creating walkable communities
 - enhancing the recruiting and retaining of doctors and other health care workers
 - improving aging and out-of-date hospitals and nursing homes
- I. **Environment and conservation practices:** The region has an opportunity to encourage and require proper conservation practices, limit overuse or inappropriate land development, regulate certain potentially damaging business practices, encourage sound business and government environmental and conservation practices, and limiting inappropriate development patterns and infrastructure design.
- J. **Social capital:** The region has an opportunity to encourage the development of the resources of the “social infrastructure” of community organizations and volunteer groups engaged in activities to benefit the community.
- K. **Improvement of community attitudes:** The region has an opportunity to improve certain negative and divisive community attitudes (including political, geographic, ethnic, and racial divisions) that negatively impact quality of life in the region. The region should reduce the amount of government through centralization, regionalization, and shared services. The region should market to itself to improve self-image and reduce public apathy and negativity.
5. **Collaborative Leadership:** These regional opportunities relate to opportunities for economic development that are created by the region’s capacity to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives. In this area, the region’s opportunities are as follows:
- A. **Strategic comprehensive planning and economic development planning,** with prioritized strategic economic development initiatives and designation and appropriation of sufficient capital resources to implement these initiatives, and systemic investment in these targeted economic development initiatives
- B. **Enhanced levels of partnership and collaboration:** The region has an opportunity to increase the levels of partnership and collaboration between units of government and between government and the business community (including larger and smaller companies); the educational community; economic development organizations; workforce development organizations; public, private, and philanthropic sectors; and diverse communities within the region.
- C. **Investment in business development / business assistance capacity, target clusters, entrepreneurial development, and innovation:** The region needs to ensure that it has sufficient structural service-delivery capacity (e.g., technical and business assistance providing capacity and funding assistance capacity) to nurture business development. The region has an opportunity to focus on, talk about, encourage, incentivize, facilitate, recognize, and celebrate target industry and occupation clusters, entrepreneurship and innovation. Target clusters potentially provide the greatest opportunity for regional economic development growth. The region’s governments at all levels and the region’s community and civic leaders need to create a regional identity or brand that focuses on entrepreneurial activity and engage in regional marketing of that brand as a means of encouraging entrepreneurship. Entrepreneurial success stories should be told in regional media outlets as well as newer social media



outlets (blogs, tweets, etc.) and should become known widely throughout the community and region. The region should position itself as a home for entrepreneurs, creating a "sense of place" with well-publicized locations of entrepreneurial activity (e.g., incubators, virtual networks, districts, etc.) and discernable nodes of creativity/activity/establishment churn. The region should seek to be recognized as a hotbed of entrepreneurial activity. Business innovation provides the greatest potential for sustainable economic development, and global competitiveness with technology-current and innovation-savvy competitors.

- D. **Innovation with respect to government operating practices:** The region's governments at all levels need to innovate with respect to operating practices, including adoption of new technologies and reducing/consolidating/sharing services to promote better service delivery and reduce taxes.

Regional Threats

1. **Human Capital:** The region faces several potential economic threats created by labor force issues. The region's labor force must possess the skills necessary to create a knowledge-based and innovation-based economy, so as to encourage businesses to start, locate, and expand in the region. In this area, the region's threats are as follows:
 - A. **Changing demographics:** The region's aging population will increase the dependent population carrying cost burden and reduce size of productive-age workforce. The region also is experiencing a population decline and an outmigration of its productive age population and youth. This is in part a "brain drain," i.e., the loss of individuals with advanced education and specific talents, knowledge, training and skills from the region. Additionally, some of the region's younger demographic leave the region to seek their education and/or employment outside of the region.
 - B. **Labor force issues:** The region's labor force is decreasing in size. There are issues with workforce skills and preparedness.
2. **Traditional and Non-Traditional Infrastructure:** The region faces several potential economic threats created by the condition of the region's built environment and services, which are requisite for retaining and expanding existing businesses and attracting new businesses to the region. Infrastructure includes not only traditional physical infrastructure (e.g., water and wastewater service, natural gas and electricity service, broadband service, etc.), but also non-physical infrastructure and services (e.g., specialized space, dedicated equipment, information and communication technologies, business networks, linkages to the education/research/labor force training system, logistics, etc.), all of which are essential for the region to attract and expand business and support entrepreneurial development. In this area, the region's threats are as follows:
 - A. **Age of infrastructure:** The region's aging infrastructure could fail unless maintained, leading to temporary or permanent job losses. The cost of repairing or improving infrastructure could impact business operating costs, leading to job losses.
 - B. **Financial wherewithal to support maintenance and improvement of strategic infrastructure:** The region's county and municipal governments and economic development organization may experience financial constraints, including lowered availability or unavailability of funding from external sources to support economic development, leading to economic dislocations or the failure to capture economic development opportunities.
 - C. **Potential disasters/dislocations:** The region may face economic dislocations caused by natural and man-made disasters, plant closures/downsizing, etc.
3. **Innovation and Entrepreneurship:** The region faces several potential economic threats created by issues related to the region's capacity to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses. In this area, the region's threats are as follows:



- A. **Relocation:** Innovators and entrepreneurs may relocate to other regions perceived as more friendly or facilitative to their development activities, or which offer greater technical, financial or workforce resources and incentives or less costly operating environments.
 - B. **Absentee ownership:** Non-local owners typically are less committed to local operations and may close or relocate operations based upon financial considerations.
 - C. **Succession planning:** Locally owned businesses may be threatened or negatively impacted by inadequate preparation for succession or transition.
4. **Quality, Connected Places:** The region faces several potential economic threats created by issues related to the region's capacity to create quality, connected, safe, convenient and healthy places to live and work, that make the region attractive as a place to live, work and do business. In this area, the region's threats are as follows:
- A. **Economy:** Although there has been somewhat of an improvement in the domestic economy, the regional economy is lagging this recovery.
 - B. **Global competition and competition from other domestic regions:** The region faces potential loss of businesses relocating to other areas, and potential downsizing or exit of companies impacted by foreign and domestic competition.
 - C. **Rural quality of life:** Employees or business owners may decide to relocate based upon personal considerations related to the region's quality of life.
5. **Collaborative Leadership:** The region faces several potential economic threats created by issues related to the region's capacity to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives. In this area, the region's threats are as follows:
- A. **Financial constraints:** The region faces a high cost of provision of government services, too many levels of government (need for consolidation and service sharing), and lower amounts of financial resources available for community projects (including infrastructure maintenance and improvements and economic development incentives).
 - B. **Lack of leadership:** Many smaller communities face difficulties with obtaining qualified and committed leaders with vision, expertise and experience to occupy leadership and governance positions.

Strategic Implications

The various economic development issues, strengths, weaknesses, opportunities, and threats discussed above imply a number of strategic directions that the region should embrace in order to remove these obstacles to creating a healthy, competitive, and sustainable economy.

While certain issues (e.g., state corporate and personal income tax burdens, state regulatory climate and compliance burdens, state workman's compensation burdens, macroeconomic conditions, utility costs, winter heating costs, unfunded mandates, high transportation costs, rising health care costs, high municipal operating costs, labor force and labor legal environment, etc.) are structural in nature and remediating them is beyond the scope of a regional comprehensive economic development strategy, nonetheless there are many strategic steps that the region can take to respond to many of the other economic development problems that it faces.

Similarly, while certain strengths and opportunities may be beyond the realistic capacity of the region to capitalize upon (e.g., owing to financial and political constraints, imperfect knowledge, etc.), nonetheless there are many strategic steps that the region can take to capitalize on many of the economic development opportunities available to it.

In sum, the above SWOT Analysis suggests the following **strategic regional economic development foci:**



1. Target economic development activities and initiatives toward significant regional **industry clusters and occupation clusters** that are value-added and net export clusters
2. Promote and catalyze **entrepreneurship**
3. Increase the quantity and quality of **human capital** through education and job training, to develop a highly skilled, tech-savvy regional labor force
4. Augment our region’s educational services to encourage improved **STEAM skills** (Science, Technology, Engineering, Arts, and Mathematics skills) and **entrepreneurial skills**
5. Maintain and improve **transportation infrastructure**, consistent with smart growth principles
6. Maintain and improve **utility infrastructure**, including **broadband and energy infrastructure**, consistent with smart growth principles and with green infrastructure principles
7. Develop, improve, and expand **industrial sites, acreage, parks, and buildings** (“shovel readiness”), consistent with smart growth principles
8. **Improve communities** through initiatives including **downtown revitalization and building renovation / redevelopment; development of more sustainable neighborhoods and walkable communities; brownfield remediation and redevelopment; protection and restoration of water resources, waterfronts, open spaces, and habitats; enhancement of public access to waterfront areas; and enhancement of recreational / tourism assets**
9. Incentivize and catalyze **innovation, technology transfer, and adoption of new technologies**
10. Provide adequate and innovative **development finance resources** and **technical assistance** as needed to catalyze and incentivize (new and existing) private sector business development
11. Assist in the **retention and expansion of existing regional businesses**
12. **Attract new businesses** to the region
13. Maintain and improve the **region’s cornerstone and community-based and civic institutions and quality of life assets, capacities, and services** to improve area quality of life
14. Encourage, at the community, county, and regional levels, **comprehensive and strategic economic development planning**; and develop and implement **community and economic development projects** consistent with those plans and with **smart growth principles** and **sound environment principles**
15. Improve **quality of life assets** that impact economic development
16. Improve **collaborative leadership**, including increased **strategic comprehensive planning and economic development planning and project implementation**; enhanced levels of **partnership and collaboration**; increased investment in **business development / business assistance capacity, entrepreneurial development, and innovation**; and **innovation with respect to government operating practices**
17. **Capture the potential of the Seneca Nation of Indians as a driver of economic development**



Seneca Nation of Indians SWOT Analysis

The following summarizes the SWOT analysis found in the Seneca Nation of Indians' 2017 CEDS. A more recent version of the Seneca Nation of Indians CEDS was not available at the time of preparation of this CEDS.

Strengths

- Location in the middle of major transportation corridors
- Railroad infrastructure
- The proximity to major metropolitan areas such as Buffalo, Niagara Falls, Rochester, and Toronto
- WNYREDC growth sectors (advanced manufacturing, agriculture, bi-national logistics, energy, health and life sciences, higher education, professional services, and tourism), which provide enormous opportunity for economic diversification
- The low cost of living
- The high quality of life
- The resources available at area universities
- Tremendous potential as a tourism destination
- History, culture, arts and crafts that appeal to the travel and tourism industry
- Increased traffic generated by visitor attractions
- The natural beauty of the region and rural, country-like setting
- Varied recreational opportunities
- Support services for the large resorts and attractions
- Potential growth in retail, including destination retail and boutique shops
- SNIDEC; Seneca Holdings, LLC (an investment holding company); the Seneca Nation Center for Business Growth (a small business incubator); and the Seneca Commission for Economic Development (a tribally chartered corporation serving as the Nation's primary instrument for implementation and management of Nation economic development initiatives and projects)
- Tax and other financial incentives for business development
- Entrepreneurial spirit
- Available workforce
- Access to higher education and workforce training opportunities
- Class II and Class III (Las Vegas style) gaming
- A proud history that the community wants to preserve

Weaknesses

- High unemployment rates (higher than surrounding counties in Western New York)
- High poverty rates (higher than surrounding counties in Western New York)
- Need for increasing post secondary education rates to alleviate poverty faced by high school graduates
- High incidences of nutrition-related and other health issues
- Contamination of former railroad and industrial land and buildings



- West Valley Demonstration Project and Peter Cooper Site, which are contaminating Nation lands downstream via Cattaraugus Creek
- Workforce with inadequate skills for today's new economies
- High state personal and corporate taxes, workers compensation, and disability program dates
- Lack of complete build-out of broadband service
- Aging and poor condition water and wastewater infrastructure

Opportunities

- Clean energy technologies - manufacturing space in Cuba, New York has been identified as a potential site for the manufacturing of clean energy technology.
- Ongoing job training and workforce development programs
- Additional investment in tourism infrastructure may lead to opportunities in the recreation, gaming and tourism markets
- Potential opportunities to increase natural gas production through new wells on both Territories
- 2 megawatt Solar Array in Steamburg, NY on the Allegany Territory

Threats

- Threats by NYS to long standing treaties with the Federal government
- Legislation supporting the interests of mega-monopolies over minority entrepreneurs
- Threats by NYS to the Nation's tax-free retail status
- Environmental threats on the Nation's territories (include poor water and air quality, abandoned underground and aboveground storage tanks, solid waste sites, brownfields, and pesticide use)
- Passage of the Federal PACT Act (Prevent All Cigarette Trafficking) has halted Nation distribution of tobacco products and mail-order sales through the U.S. Postal Service, resulting in the loss of over 1,500 on-territory jobs.
- New gaming enterprises in neighboring Pennsylvania and Ohio, as well as the operation of state-sanctioned casinos in New York, have curtailed the Seneca Gaming Corporation's casino market share, contributing to declining gaming revenue for the Nation and negatively impacting regional employment levels. Now more than ever, diversification of the economy is vital to the Seneca Nation's ability to survive and prosper.
- Housing shortages, substandard housing, and inadequate infrastructure, causing many enrolled Senecas to live off-territory.

Strategic Implications

The Seneca Nation of Indians' economic development vision, goals, objectives, and action plan strategies, as set forth in the Seneca Nation's [2017 CEDS](#), are included in the following section of this CEDS (Strategic Direction and Action Plan). (A more recent version of the Seneca Nation of Indians CEDS was not available at the time of preparation of this CEDS.)



Strategic Direction / Action Plan

"Dream no small dreams, for they have no power to move the hearts of men."
--Johann Wolfgang von Goethe, German author and statesman

Vision, Goals, and Objectives

Vision

The Southern Tier West region seeks to become a region whose economy is globally competitive, is dynamic and growing, and provides meaningful and sustaining employment for its residents. The Southern Tier West region seeks to transform its regional economy into a regional-net-export-surplus, knowledge-based, innovation-based economy that is more internally self-sufficient, i.e., that is less dependent upon the extra-regional economy. The Southern Tier West region seeks to maintain and cultivate the value-added regional-net-export-surplus sectors of the regional economy – be they manufacturing, service, or agricultural – in industry clusters and occupation clusters in which our region enjoys a competitive or niche advantage, in which there is opportunity and capacity for innovation, and in which there is significant growth potential. Finally, the Southern Tier West region seeks to create a regional economy that is a sustainable economy, which does not compromise the quality of life and regional economy of future generations.

Additionally, the Seneca Nation of Indians' 2017 CEDS document contains the following vision statement:

To promote income diversification, job creation and improve the quality of life and economic welfare of the people within the Seneca Nation's Territories and surrounding host communities. This will be achieved by actively promoting, attracting, encouraging, developing, and investing in economically sound commerce and industry.

(A more recent version of the Seneca Nation of Indians CEDS was not available at the time of preparation of this CEDS.)

Goals

Goals are broad, primary regional expectations that are essential to achieving the region's vision. This CEDS sets forth the following five economic development goals:

- 1. Human Capital** – to develop a skilled labor force capable of creating a knowledge-based and innovation-based economy, and that encourages businesses to start, locate, and expand in the region
- 2. Traditional and Non-Traditional Infrastructure** – to maintain and improve the region's built environment and services that are requisite for retaining and expanding existing businesses and attracting new businesses
- 3. Innovation and Entrepreneurship** – to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses
- 4. Quality, Connected Places** – to create quality, connected, safe, convenient and healthy places to live and work, that make the region attractive as a place to live, work and do business
- 5. Collaborative Leadership** – to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives



Additionally, the Seneca Nation of Indians' 2017 CEDS document contains the following economic development goal:

The Seneca Nation will improve the Seneca economy with increased employment and mean income and create a stable diverse local economy through partnerships, infrastructure and training/educational opportunities.

(A more recent version of the Seneca Nation of Indians CEDS was not available at the time of preparation of this CEDS.)

Objectives

Objectives are more specific than goals, clearly measurable, and provide milestone parameters against which the region's progress in attaining its economic goals can be evaluated. This CEDS sets forth the following fourteen economic development objectives:

1. Achieve per capita income levels exceeding state and national levels.
2. Achieve poverty rate levels less than state and national levels.
3. Achieve and sustain income transfer payment rates that are less than state and national levels.
4. Achieve unemployment rates less than state and national levels.
5. Reduce the level of underemployment and part time employment to levels that are less than state and national levels.
6. Reduce population outmigration to levels less than state levels and stabilize and augment regional population levels.
7. Increase the percentage of the region's population that is represented by the 18-to-64 age demographic to levels exceeding state and national levels.
8. Achieve and sustain secondary and post-secondary (associates, bachelors, and graduate) education levels in excess of state and national levels.
9. Increase the average high-tech employment share to levels equal to or exceeding state and national averages.
10. Increase the technology-based knowledge occupations as a share of total employment to levels equal to or exceeding state and national averages.
11. Increase the utilization of venture capital investment in the region to state levels.
12. Increase broadband density and penetration levels to levels equal to or exceeding state and national averages.
13. Increase establishment churn rates to a level that exceeds state and national rates as a means to diversification as insurance against closures and dislocations of large employers.
14. Increase gross domestic product (GDP) per worker in the region to levels equal to or exceeding state and national averages.

Additionally, the Seneca Nation of Indians' 2017 CEDS document contains the following economic development objectives (a more recent version of the Seneca Nation of Indians CEDS was not available at the time of preparation of this CEDS.):



1. Profit maximization by deploying \$28 million in capital committed by the Nation in a diversified framework
2. Actively promote, attract, encourage, develop, and invest in economically sound commerce and industry.
3. Increase recreational activities connecting to local and regional green and blue trail networks.
4. Re-purpose Brownfield areas that have been cleaned up.
5. Expand economic development opportunities with High Banks Campground creating a year-round tourist site.
6. Work with SNI Transportation expanding bus routes for employment and shopping commutes.
7. Develop Bus Garage/Hub to protect bus investment and provide shelter for commuters.
8. Increase the attractiveness of the Seneca Territories as places to do business.
9. Support increased travel and traffic through the territories and upgrade and expand infrastructure.

Strategies

Strategies are more specific types of activities and initiatives that the region endorses as a means to achieve the above objects, so as to attaining its economic goals. This CEDS sets forth the following thirty-two primary economic development strategies, categorized under the five primary regional economic development goal areas presented above. Each group of strategies is prefaced by a restatement of the specific goal.

Human Capital – to develop a skilled labor force capable of creating a knowledge-based and innovation-based economy, and that encourages businesses to start, locate, and expand in the region

1. **Retain and stabilize the regional population** to provide a sufficient population base to ensure the continuing viability of regional institutions and communities, and to provide sufficient labor force to ensure that the region's economy can grow and develop. By and large, this is a function of economic opportunity, infrastructure (broadband, utility and transportation improvements), business climate, cost of living, and quality of life.
2. **Improve regional population demographics**, i.e., attract a skilled, younger demographic population, to stabilize and grow the region's population and labor force, and to reduce the impact of the region's dependent population demographic.
3. **Improve regional educational attainment** through enhancing our region's educational system and services; increasing the percentage of the population acquiring advanced educational degrees at the associate, bachelors, masters and doctoral levels; encouraging the region's best and brightest to stay in the region to pursue their careers and lives; encouraging enhanced STEAM (Science, Technology, Engineering, Arts, and Mathematics) education, leadership, technology-based education, and entrepreneurial education at the primary, secondary, post-secondary, and adult education levels; and encouraging enhanced career development planning early on during education to help guide the younger demographic into careers with futures.
4. **Increase the quantity and quality of human capital through education, workforce training, job training, internships, and other mechanisms** so as to develop a highly skilled, tech-savvy regional labor force that meets current and future employer needs
5. **Focus on building and capitalizing on regionally significant occupational clusters as a development asset.**

Traditional and Non-Traditional Infrastructure – to maintain and improve the region's built environment and services that are requisite for retaining and expanding existing businesses and attracting new businesses



6. **Maintain and improve transportation infrastructure, consistent with smart growth principles and sustainability principles, and utilize the region's transportation infrastructure as a driver of economic development**
7. **Maintain and improve utility infrastructure**, including water and wastewater service, natural gas and electricity service, and broadband and alternative energy infrastructure; whenever possible, such investments should be **consistent with smart growth principles, sustainability principles, and green infrastructure principles**
8. **Improve the region's "shovel readiness"** through activities including site development / industrial park and acreage expansion / infrastructure expansion / permitting / development along rail and highway corridors and broadband backbone corridor / interstate interchange development / spec building development / building redevelopment, all consistent with smart growth principles
9. **Develop, improve, and expand non-physical or non-traditional infrastructure**, including specialized space, dedicated equipment, information and communication technologies, business networks, linkages to the education/research/labor force training system, and logistics; and also including the development of physical facilities geared toward technology-based businesses, including specialized shared-use physical facilities, especially as regards technology development (i.e., prototype development, shared testing and manufacturing equipment, test beds, etc.), shortage of diverse and affordable physical space with specialized amenities (e.g., broadband, shared conference space, shared operating and office equipment, etc.)
10. **Improve communities** through initiatives including downtown and neighborhood revitalization and redevelopment; building renovation / adaptive redevelopment / re-purposing and reuse; encouragement of improved sustainability of communities and neighborhoods, complete streets, and walkable communities; brownfield remediation and redevelopment; protection and restoration of water resources, waterfronts, open spaces, and habitats; enhancement of public access to waterfront areas; increasing and improvement of housing stock and building stock; creation and improvement of creative districts and neighborhoods; improvement of wayfinding; and enhancement of recreational / tourism assets (including public parks space, green space, trails, etc.)

Innovation and Entrepreneurship – to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses

11. **Target economic development activities and initiatives toward significant regional industry clusters and occupation clusters that are value-added and net export clusters**
12. **Promote and catalyze entrepreneurship**
13. **Incentivize and catalyze enhanced business productivity, innovation, technology transfer, technology adoption and commercialization, and collaboration/partnerships between the university, business, and economic development communities**
14. **Provide adequate and innovative business development finance resources, technical assistance, and outreach** as needed to catalyze and incentivize new private sector business development and assist in the retention and expansion of existing regional businesses
15. **Assist in the retention and expansion of existing regional businesses**
16. **Attract new businesses to the region**



Quality, Connected Places – to create quality, connected, safe, convenient and healthy places to live and work, that make the region attractive as a place to live, work and do business

17. Maintain and improve the region's cornerstone and community-based and civic institutions and quality of life assets, capacities, and services to improve area quality of life and positively impact economic development
18. Develop, maintain and promote a range of housing choices and opportunities for all residents; efficient public transportation systems; safe pedestrian networks; access to quality health care and educational facilities; and other quality of life amenities
19. Utilize smart growth principles to insure cost effective growth and development while minimizing sprawl
20. Promote the region's diversity
21. Enhance and promote the region's cultural, arts, history, and tourism assets, destinations, organizations, and services
22. Develop, maintain and promote integrated connections between communities both across the region and external to the region
23. Promote and protect the region's natural resources in a sustainable manner
24. Streamline and reform permitting, development review, and other regulatory processes to provide a predictable legal and regulatory environment for businesses
25. Ensure regional and local agencies provide collaborative, seamless, consistent and timely customer service to business
26. Develop a business-friendly regulatory and tax system and business assistance/incentive programs
27. Enhance regional marketing capacity and activities

Collaborative Leadership – to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives

28. Encourage, at the community, county, and regional levels, comprehensive and strategic economic development planning; develop and implement community and economic development projects consistent with those plans and with smart growth principles and sound environment principles; and create capital funds to implement projects
29. Improve coordination and collaboration between and among all levels of government as well as the private sector, including enhancing public-private partnerships, and make strategic investments that are aligned with and further regional priorities
30. Improve leadership training and enhance public involvement in coordinating decision-making and investments at the regional level
31. Seneca Nation of Indians initiatives
32. Improve economic resilience through appropriate steady-state actions (avoidance, prevention, and mitigation of economic disruptions) and response actions (response to economic disruptions)



Action Plan

The CEDS action plan answers the question “How do we get there?” The CEDS action plan is a portfolio of potential initiatives and projects – consistent with the above goals, objectives, and strategies – that herein are identified formally as being primary actions for achieving the region’s goals.

The action plan identifies – for each of the thirty-two strategies identified above – a list of representative potential initiatives and/or projects, the primary stakeholder(s) responsible for the implementation of the initiatives/projects, a timetable for the implementation of initiatives/projects, and the opportunities for the integrated use of other local, state, and federal funds.

The order of presentation of the individual strategies in each of the five goal areas matches the order of presentation of goals, objectives, and strategies (see above). However, the thirty-two strategies, and the individual initiatives for each of the thirty-two strategies, are not prioritized or ranked in any order.

Human Capital – to develop a skilled labor force capable of creating a knowledge-based and innovation-based economy, and that encourages businesses to start, locate, and expand in the region

- 1. Retain and stabilize the regional population** to provide a sufficient population base to ensure the continuing viability of regional institutions and communities, and to provide sufficient labor force to ensure that the region’s economy can grow and develop. By and large, this is a function of economic opportunity, infrastructure (broadband, utility and transportation improvements), business climate, cost of living, and quality of life.

Responsibility: County planning departments and economic development organizations, educational institutions at all levels, training providers, WIB’s, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Regional marketing activities
- Recruitment of college graduates by local firms
- Career pipeline programs, including internships, mentoring, etc.
- Entrepreneurial development programs
- Displaced worker retraining and job placement programs
- Infrastructure improvement initiatives
- Home ownership programs

- 2. Improve regional population demographics**, i.e., attract a skilled, younger demographic population, to stabilize and grow the region’s population and labor force, and to reduce the impact of the region’s dependent population demographic.

Responsibility: County planning departments and economic development organizations, educational institutions at all levels, training providers, WIB’s, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Regional marketing activities
- Recruitment of college graduates by local firms



- Career pipeline programs, including internships, mentoring, etc.
- Entrepreneurial development programs

3. **Improve regional educational attainment** through enhancing our region’s educational system and services; increasing the percentage of the population acquiring advanced educational degrees at the associate, bachelors, masters and doctoral levels; encouraging the region’s best and brightest to stay in the region to pursue their careers and lives; encouraging enhanced STEAM (Science, Technology, Engineering, Arts, and Mathematics) education, leadership, technology-based education, and entrepreneurial education at the primary, secondary, post-secondary, and adult education levels; and encouraging enhanced career development planning early on during education to help guide the younger demographic into careers with futures.

Responsibility: Educational institutions at all levels, training providers, WIB’s, county planning departments and economic development organizations, Southern Tier West RPDB
 Timetable: Ongoing
 Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Encouragement of advanced educational attainment
- Improvements in educational offerings, especially in STEAM, entrepreneurship, and technology
- Leadership training
- Implementation of educational programs that encourage creativity and problem solving
- Promotion of cooperation between local educational institutions
- Investment in colleges and universities in the region, especially public sector institutions

4. **Increase the quantity and quality of human capital through education, workforce training, job training, internships, and other mechanisms**, to develop a highly skilled, tech-savvy regional labor force that meets current and future employer needs.

Responsibility: Educational institutions at all levels, training providers, WIB’s, county planning departments and economic development organizations, business community, Southern Tier West RPDB
 Timetable: Ongoing
 Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Encouragement of workforce productivity enhancement programs, including:
 - Increased implementation of general and specialized labor force and workforce development and training programs, including skills upgrading, basic training, and literacy programs
 - Reduction of workplace substance abuse
 - Increased availability of affordable child, elder, and dependent day care
 - Increased availability of health insurance and wellness programs to improve workforce health and productivity
- Career talent pipeline initiatives, apprenticeships, pre-apprenticeships, internships, “soft skills” education, and other job preparation programs, including, for example, career talent pipeline initiatives in strategic industry sectors such as Dream It Do It for the manufacturing industry and iSciWNY for the health care industry



- Encouragement of vocational and non-vocational education and training related to current and future employer-specific and cluster-specific needs, including utilization of the New York State Next Generation Job Linkage Program, encouragement of transferable skills training, and encouragement of training with respect to employment-related use of technology
- Engage business and industry representatives within individual school districts to work with teachers at schools and BOCES (Board of Cooperative Educational Services) in their districts to add rigor and practicality to STEAM (science, technology, engineering, arts, and mathematics) programs
- Establish a sourcing portal for assessment, career planning, job listings, and training opportunities to augment capacities of existing one-stop centers

5. Focus on building and capitalizing on regionally significant occupational clusters as a development asset.

Responsibility: Educational institutions at all levels, training providers, WIB’s, county planning departments and economic development organizations, business community, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Build occupational clusters by encouraging education and transferable skills training related to current and future employer-specific and cluster-specific needs
- General and specialized labor force and workforce training projects
- Build occupational clusters by development of networks between companies and workers in clusters
- Incentivizing occupational cluster development through enhancing benefits of employment in clusters, e.g., insurance, retirement, investment opportunities, purchasing clubs, etc.

Traditional and Non-Traditional Infrastructure – to maintain and improve the region’s built environment and services that are requisite for retaining and expanding existing businesses and attracting new businesses

6. Maintain and improve transportation infrastructure, consistent with smart growth principles and sustainability principles, and utilize the region’s transportation infrastructure as a driver of economic development.

Responsibility: NYS DOT, county governments (including county DPW), local governments (including local DPW), social services agencies, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds

Examples of potential initiatives/projects:

- Improvement and development of interstate highways I-86 and I-90 as regional economic development corridors
- Continued construction of I-219 (Interstate Route 219), a primary north-south limited access highway corridor bisecting the region, as part of a multi-state development corridor. Initial pre-construction phase to include Supplemental Environmental Impact Statement (EIS) Study Project.
- Additional investment in other highway trade corridors, including NYS Routes 16, 19, 60, and 62 and other local and State highways and bridges, including complete streets/walkable community projects
- Additional investment in railroad infrastructure, including maintenance of and improvements to the existing railroad system to maximum practical FRA standards for freight handling capacity, construction that removes clearance obstructions and/or weight limitations, phased construction of freight transfer



transload facility in region, and construction of rail sidings and assistance to businesses to develop rail freight shipping capacity

- Additional investment in aviation infrastructure and service
- Additional investment in mobility management infrastructure and service (public transportation)
- Coordination of mobility management services with employers, social services agencies, and health care providers
- Continuously update the Regional Strategic Transportation Plan
- Work toward development of an RPO for the region
- Continuously develop a current priority transportation investment schedule for the region’s transportation infrastructure that considers economic development issues
- Specific topical transportation planning activities

7. **Maintain and improve utility infrastructure, including water and wastewater service, natural gas and electricity service, and broadband and alternative energy infrastructure; whenever possible, such investments should be consistent with smart growth principles, sustainability principles, and green infrastructure principles.**

Responsibility: Local governments (utility and energy infrastructure); county governments and Southern Tier West RPDB (broadband); county economic development organizations: various including local and county governments and private sector (energy improvements and energy projects)

Timetable: Ongoing

Funding: Various local, state, and federal funds

Examples of potential initiatives/projects:

- Municipal water and wastewater systems, access roads, and local roads and bridges
- Publicly-owned and privately owned municipal energy system projects, including alternative energy projects and the creation of a regional energy purchasing alliance
- Implementation of strategic projects identified in the comprehensive smart growth plan for regional sustainability developed through the five-county Western New York Region “Cleaner, Greener Communities Regional Sustainability Planning Program,” funded through NYSERDA.
- Regional broadband and communications infrastructure initiatives
- Identification and GIS-based inventorying of existing and planned infrastructure
- Investigation of incorporation of fuel cell technologies at municipal wastewater treatment plant, to produce three value streams (electricity, hydrogen and heat)
- Enhancement of the region’s infrastructure development finance capacity, including the creation and utilization of innovative infrastructure funding tools and partnerships
- Utilization of funding assistance from the Southern Tier West Development Foundation to promote infrastructure planning and preliminary engineering
- Technical assistance from County Departments of Planning and Development, County Health Departments, and County Industrial Development Agencies to promote infrastructure planning and preliminary engineering

8. **Improve the region’s “shovel readiness”** through activities including site development / industrial park and acreage expansion / infrastructure expansion / permitting / development along rail and highway corridors and



broadband backbone corridor / interstate interchange development / spec building development / building redevelopment, all consistent with smart growth principles.

Responsibility: County economic development organizations, local governments, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds

Examples of potential initiatives/projects:

- Site development, especially along rail and highway corridors and the broadband backbone corridor, or at site locations identified in broadband study, or in or adjacent to industrial parks or other industrial land uses or compatible land uses
 - Expansion of existing industrial and business parks and construction of new industrial and business parks, consistent with smart growth principles
 - Infrastructure expansion, to permit or catalyze business location or expansion, especially within or adjacent to industrial parks or other industrial land uses or compatible land uses, but consistent with smart growth principles
 - Permitting assistance initiatives
 - Interstate interchange development, including shovel readiness initiatives at perspective business location sites, including:
 - I-86 Exit 6 (Sherman, Chautauqua County)
 - I-86 Exit 13 (Falconer, Chautauqua County)
 - I-86 Exit 17 (Steamburg, Cattaraugus County)
 - I-86 Exit 23 (Limestone, Cattaraugus County)
 - I-86 Exit 24 (Allegany, Cattaraugus County)
 - I-86 Exit 27 (Hinsdale, Cattaraugus County)
 - I-86 Exit 28 (Cuba, Allegany County)
 - I-86 Exit 29 (Friendship, Allegany County)
 - I-86 Exit 30 (Amity, Allegany County)
 - I-90 Exit 61 (Ripley, Chautauqua County)
 - I-90 Exit 60 (Westfield, Chautauqua County)
 - I-90 Exit 59 (Dunkirk, Chautauqua County)
 - I-90 Exit 58 (Irving, Chautauqua County)
 - Construction of speculative / non-speculative industrial, logistics, and office buildings and multi-tenant facilities
 - Adaptive building renovation, rehabilitation, redevelopment and reuse projects, converting older buildings into modern productive facilities, especially in downtowns or in business districts
 - Remediation of brownfield acreage and buildings and redevelopment of these assets into productive uses
 - Marketing of these assets to prospective businesses that might locate in the region
9. **Develop, improve, and expand non-physical or non-traditional infrastructure**, including specialized space, dedicated equipment, information and communication technologies, business networks, linkages to the education/research/labor force training system, and logistics; and also including the development of physical facilities geared toward technology-based businesses, including specialized shared-use physical facilities, especially as regards technology development (i.e., prototype development, shared testing and manufacturing equipment, test beds, etc.), shortage of diverse and affordable physical space with specialized amenities (e.g., broadband, shared conference space, shared operating and office equipment, etc.).



Responsibility: County economic development organizations, educational institutions, incubators, business community, cluster network groups, broadband service providers, local governments, WIB's, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds

Examples of potential initiatives/projects:

- Incubator initiatives
- Specialized facility development initiatives
- Specialized equipment initiatives
- Business network development
- Technology commercialization initiatives, including prototype development, shared testing and manufacturing equipment, test beds, etc.

10. **Improve communities** through initiatives including downtown and neighborhood revitalization and redevelopment; building renovation / adaptive redevelopment / re-purposing and reuse; encouragement of improved sustainability of communities and neighborhoods, complete streets, and walkable communities; brownfield remediation and redevelopment; protection and restoration of water resources, waterfronts, open spaces, and habitats; enhancement of public access to waterfront areas; increasing and improvement of housing stock and building stock; creation and improvement of creative districts and neighborhoods; improvement of wayfinding; and enhancement of recreational / tourism assets (including public parks space, green space, trails, etc.).

Responsibility: County economic development organizations, county DPW's, local governments, local/community development and housing organizations, Southern Tier West RPDB, NYS DEC

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Downtown and neighborhood revitalization and redevelopment initiatives, consistent with smart growth principles
- Building renovation / adaptive redevelopment / re-purposing and reuse, consistent with smart growth principles
- Encouragement of improved sustainability of communities and neighborhoods, complete streets, and walkable communities
- Brownfield remediation and redevelopment initiatives
- Protection and restoration of water resources, waterfronts, open spaces, and habitats
- Enhancement of public access to waterfront areas (including riverfronts and lakefronts)
- Increasing / improving housing stock and building stock
- Creation and improvement of creative districts and neighborhoods
- Improvement of wayfinding; and enhancement of natural and man-made recreational / tourism assets (including public parks space, green space, greenway/blueway/other trails, facilities, attractions, etc.)



Innovation and Entrepreneurship – to catalyze innovation and new business development and growth, especially as regards technology-based, value added, and net export businesses

11. Target economic development activities and initiatives toward significant regional industry clusters and occupation clusters that are value-added and net export clusters.

Responsibility: County economic development organizations, Southern Tier West RPDB
Timetable: Ongoing
Funding: Various local, state, and federal funds; foundation funds; private sector funds

Examples of potential initiatives/projects:

- Engagement in cluster-specific strategies, i.e., specific initiatives targeting the following clusters: machinery manufacturing, fabricated metal product manufacturing, glass/ceramics/advanced materials, agribusiness/food processing/technology, forest and wood products, and tourism; additional focus should be given to technology-based businesses and value-added export service sectors, including personal service occupations and medical occupations
 - Ceramics, glass, and advanced materials cluster, through technology transfer from research institutions to the business and entrepreneurial communities in the cluster, and through assistance in realizing opportunities by businesses in this cluster, and through startup of new cluster businesses
 - Agribusiness, food processing and technology cluster, especially in primary production and secondary processing, through assistance in realizing opportunities by businesses in this cluster, through adoption of new technologies by businesses in this cluster, and through startup of new cluster businesses
 - Forest and wood products cluster, through promotion of increased secondary processing (e.g., dimensioning, furniture manufacturing, etc.) activities, and through assistance in realizing opportunities by businesses in this cluster, and through startup of new cluster businesses

Other cluster-specific initiatives could include:

- Information technology and telecommunications cluster, through increased utilization of broadband infrastructure, e.g., attraction of back offices, call centers, regional data storage, increased web marketing presence, etc., through assistance in realizing opportunities by businesses in this cluster, and through startup of new cluster businesses
- Arts, entertainment, recreation and visitor industries cluster, through enhanced development of recreational and tourism destination facilities and cultural assets and services, creation of year-round tourism at destinations that currently are seasonal destinations, increased integration of heritage and cultural tourism with non-heritage/cultural tourism to increase the number and duration of visitor stays, and enhanced centralization and coordination of tourism and recreational marketing and promotion and event scheduling
- Biomedical/biotechnical (life sciences) cluster through developing increased linkages to the economic development and technology initiatives being undertaken in Erie County in this cluster, through targeted assistance to realizing opportunities by businesses in this cluster, and through startup of new cluster businesses
- Transportation and logistics cluster, through enhanced access to transportation infrastructure and services, through development of sites and building attuned to cluster business needs, through marketing of locations within the region to cluster businesses, and through targeted incentives and other assistance to existing and prospective cluster businesses
- Computer and electronic products, through targeted assistance to realizing opportunities by businesses in this cluster, and through startup of new cluster businesses
- Green and alternative energy business cluster through targeted assistance to development and



incorporation of new technologies and startup of new businesses

- Capitalize on occupational clusters by targeting development of companies and entrepreneurship within the target occupational clusters
- Networking initiatives
- Needs /opportunities assessment initiatives: In-person contact and surveys of businesses and other entities (e.g., universities, trade associations, etc.) within the target clusters to determine their needs and their suggestions for initiatives and assistance that would catalyze business development within the target clusters
- Targeted education / skills training initiatives: Identification of the labor force needs of businesses in selected target clusters, and the encouragement of targeted secondary and post-secondary education college educational offerings and skills training programs to meet these needs
- Targeted marketing initiatives that market opportunities in the region to businesses in the target clusters, and encouragement of the location of operations within the region
- Targeted business assistance initiatives directed toward significant regional industry clusters and occupation clusters
- Encouragement of entrepreneurship in the target clusters
- Encouragement of cross-contact between businesses in the target clusters, and between the business community and university research community, with the goal of enabling businesses in the target clusters to discover and realize potential opportunities that may be present

12. Promote and catalyze entrepreneurship.

Responsibility: County planning departments and economic development organizations, educational institutions at all levels, local/community development organizations, business community, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds; private sector funds

Examples of potential initiatives/projects:

- Enhanced entrepreneurship education (“creating a pipeline of entrepreneurs”), through:
 - Inclusion of entrepreneurship concepts in K-12 in-school curricula, preferably using experiential learning techniques
 - Development and expansion of programs encouraging student-created and student-run after-school entrepreneurship programs
 - Integration of entrepreneurship into a wide range of courses and disciplines at post-secondary education institutions
 - Development of business plan competitions and other innovative methods of encouraging entrepreneurship
- “Widening the entrepreneurial pipeline” through innovative programs such as:
 - Adult entrepreneurship training and technical assistance, including basic business planning, marketing assistance,
 - Enhanced assistance to prospective entrepreneurs and startups, including business planning and counseling assistance, marketing assistance, financial education, product development and marketing assistance, utilization of web-based business infrastructure and services, export assistance, technology assistance, and other types of technical and management assistance



- Innovative financial assistance such as enhanced venture capital availability and enhanced debt and equity assistance, etc.
- Improved access to capital by entrepreneurs and businesses, through:
 - Provision of training and assistance to entrepreneurs and businesses seeking debt and equity capital infusions to help them create better funding assistance applications
 - Capitalization and utilization of public sector and non-profit revolving loan funds and venture capital funds to meet capital demand, especially with respect to (a) start-up and early stage business situations in which subordinate collateral asset lending positions are needed to leverage senior collateral asset position private sector debt and equity capital into project funding structures, and (b) the specific needs of entrepreneurs at different levels of development
 - Encouragement of the increased use of public sector guarantee programs (SBA 7A, USDA RD B&I, etc.) to encourage commercial lenders to provide debt financing to start-ups
 - Development and utilization of non-traditional public business financing sources (e.g., public sector equity/venture capital fund, etc.), including the Western and Central New York's Region Entrepreneurship Action Plan (REAP) program and the New York State Innovation Venture Capital Fund
 - Encouragement of the increased use of and improved access to private sector angel and venture capital small business financing
- Entrepreneurial community and cluster networking to promote access to networks and entrepreneurial culture, through:
 - Creation of networks, mentoring, and ambassadors programs that allow entrepreneurs to share ideas, learn from one another, and conduct business together, linking them to new markets, new sources of capital, new employees, strategic alliance partners, and service providers
 - Encouragement of increased cultural, social, and civic engagement that will encourage, nurture, and raise the profile of entrepreneurs, helping them achieve success and encouraging others to become entrepreneurs
 - Networking and collaboration initiatives
- Entrepreneurial mentoring and entrepreneurial internship programs, such as Business Mentor NY
- Undertaking a regional business plan competition
- Celebration of entrepreneurship
- Business incubator initiatives, and incubator business development initiatives, including utilization of the New York State Business Incubator and Innovation Hot Spots Program
- Increased collaboration and links between the university, business, and economic development communities, especially as regards industry cluster building
- Market entrepreneurial opportunities to college graduates and those who previously had out-migrated from the region
- Promotion of the utilization of START-UP NY Program
- The creation and utilization of non-traditional ownership mechanisms and business ownership formats (e.g., publicly owned, quasi-public-owned, private-non-profit-owned, joint venturing and partnering mechanisms, ESOPS, and umbrella business start-up corporations) to start-up/spin-off program to catalyze new business creation
- Encouragement of broadband-based business development, especially at locations along the fiber trunk



line

13. Incentivize and catalyze enhanced business productivity, innovation, technology transfer, technology adoption and commercialization, and collaboration/partnerships between the university, business, and economic development communities.

Responsibility: Business community, county economic development organizations, municipal development departments, educational institutions, local/community development organizations, State and federal business development agencies, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds; private sector funds

Examples of potential initiatives/projects:

- Analysis of the productivity and technology utilization of individual businesses to develop business-specific assistance
- Education of individual businesses regarding the technologies, improvements, and productivity enhancements that might be appropriate for and available to them
- Provision to individual businesses of the specific financial, technical, and training assistance that is necessary to encourage and enable them to adopt new technologies and other productivity-enhancing improvements, including:
 - Replacement, upgrading, and updating of obsolete and inefficient physical plants, machinery, and equipment
 - Increased utilization in business operations of computerization, robotics, telecommunications infrastructure, internet, etc.
- Encouragement of increased levels of technology transfer at both the supply side (e.g., at both regional technology research institutions and extra-regional technology research institutions) and the demand side (i.e., in the business and entrepreneurial communities)
- Technology commercialization initiatives
- University-business collaboration and partnership initiatives
- Technical consulting initiatives
- Internship placement activities
- Mentoring activities
- Promotion of increased utilization of by-products, resulting in (a) cash flow generating economic activity and (b) reduction of waste produced, waste handling costs, and waste disposal costs

14. Provide adequate and innovative business development finance resources, technical assistance, and outreach as needed to catalyze and incentivize new private sector business development and assist in the retention and expansion of existing regional businesses.

Responsibility: County governments and economic development organizations, educational institutions, local/community development organizations, business community, State and federal business development agencies, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Projects to capitalize and encourage appropriate use – as development tools – of specialized business



development zones, industrial development agencies, and innovative debt and equity incentive financing programs including industrial incentive financing, industrial revenue bonds, revolving loan funds, venture capital financing, public sector or community-based equity capital (including the Western and Central New York's Region Entrepreneurship Action Plan (REAP) program and the New York State Innovation Venture Capital Fund) and micro-capital funds (especially seed or first stage capital funds), etc.

- Use of pension and community endowment funds to invest in local job creation strategies and to provide community venture capital for nonprofits, entrepreneurs, and employee-owned firms.
- Technical assistance to business, entrepreneurs, and prospective entrepreneurs, including business planning, counseling and crisis assistance, procurement, export, marketing, productivity enhancement, new technology, engineering, human resource development, vending, procurement, operational, environmental / other compliance, and other technical and financial assistance, etc.
- Development and utilization of a standardized team-based client/prospect management system to be used by economic development and human resource organizations, to include:
 - An integrated internet-based site/building database, including database management protocols, and a lead agency system for client/prospect management
 - Provision of consistent information and contact information at municipal and county offices
 - An integrated internet-based economic development program database
 - Training of system users to improve networking amongst economic development and human resource organizations, to increase understanding of each other's capabilities and missions, to improve referral performance, and to reduce response times and costs experienced by target clients/prospects
- Provision of training and assistance to businesses and entrepreneurs seeking debt and equity capital infusions to help them create better applications
- Streamlining access to existing public revolving loan funds
- Increased private sector access to private sector financing, through:
 - Encouragement of commercial banks to offer aggressive, development-oriented non-traditional lending practices to the specific selected target clusters
 - Increased utilization of public sector guarantee programs (SBA 7A, USDA RD B&I, etc.) to catalyze increased access to commercial bank loans
 - Encouragement of the increased use of and improved access to private sector angel and venture capital small business financing
- Workforce development and training initiatives
- Initiatives to encourage broadband-based business development, especially at locations along the fiber trunk line
- "Buy local" programs and other local vendor sourcing programs



15. Assist in the retention and expansion of existing regional businesses.

Responsibility: County development departments and economic development organizations, local/community development organizations, State and federal business development agencies, Southern Tier West RPDB
Timetable: Ongoing
Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Business visitation initiatives
- Economic resilience initiatives
- Technical and financial assistance initiatives providing assistance as needed by regional businesses
- Workforce development and training initiatives
- Regulatory assistance initiatives
- Business productivity assistance initiatives
- Mentoring initiatives
- Development of programs to assist businesses with utilizing their excess production capacity and labor force surpluses
- Promotion and development of multi-firm operating and/or marketing initiatives, and/or shared supplier networks
- Encouragement of government procurement and regional and international exports
- Encouragement of the maintenance of local ownership of manufacturing, value-added and export sector firms, and promotion of the return of non-locally owned manufacturing, value-added and export sector firms to local ownership
- Assistance with the takeover of a failing or otherwise exiting business by employees (e.g., an ESOP), and provision of assistance to employee-owned businesses

16. Attract new businesses to the region.

Responsibility: County development departments and economic development organizations, local/community development organizations, business community, State and federal business development agencies, Buffalo Niagara Enterprise, real estate community, Seneca Nation of Indians, Southern Tier West RPDB
Timetable: Ongoing
Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Regional marketing initiatives, including:
 - Development and maintenance of databases of buildings and sites within the region, in conjunction with the private sector real estate brokerage community
 - Increased utilization of BNE and NYS ESD marketing programs
 - Increased direct marketing activities to business in target clusters
 - Increased utilization of site development publications and consultants
 - General direct extra-regional marketing activities involving marketing the entire region as a brand, at the three-county and five-county Western New York levels, focusing on our collective workforce



talents, low (or at least competitive) cost of living, low (or at least competitive) cost housing, and rural quality of life

- Increased readiness for business development, including development of shovel-ready sites, construction of speculative buildings, renovation of redevelopable buildings, remediation of brownfield sites and buildings, enhancement of utility and other required services, etc.
- Regional business ambassador initiatives, through which successful local business persons would meet with businesses and entrepreneurs considering locating businesses within the region in order to provide a sense of the region is a realistic and positive choice for their business location
- Development and utilization of project teams that will respond to individual businesses interested in locating within the region
- Innovative financial assistance initiatives

Quality, Connected Places – to create quality, connected, safe, convenient and healthy places to live and work, that make the region attractive as a place to live, work and do business

17. Maintain and improve the region’s cornerstone and community-based and civic institutions and quality of life assets, capacities, and services to improve area quality of life and positively impact economic development.

Responsibility: County planning and development departments, social service organizations, civic institutions, arts/cultural/history organizations, local governments, local/community organizations, non-profit sector, private sector/business community, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Initiatives to support, stabilize and enhance community, civic, and social institutions and organizations
- Community facility, civic facility, civic places, recreational assets, and cultural assets construction, renovation, and improvement initiatives
- Initiatives to support, stabilize and enhance cultural (arts, historical, and entertainment) capacity, assets, institutions, services, and offerings
- Central business district improvement initiatives
- Public safety initiatives
- Public health initiatives
- School and educational initiatives
- Broadband initiatives

18. Develop, maintain and promote a range of housing choices and opportunities for all residents; efficient public transportation systems; safe pedestrian networks; access to quality health care and educational facilities; and other quality of life amenities.

Responsibility: Housing: County planning departments, Community-Based Housing Organizations (Neighborhood Preservation Companies, Rural Preservation Companies, etc.), banks, developers and landlords, municipalities, Southern Tier West RPDB
Public transportation:
Pedestrian networks:



Health care: NYS DOH, county health departments, hospitals and health care providers,
Southern Tier West RPDB

Educational facilities:

Other quality of life amenities:

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Initiatives to improve **housing choices and opportunities** for all residents, including:
 - Home ownership and home improvement programs
 - Incentivization and encouragement of construction and rehabilitation of different types of housing
- Initiatives to improve the **efficiency of public transportation systems** for all residents, including:
 - Additional investment in mobility management (public transportation) infrastructure and service
 - Coordination of mobility management services with employers, social services agencies, and health care providers
- Initiatives to improve **access to quality health care** for all residents, including:
 - Patient center medical home / patient neighborhood initiatives, to build connections between primary care and specialty care, especially as regards mental health and substance abuse
 - Increased use of electronic health records
 - Recruitment of physicians, nurses, and specialized technical service providers
 - Urgent care in rural communities
 - Initiatives to stabilize financial hospitals in rural communities, including critical access hospital initiatives
 - Regionalization of health care through CIO (Clinical Integration Organization) or ACO (Accountable Care Organization) initiatives and sharing of resources (people and equipment)
 - Connecting community health care with public health and other community based organizations with similar goals to reduce the incidence of chronic disease, etc. (e.g., diabetes, group counseling, obesity, etc.)
 - Promotion by local providers of utilization and consumption of local foods by institutions and residents
- Initiatives to improve **safe pedestrian networks** for all residents, including:
 - Complete streets programs
 - Walkable communities programs
 - Urban and rural trail projects
- Initiatives to improve **access to quality educational facilities** for all residents, including:
 - Expansion of educational facilities at educational institutions
 - Development of innovative educational and training programs at educational institutions
 - Scholarship and financial assistance programs to incentivize educational enrollment and attainment, also including work study, internships, etc.

19. Utilize **smart growth principles** to insure cost effective growth and development while minimizing sprawl.



Responsibility: County planning departments and economic development organizations, local governments, Seneca Nation of Indians, Southern Tier West RPDB
 Timetable: Ongoing
 Funding: Various local, state, and federal funds

Examples of potential initiatives/projects:

- Comprehensive planning initiatives, land use planning, and land use regulations that are consistent with smart growth principles

20. Promote the region’s diversity.

Responsibility: County governments, county planning departments and economic development organizations, local governments, local/community development organizations, educational system, non-profit sector, private sector, Seneca Nation of Indians, Southern Tier West RPDB
 Timetable: Ongoing
 Funding: Various local, state, and federal funds

Examples of potential initiatives/projects:

- Enhanced engagement and enfranchisement of disenfranchised sectors, including but not limited to women and racial/ethnic/religious minorities
- Promotion of utilization of MWBE procurement and MWBE business development
- Training and entrepreneurial programs targeting disenfranchised sectors, including but not limited to women and racial/ethnic/religious minorities
- Leadership development programs targeting disenfranchised sectors, including but not limited to women and racial/ethnic/religious minorities
- Celebration of disenfranchised sectors and their cultures, including but not limited to women and racial/ethnic/religious minorities

21. Enhance and promote the region’s cultural, arts, history, and tourism assets, destinations, organizations, and services.

Responsibility: Arts/cultural/history organizations, county planning and development departments, county DPW’s, tourism agencies, local governments, local/community organizations, non-profit sector, private sector/business community, Southern Tier West RPDB
 Timetable: Ongoing
 Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Financial, technical, and programmatic support initiatives for cultural, arts, history, and tourism assets, destinations, organizations, and services
- Incentivization of the development and expansion of cultural, arts, history and tourism asset and destination facilities
- Regional marketing and coordinated scheduling activities

22. Develop, maintain and promote integrated connections between communities both across the region and external to the region.

Responsibility: Local governments, local/community organizations, county planning and development departments, Southern Tier West RPDB
 Timetable: Ongoing
 Funding: Various local, state, and federal funds; foundation funds



Examples of potential initiatives/projects:

- Shared services initiatives
- Consolidation initiatives
- Inter-community infrastructure services
- Joint intermunicipal planning and development projects

23. Promote and protect the region’s natural resources in a sustainable manner.

Responsibility: County planning and development departments, local governments, NYS DEC, business community, local community organizations, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Environmental and habitat protection initiatives
- Water resource protection initiatives
- Implementation of strategic projects identified in the comprehensive smart growth plan for regional sustainability developed through the five-county Western New York Region “Cleaner, Greener Communities Regional Sustainability Planning Program,” funded through NYSERDA
- Promotion of increased environmentally sound utilization of the region’s natural resources, and improved business compliance with environmental regulations
- Encouragement and enhancement of renewable energy exploration and production in an environmentally sensitive manner
- Promotion of the region as a destination for outdoor recreation activities while preserving the natural rural environment (enhancement of access to nature and environmental preservation)

24. Streamline and reform permitting, development review, and other regulatory processes to provide a predictable legal and regulatory environment for businesses.

Responsibility: County departments, local governments, NYS DEC, business community, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Permit and regulatory technical assistance initiatives

25. Ensure regional and local agencies provide collaborative, seamless, consistent and timely customer service to business.

Responsibility: County departments, local governments, NYS DEC, business community, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Permit and regulatory technical assistance initiatives
- Collaborative assistance programs



26. Develop a business-friendly regulatory and tax system and business assistance/incentive programs.

Responsibility: County departments, local governments, NYS DEC, business community, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Permit and regulatory technical assistance initiatives
- Collaborative assistance programs

27. Enhance regional marketing capacity and activities.

Responsibility: County planning departments and economic development organizations, local governments, local/community development organizations, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds; foundation funds

Examples of potential initiatives/projects:

- Regional and local marketing initiatives, including:
 - Internal and external marketing of the quality of life in the region, including rural character, low crime rates, education and health services, recreational and cultural opportunities, etc.
 - External tourism marketing, including marketing of recreational, entertainment, sporting, and cultural assets
 - Targeted external marketing directed toward target industry clusters and specific development opportunities, encouraging high-wage, high-skill businesses to develop in the region
 - Market entrepreneurial and employment opportunities to college graduates, to those who previously had out-migrated from the region, and to displaced workers
 - Increased participation in global trade shows
 - Increased use of US DOC International Trade Administration and NYS ESD channels for international marketing
 - Increased utilization of “smart” and targeted web-based marketing efforts
 - Increased utilization of social media in economic development marketing activities
- Regional and local branding initiatives
- Regional ambassador initiatives
- Marketing web site development and utilization of social media
- Joint marketing and coordination of scheduling

Collaborative Leadership – to encourage coordinated governance and rational and coordinated systemic investment in targeted economic development initiatives

28. Encourage community-level, county-level, and regional-level comprehensive planning and strategic economic development planning, develop and implement community and economic development projects consistent with those plans and with smart growth principles and sound environment principles, and create and appropriate capital funds to implement projects.



Responsibility: County planning departments and economic development organizations, local governments, local/community development organizations, Seneca Nation of Indians, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds

Examples of potential initiatives/projects:

- Increased strategic comprehensive planning and economic development planning
- Increased strategic economic development project development and implementation
- Encouragement of preparation and readiness on the part of economic development project sponsors so as to achieve economic development success, including the following steps to achieve readiness:
 - Provision of technical assistance to potential and actual project sponsors to assist them with readiness for the development and implementation of economic development projects
 - Achievement of consensus and agreement amongst project participants as to individual organizational roles and responsibilities and commitments
 - Development of financial capital resources necessary to undertake economic development projects, e.g., capital reserve accounts, grantsmanship, provision for public-private partnering, etc.
 - Acquisition of appropriate land control (fee simple control or options on land proposed for subsequent development) as needed
 - Engagement of engineering and other consultants as appropriate and necessary to prepare preliminary engineering, to study soil conditions, archeological resources, flora and fauna issues, historical preservation issues, etc.
 - Obtain all appropriate and required regulatory permits (e.g., SEQRA, NEPA, SHPO / OPRHP, DEC, US Army Corps, US Fish and Wildlife, etc.)
 - Work with prospective beneficiary businesses to achieve consensus regarding shared expectations of each other’s plans, and to obtain commitments from beneficiary businesses to implement their plans (investment, job creation, etc.) conditioned on any incentives or development initiatives promised by the project sponsor
- Grantsmanship to support implementation of planned economic development initiatives
- Initiatives to enhance partnership, collaboration, and coordination
- Create and capitalize capital funds or other funding mechanisms to implement projects

29. Improve coordination and collaboration between and among all levels of government as well as the private sector, including enhancing public-private partnerships, and make strategic investments that are aligned with and further regional priorities.

Responsibility: County governments, county planning departments and economic development organizations, local governments, local/community development organizations, educational system, non-profit sector, private sector/business community, Seneca Nation of Indians, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds

Examples of potential initiatives/projects:

- Increased strategic comprehensive planning and economic development planning
- Increased strategic economic development project development and implementation



- Initiatives to enhance partnership, collaboration, and coordination
- Improvement, creation, and utilization of “civic spaces,” both physical and virtual, and other cornerstone community institutions
- Regionalized infrastructure services and intergovernmental shared services and promotion of centralization and regionalization of governance and municipal services as a means of reducing service delivery costs and improving services, including shared services initiatives, consolidation initiatives, multi-municipal infrastructure system initiatives, etc.
- Collaborations with the Seneca Nation of Indians to capture the potential of the Seneca Nation of Indians as a driver of economic development, and provide economic benefits to tribal members and non-tribal members
- Increased investment in business development / business assistance capacity, entrepreneurial development, and innovation
- Initiatives to enhance innovation with respect to government operations and increase operating efficiency of government operations
- Initiatives encouraging the direction of a greater percentage of anchor institutions’ and residents’ purchasing power toward local vendors based in the community
- Encourage anchor institutions to hire a greater percentage of their workforce locally.
- Encourage anchor institutions to provide workforce training for people needing assistance in the community.
- Encourage anchor institutions to incubate the development of new businesses, including social enterprise among nonprofits.
- Encourage anchor institutions to serve as advisors and network builders.
- Leverage real estate development to promote local retail, employer-assisted housing, and community land trusts.

30. Improve leadership training and enhance public involvement in coordinating decision-making and investments at the regional level.

Responsibility: County governments, county planning departments and economic development organizations, local governments, local/community development organizations, educational system, non-profit sector, private sector/business community, Seneca Nation of Indians, Southern Tier West RPDB

Timetable: Ongoing

Funding: Various local, state, and federal funds

Examples of potential initiatives/projects:

- Leadership training and development initiatives
- Internships and mentoring programs
- Targeted technical assistance programs
- Initiatives to promote public access to and involvement in governmental and civic decision-making
- Initiatives to promote collaborative decision-making between parallel and vertical levels of government and organizations



31. Seneca Nation of Indians initiatives:

The Seneca Nation of Indians' [2017 CEDS](#) document contains a specification of an economic development action plan, which is comprised of the economic development objectives listed below, and for each objective, a specification of the responsibility for accomplishment, a timetable for accomplishing the objective, and funding opportunities, as follows (a more recent version of the Seneca Nation of Indians CEDS was not available at the time of preparation of this CEDS.):

- Profit maximization by deploying \$28 million in capital committed by the Nation in a diversified framework
Responsibility: Seneca Holdings
Timetable: Ongoing
Funding: SNI
- Actively promote, attract, encourage, develop, and invest in economically sound commerce and industry.
Responsibility: CPDD
Timetable: N/A
Funding: N/A
- Increase recreational activities connecting to local and regional green and blue trail networks.
Responsibility: CPDD
Timetable: 2016-2026
Funding: DOT
- Re-purpose Brownfield areas that have been cleaned up.
Responsibility: EPD
Timetable: N/A
Funding: CPDD
- Expand economic development opportunities with High Banks Campground creating a year-round tourist site.
Responsibility: CPDD
Timetable: Ongoing
Funding: High Banks
- Work with SNI Transportation expanding bus routes for employment and shopping commutes.
Responsibility: STS
Timetable: N/A
Funding: CPDD, DOT
- Develop Bus Garage/Hub to protect bus investment and provide shelter for commuters.
Responsibility: STS
Timetable: N/A
Funding: CPDD, DOT
- Increase the attractiveness of the Seneca Territories as places to do business.
Responsibility: CPDD
Timetable: Ongoing
Funding: SNI



- Support increased travel and traffic through the territories and upgrade and expand infrastructure.

Responsibility: CPDD
Timetable: Ongoing
Funding: SNI

The Seneca Nation of Indians 2017 CEDS action plan also includes the following examples of potential activities/actions to accomplish the above objectives (a more recent version of the Seneca Nation of Indians CEDS was not available at the time of preparation of this CEDS.):

- SCMC, LLC/ Seneca Global Services, LLC/ Executive Protection Systems, LLC
- Develop catalyst project on Allegany Territory to draw tourism (Seneca Nation Culture Center)
- Work with Salamanca City to revitalize the historic main street
- Provide business consulting services on territory
- Start Trails Master Plan
- Work with regional groups on developing all trails to connect
- Construction of pedestrian path (Pennsy)
- Clean up site of the historic train depot in Salamanca
- Clean tires and other debris from ground to create culture center
- Operate High Banks Campground throughout the entire year with positive profits
- Continually add to and promote campground amenities
- Operate STS daily bus routes providing regularly scheduled stops for regional users
- Install conceptually designed modular bus shelters at various stops
- Solicit funding to support strategies and small business plans.

32. Improve economic resilience through appropriate steady-state actions (avoidance, prevention, and mitigation of economic disruptions) and response actions (response to economic disruptions).

Responsibility: County governments, county planning departments and economic development organizations, local governments, local/community development organizations, private sector/business community, Seneca Nation of Indians, Southern Tier West RPDB
Timetable: Ongoing
Funding: Various local, state, and federal funds

Examples of potential initiatives/projects:

- Steady-state (mitigation) planning and implementation initiatives, including:
 - County-level economic resilience (disaster response and recovery) planning projects
 - GIS projects, including projects to identify major employers and critical community assets located in floodplains
 - Business risk assessment and information dissemination projects, including agricultural business risk assessment and information dissemination projects
 - Business risk self-assessment web cookbook projects
 - Surge capital/credit fund initiatives and/or alternative surge capital funding mechanism initiatives
 - Community infrastructure/asset mitigation projects
 - Utility/broadband infrastructure mitigation project
 - Encouragement of private sector steady state/mitigation planning and project implementation



Priority Strategic Projects, Programs, and Activities

The region’s Action Plan is made more specific by the specification of certain priority strategic projects, programs, and activities. This CEDS actually provides four separate project lists: (1) a list of priority EDA projects, (2) a list of priority ARC projects, (3) a comprehensive list of all priority economic development projects in the region (including but not limited to the EDA and ARC priority projects from the other two lists), and (4) a list of economic resilience projects.

Priority EDA Projects

The first list of projects is a list of projects that the Southern Tier West Board designated in August 2017 as being priorities for EDA investment. This list identifies the top two EDA investment (project) priorities for each county in the region, and also identifies priorities for EDA funding for regional (i.e., non-county-specific) projects impacting more than one county. With one exception, all of the projects in this EDA priority project list are seeking EDA public works funding; the one exception is a regional project seeking EDA technical assistance funding. Within each county, projects are listed in order of descending priority. The projects in this list were identified to the Southern Tier West Board by the individual counties, which also had indicated their own relative priorities for each project. Over the course of the coming year, the Southern Tier West Board may amend this list, including priorities within individual counties, as circumstances warrant.

Allegany County

1. Alfred Center for Technology Transfer Project

Description: Creation of a facility that will identify research and applied technologies being developed at Alfred University and Alfred State College and translate them into local jobs.
Sponsor: Allegany County
Total cost: TBD; funding sources: TBD
Job impact: 120 C / 10 R
Date: 2019

2. Crossroads Development Infrastructure System Project

Description: Construction of water distribution line and wastewater collection line from the Friendship municipal systems east along County Route 20 to the intersection with NYS 19 to support business development at I86 Exit 30 interchange
Sponsor: Allegany County
Job impact: 120 C / 10 R
Total cost: TBD
Date: 2019

Cattaraugus County

1. Portville (Town) Water Line Extension Project

Description: Construction of water line infrastructure to support business expansion
Sponsor: Town of Portville
Total cost: TBD; funding sources: EDA, others TBD
Job impact: TBD
Date: 2018



2. Allegany (Town) Exit 24 Wastewater Infrastructure Project

Description: Construction of wastewater infrastructure to facilitate development at I86 interchange
 Sponsor: Town of Allegany
 Total cost: TBD; funding sources: Cattaraugus County, Town of Allegany, HUD
 Job impact: 100 C
 Date: 2018

Chautauqua County

1. Dunkirk Harbor Multi-Modal Commercial Development Project

Description: Re-purposing of the NRG Coal Burning Facility into a Water-Related Multi-Modal Commercial Enterprise, phased with an initial feasibility study followed by an implementation project
 Sponsor: Chautauqua County IDA/Chautauqua County/City of Dunkirk
 Job Impact: TBD
 Total Cost: TBD
 Date: 2019

2. Ripley Gateway Project

Description: Construction of a local arts and agricultural value-added center that promotes and sells western New York products as an economic driver for local business and a tourism destination facility.
 Sponsor: Chautauqua County
 Total Cost: TBD
 Job Impact: TBD
 Date: 2019

Regional Projects

1. Transload Facility Project Phase 1 (EDA public works funding)

Description: Construction of first phase of rail/highway freight transload facility on Constitution Avenue in Olean
 Sponsor: Southern Tier Extension Railroad Authority
 Total cost: TBD; funding sources: TBD (EDA, NYS DOT, FRA, Private)
 Job impact: 10 + C
 Date: 2018

2. Broadband Development Project (EDA Public Works Funding)

Description: Improvement's to region's broadband infrastructure system
 Sponsor: Southern Tier West RP & DB
 Total cost: TBD; funding sources: TBD
 Job impact: N/A
 Date: 2018

3. Southern Tier Extension Railroad Authority Railroad Rehabilitation Project (EDA public works funding)

Description: Railroad line capital rehabilitation at various points along mainline railroad
 Sponsor: Southern Tier Extension Railroad Authority
 Total cost: \$15,000,000; funding sources: TBD (EDA, NYS DOT, FRA, Private)
 Job impact: 50 C
 Date: 2018



- 4. Site Development Planning Project Phase 1** (EDA technical assistance funding)
- Description: Planning project to support development of shovel ready railroad-served sites
 Sponsor: Southern Tier West RP & DB
 Total cost: TBD; funding sources: TBD
 Job impact: N/A
 Date: 2018

Priority ARC Projects

The second project list is a list of projects that the Southern Tier West Board designated in June 2018 as being economic development priorities for funding by ARC. The projects in this list are grouped into three main priority categories as designated by the Southern Tier West Board. Within each priority category, projects are not ranked.

- Key:** C = Private sector for-profit Jobs projected to be created as a consequence of the project
 R = Private sector for-profit Jobs projected to be retained as a consequence of the project
 FTE = Full Time Equivalent
 TBD or N/A = to be determined or not applicable or available at time of CEDS publication

Highest Priority Category

Workforce Readiness for Emerging Sectors Project

Sponsor: Jamestown Community College
 Total Cost: \$180,635; funding sources: ARC \$90,000, applicant \$90,635
 Job Impact: 1 C
 Date: 2020

New Mechatronics Technology Lab and Programs Project

Sponsor: Alfred State College
 Total Cost: \$207,348; funding sources: ARC \$149,190, applicant \$59,158
 Job Impact: N/A
 Date: 2020

UPMC Chautauqua Rural Family Medicine Residency Program

Sponsor: UPMC Chautauqua
 Total Cost: \$287,783; funding sources: ARC \$126,350, applicant \$161,433
 Job Impact: 1 C
 Date: 2020

Applied Technology and Building Trades Project

Sponsor: Genesee Valley Central School District
 Total Cost: \$246,836; funding sources: ARC \$143,050, NYS \$6,513, applicant \$96,823
 Job Impact: 1 C
 Date: 2020

High Priority Category

FCS Grown STEMS

Sponsor: Friendship Central School District
 Total Cost: \$198,894; funding sources: ARC \$139,000, applicant \$59,894



Job Impact: 1 C
Date: 2020

Drone Certification and Licensing Course for Secondary Students

Sponsor: Fillmore Central School District
Total Cost: \$175,396; funding sources: ARC \$122,075, applicant \$53,320
Job Impact: 3 C
Date: 2020

Priority Category

Historic Hollywood Theater Transition Project

Sponsor: Gowanda's Historic Hollywood Theater, Ltd.
Total Cost: \$211,876; funding sources: ARC \$105,938, applicant \$105,938
Job Impact: N/A
Date: 2020



Comprehensive Project List of Economic Development Projects

The third project list is a comprehensive list of ready-to-go economic development projects that are planned by sponsors to be implemented over the next 12 to 18 months (i.e., through the end of 2019). As noted above, this third list includes the designated EDA and ARC priority projects indicated above.

All of the projects in this list are economic development projects, programs and activities that Southern Tier West suggests should be implemented so as to implement the Goals and Objectives of this CEDS. Readers of the CEDS should note certain overarching "themes" for regional economic development in this third list (e.g., infrastructure development, technology, labor force, etc.). Readers of the CEDS also are encouraged to view the projects in the project list in terms of prior related investments.

The Comprehensive Project List has five sections: Allegany County Projects, Cattaraugus County Projects, Chautauqua County Projects, Regional Projects, and Seneca Nation of Indians Projects. There is no explicit ranking of projects within any of these five sections; however, the highest priority projects within each section are highlighted in yellow and appear at the top of the list in each of the five sections. Also, projects generally are grouped together with other similar projects within each of the five sections (e.g., infrastructure projects are grouped together, etc.). Otherwise, there is no other ordering or ranking within a given section, or as between the five sections.

The projects sponsored by the Seneca Nation of Indians have been excerpted from the Seneca Nation of Indians' 2017 CEDS. More recent versions of the Seneca Nation of Indians CEDS were not available for incorporation into this CEDS.

The project list identifies projects by project name, project sponsor, total project cost and funding sources and amounts (if known), projected private sector for-profit jobs to be created and/or retained as a consequence of the implementation of the project (if known), and projected date of implementation (if known). (Exception: Projects sponsored by the Seneca Nation of Indians may involve creation or retention of jobs provided by the Seneca Nation of Indians or one of its affiliated corporations, which may or may not be thought of as being public sector jobs.)

Projects included in this project list include – but are not limited to – those projects that propose the use of either or both ARC or EDA funds as project funding source(s).

- Key:**
- C** = Private sector for-profit Jobs projected to be created as a consequence of the project
 - R** = Private sector for-profit Jobs projected to be retained as a consequence of the project
 - FTE** = Full Time Equivalent
 - TBD or N/A** = to be determined or not applicable or available at time of CEDS publication
- The titles of the highest priority projects are highlighted in yellow.

Allegany County Projects

Alfred Center for Technology Transfer Project

Sponsor: Allegany County
Total cost: TBD; funding sources: TBD
Job impact: 120 C / 10 R
Date: 2020

Crossroads Development Infrastructure System Project

Sponsor: Allegany County
Job impact: 500 C / 10 R
Total cost: TBD
Date: 2020

Alfred University Integrated Manufacturing Center Project

Sponsor: Alfred University
Job impact: 7 C
Total cost: \$10,050,000; funding sources: TBD
Date: 2019

Last Mile Broadband Project

Sponsor: Allegany County
Total cost: 3,000,000; funding sources: TBD
Job impact: 30 C / 100 R
Date: 2020

New Mechatronics Technology Lab and Programs Project

Sponsor: Alfred State College
Total Cost: \$207,348; funding sources: ARC \$149,190, applicant \$59,158
Job Impact: N/A
Date: 2020

Applied Technology and Building Trades Project

Sponsor: Genesee Valley Central School District
Total Cost: \$246,836; funding sources: ARC \$143,050, NYS \$6,513, applicant \$96,823
Job Impact: 1 C
Date: 2020

FCS Grown STEMS

Sponsor: Friendship Central School District
Total Cost: \$198,894; funding sources: ARC \$139,000, applicant \$59,894
Job Impact: 1 C
Date: 2020

Drone Certification and Licensing Course for Secondary Students

Sponsor: Fillmore Central School District
Total Cost: \$175,396; funding sources: ARC \$122,075, applicant \$53,320
Job Impact: 3 C
Date: 2020

Van Campen Industrial Park Railroad Spur and Switch Gears Project

Sponsor: Allegany County Industrial Development Agency
Job impact: 50 C
Total cost: \$500,000; funding sources: TBD
Date: 2021

Van Campen Industrial Park Industrial Access Road Project

Sponsor: Allegany County Industrial Development Agency
Total cost: \$750,000; funding sources: TBD
Job impact: 50 C
Date: 2021

Swain - Canaseraga Sewer Mainline and Collection System Project

Sponsor: Allegany County Industrial Development Agency
Total cost: \$2,000,000; funding sources: TBD
Job impact: 50 C / 100 R
Date: 2021

Sugar Hill Water Tank Project

Sponsor: Village of Alfred
Job impact: 20 C / 50 R
Total cost: \$900,000; funding sources: EDA (\$450,000), other sources TBD
Date: 2022

Wellsville Mainline Bridge Obstruction Remediation Project

Sponsor: Southern Tier Extension Railroad Authority
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Zero Energy Manufactured Home Assembly Facility Project

Sponsor: Alfred State College / Allegany County Industrial Development Agency
Total cost: \$2,500,000; funding sources: TBD
Job impact: 30 C
Date: 2021

STAR Career Pathways Project

Sponsor: Literacy West / Allegany County
Total cost: \$150,000; funding sources: TBD
Job impact: 60 C
Date: 2020

Access to Self Sufficiency and Economic Security Project

Sponsor: ACCORD Corporation
Total cost: \$129,000; funding sources: NYS DHCR RARP, other sources TBD
Job impact: N/A
Date: 2020



Alfred (Village) Wastewater Treatment Plant Upgrade Project

Sponsor: Village of Alfred
Total cost: \$5,000,000; funding sources: TBD
Job impact: 0 C / 1,000 R
Date: 2020

Cuba Hospital/Stonebridge Crossing [Independent & Assisted Living Complex] Project

Sponsor: Cuba Memorial Hospital
Total cost: \$15,000,000; funding sources: TBD
Job impact: 35 C / 240 R
Date: 2022

Friendship Downtown Redevelopment Project

Sponsor: FRED, Inc.
Total cost: \$500,000; funding sources: TBD
Job impact: 100 C
Date: 2022

Rushford School Building Reuse Project

Sponsor: Town of Rushford
Total cost: \$1,750,000; funding sources: TBD
Job impact: 30 C
Date: 2021

Allentown School Renovation and Reuse Project

Sponsor: Town of Alma
Total cost: \$3,000,000; funding sources: TBD
Job impact: 30 C
Date: 2021

Angelica School Renovation and Reuse Project

Sponsor: Town of Angelica
Total cost: \$3,000,000; funding sources: TBD
Job impact: 30 C
Date: 2021

Belmont School Renovation and Reuse Project

Sponsor: Town of Amity or Village of Belmont
Total cost: \$7,500,000; funding sources: TBD
Job impact: 100 C
Date: 2021

CNG Fleet Conversion and Fueling Facilities Project

Sponsor: Alfred State College and Allegany County
Total cost: \$500,000; funding sources: TBD
Job impact: 10 C
Date: 2019



Genesee River Wilds River Access Parks Project

Sponsor: Genesee River Wilds, Inc.

Total cost: \$400,000; funding sources: TBD

Job impact: 20 C / 5 R

Date: 2021



Cattaraugus County Projects

Portville (Town) Water Line Extension Project

Sponsor: Town of Portville
Total cost: TBD; funding sources: EDA, others TBD
Job impact: TBD
Date: 2019

Allegany (Town) I-86 Exit 24 Interchange Wastewater Infrastructure Development Project

Sponsor: Town of Allegany
Total cost: TBD; funding sources: Cattaraugus County, Town of Allegany, HUD
Job impact: 100 C
Date: 2019

Little Valley (Village) Wastewater Infrastructure Project

Sponsor: Village of Little Valley
Total cost: TBD; funding sources: EDA, TBD
Job impact: TBD
Date: 2019

Salamanca (City) State Park Avenue Upgrade Project

Sponsor: City of Salamanca
Total cost: \$4,000,000; funding sources: TBD
Job impact: TBD
Date: 2019

Ellicottville (Town) Regional Water Project

Sponsor: Town of Ellicottville
Total cost: \$1,340,000; funding sources: TBD
Job impact: 196 C
Date: 2019

Olean Business Incubation Center Project Phase 2

Sponsor: Olean Business Development Corporation
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2019

Envisioneering Center Project

Sponsor: Portville Central School
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2019

Historic Hollywood Theater Transition Project

Sponsor: Gowanda's Historic Hollywood Theater, Ltd.
Total Cost: \$211,876; funding sources: ARC \$105,938, applicant \$105,938
Job Impact: N/A
Date: 2020



Allegheny River Canoe & Kayak Launch Project

Sponsor: City of Olean
Total cost: \$223,000; funding sources: NYS ESD, Market NY, City of Olean
Job Impact: 6 C
Date: 2019

BOA Downtown Redevelopment Project

Sponsor: City of Olean
Total cost: \$2.5 million; funding sources: NYS ESD, Restore NY, Private Developer, City of Olean
Job Impact: 80 C
Date: 2020

North Union Street Streetscape

Sponsor: City of Olean
Total cost: \$900,000; funding sources: DRI
Job Impact: TBD
Date: 2019-2020

West State Street Streetscape Improvements

Sponsor: City of Olean
Total cost: \$1,600,000; funding sources: DRI
Job Impact: TBD
Date: 2021

South Union Street Gateway Corridor

Sponsor: City of Olean
Total cost: \$1,400,000; funding sources: DRI
Job Impact: TBD
Date: 2020

Walkable Olean Phase III (East State Street)

Sponsor: City of Olean
Total cost: \$1,200,000; funding sources: DRI
Job Impact: TBD
Date: 2020

Oak Hill Park Improvements

Sponsor: City of Olean
Total cost: \$350,000; funding sources: DRI
Job Impact: TBD
Date: 2019-2020

Allegheny River Syphon Decommissioning & Pump Station Construction Project

Sponsor: City of Olean
Total cost: \$1,082,000; funding sources: NYSDEC, City
Job Impact: TBD
Date: 2020



Comprehensive Water Distribution System Plan

Sponsor: City of Olean
Total Cost: \$40,000; funding sources: NYS ESD, Cattaraugus County
Job Impact: TBD
Date: 2020

Downtown Revitalization & Rehabilitation Fund

Sponsor: City of Olean & Olean Business Development
Total cost: \$600,000
Job Impact: TBD
Date: 2019

Olean Downtown Revitalization Project Phase 2

Sponsor: Olean Business Development Corporation
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2019

Seneca Allegany Boulevard Access Road Project

Sponsor: City of Salamanca
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2019

Ashford (Town) Water System Upgrade Project

Sponsor: Town of Ashford
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2019

Forness Park Pedestrian and Bicycle Path Project

Sponsor: City of Olean
Total cost: \$300,000; funding sources: NYS, NYS OPRHP, NYS DOT
Job impact: TBD
Date: 2019

Portville Transportation Improvement Project

Sponsor: Town and Village of Portville
Total cost: TBD; funding sources: US DOT (\$2,000,000), other sources TBD
Job impact: TBD
Date: 2019

Onoville Marina Expansion Project

Sponsor: Cattaraugus County
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2019



Cultural and Performing Arts Center Planning Project

Sponsor: Tri-County Arts Council
Total cost: TBD; funding sources: TBD
Job impact: N/A
Date: 2019

Cultural and Performing Arts Center Construction Project

Sponsor: Tri-County Arts Council
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2019

Community Composting Enterprise Demonstration Project

Sponsor: BF Compost, LLC.
Total cost: \$1,250,000; funding sources: NYSERDA (\$1,000,000), local private (\$250,000 applicant equity)
Job impact: 2 C / 4 R
Date: 2019

New Forest Economy Biorefinery Planning Project

Sponsor: Seneca Trail RC&D
Total cost: \$75,000; funding sources: Cattaraugus County (\$75,000)
Job impact: N/A
Date: 2019

New Forest Economy Biorefinery Construction Project

Sponsor: Seneca Trail RC&D
Total cost: \$120,000,000; funding sources: TBD
Job impact: 200 C
Date: 2019

Chautauqua County Projects

Dunkirk Harbor Multi-Modal Commercial Development Project

Description: Re-purposing of the NRG Coal Burning Facility into a Water-Related Multi-Modal Commercial Enterprise, phased with an initial feasibility study followed by an implementation project

Sponsor: Chautauqua County IDA/Chautauqua County/City of Dunkirk

Job Impact: TBD

Total Cost: TBD

Date: 2020

Ripley Gateway Project

Description: Construction of a local arts and agricultural value added center that promotes and sells western New York products as an economic driver for local business and a tourism destination facility.

Sponsor: Chautauqua County

Total Cost: TBD

Job Impact: TBD

Date: 2020

Chautauqua Lake Sewer Integration Project

Sponsor: Chautauqua County Sewer Agency / Chautauqua County

Total cost: \$40,000,000 to \$60,000,000; funding sources: USDA RD, EDA, ARC, NYS ESD, NYS DEC, NYS EFC, NYS DHCR, local public

Job impact: TBD

Date: 2020

Northern Chautauqua County Water District Project

Description: Construction of regional water distribution lines serving multiple municipalities

Sponsor: Chadwick Bay Regional Development Corporation

Total cost: \$36,000,000; funding sources: TBD

Job impact: TBD

Date: 2020

Dunkirk Harbor Dredging and Breakwall Extension Project

Sponsor: Chautauqua County

Total cost: TBD; funding sources: TBD

Job impact: TBD

Date: 2020

Edgewood Redevelopment (remediation/demolition/rehab) Project

Sponsor: County IDA

Total cost: \$13 million; funding sources: TBD (\$3 million public, \$10 million private investment)

Job impact: 50 – 100 jobs created

Date: 2020

Ripley Interstate Site Infrastructure Project

Sponsor: Chautauqua County IDA

Total cost: TBD; funding sources: TBD

Job impact: 300 C - 600 C

Date: 2020



Chautauqua Institution Master Plan Implementation Project

Description: Implement traffic calming mechanisms and eliminate Route 394 as barrier to allow for build out of Chautauqua Institution into a more year round destination.

Sponsor: Chautauqua Institution/Chautauqua County

Total cost: TBD; funding sources: TBD

Job impact: TBD

Date: 2019

CARTS Workforce Transportation Project

Description: Upgrade CARTS transportation system to make it more viable as a transportation method for workers without transportation to employment.

Sponsor: Chautauqua County/WIB

Total cost: TBD; funding sources: TBD

Job impact: TBD

Date: 2019

Northern Chautauqua County Industrial Park Development Project

Description: Develop new 100 acre industrial site to eliminate shortage of available industrial park parcels within Chautauqua County to fill need for new sites.

Sponsor: Chautauqua County

Total cost: TBD; funding sources: TBD

Job impact: TBD

Date: 2019

Multi-Modal Tourism Transportation Hub at Jamestown's McCrea Point Project

Sponsor: City of Jamestown/Jamestown Renaissance Corporation

Total cost: TBD; funding sources: TBD

Job impact: TBD

Date: 2020

Battery Point Villas Project

Sponsor: Erie Land Development

Total Cost: \$13,000,000; funding sources: TBD

Job Impact: 5 created

Date: 2020

Chadwick Bay Hospitality Project

Sponsor: Erie Land Development

Total Cost: \$10,000,000; funding Sources: ESD, other sources TBD

Job Impact: 50 created

Date: 2020

Hispanic Success Center Project

Sponsor: Jamestown Community College

Total cost: TBD; funding sources: TBD

Job impact: TBD

Date: 2020

Making It Real: Girls & Manufacturing Project

Sponsor: Dream It Do It WNY
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Mason Industrial Park Expansion Project

Sponsor: Chautauqua County IDA
Total cost: \$2,500,000; funding sources: TBD
Job impact: TBD
Date: 2020

SUNY Fredonia 2020 Project

Sponsor: SUNY Fredonia
Total cost: TBD; funding sources: TBD
Job impact: 373 C
Date: 2020

Jamestown Furniture Mart Redevelopment Project

Sponsor: Gebbie Foundation
Total Cost: \$19,000,000; funding sources: NYS \$1,500,000, state/federal/county historic tax credits/mortgage tax abatements/county sales tax abatements \$2,200,000, private equity \$4,267,600, private debt \$11,000,000
Job impact: 70 created, 350 retained
Date: 2020

Riverfront Development Property Acquisition Project

Sponsor: City of Jamestown
Total Cost: \$1,400,000; funding source: NYS \$1,400,000
Job impact: TBD
Date: 2020

Workforce Readiness for Emerging Sectors Project

Sponsor: Jamestown Community College
Total Cost: \$180,635; funding sources: ARC \$90,000, applicant \$90,635
Job Impact: 1 C
Date: 2020

UPMC Chautauqua Rural Family Medicine Residency Program

Sponsor: UPMC Chautauqua
Total Cost: \$287,783; funding sources: ARC \$126,350, applicant \$161,433
Job Impact: 1 C
Date: 2020

Westfield West Main Water/Sewer Extension Project

Sponsor: Town of Westfield / Village of Westfield
Total cost: Water \$1,195,600 / Sewer TBD; funding sources: TBD
Job impact: TBD R / 20 C
Date: 2020

Westfield Business Park Project

Sponsor: Westfield Development Corporation
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Routes 5 & 20, Irving Area Commercial Development Project

Sponsor: Chautauqua County IDA
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Traffic Calming/Streetscape Enhancements Project (from 2nd to 5th Streets on Washington Avenue in Jamestown, NY)

Sponsor: City of Jamestown/Jamestown Renaissance Corporation
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Barcelona Harbor to Chautauqua Institution Shared Use Trail Project

Sponsor: Chautauqua County Department of Planning and Economic Development
Total cost: \$3 - 5 million; funding sources: TBD
Job impact: 40 - 50 C
Date: 2020

Wright Park Improvements Phase 2 Project

Sponsor: City of Dunkirk
Total Cost: TBD
Job Impact: TBD
Date: 2020

Point Gratiot Park Beach Improvements Project

Sponsor: City of Dunkirk
Total Cost: \$214,500; funding source: NYS EFC/DEC WQIP
Job Impact: TBD
Date: 2020

Pier Improvements Project

Sponsor: City of Dunkirk
Total Cost: \$1,850,000; funding source: NYS ESD
Job Impact: TBD
Date: 2020

Central Connections Marketing and Signage Project

Sponsor: City of Dunkirk and Village of Fredonia
Total Cost: \$650,000; funding source: NYS ESD
Job Impact: TBD
Date: 2020

North County Harbor Study Project

Sponsor: Chautauqua County
Total Cost: TBD
Job Impact: TBD
Date: 2020

STEL Housing Project

Sponsor: STEL
Total Cost: \$16,000,000; funding source: NYS HCR and STEL
Job Impact: TBD
Date: 2020

Lake Shore Dr. Mixed Use Project

Sponsor: City of Dunkirk
Total Cost: \$2,500,000; funding source: ESD and Private
Job Impact: TBD
Date: 2020

Route 5 Complete Streets Project

Sponsor: City of Dunkirk
Total Cost: \$1,500,000; funding source: TBD
Job Impact: TBD
Date: 2020

Central Avenue Façade and Building Improvements Project

Sponsor: City of Dunkirk
Total Cost: \$500,000; funding source: TBD
Job Impact: TBD
Date: 2020

Early Child Care Education

Sponsor: Dunkirk City School District
Total Cost: TBD; funding source: TBD
Job Impact: TBD
Date: 2020

Sherman (Village) Wastewater Treatment Plant Upgrade Project

Sponsor: Village of Sherman
Total cost: TBD; funding sources: NYS EFC, other sources TBD
Job impact: TBD
Date: 2020

E. Lake Road Water Extension Project

Sponsor: Town of Westfield
Total cost: \$2,500,000; funding sources: TBD
Job impact: TBD
Date: 2020

Westfield Water System Improvements Project

Sponsor: Village of Westfield
Total cost: \$2,378,900; funding sources: TBD
Job impact: TBD R / TBD C
Date: 2020

Phase II - Implementation of the Northern Chautauqua County LWRP

Total cost: \$100,000; funding sources: TBD
Sponsor: TBD
Date: 2019

Welch Field Facilities Upgrade Project

Sponsor: Village of Westfield
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Recreational Dredging Project (Sunset Bay at Cattaraugus Creek)

Sponsor: Chautauqua County
Total cost: TBD; funding sources: USACE, Chautauqua County, other sources TBD
Job impact: TBD
Date: 2020

Recreational Dredging Project (Dunkirk Harbor)

Sponsor: Chautauqua County
Total cost: TBD; funding sources: USACE, Chautauqua County, other sources TBD
Job impact: TBD
Date: 2020

Lister Street (Jamestown) Closure and Rail Siding Installation Project

Sponsor: STERA / City of Jamestown
Total cost: \$663,950; funding sources: NYS DOT (\$168,950), other sources TBD
Job impact: TBD
Date: 2020

Passenger Railroad Feasibility Study and Business Plan Project

Sponsor: City of Jamestown
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Westfield Train Station Passenger Stop Project

Sponsor: Westfield Development Corporation
Total cost: TBD; sources: TBD
Job impact: 10 - 20 C
Date: 2020

Lucy Trail Boardwalk Project

Sponsor: Village of Celoron
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Grape Discovery Center Phase III Building Expansion Project

Sponsor: Concord Grape Belt Heritage Association, Inc.
Total cost: \$671,540; funding sources: TBD
Job impact: TBD
Date: 2020

Bemus Point (Village) Casino Renovation Project

Sponsor: Village of Bemus Point
Total cost: \$477,000; funding sources: TBD
Job impact: 25 C / 150 R
Date: 2020

Westfield Main Street Revitalization – Phase II Project

Sponsor: Chautauqua Opportunities, Inc. / Village of Westfield
Total cost: \$250,000; funding sources: TBD
Job impact: TBD
Date: 2020

Westfield Pedestrian Hub and Municipal Parking Lot Upgrade Project

Sponsor: Village of Westfield
Total cost: \$424,925; funding sources: TBD
Job impact: TBD
Date: 2020

Rural Areas Revitalization Project

Sponsor: Chautauqua Opportunities, Inc.
Total cost: \$200,000; funding sources: TBD
Job impact: TBD
Date: 2020

Chautauqua County Education Coalition Project

Sponsor: Chautauqua County Chamber of Commerce / Manufacturers Association of the Southern Tier /
Cummins Jamestown Engine Plant / and others
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Northern Chautauqua County Community & Economic Development Grant Leveraging Fund Project

Sponsor: Northern Chautauqua Community Foundation/Northern Chautauqua County Economic Development
(LED) Group
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Northern Chautauqua County Grant Oversight and Administration Management Coalition Project

Sponsor: Northern Chautauqua Community Foundation/Northern Chautauqua County Economic Development
(LED) Group
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020



Northern Chautauqua County Small Business Development Fund Project

Sponsor: Northern Chautauqua Community Foundation/Northern Chautauqua County Economic Development (LED) Group
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Regional Projects

US Route 219 Supplemental EIS Funding Project

Sponsor: NYS DOT
Total cost: \$2,500,000; funding sources: TBD (NYS DOT, US DOT, NYS ESD)
Job impact: TBD
Date: 2019

US Route 219 Construction Project

Sponsor: NYS DOT
Total cost: TBD; funding sources: TBD (NYS DOT, US DOT)
Job impact: TBD
Date: 2020

Broadband Development Project (EDA Public Works Funding)

Description: Improvement's to region's broadband infrastructure system
Sponsor: Southern Tier West RP & DB
Total cost: TBD; funding sources: TBD
Job impact: N/A
Date: 2020

STEDO Small Business RLF Capitalization Project

Sponsor: STEDO
Total cost: \$10,000,000; funding sources: NYS ESD (\$5,000,000), Local Private (\$5,000,000)
Job impact: 80 C
Date: 2020

Commercial Bio-Refinery Resource Assessment Project

Sponsor: Seneca Trail Resource Conservation & Development
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Food Aggregation Facility Implementation Project

Sponsor: Southern Tier West RP & DB
Total cost: TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Dream It Do It Western New York Project

Sponsor: Manufacturers Association of the Southern Tier
Total cost: \$300,000; funding sources: NYS ESD (TBD), foundations (TBD); Private (TBD)
Job impact: TBD
Date: 2020

Transload Facility Project Phase 1

Sponsor: Southern Tier Extension Railroad Authority
Total cost: TBD; funding sources: TBD (EDA, NYS DOT, FRA, Private)
Job impact: 10 + C
Date: 2020



Rail Siding and Interchange Access Project

Sponsor: Southern Tier Extension Railroad Authority

Total cost: TBD; funding sources: TBD

Job impact: TBD

Date: 2020

Railroad Rehabilitation Project

Sponsor: Southern Tier Extension Railroad Authority

Total cost: \$15,000,000; funding sources: TBD (EDA, NYS DOT, FRA, Private)

Job impact: 50 C

Date: 2020

Site Development Planning Project Phase 1

Sponsor: Southern Tier West RP & DB

Total cost: TBD; funding sources: TBD

Job impact: N/A

Date: 2020



Seneca Nation of Indians Projects

Note: The following projects are summarized from the Seneca Nation of Indians 2017 CEDS. A more recent version of the Seneca Nation of Indians CEDS was not available at the time of preparation of this CEDS.

2MW Solar Array Project (Steamburg)

Sponsor: Seneca Nation of Indians
Total cost: \$4,500,700; funding sources: SNI, USDA RUS loan
Job impact: 1 C (1 construction)
Date: 2017

2MW Solar Array Project (community solar/net meter)

Sponsor: Seneca Nation of Indians
Total cost: \$4,500,700; funding sources: TBD
Job impact: N/A (10 construction)
Date: 2018

LED Lighting Project

Sponsor: Seneca Nation of Indians
Total cost: TBD; funding sources: TBD
Job impact: 0
Date: 2018

Natural Gas Distribution Base System Buildout Project

Sponsor: Seneca Nation of Indians
Total cost: \$5,000,000; funding sources: SNI (\$1,000,000), National Fuel Gas (\$4,000,000)
Job impact: 2 (8-10 construction)
Date: 2018

Cattaraugus Broadband Project

Sponsor: Seneca Nation of Indians
Total cost: \$500,000 annually; funding sources: Seneca Holding
Job impact: 4 C
Date: 2018

Seneca Telecommunications, LLC (Seneca Holdings Portfolio Company)

Sponsor: Seneca Telecommunications, LLC
Total cost: N/A; funding sources: N/A
Job impact: 9 C
Date: 2018

SCMC, LLC (Seneca Holdings Portfolio Company)

Sponsor: Seneca Telecommunications, LLC
Total cost: N/A; funding sources: N/A
Job impact: 4 C
Date: 2018

Executive Protection Systems, LLC (Seneca Holdings Portfolio Company)

Sponsor: Seneca Telecommunications, LLC
Total cost: N/A; funding sources: N/A
Job impact: 52 C
Date: 2018



Seneca Global Services, LLC (Seneca Holdings Portfolio Company)

Sponsor: Seneca Telecommunications, LLC
Total cost: N/A; funding sources: N/A
Job impact: 2 C
Date: 2018

Seneca Holdings, LLC projects

Sponsor: Seneca Holdings, LLC
Total cost: N/A; funding sources: N/A
Job impact: 9 C
Date: 2018

Clear Creek Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: EPA, SNI
Job impact: TBD
Date: 2018

Red House Bridge Replacement

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: NYS DOT
Job impact: 10 C
Date: 2018

Vandalia Bridge Replacement

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: NYS DOT
Job impact: 0 C (12 construction)
Date: 2018

Routine maintenance of roads on SNI lands, replacement of culverts on Old Route 17 Breed Run, replace Upper Indian Hill culvert with bridge

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: NYS DOT, FHWA
Job impact: N/A
Date: 2018

Development of use of Native American Community Development Financial Institution (CDFI)

Sponsor: Seneca Nation of Indians
Total cost: \$3,072,000; funding sources: SNI, US Dept of Treasury
Job impact: 2 C
Date: 2018

SNI Entity Consolidation Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018



Customs Logistics Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018

E-Commerce 777 Partners Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018

Jani King Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018

Nederlander Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018

Mas Tec Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018

Vortex Immersive Media Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018

McGovern Companies Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018

Reger Investment Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018



1 Market 190/180 Perry Street Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018

Control Environment Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018

Web Site Development Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: private sector
Job impact: N/A
Date: 2018

Tiny Home Project

Sponsor: Seneca Nation of Indians
Total cost: \$60,000; funding sources: SNI
Job impact: N/A
Date: 2018

Tiny Home Community (or additional tiny home builds)

Sponsor: Seneca Nation of Indians
Total cost: TBD; funding sources: TBD
Job impact: N/A
Date: 2018

Bio-Generator Project

Sponsor: Seneca Nation of Indians
Total cost: TBD; funding sources: TBD
Job impact: N/A
Date: 2019

Wind Turbine Project

Sponsor: Seneca Nation of Indians
Total cost: \$5,500,000; funding sources: TBD
Job impact: N/A (7-8 construction)
Date: 2019

Old Council/Court House Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: THPO, Kinzua
Job impact: N/A
Date: 2018



LAX Statue Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: TBD
Job impact: N/A
Date: 2018

Long House Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: TBD
Job impact: N/A
Date: 2018

Highbanks Campground/Resort Improvement Project

Sponsor: Seneca Nation of Indians
Total cost: \$1,000,000; funding sources: SNI
Job impact: 10 C
Date: 2018

Salamanca Main Street Improvement Project

Sponsor: Seneca Nation of Indians
Total cost: \$1,000,000; funding sources: NYS, private sector
Job impact: 5-15 C
Date: 2018

Trails Development Project

Sponsor: Seneca Nation of Indians
Total cost: N/A; funding sources: TBD
Job impact: N/A
Date: 2018

Upgrades to I-90, Oasis Project

Sponsor: Seneca Nation of Indians
Total cost: \$30,000,000; funding sources: NYD
Job impact: 0 C (50 construction)
Date: 2018

Economic Resilience Projects

All Projects to be undertaken by some combination of County Departments of Planning and Development (in each county), County Industrial Development Agencies (in each county), and/or Southern Tier West; certain projects also may be appropriate for implementation by municipalities

County-Level Economic Resilience (Disaster Response and Recovery) Planning Project

Sponsor: County P&D, Southern Tier West
Total cost: \$TBD; funding sources: TBD
Job impact: TBD
Date: 2020

GIS Project to Identify Major Employers in Floodplains

Sponsor: County P&D, Southern Tier West
Total cost: \$TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Business Risk Assessment Project

Sponsor: County P&D, County IDA, Southern Tier West
Total cost: \$TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Agricultural Business Risk Assessment / Information Dissemination Project

Sponsor: County P&D, County IDA, Southern Tier West
Total cost: \$TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Business Risk Self-Assessment Web Cookbook Project

Sponsor: County P&D, County IDA, Southern Tier West
Total cost: \$TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Surge Capital/Credit Fund Project

Sponsor: County P&D, County IDA, Southern Tier West
Total cost: \$TBD; funding sources: TBD
Job impact: TBD
Date: 2020

Community Infrastructure/Asset Mitigation Project

Sponsor: Municipalities
Total cost: \$TBD; funding sources: TBD
Job impact: TBD
Date: 2020



Utility/Broadband Infrastructure Mitigation Project

Sponsor: Private Utilities

Total cost: \$TBD; funding sources: TBD

Job impact: TBD

Date: 2020



Consistency with Other Government-Sponsored or Supported Plans Affecting the Region

This CEDS is prepared to be consistent with eight primary government-sponsored economic development plans supporting the region, one sustainability plan affecting the region, one transportation plan affecting the region, three workforce development plans, and three county-level hazard mitigation plans, as follows:

1. Economic development plans:

- A. New York State’s Appalachian Regional Commission Area Development Program Implementing Strategies**, New York State Department of State, 2018
Report access: https://www.dos.ny.gov/lg/arc/ARC_GoalsNYS_Strategies2018-2019.pdf
- B. New York State Appalachian Region Strategy Statement (Fiscal Year 2013)**, New York State Department of State, 2013
Report access: <https://www.arc.gov/images/grantsandfunding/StatePlans/NewYorkStrategyStatement2013.pdf>
- C. New York State Appalachian Region Development Plan 2011-2014**, New York State Department of State, 2012
Report access: <https://www.arc.gov/images/grantsandfunding/StatePlans/NewYork20112014AppalachianDevelopmentPlan.pdf>
- D. A Strategy for Prosperity in Western New York**, Western New York Regional Economic Development Council, 2011
Report access: https://regionalcouncils.ny.gov/sites/default/files/2017-11/A_Strategy_for_Prosperty_in_Western_New_York_November_2011.pdf
- E. A Strategy for Prosperity – 2017 Progress Report**, Western New York Regional Economic Development Council, 2017
Report access: <https://regionalcouncils.ny.gov/sites/default/files/2017-11/2017ProgressReportWesternNY.pdf>
- F. Allegany County Comprehensive Plan – Our Vision, Our Mission: Outlook for 2030**, Allegany County Comprehensive Planning Committee, 2019
Report access: <https://www.alleganyco.com/wp-content/uploads/Our-Vision-Our-Mission-Outlook-for-2030-Allegany-County-Comprehensive-Plan.pdf>
- G. Allegany County Comprehensive Plan – A Plan for 2013 – 2023**, Allegany County Comprehensive Planning Committee, 2013
Report access: <https://www.alleganyco.com/departments/planning/reports/>
- H. Cattaraugus County Comprehensive Plan Vision 2025**, Cattaraugus County Department of Economic Development, Planning and Tourism
Report access: <http://www.cattco.org/files/downloads/planning/20160328-cattaraugus-county-comp-plan.pdf>
- I. Chautauqua 20/20 Comprehensive Plan**, Chautauqua County, 2011
Report access: http://www.planningchautauqua.com/pdf/CompPlan/FinalReport/Chautauqua_CompPlan.pdf
- J. Seneca Nation of Indians 2017 Comprehensive Economic Development Strategy (CEDS)**, Seneca Nation of Indians, 2017
Report access: not available online

2. Sustainability plan:

- A. Western New York Regional Sustainability Plan**, Regional Plan Consortium, 2013



Report access: <http://uploads.oneregionforward.org/content/uploads/2013/06/Western-New-York-Regional-Sustainability-Plan.pdf>

3. Transportation plan:

A. Southern Tier West Regional Transportation Strategy, Southern Tier West Regional Planning and Development Board, 2009

Report access: <http://www.southerntierwest.org/pdfs/transportation/stwtransstrategy.pdf>

4. Workforce Development Plans:

A. Cattaraugus-Allegany Workforce Investment Area Local Plan, July 1, 2014 - June 30, 2015, Cattaraugus-Allegany Workforce Investment Board, draft published August 2014

Report access: <http://www.cawfny.com/files/news/Catt-Allegany%20PY14%20Local%20Plan%208-5-14.pdf>

B. Chautauqua Workforce Investment Area Local Plan, July 1, 2014 - June 30, 2015, Chautauqua Workforce Investment Board, July 2014

Report access: <http://www.chautauquaworks.com/Uploads/File/Chautauqua%20Local%20Plan%207-1-14%20to%206-30-15.pdf>

C. WNY Region Local Workforce Investment Board 2014 Regional Workforce Plan, prepared jointly by the four Western New York Workforce Investment Boards, 2014

Report access: <http://www.labor.ny.gov/workforcenypartners/PDFs/wny-regional-planPY14.pdf>

5. County Hazard Mitigation Plans:

A. Allegany County Multi-Jurisdictional Hazard Mitigation Plan 2011-2015, Allegany County Office of Emergency Services, Office of Development and Planning, Department of Public Works, Soil and Water Conservation District, and the SWNY Chapter of American Red Cross, 2010

Report access: <https://www.alleganyco.com/departments/planning/reports/> (Appendix O of Comprehensive Plan)

B. Cattaraugus County Multi-Jurisdictional Hazard Mitigation Plan, Cattaraugus County Departments of Public Works; Economic Development, Planning and Tourism; Real Property/GIS; and Emergency Services, August 2013

Report access: http://www.co.cattaraugus.ny.us/files/cattaraugusco_mjhm_plan.pdf

C. Chautauqua County Multi-Jurisdictional Hazard Mitigation Plan, Chautauqua County Office of Emergency Services, 2006

Report access: <http://www.chautcofire.org/2006MitigationPlan.html>

A number of other documents – many not publicly prepared or sponsored – were used as source documents for the preparation of this CEDS, and are listed in the Bibliography section of the Appendix.



Identification of and Consistency with Past and Present Economic Development Investments in the Region

The region's CEDS should not only build upon the region's strengths and opportunities in order to achieve the potential maximum economic development. Another important element of the construction of a CEDS document is to build on past and present economic development investments in the region so as to ensure that the value of those investments are secured and continue progress made to date. Accordingly, this CEDS also is consistent with the following significant past and present economic investments in the region, which have included:

- Investment in various types of infrastructure, including:
 - The ongoing improvements being made to the region's highway infrastructure, including construction of I86 and ongoing improvements to US 219
 - The ongoing improvements being made to the region's short line and mainline railroad system
 - The ongoing improvements being made to the region's airports
 - The ongoing evolution and improvements being made to the region's mobility management system
 - The construction and/or expansion of industrial parks in all three counties of the region
 - Municipal infrastructure service systems, including extensions of water and wastewater service and access roads to serve scattered site industrial firms, development sites, and business parks
 - The expansion of broadband service and service alternatives to a larger portion of the region
 - The construction of certain specific industrial buildings
 - The retrofitting of older buildings into modern productive facilities
 - The construction and operation of business incubators in all three counties, and the offering of assistance and incentives to the creation and growth of businesses that utilize these incubators
 - The remediation of brownfield acreage and buildings and redevelopment of these assets into productive uses
- Investment in colleges and universities in the region, notably expansion of community college campus centers
- Employee and labor force training programs and projects
- Business development zones, industrial development agencies, and incentive programs including industrial incentive financing, industrial revenue bonds, revolving loan funds, etc.
- Technical assistance to business and entrepreneurs, including business planning, counseling, procurement, export, and marketing assistance
- Marketing of the region and specific individual buildings and sites
- Investment in creating and improving publicly-owned and privately-owned parks and recreational facilities and cultural and tourism attractions, including the region's ski resort facilities and other recreational businesses and infrastructure
- Development of the five-county Western New York Region "Cleaner, Greener Communities Regional Sustainability Planning Program," funded through NYSERDA, to create a comprehensive smart growth plan for regional sustainability.
- Construction by Seneca Nation of Indians of the Seneca Allegany Casino Resort complex and the Oil Spring gaming center



Evaluation Framework

Identification of Performance Measures

Southern Tier West will use the following four traditional performance metrics to evaluate the success of the region's comprehensive economic development strategy. However, there are additional non-traditional performance metrics that can be used to provide additional depth and richness in the evaluation process, as follows.

Additionally, Southern Tier West will review (a) progress in implementing CEDS strategies or strategies consistent with the CEDS, along with any quantitative or qualitative impacts, (b) progress in implementing projects in the CEDS or projects consistent with the CEDS strategies, along with any quantitative or qualitative impacts, and (c) progress in creating regional wealth (i.e., any increase or growth in intellectual, individual, social, natural, built environment, political, financial, and cultural assets), along with any quantitative or qualitative impacts.

1. Traditional Performance Metrics

- A. **Job creation and retention** – Identify sources of jobs created and/or retained that were induced or catalyzed by CEDS and/or CEDS economic development initiatives, and provide specific numbers of jobs created/retained.
- B. **Per capita income levels** – Do per capita income levels exceed state and national levels?
- C. **Unemployment rates** – Are unemployment rates less than state and national levels?
- D. **Private investment** – Identify sources of significant private investment induced or catalyzed by CEDS and/or CEDS economic development initiatives, and provide dollar amounts of investment.

2. Non-Traditional Performance Metrics

- A. **Poverty rate levels** – Are poverty rates less than state and national levels?
- B. **Underemployment and part time employment** – Have underemployment and part time employment rates decreased?
- C. **Labor force participation rate** – Has labor force participation rate increased?
- D. **Wealth creation (GDP per capita)** – Has wealth creation increased?
- E. **Transfer payment rates** – Are transfer payment rates less than state and national levels?
- F. **Secondary and post-secondary (associates, bachelors, and graduate) education levels** – Are Secondary and post-secondary (associates, bachelors, and graduate) education levels in excess of state and national levels?
- G. **Population outmigration and regional population levels** – Has regional population stabilized and has the population outmigration rate decreased?
- H. **Percentage of the region's population that is represented by the 18-to-64 age demographic** – Has this demographic cohort decreased?
- I. **Average high-tech employment share** – Has the average high-tech employment share increased levels equal to or exceeding state and national averages?
- J. **Technology-based knowledge occupations** – Has the share of technology-based knowledge occupation employment compared with total employment to levels increased, and is it equal to or exceeding state and national averages?
- K. **Venture capital investment** – Has venture capital investment utilization increased in the region to state levels?
- L. **Broadband density and penetration** – Has broadband density and penetration in the region increased to levels equal to or exceeding state and national averages.
- M. **Establishment churn rates** – Have establishment churn rates increased to a level that exceeds state and national rates?
- N. **Gross domestic product (GDP) per worker** – Has gross domestic product (GDP) per worker in the region increased to levels equal to or exceeding state and national averages?



3. Progress in Implementing CEDS Strategies

- A. What strategies in the CEDS, or consistent with the CEDS, have been implemented? Identify any quantitative or qualitative impacts.

4. Progress in Implementing Projects Consistent with CEDS Strategies

- A. What projects in the CEDS, or consistent with the CEDS, have been implemented? Identify any quantitative or qualitative impacts.

5. Progress in Creating Regional Wealth

- A. Has there been an increase or growth in intellectual, individual, social, natural, built environment, political, financial, and cultural assets? Identify any quantitative or qualitative impacts.

Performance Evaluation

Southern Tier West tracks performance metrics (e.g., leverage, jobs, investment, etc.) for each CEDS project post-implementation and includes this information in the Annual Report that Southern Tier West submits to EDA.

A cursory examination of the economic environment of the region (e.g., unemployment rates, per capita income levels, poverty levels, median household income levels, net migration levels etc.) could lead the observer to the perspective that cumulatively, over the past three to four decades, the Southern Tier West region's economic development community has not been very successful in addressing the region's long-term economic distress. The region still has higher-than-state-and-federal-average unemployment rates, and per capita income continues to decline as a percentage of state per capita income. The region's youth leaves the region in search of jobs.

However, such a simplistic viewpoint does not consider the opportunity cost of the region not undertaking the economic development initiatives that it in fact has undertaken over the last three to four decades. The region's economy would probably be much more distressed if there had been no economic development strategy in place, and if the region had not undertaken an ongoing strategic economic development effort over the last three to four decades. Thus, the focus perhaps ought not to be on the fact that the region still is economically distressed, but rather, recognizing that we have made some progress, we should focus on how we can do better in the future. History can teach us which economic development initiatives did not work, and which are likely to hold promise.

On an annual basis, the CEDS project performance metrics, along with updated regional economic data, may suggest revising economic development priorities and CEDS goals / objectives / strategies, and also may suggest new projects, programs, and initiatives. Consequently, the CEDS is a living document, updated and monitored on an ongoing basis by the Southern Tier West Regional Planning and Development Board.

Some of the lessons we have learned in the strategic planning and development process, in no particular order, are as follows:

- **Economic development always must be considered in contemplation of the future.** The region must prepare for the economic development opportunities and jobs of tomorrow, not those of yesterday or even of today. This cannot be accomplished with the resources of yesterday.
- **Economic development should be both proactive and reactive, not just reactive.** Too often, because of a focus on responding to the pressures of the day and situations as they arise, and because of the perceived difficulties in being proactive in terms of planning, project development, and funding appropriation, we focus on "putting out fires" (i.e., reactive economic development, for example, responding to an announced plant closure), as opposed to being proactive (building capacity and readiness for growth). While reactive activities are essential, the failure to act proactively will predispose the region to a lower potential for future economic growth, and in the worst case, perpetuate and even exacerbate economic difficulties that the region is experiencing

Readiness for economic development is essential. We must be proactive, preparing for and engaging in economic development activities prior to having "birds in hand." If we delay preparation and public



investment until a specific private sector beneficiary company appears, we will be unable to respond in time to meet the company's development timetable. In some sense, therefore, readiness equates to speculative investment in economic development. However, because of the scarcity of economic resources, such speculative investment must be made judiciously.

- **We must undertake strategic planning on a regular basis.** A corollary of proactive economic development is the need for comprehensive planning and strategic economic development planning. Comprehensive planning at the county and municipal level is essential, as it provides a roadmap for the future, and generate consensus locally as to strategic direction.

Hand-in-hand is the need for strategic economic development planning, i.e., setting forth goals, objectives, strategies, and an action plan containing a timetable for implementation and identifying essential financial resources. Without a strategic economic development plan, there is no consensus about strategic economic development direction, and there is no formula for projects and initiatives that must be undertaken to arrive at goals. Without a strategic economic development plan, any economic development initiatives that are undertaken are not part of a reasoned strategy for the type of development that is desired, and cannot be expected to achieve the optimal level of economic development.

Strategic economic development planning also should occur at the regional, county, and municipal levels. At the regional level, the CEDS acts as a regional strategic economic development plan. However, counties and municipalities also need to have a plan in place to avoid less-than-optimal results.

Additionally, we must develop a means of investing in economic development. To support strategic economic development plans, we must develop and implement multi-year county-level capital and non-capital investment plans. In this regard, the creation of capital and non-capital reserve funds and annual budgetary commitments of resources for economic development investment is most beneficial. Many economic development initiatives consist of phased approaches that require an ongoing annual commitment of resources.

- **Economic development requires more than bricks and mortar.** Effective economic development requires attention to human resource and technology issues, as well as productivity, market, and financial issues. We must have the flexibility to bring resources to bear on all of these fronts for any given economic development opportunity as it arises. Often, investment must be funneled into an initiative in a coordinated, multi-agency approach. This has been referred to as a "critical mass theory of economic development," in which many organizations, many programs, and varied funding all are directed "as a team" toward solving an issue or realizing an economic development opportunity, under the assumption that such a coordinated, collaborative, and focused approach is the most effective approach to achieve success.
- **We must improve our region's capacity for innovation.** Gains in domestic value-added activity in the future may well not be in manufacturing industries (unless proprietary technologies or other comparative advantages are involved), but in information technology or knowledge-based industries, or in other clusters where a long-term competitive advantage can be created and maintained. We must position ourselves appropriately to capitalize on any opportunities in this regard. This is a broad category encompassing everything from improving telecommunications infrastructure, encouraging use of broadband by the region's businesses and institutions, encouraging technology transfer between the educational and business communities, improving entrepreneurial rates and improving entrepreneurial performance, etc.
- **We must build on the strengths represented by our significant regional industry clusters and occupation clusters.** As has been indicated elsewhere herein, these clusters provide a competitive advantage for economic development in our region.
- **We must "widen the entrepreneurial pipeline."** As the region currently has too low a rate of entrepreneurship to support an innovation economy, we must act to increase the levels of entrepreneurship in our region, and to assist entrepreneurs so that their failure rate decreases.
- **We must improve the skill sets and capacities of our regional labor force.** Economic development in any region is constrained by the quality and quantity of its labor force. Our region is hindered by a lack of quality



jobs requiring higher skill levels. Nonetheless, if we are to achieve a sustainable globally competitive regional economy, we must improve the skill level of our regional labor force. This is both a training issue and an education issue. Vocational and specialized skills training, STEAM education, and entrepreneurial education should be foci.

- **We must encourage value-added and export activities.** Only by value-added activity can we create wealth in our region, and only by bringing new money into our region from outside the region (i.e., goods and services export), can we maintain our quality of life and standard of living.
- **We must encourage local production to reduce reliance on imports.** In the same way that only by bringing new money into our region from outside the region (i.e., goods and services export), can we maintain our quality of life and standard of living, by encouraging production of goods and services within the region, we can reduce our reliance on imports and have a similar impact on the net flow of wealth between our region and other regions. This also is a sustainability practice (reducing carbon emissions related to shorter transportation distances for goods) and can be an improved health practice (e.g., increased reliance on locally produced foods, which can be healthier and fresher).
- **We must improve the region's transportation infrastructure.** As a rural region that is spread out over a large geographic area, we must concern ourselves with passenger and freight transportation, both within the region, and to-and-from points outside the region. Service must be timely and cost effective.
- **We must continue to work toward the retention and expansion of our region's existing manufacturing base.** We have a substantial investment of both public and private capital invested in this manufacturing base, not to mention the economic health of many direct and indirect employees and their families, and all of this is at competitive risk in the global marketplace. We must improve communications between our economic development community and the region's manufacturing base. We must encourage a progressive attitude on the part of our business community, and we must be prepared to do likewise ourselves.
- **Economic development requires innovation in financial packaging and tools.** The traditional tools available in our region sometimes are not competitive with those of neighboring states, let alone the rest of the world. We must develop alternative financial tools, and we must invest in our financial tools.
- **Each county health department should act as a central clearinghouse for municipal water and wastewater projects within the county.** The county health departments are good overseers of municipal water and wastewater systems and are aware when certain systems need improvements. The county planning and development departments can be good sources of assistance to municipalities with respect to development and implementation of needed projects.

Southern Tier West's practice is to use its performance measuring system over time on a rolling basis to measure the dynamic implementation efficacy of the CEDS planning process.

However, several general observations can be made.

First, although the sponsors of projects appearing in the CEDS indicate that they plan to implement the projects within a 12 to 18 month time frame, this often does not occur, often because of the unpredictable lengths of planning phases and the uncertainty of the availability of funds from various funding sources. Accordingly, projects often appear in several successive editions of the CEDS before being implemented (or else removed from the CEDS as no longer reflecting development priorities). Once implemented, projects often take one to three years before they are completed (especially with respect to construction projects), and the full economic development impact (e.g., jobs created, private sector investment, etc.) may be felt at a still later time. Thus, the full impacts of a project normally are lagged by several years or more from the project's first appearance in the region's CEDS.

Second, certain types of projects (e.g., projects funded by ARC, NYS DOT, and FAA) typically are the most likely to have been completed and to have met targets, because of the higher relative certainty of the funding stream. Other projects, such as EDA projects, are less likely to have been completed or even implemented because EDA funding is less certain.



Third, most infrastructure projects have longer time frames to implementation and final completion than do non-infrastructure and non-construction projects, other things equal, measured from the date of their appearance in the CEDS. This is because the overall process (planning, funding, engineering, environmental review, bidding, and construction, etc.) is a longer process than the process involved with non-construction projects. Some of these projects occasionally evolve into significantly different projects over a period of several years.

Fourth, economic development projects often seem to have a shorter and more certain path to implementation than do other sorts of projects (i.e., non-economic-development projects), owing to the economic development projects being based on and constrained by beneficiary company timeframe windows and the often stronger linkage to funding availability. Further, once these economic development projects are completed, they normally meet their job and investment targets. (However, the shortness of the private sector's timeframe window sometimes works against economic development projects being successfully implemented, as sometimes it is impossible to satisfy the private sector in the timeframe required.)

Fifth, although the water and wastewater projects of many small municipalities may be high priorities for implementation, owing to health and public safety concerns, these projects often languish in the planning phase awaiting funding for several years, owing to inexperienced municipal project sponsorship, changeovers in local administrations (affecting continuity), insufficient local match funding, funding priorities of varied funding sources, and inability to obtain funding packages that are perceived as affordable by the municipalities. This is less true, however, if the project can be primarily categorized as an economic development project, for the reasons noted above.

Sixth, the Seneca Nation of Indians' has had an active, dynamic portfolio of projects over the recent years. Certain projects have been completed, others are no longer priorities, and some continue to be active projects. In recent years, the Seneca Nation has proposed a number of new projects related to casino resort development, and other new projects have been made possible because of casino revenues. A driving philosophy of the Seneca Nation of Indians is the diversification of its economic base. This CEDS does include significant participation by the Seneca Nation of Indians. Monitoring data (including performance metrics) on Seneca Nation economic development projects is not always available.

Seventh, because certain project sponsors (counties, municipalities, agencies, etc.) may not participate in the planning process in a given year, Southern Tier West cannot include their projects in the CEDS or evaluate their projects.

Finally, Southern Tier West generally has seen CEDS projects meet job and investment targets upon completion.



Economic Resilience

The region's economic prosperity is dependent upon its ability to prevent, withstand, and quickly recover from major disruptions (i.e., "shocks") to its economic base. Economic resilience includes the ability to avoid the shock, the ability to withstand a shock, and the ability to recover quickly from a shock. This section of the CEDS deals with economic resilience in terms of economic disruptions (1) arising from natural disasters and (2) arising from other causes. In both cases, the focus should be on both steady state (i.e., avoidance or mitigation or minimization in advance of a natural disaster) and response to a disaster. Additionally, the focus herein is on the economic disruption, as opposed to human safety or property damage or governmental operations, all of which are equally essential (or even more important) and all of which are beyond the focus and limited scope of this CEDS and perhaps more properly the province of other types of public safety plans.

Economic Disruptions Arising from Natural Disasters

The types of natural disasters that could occur in the region include:

- Flood events
- Winter storm events
- Fire events
- High wind events
- Earthquake events

Of these types of disasters, flood events and winter storm events are the most common in the region.

The region has a county-level approach to economic resilience with respect to natural disasters. In each county in the region, the County department of economic development and the county industrial development agency have a relationship with the county office of emergency services that involves pre-planning for natural disasters and, once a natural disaster occurs, that provides for a coordinated response to that disaster.

The focus of the county offices of emergency services is planning for mitigating and responding to natural disasters, as they impact both publicly and privately owned assets; governmental, community, and business operations; and the general public. With respect to natural disasters, each county has both a hazard mitigation plan and a hazard response plan.

The hazard mitigation plan in one sense is a function of the FEMA and NYS Office of Emergency Management focus on publicly owned assets. Accordingly, the county hazard mitigation plans focus primarily on preventing or minimizing damage to publicly owned assets in the event of a natural disaster. Economic resilience per se (i.e., with respect to a natural disaster's impact on private businesses) is not an element of the county hazard mitigation plans. However, damage to publicly owned assets not only can negatively impact governmental or community facility operations; it also can disrupt private sector (business operations). Accordingly, there is a role for county economic development organizations with respect to mitigation planning and assistance to businesses and communities with respect to helping them avoid or minimize the negative impacts of natural disasters on the business community.

Economic Disruptions Arising from Other Than Natural Disasters

Other types of economic disruptions can be just as damaging to local and regional economies as can disruptions arising from natural disasters. Economic disruptions typically involve plant closures or downsizings/layoffs or production hiatuses arising from various causes.

Examples of potential causes for these other types of economic disruptions include:

- Persistent internal regional structural issues including:
 - Excessive local dependencies on single employers or industries
 - Non-local ownership of certain major employers
 - Inadequate transportation access/options in some communities



- Inadequate broadband availability in some communities
- Labor force issues, including an inadequately educated workforce
- Barriers to entrepreneurship and small business expansion
- Inadequate access to small business finance
- Circumstantial issues, typically external but sometimes internal, including:
 - Economic downturns
 - Customer issues (domestic and international)
 - Technological obsolescence or competitiveness issues
 - Labor force issues, including labor stoppages
 - Supply chain issues or interruptions
 - Infrastructure service disruption
 - Water shortages
 - Chemical spills, etc.
 - Climate change

The region must address these types of business risks through both steady state (mitigation or avoidance or minimization) initiatives and response initiatives (once disruptions occur). The following two sub-sections address these two topics.

Steady State Initiatives – Planning for and Implementing Economic Resilience Initiatives

1. Role of businesses in steady state planning and implementation

- A. Identification of primary business risks relating to or caused by natural disasters, for example:
 - energy supply disruptions
 - facility damage or accessibility issues
 - telecommunications or utility service disruptions
 - etc.
- B. Identify primary business risks relating to disruptions other than natural disasters, often the result of persistent economic challenges or deficiencies, for example:
 - Plant closures, downsizings, or interruptions of production
 - Reduction of purchasing from local vendors in the supply chain
- C. Development of plans for avoid or minimize disruptions from natural disasters, for example:
 - backup energy supplies
 - strengthening potentially physically challenged elements of facilities
 - improving accessibility infrastructure / accessibility redundancy
 - telecommunications redundancy
 - improving utility infrastructure
 - etc.
- D. Communication of risks and plans to communities, county emergency services offices, and economic development organizations

2. Role of communities in steady state planning and implementation

- A. Identification of primary business risks relating to natural disasters. Determine which publicly owned assets, if damaged by natural disaster, could disrupt local business operations. Examples are culverts and bridges that are key element of accessibility to business facilities, etc.
- B. Participate in county hazard mitigation planning process with respect to these publicly owned assets that, if damaged by natural disaster, could disrupt local business operations. Include mitigation projects relating to these assets in the county hazard mitigation plan so as to avoid disruption of local business



operations. Implement these mitigation projects. Project examples could include improving and reinforcing stream channels to avoid flooding damage, GIS database of municipal infrastructure, database of facility utility shut offs, etc.

- C. Continuation of safe development practices, including land use/zoning ordinances requiring the location of structures outside of floodplains, stormwater policies that effectively manage stormwater so as not to create potentially disrupting flooding, the preservation of natural lands that act as buffers from storms, the protection of community built environments from the impacts of extreme weather, etc.

3. Role of economic development organizations in steady state planning and implementation

- A. Create network to facilitate active and regular communication between the relevant sectors to (a) collaborate, (b) collect and disseminate information about key elements (such as supply-chain relationships), and (c) ensure that the public, private, education, and nonprofit sectors are aware of each other's roles and responsibilities with respect to existing and potential future challenges
 - County emergency management offices
 - County offices of economic development
 - County industrial development agencies
 - County workforce management office
 - Local government officials (CEO, DPW, etc.) of affected communities
 - Major employers and cornerstone institutions (e.g. hospitals, colleges, etc.)
 - Southern Tier West
- B. Create business database
 - Database should begin with largest employers
 - Database should be GIS-based and served over the web by controlled access
 - Data fields should include location, description of operations, description of any hazardous operations or materials, contact information, location of utility services, employee information
- C. Identify primary business risks relating to natural disasters. Recognize and collect business and community mitigation plans and county hazard mitigation plans.
- D. Identify pre-disruptions activities or initiatives that could help avoid or minimize disruptions, for example:
 - working with businesses to encourage off-site storage of critical data
 - working with businesses to encourage redundancy in telecommunications and broadband networks
 - working with businesses to encourage planning to resolve any post-disruption employee accessibility issues
 - working with businesses to identify and implement pre-disaster business activities or initiatives that could complement community or county hazard mitigation plans and projects
 - broadening the industrial base with diversification initiatives, such as targeting the development of significant industrial clusters with growth potential that could provide stability during downturns that disproportionately impact any single cluster or major employer
 - undertaking business retention and expansion programs
 - putting in place a means of availability of surge capital/credit resources in case they may be needed by local governments and/or major employers
 - creating cluster networks, industrial ambassador programs, and financial capital funds to assist businesses with economic recovery post-disruption
 - establishing formalized mechanisms to realign and retrain any displaced workers post-disruption
 - improving workforce skills and cross training



- tracking establishment “churn” and other data elements
- E. Regularly prepare a current assessment of the regional economy, monitor the state of preparedness to mitigate and respond to disruptions, and measure and evaluate pre-disaster planning/preparedness and post-disaster response

As a regional resource, Southern Tier West can serve as a source for information; technical, funding, and grantsmanship assistance; provider of GIS services and web-based serving of information; convener of teams for mitigation planning efforts, etc.

Response Initiatives – Planning for and Implementing Economic Resilience Initiatives

The focus of the county hazard response plans is recovery from natural disasters. In the case of the hazard response plan, the contents of the plans are not disseminated publicly, so as to avoid sensitive information becoming available to entities that might engage in terrorist or criminal behavior. However, the plans do include components involving government operations, community institutions (e.g., hospitals, etc.), businesses, and the general public.

In a natural disaster, the county emergency services offices, the police departments (State Police, county sheriffs, and local police), and local public works departments, augmented in extreme cases by the National Guard, are the first responders and entities that are in charge of the immediate response activity, per a pre-determined hierarchy. Their activities can be supplemented by private sector services, e.g., contractors, etc. Their first concern is human safety, followed by property damage. Economic disruptions are the focus of the economic development organizations, which can become involved with working with businesses and communities as soon as it is safe to do so.

1. Role of economic development organizations in response planning and implementation

The county economic development organizations should convene planning meetings with stakeholders (including the business community, community leaders, police, and public works officials, etc.) to determine appropriate procedures and/or protocols for responses. This already is in place for natural disaster; if it is not present, this planning also needs to be put in place for other types of economic disruptions. Protocols should include:

- The general process for economic response to natural disasters is that county economic development organizations are informed of disaster, and then develop a team comprised of primary stakeholders, including community officials, key personnel from the business community, and others as needed. Roles and responsibilities are assigned, and key response actions are identified and implemented. Regular communication occurs between team members, so that additional issues can be addressed as they arise.
- Economic development organizations should serve as an information hub (collecting data and convening the appropriate players to facilitate recovery post-disruption) and a Business Emergency Operation Center (BEOC) or Business Recovery One-Stop Center. Economic development organizations should utilize information networks among the various stakeholders in their counties for active and regular communications to collaborate on response initiatives, determining business and community needs, and monitoring of implementation of response.
- Economic development organizations should assist communities and businesses with undertaking response projects. Assistance can include (but should not be limited to) help with accessing funding, contacting elected officials and regulatory officials, working with workforce organizations, etc.

As a regional resource, Southern Tier West can serve as a source for information; technical, funding, and grantsmanship assistance; provider of GIS services and web-based serving of information; convener of teams for mitigation planning efforts, to gather data and encourage collaboration post-disruption, etc.



Measuring Resilience

The region should measure its resilience through various standardized resilience measures, including the degree of regional income equality (i.e., how evenly income is distributed across a regional population) and the degree of regional economic diversification (i.e., degree to which economic activity is spread across sectors). As needed, the region should obtain and regularly update resiliency data with which to benchmark the region against national averages.

In our region, there is a relatively homogenous distribution of income, relative to other regions. However, because of the generally lower-than-state-and-national-average per capita incomes and relatively higher-than-state-and-national poverty rates, it can be said that the region is perhaps less resilient than its income distribution would suggest.

In our region, there has been a somewhat disturbing reduction in economic diversification, as manufacturing jobs are being replaced by service and commercial jobs, which often are lower wage, and which often do not provide benefits. Both the decreasing diversification rates and economic restructuring imply that the region might be less resilient than would be desirable.

Summary

1. Region's key vulnerabilities

- A. Natural disasters, especially flood and winter storm events and their direct impacts to businesses and indirect impacts to businesses via their direct impacts on infrastructure and community institutions
- B. Economic disruptions, especially the exit or downsizing of major employers and non-local ownership of some major employers, inadequate workforce skills, need for businesses to become more productive and adopt new technologies, low innovation rates, and low levels of entrepreneurship

2. Region's resilience-building goal

- A. Improve economic resilience through appropriate steady-state actions (avoidance, prevention, and mitigation of economic disruptions) and response actions (response to economic disruptions)

3. Region's resilience-building objectives

- A. Avoid disruptions (plant closures, plant downsizings, production hiatuses, etc.)
- B. Reduce severity and duration of disruptions post-incident (plant closures, plant downsizings, production hiatuses, etc.)

4. Region's resilience-building strategies

- A. Create county-level networks, that integrate emergency management personnel, economic development personnel, and other key stakeholders, to actively and regularly communicate and collaborate regarding proactive mitigation and post-disruption response
- B. Undertake appropriate infrastructure capital investment projects to mitigate potential disruptions due to natural disasters
- C. Diversify economy
- D. Upgrade labor force skills and job transferability
- E. Promote innovation, adoption of new technologies and productivity enhancement, and entrepreneurship
- F. Target development of emerging clusters
- G. Establish formalized mechanisms to realign and retrain local workforces post-disruption



5. Region's resilience action plan projects

A. "Steady-State Initiatives" that seek to bolster the community or region's long-term ability to withstand or avoid a shock

- Create formal detailed and tested county-level (for economic development organizations regarding employers throughout the county) and local-government-level (regarding specific local employers) disaster response and recovery plans, which identify goals, initiatives/projects, roles and responsibilities, time frame, funding, and measurable objectives

County-Level Economic Resilience (Disaster Response and Recovery) Planning Project

Description: Create county-level disaster response and recovery plan, focused on economic recovery

Sponsor: County P&D, Southern Tier West

Total cost: \$TBD; funding sources: TBD

Job impact: TBD

Date: 2019

- Business-specific risk assessment projects, initially targeting major employers

Business Risk Assessment Project

Description: Develop a program to undertake business-specific risk assessment, beginning with major employers (e.g., highway or rail access, supply chain dependency, inadequate or lack of redundant broadband availability, failure to adopt competitive technologies, concentration of sales in one or a few customers, availability of surge capital/credit in case of disruption, etc.)

Sponsor: County P&D, County IDA, Southern Tier West

Total cost: \$TBD; funding sources: TBD

Job impact: TBD

Date: 2020

Agricultural Business Risk Assessment / Information Dissemination Project

Description: Develop a program to identify disasters specific to agricultural firms (farms, etc.) and undertake assessments and information dissemination to farmers and other agricultural firms

Sponsor: County P&D, County IDA, Southern Tier West

Total cost: \$TBD; funding sources: TBD

Job impact: TBD

Date: 2020

Business Risk Self-Assessment Web Cookbook Project

Description: Develop a cookbook for self-assessment for small businesses, to be placed on the web

Sponsor: County P&D, County IDA, Southern Tier West

Total cost: \$TBD; funding sources: TBD

Job impact: TBD

Date: 2020

- GIS project targeting confluence of floodplain and built environment (especially major employers, cornerstone community institutions, and community commercial centers)

GIS Project to Identify Major Employers in Floodplains

Description: Undertake GIS project to identify major employers located in floodplains

Sponsor: County P&D, Southern Tier West

Total cost: \$TBD; funding sources: TBD

Job impact: TBD

Date: 2020



- Continually update county hazard mitigation plans and implement hazard mitigation projects contained in the county hazard mitigation plans

Community Infrastructure/Asset Mitigation Project

Description: Avoidance / mitigation of potential damage from natural disaster to community infrastructure or other assets through implementing projects in County Hazard Mitigation Plan, including flood control mitigation, fire control mitigation, etc.

Sponsor: Municipalities
Total cost: \$TBD; funding sources: TBD
Job impact: TBD
Date: 2020

- Develop plan to address other risks to infrastructure/assets/etc. not appropriate for inclusion in County Hazard Mitigation Plans

Utility/Broadband Infrastructure Mitigation Project

Description: Avoidance / mitigation of potential damage from natural disaster to community infrastructure or other assets through implementing projects not in County Hazard Mitigation Plan, including privately owned electric and gas utilities, redundancy in telecommunications and broadband networks, etc.

Sponsor: Private Utilities
Total cost: \$TBD; funding sources: TBD
Job impact: TBD
Date: 2020

- Develop surge capital/credit funding mechanism

Surge Capital/Credit Fund Project

Description: Create a fund or other mechanism to make surge capital/credit available in case of disruption

Sponsor: County P&D, County IDA, Southern Tier West
Total cost: \$TBD; funding sources: TBD
Job impact: TBD
Date: 2020

- Continue employment of safe development practices
- Develop and utilize early warning tools system
- Prioritize and implement mitigation capital investment projects
- Develop and implement a program to develop businesses in targeted emerging clusters

B. “Responsive Initiatives” that establish and utilize capabilities for an economic development organization to be responsive to the region’s recovery needs post-disruption.

- Develop GIS-based business database served over the web
- Assembly county level teams, information hubs, and key contacts
- Create GIS-based business database served on the web that can be utilized post-disruption to expedite response
- Establish formalized mechanisms to realign and retrain workforce post-disruption

6. Measureable objectives

- A. Natural disasters:** Ability to minimize job losses, property damage, plant closures, plant production disruptions
- B. Other disruptions:** Ability to minimize job losses, plant closures, plant production disruptions



Appendix



Southern Tier West Regional Planning and Development Board

Board of Directors

As of September 2019, the members of the Southern Tier West Board of Directors are as follows:

<u>Name</u>	<u>Representing</u>
Craig Clark	Allegany County
Kier Dirlam	Allegany County
Charles Jessup	Allegany County
Deb Root	Allegany County
Jerry Scott	Allegany County
Crystal Abers	Cattaraugus County
Charles Couture	Cattaraugus County
Robert Keis	Cattaraugus County
Norm Marsh	Cattaraugus County
Donna Vickman	Cattaraugus County
George Borrello	Chautauqua County
Joseph Galati	Chautauqua County
Frank “Jay” Gould	Chautauqua County
Don McCord	Chautauqua County
Willie Rosas	Chautauqua County
Lucille White	Seneca Nation of Indians

As of September 2019, the officers of the Southern Tier West Board of Directors are as follows:

<u>Name</u>	<u>Representing</u>	<u>Title of Officers</u>
Kier Dirlam	Allegany County	Chairperson
Frank “Jay” Gould	Chautauqua County	Vice Chairperson
Robert Keis	Cattaraugus County	Secretary

2019 CEDS Planning Process

Description of 2019 CEDS Planning Process

The 2019 CEDS is an update of the 2018 CEDS. As such, the 2019 CEDS incorporates significant changes that have occurred in the region over the prior 12 months. As might be expected, most of the region’s significant overall strategic directions have not changed; it is primarily individual strategic initiatives and projects that may have changed. Some initiatives from the prior year have been revised, and some new initiatives have come to light. This is reflected in the updated project lists contained in the 2019 CEDS.

As part of the process of updating the CEDS, Southern Tier West reviewed newly available statistical data, and updated relevant narrative sections of the text accordingly.

Southern Tier West also contacted the three county planning and development departments, the three county industrial development agencies, the planning and development departments of the three cities in the region, the workforce development agencies, the major cities, major development groups, and the Seneca Nation of Indians, asking for participation, and for a list of currently planned economic development projects in their jurisdictions. The Southern Tier West Board also was asked for input during the revision process.

The Southern Tier West Board acted as Strategy Committee for the revision of the CEDS leading to the publication of the 2019 CEDS. At its July 2019 Board meeting, the Southern Tier West Board adopted a resolution recognizing county-level priorities for EDA investment within their counties, and for EDA investment in regional projects. These priorities were informed by internal discussions within the individual counties, often via the county planning and development departments, industrial development agencies, county planning boards, and/or county planning and economic development committees.

The draft 2019 CEDS was placed on the Southern Tier West web site in August 2019 for a 30 day public review and comment period, and the Southern Tier West Board approved a finalized version of the 2019 CEDS at its September 2019 Board meeting.

Prior Year (2015, 2016, 2017, and 2018) CEDS Planning Process

The 2015 CEDS was developed consistent with the then newly implemented CEDS rules regarding planning process, document format, and document content. It was an entirely new strategic plan for the region. The 2016, 2016, 2017, and 2018 CEDS each are successive annual updates of the 2015 CEDS.

Members of the 2015 CEDS Strategy Committee

Southern Tier West assembled a 2015 CEDS Strategy Committee, responsible for overseeing the development of the 2015 CEDS document, which included a diverse set of stakeholders (including the public sector, private interests, non-profits, educational institutions, and community organizations). The following persons were members of the 2015 CEDS Strategy Committee:

<u>Name</u>	<u>Title</u>	<u>Organization</u>
Crystal Abers	Director	Cattaraugus County Dev PI & Tourism
Mitchell Alger	Administrative Director	Allegany County
Christopher Baker	Director	Cattaraugus County Emergency Services
John Bartimole	President	WNY Healthcare Assn/Olean School Board
Carl Belke	President/COO	Western NY and PA Railroad
Paul Bishop	Planner	Cattaraugus County Dev PI & Tourism
Craig Clark	Dean	Alfred State College
David Conklin	President	Jamestown Business College
Charles Couture	President	Cattaraugus County Farm Bureau



Kier Dirlam	County Planner	Allegany County
Vince DeJoy	Director of Development	City of Jamestown
Rich Dixon	CFO	Chautauqua County Industrial Development Agency
Irene Dobies	Director	Small Business Development Center
Gregory Edwards	CEO	Gebbie Foundation
Michael Fischer	Provost	St. Bonaventure University
Doug Frank	CBO	Community Bank
Joe Galati	Biologist	NYS Department of Environmental Conservation
Bryan Gamache	Director	ACCORD Business & Community Development
Kathleen Geise	Executive Director	Chautauqua Works (WIB)
Mark Geise	Deputy Director	Chautauqua County PI & Dev
Mary George	Community Development Mgr	City of Olean
Jennifer Gibson	Senior VP	Northwest Savings Bank
Susan Goetschius	Acting VP	Alfred University
Jay Gould	Chairman	Chautauqua County Legislature
Justin Greg	Mayor	Village of Alfred
Gretchen Hanchett	Executive Director	Greater Allegany Chamber of Commerce
Justin Hanft	Coordinator	Dream It Do It Chautauqua County
Joseph Hart	Sales Manager	Lufkin Industries, Inc.
Ted Hopkins	Legislator	Allegany County Legislator
Vincent Horrigan	County Executive	Chautauqua County
Steven Jackson	Executive Director	YMCA
Charles Jessop	Legislator	Allegany County Legislator
Kevin Kearns	VP	SUNY Fredonia
Stephen Keefe	Mayor	Village of Fredonia
Robert Keis	Chairman	Southern Tier West
Michael Kimelberg	COO	Seneca Nation of Indians
William King	Board	Southern Tier West
Julius Leone	Director	Chautauqua County Emergency Services
Michele Lichy	Exec Director	Cattaraugus-Allegany WIB Inc.
Jeff Luckey	Director	Allegany County Emergency Management
Norm Marsh	Chairman	Cattaraugus County Legislature
Don McCord	Planner	Chautauqua County PI & Dev
Rick McMahon	President	Chautauqua - Cattaraugus Board of Realtors
Greg Muscato	Human Resources	Ljungstrom - Arvos
Chris Napoleon	President	Napoleon Engineering Services
Steve Neratko	Director of Planning & Dev	City of Dunkirk
Max Pickard	Senior VP	Cattaraugus County Bank
Joseph Pillittere	Commissioner	Cattaraugus County DPW
Alan Rae	Executive Director	Alfred Technology Resources Inc.
Willie Rosas	Board	Southern Tier West
Kevin Sanvidge	Director	Chautauqua County Dev & PI Department
John Sayegh	VP	JCC Cattaraugus County Campus
Jerry Scott	Board	Southern Tier West
Stephen Scott	Deputy Planning Director	Seneca Nation of Indians
Patrick Slagle	Board	Jamestown Board of Education
Larry Sorokes	CEO	Greater Olean Area Chamber of Commerce
John Stahley	General Manager	Dresser-Rand
Michael VandeVelde	Mayor	Village of Westfield
Lucille White	Director Community PI & Dev	Seneca Nation of Indians
Corey Wiktor	Director	Cattaraugus County Industrial Development Agency
Jack Wood	Chairman	Allegany County Industrial Development Agency
Emily Woodhead	Mayor	Village of Portville



Description of the 2015 CEDS Planning Process

Because of the large size of the CEDS Strategy Committee, and because of the large size of the region, making meeting-based committee meetings somewhat problematic, the CEDS Strategy Committee was envisioned and created as a virtual committee. The Committee did not meet in person; rather, Southern Tier West prepared draft sections of the 2015 CEDS document, posted them online for the Committee (and general public) to review, and solicited email responses from the Committee (and general public) with comments and suggestions for revision/additions/deletion of the draft text posted. The process was iterated throughout the planning period until all sections of the document were completed in draft, on July 31, 2015.

Southern Tier West created a page on its web site dedicated to the 2015 CEDS planning process. This page provided the Strategy Committee and the general public access to planning resources and draft sections of the 2015 CEDS as they were being developed.

As the CEDS planning process occurred, Southern Tier West issued a series of press releases informing the general public about the CEDS planning process and encouraging public participation. In June 2015, Southern Tier West also included an issue in its Municipal Newsletter, which is transmitted to municipal officials throughout the region, informing them about the CEDS planning process, and encouraging their participation.

Southern Tier West also contacted the three county planning and development departments, the three county industrial development agencies, and the planning and development departments of the three cities in the region, asking for participation, and for a list of currently planned economic development projects in their jurisdictions.

At its June 2015 Board meeting, the Southern Tier West Board adopted a resolution recognizing county-level priorities for EDA investment within their counties, and for EDA investment in regional projects. These priorities were informed by internal discussions within the individual counties, often via the county planning and development departments, industrial development agencies, county planning boards, and/or county planning and economic development committees.

The draft 2015 CEDS was placed on the Southern Tier West web site on August 1, 2015 for a 30 day public review and comment period, and the Southern Tier West Board approved a finalized version of the 2015 CEDS at its September 2015 Board meeting.

In succeeding years, as the region moves toward implementing the CEDS plan, the partnering organizations, as appropriate, will be involved in the implementation of the CEDS plan, often as project sponsors, and also as partners in the implementation of projects sponsored by other organizations. The commitment of these partnering organizations is important to coordinate project implementation, and to seek, obtain, and target project funding. Southern Tier West also will engage these partnering organizations in monitoring progress on the CEDS and to keep the plan both current and relevant.

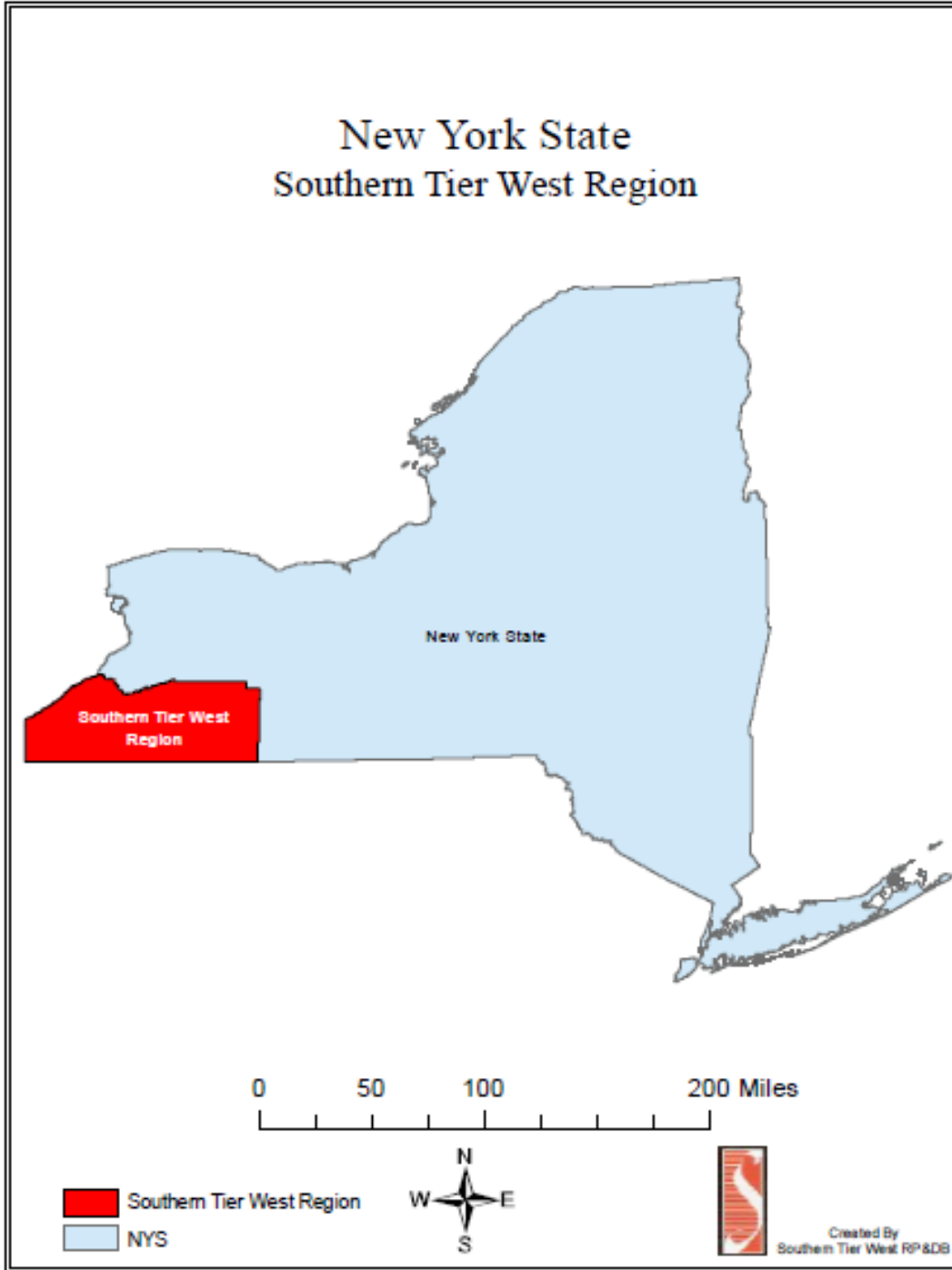


Maps of the Region

This section of the Appendix presents a series of descriptive maps relating to the region, to provide readers a better understanding of the region's geographic composition and assets.

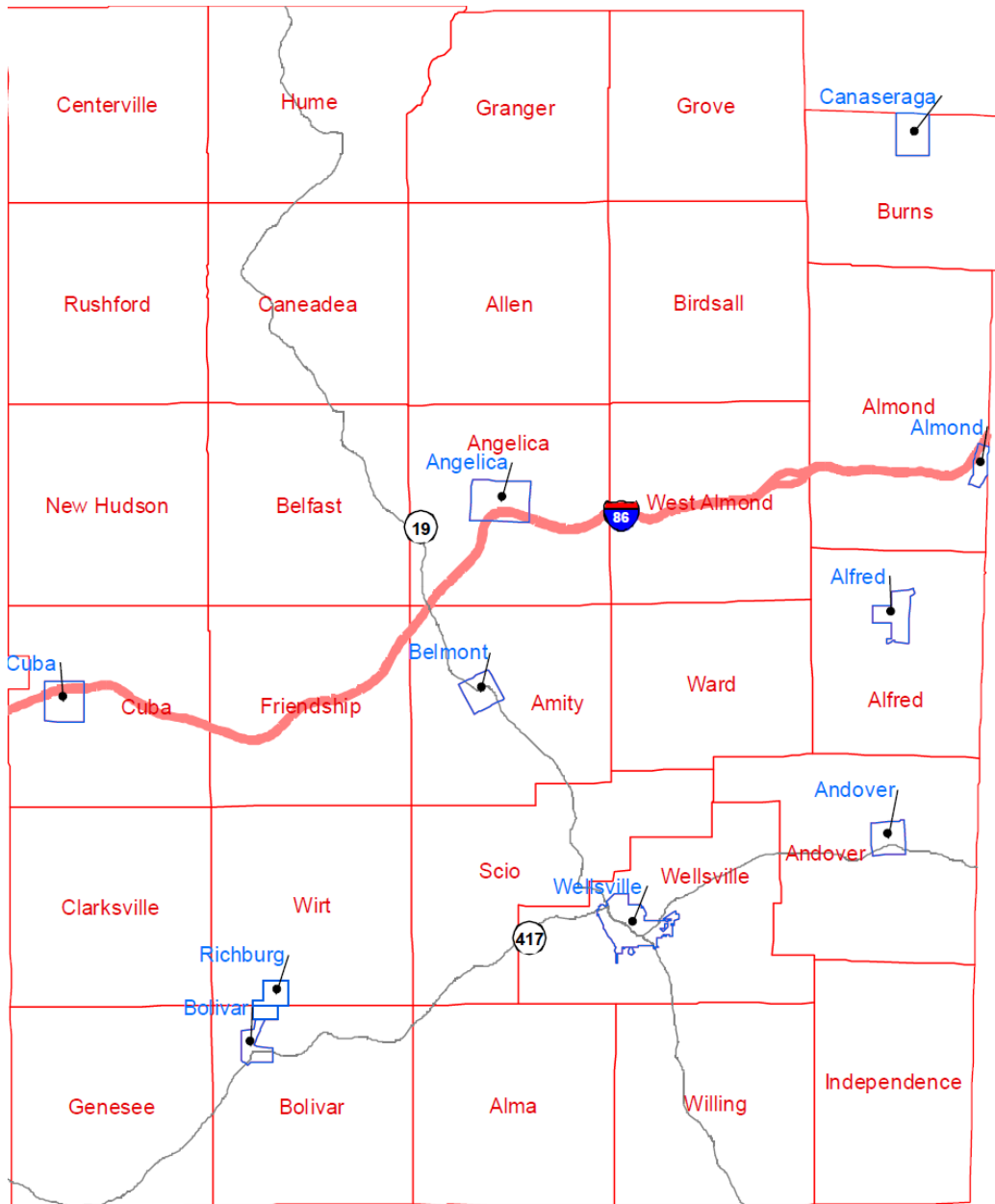
This section of the Appendix includes the following maps:

- Map of New York State showing the three county Southern Tier West Region as an inset
- Map showing Allegany County Towns and Villages
- Map showing Cattaraugus County Cities, Towns, and Villages
- Map showing Chautauqua County Cities, Towns, and Villages
- Map showing the 23rd Congressional district
- Map showing the State Assembly and Senate districts in the three county Southern Tier West Region
- Map showing the major highways in the three county Southern Tier West Region
- Map showing the railroad system in the three county Southern Tier West Region
- Map showing the primary airports in the three county Southern Tier West Region
- Map showing natural gas company service territories in the three county Southern Tier West Region
- Map showing private and municipal electric service territories in the three county Southern Tier West Region
- Map showing post-secondary educational institutions in the three county Southern Tier West Region
- Map showing unified school districts in the three county Southern Tier West Region
- Map showing hospitals (including satellite hospital facilities) and county health clinics in the three county Southern Tier West Region
- Map showing gas production by town in 2009 in the three county Southern Tier West Region
- Map showing oil production by town in 2009 in the three county Southern Tier West Region
- Map showing the agricultural districts in the three county Southern Tier West Region
- Individual maps showing the agricultural districts in the three counties in the Southern Tier West Region
- Map showing the agricultural districts in Cattaraugus County
- Map showing the agricultural districts in Chautauqua County
- Map showing farmers markets in the three county Southern Tier West Region
- Map showing the economic status designation of the three counties in the Southern Tier West Region for FY 2015, as designated by the Appalachian Regional Commission (accompanied by a statistical explanation for the designation)
- Regional map showing localized areas of economic distress in the in the three county Southern Tier West Region for FY 2015, as designated by the Appalachian Regional Commission
- Individual maps showing localized areas of economic distress (Dunkirk, Jamestown, Olean, Perrysburg, and Salamanca) in the in the three county Southern Tier West Region for FY 2013, as designated by the Appalachian Regional Commission
- Map showing the primary watersheds and the primary waterways in the three county Southern Tier West Region
- Map showing locations in the three county Southern Tier West Region needing environmental remediation

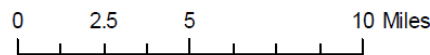




Allegany County Towns & Villages

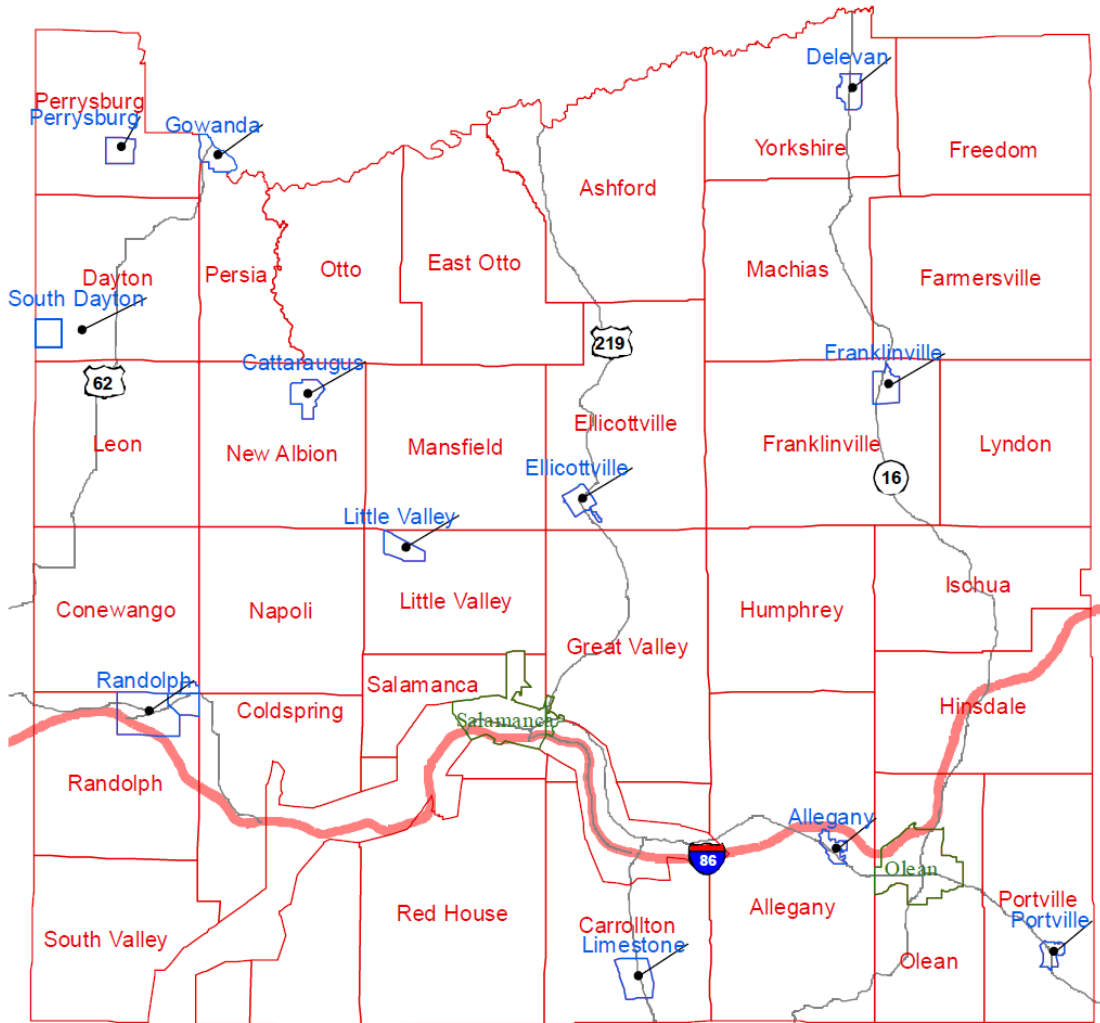


- Major Roads
- I-86
- Towns
- Villages



Map Creator By:
Southern Tier West RP&DB

Cattaraugus County Cities, Towns, & Villages



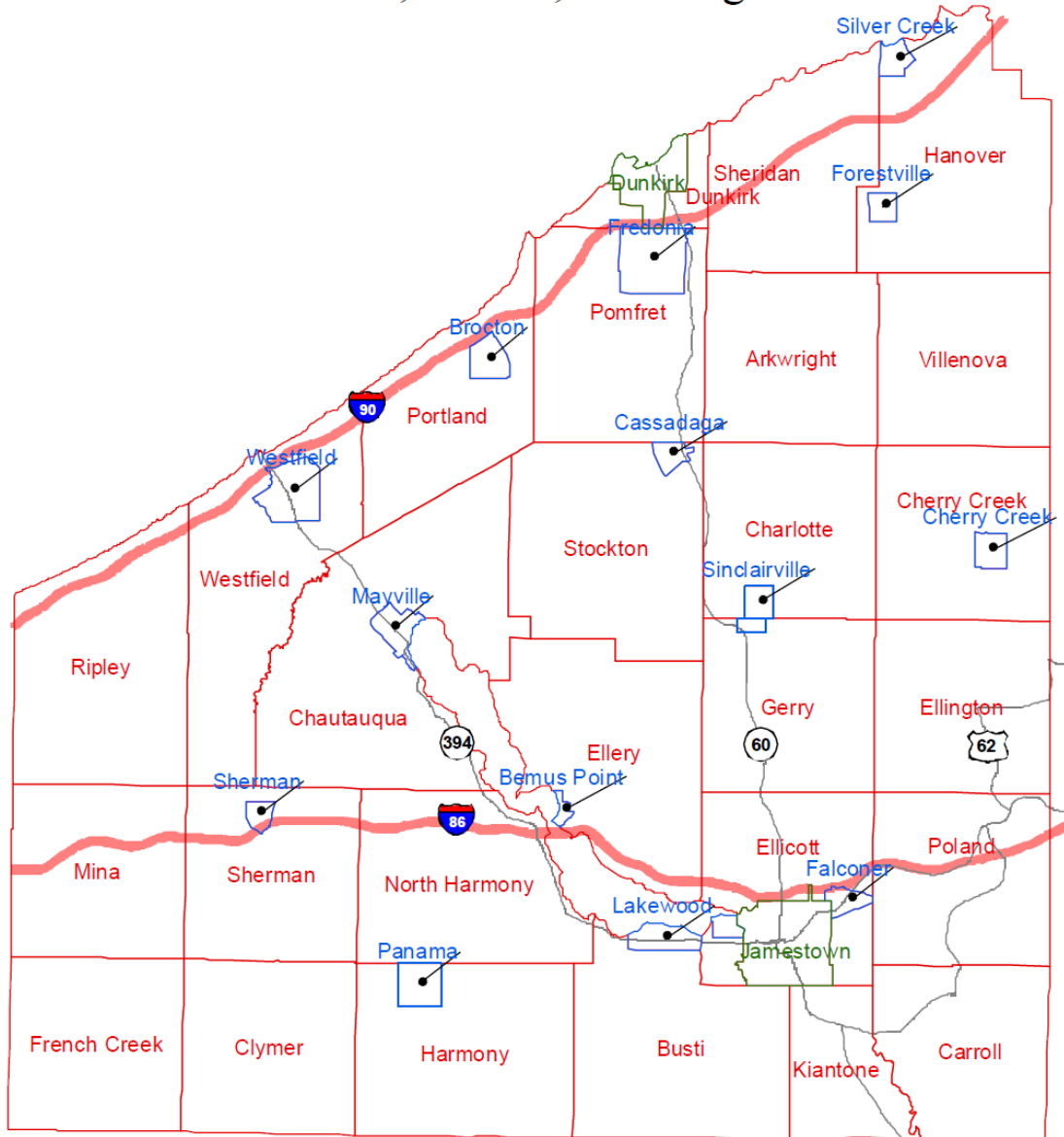
- Cities
- Villages
- Towns
- Major Roads
- I-86

0 3.75 7.5 15 Miles



Map Creator By:
 Southern Tier West RP&DB

Chautauqua County Cities, Towns, & Villages



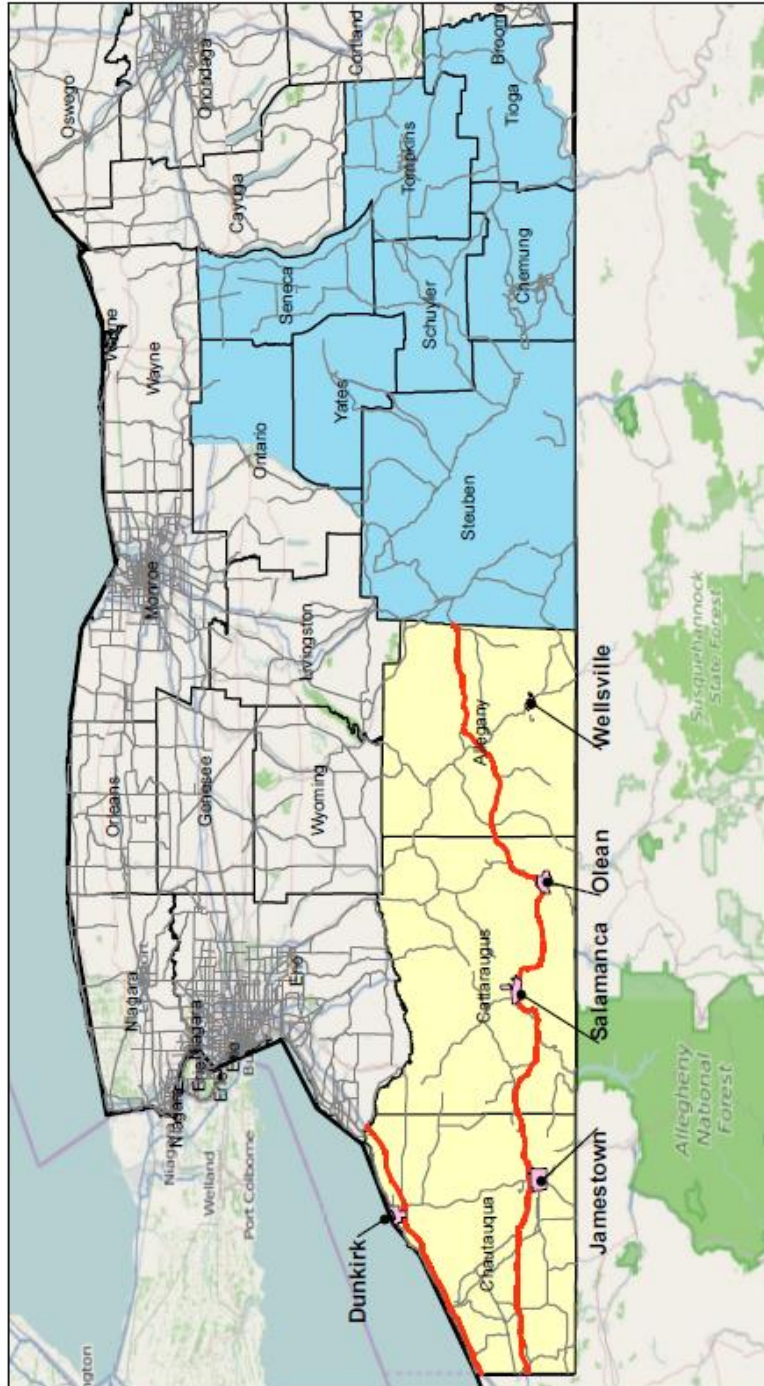
- Cities
- Villages
- Towns
- Major Roads
- I-86 & I-90

0 3.75 7.5 15 Miles



Map Created By:
 Southern Tier West RP&DB

Southern Tier West Region Congressional District 23



Legend

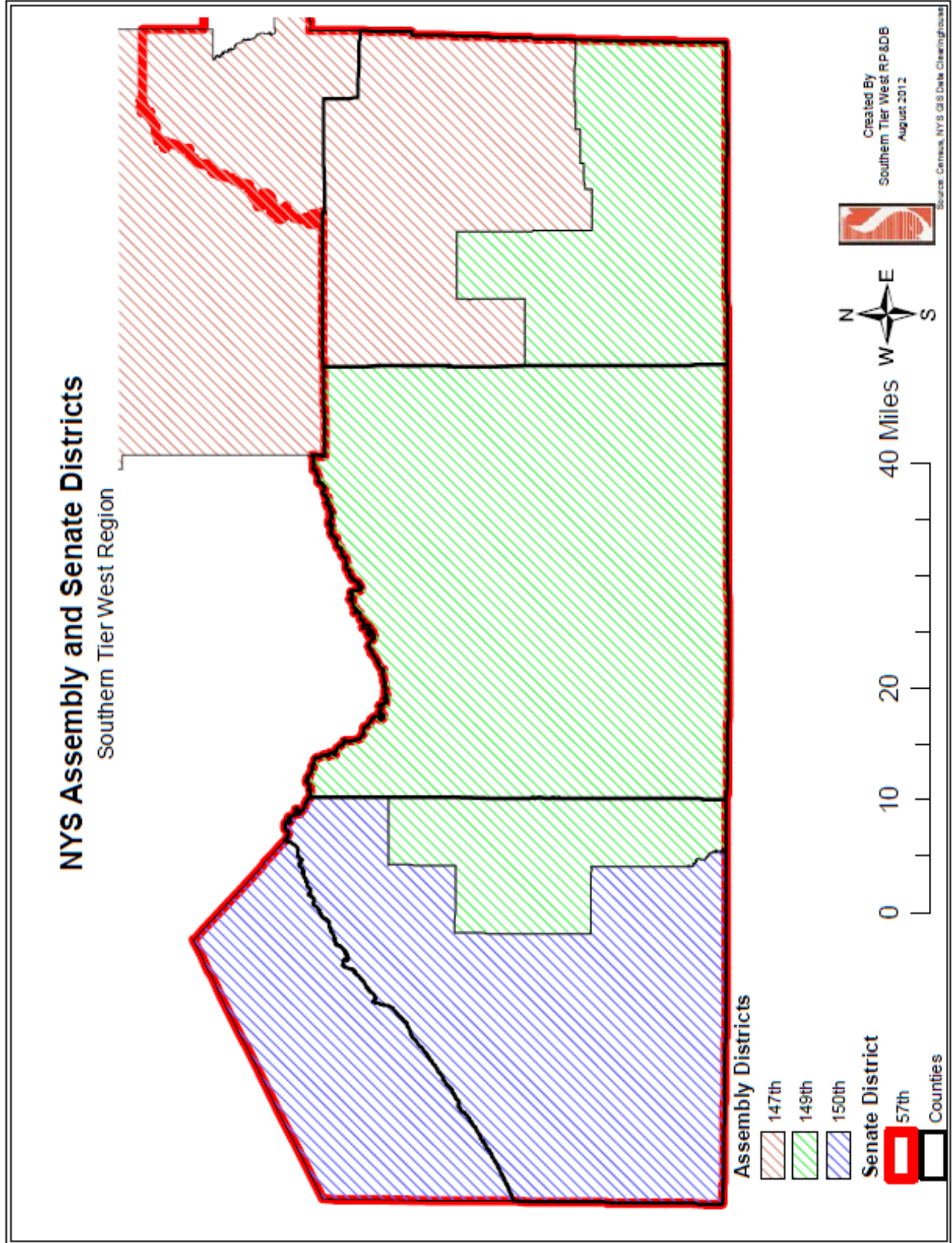
- Congressional District 23 (STW Region)
- Congressional District 23 (Non-STW Region)
- County Boundaries
- Population Centers in the STW/Region

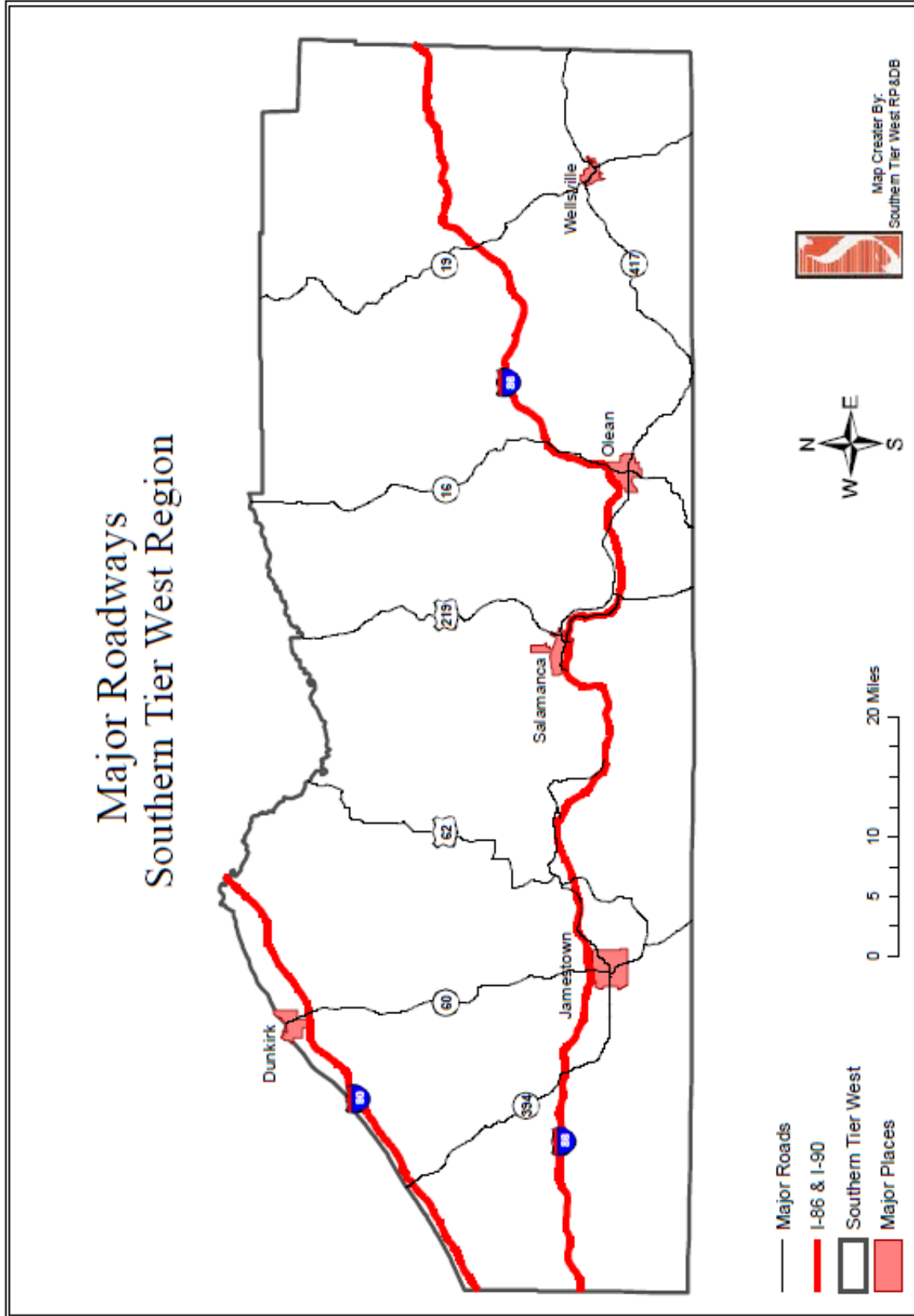
Road Classification

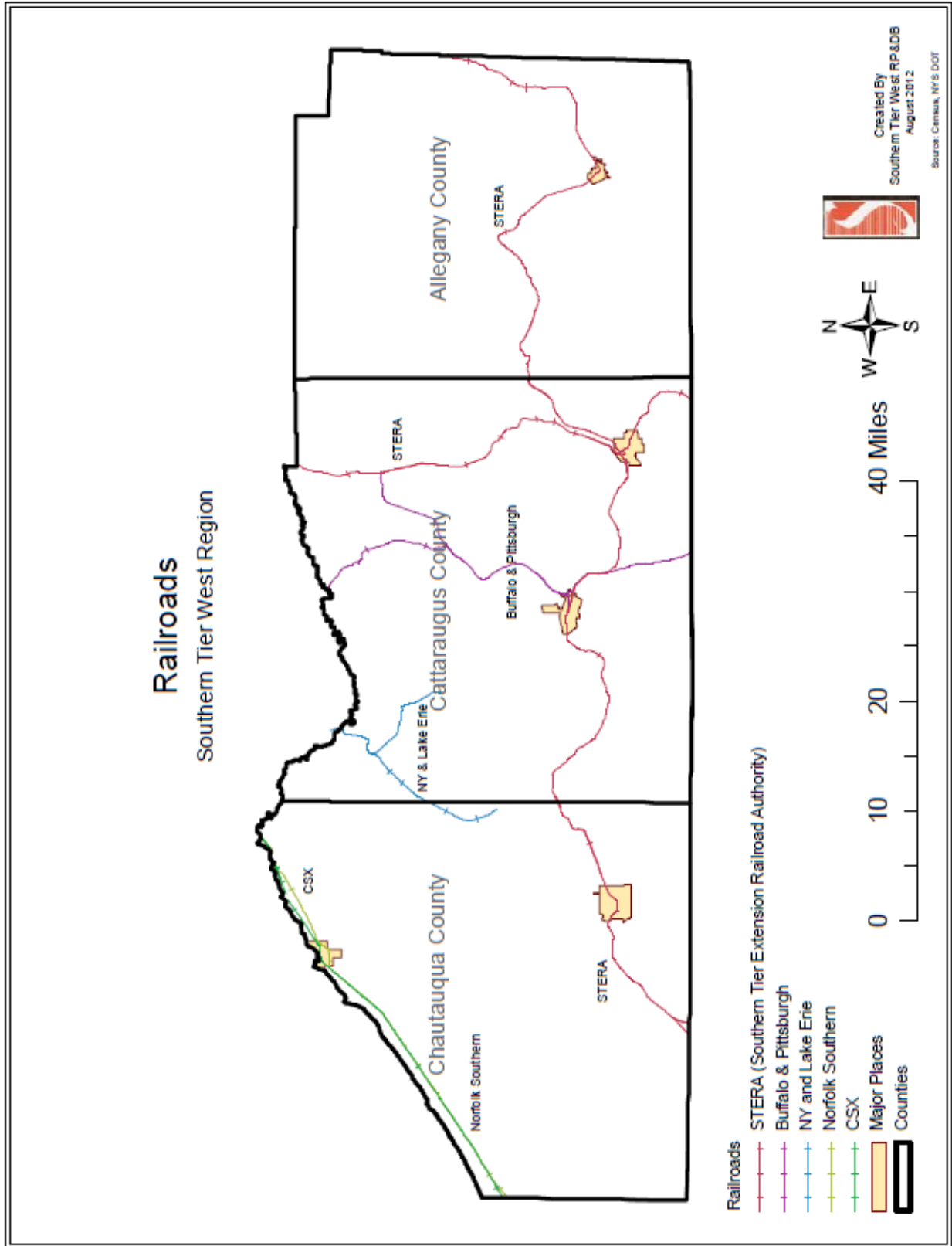
- Local Roads
- Interstates

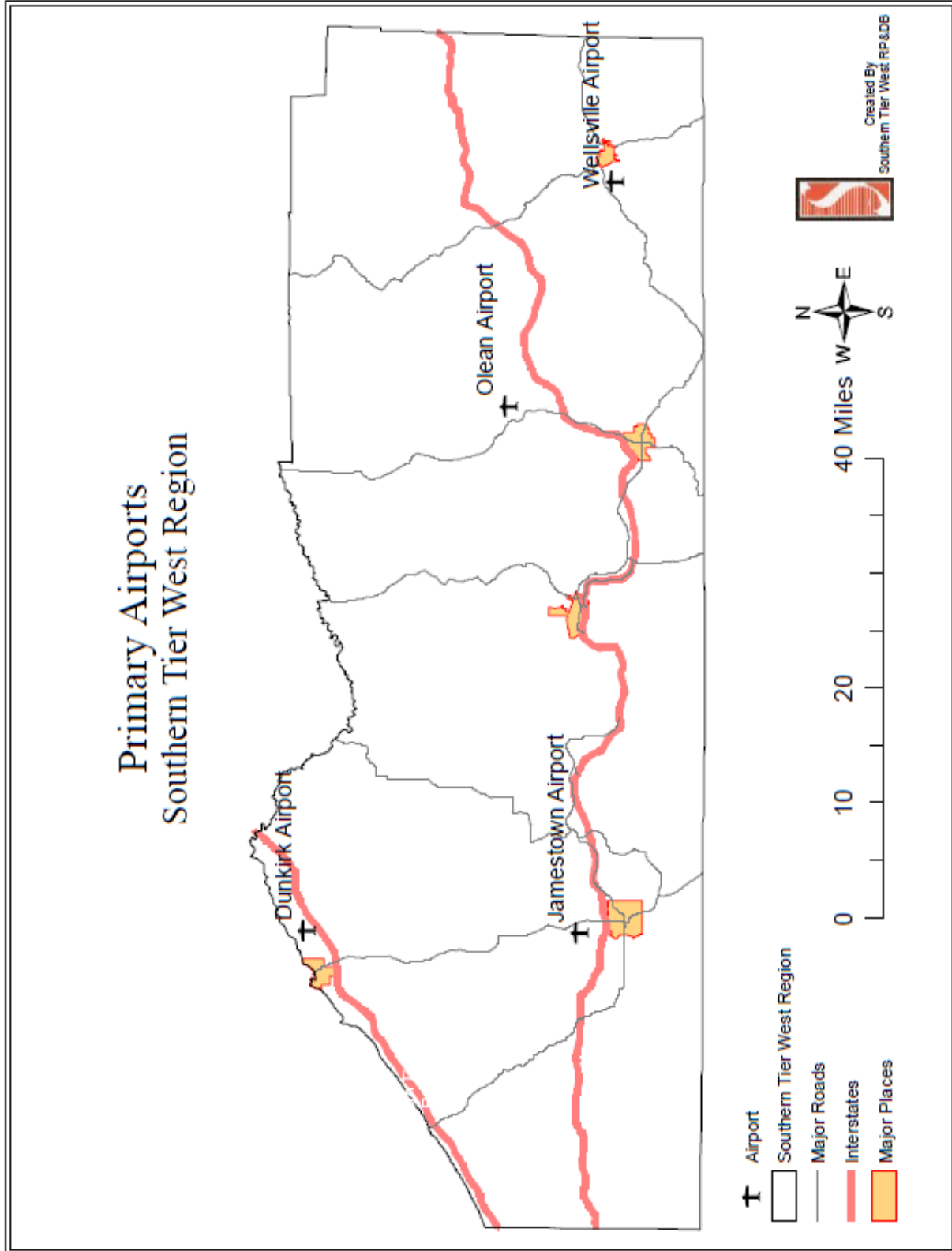


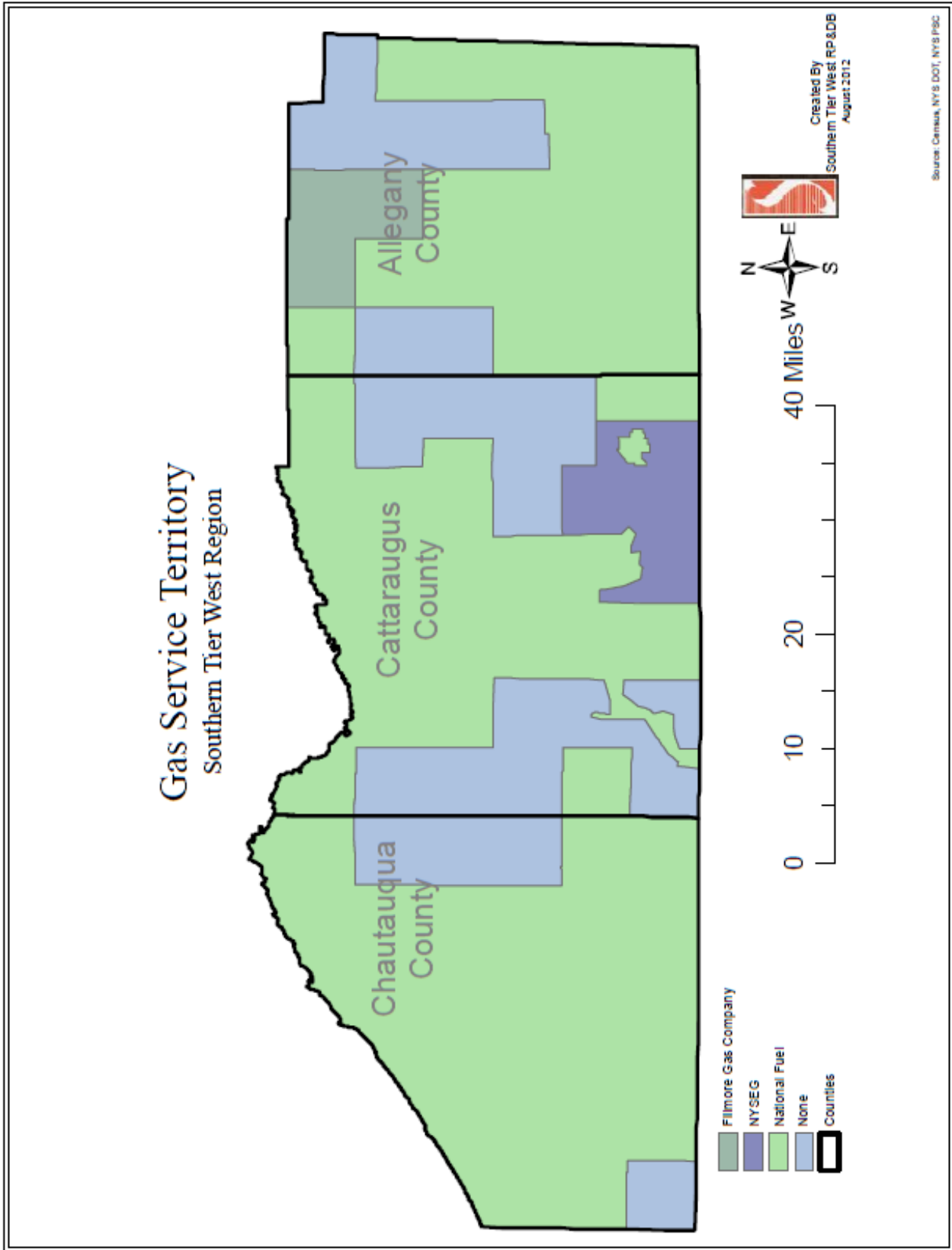
This Map was Created by:
 Southern Tier West RP&DB
 GIS Department
 June 2015

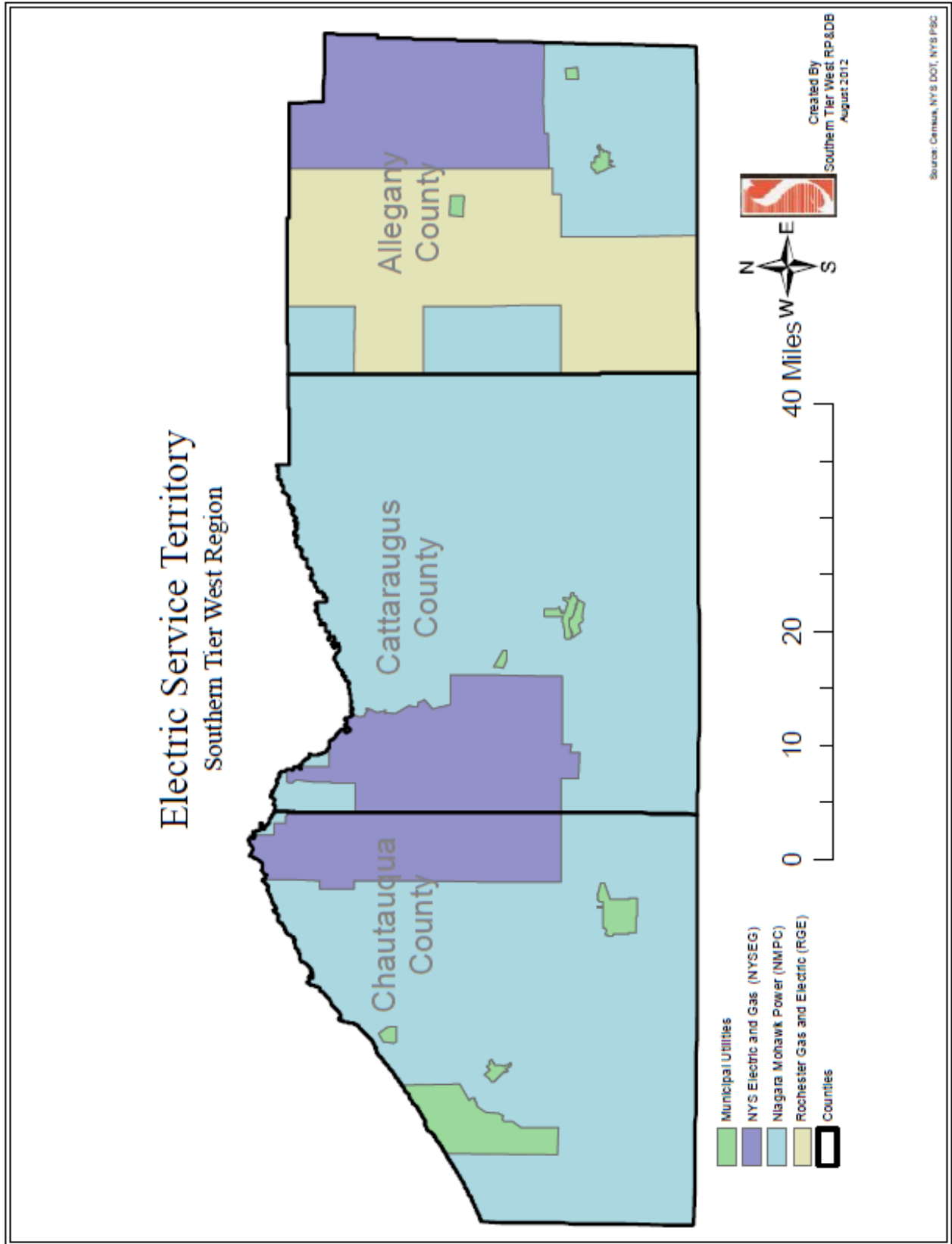


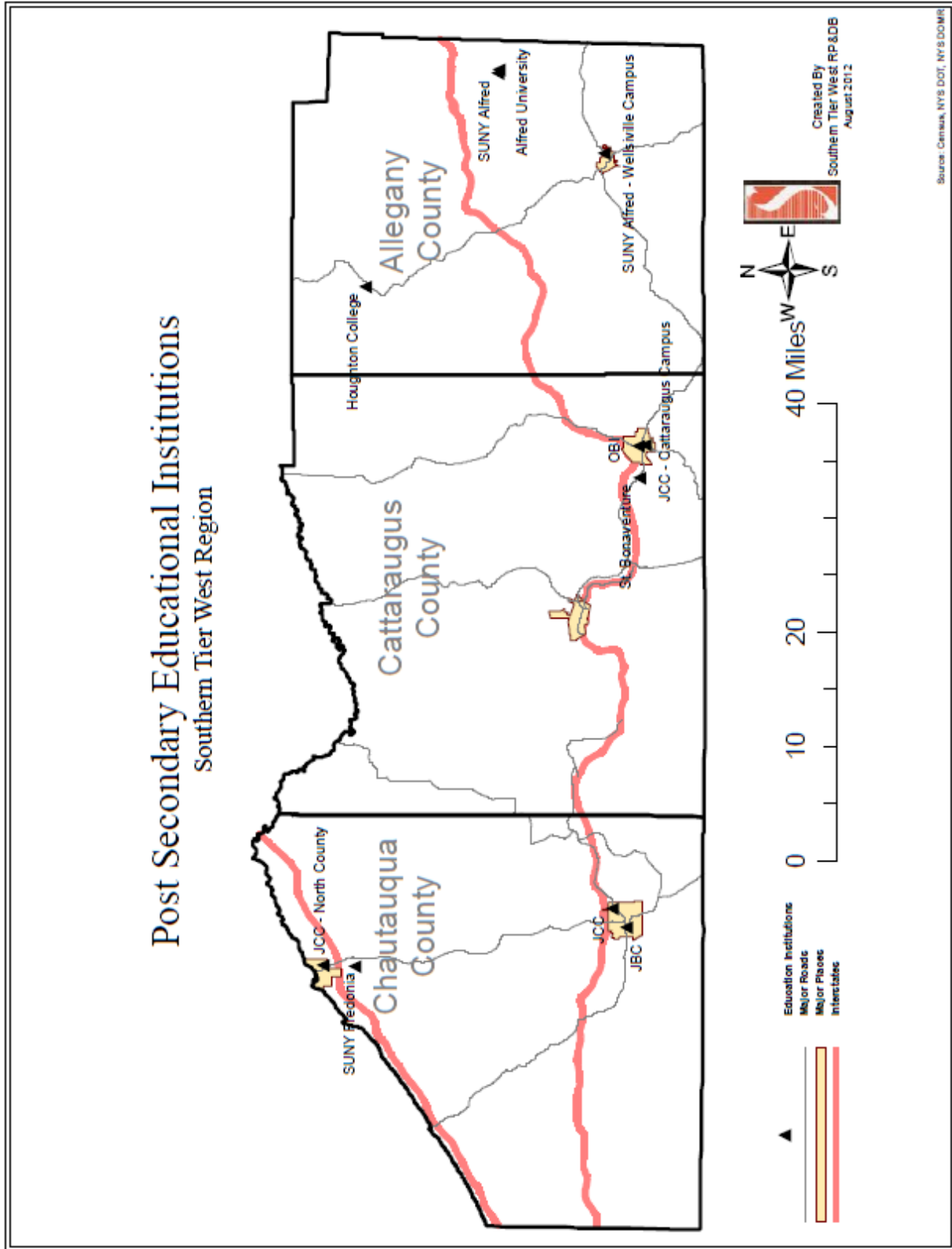


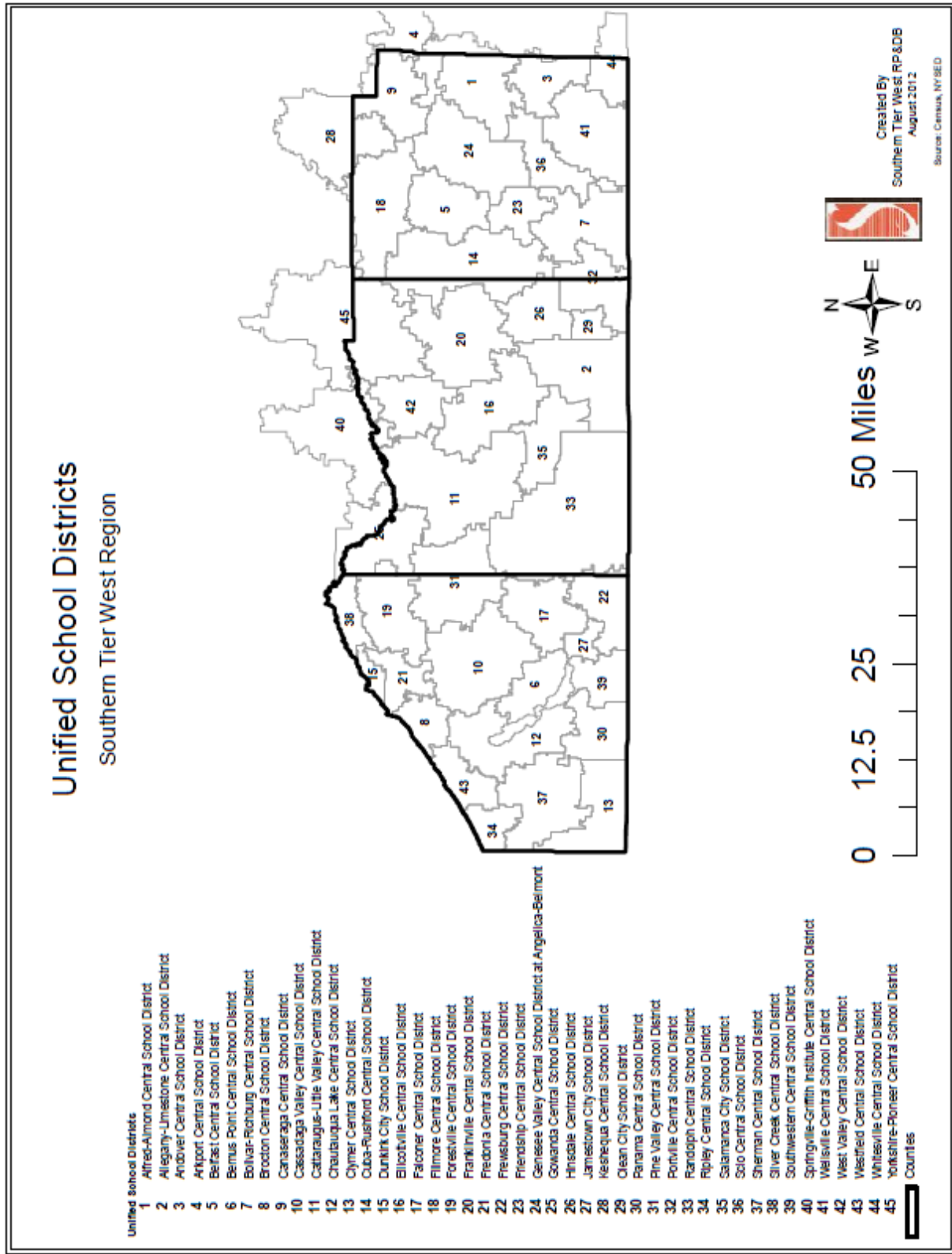


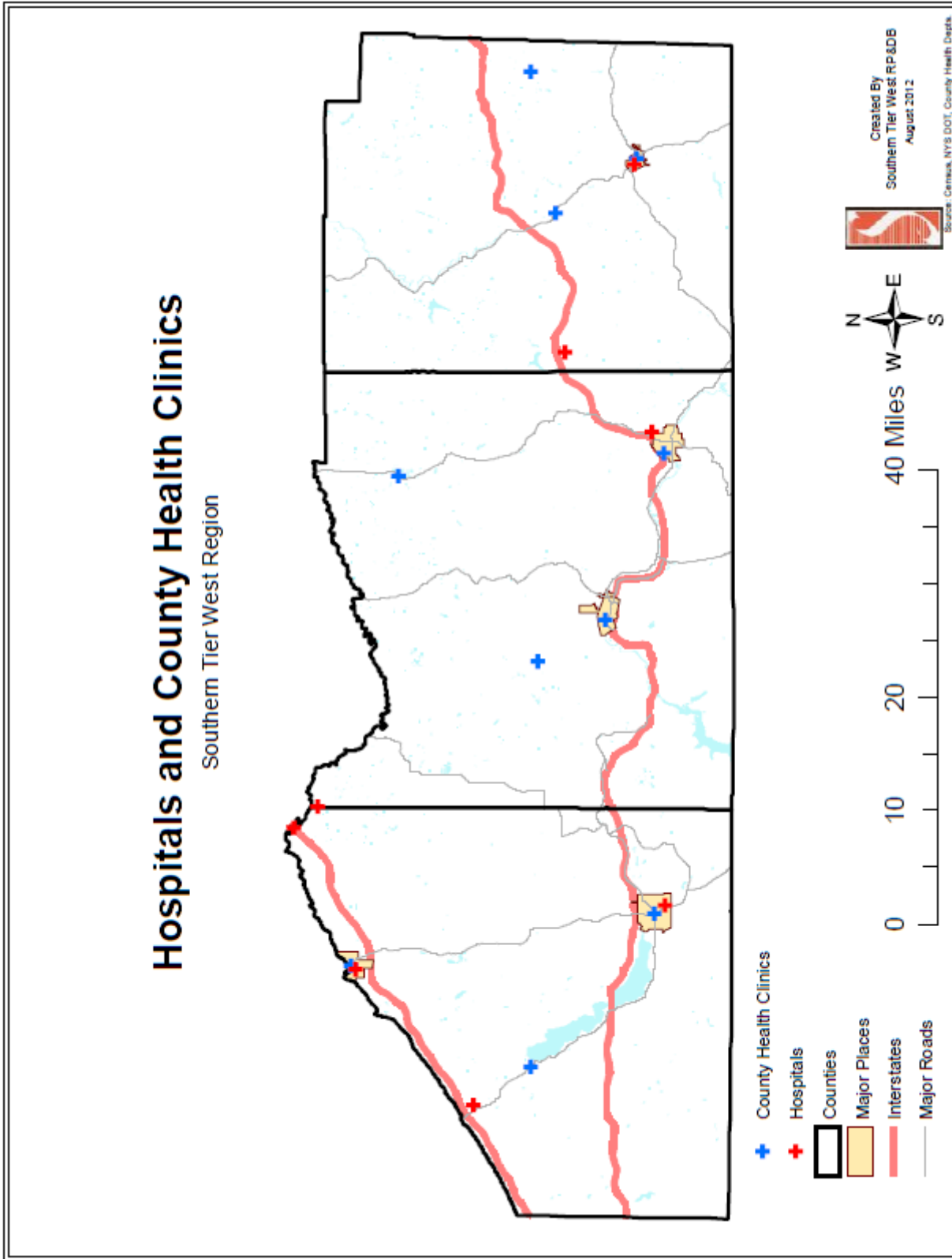


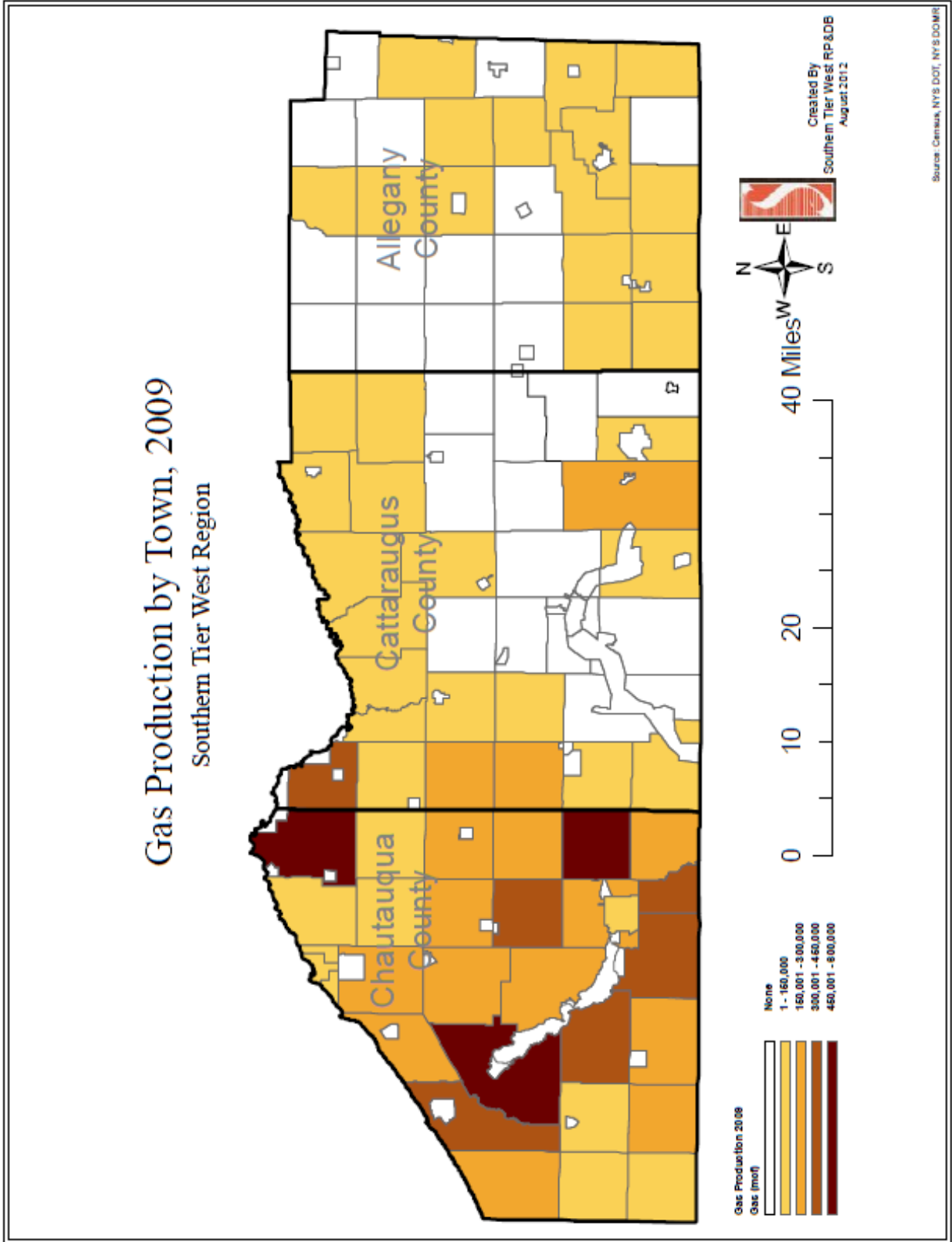


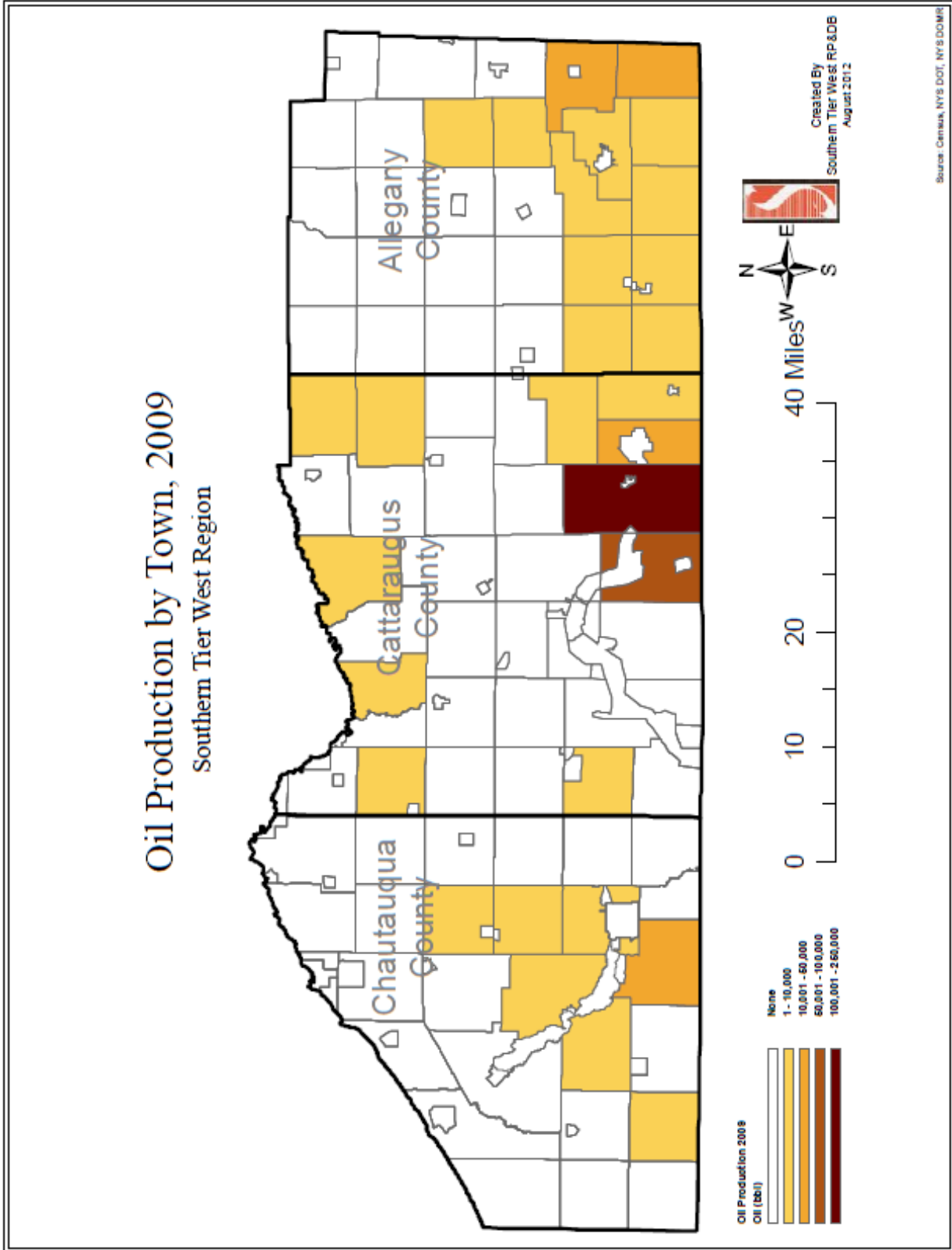


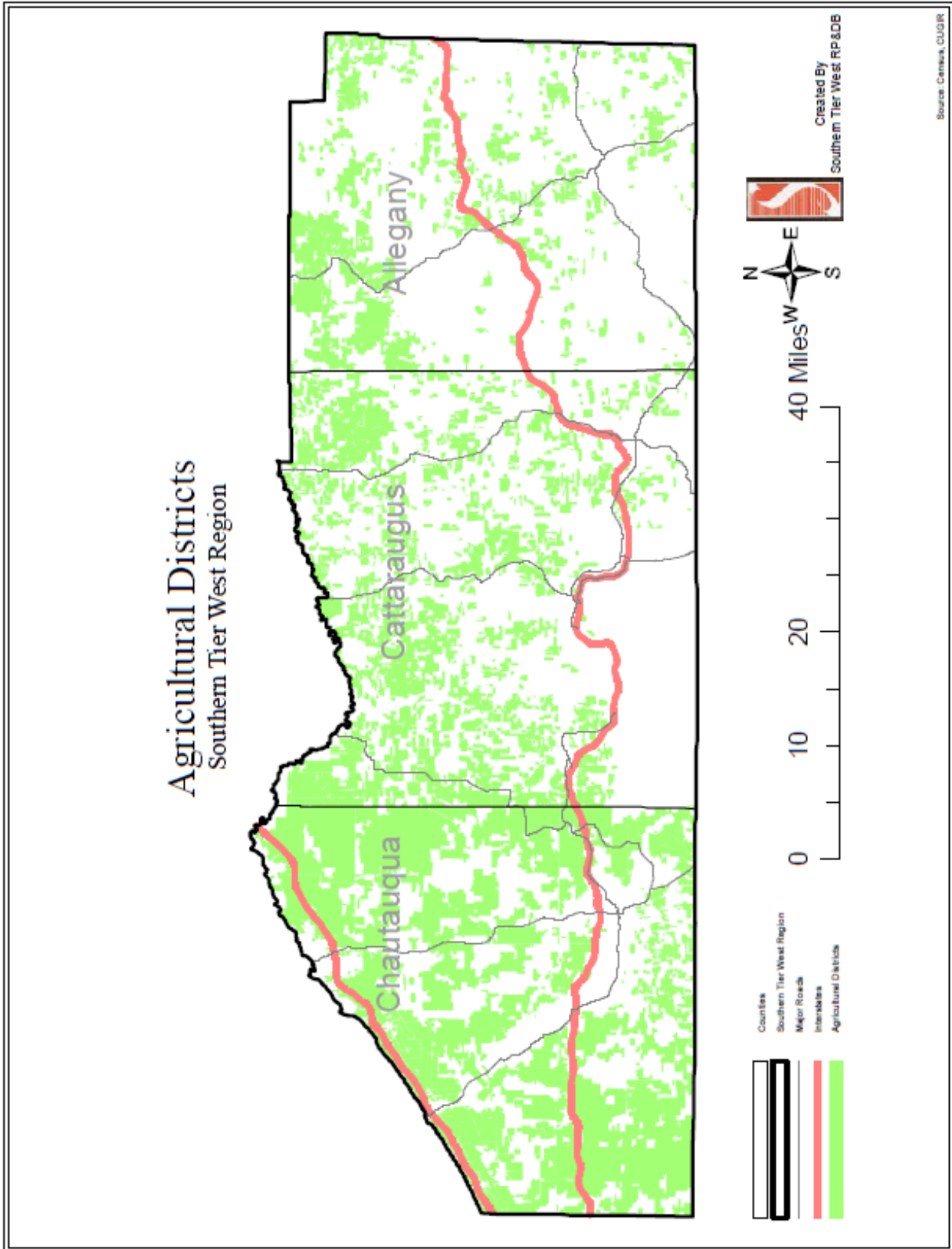


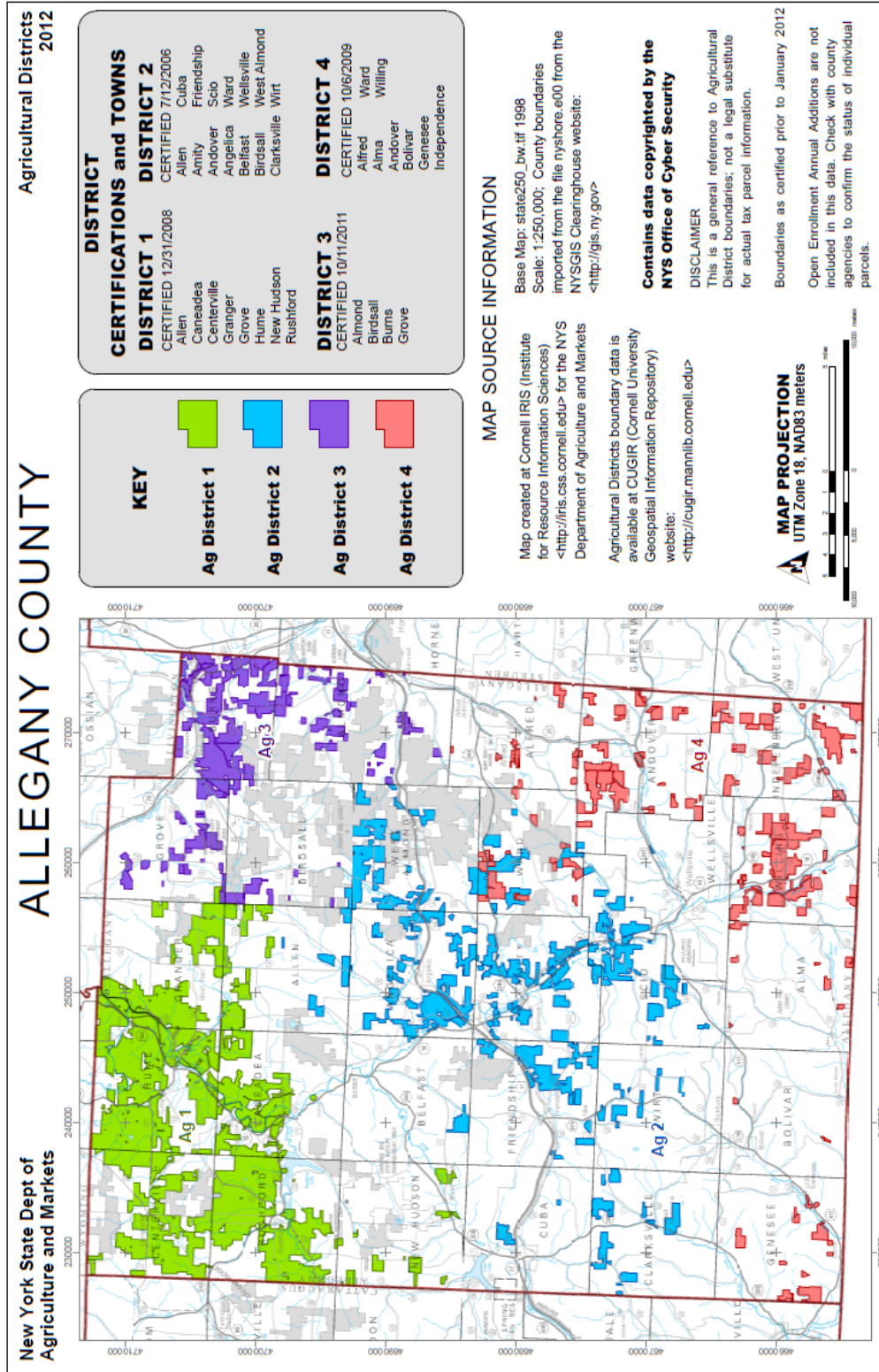


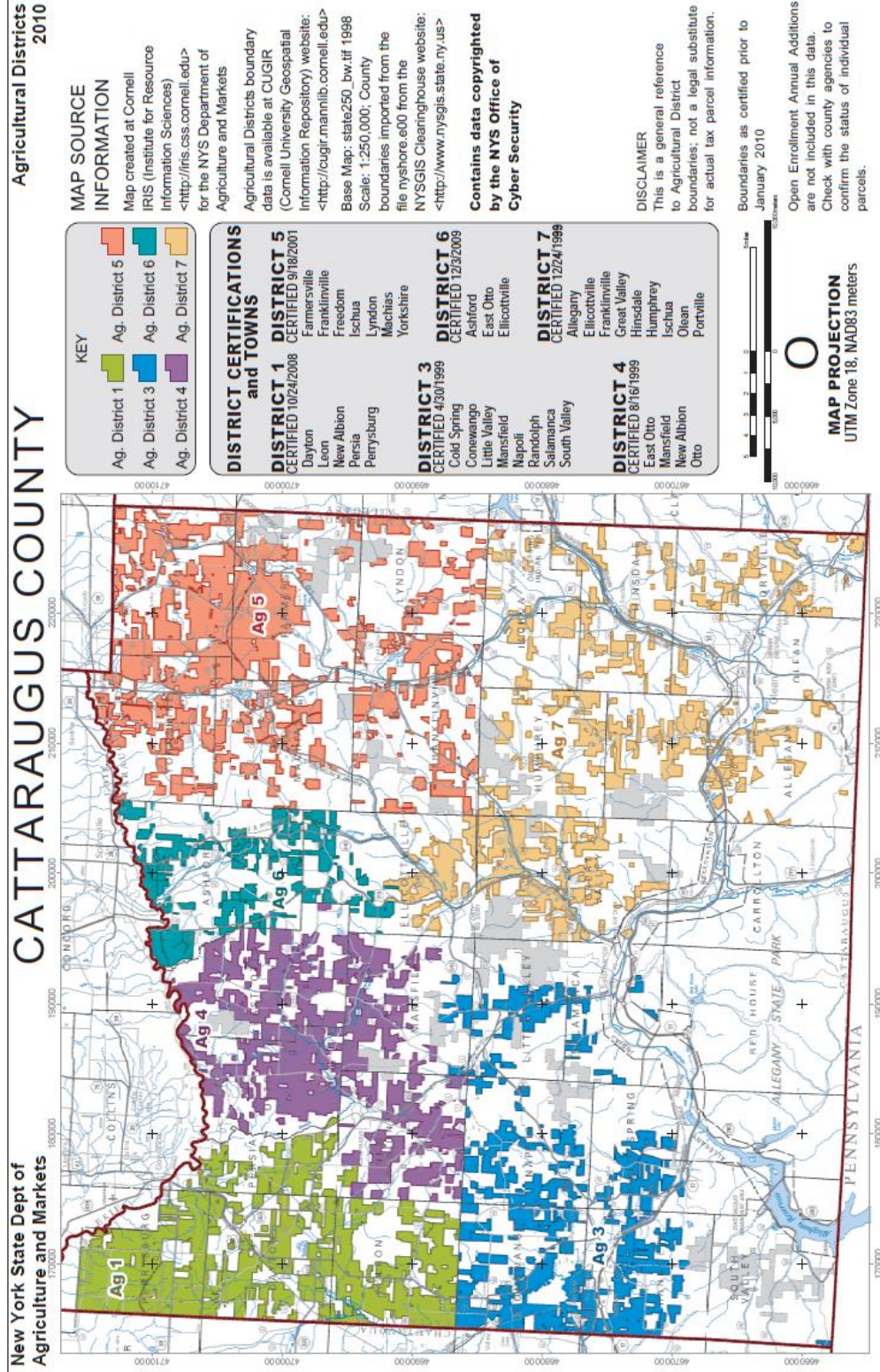






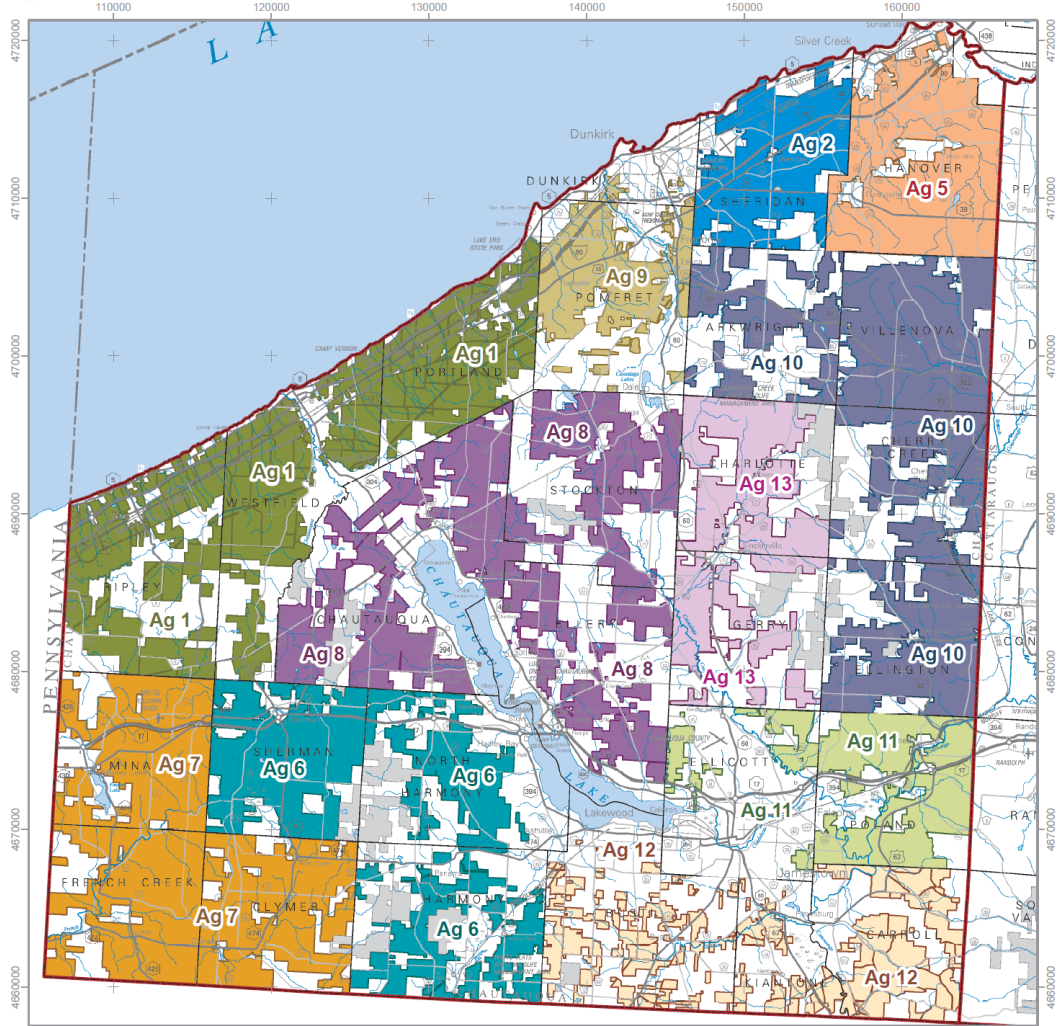




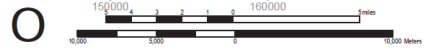




New York State Dept of Agriculture and Markets CHAUTAUQUA COUNTY Agricultural Districts 2011



MAP PROJECTION
UTM Zone 18, NAD83 meters



KEY	
Ag. District 1	Ag. District 9
Ag. District 2	Ag. District 10
Ag. District 5	Ag. District 11
Ag. District 6	Ag. District 12
Ag. District 7	Ag. District 13
Ag. District 8	

DISTRICT CERTIFICATIONS and TOWNS		
DISTRICT 1 CERTIFIED 12/10/2010 Portland Westerfield Ripley	DISTRICT 7 CERTIFIED 11/5/2001 French Creek Mina Clymer	DISTRICT 11 CERTIFIED 5/9/2000 Carroll Ellicott Poland
DISTRICT 2 CERTIFIED 7/31/1997 Sheridan	DISTRICT 8 CERTIFIED 3/24/2000 Chautauqua Pomfret Ellery Stockton	DISTRICT 12 CERTIFIED 11/24/2010 Busti Carroll Kiantone
DISTRICT 5 CERTIFIED 7/31/1997 Hanover	DISTRICT 9 CERTIFIED 9/3/2003 Dunkirk city of Pomfret Fredonia	DISTRICT 13 CERTIFIED 11/8/1995 Charlotte Gerry
DISTRICT 6 CERTIFIED 9/12/2001 Chautauqua North Harmony Sherman	DISTRICT 10 CERTIFIED 6/7/2005 Arkwright Ellington Cherry Creek Villenova	

MAP SOURCE INFORMATION

Map created at Cornell IRIS (Institute for Resource Information Sciences)
<<http://iris.css.cornell.edu>> for the NYS Department of Agriculture and Markets

Agricultural Districts boundary data is available at CUGIR (Cornell University Geospatial Information Repository) website: <<http://cugir.mannlib.cornell.edu>>

Base Map: state250_bw.tif 1998; Scale: 1:250,000
County boundaries imported from the file nysshore.e00 from the NYSGIS Clearinghouse website: <<http://www.nysgis.state.ny.us>>

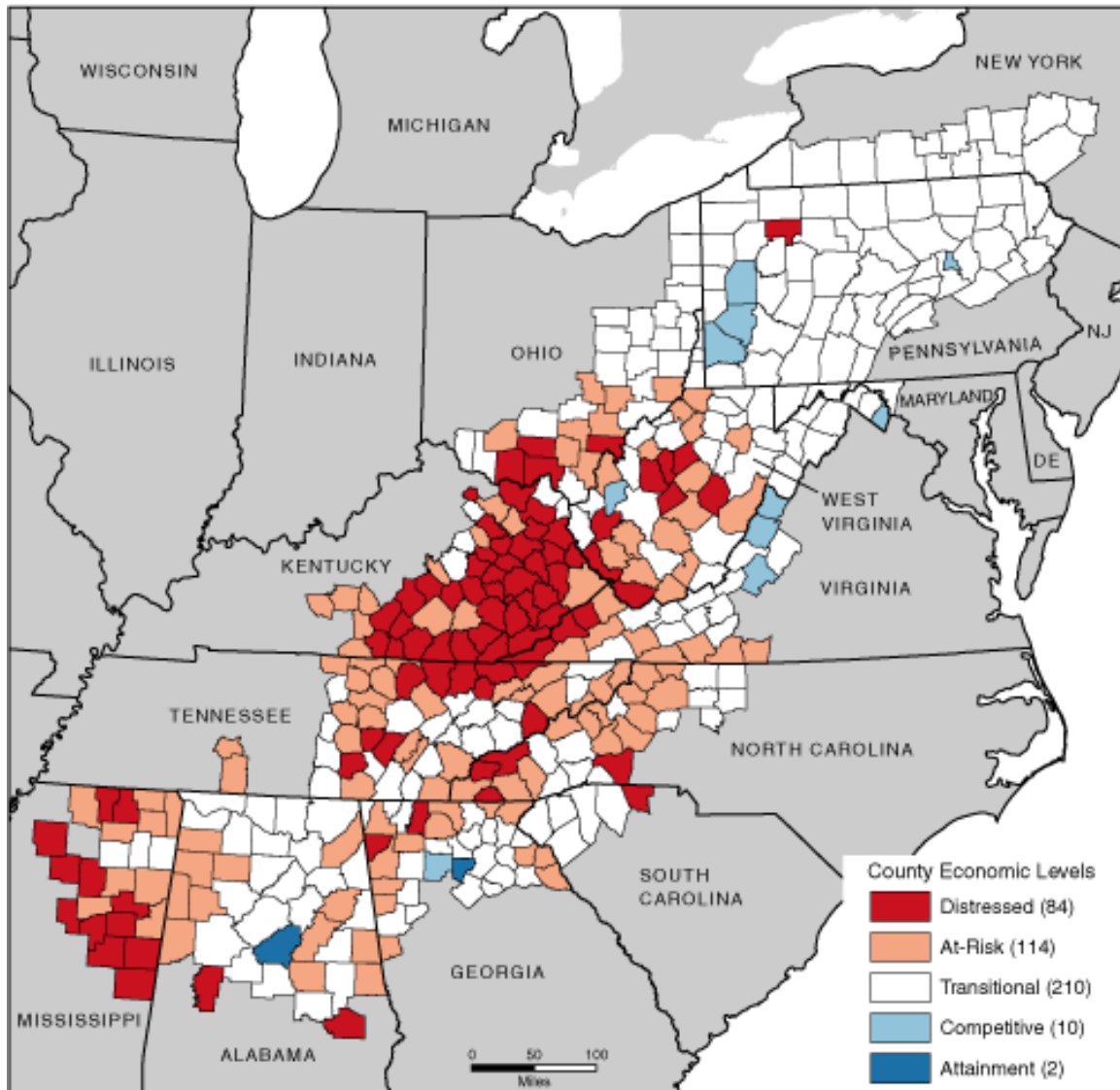
Contains data copyrighted by the NYS Office of Cyber Security

DISCLAIMER

This is a general reference to Agricultural District boundaries; not a legal substitute for actual tax parcel information. Boundaries as certified prior to January 2011 Open Enrollment Annual Additions are not included in this data. Check with county agencies to confirm the status of individual parcels.



County Economic Status, Appalachian Region, 2017



Created by the Appalachian Regional Commission, March 2016
Data Sources:
Unemployment data: U.S. Bureau of Labor Statistics, LAUS, 2012–2014
Income data: U.S. Bureau of Economic Analysis, REIS, 2014
Poverty data: U.S. Census Bureau, American Community Survey, 2010–2014

Effective October 1, 2016
through September 30, 2017

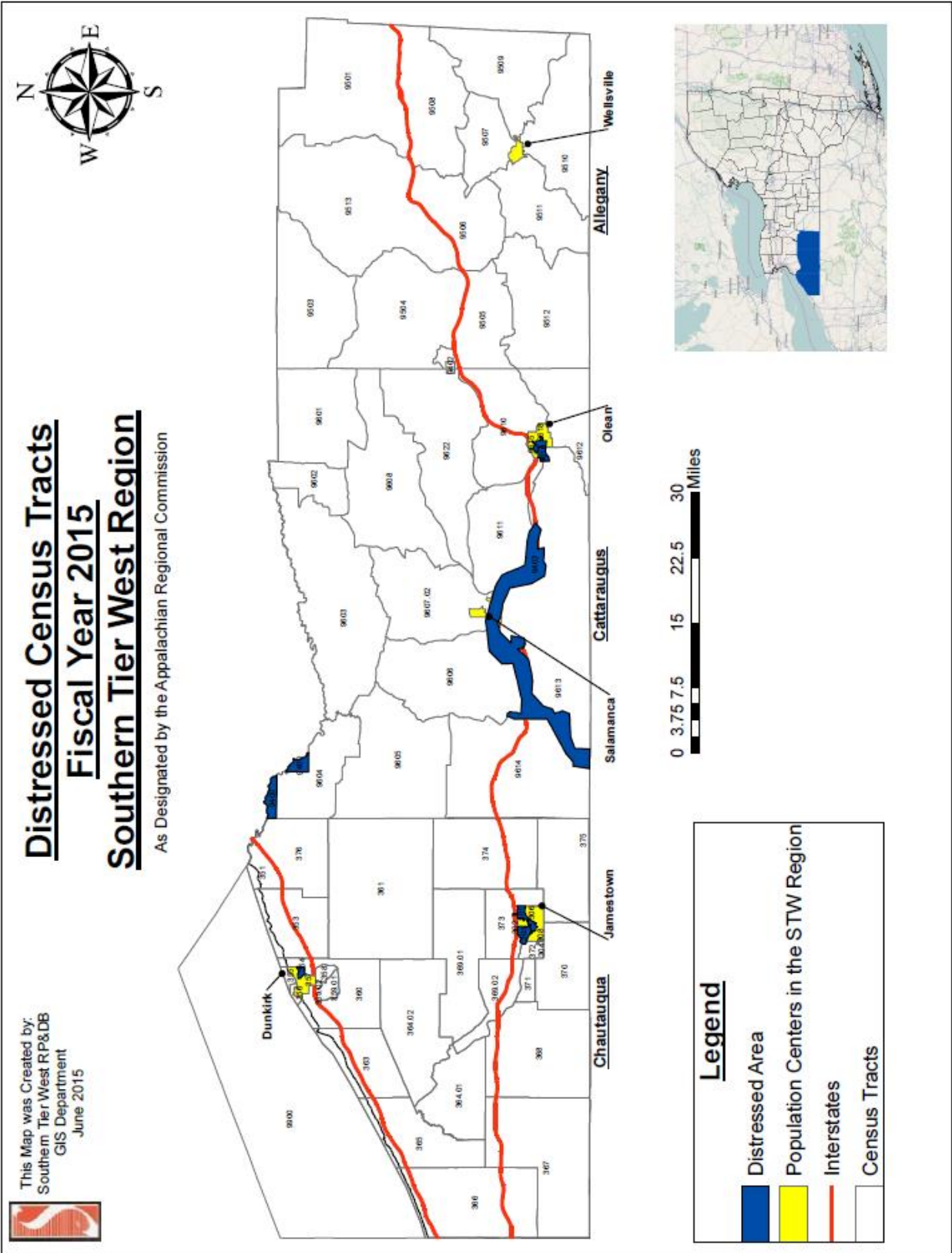
County Economic Status, Fiscal Year 2017
(statistical explanation for the designation by ARC of the three counties as “Transitional Counties”)

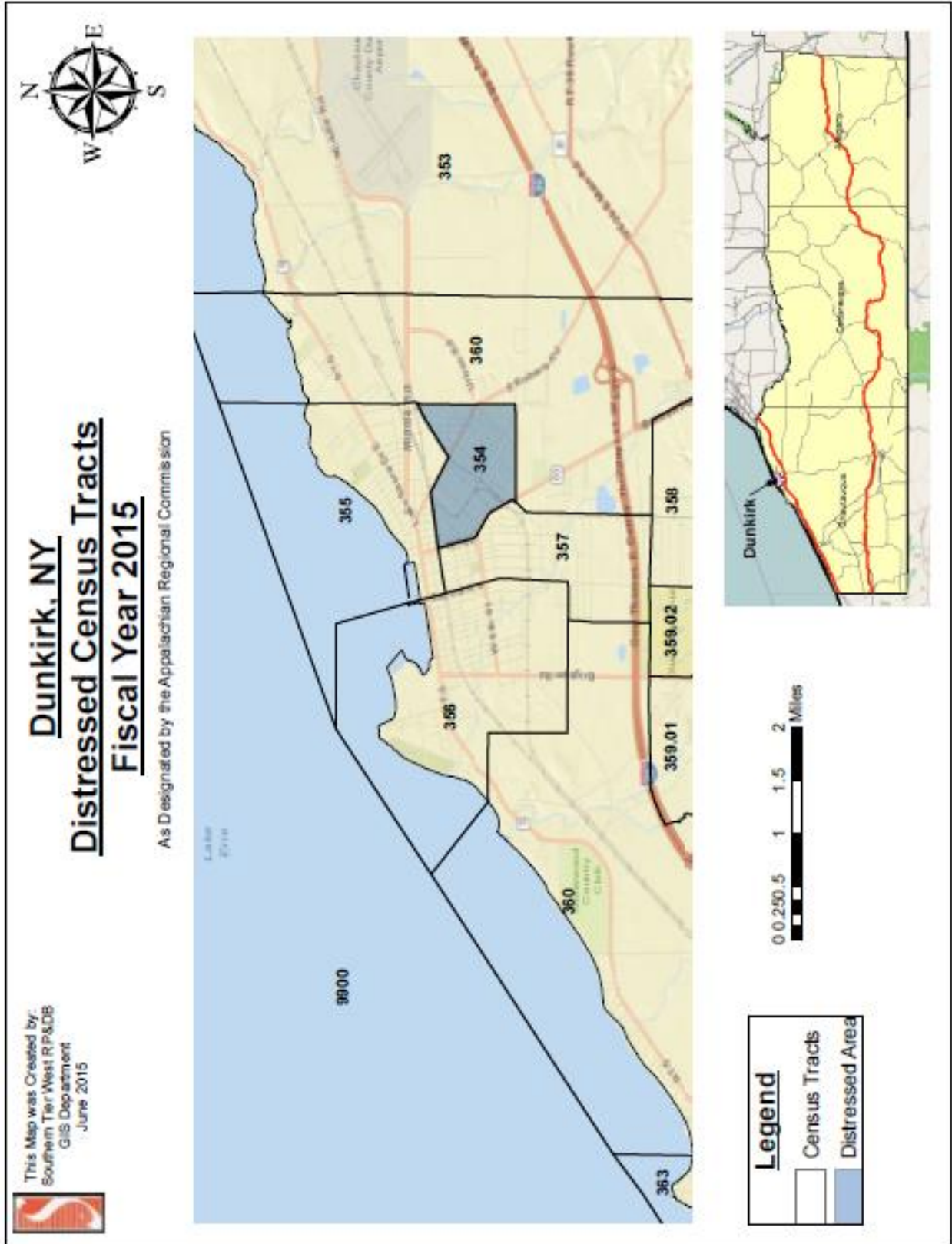
	<u>Allegany</u> <u>County</u>	<u>USA</u>
County Economic Status, FY 2017	Transitional	-
Three-Year Average Unemployment Rate, 2012–2014	7.4%	7.2%
Per Capita Market Income, 2014	\$24,265	\$38,117
Poverty Rate, 2010–2014	17.0%	15.6%
Three-Year Avg. Unemp. Rate, Percent of U.S. Avg., 2012–2014	102.3%	100.0%
Per Capita Market Income, Percent of U.S. Average, 2014	63.7%	100.0%
PCMI, Percent of U.S. Avg., Inversed, 2014	167.1%	100.0%
Poverty Rate, Percent of U.S. Average, 2010–2014	109.2%	100.0%
Composite Index Value, FY 2017	122.9	-
Index Value Rank (of 3,113 counties in U.S., 1 is the best), FY 2017	1,928	-
Quartile (1 is the best), FY 2017	3	-

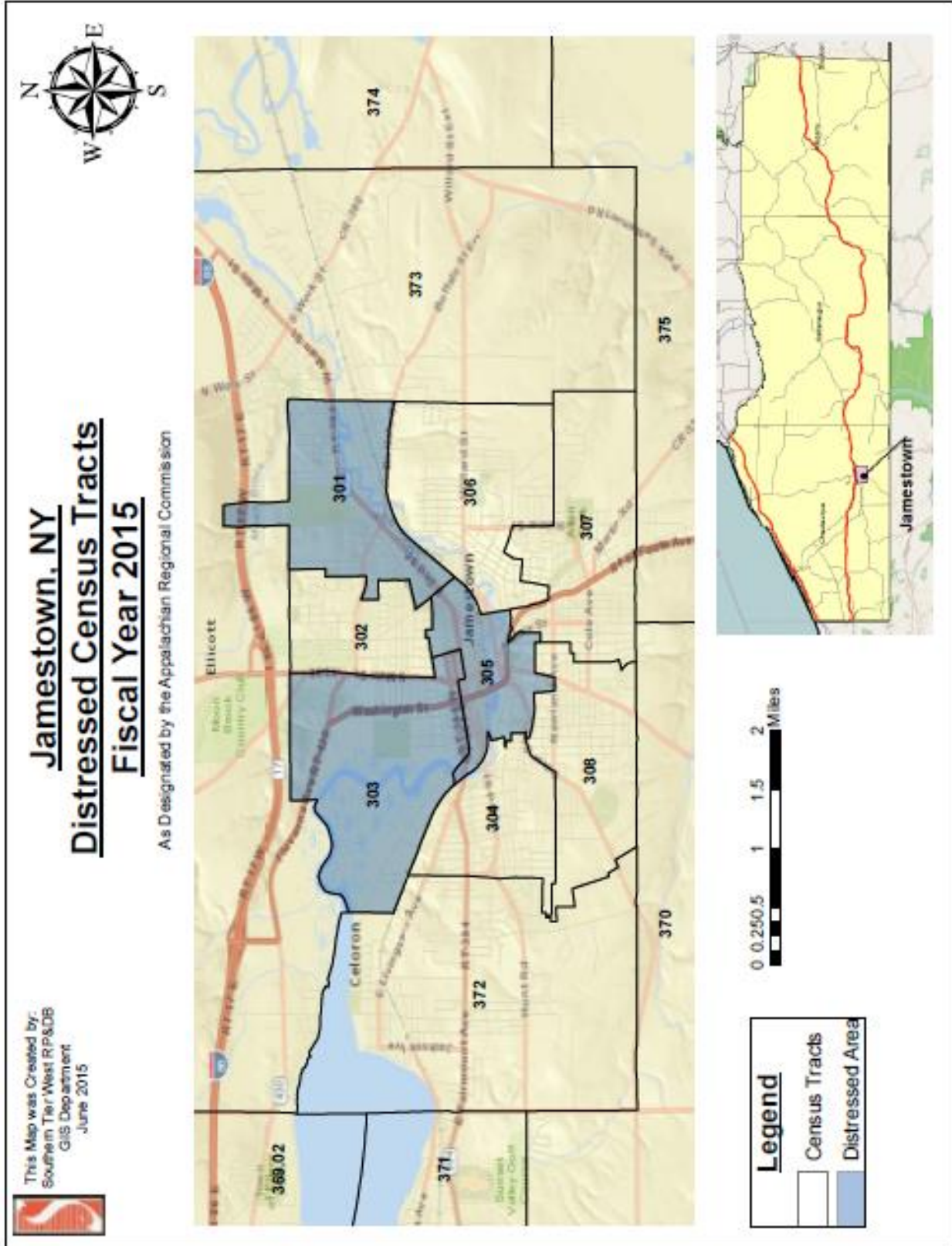
	<u>Cattaraugus</u> <u>County</u>	<u>USA</u>
County Economic Status, FY 2017	Transitional	-
Three-Year Average Unemployment Rate, 2012–2014	8.2%	7.2%
Per Capita Market Income, 2014	\$25,796	\$38,117
Poverty Rate, 2010–2014	17.7%	15.6%
Three-Year Avg. Unemp. Rate, Percent of U.S. Avg., 2012–2014	114.1%	100.0%
Per Capita Market Income, Percent of U.S. Average, 2014	67.7%	100.0%
PCMI, Percent of U.S. Avg., Inversed, 2014	147.8%	100.0%
Poverty Rate, Percent of U.S. Average, 2010–2014	113.5%	100.0%
Composite Index Value, FY 2017	125.1	-
Index Value Rank (of 3,113 counties in U.S., 1 is the best), FY 2017	1,991	-
Quartile (1 is the best), FY 2017	3	-

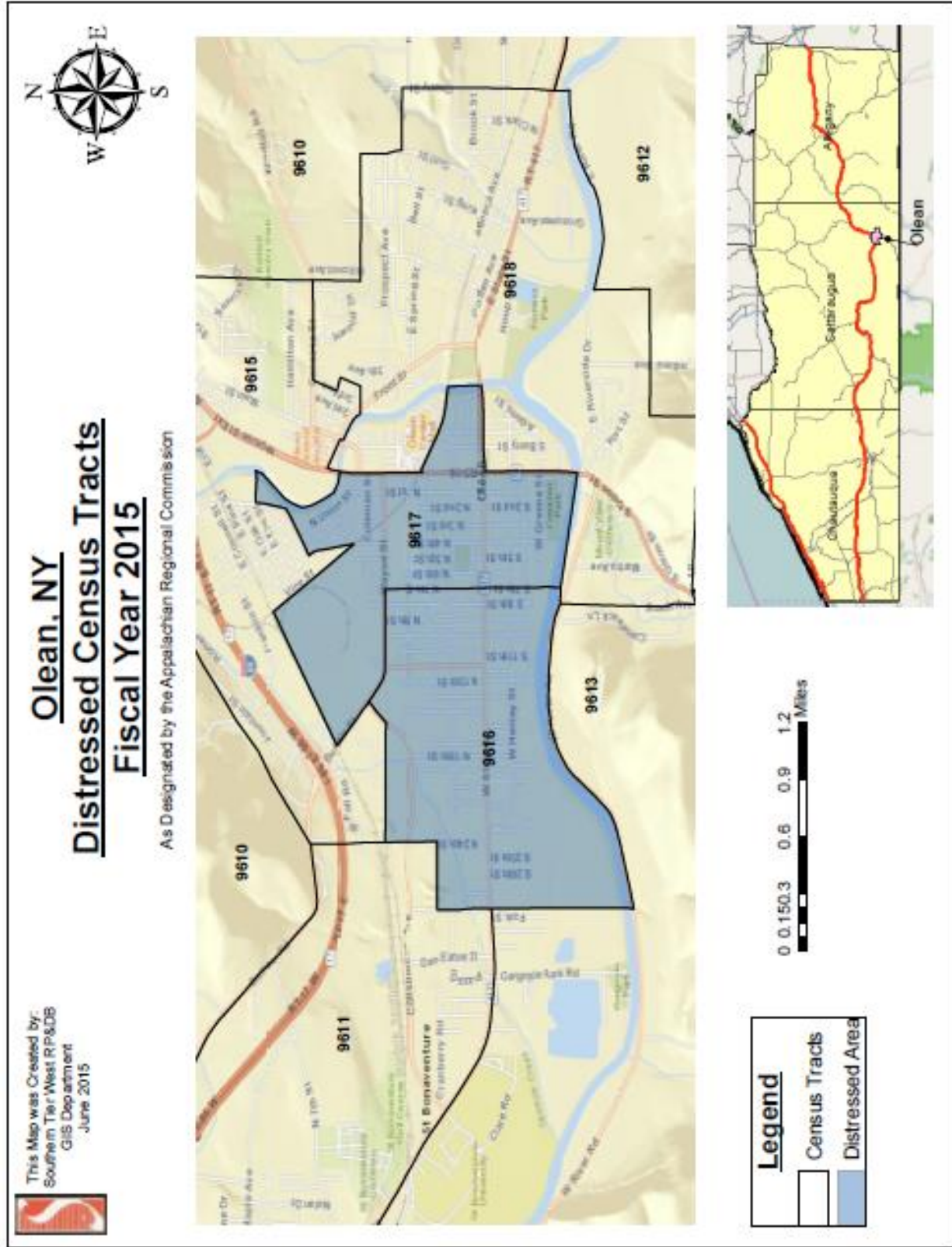
	<u>Chautauqua</u> <u>County</u>	<u>USA</u>
County Economic Status, FY 2017	Transitional	-
Three-Year Average Unemployment Rate, 2012–2014	7.8%	7.2%
Per Capita Market Income, 2014	\$24,089	\$38,117
Poverty Rate, 2010–2014	19.4%	15.6%
Three-Year Avg. Unemp. Rate, Percent of U.S. Avg., 2012–2014	108.1%	100.0%
Per Capita Market Income, Percent of U.S. Average, 2014	63.2%	100.0%
PCMI, Percent of U.S. Avg., Inversed, 2014	158.2%	100.0%
Poverty Rate, Percent of U.S. Average, 2010–2014	124.3%	100.0%
Composite Index Value, FY 2017	130.2	-
Index Value Rank (of 3,113 counties in U.S., 1 is the best), FY 2017	2,139	-
Quartile (1 is the best), FY 2017	3	-

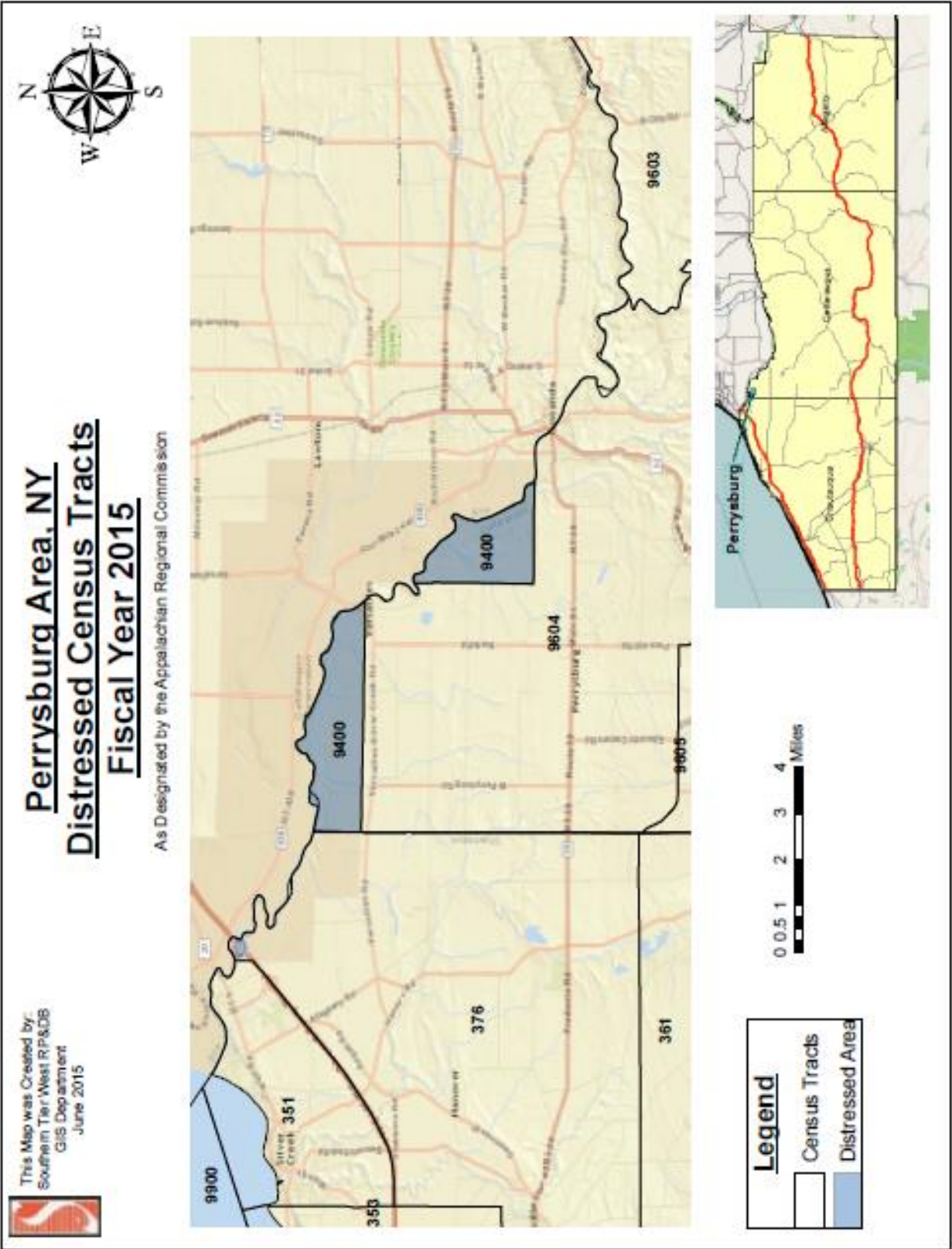
Source: Appalachian Regional Commission, 2017

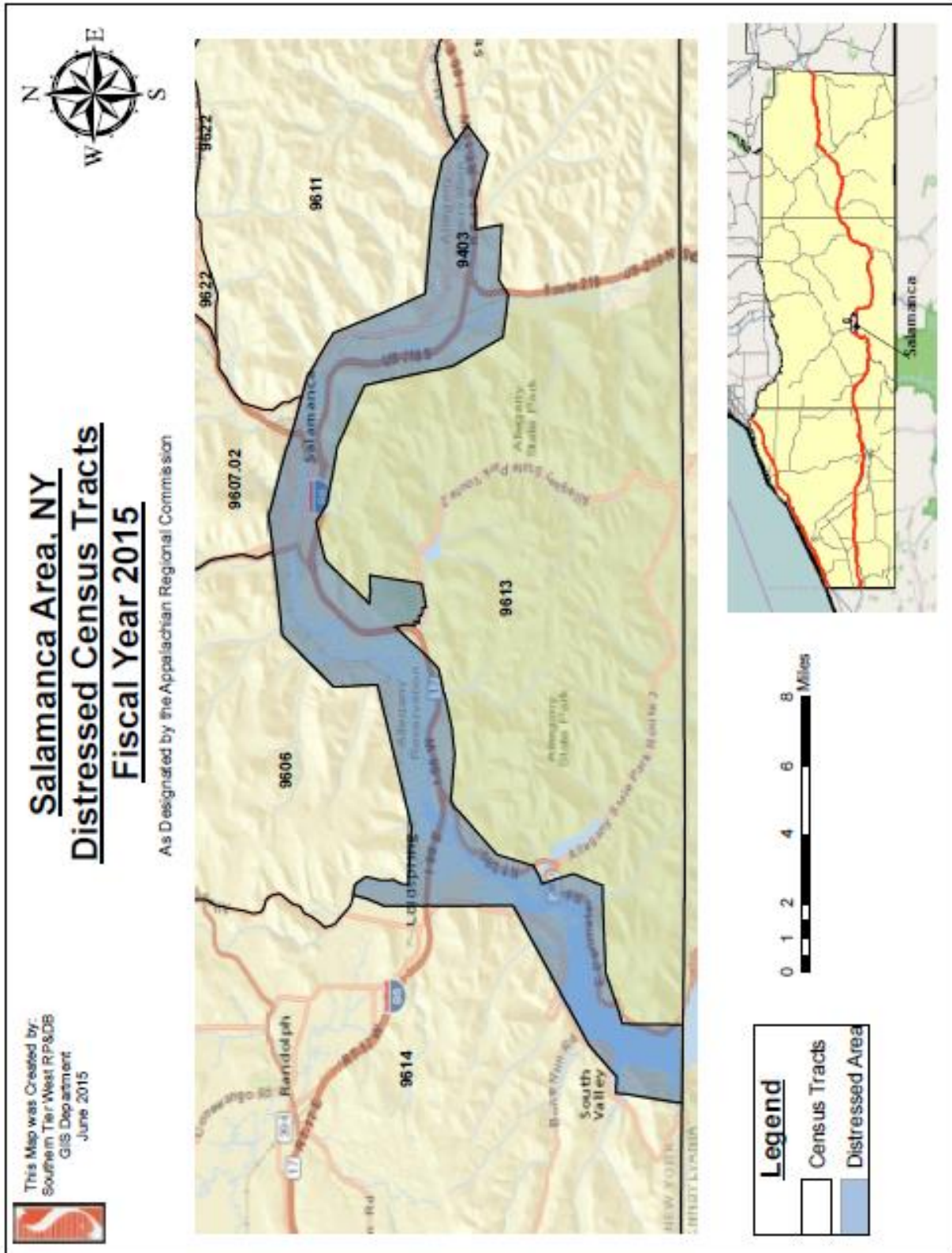






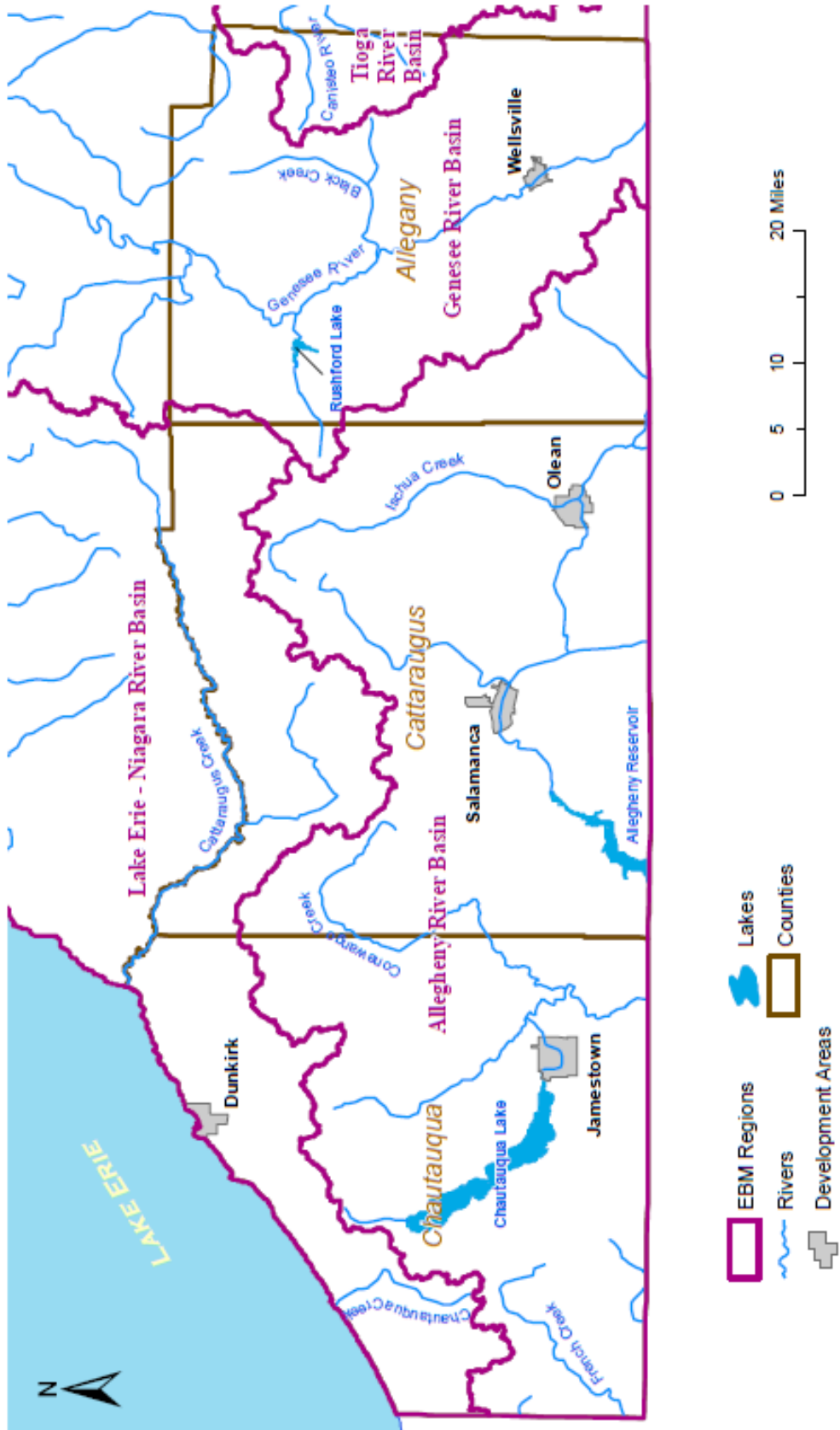


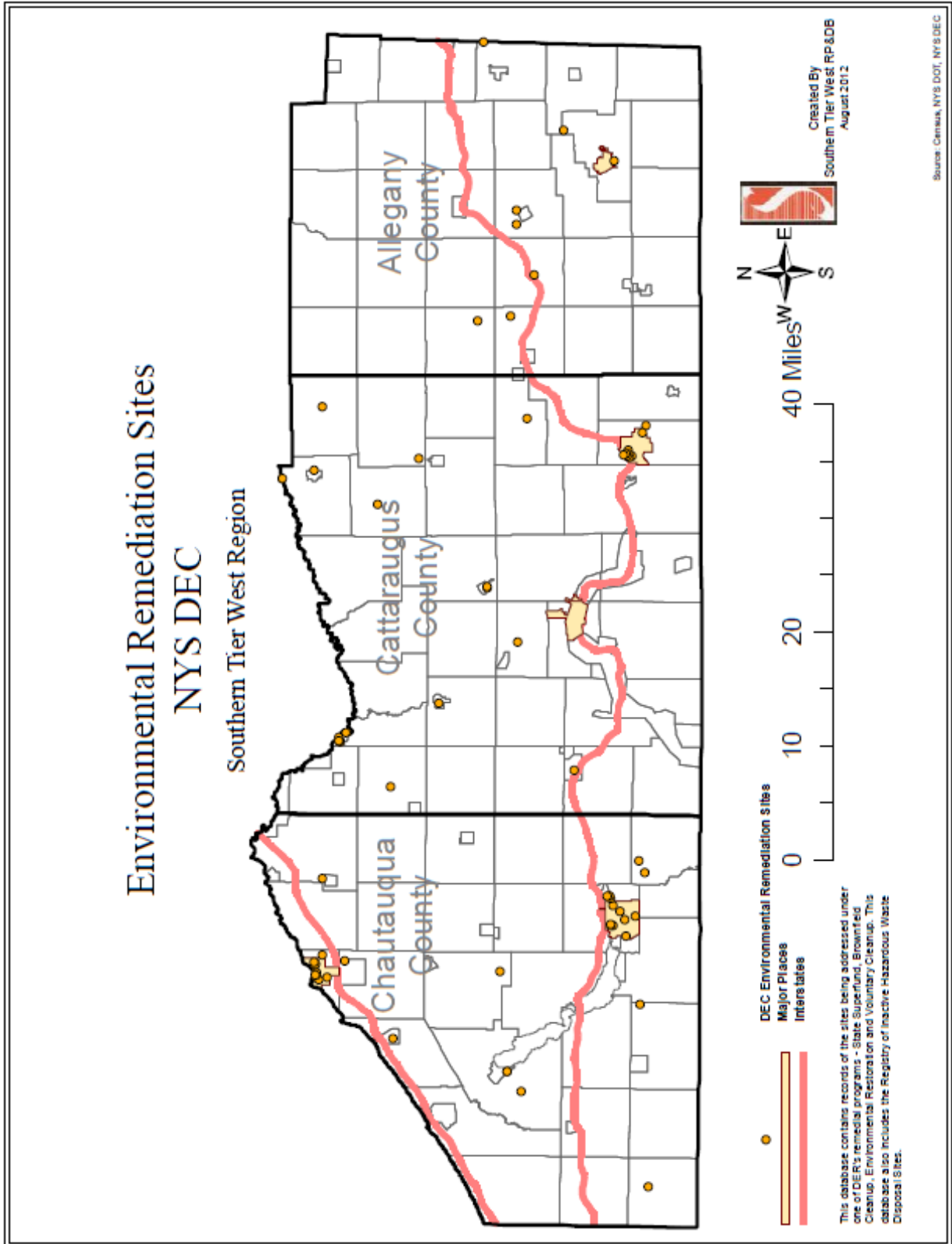






Southern Tier West Region Major Watersheds and Waterways





Descriptive Data

“People take information and build knowledge. When you give them new information they will create new knowledge, absolutely and without question.”

- Bill James, baseball statistician

As a New York State Data Center Affiliate, Southern Tier West maintains Census and other economic and demographic data and provides local information services to local governments, businesses, and the public. This section of the Appendix contains data and maps that provide information about the three county Southern Tier West Region, in relation to the State and nation. Certain data elements are highlighted in yellow to indicate the saliency of the specific data element.

Regional Profile

(source: www.statsamerica.org)

People and Income Overview

	Allegany County	Cattaraugus County	Chautauqua County
Population (2018)	46,430	76,840	127,939
Population Growth (%) since 2010 Census	-5.1%	-4.3%	-5.2%
Labor Force (persons) (2018)	19,461	34,020	54,993
Unemployment Rate (2018)	5.6%	5.3%	5.0%
Per Capita Personal Income (2017)	\$33,942	\$38,644	\$39,624
Median Household Income (2017)	\$46,491	\$47,875	\$45,840
Poverty Rate (2017)	16.3%	15.8%	17.7%
High School Diploma or More - % of Adults 25+ (2017)	89.4%	88.4%	88.5%
Bachelor's Degree or More - % of Adults 25+ (2017)	19.8%	18.9%	21.2%
Covered Employment	13,337	25,296	49,016
Average Wage per Job	\$38,511	\$39,521	\$39,097
Manufacturing - % All Jobs in County	14.7%	11.4%	18.0%
Average Wage per Job	\$52,245	\$63,979	\$53,600
Transportation & Warehousing - % All Jobs in County	1.5%	2.0%	2.7%
Average Wage per Job	\$44,353	\$39,877	\$40,795
Health Care, Social Assist. - % All Jobs in County	11.3%	N/A	15.8%
Average Wage per Job	\$31,115	N/A	\$36,609
Finance and Insurance - % All Jobs in County	1.5%	2.2%	1.6%
Average Wage per Job	\$38,173	\$58,522	\$50,536

Source: www.statsamerica.org

Population Over Time

	Allegany County	Cattaraugus County	Chautauqua County	New York	United States
2018	46,430	76,840	127,939	19,542,209	327,167,434
2017	46,894	77,348	129,046	19,849,399	325,719,178
2010	48,946	80,317	134,905	19,378,105	308,745,538
2000	49,927	83,955	139,750	18,976,457	281,421,906
1990	50,470	84,234	141,895	17,990,778	248,790,925
1980	51,742	85,697	146,925	17,558,165	226,542,250
2017 to 2018 changes	-1.0%	-0.7%	-0.9%	-1.6%	0.4%
2000 to 2018 changes	-7.0%	-8.5%	-8.5%	3.0%	16.3%
2000 to 2010 % change	-2.0%	-4.3%	-3.5%	2.1%	9.7%
1990 to 2010 % change	-3.0%	-4.7%	-4.9%	7.7%	24.1%
1980 to 2010 % change	-5.4%	-6.3%	-8.2%	10.4%	36.3%

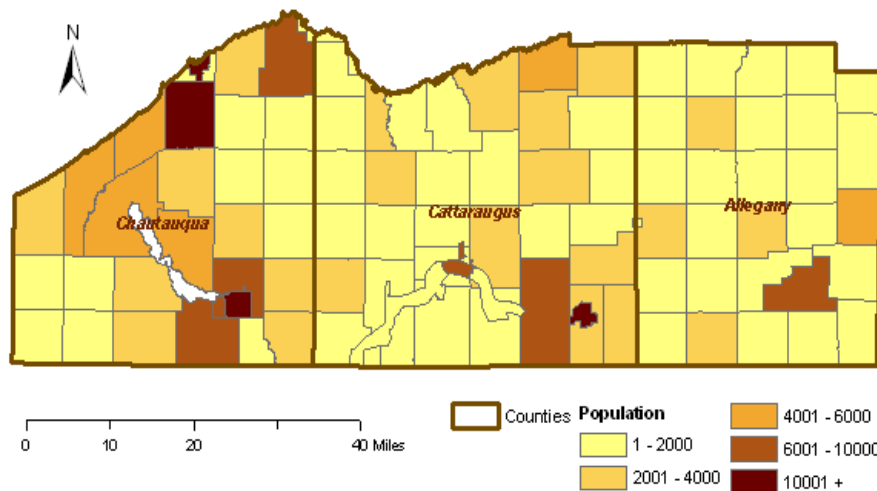
Source: U.S. Census Bureau (www.statsamerica.org)

Components of Population Change in 2018

	Allegany County	Cattaraugus County	Chautauqua County	New York
Net Domestic Migration (from 2017 to 2018)	-307	-367	-873	-180,306
Net International Migration (from 2017 to 2018)	40	39	357	70,375
Natural Increase (births minus deaths)	9	-76	-136	61,371
Births	474	782	1,281	227,099
Deaths	465	858	1,417	165,728

Source: U.S. Census Bureau (www.statsamerica.org)

Population Density and Distribution



Population Change in Urban Centers

	<u>1990</u>	<u>2000</u>	<u>2010</u>	<u>Est. 2016</u>	<u>Est. 2017</u>	<u>Total Change</u>	<u>Percentage Change</u>
City of Jamestown	34,681	31,730	31,146	29,775	29,591	-5,090	-14.7%
City of Olean	16,946	15,347	14,452	13,794	13,711	-3,235	-19.1%
City of Salamanca	6,566	6,097	5,815	5,552	5,532	-1,034	-15.8%
City of Dunkirk/ Village of Fredonia	24,425	23,837	23,793	22,579	22,415	-2,010	-8.2%
Town and Village of Wellsville	8,115	7,678	7,397	7,089	7,049	-1,066	-13.1%

Source: U.S. Census Bureau (1990, 2000, 2010 Census; 2016 and 2017 Census Estimate) (www.statsamerica.org)

Population Estimates by Age in 2018

Age Group	<u>Allegany County</u>			<u>Cattaraugus County</u>			<u>Chautauqua County</u>		
	<u>Number</u>	<u>Pct Dist</u>	<u>Pct Dist. in USA</u>	<u>Number</u>	<u>Pct Dist</u>	<u>Pct Dist. in USA</u>	<u>Number</u>	<u>Pct Dist</u>	<u>Pct Dist. in USA</u>
Preschool (0 to 4)	2,432	5.2%	6.1%	4,272	5.6%	6.1%	6,915	5.4%	6.1%
School Age (5 to 17)	6,958	15.0%	16.4%	12,661	16.5%	16.4%	19,082	14.9%	16.4%
College Age (18 to 24)	6,821	14.7%	9.3%	6,963	9.1%	9.3%	12,565	9.8%	9.3%
Young Adult (25 to 44)	9,407	20.3%	26.6%	16,871	22.0%	26.6%	28,398	22.2%	26.6%
Older Adult (45 to 64)	11,997	25.8%	25.6%	21,398	27.8%	25.6%	35,275	27.6%	25.6%
Older (65 plus)	8,815	19.0%	16.0%	14,729	19.2%	16.0%	25,704	20.1%	16.0%
Median Age	39.8		38.2	42.2		38.2	42.8		38.2

Source: U.S. Census Bureau (www.statsamerica.org)

Dependent Population as a Percent of Total Population, 2018

(ages 0 to 17 and 65+)

Allegany County	39.2%
Cattaraugus County	41.2%
Chautauqua County	40.4%
New York State	37.2%
USA	38.5%

Source: U.S. Census Bureau (www.statsamerica.org)

Population Estimates by Race and Hispanic Origin, 2018

Race / Origin	Allegany County			Cattaraugus County			Chautauqua County		
	Number	Pct Dist.	Pct Dist. in U.S.	Number	Pct Dist.	Pct Dist. in U.S.	Number	Pct Dist.	Pct Dist. in U.S.
Total Population	46,420			76,840			127,939		
White Alone	44,368	95.6%	76.5%	70,569	91.8%	76.5%	119,804	93.6%	76.5%
Black Alone	666	1.4%	13.4%	1,178	1.5%	13.4%	3,532	2.8%	13.4%
American Ind. or Alaskan Native Alone	147	0.3%	1.3%	2,726	3.5%	1.3%	912	0.7%	1.3%
Asian Alone	601	1.3%	5.9%	670	0.9%	5.9%	871	0.7%	5.9%
Native Hawaiian and Other Pac. Isl. Alone	19	0.0%	0.2%	29	0.0%	0.2%	67	0.1%	0.2%
Two or More Race Groups	629	1.4%	2.7%	1,668	2.2%	2.7%	2,753	2.2%	2.7%

Source: U.S. Census Bureau (www.statsamerica.org)

Hispanic or Latino (can be of any race), 2018

	Allegany County			Cattaraugus County			Chautauqua County		
	Number	Pct Dist.	Pct Dist. in U.S.	Number	Pct Dist.	Pct Dist. in U.S.	Number	Pct Dist.	Pct Dist. in U.S.
Hispanic or Latino	779	1.7%	18.3%	1,632	2.1%	18.3%	10,006	7.8%	18.3%
Non-Hispanic or Latino	45,651	98.3%	81.7%	75,208	97.9%	81.7%	117,934	92.2%	81.7%

Source: U.S. Census Bureau (www.statsamerica.org)

Minority Population as Percent of Total Population, 2018

Allegany County	4.4%
Cattaraugus County	8.2%
Chautauqua County	6.4%
New York State	30.3%
USA	23.5%

Source: U.S. Census Bureau (www.statsamerica.org)



Educational Attainment in 2017

	<u>Allegany County</u>			<u>Cattaraugus County</u>			<u>Chautauqua County</u>		
	<u>Number</u>	<u>% of Pop 25+</u>	<u>U.S. % of Pop 25+</u>	<u>Number</u>	<u>% of Pop 25+</u>	<u>U.S. % of Pop 25+</u>	<u>Number</u>	<u>% of Pop 25+</u>	<u>U.S. % of Pop 25+</u>
Total Population, 25 and Older	30,331	100%	100%	53,201	100%	100%	90,242	100%	100%
Less than 9th Grade	1,082	3.6%	5.4%	2,008	3.8%	5.4%	3,572	4.0%	5.4%
9th to 12th, No Diploma	2,137	7.0%	7.2%	4,180	7.9%	7.2%	6,796	7.5%	7.2%
High School Graduate (includes equiv.)	11,464	37.8%	27.3%	21,015	39.5%	27.3%	32,162	35.6%	27.3%
Some College, No Degree	5,687	18.7%	20.8%	9,261	17.4%	20.8%	16,619	18.4%	20.8%
Associate Degree	3,958	13.0%	8.3%	6,669	12.5%	8.3%	11,947	13.2%	8.3%
Bachelor's Degree	3,012	9.9%	19.1%	5,702	10.7%	19.1%	10,576	11.7%	19.1%
Graduate, Professional or Doctorate Degree	2,991	9.9%	11.8%	4,366	8.2%	11.8%	8,570	9.5%	11.8%

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates (www.statsamerica.org)

Educational Attainment, Population 25 and Older, 2016

<u>Level of Attainment</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>U.S.</u>
Total Population 25 and Older	30,449	53,233	90,235	13,653,592	215,015,000
Less Than 9th Grade	1,067	2,265	3,678	865,976	9,492,000
9th to 12th, No Diploma	2,268	4,033	6,968	1,002,316	13,961,000
High School Grade (incl. equiv.)	11,508	21,434	32,310	3,574,814	62,002,000
Some College, No Degree	5,477	9,334	16,855	2,150,858	36,003,000
Associate Degree	3,893	6,517	11,618	1,191,816	21,657,000
Bachelor's Degree	3,085	5,525	10,220	2,749,619	44,778,000
Graduate Degree or Higher	3,151	4,125	8,586	2,118,193	27,122,000
Total Receiving a High School Diploma or More	27,114	46,935	79,589	11,785,300	191,562,000
Total Completing a Bachelor's Degree or More	6,236	9,650	18,806	4,867,812	71,900,000

Educational Attainment as a Percentage of Population 25 and Older, 2016

<u>Level of Attainment</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>U.S.</u>
Less Than 9th Grade	3.5%	4.3%	4.1%	6.3%	4.4%
9th to 12th, No Diploma	7.4%	7.6%	7.7%	7.3%	6.5%
High School Grade (incl. equiv.)	37.8%	40.3%	35.8%	26.2%	28.8%
Some College, No Degree	18.0%	17.5%	18.7%	15.8%	16.7%
Associate Degree	12.8%	12.2%	12.9%	8.7%	10.1%
Bachelor's Degree	10.1%	10.4%	11.3%	20.1%	20.8%
Graduate Degree or Higher	10.3%	7.7%	9.5%	15.5%	12.6%
Total Receiving a High School Diploma or More	89.0%	88.2%	88.2%	86.3%	89.1%
Total Completing a Bachelor's Degree or More	20.5%	18.1%	20.8%	35.7%	33.4%

Sources: U.S. Census Bureau, American Community Survey One-Year Estimates, National Science Foundation

Total Personal Income and Employment by Major Component (2017)

Description	Allegany County	Cattaraugus County	Chautauqua County
Income by place of residence (thousands of dollars)			
Personal income	1,591,664	2,989,066	5,113,310
Nonfarm personal income 1/	1,579,705	2,979,633	5,063,930
Farm income 2/	11,959	9,433	49,380
Population (persons) 3/	46,894	77,348	129,046
Per capita personal income (dollars) 4/	33,942	38,644	39,624
Derivation of personal income (thousands of dollars)			
Earnings by place of work	838,023	1,839,392	2,971,916
Less:			
Contributions for government social insurance 5/	98,266	211,514	353,225
Employee and self-employed contributions for government social insurance	52,120	110,128	181,235
Employer contributions for government social insurance	46,146	101,386	171,990
Plus:			
Adjustment for residence 6/	122,513	36,407	184,603
Equals: Net earnings by place of residence	862,270	1,664,285	2,803,294
Plus: Dividends, interest, and rent 7/	239,202	449,690	753,447
Plus: Personal current transfer receipts	490,192	875,091	1,556,569
Components of earnings by place of work (thousands of dollars)			
Wages and salaries	535,909	1,207,576	1,968,203
Supplements to wages and salaries	214,766	446,710	667,083
Employer contributions for employee pension and insurance funds 8/	168,620	345,324	495,093
Employer contributions for government social insurance	46,146	101,386	171,990
Proprietors' income 9/	87,348	185,106	336,630
Farm proprietors' income	7,472	2,535	32,087
Nonfarm proprietors' income	79,876	182,571	304,543
Employment (number of jobs)			
Total employment	19,111	38,308	64,247
Wage and salary employment	14,102	30,426	50,746
Proprietors employment	5,009	7,882	13,501

Source: US Bureau of Economic Analysis

Notes:

1/ Nonfarm personal income is total personal income less farm income.

2/ Farm income is farm earnings less farm employer contributions for social insurance.

3/ Census Bureau midyear population estimates. Estimates for 2010-2017 reflect county population estimates available as of March 2018.

4/ Per capita personal income is total personal income divided by total midyear population.

5/ Employer contributions for government social insurance are included in earnings by industry and earnings by place of work, but they are excluded from net earnings by place of residence and personal income. Employee and self-employed contributions are subtractions in the calculation of net earnings by place of residence and all of the income measures.



6/ The adjustment for residence is the net inflow of the earnings of interarea commuters. For the United States, it consists of adjustments for border workers and US residents employed by international organizations and foreign embassies.

7/ Rental income of persons includes the capital consumption adjustment.

8/ Includes actual employer contributions and actuarially imputed employer contributions to reflect benefits accrued by defined benefit pension plan participants through service to employers in the current period.

9/ Proprietors' income includes the inventory valuation adjustment and the capital consumption adjustment.

Note-- All dollar estimates are in current dollars (not adjusted for inflation). Statistics presented in thousands of dollars do not indicate more precision than statistics presented in millions of dollars.

Last updated: March 6, 2019 -- revised statistics for 1969-2000.

Some numbers may not match published or USA Counties in Profile numbers exactly because rates and other figures may be recalculated.

Per Capita Personal Income (PCPI)

	Allegany County		Cattaraugus County		Chautauqua County	
	Number	Percent of U.S.	Number	Percent of U.S.	Number	Percent of U.S.
2017	\$33,942	65.7%	\$38,644	74.8%	\$39,624	76.7%
2007	\$25,044	62.9%	\$29,251	73.4%	\$28,000	70.3%
1997	\$17,536	67.6%	\$19,349	74.6%	\$19,709	75.9%
1987	\$11,001	67.6%	\$12,319	75.7%	\$13,232	81.4%
10-Year % Change	35.5%		32.1%		41.5%	
20-Year % Change	93.6%		99.7%		101.0%	
30-Year % Change	208.5%		213.7%		199.5%	

Source: U.S. Bureau of Economic Analysis (www.statsamerica.org)

Per Capita Personal Income

	1970	1975	1980	1985	1990	1995	2000	2005	2010	2017
Allegany County	\$3,216	\$4,510	\$ 6,968	\$ 9,667	\$13,495	\$16,289	\$19,758	\$23,194	\$28,527	\$33,942
Cattaraugus County	\$3,324	\$4,915	\$ 7,619	\$10,921	\$14,821	\$17,690	\$21,801	\$27,698	\$34,860	\$38,644
Chautauqua County	\$3,717	\$5,350	\$ 8,519	\$12,198	\$15,625	\$18,573	\$21,977	\$25,981	\$31,628	\$39,624
Southern Tier West Region	\$3,516	\$5,069	\$7,965	\$11,350	\$14,991	\$17,884	\$21,519	\$25,989	\$32,035	\$38,272
New York	\$4,935	\$7,066	\$10,994	\$16,796	\$23,986	\$27,604	\$35,307	\$41,578	\$49,582	\$65,392
United States	\$4,196	\$6,312	\$10,150	\$14,717	\$19,584	\$23,551	\$30,587	\$35,888	\$40,144	\$51,731

Per Capita Personal Income as a Percentage of NYS Per Capita Personal Income

	1970	1975	1980	1985	1990	1995	2000	2005	2010	2017
Allegany County	65.17%	63.83%	63.38%	57.56%	56.26%	59.01%	55.96%	55.78%	57.53%	51.91%
Cattaraugus County	67.36%	69.56%	69.30%	65.02%	61.79%	64.08%	61.75%	66.62%	70.31%	59.10%
Chautauqua County	75.32%	75.71%	77.49%	72.62%	65.14%	67.28%	62.25%	62.49%	63.79%	60.59%
Southern Tier West Region	71.25%	71.74%	72.45%	67.58%	62.50%	64.79%	60.95%	62.51%	64.61%	58.53%

Per Capita Personal Income as a Percentage of US Per Capita Personal Income

	1970	1975	1980	1985	1990	1995	2000	2005	2010	2017
Allegany County	76.64%	71.45%	68.65%	65.69%	68.91%	69.16%	64.60%	64.63%	71.06%	65.61%
Cattaraugus County	79.22%	77.87%	75.06%	74.21%	75.68%	75.11%	71.28%	77.18%	86.84%	74.70%
Chautauqua County	88.58%	84.76%	83.93%	82.88%	79.78%	78.86%	71.85%	72.39%	78.79%	76.60%
Southern Tier West Region	83.79%	80.31%	78.47%	77.12%	76.55%	75.94%	70.35%	72.42%	79.80%	73.98%

Source for above three tables: U.S. Bureau of Economic Analysis (www.statsamerica.org)

Note: All dollar estimates are in current dollars (not adjusted for inflation).

Last updated: July 2019

Per Capita Personal Income, New York State and Counties, 2017
(nominal dollars)

New York state total	64,540				
New York	175,960	Rensselaer	47,633	Chenango	41,118
Westchester	101,542	Queens	46,829	Montgomery	41,070
Nassau	84,763	Greene	46,210	Cayuga	40,797
Suffolk	65,758	Jefferson	45,069	Schuyler	40,458
Saratoga	65,288	Sullivan	44,707	Herkimer	40,320
Putnam	63,469	Wayne	44,332	Chautauqua	39,624
Rockland	58,133	Tioga	43,928	Cortland	39,465
Albany	58,048	Niagara	43,866	Schoharie	38,855
Richmond	54,908	Essex	43,857	Wyoming	38,825
Dutchess	54,093	Steuben	43,528	Washington	38,783
Columbia	53,436	Oneida	43,198	Oswego	38,671
Hamilton	52,436	Livingston	43,071	Cattaraugus	38,644
Ontario	51,321	Broome	42,825	Yates	38,601
Monroe	50,894	Lewis	42,814	Delaware	37,981
Warren	50,690	Clinton	42,720	Orleans	37,736
Onondaga	50,244	Chemung	42,577	Seneca	37,037
Orange	50,113	Madison	42,380	Franklin	36,617
Schenectady	49,389	Tompkins	42,373	St. Lawrence	36,371
Erie	49,330	Genesee	42,365	Bronx	35,564
Ulster	48,811	Fulton	42,020	Allegany	33,942
Kings	48,758	Otsego	41,941		

Ranks:

Chautauqua County	48 th out of 62 counties
Cattaraugus County	54 th out of 62 counties
Allegany County	62 nd out of 62 counties

Data source: U.S. Bureau of Economic Analysis, 2017

Median Income

	<u>Allegany County</u>		<u>Cattaraugus County</u>		<u>Chautauqua County</u>	
	<u>Number</u>	<u>Percent of U.S.</u>	<u>Number</u>	<u>Percent of U.S.</u>	<u>Number</u>	<u>Percent of U.S.</u>
Median Household Income (2017)	\$46,491	77.1%	\$47,875	79.3%	\$45,840	76.0%
Median Household Income (2000)	\$32,876	78.3%	\$34,673	82.6%	\$34,422	82.0%
Percent Change from 2000 to 2017	41.4%		38.1%		33.2%	

Source: U.S. Census Bureau (www.statsamerica.org)

Poverty Estimates

	<u>Allegany County</u>		<u>Cattaraugus County</u>		<u>Chautauqua County</u>	
	<u>Number</u>	<u>Percent Change</u>	<u>Number</u>	<u>Percent Change</u>	<u>Number</u>	<u>Percent Change</u>
Poverty Rate in 2017	16.3%	--	15.8%	--	17.7%	--
Poverty Rate In 2000	15.4%	5.8%	12.8%	23.4%	13.5%	31.1%
Poverty Rate for Children under 18 in 2017	25.0%	--	23.4%	--	27.5%	--
Poverty Rate for Children under 18 In 2000	20.9%	19.6%	18.3%	27.9%	19.7%	39.6%

Source: U.S. Census Bureau (www.statsamerica.org)

Bureau of Economic Analysis (BEA) NAICS Major Sector Earnings in 2017 (by place of work, \$000)

<u>BEA Industry Sector / Name</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>
Earnings by place of work - 35	\$838,023	\$1,839,392	\$2,971,916
Wage and salary disbursements - 50	\$535,909	\$1,207,576	\$1,968,203
Proprietors' income - 70	\$87,348	\$185,106	\$336,630
Farm proprietors' income - 71	\$7,472	\$2,535	\$32,087
Nonfarm proprietors' income - 72	\$79,876	\$182,571	\$304,543
Farm earnings - 81	\$12,900	\$10,885	\$52,994
Nonfarm earnings - 82	\$825,123	\$1,828,507	\$2,918,922
Private earnings - 90	\$518,641	\$1,156,055	\$2,201,423
Forestry, fishing, related activities, and other - 100	\$3,331	\$3,457	\$13,571
Mining - 200	\$2,668	\$8,384	\$6,668
Utilities - 300	\$7,376	\$10,309	\$32,495
Construction - 400	\$60,858	\$85,654	\$151,784
Manufacturing - 500	\$131,794	\$270,916	\$675,060
Retail Trade - 700	\$42,737	\$147,214	\$225,916
Transportation and warehousing - 800	\$14,848	\$28,013	\$63,675
Information - 900	\$3,391	\$13,640	\$31,024

Source: U.S. Bureau of Economic Analysis (BEA) (www.statsamerica.org)

D = Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

L = Less than 10 jobs, but the estimates for this item are included in the totals.

N/A = Not available or not applicable.

* = "Other" consists of the number of jobs held by U.S. residents employed by international organizations and foreign embassies and consulates in the United States.

BEA Major Sectors (NAICS) in 2017 (by place of work)

Allegany County

	<u>Earnings (\$000)</u>	<u>Avg Earnings Per Job</u>	<u>Jobs</u>	<u>Pct Dist. in County</u>	<u>Pct Dist. in U.S.</u>
Earnings by place of work - 35	\$845,116	\$43,672	19,351	100.0%	100.0%
Wage and salary disbursements - 50	\$536,487	\$37,261	14,398	74.4%	77.4%
Proprietors' income - 70	\$78,286	\$15,805	4,953	25.6%	22.6%
Farm proprietors' income - 71	\$2,854	\$3,909	730	3.8%	0.9%
Nonfarm proprietors' income - 72	\$75,432	\$17,862	4,223	21.8%	21.6%
Farm earnings - 81	\$8,406	\$9,207	913	4.7%	1.4%
Nonfarm earnings - 82	\$836,710	\$45,379	18,438	95.3%	98.6%
Private earnings - 90	\$525,236	\$36,658	14,328	74.0%	86.1%
Forestry, fishing, related activities, and other - 100	\$4,415	\$25,228	175	0.9%	0.5%
Mining - 200	\$2,820	\$10,180	277	1.4%	0.7%
Utilities - 300	\$7,186	\$102,657	70	0.4%	0.3%
Construction - 400	\$58,719	\$61,038	962	5.0%	5.2%
Manufacturing - 500	\$145,738	\$62,387	2,336	12.1%	6.8%
Retail Trade - 700	\$44,709	\$22,671	1,972	10.2%	10.0%
Transportation and warehousing - 800	\$11,983	\$42,492	282	1.5%	3.7%
Information - 900	\$3,525	\$25,178	140	0.7%	1.7%
Earnings by place of work - 35	\$838,023	\$43,850	19,111	100.0%	100.0%
Wage and salary disbursements - 50	\$535,909	\$38,002	14,102	73.8%	77.4%
Proprietors' income - 70	\$87,348	\$17,438	5,009	26.2%	22.6%
Farm proprietors' income - 71	\$7,472	\$10,249	729	3.8%	0.9%
Nonfarm proprietors' income - 72	\$79,876	\$18,662	4,280	22.4%	21.7%
Farm earnings - 81	\$12,900	\$14,144	912	4.8%	1.3%
Nonfarm earnings - 82	\$825,123	\$45,338	18,199	95.2%	98.7%
Private earnings - 90	\$518,641	\$36,892	14,058	73.6%	86.2%
Forestry, fishing, related activities, and other - 100	\$3,331	\$19,827	168	0.9%	0.5%
Mining - 200	\$2,668	\$8,776	304	1.6%	0.8%
Utilities - 300	\$7,376	\$84,781	87	0.5%	0.3%
Construction - 400	\$60,858	\$61,348	992	5.2%	5.4%
Manufacturing - 500	\$131,794	\$61,385	2,147	11.2%	6.8%
Retail Trade - 700	\$42,737	\$22,624	1,889	9.9%	9.8%
Transportation and warehousing - 800	\$14,848	\$60,357	246	1.3%	3.9%
Information - 900	\$3,391	\$26,912	126	0.7%	1.7%

Source: U.S. Bureau of Economic Analysis (BEA) (www.statsamerica.org)

D = Not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals.

L = Less than 10 jobs, but the estimates for this item are included in the totals.

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Cattaraugus County

	<u>Earnings (\$000)</u>	<u>Avg Earnings Per Job</u>	<u>Jobs</u>	<u>Pct Dist. in County</u>	<u>Pct Dist. in U.S.</u>
Earnings by place of work - 35	\$1,839,392	\$48,015	38,308	100.0%	100.0%
Wage and salary disbursements - 50	\$1,207,576	\$39,688	30,426	79.4%	77.4%
Proprietors' income - 70	\$185,106	\$23,484	7,882	20.6%	22.6%
Farm proprietors' income - 71	\$2,535	\$2,635	962	2.5%	0.9%
Nonfarm proprietors' income - 72	\$182,571	\$26,383	6,920	18.1%	21.7%
Farm earnings - 81	\$10,885	\$8,849	1,230	3.2%	1.3%
Nonfarm earnings - 82	\$1,828,507	\$49,315	37,078	96.8%	98.7%
Private earnings - 90	\$1,156,055	\$42,502	27,200	71.0%	86.2%
Forestry, fishing, related activities, and other - 100	\$3,457	\$16,781	206	0.5%	0.5%
Mining - 200	\$8,384	\$18,756	447	1.2%	0.8%
Utilities - 300	\$10,309	\$112,054	92	0.2%	0.3%
Construction - 400	\$85,654	\$53,768	1,593	4.2%	5.4%
Manufacturing - 500	\$270,916	\$75,674	3,580	9.3%	6.8%
Retail Trade - 700	\$147,214	\$31,577	4,662	12.2%	9.8%
Transportation and warehousing - 800	\$28,013	\$45,475	616	1.6%	3.9%
Information - 900	\$13,640	\$51,666	264	0.7%	1.7%

Source: U.S. Bureau of Economic Analysis (BEA) (www.statsamerica.org)

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Chautauqua County

	<u>Earnings (\$000)</u>	<u>Avg Earnings Per Job</u>	<u>Jobs</u>	<u>Pct Dist. in County</u>	<u>Pct Dist. in U.S.</u>
Earnings by place of work - 35	\$2,971,916	\$46,257	64,247	100.0%	100.0%
Wage and salary disbursements - 50	\$1,968,203	\$38,785	50,746	79.0%	77.4%
Proprietors' income - 70	\$336,630	\$24,933	13,501	21.0%	22.6%
Farm proprietors' income - 71	\$32,087	\$22,454	1,429	2.2%	0.9%
Nonfarm proprietors' income - 72	\$304,543	\$25,227	12,072	18.8%	21.7%
Farm earnings - 81	\$52,994	\$24,466	2,166	3.4%	1.3%
Nonfarm earnings - 82	\$2,918,922	\$47,017	62,081	96.6%	98.7%
Private earnings - 90	\$2,201,423	\$41,637	52,871	82.3%	86.2%
Forestry, fishing, related activities, and other - 100	\$13,571	\$37,385	363	0.6%	0.5%
Mining - 200	\$6,668	\$13,805	483	0.8%	0.8%
Utilities - 300	\$32,495	\$107,956	301	0.5%	0.3%
Construction - 400	\$151,784	\$51,226	2,963	4.6%	5.4%
Manufacturing - 500	\$675,060	\$72,555	9,304	14.5%	6.8%
Retail Trade - 700	\$225,916	\$28,092	8,042	12.5%	9.8%
Transportation and warehousing - 800	\$63,675	\$44,465	1,432	2.2%	3.9%
Information - 900	\$31,024	\$48,173	644	1.0%	1.7%

Source: U.S. Bureau of Economic Analysis (BEA) (www.statsamerica.org)

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Annual Covered Employment and Wages Over Time (NAICS)

Allegany County

<u>Year</u>	<u>Establishments</u>	<u>Jobs</u>	<u>Average Wage Per Job</u>	<u>Pct of U.S. Avg Wage</u>
2018	930	13,150	\$39,847	69.6%
2017	940	13,337	\$38,511	69.5%
2016	942	13,530	\$37,693	70.3%
2015	954	13,681	\$37,112	70.1%
2014	963	13,688	\$36,074	70.2%
2013	962	13,333	\$34,527	69.3%
2012	961	13,502	\$34,108	69.2%
2011	945	13,450	\$33,659	70.1%
2010	946	13,665	\$32,650	69.8%
2009	941	13,732	\$32,271	70.8%
2008	939	14,188	\$33,773	74.1%
10-Year Change	-9	-1,038	\$6,074	
10-Year Percent Change	-1.0%	-7.3%	18.0%	

Source: U.S. Bureau of Labor Statistics (BLS) (www.statsamerica.org)

D = Non-Discloseable Data

N/A = Not Available

Note: Average wage may not match published numbers due to rounding.

Cattaraugus County

<u>Year</u>	<u>Establishments</u>	<u>Jobs</u>	<u>Average Wage Per Job</u>	<u>Pct of U.S. Avg Wage</u>
2018	1,794	28,967	\$40,111	70.0%
2017	1,804	29,296	\$39,521	71.4%
2016	1,809	29,557	\$38,466	71.7%
2015	1,833	29,368	\$38,913	73.5%
2014	1,840	29,639	\$37,965	73.9%
2013	1,826	29,773	\$37,438	75.2%
2012	1,828	29,814	\$36,583	74.2%
2011	1,850	30,128	\$36,010	75.0%
2010	1,857	30,445	\$35,196	75.3%
2009	1,841	30,760	\$34,167	75.0%
2008	1,833	31,261	\$33,666	73.9%
10-Year Change	-39	-2,294	\$6,445	
10-Year Percent Change	-2.1%	-7.3%	19.1%	

Source: U.S. Bureau of Labor Statistics (BLS) (www.statsamerica.org)

D = Non-Discloseable Data

N/A = Not Available

Note: Average wage may not match published numbers due to rounding.



Chautauqua County

<u>Year</u>	<u>Establishments</u>	<u>Jobs</u>	<u>Average Wage Per Job</u>	<u>Pct of U.S. Avg Wage</u>
2018	3,132	48,630	\$40,032	69.9%
2017	3,185	49,016	\$39,097	70.6%
2016	3,185	49,061	\$37,203	69.4%
2015	3,239	49,941	\$36,600	69.1%
2014	3,264	49,737	\$35,602	69.3%
2013	3,231	49,958	\$34,462	69.2%
2012	3,199	50,698	\$34,430	69.9%
2011	3,213	51,129	\$33,740	70.2%
2010	3,257	51,575	\$33,341	71.3%
2009	3,266	52,488	\$32,079	70.4%
2008	3,323	54,949	\$32,161	70.6%
10-Year Change	-191	-6,319	\$7,871	
10-Year Percent Change	-5.7%	-11.5%	24.5%	

Source: U.S. Bureau of Labor Statistics (BLS) (www.statsamerica.org)

D = Non-Discloseable Data

N/A = Not Available

Note: Average wage may not match published numbers due to rounding.

Annual Industry Distribution of Jobs and Avg. Wage in 2017 (NAICS)

Allegany County

	<u>Establishments</u>	<u>Jobs</u>	<u>Pct. Dist.</u>	<u>Annual Average Wage Per Job</u>
Total	930	13,150	100.0%	\$39,847
Agriculture, Forestry, Fishing and Hunting	18	129	1.0%	\$32,687
Mining	7	23	0.2%	\$48,559
Utilities	5	55	0.4%	\$91,348
Construction	64	384	2.9%	\$81,312
Manufacturing	42	1,841	14.0%	\$54,912
Wholesale Trade	19	162	1.2%	\$49,227
Retail Trade	129	1,219	9.3%	\$23,354
Transportation & Warehousing	38	200	1.5%	\$46,464
Information	25	87	0.7%	\$24,630
Finance and Insurance	33	199	1.5%	\$39,164
Real Estate and Rental and Leasing	18	58	0.4%	\$29,263
Professional, Scientific, and Technical Services	51	224	1.7%	\$50,870
Management of Companies and Enterprises	4	0	0.0%	\$0
Admin. & Support & Waste Mgt. & Rem. Services	32	0	0.0%	\$0
Educational Services	38	1,053	8.0%	\$43,287
Health Care and Social Services	103	1,479	11.2%	\$32,536
Arts, Entertainment, and Recreation	13	92	0.7%	\$14,448
Accommodation and Food Services	96	1,324	10.1%	\$15,543
Other Services (Except Public Administration)	116	481	3.7%	\$21,374
Public Administration	62	13	0.1%	\$65,852
Unallocated	18	10	0.1%	\$19,233

Source: U.S. Bureau of Labor Statistics (BLS) (www.statsamerica.org)

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N/A = This item is not available.

Note: Average wage may not match published numbers due to rounding.

Annual Industry Distribution of Jobs and Avg. Wage in 2017 (NAICS)

Cattaraugus County

	<u>Establishments</u>	<u>Jobs</u>	<u>Pct. Dist.</u>	<u>Annual Average Wage Per Job</u>
Total	1,794	28,967	100.0%	\$40,111
Agriculture, Forestry, Fishing and Hunting	32	266	0.9%	\$30,399
Mining	18	113	0.4%	\$49,899
Utilities	7	70	0.2%	\$128,028
Construction	132	614	2.1%	\$49,610
Manufacturing	78	3,137	10.8%	\$60,389
Wholesale Trade	65	552	1.9%	\$48,937
Retail Trade	291	3,520	12.2%	\$27,338
Transportation & Warehousing	73	569	2.0%	\$40,877
Information	24	198	0.7%	\$52,011
Finance and Insurance	67	662	2.3%	\$62,535
Real Estate and Rental and Leasing	53	229	0.8%	\$28,056
Professional, Scientific, and Technical Services	106	498	1.7%	\$58,479
Management of Companies and Enterprises	8	150	0.5%	\$43,425
Admin. & Support & Waste Mgt. & Rem. Services	78	666	2.3%	\$53,910
Educational Services	59	0	0.0%	N/A
Health Care and Social Services	180	7	0.0%	\$75,740
Arts, Entertainment, and Recreation	27	382	1.3%	\$15,799
Accommodation and Food Services	188	2,758	9.5%	\$17,974
Other Services (Except Public Administration)	182	1,116	3.9%	\$25,850
Public Administration	92	4,034	13.9%	\$42,330
Unallocated	38	23	0.1%	\$16,329

Source: U.S. Bureau of Labor Statistics (BLS) (www.statsamerica.org)

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N/A = This item is not available.

Note: Average wage may not match published numbers due to rounding.

Annual Industry Distribution of Jobs and Avg. Wage in 2017 (NAICS)

Chautauqua County

	<u>Establishments</u>	<u>Jobs</u>	<u>Pct. Dist.</u>	<u>Annual Average Wage Per Job</u>
Total	3,132	48,630	100.0%	\$40,032
Agriculture, Forestry, Fishing and Hunting	66	525	1.1%	\$31,035
Mining	14	87	0.2%	\$42,128
Utilities	11	205	0.4%	\$89,576
Construction	254	1,683	3.5%	\$48,854
Manufacturing	186	8,791	18.1%	\$56,607
Wholesale Trade	118	1,063	2.2%	\$50,316
Retail Trade	460	6,083	12.5%	\$26,579
Transportation & Warehousing	111	1,314	2.7%	\$42,575
Information	46	476	1.0%	\$38,389
Finance and Insurance	140	782	1.6%	\$52,964
Real Estate and Rental and Leasing	87	388	0.8%	\$33,120
Professional, Scientific, and Technical Services	189	794	1.6%	\$47,029
Management of Companies and Enterprises	10	169	0.3%	\$30,661
Admin. & Support & Waste Mgt. & Rem. Services	146	1,601	3.3%	\$27,002
Educational Services	73	4,774	9.8%	\$47,225
Health Care and Social Services	301	7,719	15.9%	\$37,403
Arts, Entertainment, and Recreation	70	708	1.5%	\$16,252
Accommodation and Food Services	326	4,812	9.9%	\$16,766
Other Services (Except Public Administration)	374	1,870	3.8%	\$23,443
Public Administration	101	2,783	5.7%	\$46,596
Unallocated	51	29	0.1%	\$24,803

Source: U.S. Bureau of Labor Statistics (BLS) (www.statsamerica.org)

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N/A = This item is not available.

Note: Average wage may not match published numbers due to rounding.

Industry Distribution of Jobs in 2017

Industry Sector	Allegany County		Cattaraugus County		Chautauqua County	
Total	13,336	100.0%	29,288	100.0%	48,701	100.0%
Agriculture, Forestry, Fishing and Hunting	158	1.2%	241	0.8%	522	1.1%
Mining	24	0.2%	110	0.4%	83	0.2%
Utilities	57	0.4%	61	0.2%	239	0.5%
Construction	368	2.8%	653	2.2%	1,587	3.3%
Manufacturing	1,961	14.7%	3,333	11.4%	8,847	18.2%
Wholesale Trade	163	1.2%	588	2.0%	1,016	2.1%
Retail Trade	1,253	9.4%	3,639	12.4%	6,299	12.9%
Transportation & Warehousing	202	1.5%	592	2.0%	1,327	2.7%
Information	90	0.7%	190	0.6%	521	1.1%
Finance and Insurance	200	1.5%	649	2.2%	789	1.6%
Real Estate and Rental and Leasing	59	0.4%	218	0.7%	404	0.8%
Professional, Scientific, and Technical Services	247	1.9%	477	1.6%	799	1.6%
Management of Companies and Enterprises	0	0.0%	155	0.5%	321	0.7%
Admin. & Support & Waste Mgt. & Rem. Services	0	0.0%	716	2.4%	1,658	3.4%
Educational Services	1,030	7.7%	0	0.0%	4,764	9.8%
Health Care and Social Services	1,503	11.3%	667	2.3%	7,732	15.9%
Arts, Entertainment, and Recreation	163	1.2%	370	1.3%	698	1.4%
Accommodation and Food Services	1,215	9.1%	2,672	9.1%	4,706	9.7%
Other Services (Except Public Administration)	479	3.6%	1,118	3.8%	1,874	3.8%
Public Administration	14	0.1%	4,064	13.9%	2,808	5.8%
Unallocated	10	0.1%	31	0.1%	53	0.1%

N/A: data not available

Some numbers may not match published or USA Counties in Profile numbers exactly because rates and other figures may have been recalculated by the data source.

Source: US Bureau of Labor Statistics (www.statsamerica.org)



Average Wage by Industry Sector, 2017 (nominal dollars)

	<u>Allegany</u>	<u>Cattaraugus</u>	<u>Chautauqua</u>	<u>STW Region</u>	<u>NYS</u>	<u>STW Region as a percent of NYS</u>
Total, All Industries	\$38,291	\$39,520	\$38,735	\$38,849	\$70,537	55.1%
Total, All Private	\$35,721	\$38,132	\$36,703	\$36,852	\$71,850	51.3%
Agriculture, Forestry, Fishing Hunting	\$32,140	\$29,702	\$29,957	\$30,600	\$35,130	87.1%
Mining	\$43,857	\$51,051	\$42,608	\$45,839	\$65,670	69.8%
Utilities	\$91,934	\$122,170	\$96,972	\$103,692	\$120,147	86.3%
Construction	\$79,609	\$47,041	\$47,826	\$58,159	\$71,539	81.3%
Manufacturing	\$52,236	\$63,971	\$53,602	\$56,603	\$65,846	86.0%
Wholesale Trade	\$46,546	\$47,615	\$48,950	\$47,704	\$84,481	56.5%
Retail Trade	\$22,529	\$26,107	\$25,397	\$24,678	\$35,141	70.2%
Transportation and Warehousing	\$45,012	\$38,078	\$39,507	\$40,866	\$50,913	80.3%
Information	\$22,795	\$49,480	\$38,374	\$36,883	\$119,569	30.8%
Finance and Insurance	\$38,188	\$58,473	\$50,442	\$49,034	\$235,912	20.8%
Real Estate and Rental and Leasing	\$27,504	\$26,389	\$31,060	\$28,318	\$71,879	39.4%
Professional and Technical Services	\$43,979	\$56,814	\$45,834	\$48,876	\$111,621	43.8%
Mgmt. of Companies & Enterprises	\$59,469	\$39,882	\$33,970	\$44,440	\$147,753	30.1%
Administrative and Waste Services	\$20,255	\$49,341	\$25,015	\$31,537	\$50,527	62.4%
Educational Services	\$43,367	N/A	\$72,692	N/A	\$61,055	N/A
Health Care and Social Assistance	\$31,107	\$38,490	\$36,599	\$35,399	\$49,828	71.0%
Arts, Entertainment, and Recreation	\$11,899	\$15,684	\$15,065	\$14,216	\$53,883	26.4%
Accommodation and Food Services	\$14,674	\$17,258	\$15,787	\$15,906	\$27,611	57.6%
Other Services	\$19,463	\$23,917	\$21,819	\$21,733	\$40,446	53.7%
Total, All Government	\$44,327	\$42,354	\$47,845	\$44,842	\$62,989	71.2%
Unclassified	\$28,689	\$18,725	\$18,285	\$21,900	\$53,230	41.1%

Notes:

1. "STW Region as a Percent of NYS" refers to the STW Region's average wage for each sector expressed as a percentage of the New York State average wage for that sector.
2. N/A = data not reported for this sector in this county; regional average wage calculation does not include this county.
3. STW Region average wages are averages of the three county average wages in each sector, unadjusted for number of workers in those sectors in each county.

Data Source: NYS Department of Labor, Quarterly Census of Employment and Wages (QCEW), NAICS Based Industry Employment and Wages, developed through a cooperative program between the State of New York and the U. S. Bureau of Labor Statistics. Data for 2017 is preliminary and subject to revision. STW Region average wages are prepared by Southern Tier West.

Allegany County Employment by Sector (1,000's)

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Total Nonfarm	15.7	15.9	16.7	17.1	17.9	15.6	15.5	15.2
Total Private	11.6	11.6	12.2	12.3	13.1	11.0	10.9	10.7
Goods Producing	4.1	3.4	3.3	2.8	2.8	2.7	2.6	2.4
Service-Providing	11.6	12.5	13.4	14.2	15.0	12.9	12.9	12.9
Private Service-Providing	7.5	8.2	8.9	9.5	10.3	8.4	8.4	8.3
Natural Resources, Mining and Construction	0.7	0.4	0.5	0.5	0.6	0.4	0.4	0.4
Manufacturing	3.4	2.9	2.8	2.3	2.2	2.3	2.2	2.0
Trade, Transportation, and Utilities	2.1	2.1	2.0	1.9	1.8	1.7	1.6	1.6
Information	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Financial Activities	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Professional and Business Services	0.2	0.4	0.5	0.5	0.5	0.6	0.5	0.5
Education and Health Services	3.2	3.6	4.1	4.4	5.5	3.9	4.1	4.0
Leisure and Hospitality	1.1	1.2	1.1	1.3	1.2	1.4	1.4	1.4
Other Services	0.5	0.6	0.7	0.9	0.9	0.4	0.4	0.5
Government	4.1	4.3	4.5	4.8	4.8	4.5	4.5	4.6

Source: New York State Department of Labor

Cattaraugus County Employment by Sector (1,000's)

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Total Nonfarm	32.2	31.8	34.2	34.2	33.3	31.2	31.2	30.9
Total Private	25.1	24.6	25.4	23.9	22.6	21.2	21.3	20.9
Goods Producing	8.9	6.8	6.9	5.6	4.9	4.4	4.2	4.1
Service-Providing	23.3	25.0	27.3	28.6	28.4	26.8	27.0	26.8
Private Service-Providing	16.2	17.7	18.5	18.4	17.8	16.8	17.1	16.8
Natural Resources, Mining and Construction	0.9	0.8	0.8	0.9	1.1	0.8	0.8	0.8
Manufacturing	8.0	6.0	6.1	4.7	3.8	3.6	3.4	3.3
Trade, Transportation, and Utilities	5.5	5.9	5.9	5.9	5.0	4.8	4.7	4.7
Information	0.5	0.5	0.3	0.3	0.2	0.2	0.2	0.2
Financial Activities	0.7	0.8	0.9	0.8	0.8	0.9	0.9	0.9
Professional and Business Services	1.5	2.1	1.7	1.4	1.4	1.4	1.6	1.4
Education and Health Services	4.4	4.5	5.2	5.5	5.9	5.5	5.7	5.5
Leisure and Hospitality	2.6	2.7	3.0	2.7	2.7	2.9	3.0	3.0
Other Services	1.0	1.2	1.4	1.7	1.7	1.0	1.1	1.1
Government	7.1	7.2	8.9	10.2	10.7	10.0	9.9	10.0

Chautauqua County Employment by Sector (1,000's)

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Total Nonfarm	57.2	56.8	59.4	57.0	54.4	52.5	51.6	51.3
Total Private	47.2	46.7	48.0	46.0	43.3	42.4	41.5	41.1
Goods Producing	17.4	15.8	15.6	13.1	11.8	11.0	10.7	10.5
Service-Providing	39.8	41.0	43.8	44.0	42.6	41.5	40.9	40.8
Private Service-Providing	29.8	30.9	32.4	32.9	31.5	31.4	30.8	30.6
Natural Resources, Mining and Construction	2.1	1.7	1.8	1.7	2.2	1.7	1.7	1.7
Manufacturing	15.3	14.1	13.8	11.4	9.6	9.3	9.1	8.9
Trade, Transportation, and Utilities	10.8	10.2	10.2	10.0	9.0	9.0	8.9	8.5
Information	1.2	0.9	1.0	0.9	0.7	0.6	0.5	0.5
Financial Activities	1.7	1.3	1.3	1.4	1.4	1.2	1.2	1.2
Professional and Business Services	2.2	2.7	3.5	3.3	3.5	3.3	2.8	2.8
Education and Health Services	6.0	7.5	7.3	8.0	8.4	9.8	9.9	10.4
Leisure and Hospitality	5.3	5.4	5.8	5.9	5.4	5.8	5.7	5.4
Other Services	2.7	2.9	3.4	3.5	3.2	1.8	1.8	1.8
Government	10.0	10.1	11.4	11.1	11.0	10.0	10.1	10.2

Source for data in both tables on this page: New York State Department of Labor

STW Region Employment by Sector
(1,000's)

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Total Nonfarm	105.1	104.5	110.3	108.3	105.6	99.3	98.3	97.4
Total Private	83.9	82.9	85.6	82.2	79.0	74.6	73.7	72.7
Goods Producing	30.4	26.0	25.8	21.5	19.5	18.1	17.5	17.0
Service-Providing	74.7	78.5	84.5	86.8	86.0	81.2	80.8	80.5
Private Service-Providing	53.5	56.8	59.8	60.8	59.6	56.6	56.3	55.7
Natural Resources, Mining and Construction	3.7	2.9	3.1	3.1	3.9	2.9	2.9	2.9
Manufacturing	26.7	23.0	22.7	18.4	15.6	15.2	14.7	14.2
Trade, Transportation, and Utilities	18.4	18.2	18.1	17.8	15.8	15.5	15.2	14.8
Information	1.9	1.5	1.4	1.3	1.0	0.9	0.8	0.8
Financial Activities	2.6	2.4	2.5	2.5	2.5	2.4	2.4	2.4
Professional and Business Services	3.9	5.2	5.7	5.2	5.4	5.3	4.9	4.7
Education and Health Services	13.6	15.6	16.6	17.9	19.8	19.2	19.7	19.9
Leisure and Hospitality	9.0	9.3	9.9	9.9	9.3	10.1	10.1	9.8
Other Services	4.2	4.7	5.5	6.1	5.8	3.2	3.3	3.4
Government	21.2	21.6	24.8	26.1	26.5	24.5	24.5	24.8

Percentage Change in Employment by Sector, 1990 to 2017

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>STW Region</u>
Total Nonfarm	-3.2%	-4.0%	-10.3%	-7.3%
Total Private	-7.8%	-16.7%	-12.9%	-13.3%
Goods Producing	-41.5%	-53.9%	-39.7%	-44.1%
Service-Providing	11.2%	15.0%	2.5%	7.8%
Private Service-Providing	10.7%	3.7%	2.7%	4.1%
Natural Resources, Mining and Construction	-42.9%	-11.1%	-19.0%	-21.6%
Manufacturing	-41.2%	-58.8%	-41.8%	-46.8%
Trade, Transportation, and Utilities	-23.8%	-14.5%	-21.3%	-19.6%
Information	-50.0%	-60.0%	-58.3%	-57.9%
Financial Activities	50.0%	28.6%	-29.4%	-7.7%
Professional and Business Services	150.0%	-6.7%	27.3%	20.5%
Education and Health Services	25.0%	25.0%	73.3%	46.3%
Leisure and Hospitality	27.3%	15.4%	1.9%	8.9%
Other Services	0.0%	10.0%	-33.3%	-19.0%
Government	12.2%	40.8%	2.0%	17.0%

Source for data in both tables on this page: New York State Department of Labor; regional calculations and percentage calculations by Southern Tier West

Labor Force Average Annual Figures for the Population Aged 16 Years and Older

<u>Year</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>STW Region</u>	<u>New York</u>	<u>United States</u>
1990	22,400	39,000	68,100	131,490	8,808,900	125,840,000
1995	23,200	39,700	67,600	130,500	8,676,800	132,304,000
2000	22,800	41,100	68,100	131,500	9,167,000	142,583,000
2005	23,600	42,200	67,200	132,500	9,421,400	149,320,000
2010	24,200	39,700	63,900	130,300	9,595,400	153,889,000
2015	20,500	35,400	57,900	113,500	9,644,600	157,130,000
2016	20,200	35,100	56,500	111,600	9,688,700	159,187,000
2017	19,900	34,700	55,900	110,500	9,704,700	160,320,000
% Change,						
1990-2017	-11.2%	-11.0%	-17.9%	-16.0%	10.2%	27.4%
% Change,						
2010-2017	-17.8%	-12.6%	-12.5%	-15.2%	1.1%	4.2%
% Change,						
2015-2017	-2.9%	-2.0%	-3.5%	-2.6%	0.6%	2.0%

Source: NYS Department of Labor; U.S. data is from the U.S. Bureau of Labor Statistics

Labor Force

<u>County</u>	<u>2010</u>	<u>2018</u>	<u>Net Change</u>
Allegany County	24,200	19,500	- 4,700
Cattaraugus County	39,700	34,700	- 5,000
Chautauqua County	63,900	55,900	- 8,000

Source: NYS Department of Labor

Percentage of Regional Labor Force

<u>Year</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>
1990	17.0%	29.7%	51.8%
1995	17.8%	30.4%	51.8%
2000	17.3%	31.3%	51.8%
2005	17.8%	31.8%	50.7%
2010	18.6%	30.5%	49.0%
2015	18.1%	31.2%	51.0%
2016	18.1%	31.5%	50.6%
2017	18.0%	31.4%	50.6%

Source: NYS Department of Labor

Age of Labor Force

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>USA</u>
Labor Force	39,224	62,702	107,545	15,964,950	253,323,709
16 to 19 years	1,335	1,576	2,763	319,722	6,421,987
20 to 24 years	3,032	3,572	6,798	975,366	16,743,343
25 to 29 years	1,998	3,447	6,204	1,205,937	18,071,035
30 to 34 years	1,905	3,470	5,342	1,137,426	17,587,597
35 to 44 years	3,837	7,118	10,979	2,073,189	33,412,121
45 to 54 years	4,765	8,608	14,049	2,241,923	34,852,761
55 to 59 years	2,396	4,290	7,512	978,396	15,341,580
60 to 64 years	1,648	2,904	4,970	669,725	10,425,141
65 to 69 years	726	1,062	1,947	308,316	4,791,903
70 to 74 years	265	501	751	125,661	1,927,745
75 years +	200	367	531	87,417	1,243,527

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>USA</u>
16 to 19 years	3.4%	2.5%	2.6%	2.0%	2.5%
20 to 24 years	7.7%	5.7%	6.3%	6.1%	6.6%
25 to 29 years	5.1%	5.5%	5.8%	7.6%	7.1%
30 to 34 years	4.9%	5.5%	5.0%	7.1%	6.9%
35 to 44 years	9.8%	11.4%	10.2%	13.0%	13.2%
45 to 54 years	12.1%	13.7%	13.1%	14.0%	13.8%
55 to 59 years	6.1%	6.8%	7.0%	6.1%	6.1%
60 to 64 years	4.2%	4.6%	4.6%	4.2%	4.1%
65 to 69 years	1.9%	1.7%	1.8%	1.9%	1.9%
70 to 74 years	0.7%	0.8%	0.7%	0.8%	0.8%
75 years +	0.5%	0.6%	0.5%	0.5%	0.5%

Source: Base data from U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates; calculations by Southern Tier West

Educational Attainment of Labor Force

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>	<u>New York</u>	<u>USA</u>
Labor Force	37,942	60,628	104,194	15,471,048	244,945,724
Less than high school graduate	3,861	7,546	12,496	2,143,489	32,145,211
High school graduate (includes equivalency)	13,053	23,976	36,101	4,076,826	68,210,886
Some college or associates	14,413	19,138	35,796	4,260,039	76,640,939
Bachelor's degree or higher	6,615	9,968	19,801	4,990,694	67,948,688
Less than high school graduate	10.2%	12.4%	12.0%	13.9%	13.1%
High school graduate (includes equivalency)	34.4%	39.5%	34.6%	26.4%	27.8%
Some college or associates	38.0%	31.6%	34.4%	27.5%	31.3%
Bachelor's degree or higher	17.4%	16.4%	19.0%	32.3%	27.7%

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates; calculations by Southern Tier West

**Labor Force, Employment, Unemployment, and Unemployment Rate
(Average Annual Figures for the Population Aged 16 Years and Older)**

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>% Change, 1990-2010</u>
Allegany County						
Labor Force	22,400	23,200	22,800	23,600	24,300	8.48%
Employed	20,900	21,400	21,700	22,200	22,100	5.74%
Unemployed	1,500	1,800	1,100	1,300	2,200	46.67%
Unemployment Rate (%)	6.50%	7.70%	4.90%	5.90%	9.10%	40.00%
% of Regional Labor Force	17.30%	17.78%	17.34%	17.81%	18.21%	5.26%
Cattaraugus County						
Labor Force	39,000	39,700	41,100	42,200	41,200	5.64%
Employed	36,500	36,700	39,300	39,900	37,500	2.74%
Unemployed	2,500	3,000	1,900	2,300	3,700	48.00%
Unemployment Rate (%)	6.30%	7.60%	4.50%	5.40%	9.10%	44.44%
% of Regional Labor Force	30.12%	30.42%	31.25%	31.85%	31.00%	2.92%
Chautauqua County						
Labor Force	68,100	67,600	68,100	67,200	64,800	-4.85%
Employed	64,200	63,600	65,400	64,000	59,100	-7.94%
Unemployed	3,900	4,000	2,700	3,300	5,700	46.15%
Unemployment Rate (%)	5.70%	5.90%	4.00%	4.90%	8.80%	54.39%
% of Regional Labor Force	52.59%	51.80%	51.79%	50.72%	48.61%	-7.57%
Southern Tier West Region						
Labor Force	131,490	130,500	131,500	132,500	130,300	-0.91%
Employed	121,600	121,700	126,400	125,600	118,700	-2.38%
Unemployed	7,900	8,800	5,700	7,500	11,600	46.84%
Unemployment Rate (%)	6.17%	7.07%	4.47%	5.40%	8.90%	44.25%
New York State						
Labor Force	8,808,900	8,676,800	9,167,000	9,421,400	9,586,900	8.83%
Employed	8,339,800	8,125,800	8,751,400	8,947,100	8,762,300	5.07%
Unemployed	469,100	551,000	415,500	474,300	824,700	75.80%
Unemployment Rate (%)	5.30%	6.40%	4.50%	5.00%	8.60%	62.26%
United States						
Civilian Labor Force	125,840,000	132,304,000	142,583,000	149,320,000	153,885,100	22.29%
Employed	118,793,000	124,900,000	136,891,000	141,730,000	139,069,500	17.07%
Unemployed	7,047,000	7,404,000	5,692,000	7,591,000	14,815,400	110.24%
Unemployment Rate (%)	5.60%	5.60%	4.00%	5.10%	9.63%	71.49%

Source: NYS Department of Labor; U.S. data is from the U.S. Bureau of Labor Statistics

(Additional Labor Force time series data continues on next page)

Labor Force, Employment, Unemployment, and Unemployment Rate
(Average Annual Figures for the Population Aged 16 Years and Older, continued from prior page)

	<u>2010</u>	<u>2015</u>	<u>2017</u>	<u>2018</u>	<u>% Change, 2015-2018</u>
Allegany County					
Labor Force	24,200	20,500	19,900	19,500	-4.9%
Employed	22,000	19,100	18,500	18,400	-3.7%
Unemployed	2,200	1,300	1,300	1,100	-15.4%
Unemployment Rate (%)	9.2%	6.5%	6.7%	5.6%	-13.8%
% of Regional Labor Force	18.9%	18.0%	18.0%	18.0%	-0.2%
Cattaraugus County					
Labor Force	39,700	35,400	34,700	34,000	-4.0%
Employed	35,900	33,200	32,500	32,200	-3.0%
Unemployed	3,800	2,200	2,200	1,800	-18.2%
Unemployment Rate (%)	9.5%	6.3%	6.2%	5.3%	-15.9%
% of Regional Labor Force	31.1%	31.1%	31.4%	31.3%	0.8%
Chautauqua County					
Labor Force	63,900	57,900	55,900	55,000	-5.0%
Employed	58,300	54,400	52,500	52,200	-4.0%
Unemployed	5,700	3,500	3,400	2,800	-20.0%
Unemployment Rate (%)	8.9%	6.0%	6.1%	5.0%	-16.7%
% of Regional Labor Force	50.0%	50.9%	50.6%	50.7%	-0.4%
Southern Tier West Region					
Labor Force	130,300	113,500	110,500	108,500	-4.4%
Employed	118,700	106,500	103,500	102,800	-3.5%
Unemployed	11,700	7,000	6,900	5,700	-18.6%
Unemployment Rate (%)	9.2%	6.2%	6.2%	5.3%	-15.3%
New York State					
Labor Force	9,595,400	9,644,600	9,704,700	9,574,700	-0.7%
Employed	8,769,700	9,136,200	9,249,200	9,181,100	0.5%
Unemployed	825,600	508,500	455,500	393,600	-22.6%
Unemployment Rate (%)	8.60%	5.3%	4.7%	4.1%	-22.6%
United States					
Civilian Labor Force	153,889,000	157,130,000	160,320,000	162,075,000	3.1%
Employed	139,064,000	148,834,000	153,337,000	155,761,000	4.7%
Unemployed	14,825,000	8,296,000	6,982,000	6,314,000	-23.9%
Unemployment Rate (%)	9.6%	5.3%	4.4%	3.9%	-26.4%

Source: NYS Department of Labor; U.S. data is from the U.S. Bureau of Labor Statistics (www.statsamerica.org)



Unemployment Rates (Summary)

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2015</u>	<u>2017</u>	<u>2018</u>
Allegany County	6.5%	7.7%	4.9%	5.9%	9.2%	6.5%	6.7%	5.6%
Cattaraugus County	6.3%	7.6%	4.5%	5.4%	9.5%	6.3%	6.2%	5.3%
Chautauqua County	5.7%	5.9%	4.0%	4.9%	8.9%	6.0%	6.1%	5.0%
New York State	5.3%	6.4%	4.5%	5.0%	8.60%	5.3%	4.7%	4.1%
United States	5.6%	5.6%	4.0%	5.1%	9.6%	5.3%	4.4%	3.9%

Source: NYS Department of Labor; U.S. data is from the U.S. Bureau of Labor Statistics

Annual Total Covered Employment in NAICS Sub Categories, 2018

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>
Employed	18,365	32,200	52,227
5-Year % Change	-16.6 %	-7.6 %	-5.7 %
10-Year % Change	-18.7 %	-17.9 %	-17.9 %

Source: US Bureau of Labor Statistics (www.statsamerica.org)

Industry Cluster Data for Southern Tier West Region and Counties, 2012

Southern Tier West Region Data

<u>Cluster Name</u>	<u>QCEW Cluster - Establishments</u>	<u>Industry Cluster Establishment LQ</u>	<u>QCEW Cluster - Employment</u>	<u>Industry Cluster Employment LQ</u>	<u>QCEW Cluster - Wages</u>	<u>Industry Cluster Annual Wages LQ</u>
Total All Industries	5,988	1.00	94,014	1.00	\$3,296,706,564	1.00
Advanced Materials	92	1.08	4,634	1.52	\$ 262,679,028	1.61
Agribusiness, Food						
Processing & Technology	161	1.78	4,263	1.98	\$ 181,700,848	3.05
Apparel & Textiles	10	0.29	136	0.35	\$ 8,431,616	0.62
Arts, Entertainment, Recreation						
& Visitor Industries	209	1.20	4,286	1.15	\$ 113,880,476	1.18
Biomedical/Biotechnical (Life Sciences)	254	1.15	10,618	1.03	\$ 392,549,014	1.08
Business & Financial Services	516	0.54	2,209	0.27	\$ 159,688,326	0.30
Chemicals & Chemical Based Products	43	1.03	1,212	0.90	\$ 78,578,623	1.24
Defense & Security	109	0.47	2,092	0.40	\$ 124,293,217	0.46
Education & Knowledge Creation	97	1.13	3,735	1.05	\$ 195,698,570	1.50
Energy (Fossil & Renewable)	272	1.03	3,114	0.73	\$ 197,601,252	0.84
Forest & Wood Products	64	1.57	1,506	1.72	\$ 61,268,468	2.06
Glass & Ceramics	7	1.78	276	2.48	\$ 13,154,611	3.45
Information Technology &						
Telecommunications	97	0.41	1,609	0.45	\$ 97,671,089	0.39
Transportation & Logistics	123	0.85	1,346	0.47	\$ 57,976,731	0.58
Manufacturing Supercluster	120	1.62	7,589	2.15	\$ 451,723,392	2.58
Primary Metal Mfg	4	2.30	91	0.76	\$ 4,235,503	0.87
Fabricated Metal Product Mfg	74	2.09	3,232	3.61	\$ 170,675,117	5.25
Machinery Mfg	25	1.88	3,125	5.18	\$ 219,662,178	7.95
Computer & Electronic Product Mfg	9	0.95	742	1.18	\$ 31,182,827	0.70
Electrical Equipment, Appliance						
& Component Mfg	6	1.29	243	0.94	\$ 15,693,278	1.47
Transportation Equipment Mfg	2	0.53	156	0.32	\$ 10,274,488	0.42
Mining	17	2.10	113	0.78	\$ 5,948,124	0.85
Printing & Publishing	51	0.41	683	0.47	\$ 45,362,367	0.65

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages (QCEW) and Purdue Center for Regional Development (cluster definitions).

Notes:

4. **Cluster names:** Industrial classification data are classified in accordance with the 2002 North American Industry Classification System (NAICS), which has replaced the long-standing Standard Industrial Classification (SIC) system.
5. **QCEW:** The Quarterly Census of Employment and Wages (QCEW) program (also known as ES-202) collects employment and wage data from employers covered by NYS's Unemployment Insurance (UI) Law, in cooperation with the U.S. Bureau of Labor Statistics. QCEW data encompass approximately 97 percent of NYS's nonfarm employment, providing a virtual census of employees and their wages as well as the most complete universe of employment and wage data, by industry, at the State, regional and county levels. QCEW data are derived from quarterly tax reports submitted by all employers subject to UI laws. All covered employers are required to submit monthly employment figures representing the number of people either working during or receiving pay for the payroll period including the 12th of the month, and the total wages paid during the quarter. The QCEW program conducts ongoing surveys to verify the location and type of economic activity occurring at each of the more than 500,000 reporting units (establishments) in the state. An employer may operate in a number of different locations. In New York State, QCEW report data are confidential. In order to ensure the anonymity of individual employers, employment and wage data are not released for any industry level in any location that a) consists of fewer than three reporting units; or b) contains a single unit that accounts for 80 percent or more of the industry's employment.
6. **LQ:** The Location Quotient (LQ) quantifies how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. The above table provides LQ's for the number of companies ("establishment LQ") in a cluster, for the number of workers ("employment LQ") in a cluster, and for annual wages ("annual wages LQ") in a cluster. An establishment LQ greater than 1.0 indicates that the region has proportionately more companies than the nation as a whole in a specific industry cluster. An employment LQ greater than 1.0 indicates that the region has proportionately more workers than the nation as a whole employed in a specific industry cluster. An annual wages LQ greater than 1.0 indicates that the region has proportionately more wages in the cluster than the nation as a whole in a specific industry cluster.

Industry Cluster Data for Southern Tier West Region and Counties, 2012

County Data

<u>Cluster Name</u>	<u>QCEW Cluster - Establishments</u>	<u>Industry Cluster Establishment LQ</u>	<u>QCEW Cluster - Employment</u>	<u>Industry Cluster Employment LQ</u>	<u>QCEW Cluster - Wages</u>	<u>Industry Cluster Annual Wages LQ</u>
Total, All Industry Clusters						
Allegany	961	1.00	13,502	1.00	\$ 460,513,890	1.00
Cattaraugus	1,828	1.00	29,814	1.00	\$1,090,662,252	1.00
Chautauqua	3,199	1.00	50,698	1.00	\$1,745,530,422	1.00
Advanced Materials						
Allegany	13	0.95	442	1.01	\$ 24,250,870	1.07
Cattaraugus	25	0.96	2,575	2.67	\$ 158,732,690	2.95
Chautauqua	54	1.19	1,617	0.98	\$ 79,695,468	0.93
Agribusiness, Food Processing & Technology						
Allegany	23	1.58	696	2.25	\$ 30,553,953	3.67
Cattaraugus	42	1.52	449	0.66	\$ 15,951,187	0.81
Chautauqua	96	1.98	3,118	2.69	\$ 135,195,708	4.28
Apparel & Textiles						
Cattaraugus	5	0.40	28	0.19	\$ 2,993,905	0.57
Chautauqua	5	0.23	108	0.44	\$ 5,437,711	0.65
Arts, Entertainment, Recreation & Visitor Industries						
Allegany	32	1.14	211	0.40	\$ 7,627,933	0.56
Cattaraugus	53	1.00	2,406	2.04	\$ 75,063,727	2.34
Chautauqua	124	1.33	1,669	0.83	\$ 31,188,816	0.61
Biomedical/Biotechnical (Life Sciences)						
Allegany	53	1.50	1,764	1.19	\$ 75,992,027	1.49
Cattaraugus	87	1.29	3,033	0.93	\$ 122,335,747	1.02
Chautauqua	114	0.97	5,821	1.05	\$ 194,221,240	1.01
Business & Financial Services						
Allegany	71	0.46	259	0.22	\$ 22,550,098	0.31
Cattaraugus	153	0.52	644	0.24	\$ 48,876,043	0.28
Chautauqua	292	0.57	1,306	0.29	\$ 88,262,185	0.32
Chemicals & Chemical Based Products						
Allegany	8	1.19	245	1.26	\$ 13,640,317	1.54
Cattaraugus	11	0.86	424	0.99	\$ 32,408,524	1.54
Chautauqua	24	1.07	543	0.75	\$ 32,529,782	0.97
Defense & Security						
Allegany	22	0.59	263	0.35	\$ 18,542,872	0.49
Cattaraugus	26	0.37	335	0.20	\$ 17,464,531	0.19
Chautauqua	61	0.50	1,494	0.54	\$ 88,285,814	0.61
Education & Knowledge Creation						
Allegany	26	1.89	1,363	2.66	\$ 71,442,137	3.91
Cattaraugus	22	0.84	670	0.59	\$ 36,775,497	0.85
Chautauqua	49	1.07	1,702	0.89	\$ 87,480,936	1.26

County Data (continued)

<u>Cluster Name</u>	<u>QCEW Cluster - Establishments</u>	<u>Industry Cluster Establishment LQ</u>	<u>QCEW Cluster - Employment</u>	<u>Industry Cluster Employment LQ</u>	<u>QCEW Cluster - Wages</u>	<u>Industry Cluster Annual Wages LQ</u>
Energy (Fossil & Renewable)						
Allegany	64	1.51	1,066	1.75	\$ 72,281,029	2.19
Cattaraugus	75	0.93	649	0.48	\$ 35,480,027	0.45
Chautauqua	133	0.94	1,399	0.61	\$ 89,840,196	0.72
Forest & Wood Products						
Allegany	9	1.38	125	1.00	\$ 6,200,381	1.50
Cattaraugus	25	2.01	468	1.69	\$ 17,697,457	1.80
Chautauqua	30	1.38	913	1.94	\$ 37,370,630	2.38
Glass & Ceramics						
Allegany	2	2.20	138	5.9	\$ 6,622,559	8.33
Chautauqua	5	1.65	138	1.57	\$ 6,532,052	2.17
Information Technology & Telecommunications						
Allegany	18	0.47	124	0.24	\$ 8,646,355	0.25
Cattaraugus	21	0.29	475	0.42	\$ 23,329,293	0.28
Chautauqua	58	0.46	1,010	0.52	\$ 65,695,441	0.49
Transportation & Logistics						
Allegany	13	0.56	157	0.38	\$ 9,704,719	0.69
Cattaraugus	39	0.88	280	0.31	\$ 10,773,482	0.32
Chautauqua	71	0.92	909	0.59	\$ 37,498,530	0.70
Manufacturing Supercluster						
Allegany	12	1.01	942	1.86	\$ 64,360,938	2.64
Cattaraugus	24	1.06	2,287	2.05	\$ 134,375,804	2.32
Chautauqua	84	2.13	4,360	2.29	\$ 252,986,650	2.73
Primary Metal Manufacturing						
Cattaraugus	1	1.58	59	1.33	\$ 2,538,961	1.35
Chautauqua	3	2.71	32	0.43	\$ 1,696,542	0.56
Fabricated Metal Product Manufacturing						
Allegany	9	1.58	505	3.93	\$ 29,172,054	6.42
Cattaraugus	8	0.74	682	2.4	\$ 38,814,996	3.61
Chautauqua	57	3.01	2,045	4.23	\$ 102,688,067	5.96
Machinery Manufacturing						
Allegany	2	0.94	362	4.18	\$ 30,624,520	7.94
Cattaraugus	9	2.22	1,147	6.00	\$ 75,786,747	8.30
Chautauqua	14	1.97	1,616	4.97	\$ 113,250,911	7.75
Computer & Electronic Product Manufacturing						
Cattaraugus	5	1.45	302	1.30	\$ 9,903,810	0.58
Chautauqua	4	0.66	440	1.11	\$ 21,279,017	0.77
Electrical Equipment, Appliance & Component Manufacturing						
Allegany	1	1.34	75	2.03	\$ 4,564,364	3.07
Cattaraugus	1	0.70	97	1.19	\$ 7,331,289	2.08
Chautauqua	4	1.61	71	0.51	\$ 3,797,625	0.67
Transportation Equipment Manufacturing						
Chautauqua	2	0.53	156	0.32	\$ 10,274,488	0.42



County Data (continued)

<u>Cluster Name</u>	<u>QCEW Cluster - Establishments</u>	<u>Industry Cluster Establishment LQ</u>	<u>QCEW Cluster - Employment</u>	<u>Industry Cluster Employment LQ</u>	<u>QCEW Cluster - Wages</u>	<u>Industry Cluster Annual Wages LQ</u>
Mining						
Allegany	4	3.08	13	0.62	\$ 714,724	0.73
Cattaraugus	9	3.64	58	1.25	\$ 2,964,442	1.28
Chautauqua	4	0.93	42	0.53	\$ 2,268,958	0.61
Printing & Publishing						
Allegany	6	0.30	164	0.78	\$ 10,212,273	1.05
Cattaraugus	17	0.44	215	0.46	\$ 13,909,169	0.60
Chautauqua	28	0.42	304	0.38	\$ 21,240,925	0.57

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages (QCEW) and Purdue Center for Regional Development (cluster definitions).

Notes:

- Cluster names:** Industrial classification data are classified in accordance with the 2002 North American Industry Classification System (NAICS), which has replaced the long-standing Standard Industrial Classification (SIC) system.
- QCEW:** The Quarterly Census of Employment and Wages (QCEW) program (also known as ES-202) collects employment and wage data from employers covered by NYS’s Unemployment Insurance (UI) Law, in cooperation with the U.S. Bureau of Labor Statistics. QCEW data encompass approximately 97 percent of NYS’s nonfarm employment, providing a virtual census of employees and their wages as well as the most complete universe of employment and wage data, by industry, at the State, regional and county levels. QCEW data are derived from quarterly tax reports submitted by all employers subject to UI laws. All covered employers are required to submit monthly employment figures representing the number of people either working during or receiving pay for the payroll period including the 12th of the month, and the total wages paid during the quarter. The QCEW program conducts ongoing surveys to verify the location and type of economic activity occurring at each of the more than 500,000 reporting units (establishments) in the state. An employer may operate in a number of different locations. In New York State, QCEW report data are confidential. In order to ensure the anonymity of individual employers, employment and wage data are not released for any industry level in any location that a) consists of fewer than three reporting units; or b) contains a single unit that accounts for 80 percent or more of the industry’s employment.
- LQ:** The Location Quotient (LQ) quantifies how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. The above table provides LQ’s for the number of companies (“establishment LQ”) in a cluster, for the number of workers (“employment LQ”) in a cluster, and for annual wages (“annual wages LQ”) in a cluster. An establishment LQ greater than 1.0 indicates that the region has proportionately more companies than the nation as a whole in a specific industry cluster. An employment LQ greater than 1.0 indicates that the region has proportionately more workers than the nation as a whole employed in a specific industry cluster. An annual wages LQ greater than 1.0 indicates that the region has proportionately more wages in the cluster than the nation as a whole in a specific industry cluster.
- Absence of a county in above table:** A county may not be listed in a specific industry cluster if no establishments report qualifying employment in that cluster.



Most Significant Regional Industry Clusters, 2012
(ranked in order of descending Establishment Location Quotient (LQ); minimum LQ = 1.25)

<u>Industry Cluster</u>	<u>Industry Cluster Establishment LQ</u>
Primary Metal Manufacturing	2.30
Mining	2.10
Fabricated Metal Product Manufacturing	2.09
Machinery Manufacturing	1.88
Glass & Ceramics	1.78
Agribusiness, Food Processing & Technology	1.78
Forest & Wood Products	1.57
Electrical Equipment, Appliance & Component Manufacturing	1.29

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages (QCEW) and Purdue Center for Regional Development (cluster definitions).

Most Significant Regional Industry Clusters, 2012
(ranked in order of descending Employment Location Quotient (LQ); minimum LQ = 1.25)

<u>Industry Cluster</u>	<u>Industry Cluster Employment LQ</u>
Machinery Manufacturing	5.18
Fabricated Metal Product Manufacturing	3.61
Glass & Ceramics	2.48
Agribusiness, Food Processing & Technology	1.98
Forest & Wood Products	1.72
Advanced Materials	1.52

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages (QCEW) and Purdue Center for Regional Development (cluster definitions).

Occupation Cluster Data for Southern Tier West Region and Counties, 2010

Southern Tier West Region Data

<u>Cluster Name</u>	<u>Occupation Cluster Employment</u>	<u>Occupation Cluster Share of Total Employment</u>	<u>Occupation Cluster Employment LQ</u>
Managerial, Sales, Marketing and HR	7,638	5.8%	0.74
Skilled Production Workers	10,326	7.8%	1.11
Health Care and Medical Science (Aggregate)	7,185	5.4%	0.96
Health Care and Medical Science (Medical Practitioners and Scientists)	1,193	0.9%	0.81
Health Care and Medical Science (Medical Technicians)	1,090	0.8%	0.68
Health Care and Medical Science (Therapy, Counseling and Rehabilitation)	4,902	3.7%	1.10
Mathematics, Statistics, Data and Accounting	1,995	1.5%	0.61
Legal and Financial Services, and Real Estate (L & FIRE)	8,324	6.3%	0.80
Information Technology (IT)	947	0.7%	0.36
Natural Sciences and Environmental Management	225	0.2%	0.63
Agribusiness and Food Technology	4,056	3.1%	2.02
Primary/Secondary and Vocational Education, Remediation & Social Services	10,312	7.8%	1.48
Building, Landscape and Construction Design	509	0.4%	0.86
Engineering and Related Sciences	1,033	0.8%	0.86
Personal Services Occupations	3,603	2.7%	1.12
Arts, Entertainment, Publishing and Broadcasting	2,409	1.8%	0.78
Public Safety and Domestic Security	2,166	1.6%	1.36
Postsecondary Education and Knowledge Creation	2,117	1.6%	1.41
Technology-Based Knowledge Clusters	7,509	5.7%	0.72

Source: Economic Modeling Specialists, Inc. Complete Employment Statistics

Occupation Cluster Data for Southern Tier West Region and Counties, 2010

County Data

<u>Cluster Name</u>	<u>Occupation Cluster Employment</u>	<u>Occupation Cluster Share of Total Employment</u>	<u>Occupation Cluster Employment LQ</u>
Managerial, Sales, Marketing and HR			
Allegany	1,237	5.4%	0.70
Cattaraugus	2,305	5.7%	0.73
Chautauqua	4,097	5.9%	0.76
Skilled Production Workers			
Allegany	1,710	7.5%	1.07
Cattaraugus	2,968	7.3%	1.05
Chautauqua	5,647	8.1%	1.17
Health Care and Medical Science (Aggregate)			
Allegany	1,078	4.7%	0.83
Cattaraugus	2,188	5.4%	0.95
Chautauqua	3,920	5.7%	1.00
Health Care and Medical Science (Medical Practitioners and Scientists)			
Allegany	155	0.7%	0.61
Cattaraugus	359	0.9%	0.80
Chautauqua	679	1.0%	0.88
Health Care and Medical Science (Medical Technicians)			
Allegany	137	0.6%	0.50
Cattaraugus	323	0.8%	0.66
Chautauqua	630	0.9%	0.76
Health Care and Medical Science (Therapy, Counseling and Rehabilitation)			
Allegany	786	3.4%	1.03
Cattaraugus	1,506	3.7%	1.11
Chautauqua	2,611	3.8%	1.12
Mathematics, Statistics, Data and Accounting			
Allegany	300	1.3%	0.53
Cattaraugus	608	1.5%	0.61
Chautauqua	1,087	1.6%	0.64
Legal and Financial Services, and Real Estate (L & FIRE)			
Allegany	1,166	5.1%	0.65
Cattaraugus	2,737	6.7%	0.86
Chautauqua	4,422	6.4%	0.81

Occupation Cluster Data for Southern Tier West Region and Counties, 2010

County Data (continued)

<u>Cluster Name</u>	<u>Occupation Cluster Employment</u>	<u>Occupation Cluster Share of Total Employment</u>	<u>Occupation Cluster Employment LQ</u>
Information Technology (IT)			
Allegany	162	0.7%	0.35
Cattaraugus	268	0.7%	0.33
Chautauqua	517	0.7%	0.37
Natural Sciences and Environmental Management			
Allegany	53	0.2%	0.86
Cattaraugus	69	0.2%	0.63
Chautauqua	102	0.1%	0.55
Agribusiness and Food Technology			
Allegany	930	4.1%	2.68
Cattaraugus	1,226	3.0%	1.99
Chautauqua	1,900	2.7%	1.81
Primary/Secondary and Vocational Education, Remediation & Social Services			
Allegany	2,569	11.2%	2.14
Cattaraugus	3,664	9.0%	1.72
Chautauqua	4,078	5.9%	1.12
Building, Landscape and Construction Design			
Allegany	93	0.4%	0.92
Cattaraugus	157	0.4%	0.87
Chautauqua	259	0.4%	0.84
Engineering and Related Sciences			
Allegany	167	0.7%	0.81
Cattaraugus	322	0.8%	0.88
Chautauqua	544	0.8%	0.87
Personal Services Occupations			
Allegany	673	2.9%	1.21
Cattaraugus	1,052	2.6%	1.07
Chautauqua	1,878	2.7%	1.11
Arts, Entertainment, Publishing and Broadcasting			
Allegany	508	2.2%	0.95
Cattaraugus	660	1.6%	0.70
Chautauqua	1,242	1.8%	0.77

Occupation Cluster Data for Southern Tier West Region and Counties, 2010

County Data (continued)

<u>Cluster Name</u>	<u>Occupation Cluster Employment</u>	<u>Occupation Cluster Share of Total Employment</u>	<u>Occupation Cluster Employment LQ</u>
Public Safety and Domestic Security			
Allegany	375	1.6%	1.37
Cattaraugus	900	2.2%	1.86
Chautauqua	890	1.3%	1.07
Postsecondary Education and Knowledge Creation			
Allegany	615	2.7%	2.37
Cattaraugus	740	1.8%	1.61
Chautauqua	761	1.1%	0.97
Technology-Based Knowledge Clusters			
Allegany	1,452	6.4%	0.81
Cattaraugus	2,366	5.8%	0.74
Chautauqua	3,691	5.3%	0.67

Source: Economic Modeling Specialists, Inc. Complete Employment Statistics

Most Significant Regional Occupation Clusters, 2010
(ranked in order of descending Employment Location Quotient (LQ); minimum LQ = 1.20)

<u>Industry Cluster</u>	<u>Industry Cluster Establishment LQ</u>
Agribusiness and Food Technology	2.02
Primary/Secondary and Vocational Education, Remediation & Social Services	1.48
Postsecondary Education and Knowledge Creation	1.41
Public Safety and Domestic Security	1.36
Personal Services Occupations	1.12
Skilled Production Workers	1.11
Health Care and Medical Science (Therapy, Counseling and Rehabilitation)	1.10

Source: Economic Modeling Specialists, Inc. Complete Employment Statistics

Energy Indicators

	<u>Period</u>	<u>USA</u>	<u>NYS</u>
Demography			
Population (million)	2014	318.9	19.7
Civilian Labor Force (million)	Mar-2015	157.3	9.6
Economy			
Gross Domestic Product (GDP) (\$ billion)	2013	16,701	1,310
GDP for the Manufacturing Sector (\$ million)	2013	2,079,518	67,907
Per Capita Personal Income (\$)	2013	44,543	54,063
Vehicle Miles Traveled (million miles)	2013	2,988,323	129,737
Land in Farms (million acres)	2012	914.6	7.2
Prices			
Petroleum			
Domestic Crude Oil First Purchase (\$/barrel)	Feb-2015	44.35	W
Natural Gas			
City Gate (\$/thousand cu ft)	Feb-2015	4.55	4.41
Residential (\$/thousand cu ft)	Feb-2015	9.10	9.79
Coal			
Average Sales Price (\$/short ton)	2013	37.24	--
Delivered to Electric Power Sector (\$/million Btu)	Feb-2015	2.25	3.15
Electricity			
Residential (cents/kWh)	Feb-2015	12.29	19.76
Commercial (cents/kWh)	Feb-2015	10.62	7.82
Industrial (cents/kWh)	Feb-2015	6.88	7.82
Consumption by End Use Sector			
Residential (trillion Btu)	2012	19,925	1,024
Commercial (trillion Btu)	2012	17,343	1,100
Industrial (trillion Btu)	2012	31,004	339
Transportation (trillion Btu)	2012	26,700	1,051
Expenditures by End Use sector			
Residential (\$ million)	2012	235,381	17,968
Commercial (\$ million)	2012	172,126	15,537
Industrial (\$ million)	2012	225,512	3,120
Transportation (\$ million)	2012	722,657	28,509

-- = No data reported.

* = Number less than 0.5 rounded to zero.

NA = Not available.

NM = Not meaningful due to large relative standard error or excessive percentage change.

W = Withheld to avoid disclosure of individual company data.

Note: Small differences between source data and values displayed here may be due to independent rounding.

Source: U.S. Energy Information Administration

New York State Residential Energy Prices in Nominal Dollars, 1998–2012

(in physical units)

<u>Year</u>	<u>Coal</u> <u>\$/Ton</u>	<u>Distillate</u> <u>Cents/Gal.</u> ¹	<u>Kerosene</u> <u>Cents/Gal.</u>	<u>Propane</u> <u>Cents/Gal.</u>	<u>Natural</u> <u>Gas</u> <u>\$/Mcf</u>	<u>Electricity</u> <u>Cents/kWh</u>	<u>GDP</u> <u>Deflator</u> <u>(2012=1)</u> ²
1998	70.27	98.61	59.94	112.29	9.62	13.62	0.710
1999	76.65	100.83	73.58	114.08	9.12	13.27	0.726
2000	75.56	149.92	127.44	143.25	9.80	13.97	0.750
2001	85.19	141.74	117.99	150.58	11.70	14.04	0.771
2002	83.35	126.62	106.92	132.22	9.85	13.55	0.784
2003	76.07	149.51	134.60	151.73	11.61	14.31	0.801
2004	80.37	169.62	162.14	168.06	12.49	14.54	0.823
2005	115.73	219.13	214.92	188.07	14.92	15.72	0.851
2006	105.03	255.61	260.15	211.43	15.44	16.89	0.878
2007	105.05	278.07	289.85	244.32	15.77	17.10	0.903
2008	122.13	342.43	365.31	286.15	16.86	18.30	0.938
2009	121.99	260.46	281.21	259.39	15.10	17.50	0.934
2010	102.58	300.96	320.90	275.10	14.04	18.74	0.950
2011	N/A	354.91	379.76	312.45	13.64	18.26	0.980
2012	N/A	394.30	399.87	323.69	12.87	17.62	1.000

(in \$/million Btu)

<u>Year</u>	<u>Coal</u> <u>\$/MMBtu</u>	<u>Distillate</u> <u>\$/MMBtu</u> ¹	<u>Kerosene</u> <u>\$/MMBtu</u>	<u>Propane</u> <u>\$/MMBtu</u>	<u>Natural</u> <u>Gas</u> <u>\$/MMBtu</u>	<u>Electricity</u> <u>\$/MMBtu</u>	<u>GDP</u> <u>Deflator</u> <u>(2012=1)</u> ²
1998	3.25	7.11	4.44	13.05	9.31	39.91	0.710
1999	3.21	7.27	5.45	13.25	8.87	38.90	0.726
2000	3.02	10.81	9.44	16.68	9.55	40.95	0.750
2001	3.42	10.22	8.74	17.50	11.37	41.14	0.771
2002	3.63	9.13	7.92	15.37	9.61	39.71	0.784
2003	3.42	10.78	9.97	17.56	11.28	41.94	0.801
2004	3.60	12.23	12.01	19.51	12.17	42.62	0.823
2005	5.18	15.80	15.92	21.82	14.51	46.08	0.851
2006	4.76	18.43	19.27	24.64	15.02	49.51	0.878
2007	4.76	20.05	21.47	26.75	15.36	50.11	0.903
2008	5.58	24.69	27.06	31.33	16.42	53.63	0.938
2009	5.53	18.78	20.83	28.40	14.73	51.28	0.934
2010	4.70	21.70	23.77	30.12	13.72	54.92	0.950
2011	N/A	25.59	28.13	34.21	13.35	53.52	0.980
2012	N/A	28.43	29.62	35.44	12.56	51.63	1.000

Notes:

¹ Home heating oil

² To convert prices to 2012 dollars, divide the selected price by the deflator factor in the same row.

Source: New York State Energy Research and Development Authority

New York State Commercial Energy Prices in Nominal Dollars, 1998–2012

(in physical units)

Year	Coal \$/Ton	Distillate Cents/Gal. ¹	Residual \$/bbl	Kerosene Cents/Gal.	Propane Cents/Gal.	Natural Gas \$/Mcf	Electricity Cents/kWh	GDP Deflator (2012=1) ²
1998	31.79	60.89	14.96	59.94	81.92	6.11	11.04	0.710
1999	31.09	65.32	17.48	73.58	83.51	5.15	10.33	0.726
2000	37.12	110.40	28.92	127.44	106.66	7.73	12.10	0.750
2001	37.59	93.62	25.59	117.99	113.24	9.57	12.24	0.771
2002	44.55	88.35	25.90	106.92	101.68	6.42	11.79	0.784
2003	40.84	109.84	34.20	134.60	120.53	8.61	12.93	0.801
2004	43.39	134.81	33.70	162.14	134.47	10.10	12.98	0.823
2005	48.26	188.48	47.59	214.92	151.09	11.82	14.36	0.851
2006	66.82	215.39	55.26	260.15	166.73	11.98	15.51	0.878
2007	64.04	236.33	61.74	289.85	193.44	11.85	15.92	0.903
2008	104.18	324.54	83.43	365.31	233.36	12.93	16.84	0.938
2009	134.58	206.79	62.49	281.21	188.33	10.75	15.51	0.934
2010	137.13	254.50	81.10	320.90	215.82	10.87	16.31	0.950
2011	134.11	339.93	109.46	379.76	237.83	9.28	15.81	0.980
2012	N/A	354.35	115.43	399.87	220.48	7.79	15.06	1.000

(in \$/million Btu)

Year	Coal \$/MMBtu	Distillate \$/MMBtu ¹	Residual \$/MMBtu	Kerosene \$/MMBtu	Propane \$/MMBtu	Natural Gas \$/MMBtu	Electricity \$/MMBtu	GDP Deflator (2012=1) ²
1998	1.37	4.39	2.38	4.44	9.52	5.91	32.36	0.710
1999	1.34	4.71	2.78	5.45	9.70	5.01	30.28	0.726
2000	1.60	7.96	4.60	9.44	12.42	7.53	35.46	0.750
2001	1.62	6.75	4.07	8.74	13.16	9.30	35.88	0.771
2002	1.92	6.37	4.12	7.92	11.82	6.26	34.55	0.784
2003	1.76	7.92	5.44	9.97	13.95	8.37	37.89	0.801
2004	1.87	9.72	5.36	12.01	15.61	9.84	38.04	0.823
2005	2.08	13.59	7.57	15.92	17.53	11.50	42.08	0.851
2006	2.88	15.53	8.79	19.27	19.43	11.65	45.46	0.878
2007	2.76	17.04	9.82	21.47	21.18	11.54	46.65	0.903
2008	4.49	23.40	13.27	27.06	25.55	12.59	49.35	0.938
2009	5.80	14.91	9.94	20.83	20.62	10.49	45.45	0.934
2010	5.91	18.35	12.90	23.77	23.63	10.63	47.80	0.950
2011	5.78	24.51	17.41	28.13	26.04	9.08	46.33	0.980
2012	N/A	25.55	18.36	29.62	24.14	7.60	44.13	1.000

Notes:

¹ Home heating oil

² To convert prices to 2012 dollars, divide the selected price by the deflator factor in the same row.

Source: New York State Energy Research and Development Authority

New York State Industrial Energy Prices in Nominal Dollars, 1998–2012

(in physical units)

<u>Year</u>	<u>Coal</u> <u>\$/Ton</u>	<u>Distillate</u> <u>Cents/Gal.</u> ¹	<u>Residual</u> <u>\$/bbl</u>	<u>Kerosene</u> <u>Cents/Gal.</u>	<u>Propane</u> <u>Cents/Gal.</u>	<u>Natural</u> <u>Gas</u> <u>\$/Mcf</u>	<u>Electricity</u> <u>Electricity</u> <u>Cents/kWh</u>	<u>GDP</u> <u>Deflator</u> <u>(2012=1)</u> ²
1998	29.75	57.97	14.96	54.14	81.66	4.03	4.94	0.710
1999	30.12	64.77	17.48	62.51	83.51	3.90	4.76	0.726
2000	33.43	105.27	28.92	111.51	108.81	6.10	5.37	0.750
2001	33.76	91.67	25.59	90.86	111.95	7.69	5.55	0.771
2002	38.86	88.48	25.90	81.41	105.90	5.54	5.18	0.784
2003	36.35	107.90	34.20	109.76	130.56	7.36	7.14	0.801
2004	39.16	127.46	33.70	137.97	147.39	8.04	7.04	0.823
2005	45.37	190.14	47.59	181.85	160.92	10.77	8.23	0.851
2006	59.20	218.85	55.26	213.17	177.71	10.62	9.39	0.878
2007	57.94	238.55	61.74	243.27	220.66	11.46	8.71	0.903
2008	67.81	327.17	83.43	306.86	264.41	12.37	10.14	0.938
2009	78.28	197.77	62.49	204.39	217.46	9.55	8.98	0.934
2010	87.13	263.51	81.10	251.24	249.07	8.54	8.78	0.950
2011	91.68	324.40	109.46	331.56	278.57	8.15	7.83	0.980
2012	90.29	341.87	115.43	346.55	273.09	6.87	6.69	1.000

(in \$/million Btu)

<u>Year</u>	<u>Coal</u> <u>\$/MMBtu</u>	<u>Distillate</u> <u>\$/MMBtu</u> ¹	<u>Kerosene</u> <u>\$/MMBtu</u>	<u>Propane</u> <u>\$/MMBtu</u>	<u>Natural</u> <u>Gas</u> <u>\$/MMBtu</u>	<u>Electricity</u> <u>\$/MMBtu</u>	<u>GDP</u> <u>Deflator</u> <u>(2012=1)</u> ²
1998	3.25	7.11	4.44	13.05	9.31	39.91	0.710
1999	3.21	7.27	5.45	13.25	8.87	38.90	0.726
2000	3.02	10.81	9.44	16.68	9.55	40.95	0.750
2001	3.42	10.22	8.74	17.50	11.37	41.14	0.771
2002	3.63	9.13	7.92	15.37	9.61	39.71	0.784
2003	3.42	10.78	9.97	17.56	11.28	41.94	0.801
2004	3.60	12.23	12.01	19.51	12.17	42.62	0.823
2005	5.18	15.80	15.92	21.82	14.51	46.08	0.851
2006	4.76	18.43	19.27	24.64	15.02	49.51	0.878
2007	4.76	20.05	21.47	26.75	15.36	50.11	0.903
2008	5.58	24.69	27.06	31.33	16.42	53.63	0.938
2009	5.53	18.78	20.83	28.40	14.73	51.28	0.934
2010	4.70	21.70	23.77	30.12	13.72	54.92	0.950
2011	N/A	25.59	28.13	34.21	13.35	53.52	0.980
2012	N/A	28.43	29.62	35.44	12.56	51.63	1.000

Notes:

¹ Home heating oil

² To convert prices to 2012 dollars, divide the selected price by the deflator factor in the same row.

Source: New York State Energy Research and Development Authority

New York State Transportation Energy Prices in Nominal Dollars, 1998–2012

(in physical units)

Year	Motor Gasoline	Distillate	Jet Fuel	Residual	Electricity	GDP Deflator
	Cents/Gal.	Cents/Gal. ¹	Cents/Gal. ²	\$/bbi ³	Cents/kWh ⁴	(2012=1) ⁵
1998	106.23	113.73	45.90	12.20	8.21	0.710
1999	118.74	122.05	57.11	15.53	8.14	0.726
2000	152.33	157.00	93.15	25.78	8.15	0.750
2001	143.15	145.90	78.17	19.93	8.25	0.771
2002	135.53	135.92	74.79	21.82	7.95	0.784
2003	156.95	159.22	91.26	28.48	9.38	0.801
2004	187.37	186.82	122.31	29.61	7.92	0.823
2005	224.37	242.15	176.85	42.63	11.40	0.851
2006	256.68	273.22	201.02	49.10	11.94	0.878
2007	275.93	284.32	222.21	49.35	10.97	0.903
2008	325.63	389.30	312.26	75.95	12.64	0.938
2009	235.31	251.31	170.64	51.80	13.13	0.934
2010	277.30	299.02	221.81	68.28	13.74	0.950
2011	350.60	382.51	307.40	93.11	13.45	0.980
2012	365.46	395.27	312.66	96.82	14.20	1.000

(in \$/million Btu)

Year	Motor Gasoline	Distillate	Jet Fuel	Residual	Electricity	GDP Deflator
	Cents/Gal.	Cents/Gal. ¹	Cents/Gal. ²	\$/bbi ³	Cents/kWh ⁴	(2012=1) ⁵
1998	8.56	8.20	3.40	1.94	24.07	0.710
1999	9.57	8.80	4.23	2.47	23.85	0.726
2000	12.28	11.32	6.90	4.10	23.90	0.750
2001	11.54	10.52	5.79	3.17	24.18	0.771
2002	10.93	9.80	5.54	3.47	23.29	0.784
2003	12.66	11.48	6.76	4.53	27.49	0.801
2004	15.09	13.47	9.06	4.71	23.21	0.823
2005	18.06	17.46	13.10	6.78	33.40	0.851
2006	20.66	19.70	14.89	7.81	34.98	0.878
2007	22.21	20.50	16.46	7.85	32.14	0.903
2008	26.21	28.07	23.13	12.08	37.06	0.938
2009	18.94	18.12	12.64	8.24	38.47	0.934
2010	22.32	21.56	16.43	10.86	40.28	0.950
2011	28.22	27.58	22.77	14.81	39.41	0.980
2012	29.22	28.50	23.16	15.40	41.63	1.000

Notes:

¹ Diesel

² Kerosene-based

³ Bunker fuel

⁴ Railroad use

⁵ To convert prices to 2012 dollars, divide the selected price by the deflator factor in the same row.

Source: New York State Energy Research and Development Authority



**NYS’s State Business Tax Climate Index 2019
As of July 1, 2018**

NYS’s Ranking Out of 50 States on Five Component Taxes

Overall Index Rank	48
Corporate Tax	7
Individual Income Tax	48
Sales Tax	42
Unemployment Insurance Tax	31
Property Tax	47

Note: A rank of 1 indicates the state’s tax system is more favorable for business; a rank of 50 indicates the state’s tax system is less favorable for business. Snapshot data is per tax laws as of July 1, 2018. Component rankings do not average to total.

Source: Tax Foundation, 2019 State Business Tax Climate Index (July. 2019), TaxFoundation.org/Index.

**NYS’s State and Local Tax Burden Per Capita and as a Percentage of Income
Fiscal Year 2012**

State-Local Tax Burden as a Share of State Income	12.7%
Rank	1
Total Tax Burden (per capita)	\$6,993

Source: Tax Foundation, Annual State-Local Tax Burdens FY 2012 (January 2016), TaxFoundation.org/Burdens. As of August 2016, the 2012 data is the most recent available.

Living Arrangements

<u>Households in 2017</u>	<u>Allegany County</u>			<u>Cattaraugus County</u>			<u>Chautauqua County</u>		
	<u>Number</u>	<u>Pct.</u>		<u>Number</u>	<u>Pct.</u>		<u>Number</u>	<u>Pct.</u>	
		<u>Dist.</u>	<u>In U.S.</u>		<u>Dist.</u>	<u>In U.S.</u>		<u>Dist.</u>	<u>In U.S.</u>
Total Households	18,124	100%	100%	31,723	100%	100%	52,983	100%	100%
Family Households	11,808	65.2%	65.9%	19,976	63.0%	65.9%	32,986	62.3%	65.9%
Married with Children	2,990	16.5%	19.1%	4,911	15.5%	19.1%	7,882	14.9%	19.1%
Married w/o Children	5,916	32.6%	29.2%	9,825	31.0%	29.2%	16,228	30.6%	29.2%
Single Parents	1,582	8.7%	9.1%	2,931	9.2%	9.1%	5,125	9.7%	9.1%
Other	1,320	7.3%	8.4%	2,309	7.3%	8.4%	3,751	7.1%	8.4%
Non-Family Households	6,316	34.8%	34.1%	11,747	37.0%	34.1%	19,997	37.7%	34.1%
Living Alone	5,280	29.1%	27.7%	9,528	30.0%	27.7%	16,425	31.0%	27.7%
Average Household Size	2.3			2.3			2.3		

Source: U.S. Census Bureau (www.statsamerica.org)

<u>Households in 2015</u>	<u>Allegany County</u>			<u>Cattaraugus County</u>			<u>Chautauqua County</u>		
	<u>Number</u>	<u>Pct.</u>		<u>Number</u>	<u>Pct.</u>		<u>Number</u>	<u>Pct.</u>	
		<u>Dist.</u>	<u>In U.S.</u>		<u>Dist.</u>	<u>In U.S.</u>		<u>Dist.</u>	<u>In U.S.</u>
Total Households	18,285	100%	100%	31,635	100%	100%	53,546	100%	100%
Family Households	11,838	64.7%	66.1%	20,025	63.3%	66.1%	33,580	62.7%	66.1%
Married with Children	3,103	17.0%	19.4%	4,860	15.4%	19.4%	7,955	14.9%	19.4%
Married w/o Children	5,910	32.3%	28.9%	9,978	31.5%	28.9%	16,450	30.7%	28.9%
Single Parents	1,575	8.6%	9.4%	2,888	9.1%	9.4%	5,177	9.7%	9.4%
Other	1,250	6.8%	8.3%	2,299	7.3%	8.3%	3,998	7.5%	8.3%
Non-Family Households	6,447	35.3%	33.9%	11,610	36.7%	33.9%	19,966	37.3%	33.9%
Living Alone	5,354	29.3%	27.6%	9,349	29.6%	27.6%	16,423	30.7%	27.6%
Average Household Size	2.3			2.4			2.3		

Source: U.S. Census Bureau (www.statsamerica.org)

<u>Households in 2013</u>	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>
Total Households	18,786	32,246	54,863
Family Households	12,376	20,443	34,306
Married with Children	3,518	5,177	8,698
Married without Children	6,074	10,086	16,635
Single Parents	1,659	3,143	5,144
Other	1,125	2,037	3,829
Non-family Households	6,410	11,803	20,557
Living Alone	5,280	9,588	16,813

Source: US Census Bureau & American Community Survey, 5 Year Estimates (www.statsamerica.org)

Housing Units in 2017

	<u>Allegany County</u>			<u>Cattaraugus County</u>			<u>Chautauqua County</u>		
	<u>Number</u>	<u>Pct. Dist.</u>	<u>Pct. Dist. In U.S.</u>	<u>Number</u>	<u>Pct. Dist.</u>	<u>Pct. Dist. In U.S.</u>	<u>Number</u>	<u>Pct. Dist.</u>	<u>Pct. Dist. In U.S.</u>
Total Housing Units (ACS estimate)	26,324	100%	100%	41,431	100%	100%	67,422	100%	100%
Occupied	18,124	68.8%	87.8%	31,723	76.6%	87.8%	52,983	78.6%	87.8%
Owner Occupied	13,463	51.1%	56.0%	22,817	54.6%	56.0%	37,098	55.0%	56.0%
Renter Occupied	4,661	17.9%	31.8%	9,106	22.0%	31.8%	15,885	23.6%	31.8%
Vacant	8,200	31.2%	12.2%	9,708	23.4%	12.2%	14,439	21.4%	12.2%
For Seasonal or Recreational Use	6,011	22.8%	4.0%	6,063	14.6%	4.0%	8,348	12.4%	4.0%

Source: U.S. Census Bureau (www.statsamerica.org)

Housing Units in 2015

	<u>Allegany County</u>			<u>Cattaraugus County</u>			<u>Chautauqua County</u>		
	<u>Number</u>	<u>Pct. Dist.</u>	<u>Pct. Dist. In U.S.</u>	<u>Number</u>	<u>Pct. Dist.</u>	<u>Pct. Dist. In U.S.</u>	<u>Number</u>	<u>Pct. Dist.</u>	<u>Pct. Dist. In U.S.</u>
Total Housing Units (ACS estimate)	26,024	100%	100%	41,034	100%	100%	66,741	100%	100%
Occupied	18,285	70.3%	87.7%	31,635	77.1%	87.7%	53,546	80.2%	87.7%
Owner Occupied	13,373	51.4%	56.0%	22,560	55.0%	56.0%	37,284	55.9%	56.0%
Renter Occupied	4,912	18.9%	31.7%	9,075	22.1%	31.7%	16,262	24.4%	31.7%
Vacant	7,739	29.7%	12.3%	9,399	22.9%	12.3%	13,195	19.8%	12.3%
For Seasonal or Recreational Use	5,815	22.3%	4.0%	5,858	14.3%	4.0%	7,558	11.3%	4.0%

Source: U.S. Census Bureau (www.statsamerica.org)

Housing Units in 2013

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>
2013 Housing Units (Census estimate)	25,892	40,798	66,488
2013 Total Housing Units (ACS 5 year est.)	26,026	40,973	66,731
Occupied	18,786	32,246	54,863
Owner Occupied	13,772	23,186	37,903
Renter Occupied	5,014	9,060	16,960
Vacant	7,240	8,727	11,868
For Seasonal or Recreational Use	5,338	5,417	7,100

Source: US Census Bureau & American Community Survey, 5 Year Estimates (www.statsamerica.org)

Housing Data, 2013 - 2017

	<u>Allegany County</u>		<u>Cattaraugus County</u>		<u>Chautauqua County</u>		<u>New York State</u>		<u>United States</u>	
	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>
HOUSING OCCUPANCY										
Total housing units	26,324	100.0%	41,431	100.0%	67,422	100.0%	8,255,911	100.0%	135,393,564	100.0%
Occupied housing units	18,124	68.8%	31,723	76.6%	52,983	78.6%	7,302,710	88.5%	118,825,921	87.8%
Vacant housing units	8,200	31.2%	9,708	23.4%	14,439	21.4%	953,201	11.5%	16,567,643	12.2%
Homeowner vacancy rate	2	(X)	2.3	(X)	2.7	(X)	1.7	(X)	1.7	(X)
Rental vacancy rate	6.2	(X)	5.9	(X)	7.7	(X)	4.3	(X)	6.1	(X)
UNITS IN STRUCTURE										
Total housing units	26,324	100.0%	41,431	100.0%	67,422	100.0%	8,255,911	100.0%	135,393,564	100.0%
1-unit, detached	18,976	72.1%	27,756	67.0%	45,980	68.2%	3,466,614	42.0%	83,547,309	61.7%
1-unit, attached	204	0.8%	1,288	3.1%	1,134	1.7%	413,868	5.0%	7,903,046	5.8%
2 units	1,164	4.4%	2,729	6.6%	7,383	11.0%	859,648	10.4%	4,948,642	3.7%
3 or 4 units	878	3.3%	1,727	4.2%	4,063	6.0%	592,719	7.2%	5,950,261	4.4%
5 to 9 units	434	1.6%	1,040	2.5%	1,404	2.1%	428,067	5.2%	6,440,975	4.8%
10 to 19 units	210	0.8%	372	0.9%	1,100	1.6%	341,453	4.1%	6,053,982	4.5%
20 or more units	298	1.1%	1,175	2.8%	1,877	2.8%	1,955,765	23.7%	11,924,671	8.8%
Mobile home	4,146	15.7%	5,337	12.9%	4,437	6.6%	194,410	2.4%	8,509,712	6.3%
Boat, RV, van, etc.	14	0.1%	7	0.0%	44	0.1%	3,367	0.0%	114,966	0.1%
YEAR STRUCTURE BUILT										
Total housing units	26,324	100.0%	41,431	100.0%	67,422	100.0%	8,255,911	100.0%	135,393,564	100.0%
Built 2014 or later	126	0.5%	99	0.2%	191	0.3%	30,059	0.4%	1,190,169	0.9%
Built 2010 to 2013	254	1.0%	432	1.0%	488	0.7%	106,773	1.3%	3,112,243	2.3%
Built 2000 to 2009	2,099	8.0%	3,044	7.3%	3,865	5.7%	537,449	6.5%	19,663,902	14.5%
Built 1990 to 1999	2,747	10.4%	4,493	10.8%	4,266	6.3%	506,962	6.1%	18,945,953	14.0%
Built 1980 to 1989	2,568	9.8%	4,642	11.2%	5,229	7.8%	629,885	7.6%	18,399,296	13.6%
Built 1970 to 1979	3,871	14.7%	4,945	11.9%	5,971	8.9%	823,748	10.0%	20,920,173	15.5%
Built 1960 to 1969	2,355	8.9%	2,830	6.8%	5,347	7.9%	1,034,330	12.5%	14,577,264	10.8%
Built 1950 to 1959	2,070	7.9%	3,576	8.6%	8,566	12.7%	1,224,735	14.8%	14,229,384	10.5%
Built 1940 to 1949	1,639	6.2%	2,527	6.1%	5,359	7.9%	697,185	8.4%	6,903,420	5.1%
Built 1939 or earlier	8,595	32.7%	14,843	35.8%	28,140	41.7%	2,664,785	32.3%	17,451,760	12.9%
HOUSING TENURE										
Occupied housing units	18,124	100.0%	31,723	100.0%	52,983	100.0%	7,302,710	100.0%	118,825,921	100.0%
Owner-occupied	13,463	74.3%	22,617	71.3%	37,098	70.0%	3,942,483	54.0%	75,833,135	63.8%
Renter-occupied	4,661	25.7%	9,106	28.7%	15,885	30.0%	3,360,227	46.0%	42,992,786	36.2%
AVERAGE HOUSEHOLD SIZE										
Owner-occupied unit	2.4	(X)	2.5	(X)	2.4	(X)	2.8	(X)	2.7	(X)
Renter-occupied unit	2.2	(X)	2.2	(X)	2.2	(X)	2.5	(X)	2.5	(X)
HOUSE HEATING FUEL										
Occupied housing units	18,124	100.0%	31,723	100.0%	52,983	100.0%	7,302,710	100.0%	118,825,921	100.0%
Utility gas	9,744	53.8%	16,599	52.3%	36,367	68.6%	4,228,093	57.9%	57,294,573	48.2%
Bottled, tank, or LP gas	2,000	11.0%	4,121	13.0%	3,992	7.5%	274,348	3.8%	5,663,929	4.8%
Electricity	1,911	10.5%	4,203	13.2%	7,378	13.9%	820,554	11.2%	45,252,635	38.1%
Fuel oil, kerosene, etc.	1,083	6.0%	2,256	7.1%	1,217	2.3%	1,663,074	22.8%	6,068,906	5.1%
Coal or coke	489	2.7%	368	1.2%	118	0.2%	18,375	0.3%	128,511	0.1%
Wood	2,576	14.2%	3,482	11.0%	2,827	5.3%	139,739	1.9%	2,362,351	2.0%
Solar energy	0	0.0%	14	0.0%	44	0.1%	4,179	0.1%	120,950	0.1%
Other fuel	296	1.6%	597	1.9%	854	1.6%	81,024	1.1%	587,805	0.5%
No fuel used	25	0.1%	83	0.3%	186	0.4%	73,324	1.0%	1,346,261	1.1%

SELECTED CHARACTERISTICS

Occupied housing units	18,124	100.0%	31,723	100.0%	52,983	100.0%	7,302,710	100.0%	118,825,921	100.0%
Lacking complete plumbing facilities	284	1.6%	428	1.3%	349	0.7%	29,255	0.4%	470,774	0.4%
Lacking complete kitchen facilities	403	2.2%	587	1.9%	693	1.3%	56,862	0.8%	980,238	0.8%
No telephone service available	825	4.60%	1,126	3.50%	1,280	2.40%	153,201	2.10%	2,775,560	2.3%

VALUE

Owner-occupied units	13,463	100.0%	22,617	100.0%	37,098	100.0%	3,942,483	100.0%	75,833,135	100.0%
Less than \$50,000	3,567	26.5%	4,102	18.1%	6,441	17.4%	211,369	5.4%	6,323,346	8.3%
\$50,000 to \$99,999	6,010	44.6%	9,678	42.8%	15,791	42.6%	422,125	10.7%	10,539,890	13.9%
\$100,000 to \$149,999	1,849	13.7%	4,241	18.8%	6,611	17.8%	439,347	11.1%	11,157,888	14.7%
\$150,000 to \$199,999	993	7.4%	2,363	10.4%	3,907	10.5%	384,970	9.8%	11,090,587	14.6%
\$200,000 to \$299,999	657	4.9%	1,404	6.2%	2,490	6.7%	550,098	14.0%	14,206,037	18.7%
\$300,000 to \$499,999	300	2.2%	571	2.5%	1,213	3.3%	934,978	23.7%	13,090,934	17.3%
\$500,000 to \$999,999	81	0.6%	226	1.0%	506	1.4%	749,626	19.0%	7,353,702	9.7%
\$1,000,000 or more	6	0.0%	32	0.1%	139	0.4%	249,970	6.3%	2,070,751	2.7%
Median (dollars)	73,300	(X)	86,500	(X)	85,800	(X)	293,000	(X)	193,500	(X)

MORTGAGE STATUS

Owner-occupied units	13,463	100.0%	22,617	100.0%	37,098	100.0%	3,942,483	100.0%	75,833,135	100.0%
Housing units with a mortgage	6,451	47.9%	11,392	50.4%	19,424	52.4%	2,439,523	61.9%	48,185,314	63.5%
Housing units without a mortgage	7,012	52.1%	11,225	49.6%	17,674	47.6%	1,502,960	38.1%	27,647,821	36.5%

SELECTED MONTHLY OWNER COSTS (SMOC)

Housing units with a mortgage	6,451	100.0%	11,392	100.0%	19,424	100.0%	2,439,523	100.0%	48,185,314	100.0%
Less than \$500	275	4.3%	352	3.1%	563	2.9%	26,498	1.1%	755,268	1.6%
\$500 to \$999	3,050	47.3%	4,817	42.3%	9,738	50.1%	298,004	12.2%	9,304,185	19.3%
\$1,000 to \$1,499	2,082	32.3%	3,947	34.6%	5,570	28.7%	464,621	19.0%	13,698,835	28.4%
\$1,500 to \$1,999	643	10.0%	1,442	12.7%	2,214	11.4%	387,588	15.9%	9,858,438	20.5%
\$2,000 to \$2,499	286	4.4%	432	3.8%	642	3.3%	335,021	13.7%	5,856,392	12.2%
\$2,500 to \$2,999	47	0.7%	236	2.1%	395	2.0%	292,067	12.0%	3,494,948	7.3%
\$3,000 or more	68	1.1%	166	1.5%	302	1.6%	635,724	26.1%	5,217,248	10.8%
Median (dollars)	987	(X)	1,053	(X)	975	(X)	2,064	(X)	1,515	(X)

Housing units without a mortgage

Housing units without a mortgage	7,012	100.0%	11,225	100.0%	17,674	100.0%	1,502,960	100.0%	27,647,821	100.0%
Less than \$250	749	10.7%	1,450	12.9%	1,959	11.1%	125,314	8.3%	3,632,492	13.1%
\$250 to \$399	2,194	31.3%	2,834	25.2%	5,255	29.7%	171,971	11.4%	6,899,706	25.0%
\$400 to \$599	2,304	32.9%	3,735	33.3%	5,984	33.9%	293,698	19.5%	7,943,094	28.7%
\$600 to \$799	1,154	16.5%	1,899	16.9%	2,904	16.4%	250,164	16.6%	4,286,265	15.5%
\$800 to \$999	340	4.8%	786	7.0%	876	5.0%	193,367	12.9%	2,138,586	7.7%
\$1,000 or more	271	3.9%	521	4.6%	696	3.9%	468,446	31.2%	2,747,678	9.9%
Median (dollars)	448	(X)	465	(X)	444	(X)	728	(X)	474	(X)

SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME (SMOCAPI)

Housing units with a mortgage (excluding units where SMOCAPI cannot be computed)	6,427	100.0%	11,379	100.0%	19,367	100.0%	2,428,289	100.0%	47,932,589	100.0%
Less than 20.0 percent	3,437	53.5%	5,887	51.7%	10,160	52.5%	940,449	38.7%	20,992,031	48.3%
20.0 to 24.9 percent	774	12.0%	1,831	16.1%	2,703	14.0%	358,166	14.7%	7,607,075	15.9%
25.0 to 29.9 percent	557	8.7%	1,110	9.8%	1,823	9.4%	266,058	11.0%	5,202,903	10.9%
30.0 to 34.9 percent	405	6.3%	674	5.9%	1,156	6.0%	186,139	7.7%	3,459,412	7.2%
35.0 percent or more	1,254	19.5%	1,877	16.5%	3,525	18.2%	677,477	27.9%	10,671,168	22.3%
Not computed	24	(X)	13	(X)	57	(X)	11,234	(X)	252,725	(X)



Housing unit without a mortgage (excluding units where SMOCAPI cannot be computed)

	6,932	100.0%	11,117	100.0%	17,473	100.0%	1,486,097	100.0%	27,259,804	100.0%
Less than 10.0 percent	2,669	38.5%	4,181	37.6%	6,902	39.5%	519,257	34.9%	11,889,330	43.6%
10.0 to 14.9 percent	1,549	22.3%	2,322	20.9%	3,520	20.1%	279,113	18.8%	5,326,647	19.5%
15.0 to 19.9 percent	949	13.7%	1,561	14.0%	1,966	11.3%	183,781	12.4%	3,100,800	11.4%
20.0 to 24.9 percent	459	6.6%	938	8.4%	1,606	9.2%	118,843	8.0%	1,904,462	7.0%
25.0 to 29.9 percent	328	4.7%	568	5.1%	959	5.5%	81,816	5.5%	1,230,056	4.5%
30.0 to 34.9 percent	248	3.6%	339	3.0%	547	3.1%	59,158	4.0%	833,791	3.1%
35.0 percent or more	730	10.5%	1,208	10.9%	1,973	11.3%	244,129	16.4%	2,974,718	10.9%
Not computed	80	(X)	108	(X)	201	(X)	16,863	(X)	388,017	(X)

GROSS RENT

Occupied units

paying rent	4,242	100.0%	8,398	100.0%	14,847	100.0%	3,239,340	100.0%	40,768,931	100.0%
Less than \$500	979	23.1%	2,338	27.8%	3,617	24.4%	362,181	11.2%	4,295,540	10.5%
\$500 to \$999	2,831	66.7%	5,224	62.2%	9,886	66.6%	857,761	26.5%	16,741,754	41.1%
\$1,000 to \$1,499	386	9.1%	717	8.5%	1,244	8.4%	949,880	29.3%	11,685,037	28.7%
\$1,500 to \$1,999	29	0.7%	45	0.5%	64	0.4%	557,863	17.2%	4,789,482	11.7%
\$2,000 to \$2,499	8	0.2%	58	0.7%	36	0.2%	246,621	7.6%	1,822,982	4.5%
\$2,500 to \$2,999	6	0.1%	13	0.2%	0	0.0%	115,145	3.6%	733,525	1.8%
\$3,000 or more	3	0.1%	3	0.0%	0	0.0%	149,889	4.6%	700,611	1.7%
Median (dollars)	633	(X)	626	(X)	631	(X)	1,194	(X)	982	(X)
No rent paid	419	(X)	708	(X)	1,038	(X)	120,887	(X)	2,223,855	(X)

GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME (GRAPI)

Occupied units

paying rent (excluding units where GRAPI cannot be computed)	4,144	100.0%	8,293	100.0%	14,606	100.0%	3,163,962	100.0%	39,799,272	100.0%
Less than 15.0 percent	693	16.7%	1,343	16.2%	1,952	13.4%	415,993	13.1%	5,011,892	12.6%
15.0 to 19.9 percent	536	12.9%	942	11.4%	2,068	14.2%	353,281	11.2%	5,004,777	12.6%
20.0 to 24.9 percent	372	9.0%	1,000	12.1%	1,642	11.2%	362,695	11.5%	5,062,386	12.7%
25.0 to 29.9 percent	393	9.5%	1,047	12.6%	1,220	8.4%	338,955	10.7%	4,581,896	11.5%
30.0 to 34.9 percent	421	10.2%	653	7.9%	1,193	8.2%	290,681	9.2%	3,633,936	9.1%
35.0 percent or more	1,729	41.7%	3,308	39.9%	6,531	44.7%	1,402,357	44.3%	16,504,385	41.5%
Not computed	517	(X)	813	(X)	1,279	(X)	196,265	(X)	3,193,514	(X)

Data Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates, Selected Housing Characteristics

Residential Building Permits in 2018

	<u>Allegany County</u>			<u>Cattaraugus County</u>			<u>Chautauqua County</u>		
	<u>Units</u>	<u>Pct Dist.</u>	<u>Pct Dist. In U.S.</u>	<u>Units</u>	<u>Pct Dist.</u>	<u>Pct Dist. In U.S.</u>	<u>Units</u>	<u>Pct Dist.</u>	<u>Pct Dist. In U.S.</u>
Total Permits Filed	42	100%	100%	85	100%	100%	135	100%	100%
Single Family	42	100.0%	64.4%	83	97.6%	64.4%	133	98.5%	64.42%
Two Family	0	0.0%	1.6%	2.4	2.4%	1.6%	2	1.5%	1.6%
Three and Four Family	0	0.0%	1.3%	0	0.0%	1.3%	0	0.0%	1.3%
Five Families and More	0	0.0%	32.6%	0	0.0%	32.6%	0	0.0%	32.6%

Source: U.S. Census Bureau (www.statsamerica.org)

Presence of a Computer and Type of Internet Subscription in Household

	<u>Allegany County</u>		<u>Cattaraugus County</u>		<u>Chautauqua County</u>		<u>New York State</u>		<u>USA</u>	
	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>	<u>Estimate</u>	<u>Percent</u>
Total	18,032	100.0%	31,174	100.0%	51,579	100.0%	7,233,694	100.0%	118,208,250	100.0%
Has a computer	14,945	82.9%	24,612	79.0%	43,701	84.7%	6,265,912	86.6%	102,589,480	86.8%
With dial-up internet	235	1.6%	434	1.8%	251	0.6%	27,534	0.4%	647,073	0.6%
With broadband internet	12,422	83.1%	19,850	80.7%	35,847	82.0%	5,576,072	89.0%	89,987,564	87.7%
Without internet	2,288	15.3%	4,326	17.6%	7,603	17.4%	662,306	10.6%	11,954,843	11.7%
No Computer	3,067	17.0%	6,562	21.0%	7,878	15.3%	967,782	13.4%	15,618,770	13.2%

Source: U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates; percentage calculations by Southern Tier West

County Level Agricultural Data, 2017

	<u>Allegany County</u>	<u>Cattaraugus County</u>	<u>Chautauqua County</u>
FARM OPERATIONS - NUMBER OF OPERATIONS	789	956	1,228
AREA OPERATED: (1.0 TO 9.9 ACRES)	44	81	92
AREA OPERATED: (10.0 TO 49.9 ACRES)	188	216	333
AREA OPERATED: (50 TO 179 ACRES)	307	409	504
AREA OPERATED: (180 TO 499 ACRES)	190	199	227
AREA OPERATED: (500 TO 999 ACRES)	40	37	43
AREA OPERATED: (1,000 OR MORE ACRES)	20	14	29
FARM OPERATIONS - ACRES OPERATED	161,713	166,240	223,634
FARM OPERATIONS - AREA OPERATED, MEASURED IN ACRES / OPERATION	205	174	182
FARM OPERATIONS - AREA OPERATED, MEASURED IN ACRES / OPERATION, MEDIAN	103	95	85
AG LAND, INCL BUILDINGS - ASSET VALUE, MEASURED IN \$ / OPERATION	\$412,662	\$398,333	\$481,615
AG LAND, INCL BUILDINGS - ASSET VALUE, MEASURED IN \$ / ACRE	\$2,013	\$2,291	\$2,645
MACHINERY TOTALS - ASSET VALUE, MEASURED IN \$	\$67,319,000	\$97,657,000	\$157,419,000
MACHINERY TOTALS - ASSET VALUE, MEASURED IN \$ / OPERATION	\$85,322	\$102,151	\$128,191
AG LAND, CROPLAND - NUMBER OF OPERATIONS	681	758	1,065
AG LAND, CROPLAND - ACRES	88,713	88,742	126,949
AG LAND, CROPLAND, HARVESTED – NUMBER OF OPERATIONS	600	653	971
AG LAND, CROPLAND, HARVESTED - ACRES	71,998	67,314	104,436
AG LAND, IRRIGATED - NUMBER OF OPERATIONS	58	41	65
AG LAND, IRRIGATED - ACRES	354	170	1,030
COMMODITY TOTALS - SALES, MEASURED IN \$	\$69,316,000	\$93,412,000	\$160,967,000
COMMODITY TOTALS - SALES, MEASURED IN \$ / OPERATION	\$87,853	\$97,712	\$131,081
CROP TOTALS - SALES, MEASURED IN \$	\$25,711,000	\$19,887,000	\$73,257,000
ANIMAL TOTALS, INCL PRODUCTS - SALES, MEASURED IN \$	\$43,605,000	\$73,525,000	\$87,710,000
COMMODITY TOTALS - OPERATIONS WITH SALES	297	320	326
FARM SALES: (LESS THAN 2,500 \$)	73	107	98
FARM SALES: (2,500 TO 4,999 \$)	84	116	129
FARM SALES: (5,000 TO 9,999 \$)	120	135	187
FARM SALES: (10,000 TO 24,999 \$)	66	80	124
FARM SALES: (25,000 TO 49,999 \$)	42	56	120
FARM SALES: (50,000 TO 99,999 \$)	107	142	244
FARM SALES: (100,000 OR MORE \$)	224	229	145

INCOME, FARM-RELATED – OPERATIONS WITH RECEIPTS	2,492,000	4,970,000	13,485,000
INCOME, FARM-RELATED - RECEIPTS, MEASURED IN \$	\$55,915,000	\$72,327,000	\$111,378,000
INCOME, NET CASH FARM, OF OPERATIONS – OPERATIONS WITH NET INCOME	\$17,172,000	\$26,706,000	\$64,695,000
INCOME, NET CASH FARM, OF OPERATIONS – NET INCOME, MEASURED IN \$	\$21,764	\$27,935	\$52,683
INCOME, NET CASH FARM, OF OPERATIONS – NET INCOME, MEASURED IN \$ / OPERATION	\$384	\$491	\$482

Source: USDA Agricultural Census 2017, County Level Data

Farms and Land in Farms, by County, 2009-2017

County	Number of farms				Land in farms (acres)			
	2009	2010	2012	2017	2009	2010	2012	2017
Allegany	850	845	784	789	149,300	147,200	150,383	161,713
Cattaraugus	1,130	1,120	1,038	956	181,500	179,000	197,257	166,240
Chautauqua	1,670	1,655	1,515	1,228	233,400	230,100	236,546	223,634

Source: United States Department of Agriculture National Agricultural Statistics Service

Tourism and Travel Impact - Industry Annual Employment and Wages (NAICS 72: Accommodation and Food Services)

	Allegany County			Cattaraugus County			Chautauqua County		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
Reporting Units	89	90	95	188	185	185	334	332	333
Average Employment	1,214	1,217	1,216	2,565	2,583	2,675	5,085	4,964	4,710
Total Wages (000)	\$15,738	\$16,840	\$17,844	\$40,379	\$42,560	\$46,147	\$70,975	\$73,731	\$74,351
Average Wages	\$12,964	\$13,837	\$14,674	\$15,742	\$16,477	\$17,251	\$13,958	\$14,853	\$15,786

Data Source: Quarterly Census of Employment and Wages, NYS DOL / U. S. Bureau of Labor Statistics.

Reference Bibliography

Southern Tier West has used a number of plans and other documents to prepare this CEDS. Southern Tier West maintains a digital library of these documents, a number of which are available on the web. Please contact Southern Tier West if you notice that a URL for any document listed herein no longer functions.

Interested parties can obtain a digital copy of this reference bibliography, and a digital copy of the documents referenced in the bibliography, by contacting Southern Tier West directly.

The reference bibliography documents are classified according to the following types of sources:

- Primary source documents used as a foundation for this CEDS, related to economic development and resilience
- Federal documents relating to economic development
- New York State documents relating to economic development
- Regional documents relating to economic development
- County documents relating to economic development
- Academic and other white papers relating to economic development

Primary documents used as a foundation for this CEDS include the following:

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Other Southern Tier West Planning Documents

Interested readers are encouraged to review the following project-specific planning documents, which may be downloaded without charge from the Publications page of Southern Tier West’s web site

(www.southerntierwest.org):

- **The Invigoration of Local Livestock and Processing Industries:** published in 2015, an assessment of the local beef/pork/poultry processing industry to determine if it would be warranted to open a new processing facility in the region.
- **Building a Food Hub in the Southern Tier West Region of New York State: An Assessment of the Opportunities, Challenges and Overall Feasibility In Chautauqua, Cattaraugus and Allegany Counties:** published in 2013, a strategic assessment of the readiness and feasibility of developing a food hub in the region, given the current state of the demand and supply side of the marketplace
- **Southern Tier West Community Food Survey 2013:** published in 2013, a report that summarizes the results of the Southern Tier West Community Food Survey, which was undertaken to gather community input on the region’s local food system, and to help position and promote the region’s local food brand.
- **Food Producer Survey for Allegany, Cattaraugus, and Chautauqua Counties: A survey assessment of capacities, opportunities, and challenges for food producers in an emerging local food system:** published in 2013, a baseline assessment survey of food producers in the region with respect to their capacities, and with respect to the opportunities and challenges that they face in meeting a growing demand for local food, to inform decisions regarding future steps to grasp opportunities related to developing a local or regional food system and to improving community health indicators.
- **Western New York Regional Sustainability Plan:** published in 2013, as a guide for integrated, sustainable solutions to improve quality of life in the five county WNY region, including ideas for regional decision-making on land use, housing, transportation, infrastructure, energy, and environmental practices; intended to lead to the implementation of projects that support and implement the regional sustainability goals identified in the plan.
- **Southern Tier West Regional Transportation Strategy:** published in 2009, a strategic plan for the maintenance and improvement of the region’s transportation (highway, railroad, aviation, mobility management) infrastructure system. This strategic plan identifies fourteen regional transportation infrastructure system priorities:
 1. Completion of State Route 219 as a four-lane limited access highway
 2. Creation of a standardized road scoring system for all local roads
 3. Upgrade of the existing 60/62 corridor in Chautauqua County
 4. Increase mobility between I-86 and the Village of Wellsville in Allegany County
 5. Investment in rail infrastructure to preserve existing mainline and shortline operators
 6. Development of multimodal facilities
 7. Explore opportunities to capitalize on ports such as New York, New Jersey, Buffalo, and Dunkirk
 8. Investigate strategically located Park & Ride lots
 9. Investigate the feasibility of creating a regional public transportation authority or transportation management associations
 10. Construct multimodal facility to accommodate rail, truck and bus – freight and passenger
 11. Support all highway improvement projects in the three-county region
 12. Investigate the feasibility of creating a regional aviation authority
 13. Secure funding for self-service fuel farms at the four system airports
 14. Increase marketing efforts of the region’s system airports
- **US Route 219 Planning Study:** published in 2009, a study report containing (a) an analysis of safety issues in regard to accident rates along the current two-lane Route 219 highway, (b) potential land use for



highway interchanges and feeder roads along the proposed improved four-lane Route 219 highway, (c) a comparative analysis of the impact that the two-lane Route 219 highway has and the impact that a four-lane Route 219 highway would have on the western New York economy, and (d) an analysis of the projected traffic volume impact that a four-lane highway would have on I-86.

- **Truck-Rail Freight Transload Facility and Business Park Feasibility Study:** published in 2009, a study report (a) evaluating potential locations in the region of a transload facility, a business park, and potential future phase developments, (b) discussing freight flows and evaluating the feasibility of these developments in the region, and (c) providing a strategic plan for the development of these developments in the region.
- **Truck-Rail Freight Transload Facility and Business Park Preliminary Engineering Report:** published in 2009, a study report containing a preliminary site layout for the proposed potential phased development, aerial maps and a site survey, recommendations for a final plan, a geotechnical and soils review, a traffic analysis, an environmental assessment, a budgetary cost estimate, and findings and recommendations.
- **Broadband Inventory Study Final Report:** published in 2009, an inventory of the broadband / telecommunications infrastructure and services within the region, with the purpose of gathering and documenting telecommunication infrastructure and services information which will be used to support economic, educational, municipal, and healthcare development.