



Northern Tier

Comprehensive Economic Development Strategy



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Introduction

THE NORTHERN TIER REGION

Pennsylvania's Northern Tier is a geographic region consisting of five rural counties in northeast Pennsylvania: Bradford, Sullivan, Susquehanna, Tioga, and Wyoming. The Northern Tier encompasses about 4,000 square miles and is home to approximately 180,000 residents. The region features gorgeous rural countryside and thriving small towns and communities. In addition to the counties, the region includes 166 separate municipalities and 19 public school districts, resulting in one local government for approximately every thousand residents.

Historically, the region has been slow to change. The economy has followed and lagged behind national and state trends. Over the years, when the U.S. economy and other areas of the state have improved, the Northern Tier economy remained steady. Likewise, when the economy suffered, the region also suffered, but not as severely. In the past, the rugged nature of the topography of the region has been a barrier to development. However, the Northern Tier's natural resources supported a recent boom in investment in the region. Over the past 17 years, the Marcellus Shale natural gas exploration has grown exponentially. The region is located at the very center of the natural gas drilling that is taking place in Pennsylvania. It has already had, and will continue to have, a significant impact on population, economic development, and the overall identity of the region.

THIS REPORT: PURPOSE, CONTEXT, PROCESS

The Northern Tier Comprehensive Economic Development Strategy (CEDS) is a five-year economic plan to guide growth of jobs, development, and commerce in the Northern Tier region. It was developed concurrently with region's Bicycle and Pedestrian Plan as well as its Coordinated Public Transit Human Services Transportation Plan. While each plan focuses on a distinct aspect of life in the Northern Tier, many of the goals are interrelated, and coordinated implementation will achieve the broadest and most efficient results.

The process for developing the CEDS was built upon local, broad-based input and guidance as well as economic development planning. The CEDS focuses on new strategies and action steps to greatly enhance the region's economic opportunities.

This report identifies the key findings of a lengthy research process, a series of focus group sessions with local businesses and municipal leaders, and a set of stakeholder interviews. Each recommendation included in the report is related to improving the economic competitiveness and quality of life opportunities for the Northern Tier region. As background for the findings presented, this report includes:

- ✓ An existing conditions report, including a background on the Marcellus Shale industry, conditions of regional infrastructure and transportation, a socioeconomic profile of the region, and employment and job trends;
- ✓ An analysis of regional strengths, weaknesses, opportunities, and threats, and description of economic development programs available within the region;
- ✓ Findings from stakeholder interviews and focus group sessions; and
- ✓ A regional vision statement and set of goals, strategies, and actions concerning the economy, housing, infrastructure, natural resources, tourism, and workforce development.

Vision, Goals, and Strategies— Where Do We Want to Go, and How?

VISION

This plan envisions a strong partnership among Northern Tier counties and industries supporting robust Internet connectivity, a strong educated and trained workforce, diversified tourism assets, and thriving downtowns—all while maintaining a traditional rural, high-quality lifestyle in the Northern Tier. The plan also envisions local organizations and municipal/county governments partnering to provide necessary public services to Northern Tier residents.

GOALS, STRATEGIES, AND ACTIONS

The plan's goal statements are designed to be flexible and to accommodate new directions and opportunities as they are identified:

- A. Expand broadband Internet
- B. Strengthen a strategic workforce
- C. Enhance tourism assets
- D. Revitalize core communities

Following each goal statement below are strategies and actions to systematically achieve that goal. This is the heart of the CEDS and was developed through extensive public and stakeholder involvement, as discussed in the following chapters. The Implementation and Performance Measures chapters at the end of this document offer additional guidance for making systematic progress toward the Northern Tier's envisioned future.

Goal A. Expand Broadband Internet

A lack of adequate broadband Internet connectivity places the Northern Tier at a great disadvantage. Broadband is essential for business and industry, education, tourism, and residents. This goal aims to build on current efforts underway to make broadband accessible throughout the Northern Tier.

Strategy 1: Establish a Broadband Action Team

Actions:

- a) Convene a team to oversee broadband expansion, led by the Northern Tier Regional Planning Commission (NTRPDC) and county governments.

- b) Set goals, responsibilities, and schedules to maintain project momentum.

Strategy 2: Develop a Regional Broadband Inventory

Actions:

- a) Define broadband network requirements.
- b) Identify and map available Internet access services, speeds, providers, and gaps in availability.
- c) Determine what initiatives individual counties are already taking to expand broadband access.
- d) Identify target areas for feasibility studies.

Note: In Summer 2018, Tri-County Rural Electric Cooperative was awarded Pennsylvania Broadband Investment Incentive Program funds to expand broadband access in Tioga and Bradford counties. These counties are slated to have broadband Internet access of at least 100 Mbps by no later than June 2022.

Strategy 3: Develop Feasibility Studies

Actions:

- a) Identify and secure funding for broadband expansion feasibility studies.
- b) Conduct broadband feasibility studies to gather data on expected costs, benefits, challenges, and implementation strategies.
- c) Determine the partnerships required to expand broadband access. This action item will require collaboration among county governments, municipal governments, and service providers.

Strategy 4: Analyze White Space Radio Wireless Connection

A white space radio wireless connection uses television antennas to receive wireless broadband Internet bands VHF and UHF. These are referred to as “buffer” channels, or channels that exist to cut down on interference between television channels. These channels can be utilized by a white space radio device to provide broadband Internet across a large geographic area.

Actions:

- a) Compare white space radio coverage map with targeted areas.
- b) Meet with companies to determine the cost of program components and the required participation rate.
- c) Determine the funding needed for implementation.

Strategy 5: Secure Funding and Begin Prioritized Implementation

Action:

- a) Based on the feasibility of broadband expansion projects and/or white space, seek and apply for implementation funding. Potential sources include:
 - Redevelopment Assistance Capital Program (RACP)
 - Appalachian Regional Commission (ARC)
 - Municipal Assistance Program (MAP)
 - Broadband Investment Incentive Program
 - USDA Rural Broadband Access Loan and Loan Guarantee

Goal B: Strengthen a Strategic Workforce

The Northern Tier has higher unemployment rates than state/national rates, yet local industry currently cannot find skilled workers to fill all vacant positions.

Strategy 1: Continue Partnering with Local Industry to Address Workforce Needs**Actions:**

- a) Identify and survey key industries in the Northern Tier to discuss:
 - Hiring practices,
 - Workforce skills needs and gaps, and
 - Industries' expansion plans.
- b) Develop programs/curricula to meet identified needs.
- c) Ensure that vulnerable residents, such as the physically and mentally challenged, have adequate access to employment. NTRPDC can work with local industry to develop job placement programs for this workforce.

Strategy 2: Continue to Promote Technical Training**Actions:**

- a) Develop a marketing campaign to familiarize students and parents with the affordability of technical training and growth in job opportunities.
 - Seek sponsorships from local industry to support the costs of a marketing campaign.
 - Produce both print and digital materials.
- b) Continue to organize Career Fairs and other events to educate students and parents on career opportunities.
- c) Develop programs to educate elementary school children with regard to shaping their future career path.

Strategy 3: Continue Developing Apprenticeships, Internships, and Job Shadowing Programs

Various technical training rebranding and marketing efforts currently exist in the Northern Tier. Individual counties and school districts throughout the region offer job shadowing and training programs. There is, however, a desire for increased regional collaboration and shared program structure to create more effective and attractive training programs. Current efforts include: the Engage! program used to meet with key industry stakeholders, grant funding received in some counties for apprenticeship programs, and career coach programs established in some counties.

Actions:

- a) Develop a manual that highlights the process and structure needed to create apprenticeships, internships, and job shadowing programs in all regions of the Northern Tier.
- b) Partner with schools and local industry to develop, implement, and promote these programs. Steps include:
 - Seek school board approval to assist in developing and promoting programs.
 - Develop and launch a media campaign to promote programs.
 - Evaluate the success and job placement rates of the programs.
 - Fine-tune programs for maximum impact and expand available apprenticeships, internships, and job shadowing programs with different tracks.

Strategy 4: Continue to Promote Local Healthcare Career Opportunities

Actions:

- a) Educate students and adult learners on the growth of this industry and local jobs available upon completion of all training.
- b) Identify resources and work with local technical schools to expand facilities and personnel to increase enrollment in healthcare programs.

Goal C: Enhance Tourism Assets

Strategy 1: Develop the Regional Trail Network

Actions:

- a) Identify on-road and off-road areas for potential trails; seek to connect existing trails.
- b) Work with the Pennsylvania Game Commission to obtain easements for trails where necessary.
- c) Apply for federal and state government funding opportunities to finance trail expansion.

Strategy 2: Identify and Recruit Businesses to Serve Tourists

Actions:

- a) Conduct an inventory of existing businesses and identify gaps in tourist-related industries (e.g., outfitters, restaurants, lodging, niche retail).
- b) Develop an inventory of developable sites and underutilized buildings/sites for tourist-related industries.
- c) Develop business recruitment material highlighting the volume of visitors per year, spending potential, household income, demographics, etc.
- d) Recruit business operators and provide start-up support.

Strategy 3: Expand Agricultural Tourism and Markets

Actions:

- a) Identify Northern Tier's agriculture niche and develop marketing materials to promote ag tourism.
- b) Develop additional farm-to-table programs to promote local dairy, meat, and produce.
- c) Work with the Commonwealth to identify potential markets in the tri-state region.

Goal D: Revitalize Core Communities

The Northern Tier's population is declining. By developing/redeveloping the Northern Tier's existing core communities, municipalities can combat population decline by attracting a younger workforce. "Core communities" are defined as communities with a central business district or downtown.

Strategy 1: Determine What Young People Desire In Communities

Action:

- d) Conduct surveys at high schools, colleges, and universities to determine what young people are seeking in communities. "Young people," for the purposes of this survey, would include people reaching or at the post-secondary education age (18 to 22), and people belonging to the Millennial generation (age 22 to early 30s). These surveys should be distributed to a broad range of young people with various educational and working backgrounds.

Strategy 2: Improve Walkability

Actions:

- a) Survey municipalities to determine their interest in a Core Communities Improvement Plan (CCIP).

- b) Seek funding to develop a CCIP and encourage the use of “complete streets” design principles to accommodate all modes of transportation (walking, biking, driving, etc.).
- c) Develop a CCIP.
- d) Work with municipalities to seek funding to implement the CCIP.

Strategy 3: Recruit or Expand Business In Redeveloped/Rehabilitated Buildings

Actions:

- a) Inventory existing business mix and available buildings for sale or lease.
- b) Map downtown anchors and activity-generators to identify potential synergy with new businesses.
- c) Conduct market assessments to understand the demand for retail, restaurants, entertainment, and housing.
- d) Identify target business types for recruitment.
- e) Hold “pop-up” events in underutilized buildings to create a vision for improvements; events will also market the building to potential entrepreneurs and investors.
- f) Identify stakeholder businesses, organizations, and developers willing to fund and take on infrastructure and rehabilitation projects; secure state and federal funding to make these projects financially feasible.
- g) Make needed improvements to buildings or streets (streetscape projects, façade enhancements, etc.) to make them more attractive.
- h) Develop marketing material to actively recruit niche businesses based on the market study.
- i) Identify open/green space within the core communities to host events (e.g., food trucks, community fairs/events, etc.)

Existing Conditions—Where We Are Today

This analysis reviewed the current economic conditions in the Northern Tier with respect to trends in population, housing, income, and employment. It also examined changes that have occurred as a result of the Marcellus Shale gas extraction. Although the basic socioeconomic conditions have not changed, the Marcellus Shale drilling activities represent an opportunity to change the economic landscape for the Northern Tier counties. This section of the existing conditions report will highlight areas that have been impacted by the Marcellus Shale gas extraction.

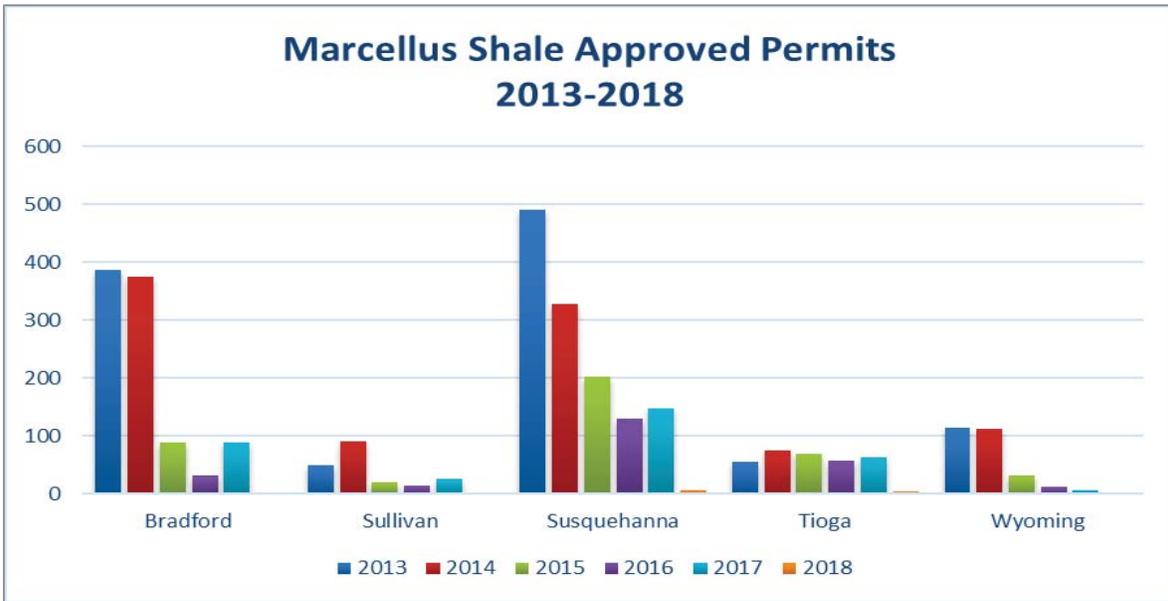
BACKGROUND ON MARCELLUS SHALE GAS EXTRACTION

More than 350,000 oil and gas wells have been drilled in Pennsylvania since the first commercial oil well was developed in 1859 by Colonel Drake in Titusville. Oil and gas exploration is regulated under the state’s oil and gas laws (Oil and Gas Act, Coal and Gas Resource Coordination Act, and Oil and Gas Conservation Law), and the environmental protection laws that include the Clean Streams Law, the Dam Safety and Encroachments Act, the Solid Waste Management Act, and the Water Resources Planning Act.



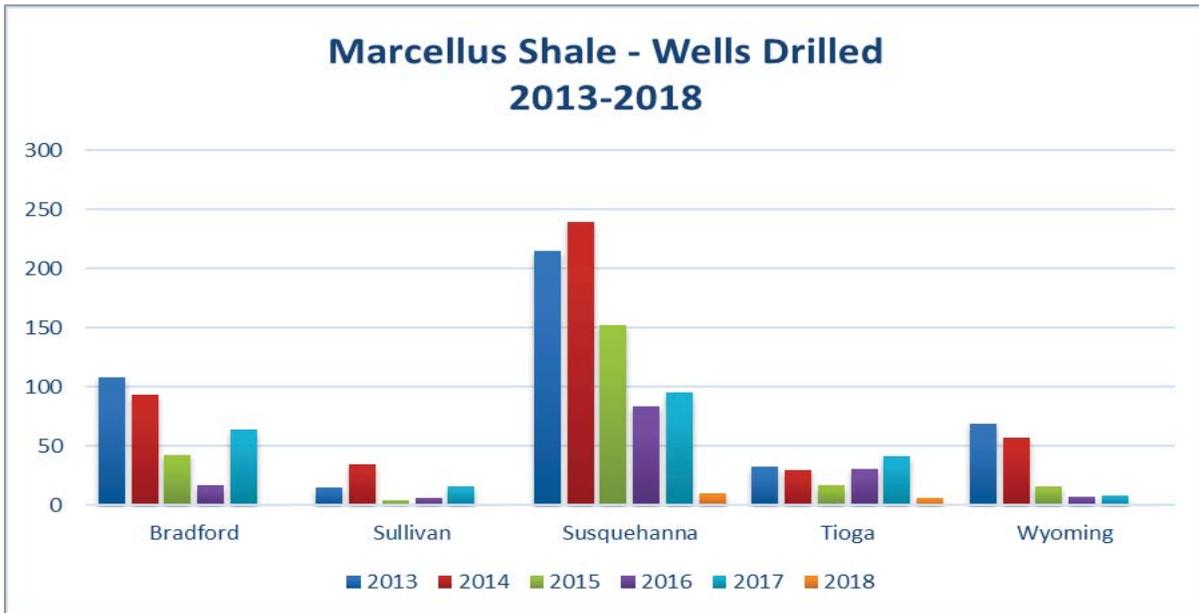
In the Northern Tier region, more than 3,900 permits were issued from January 1, 2013, through October 2017; of these permits, a total of 1,442 have been drilled. Fifty-two percent of drilling activity has occurred in Susquehanna County, followed by Bradford County with 22 percent, Wyoming County with 11 percent, Tioga County with 10 percent, and Sullivan County with 5 percent. (For prior years’ data see the [2013 CEDS document](#).)

Figure 1: Approved Natural Gas Well Permits, 2013–2018



Source: MarcellusShale.org

Figure 2. Marcellus Shale Wells Drilled, 2013–2018



Source: MarcellusShale.org

Act 13 of 2012

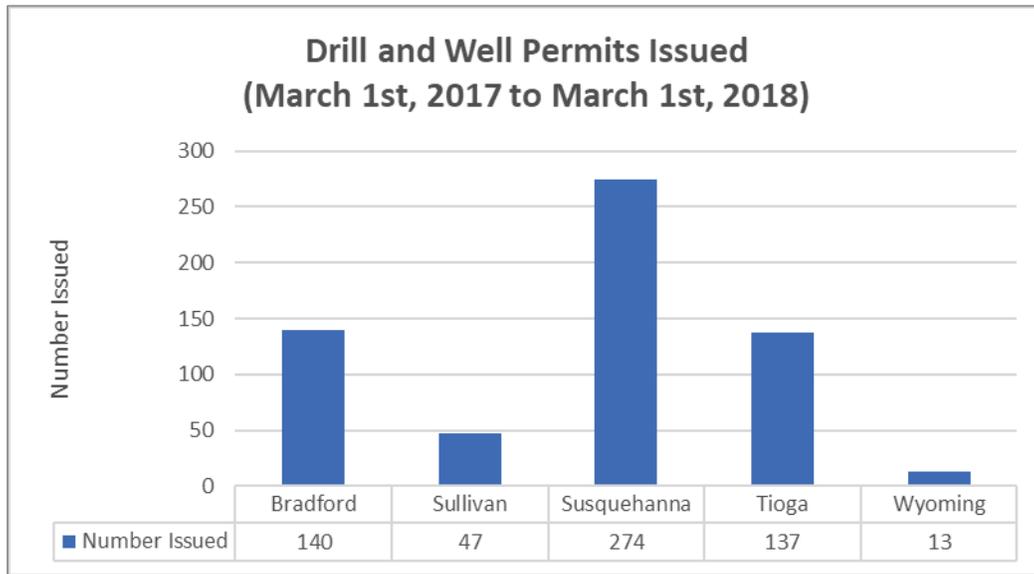
Act 13 impact fee legislation was signed into law on February 14, 2012, and imposes a drilling impact fee on producers with spud unconventional gas wells. Act 13 provides for distribution of the fee to local and state government for specific purposes. The Public Utility Commission collects fees from producers and disburses fees to state and local governments. Fees are based on the average annual price of natural gas and are assessed per well.

In 2012, more than \$204 million was collected in Act 13 impact fees. Pennsylvania law earmarks about \$25.5 million for state agencies to offset the statewide impact of drilling. After the earmarks, 60 percent of remaining funds goes to counties and municipalities, and 40 percent goes toward statewide initiatives with potential local impacts and value. Section 2341(g) of Act 13 sets forth 13 categories for eligible uses of funds by counties and municipalities. This section is written broadly to allow local governments flexibility in the use of funds. Eligible uses include the following:

- Construction, reconstruction, maintenance, and repair of roadways, bridges, and public infrastructure;
- Water, stormwater, and sewer systems, including construction, reconstruction, maintenance, and repair;
- Emergency preparedness and public safety, including law enforcement and fire services, hazardous material response, 9-1-1, equipment acquisition, and other services; and
- Environmental programs, including trails, parks, and recreation, open space, floodplain management, conservation districts, and agricultural preservation.

According to the Pennsylvania Department of Environmental Protection, 611 drill and operate permits were issued in the Northern Tier between March 1, 2017, and March 1, 2018. The majority of these permits, 274, were issued in Susquehanna County, followed by Bradford County (140), and Tioga County (137). The two lowest gas producing counties were Sullivan County (47) and Wyoming County (13). Overall, the Northern Tier represented approximately 27.5 percent of all drill and well permits in the state during that period.

Figure 3: Marcellus Shale Drill and Well Permits Issued, March 2017 to March 2018



Source: Pennsylvania Department of Environmental Protection

Production

According to the Pennsylvania Department of Environmental Protection, the Northern Tier produced 3,015,911,049 Mcf of natural gas between March 2017 and March 2018. Susquehanna County was the largest producer, with 1,448,882,562 Mcf being produced during the same period. Bradford County also had a strong showing, with 763,043,639 Mcf being produced in that year span. Overall, from March 2017 to March 2018, Northern Tier gas production represented 50.7 percent of Pennsylvania’s entire natural gas output.

INFRASTRUCTURE

Utilities

Electric utility service is provided to the entire Northern Tier region (Bradford, Sullivan, Susquehanna, Tioga, and Wyoming counties) by Pennsylvania Electric Company (Penelec), a subsidiary of the FirstEnergy Corporation. Commercial and industrial electric utility rates are competitive in the Northern Tier region compared to the rest of the state, the nation, and especially the Mid-Atlantic region. Natural gas rates are competitive in the Northern Tier region compared to the rest of the state, but do not provide any significant competitive advantage.

- Electric companies include:
 - First Energy (Penelec)
 - PPL Electric Utilities
 - Claverack Rural Electric Cooperative
 - Tri-County Rural Electric Cooperative
 - Sullivan County Rural Electric Cooperative
 - Wellsboro Electric Company
- Telephone companies include:
 - Frontier Communications
 - North Penn Telephone Company
- Natural gas companies include:
 - UGI
 - Valley Energy
 - PPL
- Recycling services include:
 - Northern Tier Solid Waste Authority (NTSWA)

According to information obtained from the region's stakeholders, there is a demand for distribution lines that directly service Northern Tier residents and businesses. As it stands, most of the natural gas being extracted from the area is piped to areas outside of the Northern Tier. When considering infrastructure and pipeline upgrades, county governments, municipal governments, and gas companies should collaborate to ensure that Northern Tier residents and businesses are able to harness and utilize their area's natural resources.

Marcellus Shale Impact – Natural Gas Transmission, Distribution, and Storage

According to the National Pipeline Mapping System, there are a number of natural gas transmission lines in the Northern Tier. Leatherstocking Gas Company has identified the Northern Tier as one of its expansion areas for the distribution of natural gas to local residents. Transmission line owners are listed below by county.

Bradford County:

- Central New York Oil & Gas (a subsidiary of Inergy)
- Chesapeake Midstream – Access Midstream Partners, LP
- Crestwood Midstream Partners L.P.
- Energy Transfer Company
- Leatherstocking Gas Company – PUC issued a Certificate of Public Conveyance on July 16, 2013. Leatherstocking serves as the gas utility for Wyalusing Township and Borough.
- Penn Virginia Resources (PVR) Marcellus Shale Gas Gathering
- Sunoco Pipeline L.P.
- Tennessee Gas Pipeline Company
- UGI Central Penn Gas, Inc.
- Valley Energy, Inc.
- Williams MLP Operating, LLC

Sullivan County:

- Central New York Oil & Gas
- Crestwood Midstream Partners L.P.
- Williams MLP Operating, LLC

Susquehanna County:

- Bluestone Pipeline Company of PA, LLC
- Buckeye Partners, LP
- Carrizo (Marcellus) LLC
- Chesapeake Midstream
- Douglas Pipeline Company

- PVR Marcellus Shale Gas Gathering
- Tennessee Gas Pipeline Company
- Susquehanna Gathering Company I, LLC
- UGI Pennsylvania Natural Gas
- Leatherstocking Gas Company – Distribution Line for Montrose-Bridgewater
- Williams Field Services

Tioga County:

- Dominion Energy Transmission Inc.
- Empire Pipe
- EQT Midstream
- Enterprise Products Operating LLC
- Energy Transfer Company
- NFG Midstream Covington, LLC
- NFG Midstream Wellsboro, LLC
- Tennessee Gas Pipeline Company
- UGI Central Pennsylvania Gas

Wyoming County:

- Buckeye Partners, LP
- Energy Transfer Company
- PVR Marcellus Shale Gas Gathering
- UGI Pennsylvania Natural Gas
- Williams Field Services

The Marcellus Shale gas extraction activities have resulted in a variety of proposed and completed improvements to these transmission lines and storage facilities in an attempt to get the product to the densely populated consumer markets in the Northeast.



SOCIOECONOMIC TRENDS

Throughout this section, the term “United States” refers only to the continental United States, unless otherwise noted, due to data restrictions. Data from 2000 and 2010 are actual data from the U.S. Census; data from 2006–2010 are American Community Survey (ACS) five-year estimates; data from 2012 are estimates; and data from 2017 are projections.

Population and Age

As of 2010, the population of the Northern Tier region is an estimated 182,663, an increase of approximately 1,655 residents since the year 2000. In comparison with Pennsylvania as a whole and the continental United States, the region grew very slightly: 0.9% growth between 2000 and 2010 compared to 3.4 percent and 9.7 percent growth, respectively. Most of the population growth was in Susquehanna and Tioga counties. Only Bradford and Sullivan counties decreased in population between 2000 and 2010. It is estimated that the Northern Tier region experienced population decline from 2016 to 2017, approximately -2.2% or almost 4,000 residents. According to this estimate, each county had a small population decline, with Sullivan and Tioga counties experiencing the most decline.

Table 1: Total Population, 2000–2017

	2000	2010	2016	(Projection) 2017	Change 2000 to 2010	Change 2016 to 2017
Bradford County	62,761	62,622	61,808	60,853	-0.2%	-1.5%
Sullivan County	6,556	6,428	6,302	6,089	-2.0%	-3.4%
Susquehanna County	42,238	43,356	41,832	40,985	2.6%	-2.0%
Tioga County	41,373	41,981	42,031	40,793	1.5%	-2.9%
Wyoming County	28,080	28,276	27,975	27,322	0.7%	-2.3%
Northern Tier Region	181,008	182,663	179,948	176,042	0.9%	-2.2%
Pennsylvania	12,281,054	12,702,379	12,783,977	12,805,537	3.4%	0.2%
Continental U.S.	279,583,437	306,675,006	318,558,162	325,719,178	9.7%	2.2%

The Northern Tier counties have an aging population. Between 2000 and 2010, the median age of residents in the Northern Tier counties increased by 4 to 46.6 years. By comparison, Pennsylvania’s median age increased by 2.1 years, and the U.S. median age increased only 1.8 years. The greatest change was in Sullivan County; Tioga County experienced the smallest change in median age. Between 2010 and 2016, the median age of residents in the Northern Tier rose in each county, with Sullivan and Susquehanna counties experiencing the largest increases.

Table 2: Median Age, 2000–2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
2000	38.9	43.2	39.4	38.4	37.7	38	35.3
2010	43.3	49.8	45.1	42.4	42.4	40.1	37.1
2016	44.3	52.4	46.9	43.2	43.7	40.6	37.7
% Change 2000 to 2010	11.3%	15.3%	14.5%	10.4%	12.5%	5.5%	5.1%
% Change 2010 to 2016	2.3%	5.2%	4.0%	1.9%	3.1%	1.2%	1.6%

On average, the percentage of the population under 25 decreased by 9.9 percent across Northern Tier counties from 2000 to 2010, compared to decreases of 2.5 percent and 4 percent in Pennsylvania and the U.S, respectively. The largest decrease in this young population segment was in Sullivan County, with a 12.8 percent decline. The smallest decrease was in Tioga County, with a decline of 7.3 percent. According to the 2010 to 2016 estimates, all Northern Tier counties saw a decline in the number of residents under the age of 25, with Sullivan County experiencing the largest decrease (-12.7 percent). This general trend was also experienced in the state and nation.

Table 3: Population under 25, 2000–2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
2000	32.4%	28.8%	32.3%	34.3%	33.5%	32.6%	35.3%
2010	29.9%	25.1%	28.3%	31.8%	30.4%	31.8%	33.9%
2016	29.4%	21.9%	27.0%	30.2%	29.6%	30.8%	32.9%
% Change 2000 to 2010	-7.7%	-12.8%	-12.4%	-7.3%	-9.3%	-2.5%	-4.0%
% Change 2010 to 2016	-1.7%	-12.7%	-4.6%	-5.0%	-2.6%	-3.1%	-2.9%

In all five Northern Tier counties, the percentage of the population aged 65 and over increased. On average across the region, the percentage of the population aged 65 and over increased approximately 15 percent from 2000 to 2010, and 4.6 percent from 2016 to 2017. In Pennsylvania as a whole, this older population decreased 1.3 percent between 2000 and 2010, but rose 6.0 percent between 2016 and 2017. In the United States, the older population increased only 4.8 percent in both timeframes. The largest increase in this population from 2000 to 2010 was in Wyoming County, and the smallest was in Sullivan County. From 2010 to 2016, Tioga County is estimated to have experienced the largest growth in residents 65 and older, with Bradford County experiencing the least. The region, state, and country also experienced an



increase in population aged 65 and over through 2016. The Northern Tier’s rate of increase in the older population is estimated to be consistent with that of the U.S.

Table 4: Population 65 and Older, 2000–2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
2000	15.7%	21.9%	15.5%	16.0%	13.2%	15.6%	12.4%
2010	17.8%	24.2%	18.1%	18.0%	16.1%	15.4%	13.0%
2016	19.3%	26.9%	20.1%	19.6%	18.4%	16.7%	14.5%
Change 2000 to 2010	13.4%	10.5%	16.8%	12.5%	22.0%	-1.3%	4.8%
Change 2010 to 2016	8.4%	11.2%	11.0%	8.9%	14.3%	8.4%	11.5%



In 2010, the largest age bracket in the Northern Tier was 50 to 54 years old (8.0 percent). By 2016, the largest age bracket was 55 to 59 years old (8.6 percent). This phenomenon is known as “aging in place,” in which the resident population stays in the region as they age. Aging in place can be seen in demographic charts by increasing percentages in subsequent age brackets.

Table 5: Percentage of Population by Age Bracket, 2010-2016

	Bradford		Sullivan		Susquehanna		Tioga		Wyoming		Northern Tier		PA	
	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
Under 5 years	6.0%	5.9%	4.2%	3.2%	5.1%	4.6%	5.2%	5.4%	5.4%	5.0%	5.2%	4.8%	5.8%	5.6%
5 to 9 years	5.8%	6.1%	3.5%	3.0%	5.6%	5.3%	5.6%	5.7%	6.0%	5.8%	5.3%	5.2%	6.0%	5.8%
10 to 14 years	7.0%	6.3%	6.0%	3.1%	6.8%	5.9%	6.1%	5.5%	6.6%	5.8%	6.5%	5.3%	6.4%	6.0%
15 to 19 years	6.7%	5.9%	7.7%	6.6%	7.0%	5.9%	8.0%	6.8%	7.3%	6.7%	7.3%	6.4%	7.3%	6.6%
20 to 24 years	5.0%	5.3%	5.6%	5.9%	4.8%	5.3%	7.1%	6.9%	6.0%	6.3%	5.7%	5.9%	6.7%	6.8%
25 to 29 years	4.9%	5.4%	3.8%	4.4%	4.5%	5.0%	5.1%	5.8%	5.0%	5.6%	4.7%	5.2%	6.1%	6.6%
30 to 34 years	5.0%	5.2%	3.4%	4.3%	4.8%	5.1%	4.7%	5.4%	5.5%	5.3%	4.7%	5.1%	5.7%	6.2%
35 to 39 years	6.1%	5.0%	4.8%	4.7%	5.8%	5.2%	5.8%	5.1%	6.7%	5.5%	5.8%	5.1%	6.4%	5.7%
40 to 44 years	7.1%	5.9%	5.5%	4.7%	7.0%	5.5%	6.5%	5.6%	6.5%	5.9%	6.5%	5.5%	7.0%	6.1%
45 to 49 years	8.0%	6.8%	7.9%	6.1%	8.6%	6.9%	7.5%	6.3%	7.7%	6.6%	7.9%	6.5%	7.7%	6.7%
50 to 54 years	7.8%	8.1%	8.2%	8.5%	8.5%	8.5%	7.7%	7.4%	8.0%	7.8%	8.0%	8.1%	7.6%	7.4%
55 to 59 years	7.3%	7.6%	8.5%	9.9%	7.3%	9.3%	7.1%	7.7%	7.3%	8.3%	7.5%	8.6%	6.7%	7.3%
60 to 64 years	6.3%	7.2%	7.0%	8.5%	6.8%	7.3%	6.1%	7.0%	6.8%	7.0%	6.6%	7.4%	5.4%	6.4%
65 to 69 years	5.0%	6.3%	7.5%	8.2%	5.8%	6.4%	5.3%	5.7%	5.2%	6.5%	5.8%	6.6%	4.2%	5.2%
70 to 74 years	4.1%	4.6%	5.4%	6.9%	3.9%	5.3%	4.3%	5.3%	3.5%	4.7%	4.2%	5.4%	3.3%	3.8%
75 to 79 years	3.1%	3.2%	4.4%	4.9%	3.3%	3.7%	3.3%	3.7%	2.8%	2.8%	3.4%	3.7%	3.0%	2.9%
80 to 84 years	2.5%	2.6%	2.9%	2.9%	2.2%	2.5%	2.4%	2.6%	2.2%	2.1%	2.4%	2.5%	2.5%	2.3%
85+ years	2.3%	2.5%	3.7%	4.0%	2.2%	2.2%	2.2%	2.2%	1.7%	2.2%	2.4%	2.6%	2.3%	2.5%

Households and Household Size

In 2010, there were an estimated 73,860 households in the Northern Tier region. By 2017, that number is estimated to have grown to 75,843. Households refer to individuals who occupy a housing unit, whether or not they are related. Households are an important demographic unit related to economic analysis because the number of households represents the demand factor for housing and retail purchases.

The number of households in the Northern Tier region increased by an average of 5 percent between 2000 and 2010 but decreased by 3 percent between 2010 and 2016. Susquehanna County experienced the greatest increase in households from 2000 to 2010, and Bradford County experienced the smallest increase in households, at 7.7 percent and 3.5 percent, respectively. Between 2010 and 2016, Sullivan County had the largest decline in households at -4.7 percent, followed closely by Wyoming County at -3.9 percent. The number of households in Pennsylvania declined by 1.1 percent between 2010 and 2016 and rose 1.5 percent in the U.S. during the same period.

Table 6: Number of Households, 2000–2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	Northern Tier Region	PA	US
2000	24,453	2,660	16,529	15,925	10,762	70,329	4,777,003	104,855,261
2010	25,321	2,777	17,798	16,727	11,237	73,860	5,018,904	116,002,896
2016	24,483	2,647	17,368	16,340	10,801	71,639	4,961,929	117,716,237
Change 2000 to 2010	3.5%	4.4%	7.7%	5.0%	4.4%	5.0%	5.1%	10.6%
Change 2010 to 2016	-3.3%	-4.7%	-2.4%	-2.3%	-3.9%	-3.0%	-1.1%	1.5%

In 2010, the average household size in the Northern Tier counties ranged from 2.16 to 2.46. By 2016, the household size ranged from 2.21 to 2.52. The average household size in the region was smaller than in Pennsylvania and the continental United States. The average household size in the region decreased in all Northern Tier counties between 2000 and 2010, as well as in the state and the nation. Only Susquehanna County saw a decline, 1.2 percent, between 2010 and 2016. During that period the average rate of increase in household size in the Northern Tier is estimated to be between that of the state and nation.

Table 7: Average Household Size, 2000–2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
2000	2.52	2.30	2.53	2.48	2.55	2.48	2.59
2010	2.45	2.16	2.42	2.39	2.46	2.45	2.58
2016	2.49	2.21	2.39	2.51	2.52	2.49	2.64
Change 2000 to 2010	-2.8%	-6.1%	-4.3%	-3.6%	-3.5%	-1.2%	-0.4%
Change 2010 to 2016	1.6%	2.3%	-1.2%	5.0%	2.4%	1.6%	2.3%

Household Income

The Northern Tier region has a large number of lower- to moderate-income households. Approximately 23.5 percent of households earned less than \$25,000 in 2016, and about 50.6 percent of households earned less than \$50,000. Upper-income households, or those earning \$100,000 per year or more, represented about 16.9 percent of households. However, the cost of living is below the national average, and housing costs and taxes are among the lowest in the state. This allows more spending potential after basic needs are met, so the lack of affluence does not directly correlate with a low quality of life.

Table 8: Household Income Levels, 2016 ACS Five-Year Estimates

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
<\$10,000	5.7%	4.3%	5.4%	5.9%	5.2%	6.7%	7.0%
\$10,000-\$14,999	5.4%	6.8%	6.1%	6.8%	5.0%	5.1%	5.1%
\$15,000-\$24,999	11.7%	14.2%	11.5%	11.7%	11.6%	10.5%	10.2%
\$25,000-\$39,999	11.9%	13.9%	12.1%	11.5%	10.7%	10.0%	9.9%
\$35,000-\$49,999	14.4%	16.2%	14.8%	15.6%	14.5%	13.4%	13.2%
\$50,000-\$74,999	20.4%	18.9%	20.2%	21.7%	19.3%	18.3%	17.8%
\$75,000-\$99,999	13.2%	10.3%	12.4%	11.7%	14.7%	12.6%	12.2%
\$100,000-\$149,999	11.9%	11.5%	12.1%	11.2%	13.0%	13.5%	13.5%
\$150,000-\$199,999	2.7%	2.1%	3.0%	2.1%	3.5%	5.0%	5.4%
\$200,000 or more	2.7%	1.7%	2.4%	1.8%	2.7%	4.9%	5.7%

Race and Ethnicity

The Northern Tier counties are racially homogeneous. As of 2016, approximately 96.7 percent of the population in the five counties was white. Of the remaining population, about 1.1 percent identified with two or more races. Approximately 1.6 percent of the population was of Hispanic origin, and the rest of the population was evenly spread among other racial groups. In comparison, the 2016 population of Pennsylvania was approximately 81.4 percent white and

11.0 percent black. About 6.6 percent of the population was of Hispanic origin, and the remaining population was nearly equal among other races. The population of the United States in 2016 was approximately 73.3 percent white, 12.6 percent black, and 5.4 percent Asian or Pacific Islander. Of these, approximately 17.3 percent of the U.S. population was of Hispanic origin (any race).

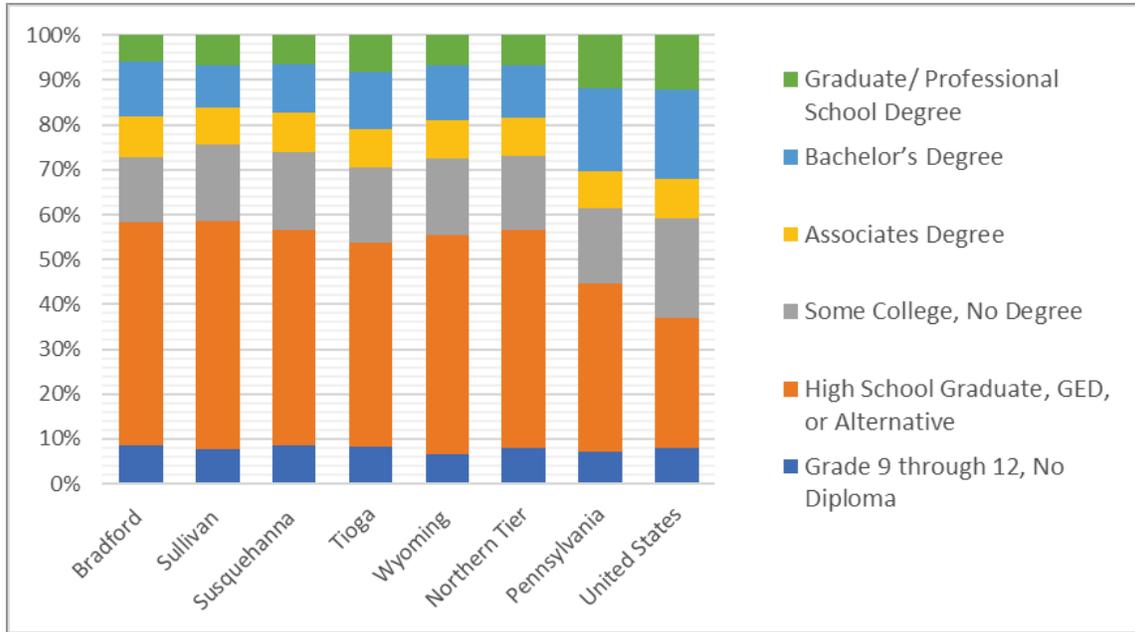
Table 9: Race and Ethnicity, 2016 ACS Five-Year Estimates

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
White Alone	97.1%	94.4%	97.7%	97.1%	97.4%	81.4%	73.3%
Black Alone	0.6%	2.5%	0.6%	0.5%	0.9%	11.0%	12.6%
American Indian Alone	0.1%	0.4%	0.1%	0.1%	0.1%	0.2%	0.8%
Asian or Pacific Islander Alone	0.7%	0.8%	0.4%	0.5%	0.4%	3.1%	5.4%
Some Other Race Alone	0.4%	0.6%	0.4%	0.3%	0.2%	2.0%	4.8%
Two or More Races	1.2%	1.3%	0.8%	1.3%	1.0%	2.2%	3.1%
Hispanic Origin (any race)	1.4%	1.7%	1.7%	1.2%	1.8%	6.6%	17.3%

Education

Educational attainment is a measure of the economic potential of a region. In 2016, counties in the Northern Tier region exceeded both the state and the nation in population with a high school diploma or equivalent. The region also slightly exceeded the state and the nation in population that achieved an associate degree. Bradford and Susquehanna counties are the regional leaders in education in terms of associate degrees achieved. Tioga and Wyoming counties have the highest percentage of bachelor’s degree holders in the region. Tioga and Wyoming counties also lead the region in graduate or professional degrees achieved. All five counties lag the state and the nation in bachelor’s degrees and higher education. This could be a crucial factor in the decision of firms to locate in the region.

Figure 4: Level of Educational Attainment, Northern Tier, Pennsylvania, and United States, 2016 ACS Five-Year Estimates



According to the Pennsylvania Department of Education, there are 19 school districts within the Northern Tier region. The Elk Lake School District in Wyoming County reported the highest high school graduation rate for the 2015-16 school year at 96.05 percent, followed by Troy Area School District in Bradford County at 92.38 percent. The Tunkhannock School District in Wyoming County followed closely at 92.04 percent. The Wellsboro Area School District in Tioga County reported the lowest high school graduation rate at 79.03 percent. Overall, the Northern Tier had a 91.2 percent graduation rate for the 2014-15 school year. This was higher than the state of Pennsylvania’s 85 percent as well as the U.S. graduation rate during the same period.

Of the 19 school districts in the Northern Tier, a few school districts excelled in the number of students moving on to postsecondary education in the 2015-16 school year. Tunkhannock Area School District in Wyoming County had the highest number of students moving on to postsecondary education, at 73.71 percent. Susquehanna Community School District in Susquehanna County trailed behind closely, at 72.92 percent. Two Bradford County school districts (Northeast Bradford School District and Sayre Area School District) also had good showings, with postsecondary education rates of 71.15 percent and 71.88 percent, respectively. Northern Tioga School District in Tioga County had the lowest number of students pursuing postsecondary education, at 46.15 percent. In total, of the Northern Tier’s 5,202 graduates in the 2015-16 school year, 62.34 percent went on to pursue postsecondary education, with 58.48 percent college-bound. These figures lag slightly behind statewide rates—68.84 percent of high

school graduates pursued postsecondary education and 66.81 percent of high school graduates were college-bound.

The following is a summary of vocational schools and institutions of higher learning located within the Northern Tier region. Availability of education opportunities affects the skills of the regional labor force and can be a deciding factor for companies that are relocating or building new facilities. Sullivan County is the only Northern Tier county with no postsecondary schools.

Table 10: Northern Tier Postsecondary and Vocational Schools

County	Educational Institution	Location
Bradford County	Keystone College Weekender	Towanda
	Penn State/Northern Tier Center	Towanda
	Lackawanna College	Towanda
	Northern Tier Career Center	Towanda
Sullivan County	Red Rock Job Corps Center	Lopez
Susquehanna County	Luzerne Community College at Susquehanna High School	Susquehanna
	Susquehanna Co. Career and Technology Center	Dimock
	Luzerne Community College at New Milford	New Milford
Tioga County	Mansfield University	Mansfield
	Pennsylvania College of Technology	Wellsboro
Wyoming County	Keystone College	LaPlume

The following institutions provide education and technical training:

Mansfield University is coordinating educational initiatives to provide active leadership on opportunities and issues relating to the development of Marcellus Shale gas resources in the region and has created the Marcellus Institute at Mansfield University. The university is developing shale-gas-focused academic programs, workforce training, research efforts, and public-private partnerships to maximize opportunities and benefits for students, alumni, and surrounding communities. As part of this program, Mansfield University offers a Bachelor of Science degree in Safety Management and an Associate of Applied Science degree in Natural Gas Production and Services. The university plans to continue to develop new academic programs focusing on expanding the gas industry and offer targeted continuing education and certification programs in cooperation with industry partners to create and maintain a well-qualified workforce for the region.

Keystone College offers a specialized track within its Environmental Resource Management bachelor’s degree program. The Petroleum and Alternative Energy Sources concentration prepares students for careers in the emerging gas and oil extraction and alternative energy

industries. An internship is required and students work with local or state agencies for the completion of this portion of the program.

Northern Tier Career Center offers programs in the following areas:

- CDL Class A Truck Driving Training
- Building Construction
- Diesel Technology
- Welding Technologies
- Electrical Construction Technology
- Precision Manufacturing

Pennsylvania College of Technology offers programs that correlate to natural gas careers:

- Information Technology
- Civil Engineering Technology
- Engineering Design Technology
- Manufacturing Engineering Technology
- Welding and Fabrication Engineering Technology
- Electrical Technology
- Automated Manufacturing Technology
- Surveying Technology
- Diesel Technology
- Heavy Construction Equipment Technology

Lackawanna College developed a Petroleum and Natural Gas Technology degree program to prepare students for a career in the operations segment of the natural gas industry. Instruction is hands-on and includes a summer internship of actual field experience with a gas-producing company. Subsequently, the college began offering degrees in Petroleum & Natural Gas Business Administration, Petroleum & Natural Gas Industrial Mechanics, and Petroleum & Natural Gas Measurement.

Housing Units

The number of housing units in Northern Tier counties has steadily risen since 2000. Between 2000 and 2010, Tioga County experienced the largest increase in the number of total housing units (7.4 percent), followed by Susquehanna County at 5.2 percent. Projections were much more modest for the span between 2010 and 2016, with Sullivan County losing housing units (-0.1 percent). Wyoming County experienced the largest growth in housing units (0.5 percent), followed by Bradford and Tioga counties at 0.4 percent each. Between 2010 and 2016, the Northern tier’s housing unit growth was in line with the growth experienced across the state.

Table 11: Number of Housing Units, 2000-2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
2000	28,664	6,017	21,829	19,893	12,713	5,249,750	115,904,641
2010	29,979	6,304	22,968	21,364	13,254	5,567,315	131,704,730
2016	30,107	6,297	23,001	21,447	13,326	5,592,175	134,054,899
Change 2000 to 2010	4.6%	4.8%	5.2%	7.4%	4.3%	6.0%	13.6%
Change 2010 to 2016	0.4%	-0.1%	0.1%	0.4%	0.5%	0.4%	1.8%

Housing Vacancy

Vacancy rates were higher in the Northern Tier in 2016 than in the state and nation. Bradford and Wyoming counties had the lowest vacancy rates, just below 19 percent. Susquehanna and Tioga counties had vacancy rates of slightly below 25 percent. Sullivan County was the outlier, with a vacancy rate of 58.0 percent. In comparison, Pennsylvania’s vacancy rate was only 11.3 percent and the national rate was 12.2 percent in 2016.

The U.S. Census classifies the majority of vacant housing in the Northern Tier as seasonal, recreational, or occasional-use. In each county, at least 57 percent of vacant housing is classified this way. Sullivan County has by far the most seasonal housing: 89.2 percent of its vacant homes are seasonal, recreational, or occasional-use homes. Those houses that are vacant for “other” reasons also make up a significant portion of the vacancy rate. These homes may be vacant for reasons other than those listed, such as those that are being held off the market by an owner for repairs, those with a possibility of future occupancy, or homes that are bank-owned and not yet on the market for sale or rent.

Table 12: Home Vacancy Status, 2016 ACS Five-Year Estimates

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
For Rent	9.7%	1.4%	2.5%	7.8%	2.1%	15.3%	17.5%
Rented, Not Occupied	3.4%	0.0%	0.8%	2.2%	1.0%	3.7%	3.8%
For Sale Only	6.5%	1.3%	5.2%	3.3%	4.5%	9.6%	8.5%
Sold, Not Occupied	1.2%	0.3%	2.2%	0.3%	0.8%	4.5%	3.9%
For Seasonal, Recreational, or Occasional Use	60.8%	89.2%	68.8%	71.8%	57.5%	27.2%	32.9%
For Migrant Workers	0.0%	0.1%	0.0%	0.2%	1.8%	0.1%	0.2%
Other Vacant	18.4%	7.6%	20.7%	14.6%	32.5%	39.7%	33.3%

Housing Tenure

In 2016, housing tenure varied widely across the Northern Tier region. All Northern Tier counties had high rates of owner occupancy (60 percent or more), on par with Pennsylvania (69.0 percent) and exceeding the national rate (63.6 percent). Tioga County’s owner occupancy rate fell slightly below Pennsylvania’s but was similar to the U.S. owner occupancy rate.

Northern Tier counties had a lower rate of renter occupancy than the state and the nation. Sullivan County’s housing stock was only 17.4 percent renter-occupied. Bradford, Susquehanna, Tioga, and Wyoming counties had renter occupancies exceeding 20 percent. In comparison, the Pennsylvania and national renter occupancy rates were 31.0 percent and 36.4 percent, respectively.

Table 13: Housing Tenure, 2016 ACS Five-Year Estimates

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
Owner-Occupied	74.8%	82.6%	76.8%	74.4%	78.8%	69.0%	63.6%
Renter-Occupied	25.2%	17.4%	23.2%	25.6%	21.2%	31.0%	36.4%
Vacant	18.7%	58.0%	24.5%	23.8%	18.9%	11.3%	12.2%

Homeownership

Homeownership and home values are often indicators of economic prosperity and quality of life. In the Northern Tier counties, median home values are lower than in Pennsylvania and the continental United States. Wyoming County has the highest median home value by far, and Tioga County has the lowest in the region. However, homeownership in the Northern Tier counties lags behind rates of home ownership in Pennsylvania and the continental United States. Sullivan County has the lowest rate of home ownership, at 34.7 percent, while Wyoming County has the highest at 63.9 percent. Pennsylvania and the nation, by comparison, have home ownership rates of 69.0 percent and 63.6 percent, respectively.

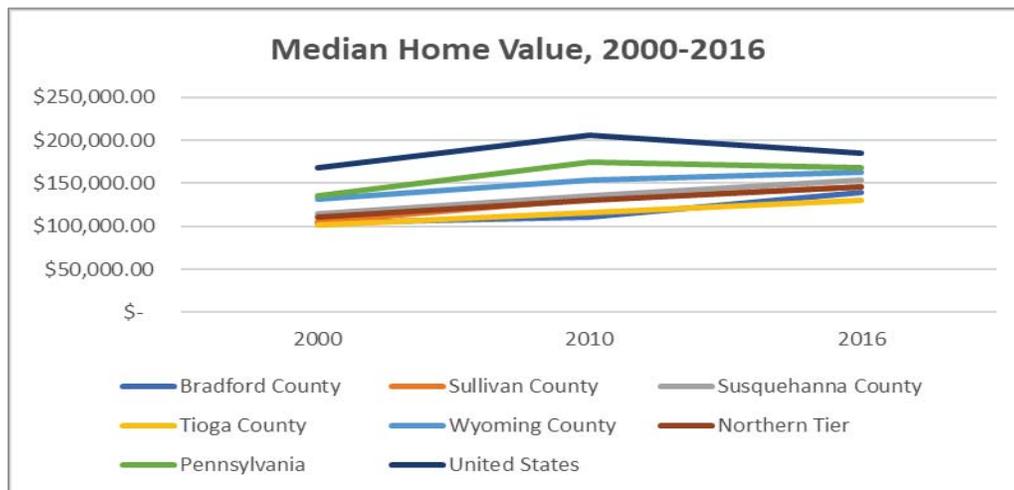
Table 14: Home Ownership and Median Home Value, 2016

	Home Ownership Percentage	Median Home Value
Bradford County	60.8%	\$139,200
Sullivan County	34.7%	\$145,800
Susquehanna County	58.0%	\$154,100
Tioga County	56.7%	\$129,900
Wyoming County	63.9%	\$162,400
Pennsylvania	69.0%	\$167,700
Continental U.S.	63.6%	\$184,700

Home Values

All five counties in the Northern Tier have lower median home values than those of the state and nation. They are, however, still rising when factoring in inflation. Within the region, Bradford County experienced the greatest increase in median home value between 2010 and 2016 at 25.2 percent. All five counties had increases in inflation-adjusted median home value during that period, despite median home value falling in Pennsylvania and the United States: Susquehanna County’s median increased by 13.3 percent, Tioga County’s by 12.4 percent, Sullivan County’s by 10.6 percent, and Wyoming County’s by 5.5 percent. The Northern Tier as a whole experienced a 12.8 percent increase in median home value between 2010 and 2016, which is slightly lower than the 16.5 percent increase experienced between 2000 and 2010.

Figure 5: Median Home Values, 2000–2016



Age of Housing

Based on American Community Survey five-year estimates, about one-third of the housing stock in the Northern Tier counties was built in 1939 or earlier, compared with 26.5 percent in Pennsylvania and only 13.0 percent in the United States. While old homes are desirable in some cases, this could be a reason for lower median home values in the Northern Tier than in the state and nation: older homes require more maintenance and may have more problems with safety or quality.

During the period of 1940 to 1969, the Northern Tier counties experienced relatively fewer new homes being built when compared with the state and the nation. On average, about 17.5 percent of the housing stock in the Northern Tier was built during this 30-year period, compared to 32.0 percent in Pennsylvania and 26.7 percent in the United States. About 40.9 percent of the Northern Tier’s housing stock was built from 1970 to 1999, similar to 43.3 percent in the United States. About 31.6 percent of Pennsylvania’s housing stock was built during this period. The Northern Tier has fewer “young” homes (built in 2000 or later). Only 11.06 percent of the region’s homes were built during or after 2000, compared with the state and the nation at 9.9 percent and 17.0 percent, respectively.

Table 15: Housing Units by Year Built, 2016 ACS Five-Year Estimates

Year Structure was Built	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US**
2014 or later	0.2%	0.0%	0.1%	0.2%	0.1%	0.2%	0.4%
2010 to 2013	1.3%	0.7%	1.3%	1.7%	1.1%	1.2%	1.9%
2000 to 2009	7.9%	11.4%	9.5%	10.4%	9.4%	8.5%	14.7%
1990 to 1999	11.6%	12.9%	13.3%	11.7%	12.1%	9.5%	14.0%
1980 to 1989	10.2%	13.4%	14.8%	12.5%	12.9%	9.6%	13.7%
1970 to 1979	16.1%	13.4%	15.3%	15.2%	19.1%	12.5%	15.6%
1960 to 1969	8.1%	9.8%	7.4%	7.7%	7.0%	10.3%	10.9%
1950 to 1959	6.2%	6.3%	5.1%	5.4%	5.2%	13.8%	10.6%
1940 to 1949	4.5%	4.2%	3.7%	3.3%	3.6%	7.9%	5.2%
1939 or Earlier	33.9%	27.9%	29.5%	31.8%	29.4%	26.5%	13.0%

*Data in this table is based on five-year estimates from the American Community Survey (2012-2016), because it is not available in the 2010 Decennial Census.

**In this table, the term US refers to all 50 states rather than only the contiguous 48 states.

Income

Median income in the Northern Tier counties lags behind the state and the nation. However, recent trends show that Wyoming and Bradford counties are catching up, with Wyoming County only below Pennsylvania’s median income by \$1,495, and Bradford County by \$3,860. Between 2000 and 2010, all five counties experienced an increase in median income, averaging 22.2 percent across the region. The greatest gain between 2010 and 2016 was seen in Wyoming County, where the median income increased by \$9,978.

Table 16: Median Income, 2000–2016

	2000	2010	2016	Change 2000 to 2010	Change 2010 to 2016
Bradford County	\$35,035	\$42,713	\$51,035	21.9%	19.5%
Sullivan County	\$30,256	\$37,778	\$44,926	24.9%	18.9%
Susquehanna County	\$33,646	\$40,635	\$50,160	20.8%	23.4%
Tioga County	\$31,971	\$39,534	\$48,449	23.7%	22.6%
Wyoming County	\$36,287	\$43,419	\$53,397	19.7%	23.0%
Pennsylvania	\$40,108	\$52,723	\$54,895	22.6%	4.1%
Continental U.S.	\$42,119	\$54,391	\$55,322	18.9%	1.7%

The five Northern Tier counties lag behind Pennsylvania and the continental United States in per capita income as well as median income. Per capita income in Northern Tier counties ranges from \$15,549 in Tioga County to \$17,452 in Wyoming County, compared to per capita incomes of \$20,880 in the state and \$21,582 in the nation. However, as with the trend in median income, per capita income in the region is catching up to that of the state and the nation.

Table 17: Per Capita Income, 2000–2017

	2000	2010	2016	Change 2000 to 2010	Change 2010 to 2016
Bradford County	\$17,148	\$20,631	\$26,255	20.3%	27.3%
Sullivan County	\$16,438	\$20,436	\$26,154	24.3%	28.0%
Susquehanna County	\$16,435	\$19,813	\$26,551	20.6%	34.0%
Tioga County	\$15,549	\$19,339	\$24,626	24.4%	27.3%
Wyoming County	\$17,452	\$20,774	\$26,823	19.0%	29.1%
Pennsylvania	\$20,880	\$26,585	\$30,137	27.9%	13.4%
Continental U.S.	\$21,582	\$26,731	\$29,829	22.3%	11.6%

INDUSTRY AND JOB TRENDS

Unemployment

From 2006 to 2009, the Northern Tier counties had a similar unemployment rate to that of the state and the nation. As the gas industry grew from 2010 to 2012, the region experienced a lower unemployment rate than the state and nation. The latest unemployment figures from March 2013 indicate that unemployment is increasing again in the Northern Tier: in four of the five counties, unemployment was higher in 2013 than in 2012, except in Susquehanna County, where the rate stayed the same. Bradford County consistently has a lower unemployment rate than the rest of the region, and Tioga and Wyoming counties consistently have the highest unemployment rates in the region.

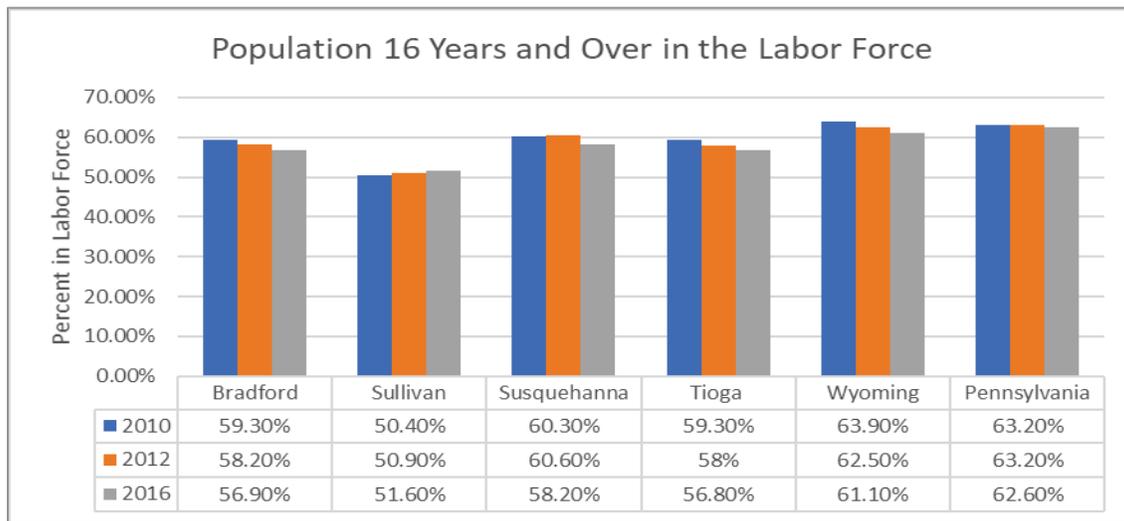
Table 18: Unemployment, 2011–2018

	2011	2012	2013	2014	2015	2016	2017	2018 (March)
Bradford County	5.8%	6.5%	7.3%	5.4%	5.9%	6.5%	5.1%	4.9%
Sullivan County	7.6%	7.5%	8.3%	6.1%	6.2%	7.1%	5.8%	5.5%
Susquehanna County	7.6%	7.5%	7.1%	5.9%	5.6%	5.7%	4.7%	4.8%
Tioga County	6.8%	7.6%	8.6%	6.9%	6.5%	7.1%	6.0%	5.9%
Wyoming County	9.3%	9.6%	8.6%	6.7%	6.1%	6.2%	5.3%	5.1%
Pennsylvania	7.9%	7.9%	7.4%	5.9%	5.3%	5.4%	4.9%	4.6%
United States	8.9%	8.1%	7.4%	6.2%	5.3%	4.9%	4.4%	4.1%

Labor Force Participation Rate

The labor force participation rate in all Northern Tier counties tended to lag behind the state. The labor force participation rate is calculated by dividing the number of employed persons 16 or older by the total population of residents 16 or older. In 2016, Wyoming County had the highest labor force participation rate at 61.1 percent. In the same year, the statewide labor force participation rate was 62.6 percent. Sullivan County had the lowest labor force participation rate in 2016, at 51.6 percent, although it has risen slowly since 2010.

Figure 6: Percentage of Population 16 Years and Older in the Labor Force, 2010-2016



Job Trends

Bradford County

As of the third quarter of 2017, the industries in Bradford County employing the most workers were Health Care and Social Assistance (23.3 percent), Manufacturing (16.2 percent), and Retail Trade (10.5 percent). Those numbers represent a decrease in each sector since 2012—employment in the Health Care industry fell by 4.7 percent, in the Retail Trade industry by 11.7 percent, and in Manufacturing by 8.4 percent.

In terms of new jobs created, Bradford County saw the largest increases in employment in the Management of Companies and Enterprises industry (274 workers), Accommodation and Food Services industry (105 workers), and Public Administration (86 workers). Proportionally, the Management of Companies and Enterprises industry (72.5%), Utilities industry (30.3%), and Agriculture, Forestry, Fishing, and Hunting industry (26.3%) saw the most growth during that period.

Employment in industries related to the development of Marcellus Shale in Bradford County decreased modestly between the third quarter of 2012 and the third quarter of 2017. The Mining, Quarrying, and Oil and Gas Extraction industry decreased by 23.7 percent, or 413 workers, likely due to decreasing fuel prices. The Construction industry increased by 5.5 percent (48 workers); Transportation and Warehousing decreased by 4.3 percent (45 workers); and Real Estate and Rental and Leasing decreased by 66.7 percent (352 workers). Overall, from the third quarter of 2012 to the same period in 2017, Bradford County lost net 1,530 jobs.

The Mining, Quarrying, and Oil and Gas Extraction industry comprises 5.9 percent of employment in Bradford County, an increase from 1.1 percent of total employment in 2012. Construction represents 4.1 percent of employment, Transportation and Warehousing

comprises 4.4 percent of employment, and Real Estate accounts for 0.8 percent of employment in Bradford County.

Sullivan County

As of the third quarter of 2017, the industries in Sullivan County employing the most workers were Health Care and Social Assistance (25.1 percent), Educational Services (13.6 percent), and Public Administration (12.8 percent). From 2012 to 2017, employment in the Health Care industry decreased by 21.9 percent. Employment in Educational Services and Public Administration increased by 108.7 percent and 11.5 percent, respectively. Overall, Sullivan County lost net 368 jobs between the third quarter of 2012 and the third quarter of 2017, or 18.8 percent of total employment.

Positive employment changes in terms of number of jobs were greatest in Educational Services (112 workers), Public Administration (21 workers), and Agriculture, Forestry, Fishing, and Hunting (18 workers). Sullivan County experienced a large drop in the number of construction jobs, falling 62.9 percent to 151 workers. This is likely due to the shrinking of the Marcellus Shale Gas industry because of falling gas prices. Data for some industry types, such as Mining, Quarrying, and Oil and Gas Extraction; Utilities; Wholesale Trade; Information; and Management of Companies and Enterprises; did not meet the U.S. Census Bureau's reporting standards, so recent data for those industry types was unavailable for analysis.

Susquehanna County

In the third quarter of 2017, the industries employing the most workers in Susquehanna County were Health Care and Social Assistance (13.9 percent), Retail Trade (12.3 percent) and Accommodation and Food Services (11.3 percent). Employment in the Health Care and Social Assistance industry increased by a healthy 22.5 percent from 2012 to 2017. Retail Trade employment declined by 6.9 percent from 2012 to 2017, but employment in the Accommodation and Food Services industry increased by 10.1 percent during the same period.

Employment in most industries related to the development of Marcellus Shale generally declined from the third quarter of 2012 to the same period in 2017. Employment in the Mining industry decreased by 22.2 percent (187 workers), Real Estate and Leasing decreased by 35.5 percent (54 workers), and construction decreased by 7.0 percent (62 workers). Transportation and Warehousing, however, increased by 74.8 percent (160 workers). Overall, from the third quarter of 2012 to the third quarter of 2017, Susquehanna County gained net 762 jobs.

In terms of the number of new jobs added, Susquehanna County saw the largest increases in the Educational Services industry (305 workers), Health Care and Social Assistance (228 workers), Transportation and Warehousing (160 workers), and Public Administration (130 workers).

Tioga County

In Tioga County, the industries employing the most workers as of the third quarter of 2017 were Manufacturing (15.3 percent), Health Care and Social Assistance (13.6 percent), and Retail Trade (12.7 percent). From 2012 to 2017, employment in the Manufacturing industry increased by 15.6 percent. Health Care employment declined by 17.6 percent, and Retail Trade employment decreased by a small margin at 4.0 percent. The largest gains in employment by number of workers were experienced by the Construction industry (63.7 percent; 361 workers), Educational Services (20.1 percent; 137 workers), and Accommodation and Food Services (4.4 percent; 46 workers).

Employment in the Mining, Quarrying, and Oil and Gas Extraction industry and Transportation and Warehousing industry decreased from the third quarter of 2012 to the third quarter of 2017. They decreased by 30.4 percent (183 workers) and 25.2 percent (181 workers), respectively. The Construction industry, however, increased by a healthy margin: 63.7 percent (361 workers). Overall, from 2012 to 2017, Tioga County lost net 753 jobs, or 5.8 percent of total employment.

Mining, Quarrying, and Oil and Gas Extraction comprises 3.5 percent of employment in Tioga County. Construction comprises 7.6 percent of employment, Transportation and Warehousing comprises 4.4 percent, and Real Estate comprises 0.7 percent.

Wyoming County

As of the third quarter of 2017, the industries employing the most workers were Manufacturing (25.8 percent), Retail Trade (11.1 percent), and Transportation and Warehousing (9.3 percent). Manufacturing industry employment declined in Wyoming County between 2012 and 2017 by 10.2 percent. Employment in the Retail Trade industry decreased by 11.9 percent, and Transportation & Warehousing employment increased by 25.6 percent in the same period.

Employment in the Mining, Quarrying, and Oil and Gas Extraction industry decreased slightly from the third quarter of 2012 to the third quarter of 2017: by 20.8 percent, or 86 workers. Employment in the Real Estate industry increased by a large percentage: 250.0 percent (though only 25 workers). Employment in Transportation and Warehousing increased at an impressive 25.6 percent (187 workers). Construction employment decreased slightly by 0.6 percent (4 workers). Administration and Support and Waste Management and Remediation saw employment increase at an outstanding 115.6% (318 workers). Overall, from 2012 to 2017, Wyoming County lost net 12 jobs.

Mining, Quarrying, and Oil and Gas Extraction comprises 3.3 percent of employment in Wyoming County. Construction comprises 6.3 percent of employment, Transportation and Warehousing comprises 9.3 percent, and Real Estate comprises 0.4 percent.

Table 19: Employment, 2012 Quarter 3 and 2017 Quarter 3

Employment in the Northern Tier Region, Quarter 3 of 2012 and Quarter 3 of 2017										
Category	Bradford		Sullivan		Susquehanna		Tioga		Wyoming	
	2012 Q3	2017 Q3	2012 Q3	2017 Q3	2012 Q3	2017 Q3	2012 Q3	2017 Q3	2012 Q3	2017 Q3
Agriculture, Forestry, Fishing and Hunting	171	216	8	26	47	74	111	114	140	196
Mining	1739	1326	76	0	842	655	602	419	414	328
Utilities	152	198	*	*	44	126	171	213	18	28
Construction	879	927	407	151	884	822	567	928	624	620
Manufacturing	3974	3642	56	68	564	557	2203	1860	2847	2557
Wholesale Trade	744	533	38	*	238	253	665	471	383	312
Retail Trade	2660	2350	164	172	1180	1099	1605	1540	1250	1101
Transportation and Warehousing	1038	993	17	22	214	374	717	536	731	918
Information	245	208	35	*	105	99	160	136	97	122
Finance and Insurance	557	509	22	19	225	187	429	435	197	167
Real Estate and Rental and Leasing	528	176	9	20	152	98	73	81	10	35
Professional, Scientific, and Technical Services	664	446	23	31	298	395	349	350	157	187
Management of Companies and Enterprises	378	652	*	*	80	149	49	49	3	*
Administration & Support, Waste Management and Remediation	612	653	44	27	138	222	229	265	275	593
Educational Services	1107	1167	103	215	483	788	680	817	531	521
Health Care and Social Assistance	5489	5230	511	399	1015	1243	2012	1657	923	758
Arts, Entertainment, and Recreation	138	120	94	85	150	100	116	120	119	108
Accommodation and Food Services	1314	1419	113	99	919	1012	1049	1095	730	751
Other Services (excluding Public Administration)	500	508	53	50	341	298	374	354	215	252
Public Administration	1064	1150	182	203	294	424	747	715	271	369
Total	23,953	22,423	1,955	1,587	8,213	8,975	12,908	12,155	9,935	9,923

Source: Local Employment Dynamics, Quarterly Workforce Indicators

*Data does not meet U.S. Census Bureau reporting standards

Note: Employment reflects jobs provided by companies located in the Northern Tier. It does not include jobs held by transient workers.



Median Earnings by Degree

When adjusted for 2016 dollars, it becomes apparent that median earnings by degree shifted significantly between 2010 and 2016. In the Northern Tier, the median earnings for less-than-high-school-graduates rose from \$20,874 in 2010 to \$25,927 in 2016. This was an increase shared by the high school graduate group, which rose from \$27,115 in 2010 to \$29,141 by 2016. Those with graduate or professional degrees, however, experienced a steep decline. The median income for this group stood at \$59,340 in 2010 and dropped to \$55,867 by 2016. In general, every group in the greater Northern Tier but those with graduate or professional degrees tended to fare better in 2016.

Table 20: Median Earnings by Degree, 2010 and 2016

	Bradford		Sullivan		Susquehanna		Tioga		Wyoming		Northern Tier		Pennsylvania	
	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
Population 25 Years and Older With Earnings	30,353	33,714	29,486	31,565	30,289	31,837	29,384	32,234	32,850	32,892	30,472	32,448	37,907	37,795
Less Than High School Graduate	22,078	27,335	18,938	30,924	24,411	26,307	17,904	21,481	21,041	23,587	20,874	25,927	22,396	21,932
High School Graduate (Includes GED)	27,158	30,653	26,902	29,107	26,423	28,029	26,259	28,871	28,835	29,046	27,115	29,141	30,248	30,152
Some College or Associate's Degree	31,806	34,261	34,207	31,120	31,896	32,434	28,902	32,024	35,185	33,088	32,399	32,585	36,972	35,468
Bachelor's Degree	44,643	43,872	35,990	41,563	40,930	43,125	44,249	40,575	40,354	44,444	41,233	42,716	51,704	50,699
Graduate or Professional Degree	61,014	62,231	60,681	57,917	57,162	53,250	58,391	53,678	59,451	52,258	59,340	55,867	69,133	67,339

Commute Patterns

In 2015, the most recent year for which data is available, the Northern Tier employed 53,341 people, with 32.4 percent of those workers traveling in from outside of the Northern Tier. Many of these workers reside in the Southern Tier counties of New York including Tioga County (3.2 percent), Chemung County (1.9 percent), and adjacent counties such as Lackawanna County (3.7 percent), Luzerne County (4.0 percent), and Lycoming County (2.1 percent).

Table 21: Where Northern Tier Employees Lived, 2015

	Count	Share
Bradford County, PA	16,307	28.9%
Tioga County, PA	8,721	15.4%
Susquehanna County, PA	7,122	12.6%
Wyoming County, PA	4,904	8.7%
Lackawanna County, PA	2,553	4.5%
Luzerne County, PA	2,026	3.6%
Tioga County, NY	1,921	3.4%
Lycoming County, PA	1,249	2.2%
Sullivan County, PA	1,207	2.1%
Chemung County, NY	1,201	2.1%
All Other Locations	9,256	16.4%

During this same time period, the Northern Tier region experienced a net outflow of approximately 17,050 workers. The region has natural affinities to the Southern Tier of New York State, as it borders four adjacent New York counties (Broome, Chemung, Tioga, and Steuben), and is influenced by the employment centers of Binghamton, Elmira, and Corning. Similarly, strong relationships exist with the economic centers of Williamsport, Pennsylvania, to the southwest and the Scranton/Wilkes-Barre region of Pennsylvania to the southeast. It is not uncommon for a rural region located near such large urban employment centers to have an outflow of workers.

Figure 7: Worker Inflow–Outflow, Northern Tier, 2015

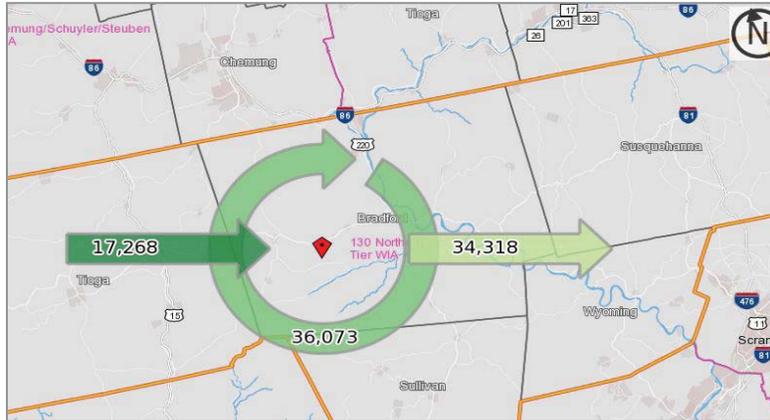


Table 22: Net Outflow of Workers, 2011–2015

	2011	2012	2013	2014	2015
Bradford County	3,904	4,132	4,996	2,651	2,681
Sullivan County	800	763	591	743	697
Susquehanna County	11,643	11,390	10,747	9,287	8,968
Tioga County	1,584	1,379	1,488	3,540	3,959
Wyoming County	649	1,148	1,013	2,109	2,182

Bradford County

- Bradford County saw a sharp decrease in net outflow between 2013 and 2014 (4,996 to 2,651 workers).
- The largest share of commutes was within the county—to Sayre (1,588 workers), Towanda (819 workers), and Athens (780 workers).
- A majority of working residents work within the county (55.0 percent), followed by Chemung County, NY (5.9 percent), Tioga County, NY (3.2 percent), and Tioga County, PA (2.9 percent).

Figure 8: Worker Inflow-Outflow, Bradford County, 2015

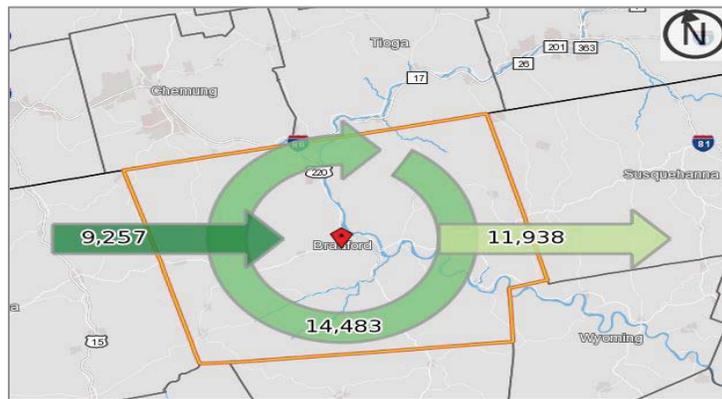


Table 23: Where Bradford County Residents Were Employed, 2015

County	Count	Share
Bradford County, PA	13,628	55.00%
Chemung County, NY	1,457	5.90%
Tioga County, NY	792	3.20%
Tioga County, PA	725	2.90%
Wyoming County, PA	649	2.60%
Lycoming County, PA	593	2.40%
Broome County, NY	502	2.00%
Steuben County, NY	306	1.20%
Lackawanna County, PA	288	1.20%
Other Counties	5,510	22.20%

Sullivan County

- Sullivan County saw a sharp decrease in net outflow between 2011 and 2013, but a sizeable increase between 2013 and 2014 (591 to 743).
- The largest share of commutes is to Dushore (56 workers) and Laporte (31 workers) in Sullivan County and Williamsport (17 workers) in Lycoming County.
- A majority of employed residents work in Sullivan County (29.1 percent), followed by Lycoming County (14.3 percent) and Bradford County (13.6 percent).

Figure 9: Worker Inflow-Outflow, Sullivan County, 2015

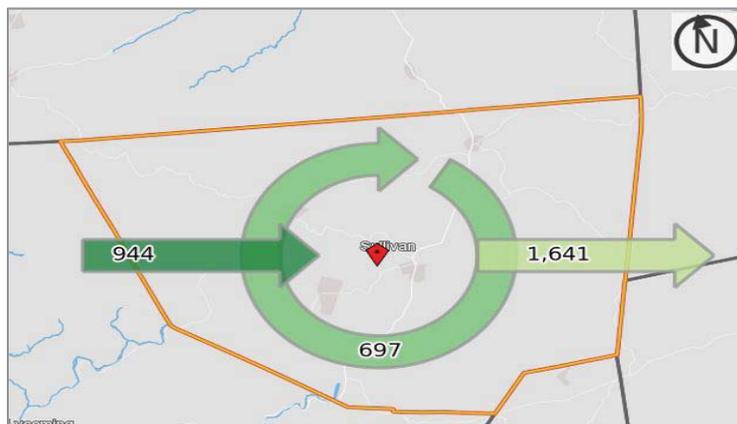


Table 24: Where Sullivan County Residents Were Employed, 2015

County	Count	Share
Sullivan County, PA	639	29.10%
Lycoming County, PA	313	14.30%
Bradford County, PA	299	13.60%
Wyoming County, PA	137	6.20%
Tioga County, PA	49	2.20%
Columbia County, PA	33	1.50%
Lackawanna County, PA	26	1.20%
Luzerne County, PA	26	1.20%
Montgomery County, PA	25	1.10%
All Other Locations	597	27.20%

Susquehanna County

- The net outflow of workers from Susquehanna County steadily decreased between 2011 and 2015 (11,643 to 8,968).
- The largest share of working residents commute to Susquehanna Depot (280 workers), followed by Montrose (249 workers) and Hallstead (182 workers)—all in Susquehanna County.
- Working residents are employed primarily in Susquehanna County (31.3%), followed by Broome County, NY (13.9%) and Lackawanna County (12.8%).

Figure 10: Worker Inflow-Outflow, Susquehanna County, 2015



Table 25: Where Susquehanna County Residents Were Employed, 2015

County	Count	Share
Susquehanna County, PA	5,243	31.1%
Broome County, NY	2,349	13.9%
Lackawanna County, PA	2,153	12.8%
Wyoming County, PA	1,092	6.5%
Luzerne County, PA	721	4.3%
Wayne County, PA	343	2.0%
Bradford County, PA	318	1.9%
Montgomery County, PA	223	1.3%
Morris County, NJ	204	1.2%
All Other Locations	3,977	23.6%

Tioga County

- The net outflow of workers from Tioga County rose significantly between 2011 and 2015 (1,584 to 3,959), which means a large number of residents are now working outside of the county.
- The largest share of workers from Tioga County work in Wellsboro Borough (746 workers), followed by Mansfield (488 workers) and Blossburg (351 workers).
- The largest share of Tioga County workers is employed in Tioga County (47.0 percent), followed by Lycoming County (7.2 percent) and Steuben County, NY (6.0 percent).

Figure 11: Worker Inflow-Outflow, Tioga County, 2015

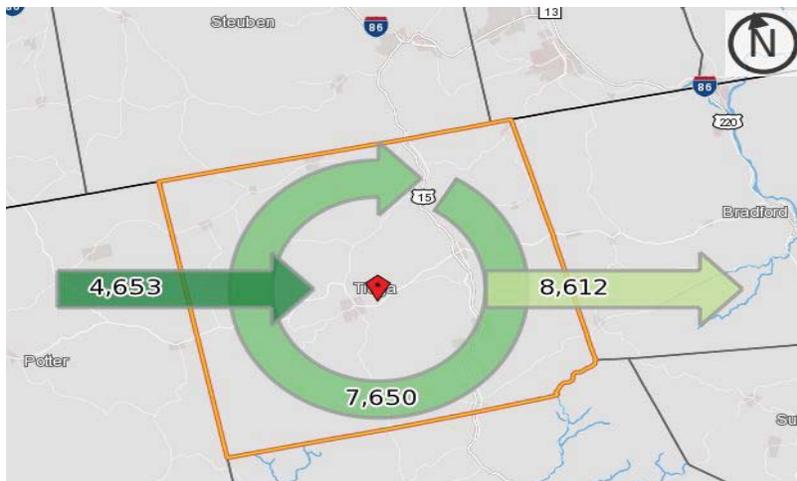


Table 26: Where Tioga County Residents Were Employed, 2015

County	Count	Share
Tioga County, PA	7,200	47.0%
Lycoming County, PA	1,103	7.2%
Steuben County, NY	926	6.0%
Bradford County, PA	861	5.6%
Chemung County, NY	711	4.6%
Potter County, PA	225	1.5%
Lackawanna County, PA	191	1.2%
Cumberland County, PA	178	1.2%
Luzerne County, PA	175	1.1%
All Other Locations	3,513	22.9%

Wyoming County

- In Wyoming County, the net outflow of workers rose dramatically between 2011 and 2015 (649 to 2,182).
- The largest share of Wyoming County workers commutes to Tunkhannock (350 workers), followed by Scranton in Lackawanna County (289 workers), and Factoryville (103 workers).
- The largest share of Wyoming County workers is employed in Wyoming County (34.0 percent), followed by Lackawanna County (20.8 percent), and Luzerne County (17.2 percent).

Figure 12: Worker Inflow-Outflow, Wyoming County, 2015

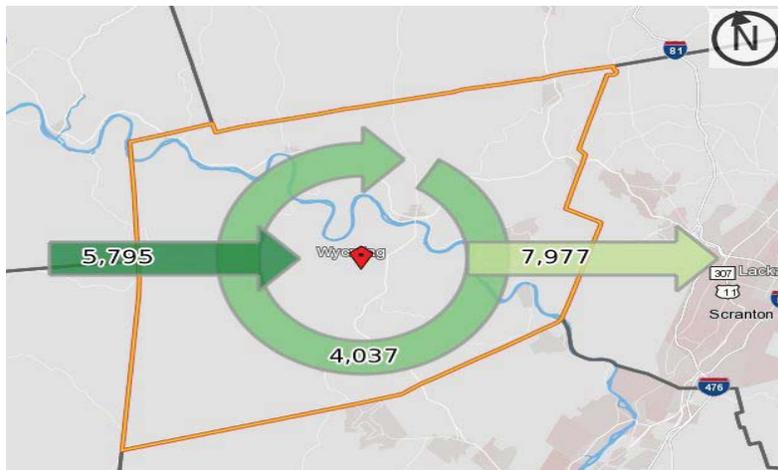


Table 27: Where Wyoming County Residents Were Employed, 2015

County	Count	Share
Wyoming County, PA	3,833	34.0%
Lackawanna County, PA	2,348	20.8%
Luzerne County, PA	1,935	17.2%
Bradford County, PA	439	3.9%
Susquehanna County, PA	353	3.1%
Montgomery County, PA	197	1.7%
Lehigh County, PA	171	1.5%
Monroe County, PA	150	1.3%
Philadelphia County, PA	146	1.3%
Dauphin County, PA	142	1.3%
All Other Locations	1,550	13.8%

Travel to Work

The average travel time to work for workers in the Northern Tier is similar to that of workers in the state and the nation. Workers in Sullivan County, on average, have the longest commute to work, while workers in Bradford and Tioga counties have the shortest. Sullivan County workers experienced an increase in average travel time to work between 2010 and 2016. Travel time to work in the rest of the Northern Tier, the state, and the nation stayed about the same during the same period.

Table 28: Average Travel Time to Work in Minutes, 2010 and 2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
Minutes (2010)	22.7	27.9	26.8	22.6	24.5	25.5	25.2
Minutes (2016)	22.7	30.8	28.0	24.0	25.5	26.5	26.1

Location Quotient

The location quotient (LQ) is a way of quantifying how concentrated a particular industry, occupation, or demographic group is in one area compared to a larger region. In this analysis, the five-county Northern Tier region is compared to the Commonwealth of Pennsylvania and reveals what makes the region unique when compared to the state average. An LQ value of greater than one means a higher concentration of jobs in the region than the state, and a value of less than one means that the state has a higher concentration of jobs than the region. Industries with an LQ value greater than one are typically exporting industries and are important because they bring money into the region.

In the column to the far right of Table 29, cells highlighted in yellow have an LQ of greater than one, meaning that they are industry sectors in which the Northern Tier has a higher concentration of jobs than the state as a whole. According to the chart, Northern Tier counties have a distinct regional advantage in the Mining industry, which is consistent with the development of businesses focusing on the extraction of natural gas from the Marcellus Shale. The LQ for this industry is 8.7. The Northern Tier also has a regional advantage in the Agriculture, Forestry, Fishing and Hunting industry, with an LQ of 2.9. Public Administration is the third-strongest regional industry in terms of the LQ. The weakest industries in the region are Professional, Scientific, and Technical Services; Management of Companies and Enterprises; Administration and Support and Waste Management and Remediation; and Finance and Insurance.

The Mining, Quarrying, and Oil and Gas Extraction sector comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas. The term *mining* is used in the broad sense to include quarrying, well operations, beneficiating (e.g., crushing, screening, washing, and flotation), and other preparations customarily performed at the mine site, or as a part of mining

activity. The Northern Tier has a regional advantage in mining, but it does not employ many workers compared with other industries (about 2,728 total employees or 5.0 percent of total employment). The Crude Petroleum and Natural Gas Extraction sector comprises 15.1 percent of the number of mining employers in the Northern Tier (19 firms). Mining of coal, metal ore, and nonmetallic minerals comprises 53.2 percent of the number of mining employers in the Northern Tier (67 firms). The remainder of mining industry employers, 31.7 percent, provide support activities for mining (40 firms). Besides Marcellus Shale, Pennsylvania Bluestone is also mined in the Northern Tier. It is a unique sand stone found only in the Northern Tier region. It is marketed as architectural grade and used for stairsteps, window and door fixtures, and countertops; as flagstone it is used for walkways and patios. It is a popular building material because it can be easily sized and is strong and durable.

Timber is another important natural resource in the Northern Tier region. Logging activities comprise 63.2 percent of the Agriculture, Forestry, Fishing and Hunting industry employers in the region (24 firms). Another 10.5 percent of employers in the region (4 firms) provide support activities for forestry. Industries in the Forestry and Logging sector grow and harvest timber on a long production cycle (10 years or more). Long production cycles use different production processes than short production cycles, which require more horticultural interventions prior to harvest, resulting in processes more similar to those found in the Crop Production subsector. Consequently, harvesting of timber with short production cycles (e.g., Christmas tree production) is classified in the Crop Production sector.

Manufacturing employs a significant portion of workers in the Northern Tier region. Mineral Product Manufacturing is by far the largest sector of the manufacturing industry, represented by 12.2 percent of employers in the region (23 firms). The Mineral Product Manufacturing sector transforms mined or quarried nonmetallic minerals, such as sand, gravel, stone, clay, and refractory materials into products such as glass, asphalt, gypsum, etc. In addition, 4.8 percent of employers in the region are Cement and Concrete Producers (9 firms). Because forestry is such a prevalent activity in the Northern Tier region, Wood Product Manufacturing represents 9.6 percent of all manufacturing employers (18 firms). Forestry activity is also a boon to the Sawmills and Wood Preservation firms (8 firms), which represent 4.3 percent of Northern Tier manufacturing employers.

Table 29: Northern Tier Location Quotient, 2012, 2016, and Q3 2017

Northern Tier Location Quotient			
Category	2012 Location Quotient	2016 Location Quotient	Q3 - 2017 Location Quotient
Agriculture, Forestry, Fishing and Hunting	2.1	2.2	2.9
Mining	8.1	11.0	8.7
Utilities	1.1	1.5	1.4
Construction	1.2	1.1	1.6
Manufacturing	1.6	1.7	1.4
Wholesale Trade	0.9	0.8	0.6
Retail Trade	1.0	1.0	1.0
Transportation and Warehousing	1.2	1.0	1.0
Information	0.6	0.9	0.6
Finance and Insurance	0.5	0.5	0.5
Real Estate and Rental and Leasing	1.5	0.5	0.7
Professional, Scientific, and Technical Services	0.4	0.4	0.4
Management of Companies and Enterprises	0.4	0.5	0.4
Administration & Support, Waste Management and Remediation	0.3	0.5	0.5
Educational Services	0.9	0.9	1.1
Health Care and Social Assistance	1.0	1.0	0.9
Arts, Entertainment, and Recreation	0.7	0.5	0.9
Accommodation and Food Services	0.9	0.9	1.0
Other Services (excluding Public Administration)	0.7	0.7	0.8
Public Administration	1.5	1.5	1.9

Analysis of Economic Development Problems and Opportunities

After gathering information from representatives of municipalities, local business representatives, and regional stakeholders in the Northern Tier, the following strengths, weaknesses, opportunities, and threats were identified:

STRENGTHS

- **Friendly and Welcoming Residents**
 - Residents are hospitable and welcoming.
 - Resident population is open to economic development.
- **Abundance of Natural Scenery**
 - Proximity to large urban areas creates opportunity for tourism.
 - Scenic recreation areas and natural beauty.
 - An existing trail network that attracts outdoor enthusiasts.
- **Charming Small Communities**
 - Historical architecture in many core communities.
 - Businesses are owned by people that welcome tourists.
 - Commercial space is readily available.
- **Abundant Agricultural Land**
 - Agricultural tourism is a growing industry in the region.
 - Tourists from large urban areas take advantage of ag-tourism offerings.

WEAKNESSES

- **Lack of Adequate Access to Broadband**
 - A lack of adequate access to broadband makes it difficult for businesses to compete.
 - Some progress has been made in the Northern Tier's larger counties; broadband expansion in Bradford and Tioga counties has been funded in part by the Pennsylvania Broadband Investment Incentive Program.
 - White space radio broadband connections may offer a cost-effective, faster way to increase broadband's reach throughout the region.

- **Natural Gas is Not Harnessed for Local Use**
 - Most natural gas extracted in the area is distributed for use beyond of the Northern Tier.
 - Many Northern Tier residents and businesses would like to see infrastructure improvements that allow natural gas to be distributed locally.
- **Region is Not Retaining the Youth Population; Population is Aging**
 - The median age of the region is rising, and the percentage of the population under 25 years of age is decreasing.
 - Students at local educational institutions can find employment elsewhere.
 - Fire and ambulance service, most of which is volunteer, is being impacted by these shifting demographics.
 - Local employers are finding that it is difficult to replace retiring employees with qualified younger workers.

OPPORTUNITIES

- **Residents are Open to Economic Development Initiatives**
 - Residents understand the need for economic development initiatives in the region.
 - Local economic development organizations are working with businesses to assist in finding employees and helping to navigate a globalized marketplace.
 - Residents are keen to see their core communities become more vibrant.
- **Natural Gas Extraction**
 - Although the natural gas market has slowed in recent years, the industry still stimulates the local economy.
 - Residents and businesses are pushing for a local natural gas distribution network that will make living and conducting business in the Northern Tier less expensive.
- **Apprenticeships, Internships, and Job Shadowing Programs**
 - Local school districts are partnering with local industry to conduct apprenticeships, internships, and job shadowing programs.
 - These programs not only offer educational opportunities to students, but also train potential employees.
 - These programs also assist in retaining the Northern Tier's youth population.
 - There is a desire for regional post-secondary institutions—particularly those with programs in the medical field—to conduct similar programs in the Northern Tier.

THREATS

- **Youth Population is Leaving the Region**
 - There is a “brain drain” in the region due to opportunities in larger urban areas nearby.
 - Employers are finding it difficult to fill positions with qualified younger employees.
 - Students from post-secondary institutions in the region, such as Mansfield University and Keystone College, tend to not stay in the Northern Tier.
 - The trend of young people leaving is reflected in the Northern Tier’s demographics (a rising median age; a smaller percentage of population 25 years and younger).
- **Opioid Crisis**
 - The national opioid crisis is taking its toll on the Northern Tier, both socially and economically.
 - Drug abuse, treatment, and recovery is a healthcare issue for the region.
 - Drug abusers do not pass drug tests administered by local employers, which puts a strain on the local labor market.
 - Local residents would like to see a wider availability of treatment and recovery centers throughout the Northern Tier.
- **Residents are Exiting the Workforce**
 - Many residents are exiting the workforce, which is consistent with the Northern Tier’s aging population.
 - Local employers are finding it difficult to hire qualified replacements.
 - An aging population also creates a need for more healthcare providers and workers.
 - Volunteer ambulance and fire crews are feeling the pinch; many emergency responders are retiring.
- **New Chain Retail Market Entries**
 - Retail chains opening in the area, such as Walmart, Dollar General, and Family Dollar, are having a detrimental effect on locally owned businesses.
 - According to stakeholder interviews, locally owned businesses have found it difficult to stay afloat amid these changing market conditions.
 - Stakeholders also indicate that many small business owners have not harnessed the power of Internet and social media marketing.

- There is a desire by local economic development agencies to help educate small business owners on how to become more competitive.

NORTHERN TIER ECONOMIC DEVELOPMENT AGENCIES

Northern Tier Regional Planning & Development Commission (NTRPDC)

As the Pennsylvania Local Development District serving Bradford, Sullivan, Susquehanna, Tioga, and Wyoming counties, NTRPDC provides direct services to businesses in order to promote and facilitate expansion and development. NTRPDC serves as a link between the public and private sectors and offers a variety of business support services aimed at creating employment opportunities and continued growth for the region.

Economic development-related services include:

- Business Financing: Offer low-interest financing for new or expanding businesses in the area.
- Information Technology: Provide website assistance and technical assistance to municipalities and small businesses.
- Government Purchasing: Provide in-person counseling and technical assistance to small businesses seeking to sell products and services to federal, state, and/or local governments.
- Export Assistance: Facilitate business expansion into international markets through counseling, research, and connection to a global network of overseas trade consultants.
- Economic Development: Coordinate Keystone Opportunity Zone benefits to promote industrial development; connect businesses, municipalities, and non-profit entities with grant opportunities.
- Transportation Planning: Provide information about traffic patterns, roadway conditions, and transportation development opportunities. Prioritize and administer state funding for transportation improvements to support commerce and commutes.
- CareerLink: Provide area employers with labor market information, job fairs, and prospective employees; provide job seekers with job search assistance, resume writing, and applicable workshops.
- Youth Programs: Provide local youth with employment and training programs.
- Industry Partnerships: Coordinate industry-specific training for incumbent workers, including training in the health care industry.
- EARN: Coordinate programs that assist eligible low-income, unemployed individuals in securing employment.

- Adult/Dislocated Worker Assistance: Provide employment services to long-term unemployed, underemployed, or displaced workers.
- Rapid Response: Provide information and assistance to employees affected by a layoff.
- Skills Assessment: Administer workplace-defined skills assessment testing for job seekers.

NTRPDC serves as the staff to the Workforce Investment Board which oversees the Workforce Investment Act, the Department of Public Welfare, and PA CareerLink® services in the region. Additionally, NTRPDC is the Economic Development Organization designated by the U.S. Department of Commerce/Economic Development Administration and serves as the Rural Planning Organization for PennDOT.

Northeastern Pennsylvania Industrial Resource Center (NEPIRC)

NEPIRC is the Northern Tier's regional Industrial Resource Center and Manufacturing Extension Partnership (MEP) Program affiliate. As such, NEPIRC brings the business assessment and consultative capabilities of seven statewide Industrial Resource Center locations and more than 1,600 manufacturing specialists (through the U.S. Department Commerce National Institute of Standards & Technology (NIST) MEP Program) to Northern Tier manufacturers.

NEPIRC's mission is to create regional job growth and economic prosperity by consulting with Northern Tier manufacturers to increase their profitability through the adoption of Next Generation Manufacturing (or NGM) strategies. In pursuit of this mission, NEPIRC works exclusively with manufacturers with 10 or more employees, with its typical client having at least 20 employees. NEPIRC provides no-cost or low-cost education and awareness programs as well as business competitiveness assessments and provides consulting services on a fee-for-use basis.

As the region's only Partnerships for Economic Performance (PREP) partner focused exclusively on improving the competitiveness and long-term viability of regional manufacturers, NEPIRC leverages Commonwealth of Pennsylvania support with federal and private dollars.

NEPIRC is a licensed, certified, and well-trained provider of several industry-recognized business assessment products, including CoreValue® Assessments and Competitiveness Review® Assessments, both of which are designed to provide emerging and mid-sized manufacturers with proven roadmaps for growth and expansion. These assessments enable manufacturers to compare their current financial, productivity, sales, operational, and workforce development performance to those of industry-leading, world-class companies and develop strategies to bridge any gaps. These assessments are provided free of charge to regional manufacturers (CoreValue®) or at a very lost cost (Competitiveness Review®) due to NEPIRC's status as a Commonwealth-funded economic development organization.

The University of Scranton and Wilkes University Small Business Development Centers

The Pennsylvania Small Business Development Centers are a statewide network of 18 college and university-based business assistance centers that have been providing business management training to Pennsylvania entrepreneurs since 1980.

The Wilkes and Scranton SBDCs provide services in three core areas—Start-Up Services, Innovation and Growth Services, and Sustainability Services—to help entrepreneurs start successful new companies and facilitate their growth and prosperity.

The SBDCs provide no-cost small business consulting services that are tailored to fit the needs of small business clients of Bradford, Sullivan, Susquehanna, Tioga, and Wyoming counties. The centers offer confidential individualized assistance designed to identify and address the problems of small business owners as well as individuals interested in establishing a business.

The SBDC network has a proven suite of Start-Up Services that help people with great ideas and inspiration start new ventures that survive, grow, and prosper. The First Step Course—the online Starting a Business Tutorial, Business Planning Services, Environmental Management: Regulatory Assistance Services, Market Analysis and Research Services, and Capital Acquisition Services—provide prospective entrepreneurs with the resources to plan, fund, and launch successful new ventures.

SBDC Innovation and Growth Services focus on helping companies conduct strategic planning and think long-term to identify opportunities, and to provide the information to act boldly but wisely. Specialized expertise in international business and government procurement enable companies to access new markets. With accreditation for its Technology Services, the SBDCs work with entrepreneurs to develop new products. Capital Acquisition Services help clients obtain the funding necessary to fuel the development of new products and company growth.

SBDC Sustainability Services help companies build business models that are efficient and profitable. Consulting engagements begin with an in-depth analysis to identify a course of action to help the company retain jobs and strengthen prospects for future growth. Environmental Management Services assist companies in reducing energy costs and identifying opportunities for operational cost savings. Financial Analysis Services help businesses manage costs, and Capital Acquisition Services identify funding for reinvention strategies as well as facility and operational upgrades. International Business Services help companies to protect domestic markets from foreign competitors and source competitive raw materials.

Progress Authority

The Progress Authority is a multi-municipal, general purpose authority, development corporation, and industrial development authority serving both Bradford and Susquehanna counties. The CBPA model has been a successful vehicle for leveraging funding, administering economic development programs and initiatives, and serving business and community needs.

The Progress Authority's economic development outreach is designed to work in concert with local economic development organizations with no staffing or resources. The boards of these organizations, however, provide valuable insight and support for economic development opportunities in their communities. The Progress Authority meets regularly with these groups to receive community input on priorities and direction. In addition to these local groups, countywide economic development advisory boards are in place to help direct and prioritize economic development projects in both counties.

The Progress Authority focuses on activities that have the potential to lead to private investment, job creation, and job retention in Bradford and Susquehanna counties. It is responsible for seeking investment in many forms, including infrastructure development, site preparation, workforce development, and general business reinvestment. It is certified as an area loan organization by the Pennsylvania Department of Community and Economic Development, as well as a certified IDA and IDC. The Progress Authority provides revolving loan funds for small businesses and is the Enterprise Zone and Local Economic Development Assistance (LEDA) grant administrator for Bradford and Susquehanna counties.

Sullivan County Office of Planning and Community Development

The Sullivan County Office of Planning and Community Development (SCOPCD) aims to encourage responsible economic development to provide increased quality employment opportunities as well as encourage existing business retention through financial and technical assistance. Sullivan County's approach to economic development is somewhat non-traditional. They understand that the scenic natural environment attracting people to Sullivan County could easily be marred by development in the wrong places. They aim to maintain these natural features and seek to maintain a balance between growth and conservation.

Local tools available to encourage economic development may include grants to assist with infrastructure improvements such as the extension of municipal water and sewer lines or road and bridge repairs that may facilitate a business's growth. Technical assistance includes networking developers with local, regional, and state permitting agencies as well as with regional and state economic development agencies. SCOPCD also assists with the development of necessary commercial land development plans and approvals.

The focus of SCOPCD's county economic development effort is to assist new and expanding businesses that have been created as a result of the exploration and production of natural gas in the Marcellus Shale region.

Tioga County Development Corporation

The Tioga County Development Corporation (TCDC) provides direct assistance to businesses in their efforts to retain and create jobs and increase the tax base. Services include direct low-interest loans to for-profit businesses and assistance with securing other public funding for business development. TCDC also works to improve the economic vitality of the county by providing leadership training through Leadership Tioga County to 34 high school juniors and 10 to 14 adults annually. It also provides public grants to public schools in the county through the Education Improvement Tax Credit Program, and coordinates career development activities for students.

Direct business assistance includes the Tioga County Loan Program, which has operated direct loan programs since 1998. TCDC is also a designated Area Loan Organization which allows access to additional financing tools through the Commonwealth. TCDC also operates the LERTA program for tax abatement for real estate development or major renovations. It has also administered the Enterprise Zone program for the last six years. Through the Buy Tioga County Program, TCDC encourages residents and businesses to purchase locally produced items to help stimulate the local economy. TCDC is actively pursuing the development of the former E. H. Hall, Inc./WESTAN Tannery, a brownfield site, into the Westfield Business Park at an estimated cost of \$9 million. Efforts are underway to have the 17.6-acre site designated as a Keystone Opportunity Zone site. This is a long-term multi-year project.

Wyoming County Chamber of Commerce

The Wyoming County Chamber of Commerce is a voluntary association of area businesses, industries, and professionals. Membership is open to businesses and individuals who either reside or do business in or near Wyoming County. This partnership of businesspersons works toward the advancement and development of the Wyoming County community. The mission of the Wyoming County Chamber of Commerce is to promote business retention, business growth, education, and tourism programs that enhance the business community, resulting in the highest quality of life for present and future generations of area residents. The Wyoming County Chamber of Commerce is dedicated to providing clear direction as well as specific tools for attracting and maintaining economic growth and high quality of life for Wyoming County. This includes identifying ways to increase business and tourism, plan for revitalization and historic preservation, and coordinate infrastructure improvements.

The objectives of the chamber include the following:

- Coordinate the efforts of commerce, industry, and the professions to maintain and strengthen a sound and healthy business climate in Wyoming County.
- Sponsor programs and activities that will provide the full development and employment of our human and economic resources.

- Provide creative business leadership and effective coordination of all interested parties in solving community problems and in initiating constructive community action.
- Create a broad understanding and appreciation of the opportunities in Wyoming County and promote the advantages and assets of the community on a broader scale.

STAKEHOLDER INTERVIEWS

Eight interviews were conducted with business and community leaders during May and June 2018. These interviews helped inform a current understanding of the regional economy and its strengths, weaknesses, opportunities, and threats.

Strengths

Natural Beauty

When asked what the Northern Tier is “best” at on a globally visible level, interviewees focused mainly on the abundant natural resources and the beauty of the countryside. These features are largely what make the Northern Tier region stand out from its competitors. Agricultural tourism is another characteristic of the region that separates it from other communities.

Welcoming Atmosphere

Interviewees generally feel that the Northern Tier is a good place to do business, largely because of the welcoming and hospitable resident population. The tourism industry in the area, according to stakeholder interviews, is largely propelled by the welcoming nature of area residents. Civic and business leaders see a hospitable atmosphere as a possible attraction for new residents.

Quality of Life

Stakeholders tend to agree that the quality of life is high in the Northern Tier. The quality of life can partially be attributed to the area’s natural beauty and clean environment, while some is attributed to the welcoming atmosphere and community support within the area. Interviewees were also impressed with the quality of local schools. The quality of life in the area is seen as a strength in recruiting new residents.

Weaknesses

Aging/Declining Population

The population of the Northern Tier is small, resulting in lower income from tax revenue for municipalities. The small population also makes it difficult for the Northern Tier to obtain grant funding for projects. Additionally, the region is experiencing “brain drain” as young adults leave the region for bigger cities, so a large proportion of the Northern Tier’s population is older. An aging population has also put a strain on emergency services in the region.

Distribution of Natural Gas Locally

As it stands, a majority of the natural gas extracted in the Northern Tier is piped out of the area for consumption elsewhere. Interviewees indicated a desire for a local distribution network that would allow Northern Tier residents and businesses to directly benefit from extraction activities. A local natural gas distribution network would lower utility costs for both residents and businesses. This would be an attractive proposition for businesses interested in locating in the Northern Tier.

Broadband Internet

The most common response among all stakeholder interviews was the lack of adequate broadband Internet connectivity in the region. Inadequate broadband Internet connectivity hampers the ability of existing Northern Tier businesses to compete effectively in the marketplace. It is also a deterrent for businesses seeking to locate in the Northern Tier. There has been some progress in securing funding for broadband expansion in Bradford and Tioga counties through the Pennsylvania Broadband Investment Incentive Program. Opportunities exist in Sullivan, Susquehanna, and Wyoming counties for broadband expansion through white space radio broadband connections.

Opportunities

Marketing

From a **resource or ecotourism** perspective, the Northern Tier can be branded as an area with unique ecological experiences, including unique natural scenery, unique activities and events, unique products, and locally grown farm-to-table food. Interviewees strongly support using the idea of “unique products and experiences” found within the region for branding. From a **business attraction** perspective, the Northern Tier can use its affordable energy as a branding strategy. The proximity to major markets is also a positive aspect for potential businesses. From the perspective of **prospective residents**, the Northern Tier can be branded as a good place to raise a family with friendly people and a small-town atmosphere.

Collaboration

The Northern Tier can promote its competitive strengths via regional collaboration. There is a desire among stakeholders for Northern Tier school districts and technical schools to collaborate and offer synergistic programs. Workforce issues exist across the Northern Tier, so school districts, technical schools, and post-secondary institutions should work together to ensure the issue is addressed in all communities. Interviewees would also like to see collaboration among Northern Tier counties for marketing purposes. As it stands, counties either conduct their own marketing initiatives or partner with counties outside of the Northern Tier region. Establishing a regional strategy and sharing a common vision will help the Northern Tier create a comprehensive strategy for long-run economic development.

Infrastructure Development

Expanding broadband Internet is important for attractiveness and future competitiveness of the region. It is also important to make these improvements without interfering with the natural beauty of the region. Providing infrastructure so that natural gas is more readily available locally is also a high priority.

Business Development

Northern Tier municipalities can provide educational programs, including business development and finding market opportunities. One interviewee suggested classes, hosted by workforce development agencies, to educate business owners on how to navigate a challenging market environment. There is also a desire to educate business owners on how to harness the power of the Internet and social media for advertising purposes. Encouraging businesses to offer niche products and experiences will enable them to compete successfully against chain competitors that have been entering the region.

Redevelopment/Beautification of Core Communities

The Northern Tier has numerous charming, scenic small towns. There are, however, some vacancy and blight issues in these communities that must be addressed. The Northern Tier should make it a priority to develop these core communities into “activity centers.” By redeveloping and locating new businesses into formerly unoccupied or blighted buildings, the core communities will flourish with activity. Young people, particularly those of the Millennial generation, will appreciate the vibrant, flourishing core communities, and will be more likely to remain in the area to start families and stimulate the local economy.

Workforce Development

The major role for higher education institutions will be partnering with employers for specific programs to train the workforce for available jobs. Some companies already partner with area school districts, the Northern Tier Career Center, and Mansfield University for industry-specific programs. The role of higher education institutions is also critical for the healthcare system, which has many technical jobs that require training.

Expanded Trail Network

The region’s trail network is a tourism asset for the Northern Tier. Stakeholder interviewees would like to see the region’s trail network expanded and interconnected to allow movement of tourists through various communities and municipalities. In some instances, this may require coordination with the Pennsylvania Game Commission to allow access onto state gamelands. There is also a desire to open new outfitters to service outdoor adventurers.

Threats

Opioid Crisis

Like the rest of the nation, the Northern Tier is feeling the social and economic effects of the current opioid crisis. Local healthcare providers do not have the staffing or facilities to meet the needs of drug treatment and recovery programs. Employers are finding it difficult to find potential workers that can pass the necessary drug tests. The Northern Tier must make it a priority to encourage drug prevention programs, and to expand access to drug treatment and rehabilitation facilities.

Lack of Youth Retention

Other threats include “brain drain,” or the younger generation migrating out of the region. Neighboring regions with larger population centers such as Williamsport, Philadelphia, and New York are more attractive to young people who look for more amenities and entertainment in addition to job opportunities. The Northern Tier should work with post-secondary institutions, such as Mansfield University, Keystone College, and Penn College, to advertise job openings and apprenticeship/internship opportunities in the Northern Tier.

Workforce Retirements

Because the region’s youth population is leaving, employers are having a difficult time finding suitable replacements for retiring employees. Local emergency service agencies, such as fire and ambulance companies, have been hit particularly hard by this trend as they rely on volunteers. The Northern Tier must make it a priority to advertise these availabilities to prospective employees.

Common Threads

Across stakeholder interviews, trends emerged regarding what participants like about the Northern Tier region and what they think should be improved. These trends are helpful in determining what aspects can be promoted and marketed to attract businesses and residents. They are also useful in prioritizing economic development projects.

The most commonly mentioned strengths and weaknesses of the Northern Tier region are described in the table below. Most of the regional strengths are related to natural resources. This sets the region apart from competitors, since most of the economic competitors of the Northern Tier are urbanized areas. Weaknesses are largely related to infrastructure.

Table 30: Northern Tier Strengths and Weaknesses

Strengths	Weaknesses
<ul style="list-style-type: none"> • Friendly/welcoming atmosphere • Gorgeous natural scenery • Small town charm • Abundance of agricultural land 	<ul style="list-style-type: none"> • Lack of adequate broadband Internet • Lack of local distribution infrastructure for natural gas • Not retaining the youth population • Insufficient skilled workforce

The primary economic competitors of the Northern Tier are nearby cities, especially New York, Scranton, and Williamsport. The biggest assets of these cities that were acknowledged by focus group participants are population, infrastructure, transportation options, and shopping amenities. The most important disadvantages are high taxes and high crime rates. Another economic competitor is the Poconos region in Monroe County, but for different reasons than the previously mentioned cities. The Poconos region serves a different market and competes with the Northern Tier in the tourism industry. Tourism in the Northern Tier is more seasonal, while the Poconos attract tourists year-round.

The biggest opportunities for and impediments to economic development in the Northern Tier according to stakeholder interview participants are described in the table below. Opportunities mainly pertain to workforce development and building upon existing assets. Impediments to development include the lack of developable sites, the small population, distance to important resources, and lack of broadband coverage.

Table 31: Northern Tier Opportunities and Impediments

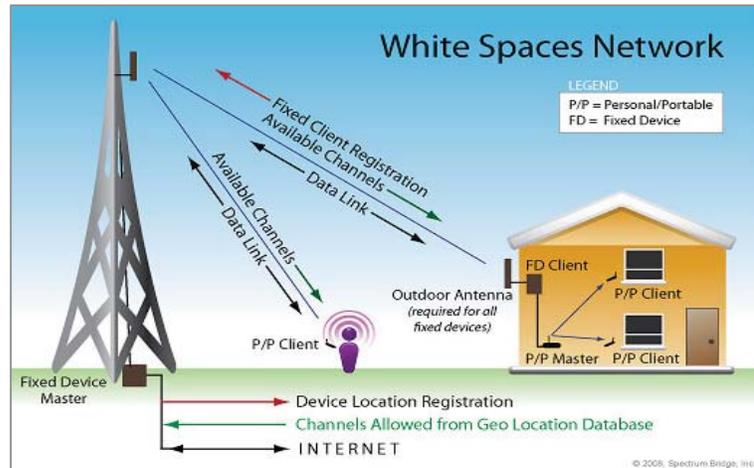
Opportunities	Impediments
<ul style="list-style-type: none"> • Expansion of tourism • Regional marketing and workforce development collaboration • Expanding training, apprenticeship, internship, and job shadowing program offerings • Redeveloping and beautifying core communities • Expanding and interconnecting the region’s existing trail network 	<ul style="list-style-type: none"> • An aging and declining population • Inadequate broadband Internet connections • Opioid crisis

The biggest collaborative opportunity is improving regional collaboration in the areas of workforce development and marketing. Stakeholders would like to see a marketing campaign that is cohesive yet highlights the individuality (or “uniqueness”) of each community and county. Ag-tourism has been a flourishing tourist attraction in the Northern Tier in recent years. With close proximity to larger urban markets, as well as the growing demand for farm-to-table foods, the Northern Tier is well-positioned to capture much of the demand for ag-tourism. There is also a desire for collaborative training programs that are tailored to various employer needs in all of the Northern Tier’s communities. Impediments to these opportunities include an aging population, a lack of broadband Internet connection, and the effects of the opioid crisis.

Additional Information on Strategic Initiatives

WHITE SPACE RADIO BROADBAND EXPANSION

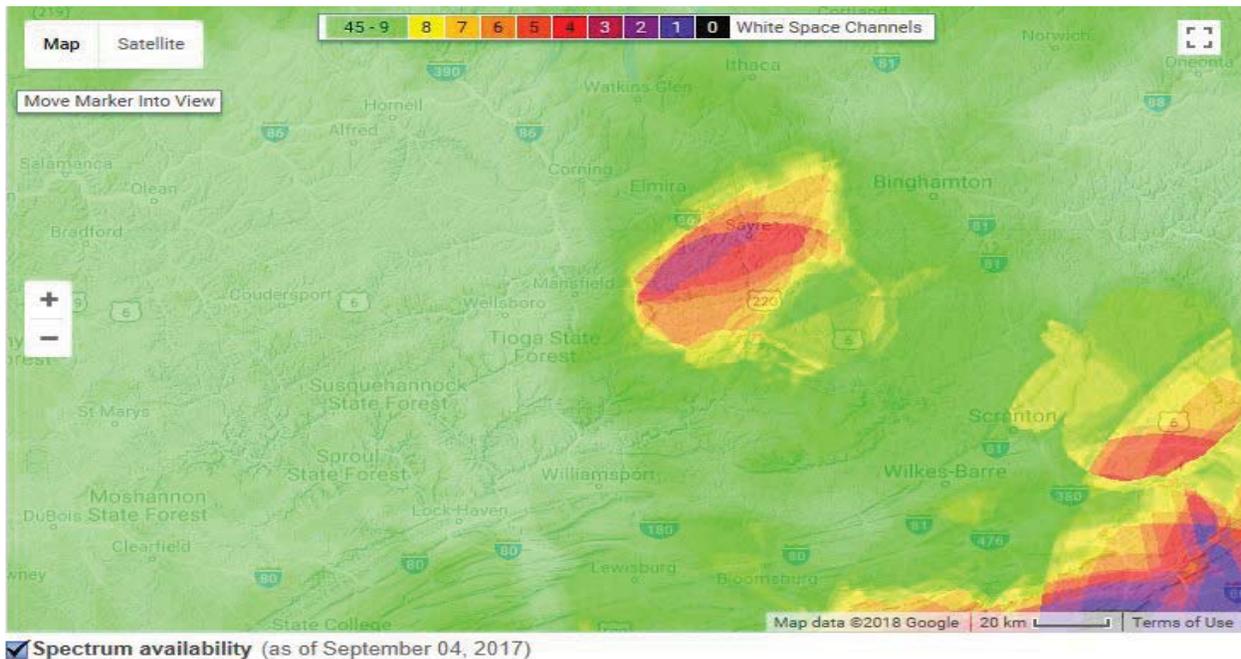
Inadequate broadband infrastructure to support businesses and residents is one of the biggest concerns of business owners and local municipal leaders in the Northern Tier. In areas throughout the region, economic growth and development is hindered by slow Internet connections that make it difficult to compete on a national and global scale.



Because of the cost of buried broadband Internet lines, white space radio wireless connections may be a solution. White space radio wireless connection uses TV antennas to receive wireless broadband Internet. Bands VHF and UHF are referred to as “buffer” channels, or channels that exist to cut down on interference between competing TV channels. These channels can be utilized by a white space radio device to provide broadband Internet across a large geographic area. White space radio wireless connections utilize lower-frequency UHF signals that can penetrate rugged and forested terrain.

As depicted on Figure 13, there are a multitude of white space channels available in the Northern Tier. This presents an opportunity to utilize this flexible, less capital-intensive broadband technology.

Figure 13: White Space Channel Coverage in the Northern Tier



TRI-COUNTY RURAL ELECTRIC COOPERATIVE BROADBAND EXPANSION

In September 2018, the Wolf Administration announced that the Tri-County Rural Electric Cooperative had been awarded \$15,651,726 through the Pennsylvania Broadband Investment Incentive Program. The program, a partnership between the Office of Broadband Initiatives and PennDOT, awarded a total of \$35 million in incentive funding. Award recipients were required to allow PennDOT to use current and future network facilities.

The expansion project by Tri-County Rural Electric Cooperative will serve Bradford, Tioga, Potter, and Lycoming counties. Across these counties, approximately 7,015 homes and businesses will be served. The program ensures that served units will have broadband access of at least 100 Mbps by no later than June 2022.

CORE COMMUNITY REVITALIZATION

An overarching goal of this CEDS plan is to redevelop and beautify core communities. Redeveloped and beautified Northern Tier communities have the potential to increase the spending of tourist dollars, attract new businesses, and retain the region's young population. This trifecta of positive effects will increase the tax revenue within each Northern Tier community and county. State and federal funding is available to formulate the necessary plans, and fund any necessary redevelopment, façade, or streetscape projects. The short case studies following provide examples of other Pennsylvania communities who invested in revitalization in various forms and scales.

Case Study: Bellefonte Waterfront District Revitalization Plan

Bellefonte Borough, Centre County, suffered a significant loss in 2006 when the historic Bush House Hotel was lost to a devastating fire. The Borough, however, recognized that the loss also created a new opportunity to redevelop its waterfront district. To encourage redevelopment, the Borough adopted a zoning ordinance for the waterfront district to accommodate mixed-use redevelopment. The Borough secured funding from the Pennsylvania Department of Community and Economic Development (DCED) to develop a market assessment and revitalization plan for this district.

The plan addressed several questions to guide future development:

- What is the feasibility of building construction within the floodplain areas of the waterfront site?
- What types of development can be supported by the market?
- How will development of the waterfront district tie in with the core business district?
- What actions need to be taken to achieve the goals of the master plan?

The vision of the *Waterfront District Revitalization Plan* was based on data analysis, evaluation of physical conditions, and gathering of input from property owners, residents, municipal officials, and other interested community members. The recurring theme expressed throughout the planning process was the desire to create a destination that will attract visitors from outside of the community as well as from Bellefonte. It will be a place that is a vibrant mix of commercial and residential uses, open space, and tourism-related activities that complement and connect the waterfront district to the downtown commercial core.

Components of the Revitalization Plan:

1. Waterfront District Connection to the Downtown Commercial Core – Development of the waterfront district will include a mix of office/residential construction and a hotel. These particular uses will provide the necessary ingredient for an effective redevelopment strategy: people. Both the transient population created by the hotel and offices and the

permanent population created by the mixed-use development bring people to the area. In both instances, these people will have needs that will be served by establishments both in the immediate area as well as the core business area.

2. Streetscape Enhancements, Intersection of High and Water Streets – Provide a safe and appealing intersection(s) and connect the Waterfront District and the core business area of Bellefonte.
3. Pedestrian River Wall and River Walk – The presence of Spring Creek within the Waterfront District provides a focal point to attract activity and people to the site. This amenity can be used to maximize the market potential in the district. However, this amenity also brings the challenge of incorporating physical design elements that address the periodic flooding of the creek. The River Wall and River Walk will improve the safety and image of the waterfront district, making it more appealing for development.
4. Hotel Development – Research validated that the market would support a boutique hotel facility that would accommodate community needs and visitors attracted to Bellefonte. Primary Sources of visitors including fly fishing and kayaking, and visitors to the American Philatelic Society. In addition, there is a market opportunity to take advantage of the overflow of visitors coming to the area for Penn State-related activities, and other events such as the Central Pennsylvania Festival of the Arts, held in State College each summer.

Implementation Accomplishments:

1. Construction of the River Wall and River Walk. The Borough secured \$3 million in Redevelopment Assistance Capital Program funds to construct the River Wall and River Walk along the waterfront redevelopment site.

Figure 14: Bellefonte River Wall and River Walk, Before and After



2. Proposal for Redevelopment of Waterfront Site. In 2018, the Borough received a proposal from the Bellefonte Waterfront Associates LLC for the redevelopment of the waterfront property. Their vision includes a boutique hotel with about 80 guest rooms,

meeting and banquet rooms, a balcony and restaurant; a six- or seven-story building with offices and commercial space on the first floor and one- and two-bedroom condos above; and a parking lot (or potentially a parking garage) between the two buildings.

Figure 15: Bellefonte Riverfront Redevelopment Concept Plan



Source: Bellefonte Waterfront District Revitalization Plan

Case Study: Pittsburgh Façade Improvements

Commercial façade improvements will greatly enhance the Northern Tier's core communities by improving the experience for both residents and visitors. There are a vast number of communities across the nation that have created grant programs to incentivize business/property owners to improve their commercial façades.

For example, The Urban Redevelopment Authority in Pittsburgh offers façade improvement programs designed to help owners and tenants to improve or restore their storefronts. The example below is located in Hazelwood. A \$31,500 Streetface Façade forgivable loan renovated a vacant market. The location is now a manufacturing facility for La Gourmandine Bakery and is home to La Gourmandine Bakery's third retail bakery site. (Source: URA website)

Figure 16: Pittsburgh Façade Renovation, Before and After



Case Study: Steinwehr Avenue (Gettysburg, PA) Streetscape Improvements

After the relocation of the Gettysburg National Military Park's Museum and Visitor Center from Steinwehr Avenue to the Baltimore Pike, local businesses saw a rapid drop in foot traffic. The aging sidewalk infrastructure was adequate for visitors spilling over from the neighboring center but not inviting enough to attract destination shoppers. Improvements ranging from street repaving, improved stormwater drainage, and traffic-calming devices to brick sidewalks, benches, trash cans, landscaping, and increased lighting changed the visual impression of Steinwehr Avenue from a place to pass through to a place to stop and shop.

Figure 17: Gettysburg Streetscape Improvements



Implementation

The following tables provide practical guidance on systematically achieving the vision and goals articulated in this plan. The strategies and actions were developed through extensive public and stakeholder involvement and analysis of current conditions in the Northern Tier. Lead and support entities are identified for each action, along with a timeframe to strategically prioritize efforts. Potential funding sources are indicated where applicable.

While NTRPDC has a lead role in coordinating much of this work, consistent progress depends upon active and ongoing collaboration among local and county governments, economic development organizations, educators and employers, and other partners with an interest in the prosperity of Northern Tier residents and businesses.

Goal A: Expand Broadband Internet				
Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Timeframe
Strategy 1: Establish a Broadband Action Team				
a) Convene a team to oversee broadband expansion.	<ul style="list-style-type: none"> Northern Tier Regional Planning Commission (NTRPDC) County Government 	<ul style="list-style-type: none"> School Districts Business and Industry Current Providers Commonwealth of PA - Broadband Task Force 		0-3 months
b) Set goals, responsibilities, and schedules to maintain project momentum.	<ul style="list-style-type: none"> Broadband Action Team 	<ul style="list-style-type: none"> NTRPDC 		0-3 months
Strategy 2: Develop a Regional Broadband Inventory				
a) Define broadband network requirements.	<ul style="list-style-type: none"> Broadband Action Team 	<ul style="list-style-type: none"> NTRPDC 		0-3 months



Goal A: Expand Broadband Internet					
Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Timeframe	
b) Identify and map available Internet access services, speeds, providers, and gaps in availability.	<ul style="list-style-type: none"> Broadband Action Team 	<ul style="list-style-type: none"> NTRPDC County Government GIS Department 		3-6 months	
c) Determine what initiatives individual counties are taking to expand broadband access.	<ul style="list-style-type: none"> Broadband Action Team 	<ul style="list-style-type: none"> County Government NTRPDC 		3-6 months	
d) Identify target areas for feasibility studies.	<ul style="list-style-type: none"> Broadband Action Team 	<ul style="list-style-type: none"> County Governments NTRPDC 		3-6 months	
Strategy 3: Develop Feasibility Studies					
a) Identify and secure funding for broadband expansion feasibility studies.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> County Governments Commonwealth of Pennsylvania 	<ul style="list-style-type: none"> Appalachian Regional Commission (ARC) Municipal Assistance Program (MAP) 	6-9 months	
b) Conduct broadband feasibility studies.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Broadband Action Team County Governments 		12-18 months	
c) Determine partnerships required.	<ul style="list-style-type: none"> Broadband Action Team 	<ul style="list-style-type: none"> County Governments Municipal Governments Service Providers 		12-18 months	



Goal A: Expand Broadband Internet				
Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Timeframe
Strategy 4: Analyze White Space Radio Wireless Connection				
a) Compare white space radio coverage map with targeted areas.	<ul style="list-style-type: none"> NTRPDC County Government 	<ul style="list-style-type: none"> Broadband Action Team 		6-9 months
b) Meet with companies to determine the cost of program components and the required participation rate.	<ul style="list-style-type: none"> Broadband Action Team 	<ul style="list-style-type: none"> NTRPDC County Governments 		6-12 months
c) Determine funding needed for implementation.	<ul style="list-style-type: none"> Broadband Action Team 	<ul style="list-style-type: none"> NTRPDC 		6-12 months
Strategy 5: Secure Funding and Begin Prioritized Implementation				
a) Based on the feasibility of broadband expansion projects and/or white space, seek and apply for implementation funding.	<ul style="list-style-type: none"> County Governments 	<ul style="list-style-type: none"> Broadband Action Team NTRPDC Private Partners 	<ul style="list-style-type: none"> Redevelopment Assistance Capital Program (RACP) Appalachian Regional Commission (ARC) Municipal Assistance Program (MAP) USDA Rural Broadband Access Loan and Loan Guarantee 	18-24 months; ongoing



Goal B: Strengthen a Strategic Workforce

Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Time-Frame
Strategy 1: Continue partnering with Local Industry to Address Workforce Needs				
a) Identify and survey key industries in the Northern Tier to discuss hiring practices, skills gaps, and industries' expansion plans.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Local Industry Workforce Development Agencies 		0-6 months
b) Develop programs/curricula to meet identified needs.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Local Industry Workforce Development Agencies 		3-6 months
c) Ensure that vulnerable residents, such as the physically and mentally challenged, have adequate access to employment.	<ul style="list-style-type: none"> Workforce Development Agencies NTRPDC 	<ul style="list-style-type: none"> Local Industry 		Immediate
Strategy 2: Continue to Promote Technical Training				
a) Develop a marketing campaign to familiarize students and parents with the affordability of technical training and growth in job opportunities.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Local Industry Workforce Development Agencies School Districts 		0-12 months; ongoing
b) Continue to organize career fairs and other events to educate students and parents on career opportunities.	<ul style="list-style-type: none"> Workforce Development Agencies Local Industry 	<ul style="list-style-type: none"> NTRPDC School Districts 		9-12 months; ongoing



Goal B: Strengthen a Strategic Workforce

Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Time-Frame
c) Develop programs to educate elementary school children with regard to shaping their future career path.	<ul style="list-style-type: none"> Workforce Development Agencies Local Industry 	<ul style="list-style-type: none"> NTRPDC School Districts 		9-12 months; ongoing
Strategy 3: Continue Developing Apprenticeships, Internships, and Job Shadowing Programs				
a) Develop a manual that highlights the process and structure needed to create apprenticeships, internships and job shadowing programs in all regions of the Northern Tier.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Local Industry Workforce Development Agencies School Districts 	<ul style="list-style-type: none"> Neighborhood Assistance Program (NAP) Pre-Apprentice and Apprenticeship Grant Program Appalachian Regional Commission (ARC) 	0-6 months; ongoing
b) Partner with schools and local industry to develop, implement, and promote these programs.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Local Industry Workforce Development Agencies School Districts 		6-12 months; ongoing
Strategy 4: Continue to Promote Local Healthcare Career Opportunities				
a) Educate students and adult learners on the growth of this industry and jobs available upon completion of all training.	<ul style="list-style-type: none"> NTRPDC Workforce Development Agencies School Districts 	<ul style="list-style-type: none"> Local Healthcare Facilities 		Immediate; ongoing



Goal B: Strengthen a Strategic Workforce

Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Time-Frame
b) Identify resources and work with technical schools to expand facilities and personnel to increase enrollment in healthcare programs.	<ul style="list-style-type: none"> • NTRPDC • Workforce Development Agencies • School Districts 	<ul style="list-style-type: none"> • Local Healthcare Facilities • Technical Schools 	<ul style="list-style-type: none"> • Redevelopment Capital Assistance Program • USDA Community Facilities Direct Loan 	Year 2-5; ongoing

Goal C: Enhance Tourism Assets

Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Time-Frame
Strategy 1: Develop the Regional Trail Network				
a) Identify on-road and off-road areas for potential trails; seek to connect existing trails.	<ul style="list-style-type: none"> • NTRPDC 	<ul style="list-style-type: none"> • County Governments • Municipal Governments 		0-6 months
b) Work with the Pennsylvania Game Commission to obtain easements for trails where necessary.	<ul style="list-style-type: none"> • NTRPDC 	<ul style="list-style-type: none"> • County Governments • Municipal Governments • PA Game Commission 		12-18 months
c) Apply for federal and state government funding opportunities to finance trail expansion.	<ul style="list-style-type: none"> • NTRPDC 	<ul style="list-style-type: none"> • County Governments • Municipal Governments 	<ul style="list-style-type: none"> • Greenways, Trails and Recreation Program (GTRP) • DCNR C2P2 	6-12 months; ongoing



Goal C: Enhance Tourism Assets				
Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Time-Frame
Strategy 2: Identify and Recruit Businesses to Serve Tourists				
a) Conduct an inventory of existing businesses and identify gaps in tourist-related industries.	<ul style="list-style-type: none"> Economic Development Agencies Endless Mountains Visitor's Bureau Bradford County Tourism Promotion Agency Tioga County Visitor's Bureau 	<ul style="list-style-type: none"> NTRPDC Municipalities County Governments 		0-3 months
b) Develop business recruitment material highlighting annual visitors, spending potential, household income, demographics, etc.	<ul style="list-style-type: none"> Economic Development Agencies Endless Mountains Visitor's Bureau Bradford County Tourism Promotion Agency Tioga County Visitor's Bureau 	<ul style="list-style-type: none"> NTRPDC 		6-9 months
c) Recruit business operators and provide start-up support.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Economic Development Agencies Endless Mountains Visitor's Bureau Bradford County Tourism Promotion Agency Tioga County Visitor's Bureau 	<ul style="list-style-type: none"> Engage! 	9 months; ongoing



Goal C: Enhance Tourism Assets				
Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Time-Frame
Strategy 3: Expand Agricultural Tourism and Markets				
a) Identify Northern Tier's agriculture niche and develop marketing materials to promote ag-tourism.	<ul style="list-style-type: none"> NTRPDC Economic Development Agencies 	<ul style="list-style-type: none"> County Government 		0-3 months
b) Develop additional farm-to-table programs to promote local dairy, meat, and produce.	<ul style="list-style-type: none"> NTRPDC Economic Development Agencies 	<ul style="list-style-type: none"> County Governments 		Year 2; ongoing
c) Work with the Commonwealth to identify potential export markets in the tri-state region.	<ul style="list-style-type: none"> NTRPDC Economic Development Agencies 	<ul style="list-style-type: none"> County Government 		Immediate

Goal D: Revitalize Core Communities				
Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Time-Frame
Strategy 1: Determine What Young People Desire in Communities				
a) Conduct surveys at high schools, colleges, and universities to determine what young people are seeking.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Economic Development Agencies County Governments Municipal Governments 		0-6 months; ongoing



Goal D: Revitalize Core Communities					
Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Time-Frame	
Strategy 2: Improve Walkability					
a) Survey municipalities to determine their interest in participation in a Core Communities Improvement Plan (CCIP).	<ul style="list-style-type: none"> • NTRPDC 	<ul style="list-style-type: none"> • Economic Development Agencies • County Governments 		0-6 months; ongoing	
b) Seek funding to develop a CCIP and encourage the use of "complete streets" design principles to accommodate all modes of transportation (walking, biking, driving, etc.).	<ul style="list-style-type: none"> • NTRPDC 	<ul style="list-style-type: none"> • Economic Development Agencies • County Governments 	<ul style="list-style-type: none"> • Municipal Assistance Program Funding 	6-12 months	
c) Develop a CCIP.	<ul style="list-style-type: none"> • NTRPDC 	<ul style="list-style-type: none"> • Economic Development Agencies • County Governments 		12-18 months	
d) Work with municipalities to seek funding to implement the CCIP.	<ul style="list-style-type: none"> • NTRPDC 	<ul style="list-style-type: none"> • Municipal Governments 	<ul style="list-style-type: none"> • Keystone Communities • Multimodal Transportation Funding (PennDOT and CFA) • USDA • ARC • CBDG 	18-60 months	



Goal D: Revitalize Core Communities				
Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Time-Frame
Strategy 3: Recruit or Expand Businesses in Redeveloped/Rehabilitated Buildings				
a) Inventory existing business mix and available buildings for sale or lease.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Economic Development Agencies County Governments Municipal Governments 		0-6 months
b) Map downtown anchors and activity-generators to identify potential synergy with new businesses.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Economic Development Agencies County Governments Municipal Governments 		0-6 months
c) Conduct market assessments to understand demand for retail, restaurants, entertainment, and housing.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Economic Development Agencies County Governments Municipal Governments 		6-9 months
d) Identify target business types for recruitment.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Economic Development Agencies County Governments Municipal Governments 		9-12 months
e) Hold “pop-up” events in underutilized buildings to create a vision for improvements; events will also market the building to potential entrepreneurs and investors.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Economic Development Agencies County Governments Municipal Governments 		0-12 months



Goal D: Revitalize Core Communities

Action Items and Steps	Lead Partners	Key Stakeholders	Funding Opportunities	Time-Frame
f) Identify stakeholder businesses, organizations, and developers willing to fund and take on infrastructure and rehabilitation projects; secure state and federal funding to make these projects financially feasible.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Economic Development Agencies County Governments Municipal Governments 		0-12 months
g) Make needed improvements to buildings or streets (streetscape projects, façade enhancement, etc.) to make them more attractive.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Economic Development Agencies County Governments Municipal Governments 	<ul style="list-style-type: none"> Redevelopment Assistance Capital Program (RACP) Keystone Communities Program (KCP) Community Development Block Grant (CDBG) 	12-36 months
h) Develop marketing material to actively recruit niche businesses based on market study.	<ul style="list-style-type: none"> NTRPDC 	<ul style="list-style-type: none"> Economic Development Agencies County Governments Municipal Governments 		36-60 months; ongoing
i) Identify open/green space within the core communities to host events (food trucks, community fairs/events, etc.).	<ul style="list-style-type: none"> Economic Development Agencies Municipal Government 	<ul style="list-style-type: none"> NTRPDC Business leaders 		Immediate

Performance Measures

A vital aspect of implementation is measuring the effectiveness of our efforts—is our hard work achieving the desired outcomes? The following performance measures will provide a benchmark by which the Northern Tier can evaluate its progress over the next five years. Performance measures are categorized by goal.

Table 32: Recommended Implementation Performance Measures

Goal	Outcome	Performance Measure	Frequency	Source/Collector of Data
Goal A: Expand Broadband Internet	Increased broadband coverage providing high-speed Internet access (fiber and white space radio)	<ol style="list-style-type: none"> 1. Communities and population within the Northern Tier with broadband coverage 2. Number of residents with access to high-speed Internet service 3. Number of businesses with access to high-speed Internet service 	Annually	<ul style="list-style-type: none"> • County Governments • Municipal Governments • Economic Development Agencies • Service Providers • Commonwealth of PA
	Increased public and private investment	<ol style="list-style-type: none"> 4. Number and dollar amount of grants secured for feasibility studies 5. Number and dollar amount of grants secured for broadband expansion 6. Dollar amount of private investment 	Annually	<ul style="list-style-type: none"> • County Governments • Municipal Governments • Economic Development Agencies • Service Providers • Commonwealth of PA
Goal B: Strengthen a Strategic Workforce	Increased job placement for physically challenged residents	<ol style="list-style-type: none"> 7. Number of physically/mentally challenged residents looking for job placement 8. Number of physically/mentally challenged residents placed with business and industry 	Quarterly	<ul style="list-style-type: none"> • Workforce Development Agencies • Business and Industry



Goal	Outcome	Performance Measure	Frequency	Source/Collector of Data
	Effective marketing campaign to promote technical training	9. Marketing materials developed 10. Value of sponsorships from local industry 11. Number of career fairs held 12. Number of programs developed for elementary school children 13. Number of informative sessions held at each elementary school	Annually	<ul style="list-style-type: none"> • Workforce Development Agencies • Business and Industry • School Districts
	Increased number of apprenticeships, internships, and job shadowing programs	14. Number of apprenticeships offered 15. Number of internships offered 16. Number of job shadowing programs 17. Number of participating business/industry establishments 18. Number of students participating in the program 19. Increase in funding secured to support the program	Quarterly	<ul style="list-style-type: none"> • Workforce Development Agencies • School Districts • Business and Industry
	Increased enrollment in technical training programs	20. Number of students enrolled in technical training 21. Number of graduates from technical schools	Annually	<ul style="list-style-type: none"> • School Districts • Technical Schools
	Increased job placement rates within the local healthcare industry	22. Number of students enrolled in healthcare education programs 23. Number of expanded healthcare education programs within current technical schools	Annually	<ul style="list-style-type: none"> • Healthcare Industry • Technical Schools • School Districts



Goal	Outcome	Performance Measure	Frequency	Source/Collector of Data
Goal C: Enhance Tourism Assets	Increased funding secured to expand trail network	24. Amount of public funding secured 25. Amount of private investment secured	Quarterly	<ul style="list-style-type: none"> • NTRPDC • County Governments • Municipal Governments • Tourism Boards • Economic Development Agencies
	Expanded trail network	26. Number of trail miles 27. Number of trails connected to broader region	Annually	<ul style="list-style-type: none"> • NTRPDC • County Governments • Municipal Governments • Tourism Boards • Economic Development Agencies
	Increase in ag-tourism marketing efforts	28. Number of programs created to export agriculture products 29. Number of new ag-tourism businesses created (e.g., farm to table; markets)	Annually	<ul style="list-style-type: none"> • NTRPDC • County Governments • Municipal Governments. • Tourism Boards • Economic Development Agencies
	Increase in number of tourist-related business	30. New tourist-related business starts 31. Number of buildings renovated for new tourist-related business starts	Annually	<ul style="list-style-type: none"> • NTRPDC • County Governments • Municipal Governments • Tourism Boards • Economic Development Agencies



Goal	Outcome	Performance Measure	Frequency	Source/Collector of Data
Goal D: Revitalize Core Communities	An understanding of improvements required to attract and retain young residents	32. Methods created to interview high school and college-aged students 33. Number of interviews completed 34. Method for incorporating comments into planning efforts 35. Number of young residents residing in the Northern Tier	Annually	<ul style="list-style-type: none"> • NTRPDC • Economic Development Agencies • School Districts • Universities and Technical Schools
	Core Communities Improvement Plans (CCIP) developed	36. Amount of funding secured for planning 37. Number of plans completed	Annually	<ul style="list-style-type: none"> • NTRPDC • Economic Development Agencies • County Governments • Municipal Governments
	CCIP Plans implemented	38. Amount of funding secured for implementation 39. Number of improvements constructed 40. Number of buildings redeveloped / rehabilitated 41. Number of community lots developed for community events	Annually	<ul style="list-style-type: none"> • NTRPDC • Economic Development Agencies • County Governments • Municipal Governments
	Increased number of community events	42. Number of community events. 43. Number of attendees at events	Annually	<ul style="list-style-type: none"> • Tourism Bureaus • Economic Development Agencies • Municipal Governments • Business Owners