



New York State Comptroller  
**THOMAS P. DiNAPOLI**

# Rural New York: Challenges and Opportunities

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September 2023

# Message from the Comptroller

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New York's rural areas feature sprawling open spaces, extensive agricultural production, and communities with vibrant histories and potential. It is also true that New Yorkers living in rural communities face many challenges. As populations have declined, the median age of people living in rural counties increased at nearly twice the rate of the State between 2011 and 2021. In some areas, accessing employment, educational opportunities and services can be difficult.



Reliance on personal vehicles for nearly all aspects of life outside the home can leave older New Yorkers, those with health concerns or with limited means in a position where accessing essential services, health care, food and work is difficult. At the same time, availability of broadband internet access in rural New York has lagged the rest of the state, limiting the ability to access telehealth, telecommute, or complete online education.

While many of the issues faced by rural New Yorkers are similar to those faced in more urban areas, solutions that are effective in urban communities may not be well suited to rural ones. Fortunately, increasingly, public policies are being developed or redeveloped in recognition these unique challenges.

This report provides comparative data for 10 rural counties of New York, to establish a baseline from which future trends in population, employment, housing and other factors can be measured. It also underscores the importance of fostering connectivity, both digital and physical, as part of future policy actions. Lessons learned during the Covid-19 pandemic show us that many jobs can be performed remotely, and that education and health care can be delivered, at least in part, via high-speed internet. These lessons offer hope for a brighter future: by working to address the challenges faced by rural locales across New York State, opportunities will follow in the form of new businesses, jobs, and revitalized community institutions.

Thomas P DiNapoli  
State Comptroller

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# Executive Summary

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This report focuses on the challenges commonly faced by rural New Yorkers. Ten rural counties—Allegany, Chenango, Delaware, Essex, Greene, Hamilton, Lewis, Schuyler, Sullivan, and Wyoming—were selected as representative of rural New York. The challenges they face reflect certain common circumstances:

- Populations in the 10 rural counties are declining, and the populations of these places are aging faster than those in the state as a whole, with material implications for local economies and government finances.
- Low population densities and large geographic areas often result in great distances between homes and amenities or services and few opportunities to leverage economies of scale to provide service or improve access.
- Because of the distances and lack of density, rural New Yorkers rely heavily on personal vehicles, and this can compound challenges faced by older New Yorkers and New Yorkers experiencing poverty or other difficulties.
- Problems that are shared across New York's urban and rural areas may persist in rural areas because current policies do not adequately accommodate the circumstances specific and unique to the rural perspective.

## Comparison to New York State

Comparing the 10 rural counties to New York State as a whole can provide valuable insight, including:

- **The populations of the rural counties are declining.** From 2011 to 2021, the population of New York State increased by 4.2 percent, a gain of 812,297 people. Over the same period, these rural counties decreased by 13,876 people, a loss of 3.4 percent.
- **The populations of the rural counties are aging at a faster rate.** From 2011 to 2021, the median age in the state rose from 37.8 years old to 39.2 years old, an increase of 3.7 percent. In these rural counties in the same period, the median age increased from 43 years old to 45.8, or 6.5 percent.
- **The rural counties have a shrinking labor force and low labor force participation rates.** From 2012 to 2022 New York's labor force grew by 14,390 workers and added 430,738 jobs. Over the same period, these rural counties' labor force shrunk by 13,707 workers and lost 2,580 jobs. While the average unemployment rate of these rural counties was lower (3.7 percent) in 2022 than the state average (4.3 percent), the average labor force participation rate of these rural counties in 2021 was 55.9 percent, well below the state's rate of 63.1 percent.
- **Rural counties have diverse economies but are more reliant on government employment.** While rural New York may be associated with pastoral landscapes, agriculture makes up a relatively small portion of the 10 rural counties' economies,

employing only 3.8 percent of the workforce. As in the rest of the state, educational services, health care and social assistance industries employ the highest share of the rural counties' workforce. Also, a larger portion of the 10 rural counties' workforce (20.1 percent) is employed by the government than statewide (16 percent).

## Challenges

This report identifies multiple challenges faced by rural New York communities. These include:

- **Declining Housing Units and High Vacancy Rates:** In 2021, the rural counties under study have 5,510 fewer housing units than in 2016, a decrease of 2.3 percent compared to the overall 3.1 percent increase of housing units statewide. Additionally, 32.5 percent of housing units in the rural counties in 2021 were vacant compared to 10.9 percent statewide. This is largely because of second homes and vacation properties. These factors can contribute to increased housing costs and affordability pressures.
- **Access to Health Care and Food:** All of the 10 rural counties except Chenango County contain designated Medically Underserved Areas or Populations, and all the rural counties have areas designated by the U.S. Health Resources and Services Administration as Health Professional Shortage Area populations or geographies. Rural counties have been impacted by the opioid epidemic similarly to the rest of the state but have few treatment options available without traveling large distances. In addition, 36,248 people in the rural counties live in food deserts. Due to the distances involved, and few public transportation options, older New Yorkers face even more challenges accessing health care and food.
- **Lower Rates of Broadband Service:** While access to broadband has improved, 10.3 percent of address points in the 10 rural counties remain unserved, with rates as high as 28.4 percent in Hamilton and 26.6 percent in Lewis. This compares to just 2.5 percent statewide.

## The Importance of Connectivity

Some of the challenges faced by rural New Yorkers, such as the relative lack of broadband availability or long distances to access services, are unique, while others, like those arising from the opioid epidemic and food insecurity, are shared with urban areas in the state. Even for common problems, implementing solutions in rural communities may be more costly due to large geographic areas with low population densities. Federal and State policymakers have recognized that rural areas may require special solutions or funding streams; new programs have recently been launched targeting rural areas for broadband deployment, health programs, housing, economic development and more.

Improved connectivity, both digital and physical, can help mitigate many challenges faced by rural New Yorkers. Fortunately, the modern economy offers technological solutions that were not possible in the recent past. For example, the COVID-19 pandemic demonstrated that many jobs can be performed remotely. And that education, health care and other basic services can, in many cases, be effectively delivered over high-speed internet connections. To take advantage of this new reality, rural communities must have access to the internet at speeds that

are at the leading edge of the modern economy. While too many rural communities are underserved or unserved by high-speed broadband, the availability of significant federal aid provides a new opportunity to deploy high-speed connections to rural New York. Effectively managing these resources can level the modern playing field for rural areas so they can leverage their strengths: historic communities with access to beautiful natural areas, close-knit communities, and town, village, and hamlet centers with a small-town feel.

Not all issues can be solved by technology and broadband access. Many educational, health care, employment and community activities require an in-person presence. For this, transportation solutions are required to meet the needs of rural areas. While the size of rural communities and lack of population density make cost effective solutions challenging, policymakers should explore innovative solutions to improve physical connectivity, including improved availability of ride share services, emergency transportation assistance for residents with temporary loss of access to vehicles, and following other best practices for rural public transportation.

# Introduction

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Often in the shadow of New York’s sprawling skylines and urban population centers, rural New York is vast and varied. From the High Peaks of the Adirondacks to the rolling hills of Wyoming County, it is beautiful and rich in both history and resources. Many urban New Yorkers may only experience the rural parts of the state while on vacation, skiing in the Adirondacks, touring the wineries of the Finger Lakes, or apple picking during leaf season in upstate New York. While some may only know these places from the scenic vistas along the state’s highways as they pass through, many call these places home.

Defining “rural” is more difficult than it may seem. There are very rural portions of suburban and exurban counties, and the physical geography and modern society that set the most rural portions of the state apart do not necessarily conform to county boundaries. Nevertheless, county-level data are the most readily available and reliable for comparison on a wide array of indicators. Under the U.S. Department of Agriculture’s Rural-Urban Continuum, there is only one county, Hamilton County, that is completely rural and 24 counties in New York, that are designated as “non-metro”.<sup>1</sup>

Multiple criteria were used to select a group of 10 rural counties to serve as a focus of this report:

- The U.S. Census Bureau classifies these counties as “unaffiliated”, and they are not part of a Metropolitan Statistical Area, a Micropolitan Statistical Area, a Combined Statistical Area (CSA), or a Core-Based Statistical Area (CBSA);
- They do not have a city with a population of over 10,000 people; and
- They are defined by the U.S. Office of Management and Budget (OMB) as non-metro counties.

The 10 counties, Allegany, Chenango, Delaware, Essex, Greene, Hamilton, Lewis, Schuyler, Sullivan, and Wyoming, collectively comprise only 2 percent of the New York’s 2021 population, but 22.7 percent of New York’s land area. The characteristics and challenges they face would be familiar to other counties with low population or low population density, including Franklin, Otsego, Columbia, and Seneca, that are nevertheless part of larger metro areas and economies. The selected counties were selected as more of a sample of New York State’s rural counties, and not a definitive list.

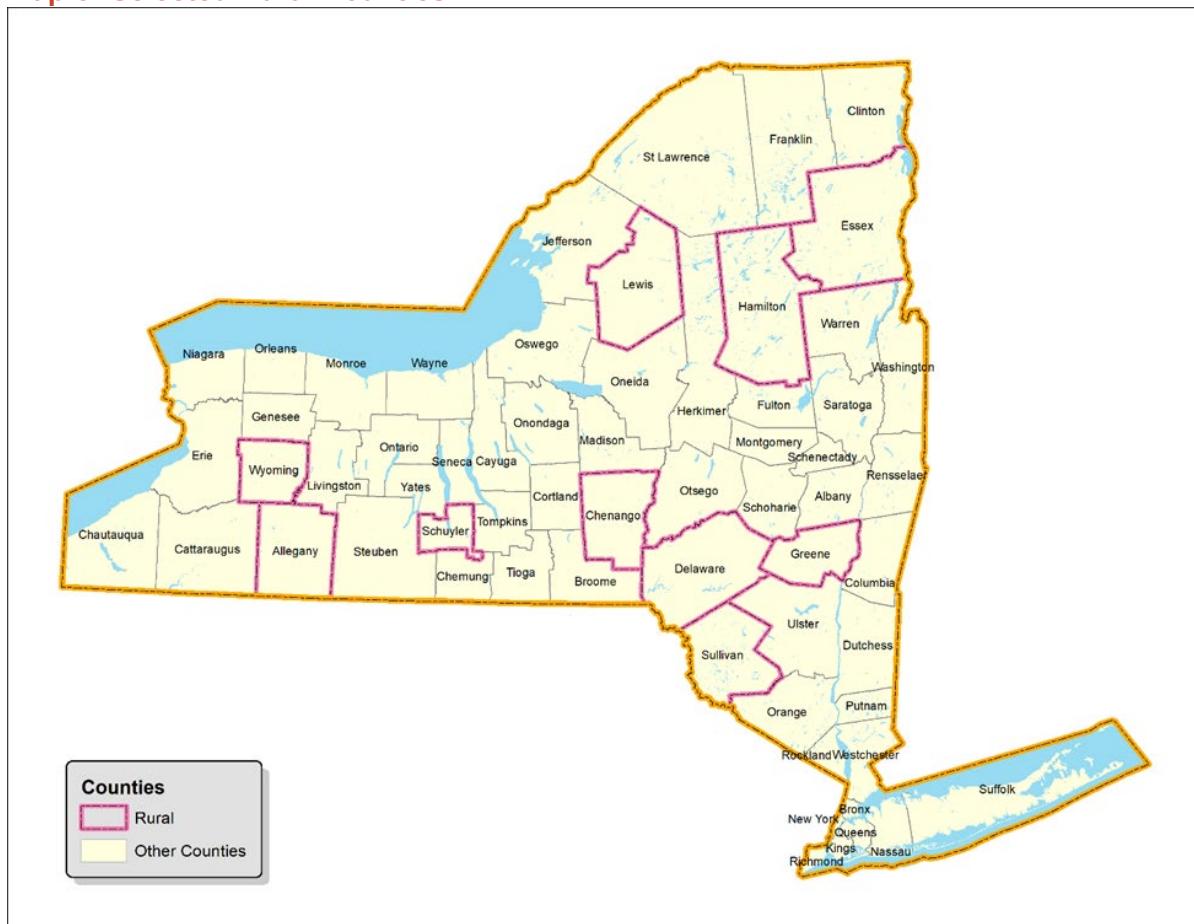
Many of the challenges faced by rural areas are rooted in their vast size and low population densities, which make residents highly dependent on personal vehicles and which provide few opportunities to leverage economies of scale to provide affordable services. For example, a service such as a municipal bus system has fixed costs necessary to begin providing the service, and the costs to operate and maintain the system are more easily recouped by ridership. A bus route that serves 50 people may be able to charge far less per ride than one serving five people; at that low ridership level, the cost per ticket might be too exorbitant to attract riders.

**Figure 1**  
**Population, Land Area, and Vehicle Availability in Rural Counties, 2021**

County	2021 Population	Land Area (Sq. Miles)	Population Density (Pop / Sq. Mile)	% of Households with No Vehicle Available
Allegany	46,654	1,029	45.3	7.4%
Chenango	47,407	893	53.1	8.5%
Delaware	44,644	1,443	30.9	8.0%
Essex	37,501	1,794	20.9	9.3%
Greene	48,026	647	74.2	8.6%
Hamilton	5,068	1,717	3.0	2.0%
Lewis	26,681	1,276	20.9	4.7%
Schuyler	17,920	328	54.6	6.6%
Sullivan	78,230	968	80.8	10.4%
Wyoming	40,679	593	68.6	7.6%
Rural	392,810	10,690	36.7	8.3%
NYS	20,114,745	47,123	426.9	28.9%

Source: U.S. Census ACS 5-yr Estimates, 2011 and 2021, and US Census TIGER

**Figure 2**  
**Map of Selected Rural Counties**



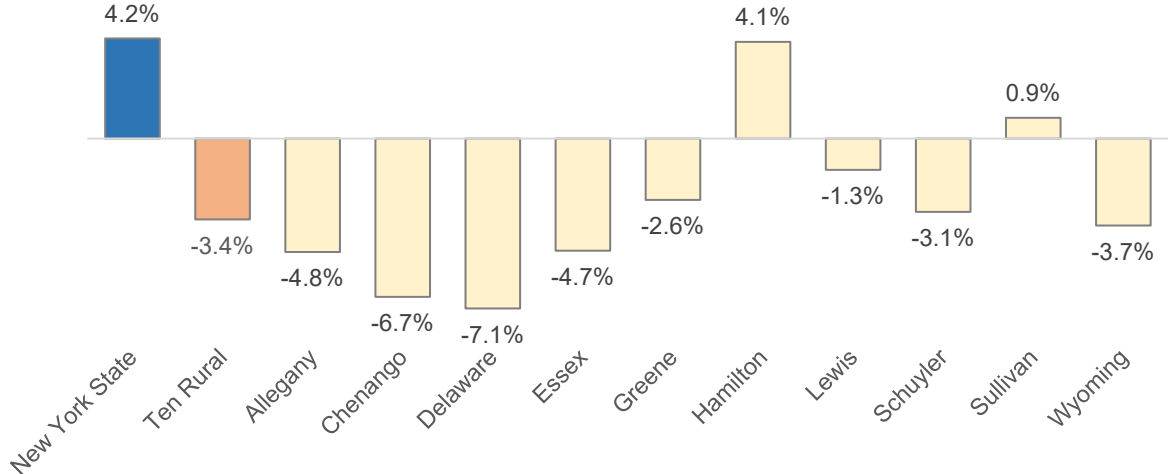


# Declining and Aging Populations

## Rural Counties are Losing Population

From 2011 to 2021, New York’s population increased by 4.2 percent for a gain of 812,297 people. Over the same period, the 10 rural counties lost 13,876 people, or 3.4 percent. The greatest population decline among the rural counties was in Delaware County, which shrunk by 3,435 people, or 7.1 percent. As shown in Figure 3, only two rural counties, Hamilton and Sullivan Counties experienced population growth of 4.1 percent and 0.9 percent, respectively. Sullivan County has experienced steady population growth since at least 1940 due to natural population growth (more births than deaths).<sup>2</sup> Sullivan County also saw a population bump from April 2020 to July 2022, ostensibly from domestic migration associated with the Covid-19 pandemic.<sup>3</sup>

**Figure 3**  
**Population Change in Rural Counties and New York State, 2011- 2021**



Source: U.S. Census Bureau, ACS 5-year Estimates, 2011 and 2021

Declining populations in the rural counties can be attributed to negative natural population change, negative net-migration, or both. Most of the rural counties are experiencing net negative migration. Based on review of data from the Internal Revenue Service, people leaving a rural county tend to move to a neighboring county that is more urban and has one or more cities. In the rural counties, 63 percent of people leaving the county go to another county within New York State.<sup>4</sup>

While a decreasing population can mean that there are fewer people to provide with services, it can also mean that it is more expensive on a per capita basis to provide those services, especially when there is a baseline or fixed cost associated with providing service at all.

In addition, declining population means that there are both fewer workers available, and fewer consumers. This generally means that there is less economic activity and opportunity, and a

smaller tax base. A shrinking workforce and fewer consumers also make it more difficult to keep small businesses solvent and makes it more difficult to attract and retain new businesses. This can become cyclical where people leave for better opportunities in more urban places, limiting economic growth, and causing more people to seek economic opportunity elsewhere.

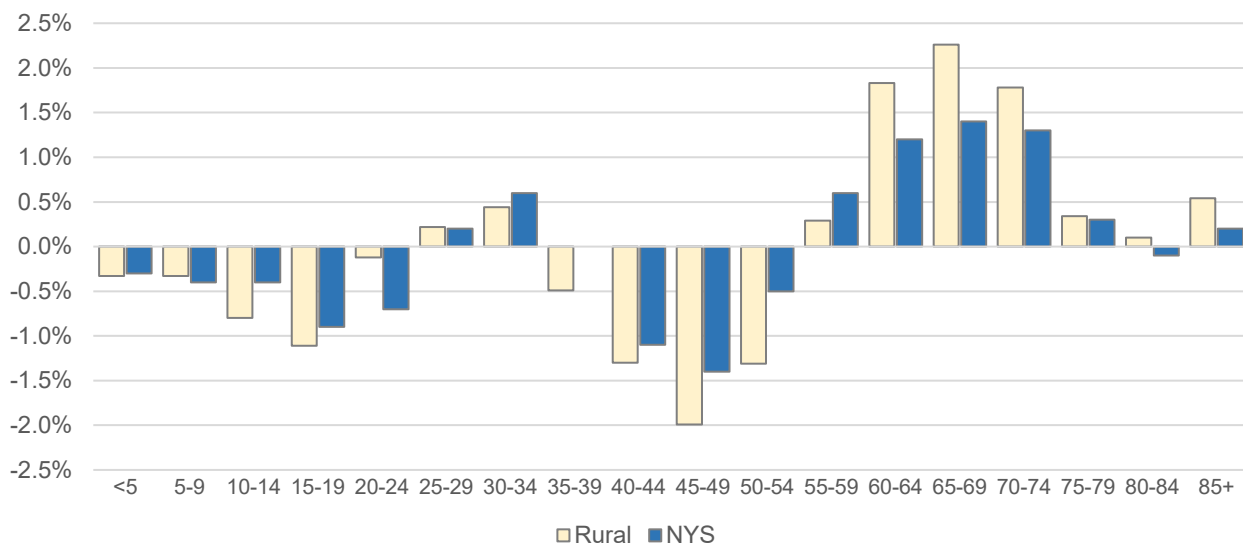
Beyond the economic impacts, declining population in rural New York also strains community institutions and volunteer organizations. Volunteer rates have steadily fallen nationally over the past twenty years, and the declines in the rural volunteer rate have been even more pronounced.<sup>5</sup> These institutions traditionally serve as loci of community and helped shape a sense of place in rural New York.

## Rural Counties are Aging Rapidly

New Yorkers are getting older. From 2011 to 2021, the median age in the state rose from 37.8 years old to 39.2 years old, an increase of 3.7 percent. In the 10 rural counties in the same period, the median age increased from 43 years old to 45.8, or 6.5 percent. Hamilton County, with the state's lowest population in 2021 (5,068), is aging nearly three times faster than the state. It has the highest median age of any county in the state (56.4 in 2021), an increase of 10.8 percent from 2011.<sup>6</sup>

As shown in Figure 4, rural counties have experienced a greater decrease in the population under the age of 20. In addition, growth in those 60 and older has also been much greater than the state average. As New Yorkers age, they encounter new needs and face special challenges. In rural counties, older New Yorkers may face health care shortages and a lack of public transportation that makes healthcare and food access more difficult. Outmigration of younger people from rural areas can diminish the traditional support networks of older New Yorkers.

**Figure 4**  
**Average Change in Age Distribution, 10 Rural Counties and New York, 2011 - 2021**

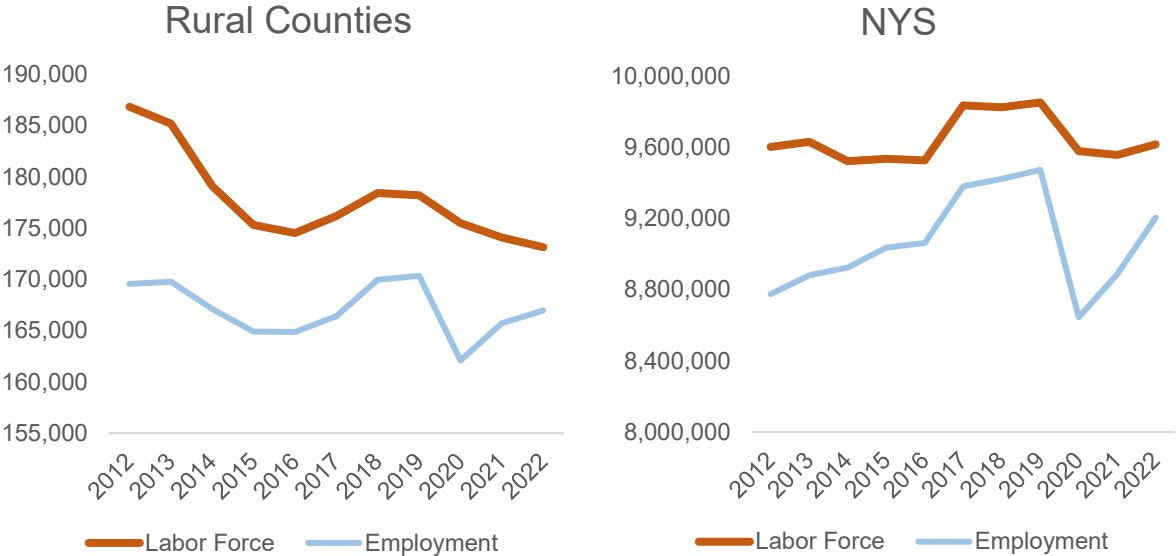


Source: U.S. Census Bureau, ACS 5-year Estimates, 2011 and 2021

# Rural Economies

As the rural counties' populations decline, and the population ages, fewer people are in the labor force. According to the U.S. Bureau of Labor Statistics, using annual averages that are not seasonally adjusted, from 2012 to 2022 New York State's labor force grew by 14,390 workers and added 430,738 jobs. Over the same period, the 10 rural counties' labor force shrunk by 13,707 workers and lost 2,580 jobs.

**Figure 5**  
**Civilian Labor Force and Employment, 10 Rural Counties and New York, 2012 - 2022**



Note: Not seasonally adjusted  
 Source: U.S. Bureau of Labor Statistics

## Low Unemployment Rates and Low Workforce Participation Rates

Unemployment rates in the rural counties are generally lower than that of the State. Sullivan and Chenango Counties had the lowest 2022 annual unemployment rate among rural counties, 3.3 percent. Hamilton County had the highest, 4.3 percent, tied with New York State. Unemployment rates over the past 10 years in rural counties decreased as a result of the labor force shrinking faster than employment. (See Figure 5.)

**Figure 6**  
**Unemployment Rates, Rural Counties and New York, 2022**

County	Unemployment Rate
Allegany	4.0%
Chenango	3.3%
Delaware	3.7%
Essex	3.6%
Greene	3.5%
Hamilton	4.3%
Lewis	4.0%
Schuyler	3.7%
Sullivan	3.3%
Wyoming	3.5%
Rural	3.7%
NYS	4.3%

Note: Not seasonally adjusted

Source: New York State Department of Labor, Local Area Unemployment Statistics

On average, the rural counties also have lower labor force participation rates than the state overall, as shown in Figure 7. This is in part because of the higher percentage of the population in these counties that is of retirement age. New York’s labor force participation rate is among the lowest in the nation (ranked 40th), averaging over 2 percentage points less than the rest of the country in the 10-year period ending in 2021.<sup>7</sup>

**Figure 7**  
**Labor Force Participation Rates, Rural Counties and New York, 2021**

County	Labor Force Participation Rate
Allegany	53.6%
Chenango	59.5%
Delaware	53.5%
Essex	56.1%
Greene	55.3%
Hamilton	49.6%
Lewis	59.9%
Schuyler	58.4%
Sullivan	56.1%
Wyoming	57.0%
Rural	55.9%
NYS	63.1%

Source: U.S. Census Bureau, ACS 5-year Estimates, 2021

## Rural New Yorkers are Employed in a Range of Sectors

Though the thought of rural New York may bring to mind agricultural landscapes, rural New Yorkers are employed in a diverse range of sectors. Today, only 3.8 percent of employment in the 10 rural counties is in agriculture, forestry, fishing and hunting, and mining. The share has diminished over time, but it is still an important part of the cultural identity of rural New York. Agriculture alone generates \$6.2 billion in direct economic impact;<sup>8</sup> as reported by the Office of the State Comptroller, [it is a resilient portion of New York's economy](#). In 2020, the first year of the pandemic, employment on New York farms only decreased by 1 percent compared to a state decline of 8.7 percent, and rebounded to a new high in 2021.<sup>9</sup>

The rural counties also have a larger proportion of their workforce employed in the arts, entertainment and recreation, and accommodation and food services sector. Much of this employment is focused on outdoor recreation and capitalizes on the enjoyment of nature and the great outdoors. A report by the Office of the State Comptroller [on the economic impact of the great outdoors](#) highlighted that in 2020 outdoor recreation was responsible for generating \$21.1 billion in economic activity in the state.<sup>10</sup>

The U.S. Census Bureau groups agriculture, forestry, fishing and hunting, and mining into the same sector, but there is considerable variability between rural counties in the percentage of the workforce employed within each subsector.

- In Wyoming County, for instance, 6.8 percent of the workforce is employed in the agriculture, forestry, fishing and hunting, and mining sector, with agriculture being the largest portion, and milk from dairy cows the largest product. Wyoming County ranks number one in the state for the market value of agricultural products sold, for livestock, poultry and products, and sales of milk. Wyoming County accounts for 6 percent of agriculture sales throughout the state.<sup>11</sup>
- In Hamilton County, 6.3 percent of the workforce is employed in the agriculture, forestry, fishing and hunting sector, but in contrast to Wyoming County, there is almost no agriculture. Hamilton County has only 932 acres of farmland and ranks 58th in the state for the market value of agricultural products sold.<sup>12</sup> Instead, forestry makes up the vast majority.

As with the rest of the state, the largest employers in rural counties are in the educational services, health care, and social assistance sectors.<sup>13</sup> (See Figure 8.) There are more similarities between rural counties and the State in the percentages of the workforce employed across sectors than there are differences. Notably, there is a greater share of employment in construction (9.3 percent) and manufacturing (10.5 percent) than in the State, where these industries comprise 5.8 percent and 5.9 percent of employment, respectively.<sup>14</sup>

**Figure 8**  
**Employment in Selected Industries, 10 Rural Counties and New York, 2021**

Industry	NYS	Rural
Educational services, and health care and social assistance	28.7%	27.3%
Manufacturing	5.9%	10.5%
Retail Trade	9.8%	10.3%
Arts, entertainment, recreation, accommodation and food services	8.7%	9.4%
Construction	5.8%	9.3%
Public administration	4.7%	6.2%
Transportation and warehousing, and utilities	5.7%	4.1%
Agriculture, forestry, fishing and hunting, and mining	0.5%	3.8%

Source: U.S. Census Bureau, ACS 5-year Estimates, 2021

Another difference is rural counties have a higher share of the workforce employed by the government – 1 in 5 civilians employed are government workers in the 10 rural counties. In Hamilton County, 30 percent are employed by government – a higher percentage than Albany County (25 percent), home to the State Capital.<sup>15</sup> This includes employment at the State University of New York, which has institutions in Allegany, Chenango, Delaware, Sullivan, and Essex Counties.

**Figure 9**  
**Government Employment in Rural New York, 2021**

County	Civilian employed population 16 years and over	Government Workers	Government Workers as a Share of Employed Population
Allegany	19,135	4,088	21.4%
Chenango	21,375	3,861	18.1%
Delaware	19,522	4,021	20.6%
Essex	17,148	3,411	19.9%
Greene	21,812	4,069	18.7%
Hamilton	2,147	645	30.0%
Lewis	11,961	2,861	23.9%
Schuyler	8,152	1,600	19.6%
Sullivan	32,767	6,520	19.9%
Wyoming	18,288	3,534	19.3%
Rural	172,307	34,610	20.1%
NYS	9,663,517	1,544,005	16.0%

Source: U.S. Census Bureau, ACS 5-year Estimates, 2021

# Challenges

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Many of the challenges facing rural communities are rooted in four common circumstances:

1. Low population densities and vast geographic areas often result in great distances between homes and amenities or services and few opportunities to leverage economies of scale to improve provision. For example, public transportation options are minimal and deployment of broadband to rural areas has greatly lagged the rest of the state.
2. Heavy reliance on personal vehicles can compound the challenges faced by older New Yorkers and New Yorkers experiencing poverty or other difficulties. Vehicle maintenance adds another cost to household budgets, and sudden disruptions in vehicle access can leave people without a way to get to and from work, access healthcare, and access food. Without access to public transportation and diminished or lack of ability to drive, older rural New Yorkers can become increasingly isolated, and reliant on their social networks and social services for many day-to-day necessities.
3. Population losses, an aging population, and a declining labor force and employment have led to shifting dynamics with long-term impacts. Declining housing stock and high housing vacancy rates due to seasonal, recreational, or occasional use properties both have the potential to increase housing costs and costs of living.<sup>16</sup>
4. Problems that are shared across New York, like those arising from the opioid epidemic and food insecurity, may persist in rural areas because current policies do not adequately accommodate the circumstances specific and unique to rural perspective. Solutions that may work in more urban areas are often less effective or cost prohibitive in the rural counties where it is far more difficult to achieve economies of scale, and resources are generally more limited.

## Declining Housing Stock and High Vacancy Rates

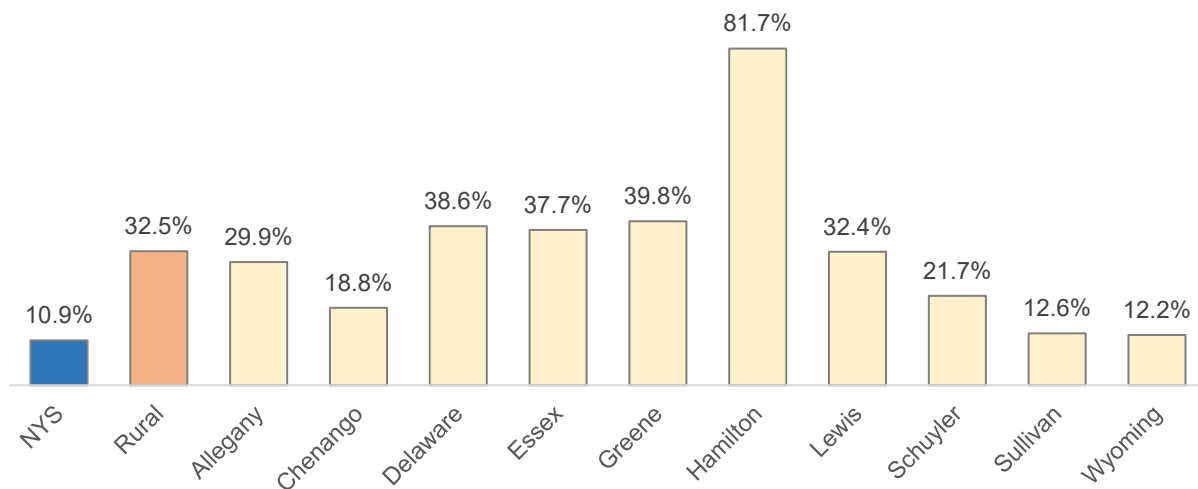
In 2021, the 10 rural counties had 5,510 fewer housing units than in 2016, a decrease of 2.3 percent compared to the overall 3.1 percent increase of housing units statewide. (See Figure 10.)<sup>17</sup> There were significant losses of housing units in all but Wyoming County.<sup>18</sup> Vacancy rates in the rural counties were almost three times higher than the State rate of 10.9 percent. (See Figure 11.)

**Figure 10**  
**Number of Housing Units, Rural Counties and New York, 2016 - 2021**

County	Total Housing Units 2012-2016	Total Housing Units 2017-2021	Change	Percent Change
Allegany	25,991	23,797	-2,194	-8.4%
Chenango	24,817	24,317	-500	-2.0%
Delaware	31,158	30,119	-1,039	-3.3%
Essex	25,756	25,213	-543	-2.1%
Greene	29,282	28,997	-285	-1.0%
Hamilton	8,776	7,965	-811	-9.2%
Lewis	15,287	15,474	187	1.2%
Schuyler	9,544	9,630	86	0.9%
Sullivan	49,645	49,231	-414	-0.8%
Wyoming	18,072	18,075	3	0.0%
Rural	238,328	232,818	-5,510	-2.3%
NYS	8,191,568	8,449,178	257,610	3.1%

Source: U.S. Census Bureau, ACS 5-year Estimates

**Figure 11**  
**Housing Unit Vacancy Rate, Rural Counties and New York, 2021**



Source: U.S. Census Bureau, ACS 5-year Estimates, 2021

Of the vacant housing units in the rural counties, a disproportionate share are for seasonal, recreational, or occasional use. These are typically considered vacation properties or second homes and may be used as short-term rentals. Short-term rentals, particularly those that are not owner occupied, remove housing units from the market and may contribute to housing supply shortages and higher housing costs. In Hamilton County there are more housing units than there are residents. Of the 7,965 housing units, 81.7 percent, or 6,508 units, are vacant; of



these, 96.3 percent are for seasonal, recreational, or occasional use. (See Figure 12). While Hamilton has the highest share, nearly every rural county greatly exceeds the statewide rate of 35.4 percent of vacant housing units used for seasonal, recreational or occasional use.

**Figure 12**  
**Vacant Housing Units for Seasonal, Recreational, or Occasional Use, 2021**

County	Vacant Housing Units	For Seasonal, Recreational, or Occasional Use	Share of Vacant Housing Units for Seasonal, Recreational, or Occasional Use
Allegany	7,126	5,218	73.2%
Chenango	4,564	1,962	43.0%
Delaware	11,632	9,283	79.8%
Essex	9,499	7,273	76.6%
Greene	11,546	9,102	78.8%
Hamilton	6,508	6,270	96.3%
Lewis	5,021	3,889	77.5%
Schuyler	2,088	1,334	63.9%
Sullivan	20,415	15,904	77.9%
Wyoming	2,205	1,302	59.0%
Rural	80,604	61,537	76.3%
NYS	919,028	325,133	35.4%

Source: U.S. Census Bureau, ACS 5-year Estimates, 2021

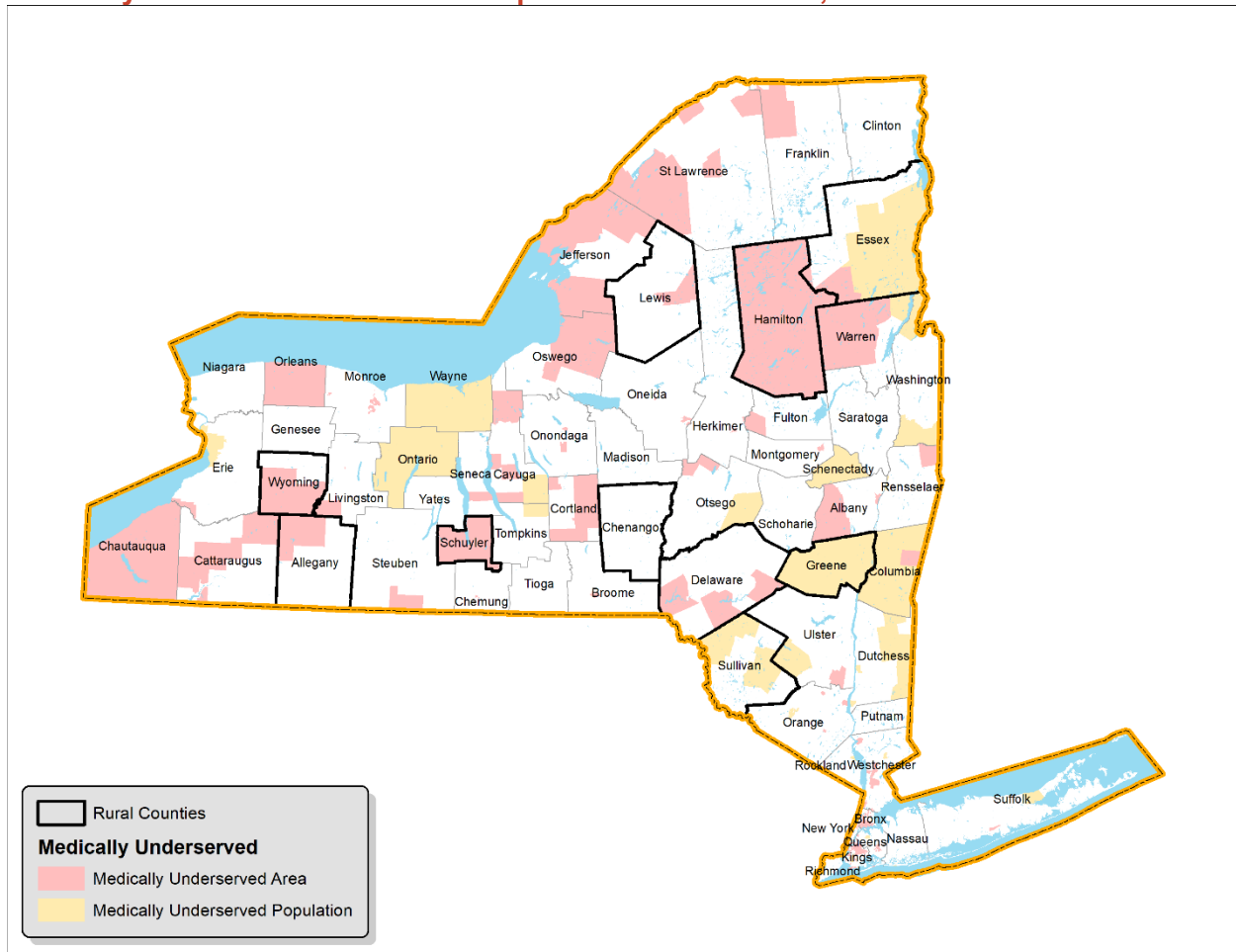
Both declining housing stock and high rates of second homes and vacation properties have the potential to increase housing costs in a rural area. Declining housing stock increases limits supply of available housing. The presence of second homes and vacation properties has also been associated with increased housing prices in rural areas.<sup>19</sup>

## Rural New Yorkers Face Challenges Accessing Health Care

For many people in rural New York, accessing healthcare can be difficult. Many rural counties have areas or populations that are either medically underserved or are experiencing health professional shortages. Medically underserved areas and populations are defined by the U.S. Health Resources and Services Administration (HRSA) as geographic areas and populations with a lack of access to primary care services. These designations are used by various federal programs as an indicator of need to determine how resources are distributed.

Chenango County is the only of the 10 rural counties that has no medically underserved areas or populations. Allegany, Delaware, Hamilton, Lewis, and Wyoming Counties have medically underserved areas, Essex County has both medically underserved areas and medically underserved populations, and Sullivan and Essex Counties have low-income populations that are designated as underserved. In Wyoming County, 44.3 percent of the population lives in an underserved area.<sup>20</sup>

**Figure 13**  
**Medically Underserved Areas and Populations in New York, 2023**



Source: U.S. Health Resources and Services Administration

A Health Professional Shortage Area (HPSA) is a geographic area, population group, or health care facility that has been designated by the HRSA as having a shortage of health professionals.<sup>21</sup> All the rural counties either contain population or geographic HPSAs (e.g. a shortage of health professionals for the Medicaid eligible population, or for an entire group of people within a county, respectively.)

Delaware County has the most acute shortage of the rural counties, with a population to health professional ratio of 30,188 to 1 for the Medicaid eligible population of the county.<sup>22</sup> Hamilton and a portion of Essex County have geographic HPSA designations but were proposed for withdrawal in 2021. All the rural counties also either contain population or geographic HPSAs for mental health professionals.<sup>23</sup>

Allegany, Chenango, Delaware, Sullivan, Wyoming, Lewis, and Schuyler Counties have either hospitals or primary care hospitals. Hamilton, Essex, and Greene do not, and rely on hospitals in neighboring counties.<sup>24</sup> Even in counties that have hospitals, low volume and budget constraints have forced those facilities to reduce services. The Wyoming County Community

Health System, for example, runs a 62-bed facility in Warsaw, New York. On June 1, 2023, it suspended its maternal/obstetrics program, meaning that people having a baby in Wyoming County will now need to drive to a neighboring county to receive care.<sup>25</sup>

Delivering Emergency Medical Services (EMS) in rural areas can also be challenging. EMS professionals provide patient care and stabilization on scene and in route to hospitals that in rural areas may be a considerable distance away. EMS typically is provided through a network of private companies, volunteer ambulance squads, and fire departments. As a result, response times can be lengthy, and vary greatly depending on the time of day of the call, the day of the week, where a person is calling from, and the availability of volunteers to respond.<sup>26</sup> For example, in 2015 the national average response time for rural zip codes was 14.5 minutes.<sup>27</sup> In 2017-2018 in Sullivan County, it was not unusual in more rural portions of the county to experience response times greater than 20 minutes.<sup>28</sup>

Declining volunteerism and the robust certification and recertification training requirements for Emergency Medical Technicians contribute to the shortage of trained EMS staff. Historically funding has been an impediment as well. Even full volunteer ambulance squads still need to fund equipment supplies, and maintenance, and many rely on billing for services and community donations to stay afloat. Until recently volunteer fire departments were prohibited from charging for ambulance service. The 2022 EMS Recovery Act changed the law to allow volunteer fire departments to charge for EMS services.

## **Rural New Yorkers Have Limited Access to Drug and Alcohol Addiction Treatment**

Substance use disorders are an issue throughout New York State. The opioid epidemic serves as a stark example of the challenges in accessing medical treatment for this addiction in rural New York. As noted in a recent [report by the Office of the State Comptroller](#), opioid overdoses rose sharply during the pandemic, and 85 percent of drug overdose deaths in both 2020 and 2021 involved opioids, up from 69 percent in 2010.<sup>29</sup>

Rural, suburban and urban communities alike have been impacted by the opioid epidemic. Data from the State Department of Health indicate that the death rate from opioid overdoses in 2021 for the 10 rural counties was 25.3 per 100,000 people, surpassing the statewide average of 21.5.<sup>30</sup> As shown in Figure 14, rural counties have higher admissions to OASAS-certified opioid treatment programs than that of the state.

Despite elevated rates, treatment options in rural counties are limited. There are no OASAS-certified opioid outpatient treatment programs in the rural counties.<sup>31</sup> Of the 56 crisis programs in New York State, there is only one in the rural counties (Sullivan), and it has capacity for six people.<sup>32</sup> Of the 65 inpatient programs throughout the state, only one is in one of the rural counties (Delaware), and it has a capacity of ten people.<sup>33</sup> Only Allegany, (17 beds), Greene (12 beds), and Sullivan (186 beds) have residential treatment programs, with a combined capacity of 215 beds.<sup>34</sup> With demand for services exceeding Statewide rates and limited geographic access to treatments, rural New Yorkers must travel significant distances from their home communities, further complicating recovery.

**Figure 14**  
**Rural County Admissions to OASAS-certified Opioid Treatment Programs,**  
**Crude Rate Per 100,000 Population, 2021**

County	Admissions	Population	Crude Admissions Rate
Allegany	183	40,264	454.5
Chenango	270	41,201	655.3
Delaware	182	39,902	456.1
Essex	109	33,481	325.6
Greene	195	42,420	459.7
Lewis	68	22,544	301.6
Schuyler	103	15,618	659.5
Sullivan	827	64,924	1,273.8
Wyoming	63	35,214	178.9
Rural	2,000	335,568	496.0
NYS	76,659	16,833,522	455.4

Note: The crude rate is the total number of admissions divided by the population and then multiplied by 100,000. Hamilton County has been omitted from this table as the Department of Health has identified the admissions rate as unstable, meaning there is a considerable percentage variation in the data year to year.

Source: NYS Department of Health

During the pandemic, the use of telemedicine for addiction treatment was expanded, and both the U.S. Drug Enforcement Agency and New York State Department of Health issued rules allowing for the prescription of controlled substances through telemedicine without an in-person visit with the prescribing physician. With the expiration of the Federal Public Health Emergency on May 11, 2023, patients who have been seen prior to the public health emergency by the person prescribing the medication can continue to be prescribed those medications using telemedicine. People who have not seen the practitioner prescribing their medication in-person prior to the public health emergency (initially prescribed via telehealth) must be seen in-person to continue the prescription.<sup>35</sup>

## Limited Options for Adult Care

Health care access for older rural New Yorkers can be particularly challenging. As people age, their healthcare needs frequently increase as their mobility and self-sufficiency decrease. Lack of reliable transportation can make accessing health care more difficult, and solutions like telemedicine can be limited by insufficient or expensive broadband access. Younger New Yorkers, who have traditionally offered support and care to aging relatives, are less likely to remain in rural areas, putting strain on an already insufficient system of home health and personal care aides.

According to the U.S. Bureau of Labor Statistics, New York has the 2nd highest number of home health and personal care aides in the nation.<sup>36</sup> A [2023 report from the Center for Health Workforce Studies at SUNY Albany](#) projected the greatest growth in demand for health care

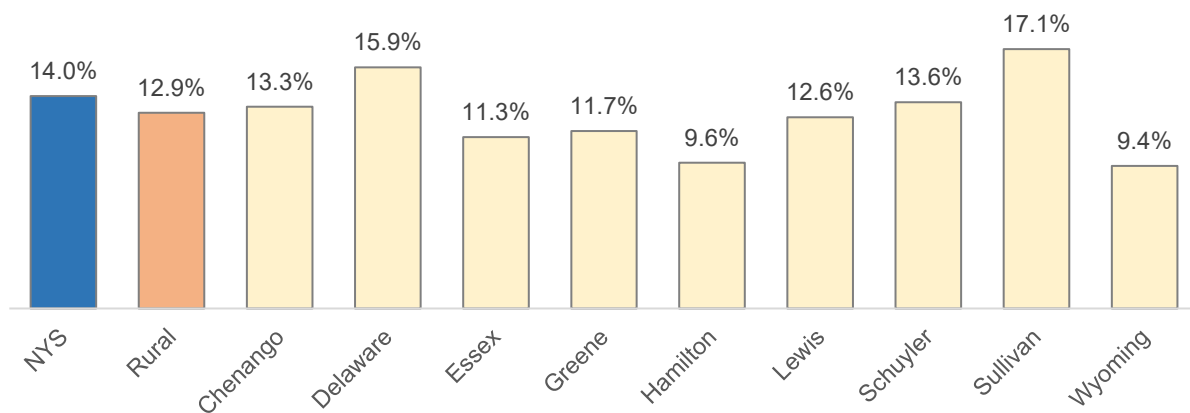
professionals in New York in terms of both raw numbers, and percentage, is to be for home health and personal care aides, with projected average annual openings of 45,810 jobs per year through 2028 for home health aides, and 52,380 jobs per year for personal care aides.<sup>37</sup> Unfortunately, these positions can be difficult to recruit for with 80.6 percent of home health care agencies surveyed indicating difficulties in recruiting home health aides, and 77.5 percent for personal care aides due to a shortage of workers, shortage of qualified workers, and non-competitive salaries.<sup>38</sup>

In the 10 rural counties, there are also limited numbers of adult care facilities and nursing homes. Hamilton County has the highest median age in the state, and no adult care facilities. Of the rural counties, Sullivan County has the most (four), Chenango and Greene County have three, and Allegany, Delaware, Lewis, Schuyler, and Wyoming Counties all have one each.<sup>39</sup> The small numbers of nursing home facilities in the rural counties is not necessarily a bad thing though. Some research indicates that patient outcomes are similar between patients residing in care facilities and those that receive care through home health aides, and the home health model costs less.<sup>40</sup>

## Poverty Rates in Rural New York are Generally Lower, But Accessing Services Can Be More Difficult

On average, the 10 rural counties have a 2.3 percent lower poverty rate than the statewide rate, but Allegany, Delaware, and Sullivan Counties have higher rates. (See Figure 15.) One difference between poverty in rural and urban areas is access to resources and support. In rural counties, access to social services usually requires visits to the social services office located in the county seat. For those living in that town or village, there may not be much of a barrier, but for those living in other areas of the county, lack of public transportation and the distances involved can make receiving social services more difficult. This barrier to access is echoed in other challenges such as food access, where for people that have trouble getting enough nutritious food, one of the primary impediments can be transportation.

**Figure 15**  
**Percent of Population Below the Poverty Level, Rural Counties and New York, 2021**



Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE) Program

As noted in the Office of the State Comptroller’s December 2022 report, [New Yorkers in Need: A Look at Poverty Trends in New York State for the Last Decade](#), between 2010 and 2021 poverty rates in New York State increased for seniors while decreasing for all others.<sup>41</sup> This is of particular concern in the rural counties because a larger proportion of the population in those counties is over the age of 65 and the potential challenges older New Yorkers may face related to transportation and health care access.

## Some Rural Counties Contain Food Deserts

The U.S. Department of Agriculture defines food deserts as census tracts with low income (having a greater than 20 percent poverty rate, or a median family income that is less than 80 percent of the statewide or Metropolitan Statistical Area median family income) that have low access to food. In a rural area, low access to food is defined as at least 500 people and/or at least 33 percent of the population living more than 10 miles from a supermarket or large grocery store.

Five of the 10 rural counties, Allegany, Chenango, Delaware, Lewis and Sullivan, have food deserts. A combined 36,248 people lived in food deserts in the rural counties in 2019. (See Figure 16.) In Sullivan County, the food deserts exist in the villages of Liberty and Monticello, which are population centers of the County.

**Figure 16**  
**Food Desert Populations in Rural Counties, 2019**

County	Food Desert Populations
Allegany	3,321
Chenango	4,262
Delaware	5,179
Lewis	13,579
Sullivan	9,907
<b>Total</b>	<b>36,248</b>

Note: The 2019 U.S. Census Bureau ACS was used to align the population data with the 2010-2019 census tracts used by the USDA in the 2019 Food Atlas, the most recent year available. Every 10 years census tracts are redrawn.

Source: USDA Food Access Research Atlas, 2019 US Census ACS 5-yr Estimates

According to a 2022 New York Health Foundation report, rural New Yorkers experiencing food insecurity report worse health, higher rates of chronic illness, and are more likely to delay or forgo medical care than their urban counterparts. They also report having difficulty getting food at a rate 22 percent higher than their urban counterparts.<sup>42</sup> For those with limited means, there are few alternatives available for seeking food should their vehicle break down, and disruptions and lack of access may have severe consequences.

## Broadband Deployment in Rural Access Severely Lags the Rest of the State

During the pandemic lockdowns, many people relied on their internet connections for their children to go to school, work from home, visit their doctors, and for entertainment. As the Office of the State Comptroller reported in 2021, [New York has made progress in deploying broadband](#), but still faces challenges in making sure reliable high-speed internet service is available to all New Yorkers – particularly in rural areas.

Under the [Comprehensive Broadband Connectivity Act of 2021](#), the State now defines high-speed internet as a connection with at least 100 Mega bits per second (Mbps) for downloads and 10 Mbps for uploads, commonly denoted as 100/10 Mbps. Areas with at least one provider offering speeds at that level are considered served.

Based on data collected by the Public Service Commission, 2.5 percent of all address points statewide are unserved, meaning they do not have broadband internet service available at the minimum standard of 25/3 Mbps. As shown in Figure 17, 10.3 percent of addresses in rural counties are unserved, with rates as high as 28.4 percent in Hamilton and 26.6 percent in Lewis. The address points left unserved are among the most challenging to reach, and frequently the only available internet providers utilize satellites for the downloads, and a dial-up connection for the uploads, making now common tasks like video conferencing difficult.

**Figure 17**  
**Served, Underserved, and Unserved Address Points in the Rural Counties, 2022**

County	Served Address Points	Percent Served	Underserved Address Points	Percent Underserved	Unserved Address Points	Percent Unserved
Allegany	23,960	94.4%	45	0.2%	1,379	5.4%
Chenango	22,971	87.2%	152	0.6%	3,207	12.2%
Delaware	27,634	95.4%	19	0.1%	1,320	4.6%
Essex	22,507	85.4%	25	0.1%	3,817	14.5%
Greene	26,901	90.5%	1	0.0%	2,837	9.5%
Hamilton	5,617	70.2%	111	1.4%	2,273	28.4%
Lewis	12,618	73.0%	74	0.4%	4,589	26.6%
Schuyler	9,236	89.7%	3	0.0%	1,055	10.2%
Sullivan	49,613	95.6%	22	0.0%	2,281	4.4%
Wyoming	14,604	86.9%	69	0.4%	2,138	12.7%
Rural	215,661	89.5%	521	0.2%	24,896	10.3%
NYS	5,138,991	97.4%	6,009	0.1%	132,615	2.5%

Note: Unserved areas do not have service available, or available service is less than 25/3 Mbps. “Underserved” indicates that there is 25/3Mbps service available, but no service of at least 100/10 Mbps.

Source: New York State Public Service Commission, accessed April 2023

# Policy Approaches

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Federal and State policymakers have recognized that rural challenges may often require special funding streams or solutions specific to rural communities; for example, new federal programs, such as the \$20 billion Rural Digital Opportunity Fund, have been initiated to spur broadband deployment in rural areas. The Biden Administration has also launched the Rural Partners Network (RPN) intended to help rural governments better identify and access federal funding streams, including enhancing technical assistance and support.<sup>43</sup>

At the State level, the New York State Legislative Commission on Rural Resources issued its [report](#) on the State Fiscal Year 2023-24 Enacted Budget, identifying both statewide policies with important implications for rural communities – running the gamut from school aid to agricultural programs to building public renewable energy sources – and funding that is specifically dedicated to rural communities. According to the Commission, notable programs specific to rural communities include:

- \$100 million for the New York Forward program, focused on revitalizing New York’s downtown communities;
- \$21.7 million in rural rental assistance;
- \$7.6 million for rural housing preservation companies, with additional funding for first-time homeowners programs administrated through these companies;
- Support for financially distressed hospitals, and authority for the DOH Commissioner to designate “rural emergency hospitals,” allowing for some general hospitals to remain open if certain financial standards are met; and
- \$9.4 million to expand access to rural health programs and networks.<sup>44</sup>

In addition to these programs, new technologies, like ride-sharing apps, provide opportunities to think creatively about how to address lingering obstacles. The following section identifies some alternatives that policy makers have under consideration, many of which are focused on improving connectivity, both in-person and online.

## Transportation

So many of the challenges faced by rural New Yorkers are tied back to transportation and the reliance on personal vehicles. For most people in rural New York, this is just a fact of life, but for people of limited means, the necessity to own and maintain their own vehicle adds a significant cost burden, and the lack of alternatives in the event of an emergency means that for a portion of the population one breakdown has potentially devastating ramifications.

Building public transportation systems by creating new bus routes or increasing the frequency that the buses run can be costly, particularly in rural counties given the geography and lack of population density. There are other alternatives. For example, subsidizing ride-share companies to offer service in rural places could be part of a potential solution. One resource that may help inform rural communities seeking to expand such service is a [toolkit](#) from the Rural



Institute for Inclusive Communities at the University of Montana intended to assist communities looking to create and operate a rural transportation voucher program.<sup>45</sup>

Another solution might be to expand on-demand county transportation services offered by counties to include temporary transportation services on an as-needed or emergency basis. Most counties offer on-demand transportation options for senior citizens and Medicaid patients to access health care, so the infrastructure to be able to expand those services exists and may be cost-effective when compared to other public transportation systems.

## Broadband

Another increasingly viable solution is to supplement in-person delivery of services with online services such as telehealth, online education, and telecommuting, wherever possible. While great strides have been made in recent years to ensure that all New Yorkers [have access to](#) and [can afford broadband internet](#), more can be done.

Fortunately, opportunities are now available to make significant improvements due to recently approved federal funding. New York State received \$884 million of federal funding for broadband service improvements in response to the COVID-19 pandemic and has been awarded more than \$724 million from programs authorized in the Infrastructure Investment and Jobs Act. The federal government has also [sponsored programs](#) that have been successful in enhancing the affordability of broadband services for low-income households.

Notably, \$664.8 million of funds recently [awarded to New York](#) under the Broadband Equity, Access and Deployment Program (BEAD) relied heavily on new mapping and factored in the high cost of providing broadband in unserved areas due to factors such as low population density, remoteness and geography or terrain. The State must now submit a five-year action plan to serve as a comprehensive needs assessment and to outline key strategies, state and federal resources available, potential barriers to successful implementation, and a stakeholder engagement process, among other things. The plan is due in September 2023. By December 2023, the State must submit a detailed plan identifying uses of funding, project timelines and oversight and accountability mechanisms.

As the State builds its five-year action plan and proposal, focus should be on ensuring our infrastructure investments are forward looking, supporting the highest usage speeds and deploying new technologies whenever they are cost-effective. In addition, the State's proposal should be actionable and accountable. In 2021, the Office of the State Comptroller recommended setting concrete goals; identifying obstacles and barriers; identifying available federal, State, and local funding sources; and establishing interim metrics and a public reporting schedule to provide accountability for progress. This federal funding provides a critical opportunity to level the playing field for rural areas and provide an infrastructure backbone that can help address other challenges.

## Health Care

Improved broadband can address some of the challenges related to health care access by allowing rural residents to use telehealth services, which can often require video calling that requires high-speed internet for reliability of transmission.

Another solution that is being tried in Erie County is a mobile health unit. The University of Buffalo recently received nearly a million dollars to support a mobile health unit to address transportation and health access in medically underserved areas of Erie and Niagara Counties.<sup>46</sup> Mobile health units that are operated through collaborations between County Health Departments and rural hospitals or clinics would help to solve health access issues by bringing care to patients. In some ways mobile health units could be viewed as a modern callback to the era when doctors made house calls.

To address the ongoing opioid pandemic and drug and alcohol use disorders in general, there is a need for more rural outpatient clinics and treatment centers. This may also be an area where telemedicine could be effective, though the end of pandemic era exceptions to regulations will require patients that are new after May 11, 2023 to be seen in person in order to be prescribed medicine. Policymakers should give serious consideration to extending this authorization, particularly for rural communities, to improve access and to evaluate the potential benefits relative to risks.

One federal program that is rural-focused and will be piloted in New York beginning in July 2024 is the Making Primary Care (MCP) Model. The MCP Model will support the delivery of advanced primary care, and coordinate care with social service providers to address other issues such as food and housing insecurity that impact health outcomes, especially in rural areas and among underserved populations.<sup>47</sup> The model includes adjusting payments based on clinical indicators and social risk, developing and adopting strategic plans to identify and reduce disparities, and reductions in cost-sharing for patients in need.

## Rural Economies

The demographic realities of shrinking and aging populations drive labor force declines in New York's rural communities. A smaller labor force and consumer base makes sustaining local and regional economies and economic growth more difficult. There are no one-size-fits-all solutions to revitalizing New York's rural economies. The differences between each community, county, and regional economy require successful economic development policies to be homegrown, taking into consideration local economic assets and knowledge to create economic opportunity.

The State can do more to leverage the local strengths of each of these areas, particularly with respect to outdoor recreation. Efforts to bolster tourism, particularly in localities that already have a larger proportion of their workforce engaged in tourism and other adjacent sectors, could build on an existing strength of these communities. Similarly, funding to support agrotourism is another opportunity to build on rural strengths and could assist farmers to create additional revenue streams while creating synergies with existing tourism efforts.

There are opportunities to utilize technology in ways that can bolster rural economies. Leveraging broadband investments has the potential to play a major role in the revitalization of rural economies. The opportunities here are twofold: in the post-pandemic era, broadband availability makes living in rural communities viable for those with the ability to work from home, and also creates the potential for the development of ecommerce as a business model, or to supplement the market available for existing retail and wholesale businesses. Continuing education programs could be created to assist in teaching the skills necessary to be able to operate an ecommerce business or to telecommute effectively.

# Conclusion

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While many of the challenges faced by rural New Yorkers may be like those in urban areas, solutions to those issues require a rural focus, or at least recognition that it is unlikely that they can be achieved in as cost effective a manner.

The issues tend to amplify one another. Rural poverty and aging populations, when combined with the reliance on cars, create a situation where people may be one breakdown or minor accident away from disaster. When combined with a lack of reliable public transportation, those most in need of services often have the most difficult time accessing them. Even something as simple as grocery shopping can become a monumental task for some rural New Yorkers.

Connectivity, both physical and digital, emerges as the key to addressing the challenges faced by New York's rural communities, and to be successful, both forms of connectivity must be addressed. Telemedicine, online education, and other virtual modalities are important alternatives and supplements to locating more robust services in rural communities, but in-person presence will also be necessary. Therefore, transportation solutions are also needed to meet the needs of rural areas.

There are some areas where solutions must be tailored specifically to rural places to be successful. Broadband access is a good example; rural focused solutions were developed and implemented, and resources were earmarked specifically to bring broadband access to rural communities. Because of this, much progress has been made, and this can serve as a blueprint for effectively addressing other rural challenges. Issues, like the ongoing opioid epidemic, the home health care aide shortage, and a lack of transportation will require a similar rural focus to address.

Although rural New York communities face challenges, they also possess attributes that present opportunities for growth and renewal. Closer proximity to large population centers than other rural areas across the country, access to the strong system of higher education in New York State and other economic assets means that our rural communities can be attractive for individuals looking to relocate to less populated areas. If such growth can be facilitated, opportunity will follow in the form of new business, jobs, and revitalized community institutions. Together, universal digital connectivity and strategically targeted improvements to physical connectivity can have a profound impact on the quality of life in rural New York.

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