


2045
Long Range Transportation Plan

For the Period October 1, 2020
to September 30, 2024








ULSTER COUNTY TRANSPORTATION COUNCIL

Prepared By:
Ulster County Transportation Council
244 Fair Street, Kingston, NY 12402-1800
https://ulstercountyny.gov/transportation-council

2045 LONG RANGE TRANSPORTATION PLAN

For the Period October 1, 2020 – September 30, 2024

This report was funded in part through grants from the Federal Highway Administration and Federal Transit Administration, divisions of the U.S. Department of Transportation. The views and opinions expressed herein do not necessarily reflect those of the U. S. Department of Transportation.

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RESOLUTION 2020-11

ADOPT THE ULSTER COUNTY TRANSPORTATION COUNCIL YEAR 2045 LONG RANGE TRANSPORTATION PLAN.

WHEREAS, the Ulster County Transportation Council (UCTC) has been designated by the Governor of the State of New York as the Metropolitan Planning Organization (MPO) responsible, together with the State, for the comprehensive, continuing, and cooperative transportation planning processes for its respective Metropolitan Planning Area (MPA); and,

WHEREAS, Federal regulations require that each MPO shall develop a long range transportation plan (LRTP) from which the transportation improvement program (TIP) shall be derived; and

WHEREAS, a portion of Ulster County is within the Federally designated Mid-Hudson Valley, New York, Transportation Management Area (TMA), and shares regional transportation planning and programming responsibilities with Dutchess and Orange Counties and a portion of New Jersey, including the coordination of a congestion management process (CMP); and

WHEREAS, Federal surface transportation programs are the responsibility of the UCTC and authorized by the Fixing America's Surface Transportation (FAST) Act; and

WHEREAS, the UCTC last adopted a LRTP in 2015 with a horizon date of 2040; and

WHEREAS, for these proposed amendments, the UCTC, in cooperation with the New York State Department of Transportation (NYSDOT) and transit operators, has reviewed and documented compliance of its planning process with adopted *UCTC Operating Procedures*, UCTC public notice procedures, and all existing federal rules and regulations, including Fixing America's Surface Transportation (FAST) Act requirements; and.

WHEREAS, the UCTC has updated its LRTP to Year 2045 based upon new data collected and forecasted; and

WHEREAS, the UCTC's Year 2045 Long Range Transportation Plan sets the planning and programming priorities for the entire UCTC metropolitan planning area transportation system; and

WHEREAS, at the time of the LRTP's adoption, the UCTC was classified as being an air quality attainment area and, therefore, the LRTP was not required to demonstrate air quality conformity with Federal and state air quality conformity requirements.

RESOLUTION 2020-11

NOW, THEREFORE BE IT RESOLVED, that the Ulster County Transportation Council adopts the Year 2045 Long Range Transportation Plan for the entire UCTC metropolitan planning area; be it further

RESOLVED, that the Director of the Ulster County Transportation Council authorizes the Secretary to transmit the Year 2045 Long Range Transportation Plan to the New York State Department of Transportation (NYSDOT), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and other appropriate Federal and state agencies to satisfy all current reporting requirements.

CERTIFICATE, the undersigned, duly qualified and acting Secretary of the Ulster County Transportation Council, certifies that the foregoing is a true and correct copy of a resolution adopted by a vote on September 22, 2020

Sep 22, 2020

Date

By Lance MacMillan (Sep 22, 2020 12:52 EDT)

Lance MacMillan, P.E., Secretary,
Ulster County Transportation Council

Executive Summary

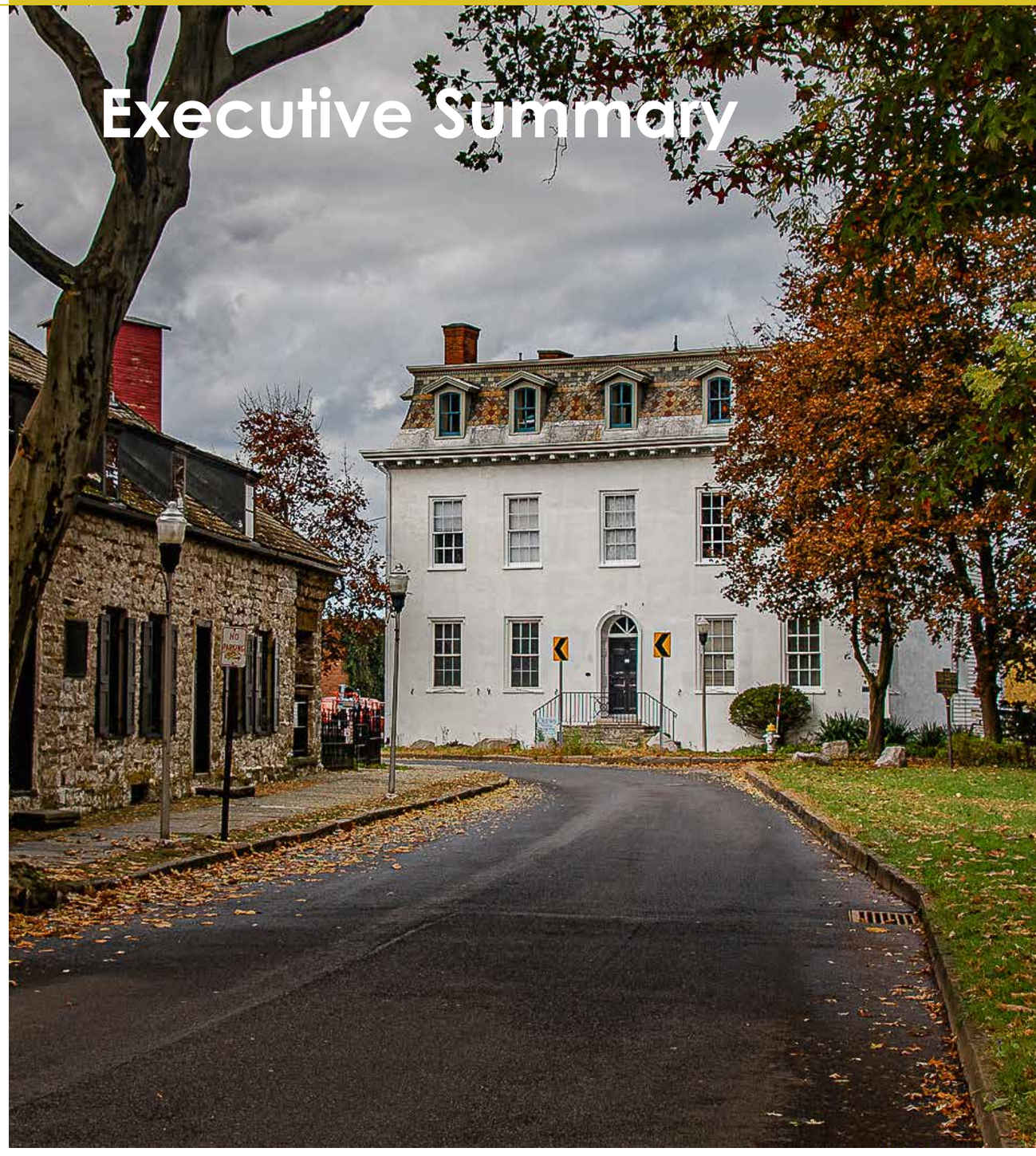


Photo by: Gerald Berliner

WELCOME

WELCOME to the Ulster County Transportation Council's (UCTC) 2045 Long Range Transportation Plan (LRTP). The Plan presents a 25-year strategic vision that will guide our region's transportation planning and investment decisions. The Plan continues an inclusive effort led by UCTC staff to consult with individuals, agencies and communities in the development of a plan that addresses the critical needs of all elements of our surface transportation system.

The 2045 LRTP recommends investments in the transportation system that will provide the foundation on which the County can build to achieve its quality of life, economic development, environmental protection, public health, and social equity goals. In each of the Plan's 8 goals of System Preservation, Economic Vitality, Safety, Sustainability, Mobility, Accessibility, Environmental Enhancement, and Equity, can be found direction for transportation investments that will help to ensure stronger, more equitable communities.

The Plan profiles the County's unique geography, workforce, and social characteristics, providing critical insights regarding how these affect our transportation system today and the likely concerns that will emerge in the future. Metrics on road and bridge conditions, traffic congestion, commutation patterns, transit service and facilities, as well as progress on our expanding trail system have been included to help guide our investment decisions. Within the Plan you will also find discussions on our population growth, land use patterns, topography, streams and rivers, commutation patterns, and how each of these add to the challenges presented by aging infrastructure, a changing climate, flat federal revenues, and stretched local budgets.

The Plan uses its goals and data to make better-informed decisions about how to invest our available funding. It sets targets around major factors such as safety and holds those investments accountable for results. The Plan's Goals, Objectives and Performance Measures provide a basis for focusing limited public dollars on the investments that improve safety, grow the economy, and allow the transportation system to benefit all users. At the heart of this performance-based effort is desire for better connected and productive communities.

The Plan estimates available federal financial resources in the order of 62 to 67 million dollars every five years for the life of the Plan and an additional 54 to 58 million in state funds, as well as roughly 5 million in local funds. Over the life of the Plan nearly 620 million dollars is anticipated in state and federal aid.

The Plan goes on to identify 31 short term projects including highway repairs and bridge replacements as well as new trail construction. Transit projects involving state of good repair total over 17 million during the Plan's first five years. The long-term projects in the Plan draw from UCTC's studies and are included under the broad categories of system preservation, economic vitality, safety, security, mobility and reliability, accessibility and connectivity, and environmental enhancement.

UCTC thanks all who participated in the development of the Plan; local officials, agencies and individuals added to the accuracy and direction of the Plan elements. The UCTC also thanks our federal and state partners for their technical and financial support that has been provided throughout the Plan development process.

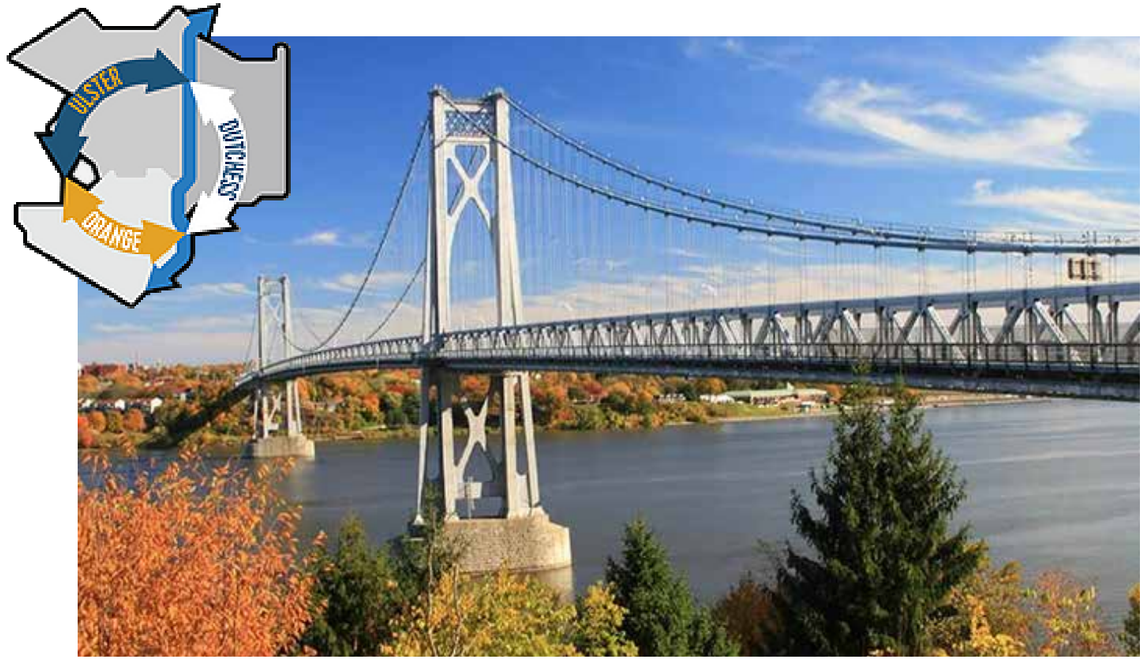
In the end, the Plan is successful if it presents compelling reasons for its recommendations that are translated into actions by those charged with implementation The UCTC, in its role as the Metropolitan Planning Organization for Ulster County, and working with our federal, state and regional partners, will continue to foster knowledge building and technology transfer that help to maximize transportation's contribution to economic development and quality of life in our area.

I. INTRODUCTION

The Vision for Plan 2045 is a transportation system that is capable of affordably supporting its vibrant communities, and that all members of those communities are provided safe access to all modes of travel, thereby supporting a robust economy and high quality of life.

UCTC is the designated Metropolitan Planning Organization (MPO) for the Kingston Urbanized Area and a portion of the Mid Hudson Transportation Management Area (TMA). The MPO is required to carry out a continuing, cooperative, and comprehensive performance-based multimodal transportation planning process, including the development of a metropolitan (long range) transportation plan.

UCTC decision-making authority rests with its Policy Committee voting members, which are comprised of Chief Elected Officials from across Ulster County, as well as the NYS Department of Transportation and the NYS Thruway Authority.



Mid-Hudson Bridge crossing the Hudson River in Poughkeepsie, New York.
Photo Credit: Connect Mid Hudson

II. PUBLIC PARTICIPATION

Public participation for Plan 2045 included:

- Remote public workshops;
- Stakeholder roundtables with individuals in the private sector, interest groups, and non-governmental agencies;
- On-line Survey; and
- Media Coverage including Spanish speaking radio appearance.

Kingston Greenline.

Engineering consultants conduct a site visit with U.C. Planning staff and Community Advisory Committee.

The on-line survey captured **365** responses including motorists, transit riders, pedestrians, bicyclists and those with mobility devices; over **80** percent of respondents live (**43%**) or live and work (**41.9%**) in Ulster County.

Out of all eight Plan goals, accessibility and connectivity, transportation equity, and safety were ranked the highest in importance by survey participants.

III. PROFILE OF THE REGION

The Plan estimates that Ulster County will continue to have a modest rate of growth for the next 25 years, but remain below **200,000** in 2045. The 2018 estimate is **179,303**, down **1.75%** since the 2010 Census. An additional **50,000** people flow into the County during the summer months from second home ownership, large and numerous campgrounds, a booming short-term rental market, and multiple state parks; This influx boosts utilization of the transportation system.

The top employment sectors include:

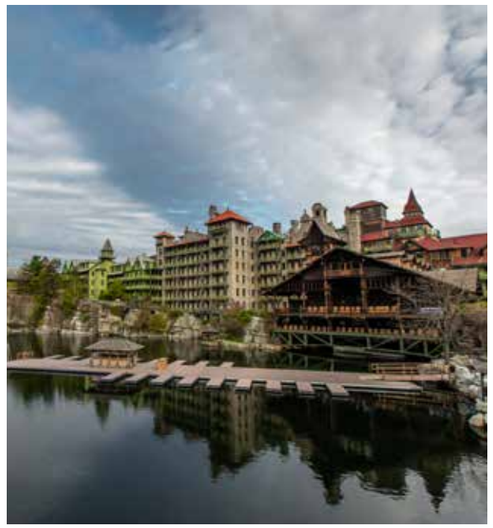
- Health Care and Social Services
- Retail Trade
- Accommodation and Food Services
- Educational Services
- Public Administration

Housing affordability issues have increased with declining vacancy rates and lack of new housing production, coupled with stagnant and declining wages when adjusted for inflation.

Most major new development proposals in Ulster County are Commercial projects, followed by Mixed-Use Residential/Commercial, Energy Production and Industrial.

Prior to the COVID-19 Pandemic, private sector job growth in Ulster County enjoyed a positive trend, with steady growth in the construction, food manufacturing, and accommodation/hospitality industries acting as key drivers of new jobs in the region.

The Plan provides the basis to address adverse human health or environmental effects of its programs, policies, and activities on minority populations through its environmental justice (EJ) analysis. EJ areas in the County include Kingston and Ellenville.



Mohonk Mountain House is one of Ulster County's most iconic tourism destinations and one of the region's biggest service industry employers. *Source: MMH*

IV. TRANSPORTATION SYSTEM

The Transportation System by the numbers:

- **2,300** centerline miles of roads, **60%** of which are owned by town governments
- **387** bridges of which **154** are county owned
- Ulster County Area Transit, the only public transit operator in Ulster County, operates **15** scheduled fixed routes utilizing **46** vehicles including paratransit
- Serious injuries increased by **25%** between 2017 and 2018, hitting their highest total since 2010
- The leading crash type in both fatalities and serious injuries in Ulster County is roadway departure
- Between 2010 to 2019 there were **18** reported incidents involving trespassers on CSX property resulting in **11** fatalities and **9** injuries
- **77.2%** of Ulster County workers travel to work alone by car
- County wide, **7.5%** of households have no car available
- **94-98%** of Ulster County roads 'pass' measures for congestion across multiple factors, including peak period congestion, total congestion, travel reliability and freight reliability; locations not meeting thresholds set by UCTC include:
  - I-587 and Route 32 Kingston
  - Route 299 near I-87 New Paltz
  - Route 299 near Route 32 Lloyd
  - Route 44/55 near the Mid-Hudson Bridge Lloyd
  - Route 9W near Route 199 Ulster

32%
of state roads rated to be in **'Good'** condition,

51%
rated as **'Acceptable'** condition, and

17%
rated to be in **'Poor'** condition

64.6 miles of existing multi-use trails (2020),
14.7 miles are under active development, and
41.2 miles are planned for future development

56% of Ulster County's workforce leaves the county every day for employment; **24%** of that share travels to the southern NY Metro area (NYC and L.I.)

V. SUSTAINABILITY

Transportation Resilience is defined as *The ability to prepare for changing conditions and withstand, respond to, and recover rapidly from disruptions.*

When implemented, it includes measures such as adapting to climate change in bridge and culvert design, reducing greenhouse gas emissions, and utilize NYDOT Forward Four Guiding Principles.

Greenhouse Gas Emissions:
Nationally, while tailpipe emissions have been improving, Vehicle Miles Traveled continues to increase and with it fuel consumption creating more emissions every year.

Over one-third of all carbon emissions in NYS are from transportation-related sources; New York State lawmakers agreed to the NYS Climate Leadership and Community Protection Act in June 2019 which identifies emissions from fuel consumption as a primary target for reduction.

Electric Vehicle Charging Station at the Ulster County Office Building.

Greenhouse gas emissions from transportation sources in the County showed a decline between 2016 and 2018, due primarily to fewer miles traveled.

Electric vehicles represent fewer than **1%** of all vehicles on the road in Ulster County, however the number of registered EVs has tripled year-to-year since 2017.

No fewer than **22** different mitigation measures are presently in place in Ulster County to begin to reduce emissions.

Climate change is directly linked to more frequent and intense precipitation events, which can increase the risks of flooding and extreme events and impact transportation infrastructure.

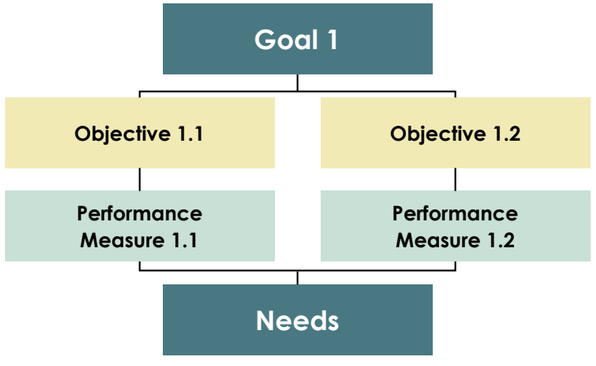
VI. GOALS, OBJECTIVES, PERFORMANCE MEASURES AND NEEDS

The 2045 Plan Goals are SMART (specific, measurable, achievable, relevant and time-bound) and were developed according to four Guiding Principles of:

1. AFFORDABILITY
2. RESPONSIVENESS TO LAND USE
3. MEETING USER EXPECTATIONS
4. ADAPTING TO TECHNOLOGY AND SOCIAL CHANGES

THERE ARE EIGHT (8) MAJOR GOALS IN THE PLAN:

- ***System Preservation***
- ***Economic Vitality***
- ***Safety***
- ***Sustainability***
- ***Mobility and Reliability***
- ***Accessibility and Connectivity***
- ***Environmental Protection and Enhancement***
- ***Transportation Equity***



VII. SYSTEM PERFORMANCE

The Plan addresses the necessary actions for the implementation of Transportation Performance Management (TPM) in carrying out the federally- required planning and programming activities.

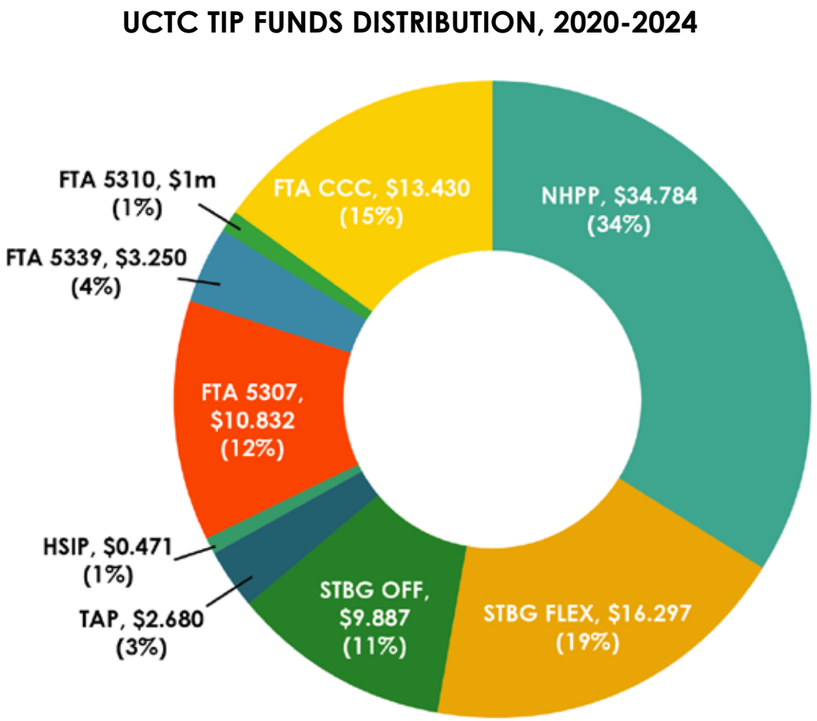
The National Performance Management Goals Addressed in the Plan include:

1. Safety
2. Infrastructure condition
3. Congestion reduction
4. System reliability
5. Freight movement and economic vitality
6. Environmental sustainability
7. Reduced project delivery delays

Metrics included in UCTC's LRTP meet all federal standards established for TPM

Ulster County Area Transit (UCAT) is the county-owned operator of bus transportation in Ulster County, NY.

VIII. FINANCIAL PLAN



Revenue forecasts for federal transportation projects assumes flat funding over the life of the plan, with increases for inflation only.

Total FHWA revenues are forecast to be **$191 million** and total FTA revenues are forecast to be **$132 million** over the life of the plan, absent required state and local matching funds.

Other non-traditional funding sources are recognized as critical to meeting the goals of the Plan.

Ellenville, NY.
Photo Credit: Gerald Berliner

IX. RECOMMENDED PLAN OF PROJECTS

The Recommended Plan of Projects has been prioritized based on need and the level of funding reasonably expected to be available into the future.

Aerial view of the Rondout neighborhood in Kingston, NY. Photo Credit: Kevin Godbey

Short-term projects are those currently included on the 2020-2024 Transportation Improvement Program (TIP), which programs **$64 million** in FHWA capital projects and **$23 million** in FTA related projects during the 2020-2024 TIP period.

Beyond the 5-year TIP, the Plan recommends pursuing projects that meet the goals of the LRTP as well as those that have been justified through representative plans, policies, or an otherwise justifiable need.

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I. Introduction

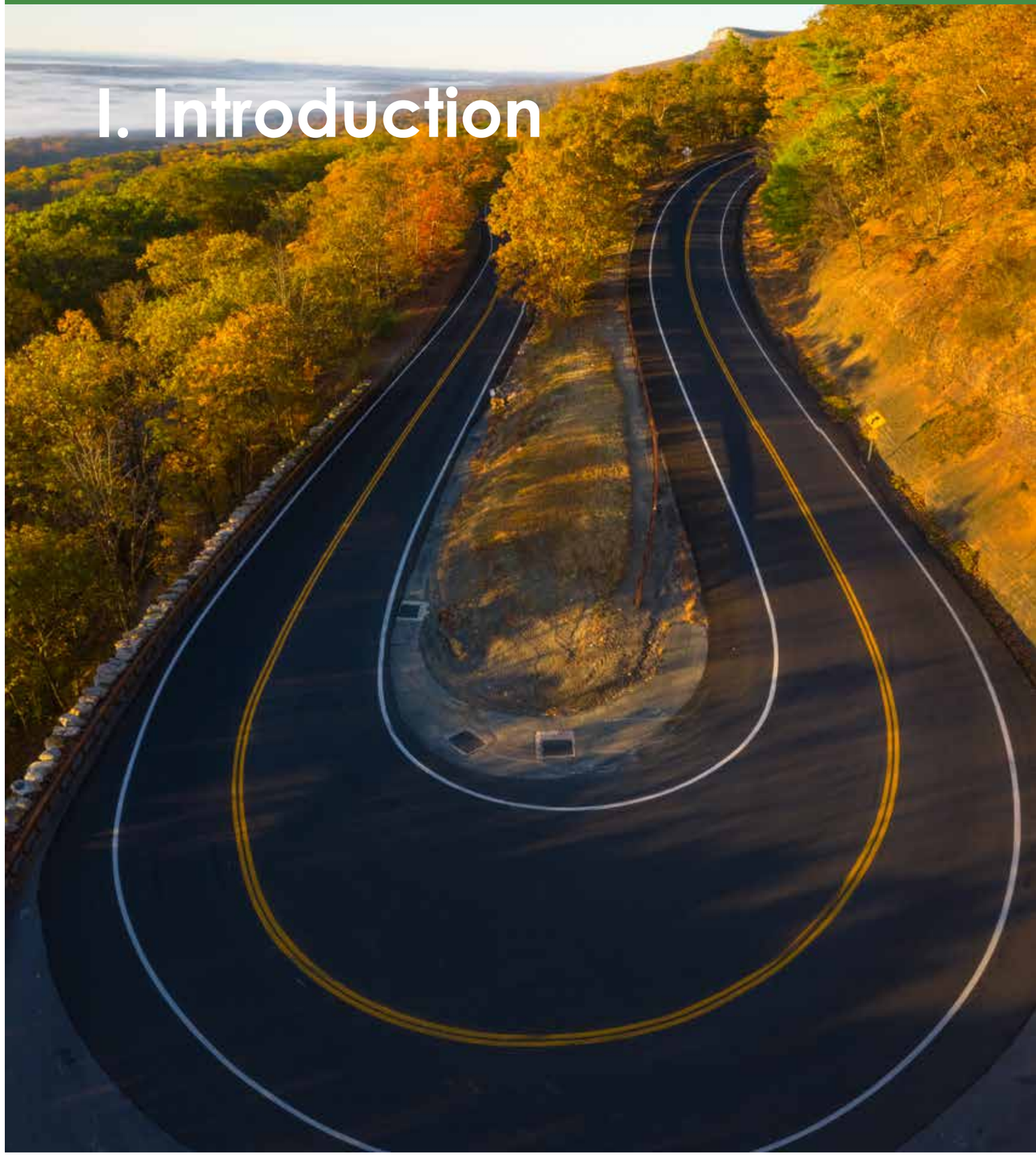


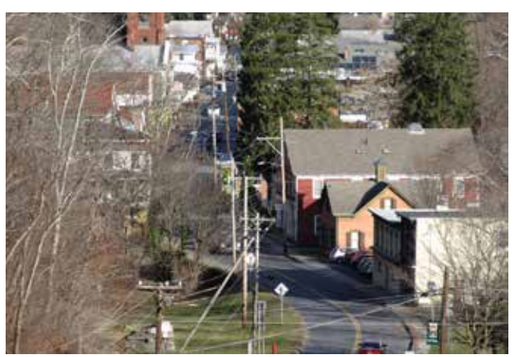
Photo by: Gerald Berliner

The purposes of this subpart are to implement the provisions of 23 U.S.C. 134, 23 U.S.C. 150, and 49 U.S.C. 5303, as amended, which…Set forth the national policy that the MPO designated for each urbanized area is to carry out a continuing, cooperative, and comprehensive performance-based multimodal transportation planning process, including the development of a metropolitan transportation plan and a TIP, that encourages and promotes the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities that support intercity transportation, including intercity buses and intercity bus facilities and commuter vanpool providers) fosters economic growth and development, and takes into consideration resiliency needs, while minimizing transportation-related fuel consumption and air pollution.

23CFR§450.300

The Ulster County Transportation Council (UCTC) is the designated metropolitan planning organization (MPO) serving the Kingston, NY, urbanized area and the entirety of Ulster County. Federal law requires that all urbanized areas with a population greater than 50,000 people have an MPO, which is assigned certain planning responsibilities among them being the preparation and adoption of a Long Range Metropolitan Transportation Plan (LRTP). In addition, UCTC is part of a larger Transportation Management Area (TMA) that includes both Orange and Dutchess Counties. A TMA represents urbanized areas with a population greater than 200,000. The three MPO's Ulster, Dutchess, and Orange, coordinate their planning activities for this larger area.

The LRTP must look at least twenty years into the future and be updated at no less than five-year intervals. The LRTP covers the same geographic area as the MPO's Metropolitan Planning Area, as adjusted from the U.S. Census urbanized area boundary. This long look forward is particularly valuable as transportation facilities can take a long time to move from idea to plan to design and construction. The LRTP gives citizens and decision-makers a structured means to be thoughtful about its transportation future, and it can both respond and shape the development and success of a community. The LRTP is a vision of the area's transportation future, the policies necessary to support that vison, and an investment plan for its implementation. In this era of limited financial resources, the LRTP provides the guidance on how available funds are best used to meet regional priorities. The total of LRTP recommended investments must, by Federal law be constrained by an agreed upon estimate of reasonably available revenue. This "fiscal constraint" ensures the LRTP list of projects can be paid for. The preparation of the LRTP forces decision-makers to be explicit about their choices of strategies, programs, and projects.



Aerial View of Rosendale, New York. Taken from the Rail Trail Bridge showing Main Street, Houses and Buildings.

A DYNAMIC PLANNING ENVIRONMENT

There are several critical issues that have impacted the development of this LRTP. These include funding, transportation choices, environmental, and economic concerns as discussed below:

- ***Federal transportation authorization:*** The current five-year federal surface transportation law, Fixing America's Surface Transportation (FAST), which authorizes funding for FHWA and FTA programs, expires on September 30, 2020. Congress must act prior to that date to pass new authorizing legislation or a further extension.

- ***Federal transportation funding:*** Programs of the FHWA and the FTA provide a significant proportion of capital funds in New York State's transportation program. All FHWA program funds, and a portion of FTA funds, come from the Highway Trust Fund (HTF). The primary source of revenue for the HTF is tax on gasoline and diesel fuel. These taxes have not been increased since 1993, leaving their purchasing power diminished by nearly three decades of construction cost inflation. At the same time, receipts have been diminished by use of more fuel efficient cars and alternative fuels that are not taxed. Since 2016, Congress has transferred over $70 billion from the U.S. General Fund to the HTF so it can meet expenditure obligations. There is general agreement among policy makers that a sustainable approach to funding FHWA and FTA must be enacted.

- ***State and local transportation funding:*** The New York State Dedicated Highway and Bridge Fund has its own challenges, related to substantial debt service payments resulting from past borrowing, and use for non-capital purposes. Local governments receive state funds through the Consolidated Local Street and Highway Improvement Program (CHIPS), but must rely primarily on property tax and sales tax receipts to pay for transportation projects. Other states permit local option sales and gasoline taxes, but this is not the case in New York. Public transit is supported separately by the state, with operators receiving State Transit Operating Assistance (STOA), and a portion of the non-Federal share of capital project costs.

- ***Aging infrastructure:*** The New York State Department of Transportation (NYSDOT) points out in its Transportation Asset Management Plan that, like much of the rest of the country, our roads and bridges, transit systems, and railroads are characterized by aging infrastructure. Depending on the type of construction and materials used, each of these elements has a predictable life span. That life may be extended by preventive maintenance and rehabilitation, or decreased by neglect. Current conditions are a consequence of investment, but also of timing. From the late 1950s to the early 1970s, the nation built much of the Interstate Highway System and other facilities. Fifty years later, much of this infrastructure is worn out, creating a spike in preservation program demands.

- ***Focus on freight and economic development:*** The trend in federal transportation policy over recent years is to pay more attention to freight movement and how it supports regional, statewide, and the national economy. NYSDOT completed its first comprehensive statewide Freight Transportation Plan in 2019. FAST Act requires that the United States Department of Transportation (USDOT) develop a National Freight Strategic Plan and Primary Freight Network. The UCTC will take advantage of these activities in examining the role of freight movement in its own economy in the future.

- ***Changing attitudes about land use:*** People of all ages are making different decisions about where they choose to live, and what constitutes a positive quality of life. Whether urban or suburban, more people want a human scaled neighborhood that is walkable and bikeable, has access to schools and shopping, and has convenient public transit. Others want a rural location, but one that has access to needed services. New York State has in recent years passed both a Smart Growth Public Infrastructure Policy Act and a Complete Streets Act. These acts respond to public interests, and guide state and local government decisions about transportation projects away from a singular auto-centric view to one that looks at the accessibility and mobility needs of all users regardless of how they travel.

- ***Transportation and Climate:*** Transportation accounts for more than one third of greenhouse gas emissions by major economic sector. In response to the growing concern that GHGEs have on the environment, New York State passed the Climate Leadership and Community Protection Act, which will require the state to make major reductions in GHGEs by 2050. The state will be required to enact bold initiatives to reduce transportation emissions already seen in providing funding for the installation of EV charging stations.

- ***Public health and active transportation:*** Transportation planners are bringing new partners into their conversations. The public health community has begun to turn its understanding of the value of physical activity into participation through calls for active transportation initiatives and opportunities. They have become valued stakeholders in supporting the construction of sidewalks and trails, and promoting Safe Routes to School and similar non-motorized programs. This is closely connected to discussions of land use planning as noted above.

- ***Transportation and technology:*** A twenty-five year planning cycle is a very long time in today's environment of fast changing technology, disruptor business models, and environmental challenges. We have seen that even a five year capital program cycle has difficulty responding to these changes. This LRTP is expected to see fully automated cars being in general use, electrical vehicles representing a majority of new vehicles, climate change reorienting investment in transportation infrastructure, remote work capabilities altering commuter patterns, the use of online resources changing shopping behavior and with it the need for freight and delivery services. These changes have already begun. Already, vehicles have more on-board safety features like lane departure warning and automatic brake assist, and pervasive wireless communications has enabled USDOT's Connected Vehicle program that allows cars to communicate to each other and the roadside infrastructure enhancing safety and roadway capacity. Commercial GPS guidance systems are found in cars and trucks, and on smartphones and similar devices. Drivers receive real-time traffic and road information, enabling them to make smart choices on route, mode, and time of travel. EV charging stations are now deployed on major routes, bridge replacements now require 100yr flood analysis, and Uber and Lyft are present in the region. The resulting changes in travel behavior and infrastructure design will change the need for investments and are likely to change some of the conclusions of this LRTP.

FEDERAL PLANNING REQUIREMENTS

The framework of the LRTP is codified in Titles 23 (FHWA) and 49 (FTA) of the Code of Federal Regulations. The LRTP must address the following ten planning factors:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized users;
4. Increase accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation;
8. Emphasize the preservation of the existing transportation system;
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
10. Enhance travel and tourism.

23 CFR 450.306

The recognition by the Federal government that every metropolitan area is different gives the UCTC flexibility to establish its own priorities among these planning factors in ways that makes the most sense for the region it serves. In doing so, UCTC relies on the shared perspectives of all stakeholders providing a collaborative forum to arrive at decision.

ABOUT UCTC

The UCTC was designated as the MPO for the Kingston Urbanized Area by the Governor of New York on April 30, 2003. The UCTC planning area includes all of Ulster County and in 2013 was expanded to include 7 Census blocks within a small portion of Greene County along the NYS Route 9W corridor. The UCTC planning area also includes portions of the Poughkeepsie -Newburgh Urbanized area where these urbanized areas extend into the southern towns in the County.

Uptown Kingston

The UCTC was formally organized with the adoption of Operating Procedures on June 4, 2003. The UCTC's decision-making authority rests with its Policy Committee voting members. The Policy Committee is composed of chief elected officials from urbanized and non-urbanized areas throughout Ulster County along with NYSDOT and the New York State Thruway Authority.

The Ulster County Executive serves as Chair of the Policy Committee. The Policy Committee is supported by non-voting Advisory and Technical Committees comprised of municipal and transportation agency officials. In addition to permanent voting members, the UCTC voting structure includes alternating two-year voter membership. Less urbanized municipalities are paired together based upon geographic location and municipal population and alternate every two years on June 4. In addition to permanent and two-year alternating voter members, the UCTC Operating Procedures identify seven rural municipalities to collectively serve as one rural voting member (also known as the "7 as 1" rural voter arrangement). In accordance with UCTC Operating Procedures, the Ulster County Association of Town Supervisors (UCATS) appoints one Supervisor to represent the seven municipalities. Term limits for the individual serving in "7 as 1" rural voting seat is determined by UCATS. UCTC meetings are scheduled and held "as needed" and typically occur every two months.

The UCTC Policy Committee is supported by a Technical Committee comprising appointed municipal and transportation agency staff representing Ulster County municipalities and transportation agency interests. The Technical Committee serves as an advisory body to the Policy Committee. The Technical Committee monitors the operational aspects of the UCTC planning program for consistency with Federal, State, and local planning requirements, reviews technical and policy-oriented projects and programs, makes recommendations to the Policy Committee for consideration, and monitors the activities of staff.

UCTC also has a joint cooperative transportation planning agreement with the public transit operators in its jurisdiction. In addition, UCTC is supported by Non-Voting Advisory Members to assist with the planning process and help guide the Technical and Policy Committees with decision-making and policy formulation.

The day-to-day activities of UCTC are supported by two full-time and several part-time staff[ii] to ensure the overall planning program is executed in a timely and efficient manner and in accordance with Federal regulations. Ulster County is the host agency for all UCTC-related staffing and planning studies. Staff is housed within the Ulster County Planning Department located in the Ulster County Office Building in Uptown Kingston.

MID-HUDSON VALLEY TRANSPORTATION MANAGEMENT AREA

Urbanized areas with a population of at least 200,000 or more persons are classified as Transportation Management Areas (TMA) subject to additional Federal requirements and scrutiny. The Poughkeepsie Newburgh urbanized area encompasses large portions of south-eastern Ulster County representing over 300,000 peopled. Figure 1.1 provides a map of the TMA. The fusion of the three counties into a single planning area became known as the Mid-Hudson Valley TMA. The TMA is governed collaboratively by three separate MPOs – the Dutchess County Transportation Council (DCTC), the Orange County Transportation Council (OCTC), and the Ulster County Transportation Council (UCTC). Each of these

UCTC POLICY COMMITTEE MEMBERSHIP

PERMANENT VOTING MEMBERS

Ulster County Executive, Chair
City of Kingston Mayor
Town of Saugerties Supervisor
Town of Ulster Supervisor
NYS Thruway Authority Executive Director
NYSDOT Commissioner, Secretary

TWO-YEAR VOTING MEMBERS (Alternate biennially)

Village of Saugerties Mayor*
Town of Hurley Supervisor
Town of Rosendale Supervisor*
Town of Esopus Supervisor
Town of Lloyd Supervisor*
Town of Marlborough Supervisor
Town of Plattekill Supervisor*
Town of Shawangunk Supervisor
Village of Ellenville Mayor*
Village of New Paltz Mayor
Town of New Paltz Supervisor*
Town of Wawarsing Supervisor
Town of Woodstock Supervisor*
Town of Kingston Supervisor

*Current Voting Representative through June 4, 2021

7 AS 1 RURAL VOTING MEMBERSHIP (Appointed by Ulster County Association of Town Supervisors)

Town of Denning Supervisor
Town of Gardiner Supervisor
Town of Hardenburgh Supervisor
Town of Marbletown Supervisor
Town of Olive Supervisor
Town of Rochester Supervisor*
Town of Shandaken Supervisor

*Current Voting Representative

NON-VOTING ADVISORY MEMBERS

Federal Highway Administration
Federal Transit Administration
Federal Railroad Administration
NYS Bridge Authority

Mid-Hudson Bridge crossing the Hudson River in Poughkeepsie, New York.
Photo Credit: Connect Mid Hudson

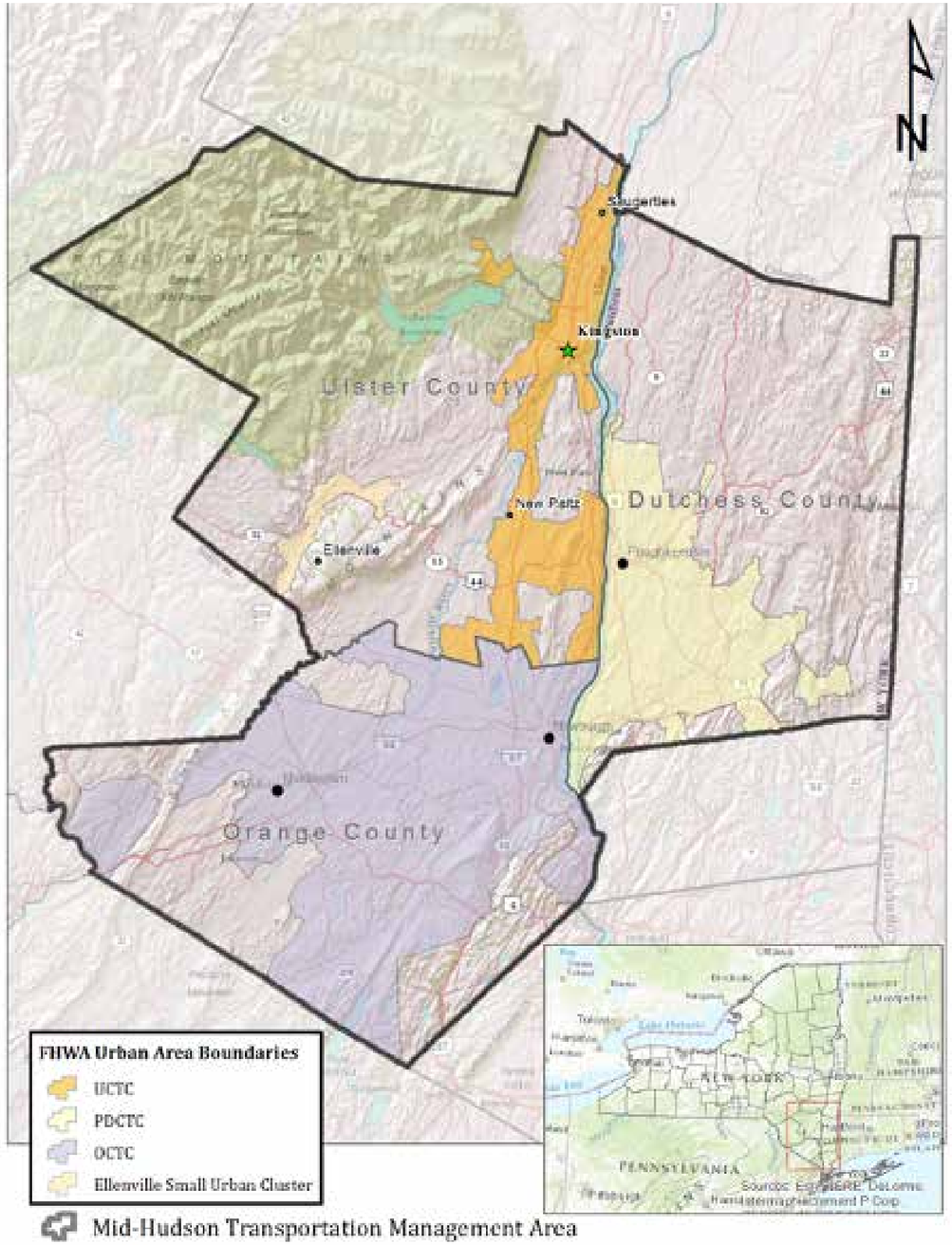
MPOs is hosted by their county's planning department and each of the MPO membership structures, committee structures, and voting procedures are similar.

The Mid-Hudson Valley TMA experiences a high level of cooperation among the three MPOs and their state partners. In March 2006, the three MPOs and NYSDOT Region 8 signed a Memorandum of Understanding which covers the following areas: Shared Products, such as the Congestion Management Process; the allocation of FTA 5307 funds; data and information sharing, such as traffic counts, travel time surveys, geographic information systems products and federal highway classifications; decision making; staffing; professional services; and financial support.

The three MPOs meet regularly concerning TMA requirements, and coordinate on work activities such as planning studies, TIP development, long range transportation plans and other work products that impact the region. The MPOs individually meet their federal requirements such as preparation and adoption of the Long Range Transportation Plan (LRTP), Unified Planning Work Program (UPWP), and Transportation Improvement Program (TIP). In each of these work products, the three MPOs take into account the TMA's function and highlight relevant information regarding areas of collaboration. Specific collaborative work products involve freight, transit, and congestion management planning and mitigation activities.

In 2014, the three MPOs in the Mid-Hudson Valley TMA began to work with the North Jersey Transportation Planning Authority (NJTPA) – the MPO responsible for the Federal transportation planning

Figure 1.1: Ulster County Transportation Council Metropolitan Planning Area and the Mid-Hudson Transportation Management Area



process in Passaic County, NJ – on meeting the planning requirements for the Poughkeepsie-Newburgh NY-NJ Urbanized Area (UA). This relationship was formalized through a Memorandum of Understanding between OCTC and NJTPA in early 2015[iii].

CONNECT MID-HUDSON

The Mid-Hudson Valley Transportation Management Area (MHVTMA) includes the Metropolitan Planning Organizations (MPOs) in Orange, Dutchess, and Ulster Counties. The three MPOs are charged with leading a comprehensive approach to transportation planning in the region, with a special focus on congestion management and transit coordination.

The Connect Mid-Hudson Transit Study is focused on identifying opportunities to improve transit connections between the three counties of the Mid-Hudson Valley study area, as well as between the three-county region and major employment hubs outside the region. Key areas of analysis include the effectiveness of intercity coach services; opportunities for new technologies and service models such as app-based microtransit service; capital improvements to alleviate congestion or capacity constraints at park-and-rides and along transit corridors; and a review of service performance and customer satisfaction monitoring.

A virtual public meeting was held on December 10th at 6:00 PM to present the key findings and recommendations of the study. The meeting presentation was recorded for those who were unable to join live. A video of the meeting is posted on the service recommendations page.

2045 LRTP DEVELOPMENT PROCESS

The 2045 LRTP builds upon the adopted 2040 Plan, related plans from other agencies such as the NYSDOT, and the initiatives at the state level regarding climate change and resilience.

Public Input on the LRTP played an important role in its development. The UCTC conducted four (4) stakeholder meetings, a community survey and four (4) outreach meetings to the general public regarding the Plan as part of the development of the LRTP. These were timed to get response to the draft plan. These combined efforts provided meaningful input into the Plan's policies and priorities and are detailed in Section 2 of this report.

UCTC staff reviewed the **required related plans** at both the federal and state level as part of the LRTP development as well as noting the impact of changes to state law and the implementation of state initiatives that impact the transportation future and land use patterns associated with the Plan. One result of these efforts can be seen in Section 5 on Sustainability.

UCTC existing plans were also reviewed and their influence is found throughout the LRTP. This includes the Congestion Management Plan for the Region, various transit studies, and corridor-specific safety studies to name a few.

LOCAL ROAD SAFETY PLANNING

A local road safety plan (LRSP) provides a framework for identifying, analyzing, and prioritizing roadway safety improvements on local roads. The LRSP development process and content are tailored to local issues and needs. The process results in a prioritized list of issues, risks, actions, and improvements that can be used to reduce fatalities and serious injuries on the local road network.

While local roads are less traveled than State highways, they have a much higher rate of fatal and serious injury crashes. Developing an LRSP is an effective strategy to improve local road safety for all road users and support the goals of a State's overall strategic highway safety plan.

To date, UCTC has conducted safety checks at nearly 50 locations across its planning area and more in-depth safety plans at many of these locations. The MPO works with local municipal staff and first responders to develop clear data-driven strategies for improving traffic safety in our communities.

THE REGIONAL VISION

A shared vision of the future of Ulster County is a necessary starting point for the LRTP. Input from the public and the Technical Advisory Committee helped to answer the question: "What will Ulster County look like in 2045?" This vision will create a foundation for setting goals and objectives for the Plan, which in turn was used to select and enumerate the priority projects, actions, and strategies to carry out the plan.

The vision statement supports the following objectives and key results.

2045 LRTP VISION STATEMENT

In the year 2045, Ulster County's transportation system is capable of affordably supporting its vibrant communities, which are attractive to businesses and to people of all ages and stages of life. The transportation system provides appropriate links to the region and beyond, and is viewed by all as an economic and environmental asset and a major contributor to quality of life. Communities are supported by a transportation system that provides safe access by all modes of travel. There is a robust economy, with diverse businesses whose need for efficient freight and personal transportation service is routinely met.

LAND USE

- UCTC's transportation planning work is cognizant of new trends in Ulster County development, and the value of strategic investments in activity areas in and around our villages and hamlets to create a more sustainable land use pattern while providing for economic development and growth.
- Ulster County is characterized by vibrant business districts of both regional and local importance. These contribute to quality of life and provide retail and entrepreneurial space that creates employment opportunities.
- Ulster County is the home of, and attractive to, a population characterized by diversity of race, ethnicity, income, and skills that make it a great place to live, work, and play.
- Services oriented to the ability of seniors and disabled persons to live in their homes are widely available, as are opportunities to relocate to more convenient and accessible living facilities.
- The "second home" market in Ulster County is longstanding and likely to continue.
- The challenges and opportunities created by this trend as noted below are met with appropriate public policies.
  - Increases in the property tax base without costly demand on services.
  - Competition for housing that can have a negative impact on the housing market and affordability.
  - Seasonal traffic congestion in specific locations like Woodstock and New Paltz.
  - Opportunities for economic growth as second homes become work centers driven by technology and quality of life.

TRANSPORTATION

- Ulster County has a more sustainable and resilient transportation system in which:
  - Investments focus on maintaining the existing system of roads and bridges.
  - Key investments are made that support the creation of economic activity and desired land use patterns.
  - Key roads and bridges provide an adequate level of service to residents and businesses for evacuation, emergency response, and recovery in extreme weather events.
  - Sustainable practices in road construction techniques are becoming standard practice by road owners.
  - Areas of congestion exist at the County's southern boundary with Orange County, the Mid-Hudson Bridge Crossing, and in the New Paltz area. Other areas of congestion are strongly tied to the County's tourism base. This is recognized as a consequence of healthy economic activity.
  - Complete streets and safe routes to school allow communities to re-envision how transportation fits in their neighborhoods.
  - An active system of trails provides both transportation and recreation activities linking built places with each other and with open spaces that is heavily used.
- Ulster County has improved transit service as:
  - Transit's commuting mode share continues to increase.
  - Transit service is offered along all major corridors.
  - Adequate transit service remains a challenge in the rural areas, but mobility is facilitated by technology-based vehicle sharing services.
  - Transit service operates more frequently and uses the best available traveler information technology.
  - Transit links provide critical access to out of county passenger rail service where there are robust offerings of inter-regional and intercity travel.
  - Transit services exist for people traveling between Ulster, Orange, and Dutchess Counties.
  - Enhanced transit service exists in the urban areas of Kingston and New Paltz and is being considered for other activity centers or destinations.
- The Port of Kingston is improved, well-maintained, and recognized as a key facility in a multimodal transportation system.
- The transportation system is responsive to technological change with real time congestion avoidance, integration of autonomous vehicle technology, and providing robust information on freight movements for all modes in its transportation system.
- Safety and security continue to improve with responsive investments based on better accident data and higher levels of awareness.
- Rail safety is improved with investment in physical infrastructure and rolling stock combined with more robust inspections.

ECONOMIC DEVELOPMENT

- Ulster County has an excellent economic development climate, where diverse business opportunities create a strong local economy.
- Businesses can rely on convenient access for their workforce and their customers.
- Businesses can rely on efficient and seamless freight movement that supports their goods movement needs.

Bread Alone Delivery Truck parked in the bakery's newest location in Lake Katrine, NY.

ENVIRONMENT

- Communities are networked into the countywide non-motorized transportation and transit systems.
- There is a continuous reduction of transportation-related energy consumption and greenhouse gas (GHG) emissions.
- Non-point source discharges to waterways from the transportation system are greatly reduced.
- Noise abatement from railroad operations is achieved through wide use of Federal Railway Administration (FRA) Quiet Zone technology.

[I] For more information, visit the NYSDOT DBE Certification Program webpage, online at https://www.dot.ny.gov/main/business-center/civil-rights/general-info/dbe-certification

[II] See Ulster County Transportation Council Operating Procedures as approved May 26, 2015. Online at http://www.co.ulster.ny.us/planning/uctc/documents/mpo_op.pdf

[III] Memorandum of Understanding on MPO Boundaries and Coordination of Transportation Planning and Programming between OCTC and NJTPA (February 17, 2015).

II. PUBLIC PARTICIPATION

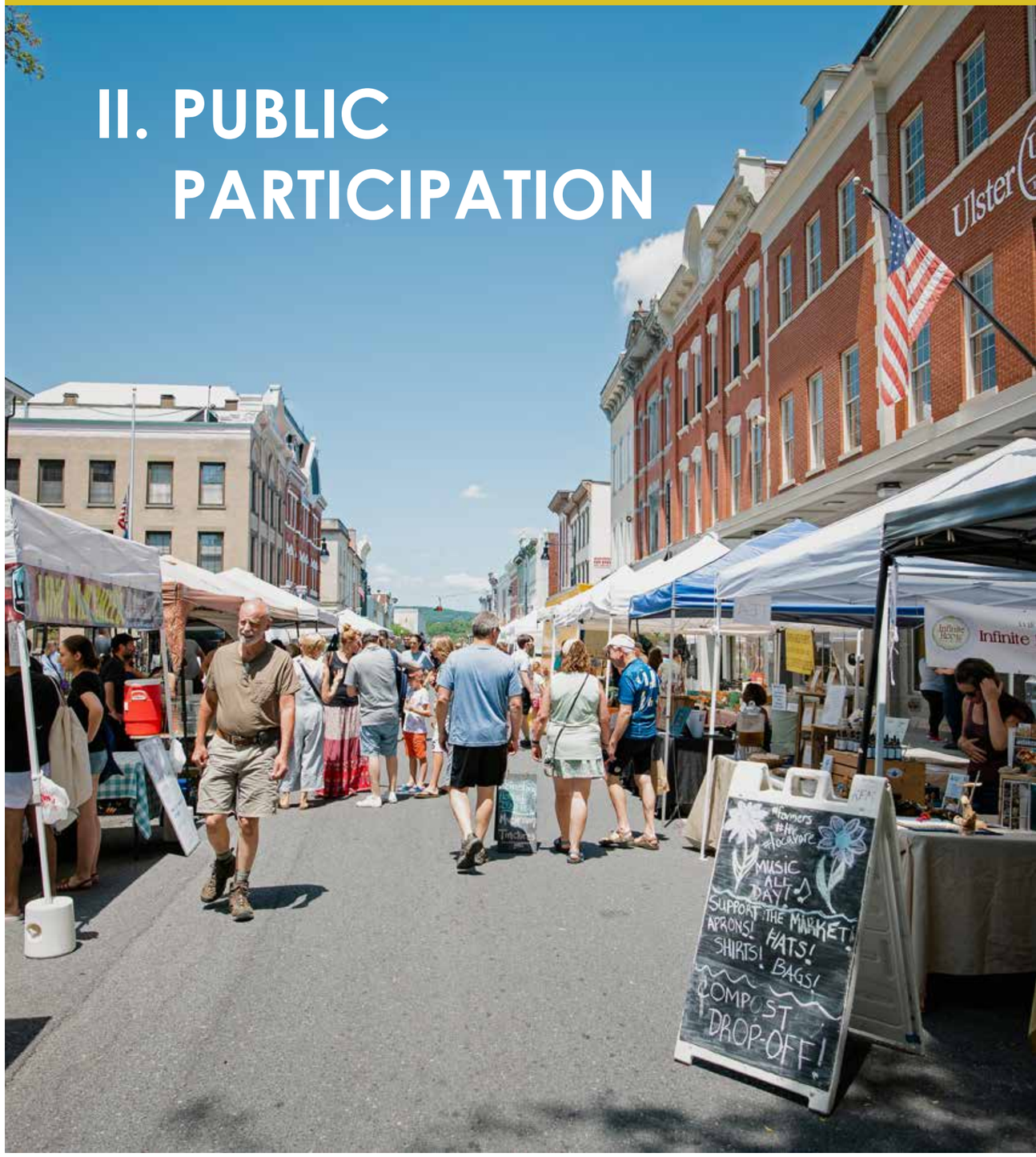


Photo by: Kevin Godbey

The MPO shall provide individuals, affected public agencies, representatives of public transportation employees, public ports, freight shippers, providers of freight transportation services, private providers of transportation (including intercity bus operators, employer-based commuting programs, such as carpool program, vanpool program, transit benefit program, parking cashout program, shuttle program, or telework program), representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with a reasonable opportunity to comment on the transportation plan using the participation plan developed under § 450.316(a).

The MPO shall publish or otherwise make readily available the metropolitan transportation plan for public review, including (to the maximum extent practicable) in electronically accessible formats and means, such as the World Wide Web.

23CFR§450.300 (Development and Content of the Metropolitan Transportation Plan, Parts J & M)

PUBLIC INVOLVEMENT

Plan 2045 was developed utilizing a collaborative and comprehensive approach to public participation. While the in-person effort was hampered by the restrictions imposed by the COVID19 Pandemic, UCTC was able to create a dynamic public involvement program using remote participation techniques coupled with unique advertising opportunities. Outreach efforts ran from June to August of 2020; the full results can be found in Appendix D.

The approach used falls into four categories

- Remote public workshops;
- Stakeholder roundtables with individuals in the private sector, interest groups, and non- governmental agencies;
- On-line Survey; and
- Media Coverage including Spanish speaking radio appearance.

PUBLIC WORKSHOPS

Four (4) virtual public meetings were held on August 11 and 12, 2020 with one in the afternoon and then again in the evening each day. Each workshop began with an overview of that explained the reason for the Plan, the requirements governing its contents, an explanation of key components and strategies and finally recommended projects for implementation. This overview was followed by the opportunity for the participants to be heard.

STAKEHOLDER FOCUS GROUPS

A total of four (4) virtual stakeholder focus group discussions were held with transportation providers, regional institutions, bicycle/pedestrian advocates, community organizers, human service providers, and business entities. These discussions were designed to capture a better understanding of values, perceptions, and transportation priorities as well as future trends that these entities were already aware of, internally planning for or saw as future needs.

PUBLIC SURVEY

A concise electronic community survey was developed and implemented. Questions on the survey were designed to highlight the respondent's understanding of the transportation system, their use and to elicit a strong sense of their priorities moving forward. The survey captured 365 responses including motorists, transit riders, pedestrians, bicyclists and those with mobility devices.

MEDIA COVERAGE

UCTC reached out to its media partners for coverage of the plan contents and their ability to encourage public participation. This outreach included an on-air Spanish translated interview with UCTC staff at a local radio station.

Screen grab from live stream of the 7/30/2020 UCTC interview with Mariel Fiori on Radio Kingston's "La Voz" Spanish program. Staff discussed the purpose of the LRTP and encouraged the public to complete the online survey.

Every UCTC meeting is preceded by an opportunity for public comment on any subject relating to transportation or UCTC business.

SUMMARY OF PUBLIC PARTICIPATION RESULTS

STAKEHOLDER FOCUS GROUPS RESULTS

Several important themes came to the forefront during the public participation process. These key themes and subjects are summarized below (categorized by major UCTC MTP Goal area and listed in no particular order):

System Preservation

- Condition of county roadways, bridges and related facilities is generally very good
- Concern in the local government's ability to address a growing backlog of deferred maintenance in transportation infrastructure, particularly county bridges
- Ensuring that the system capacity of the 2 Hudson River bridges is managed and, if needed, improved
- Modernization of traffic signals, including removing redundant or unnecessary signals, should be strongly considered in urban centers

UCTC LRTP Public Meeting Flyer

Economic Vitality

- Proximity to the New York Metropolitan Area will continue to have a significant influence on the area's economy, particularly service, tourism, and housing markets and, consequently, transportation
- Hudson Valley continues to be an attractive place for young people to relocate too, but its affordability remains questionable

Safety

- The safety of some of the rural roads in Ulster County seems questionable in some locations due to traffic volume and design (vertical/horizontal curvature, narrow lanes, lack of shoulders) – applicable to motorists and cyclists
- Increased awareness of the need to "share the road" with cyclists has been noticeable, as well as an expansion of shared facilities such as 'sharrows' and separated bicycle lanes

Security

- (while not specifically mentioned as a security concern, a number of comments addressing Hudson River bridges and ports, roadway safety, economic security, resiliency, and transit reliability may also be applicable under Security)

Kingston Greenline.

Mobility & Reliability

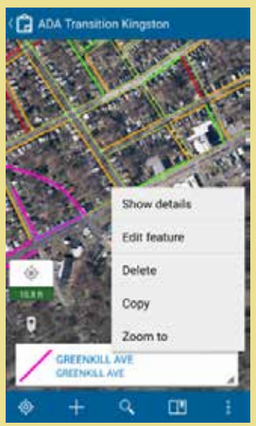
- The dissolution of Kingston Citibus and expansion of UCAT service into the City of Kingston was a critical success; now the focus should be on future growth of the system and improved service;
- Expanding service will be a challenge given the difficulty finding drivers and sustained operating assistance
- Small number of significant "bottlenecks" i.e., congested corridors, and the limited options for fixing them
- Need to accommodate electronic assist bicycles and micro-mobility (such as scooters and bike shares) in the future
- Make transit free or more affordable for all residents and expand rideshare services

ADA ACCESSIBILITY AND COMPLIANCE

UCTC has embarked on a multi-year effort to encourage and assist Ulster County municipalities with meeting compliance with the Americans with Disabilities Act (ADA), a civil rights law prohibiting discrimination based on someone's disability. In 2016 UCTC partnered with its FHWA regional representative to provide a day long training to over 30 municipal staff on key issues pertaining to ADA compliance. The focus of the training was centered on the details of the law and the design and maintenance of pedestrian facilities (sidewalks, curb ramps, and other related features) that accommodate persons with disabilities in the public right-of-way. Municipalities are required to have a plan to make accommodations for everyone, commonly referred to as an ADA Transition Plan. To encourage Transition Plan initiation and completion, UCTC staff, working with New York State Association of Metropolitan Planning Organization guidance, digitized sidewalks in each municipality and assessed their condition. The information was compiled through a geographic information system and made available for download by each municipality.

UCTC helped secure FTA funds to assist Trailways with making their Kingston bus facility ADA compliant.

Typical bluestone sidewalks in Kingston: ADA compliant vs. Non-compliant.



Sidewalks were digitized by UCTC interns in 2019 and 2020 and their conditions were assessed in the field using ArcGIS collector, a mobile mapping ap.

Municipal staff use wheelchairs and other devices to learn about the difficulties people with disabilities have while navigating the built environment.

Accessibility and Connectivity

- Water access and port development is a critical consideration
- The expansion of Ulster County's non-motorized trail system is a major success, which has grown to become an important asset for recreation, tourism and transportation;
- Rural transit service needs improvement
- Continued need for improving access to transit service, particularly first mile/last mile connections, and expanding service frequency throughout the county. This is directly related to travel mode share and limited trip choices.
- Accessibility of urban areas, particularly ADA sidewalk compliance
- Accommodating local freight and delivery services without increasing congestion or sacrificing quality of life
- Need for transit travel training, particularly for younger residents who can become future customers
- Need to create a universal booking platform for planning and purchasing trips on public and private transportation services, particularly Trailways, UCAT, Metro North/MTA and other surrounding transit services.
- Integrating connections between intercounty transit providers is a major challenge
- Three exists off of the NYS Thruway is a major benefit for Ulster County residents and its economy
- Improving trail/neighborhood connections will be an important consideration moving forward
- Access to 2 Hudson River bridges is an often-overlooked benefit of Ulster County

Engineering consultants conduct a site visit with U.C. Planning staff and Community Advisory Committee.

Protect and Enhance the Environment

- Importance of continued electrification of public and private fleets and improving access for charging
- Resiliency planning for transportation infrastructure and land use has been occurring and will be of critical importance moving forward
- Tropical events have had a significantly adverse impact on Ulster County transportation facilities and the need for transportation resiliency planning will not diminish over time
- Preservation of environmental and historical assets while improving and modernizing transportation facilities is a critical consideration that should be incorporated into the vision

Equity

- Need to recognize the importance of equity in the transportation planning process
- Need to ensure that benefits of improved mobility are experienced across all spectrums of our communities and not just among those who can afford them.

SURVEY RESULTS

The survey (both English and Spanish versions) was unveiled on July 13, 2020 and remained open through August 4, 2020. A total of 365 people responded to the survey, with 364 responses to the English survey and one response to the Spanish survey. The responses show that a large majority (84.9%) of the respondents live or live and work in Ulster County, indicating that the survey successfully reached its targeted audience.

Word cloud produced from over 350 of the UCTC survey responses received in the summer of 2020.

The survey was promoted via English and Spanish virtual flyers on UCTC's LRTP webpage and Ulster County's social media platforms (Facebook, Instagram, and Twitter). These were also distributed to UCTC stakeholders via a press release and to participants of the stakeholder discussions that were conducted as part of the LRTP's public outreach process. Additionally, the virtual survey flyers were shared with the Town Clerk/Supervisor/Communication Director and a member of the Planning Board for each municipality in the County, in addition to all libraries, most land conservancies and land trusts, bike shops and bike clubs, food establishments near rail trails, grocery stores, farmers market managers, and representatives from a wide range of environmental, social service, and educational non-profits. The English and Spanish survey information was also shared on La Voz magazine's social media platforms and on the La Voz con Mariel Fiori on Radio Kingston show via an interview with Brian Slack from UCTC.

Survey Demographics

- Over 80 percent live (43%) or live and work (41.9%) in Ulster County. Only 5.2% work in Ulster County but live outside of the County.
- Almost two-thirds of participants are between 35 and 64 years old. The 35-44 age cohort is the largest (23.0%), followed by the 55-64 age cohort (21.6%), and the 45-54 age cohort (20.4%). Another 20% of participants are in the 65-84 age cohort and 16% are in the 20-34 age range.
- More participants are female (56.7%) than male (38.5%).
- Most participants are non-Hispanic (95%), White (89.3%), followed by 4% Asian participants, and 4% Black/African American.

Travel Mode and Trip Purpose (Pre-COVID-19)

- Driving is the most common mode for most trip purposes
- About half of participants walk/use a wheelchair (25.2%) or ride a bike (21.9%) for recreation and exercise.

Vision Statement and Goals

- Over two-thirds of participants strongly agree (45%)/agree (22%) with the Vision Statement and 23% are neutral or unsure.
- Out of all eight Draft Plan goals, accessibility and connectivity, transportation equity, and safety are ranked the highest. When asked what is missing from the goals, participants emphasize improving and expanding infrastructure and service for non-motorized active transportation modes and transit.

Route 9W in the Town of Ulster

Wish List Improvements

- The top five improvements identified are: a more robust and resilient transit system, better bicycle and pedestrian infrastructure, light rail, free public transit, and better rail/train access.

Travel Mode and Trip Purpose (Pre-COVID-19)

- Half of the participants work from home (WFH) at least three days per week post-COVID, while 14.8% of participants regularly go to their work location. Less than five percent of respondents were laid off/furloughed or lost their job.

- Over a quarter of participants think that their employers will allow them to WFH in the future; 21% of participants think their employers will not continue this practice.

- Most indicate that they have been traveling and driving less overall for non-essential trips (shopping and dining out) and staying at home/closer to home more. Many indicate that they have been biking and walking more, with some limiting their use of public transit or avoiding it entirely.

Residents enjoying the Wallkill Valley Rail Trail. Photo: Daily Freeman.

III. Profile of the Region

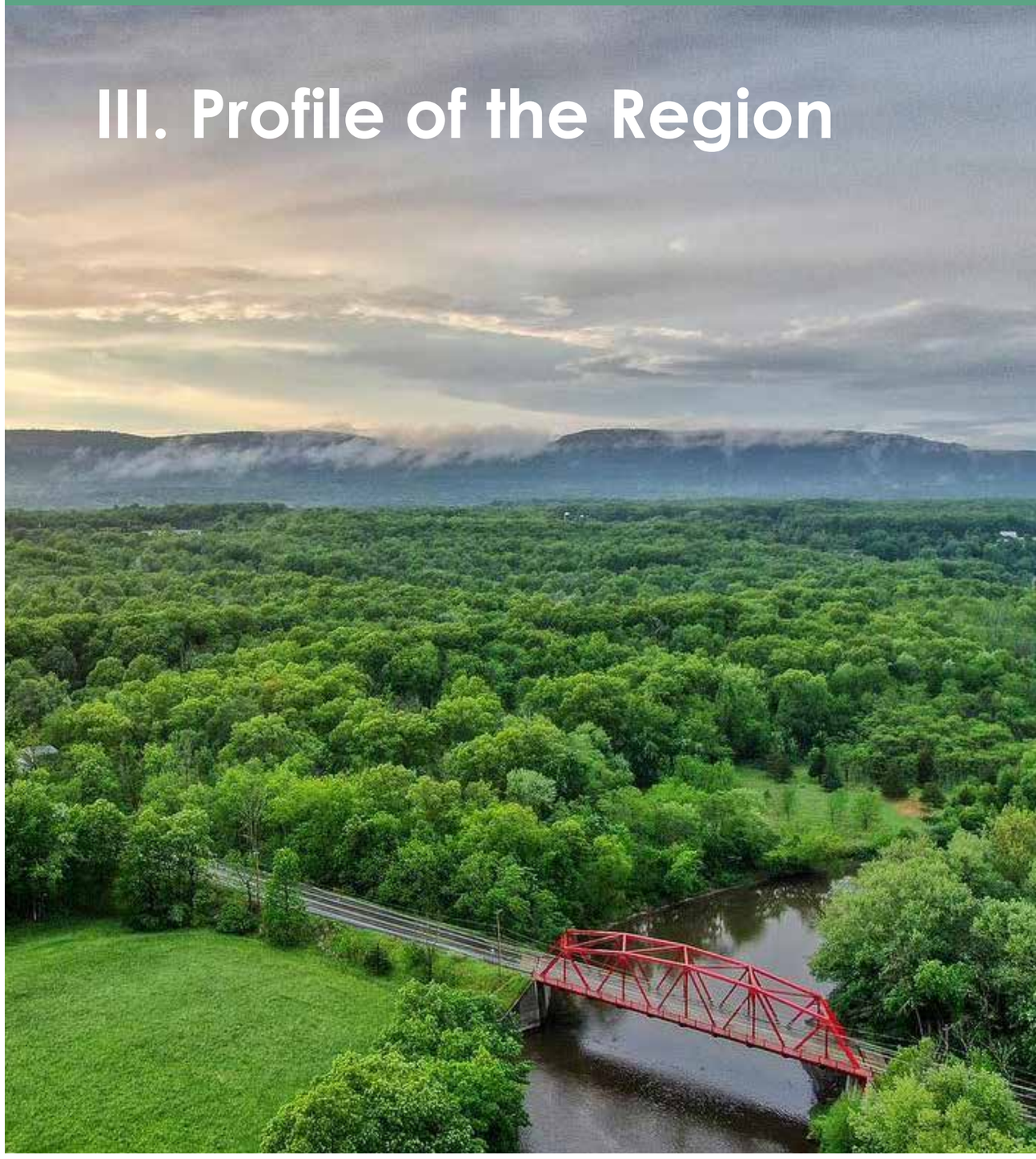


Photo by: Keith Perry, Hudson Valley Drone

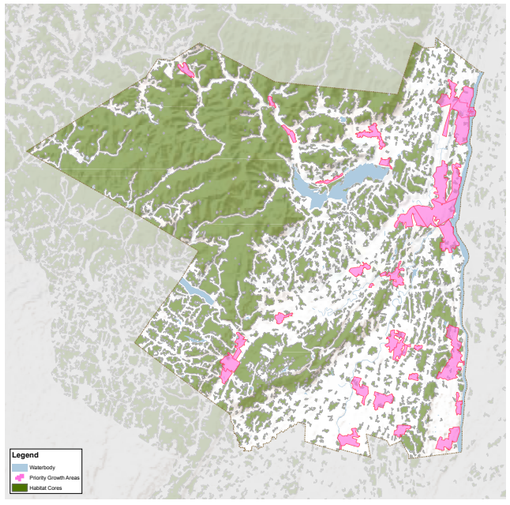
Ulster County has a rich natural, cultural and commercial history that continues to evolve. The County has experienced reoccurring periods of significant growth followed by subsequent decline and recovery since its settlement in the early 1600's. The region continues to improve its economic outlook as evidenced by increases in employment, improvements in the real estate market, and increases in sales and hotel tax receipts and the strengthening of its ties to the New York Metropolitan area. However, municipal tax caps and lack of growth in personal income continue to place strains on both municipal and family budgets with increases in housing costs outpacing income growth. Transportation availability and cost is also a major concern for many households. This underscores the need to rethink how mobility can be improved within municipal and family budgets in a manner that allows the region to remain competitive and sustainable.

At 1,124 square miles – an area comparable in size to the State of Rhode Island – Ulster County is a geographically diverse region. The County is characterized by a variety of mountain and valley zones interspersed between two primary features: the Hudson River Valley and the Catskill Mountains. Within these primary features are several minor zones, including the Shawangunk Mountain and Marlboro Mountain regions and the Rondout-Esopus Valley and Wallkill Valley regions. Ulster County's transportation system is heavily influenced by these geographic features. Early forms of freight movement included the Delaware and Hudson Canal (1828–1898), Ulster and Delaware Rail Road (1875–1932), the New York, Ontario & Western Railway (O&W, 1879–1957), and the Wallkill Valley Railroad (1866-1977). These critical corridors bisected Ulster County's valleys, ridges and mountain areas, opening up the largely rural interior of Ulster County and played significant roles establishing centers of commerce and trade throughout the county. These historic freight corridors eventually waned and gave - way to today's network of surface highways. They now form the backbone of County's trail system that links communities and the region.

Social, demographic and economic trends directly influence transportation planning. A clear understanding of the region's current characteristics and expected future trends will aid in the planning of a transportation system that meets the region's specific needs. These relationships have been described using a "Live", "Work", "Play" analogy. Most of the county lives along river valleys – the Rondout, Wallkill, Esopus and Hudson - in the eastern portion of the County. These historic settlements are also future growth areas where investments in transportation infrastructure and transit will be necessary in the future. Similarly, places where people work are located in activity centers of villages and hamlets, in and around the City of Kingston. Outside of these activity centers, major road corridors are home to highway-oriented businesses. Few employment centers have developed on these corridors except for the Route 9W corridor in the Towns of Ulster and Saugerties in the northern portion of the County and the Towns of Marlborough and Lloyd in the southern portion of the County.

The Four Corners. The Nation's last pre-Revolutionary Intersection is located in Uptown Kingston, NY. *Source: Governing.com*

Ulster County, 1829. Originally published by David H. Burr. *Source: David Rumsey Historical Map Collection.*



Activity Centers as depicted in the map above were identified in the Ulster County Planning Department Community Design Manual; it illustrates where major investment in transportation infrastructure will be necessary in the future.

Ulster County is a four-season vacation destination. Its abundant open spaces, trails, access to water, festivals, and similar attractions offer a myriad of opportunities for residents and visitors. These resources shape the demand on the transportation system and its components. In response UCTC has created new opportunities to connect communities with an integrated non-motorized system and sought to address the challenges of peak volumes that occur on weekends and with drivers unfamiliar with the road environment.

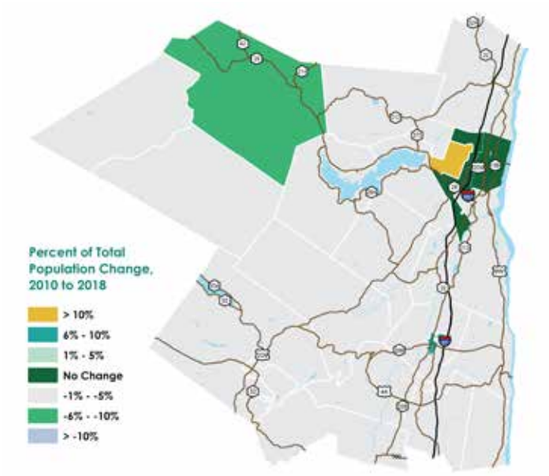
POPULATION

According to the 2018 American Community Survey –the latest estimate of demographic statistics available – the population of Ulster County is estimated at 179,303, which is down 1.75% since the 2010 Census. Areas of high population density include the City of Kingston and Villages of Saugerties, New Paltz and Ellenville as well as the town centers and hamlets found throughout the valley areas of the county. One notable exception to valley population density is in the hamlet of Woodstock, where in 2010 the Kingston Urbanized Area was revised and expanded to include portions of this Catskill Mountain community.

As shown in Figure 3.1, local population decline has been low and experienced by most municipalities throughout Ulster County[i]. The most dramatic percent change in population by municipality occurred in the Towns of Kingston and Shandaken; however, the actual changes were relatively small with a loss of 301 and gain of 227, respectively. The changes in these two municipalities express as a higher percentage change

Figure 3.1: Ulster County Population Change, 2000 – 2018 and Population Density by Municipality

Percent of Total Population Change, 2010 to 2018



Population Density by County Subdivision

People per Square Mile (Excluding waters)

Scope: Population of Select County Subdivisions in Ulster County

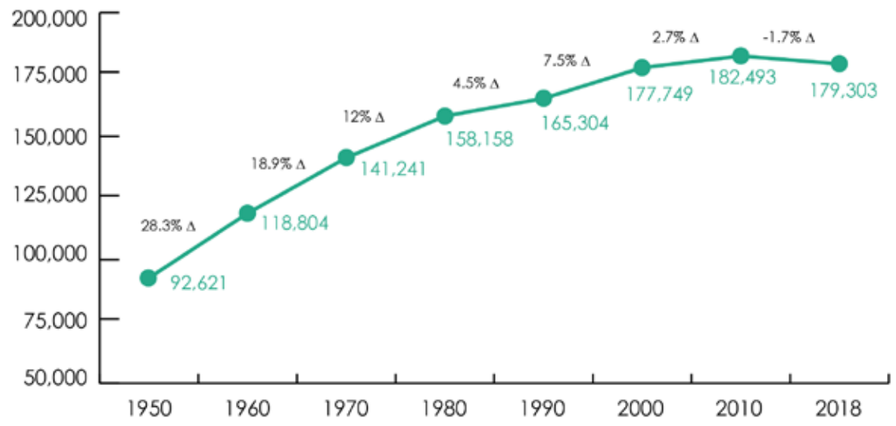
due to their relatively low populations. Only the Village of New Paltz has seen positive growth from both 2000 to 2010 and 2010 to 2018. Past growth, 1960-1980, was fueled by in-migration due to the area's high quality of life and the location of larger manufacturing facilities in adjoining counties. More recent growth can be attributed to similar factors noting the rise of commuters traveling to employment not only in adjacent counties but also to the New York City metropolitan area.

An overview of historic population trends in Ulster County reveals a steady but declining growth rate from 1950 through to the 2010 decennial census. A strong 28% increase between 1950 and 1960 stands in stark contrast to the less than 3% increase between 2000 and 2010 (Figure 3.2) and the estimated 1.7% ***decline*** between 2010 and 2018.

An overall declining rate of population growth can be attributed to four primary factors: mortality, out-migration among older adults, a declining birth rate, and an inability to retain young people as they enter adulthood. As shown in Figure 3.3 below, the number of young people age 0-14 as a share of the total population declined to 17% in 2010, and this trend is projected to continue.

Ulster County is home to an increasingly "greying" population. Older cohorts show steady growth in the overall share of total population, even though outmigration is occurring as aging seniors continue to live longer lives and members of the 'Baby Boom' generation – one of the largest in American history – steadily transition into their retirement years in large numbers. The median age in Ulster County was estimated to be 43.3 years in 2018.

Figure 3.2: Ulster County Population Change, 1950 – 2018



Cornell University's Program on Applied Demographics (PAD) projections of Ulster County's population continue to show a decline in population albeit at a slower rate. This change anticipates that in-migration will be greater than previously thought, although this will likely be from older individuals.

Finally, it is important to note that resident population in Ulster County is not indicative of the needs of the transportation system. With significant second home ownership, large and numerous camp grounds, a booming short-term rental market, and multiple state parks; transportation demand soars during the summer months with estimates as high as 50,000 additional people utilizing the transportation infrastructure on a daily basis.

Figure 3.3: Ulster County Population Cohort Projections, 1990 – 2040

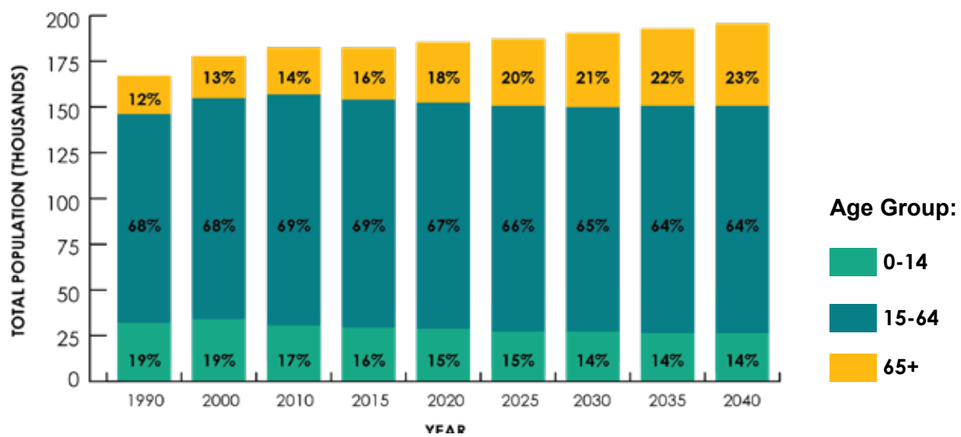
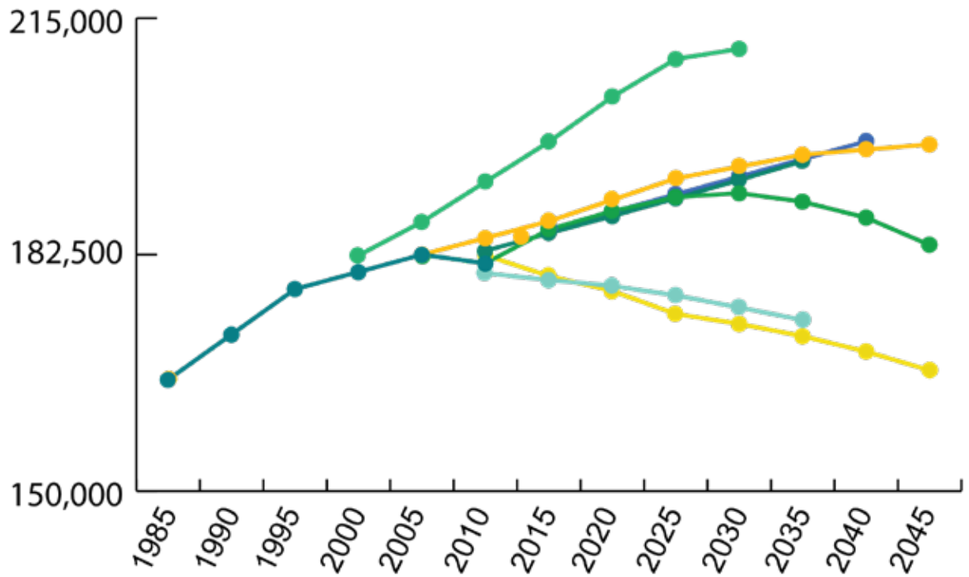


Figure 3.4 illustrates the wide-ranging population estimates that have been produced for Ulster County by various demographic experts over the years. Older estimates tended to predict a steadily increasing population with recent estimates indicating the opposite trend. Five out of seven estimates are essentially steady with little change in total population in either direction for Ulster County over the next few decades. Population forecasts conducted by IHS Global Insights ('IHS Global 2013' in Figure 3.4) had been selected for use in the UCTC Year 2040 transportation demand model due to their relative restraint and consistency when compared to other forecasts for the MPO region.

Figure 3.4: Summary of Recent Population Estimates Completed for Ulster County



In general areas south of New Paltz are likely to see increases in population over time due to proximity to employment centers outside of the County while the City of Kingston area enjoys renewed interest due to costs, quality of life, and opportunities for networking with others from the metropolitan area. It should be noted that minority population especially the Hispanic population will continue to grow and that Ulster County borders two of New York State's fastest growing counties – Dutchess and Orange Counties. All three counties have close economic ties.

The UCTC faces a major challenge in the development and selection of reasonable and accurate population estimates as factors just beyond the region can greatly influence growth prospects. This is already seen in the aftermath of the 2008 recession and the ongoing response from the ability to work remotely. Nevertheless, the current trends discussed above suggest that a positive growth scenario is more likely to occur going forward. UCTC will continue to adjust its population estimates using its knowledge of the region and the data from the informed sources as noted in Figure 3.4.

RACE, DIVERSITY, & TITLE VI/ENVIRONMENTAL JUSTICE (EJ)

Title VI of the Civil Rights Act of 1964 prohibits discrimination by recipients of Federal financial assistance on the basis of race, color, and national origin, including matters related to language access for limited English proficient (LEP) persons. The principles of Title VI provide the core tenants of the 1994 Presidential directive on environmental justice (EJ). Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires the U.S. Department of Transportation to make EJ part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and/or low-income populations (collectively "EJ populations"). Environmental justice includes incorporating EJ and non-discrimination principles into transportation planning and decision-making processes as well as project-specific environmental reviews. EJ is therefore a Federal directive, and Title VI is one of the tools used by Federal agencies to implement this directive.

The guiding principles of environmental justice are:

- Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations;
- Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations. [ii]

To carry out the Federal environmental justice directive in the UCTC planning area, UCTC uses six demographic categories as indicators. Four categories – those of race, ethnicity, income and English proficiency – are typically recommended by FTA and FHWA in the process of carrying-out an EJ analysis. In addition, UCTC examined the categories of age and physical ability in an effort to develop a comprehensive understanding of mobility-challenged populations in the Ulster County MPA. Data were derived from the 2018 American Community Survey five-year survey data.

Figure 3.5 illustrates the percent share that each category comprises of the total county-wide population. This share is then used to establish an EJ "threshold" that can be used to conduct a more detailed analysis at the census block or block-group level. [III] Any locations showing concentrations greater than the county-wide total are considered to be disproportionally high and should receive additional consideration during the transportation planning process.

As with statistics on population change, EJ indicators in Ulster County are somewhat skewed in certain locations due to group quarters such as prisons or college/university housing facilities. These include the State University of New York at New Paltz (located primarily in the Village of New Paltz), the Eastern and Ulster Correctional Facilities in the hamlet of Napanoch (Town of Wawarsing), and the Wallkill and Shawangunk Correctional Facilities in the Town of Shawangunk. This is perhaps most evident among the Minority Populations category (defined as Asian American, Black or African American, Hispanic or Latino, Native Hawaiian and Other Pacific Islander, American Indian and Alaska Native). The Towns of Shawangunk and Wawarsing show some of the highest concentrations of minority populations in the county, very likely due to the prison population in these areas. Outside of these locations, the City of Kingston reports some of the highest concentrations of minority populations, with nearly every Census block within the City showing concentrations near or above the county average of 20.3% minority in 2018 (Figure 3.5).

Figure 3.5: Groups Traditionally Under-Represented in the Transportation Planning Process, 2013 & 2018 (% of the Total Ulster County Population) [iv]

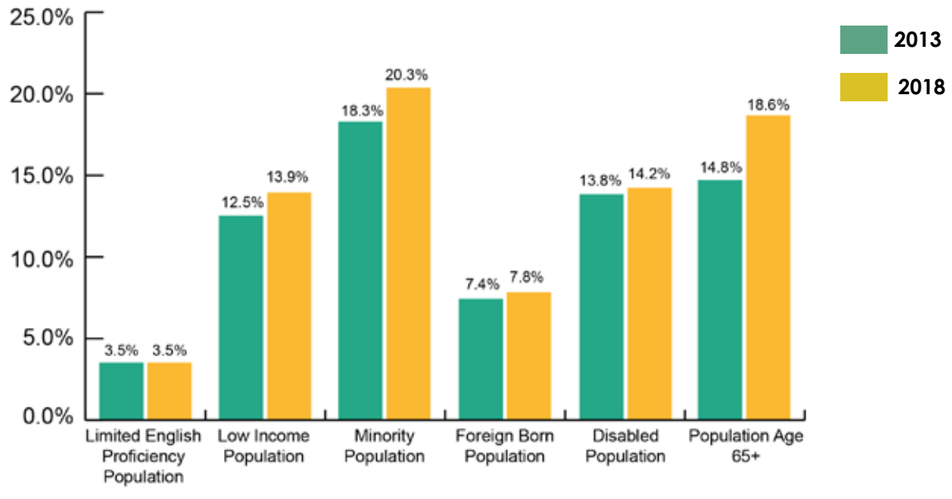
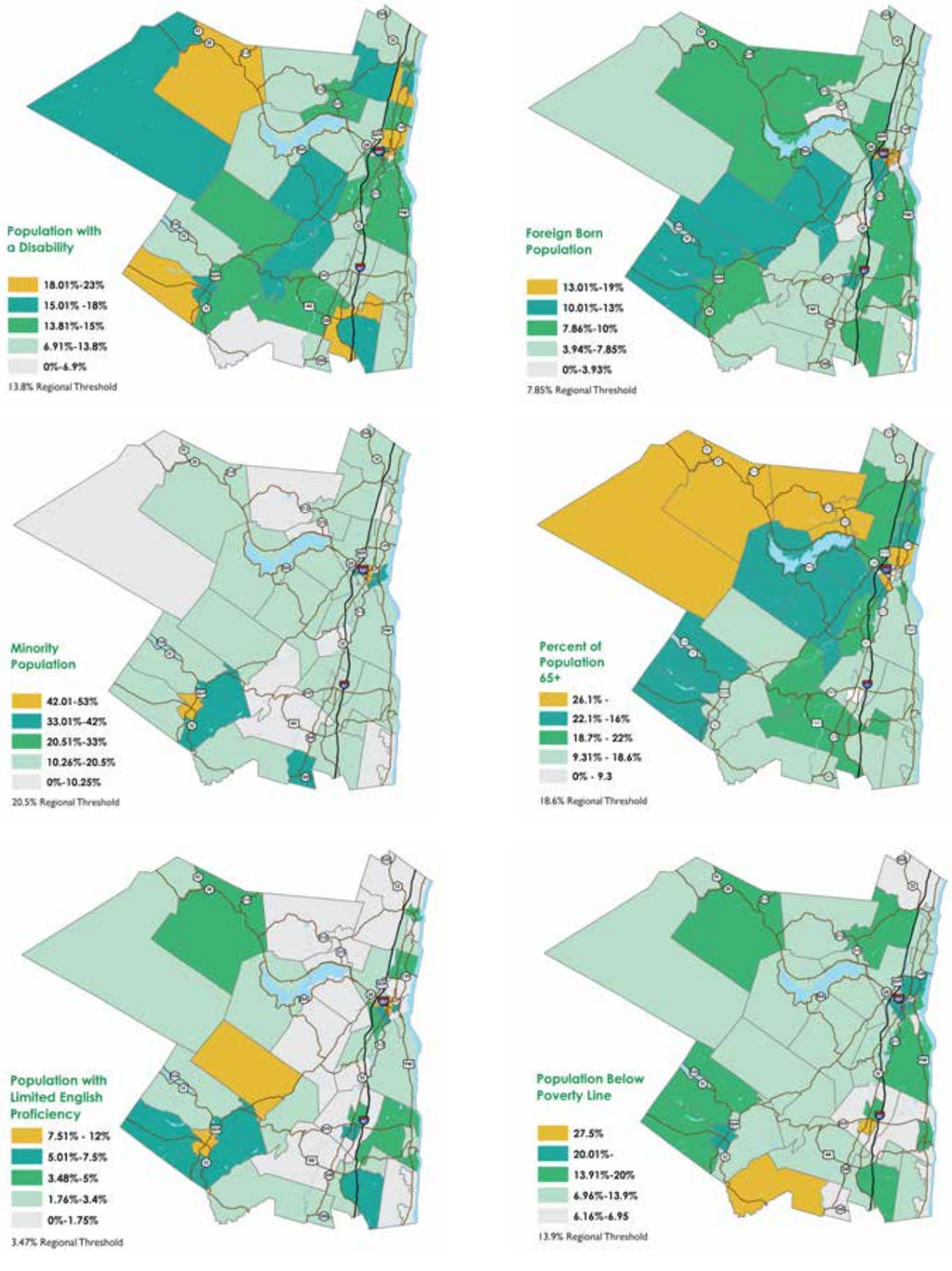


Figure 3.6: Groups Traditionally Under-Represented in the Transportation Planning Process by Location



LABOR AND EMPLOYMENT

The process of monitoring, managing and predicting future travel demand requires at a minimum basic details regarding local and regional employment patterns. The labor market of the United States in the 21st Century is as diverse as it has ever been in history, and it continues to evolve. This holds true for the labor market of Ulster County, which continues to adjust to the demands of the new economy. Peak period travel demand – a primary benchmark by which we rate the transportation system – is largely dictated by the morning and evening commute of workers traveling to and from their places of employment. This trend has been lessening somewhat as the labor market continues to diversify into one that features more flexible hours of employment, jobs that are no longer anchored to the traditional office space, and a willingness and ability of workers to travel farther for employment.

According to the Federal Reserve of New York:

"[J]ob growth in the greater Kingston area has been steady, but somewhat below the national pace in recent years. Employment in the leisure and hospitality sector has grown faster than overall employment, as the area is within a day trip from New York City and includes part of the Catskill Mountains, with its parks, resorts, and nature activities. The health and education sector has also added jobs to the regional economy, which has helped offset the loss of manufacturing jobs over the past few decades. [iii]"

Figure 3.7: Labor and Employment Snapshot of Ulster County [vi]

Category	Mar 2020	Feb 2020	Mar 2019	Net Month	% Month	Net Year	% Year
Resident Civilian Labor Force	88,300	88,500	87,200	-200	-0.2%	1,100	1.3%
Employed	84,600	84,900	83,700	-300	-0.4%	900	1.1%
Unemployed	3,700	3,600	3,400	100	2.8%	300	8.8%
Kingston MSA Unemployement Rate	**4.2%**	**4.1%**	3.9%	**0.1**		**0.3**	
NYS Unemployment Rate	4.4%	3.9%	4.2%	0.5		0.2	
US Unemployment Rate	4.5%	3.8%	3.9%	0.7		0.6	

Unemployment rate in the Kingston Metropolitan Statistical Area, which includes the entirety of Ulster County, remains below the state rate and has continued to improve since the 2008 economic crisis. Concurrently, however, the county's labor force has decreased slightly since 2006, very likely a result of out-migration as well as from retirements as people age and chronically-unemployed workers permanently dropping out of the labor force. Figure 3.7 shows the most recent snapshot of labor data for the County.

As described by the New York State Department of Labor in their monthly labor profile for the Hudson Valley, for the 12-month period ending in March 2020, private sector employment in the Hudson Valley increased by 1,100 or 1.3 percent, to 88,300. DOL confirms that private sector job growth continues on a positive trend, with **steady growth in the construction industry as a key driver of jobs in the region.**

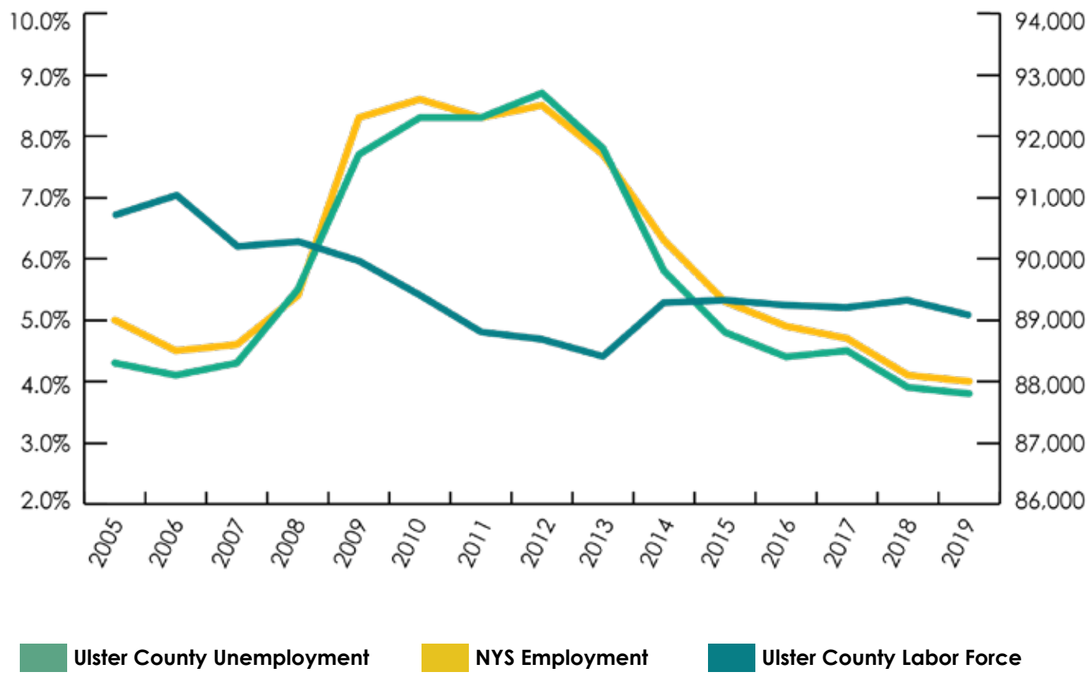
Mohonk Mountain House is one of Ulster County's most iconic tourism destinations and one of the region's biggest service industry employers.
Source: MMH

Food manufacturing is another industry experiencing strong job and wage growth. The outlook for New York's craft beverage industry is considered to be bright, with the number of breweries and distilleries increasing, and the trend is prevalent within the Hudson Valley. In addition to generating tax revenue and creating jobs, the expansion in the craft beverage industry has bolstered tourism and created business opportunities for local farmers with an increased demand for farm products, such as corn, grains and apples. [vii]

Accommodation is a broad industry within the hospitality sector that includes hotels and other businesses offering lodging services. Job growth in the industry is attributed to strength in the region's tourism industry and an influx of business travelers. The latest available figures from Tourism Economics, a consulting firm, show that direct visitor spending in the Hudson Valley was $3.66 billion in 2017, 3.6% higher than 2016's level. Employment in accommodation services (+19.1%) grew almost three times as fast as the average growth in all industries (+6.8%) from 2013 to 2018. However, the sector paid an average annual salary of just $32,600 in 2018 – the second lowest paying of the nineteen significant industries.

The Hudson Valley Region's January 2020 unemployment rate at 4.0 percent is ranked third among the 10 Labor Market Regions in New York State, trailing only the New York City Region (3.6 percent) and the Long Island Region (3.9 percent). For comparison within the Hudson Valley Region, the unemployment rate within the Kingston metro area was 4.2% in March 2020, compared to 5.0% in Sullivan County, 4.0% in the City of Poughkeepsie, 4.6% in the City of Middletown, and 5.5% in the City of Newburgh. [viii] Figure 3.8 provides a historical context of the labor force from 2005- 2019. While the labor force has seen significant recovery since the 2008 recession, it has been experiencing a long-term downward trend since it's peak in 2006. Overall unemployment during this period has experienced a steady rate of decline. The overall quality of jobs available in Ulster County continues to be a focus of Ulster County's economic development efforts. In 2011 New York State Department of Labor published its Significant Industries report for the Hudson Valley, providing a description of "priority industries" on which local workforce investment boards should concentrate their workforce development resources. Such significant industries were identified on the basis of job counts, wage levels, job growth (both net and percent) over the 2006-2009 period, and expected job growth based on industry employment projections through 2016. Priority industries that may have been designated by economic development or workforce development officials were also considered.

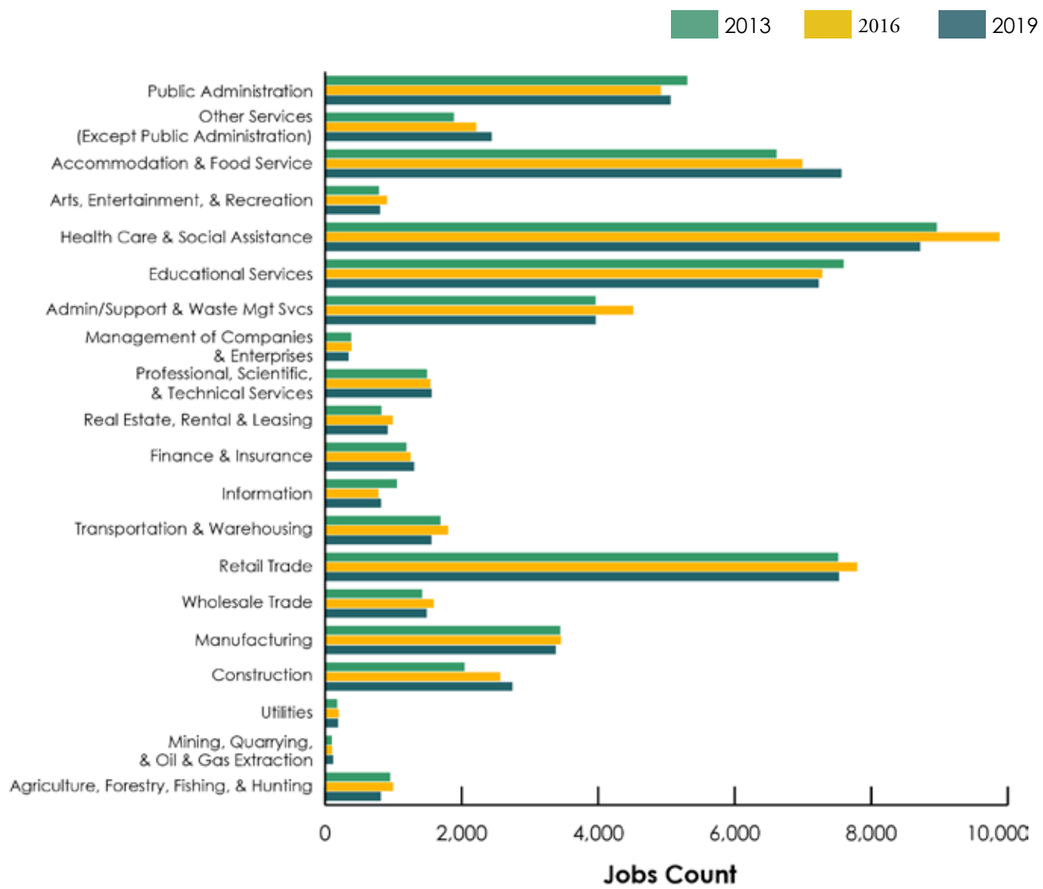
Figure 3.8: Ulster County Labor Force and Unemployment, 2005-2019 [ix]



Significant industries identified for the Hudson Valley are listed below:

- ***Construction:*** the pending retirement of the Baby Boomers will contribute to more job opportunities. Local developers are hoping to take advantage of a strong housing market that is partially driven by relatively low interest rates and out-of-town buyers that have been priced out of the New York City housing market.
- ***Manufacturing:*** job opportunities will arise from two sources: several solar energy companies are expanding or relocating to the area, most notably Prism Solar Tech, and Solar Tech Renewables, and biotech companies are ramping up in the lower Hudson Valley area.
- ***Transportation and Warehousing:*** While not necessarily prominent industries in Ulster County, the region has grown as a transportation hub in large part because of its proximity to major highways, especially in Orange County.
- ***Financial Activities:*** Several New York City financial institutions have back-office operations in the region, most notably Morgan Stanley. Such industries have a large employment base and pay weekly wages that are well above the average all-industry weekly wage.
- ***Professional and Business Services:*** In recent months the sector has shown signs of a turnaround, as job losses have decelerated. As corporate profits gradually improve, so does the spending for these type of services, spurring a demand for office workers, computer specialists, engineers, accountants, lawyers and consultants.
- ***Educational Services:*** largest employment base of any jobs sector, although area schools are likely to face layoffs in the coming years due to declining enrollment and budget cuts.
- ***Health Care:*** Demographic changes fueled a demand for nurses, home health aides, medical assistants and other health care specialists.
- ***Arts, Amusement and Recreation:*** The industry had an above average employment growth rate (+11.9%) between 2013 and 2018 and is projected to grow by more than 37% through 2026. However, this industry's average annual wage ($29,900) was the lowest of the nineteen significant industries in 2018. The outlook for the industry is bright, as there are several projects within the industry currently in development. [x]

Figure 3.9: Ulster County Jobs by Industry Sector, 2013, 2016 & 2019 [xi]

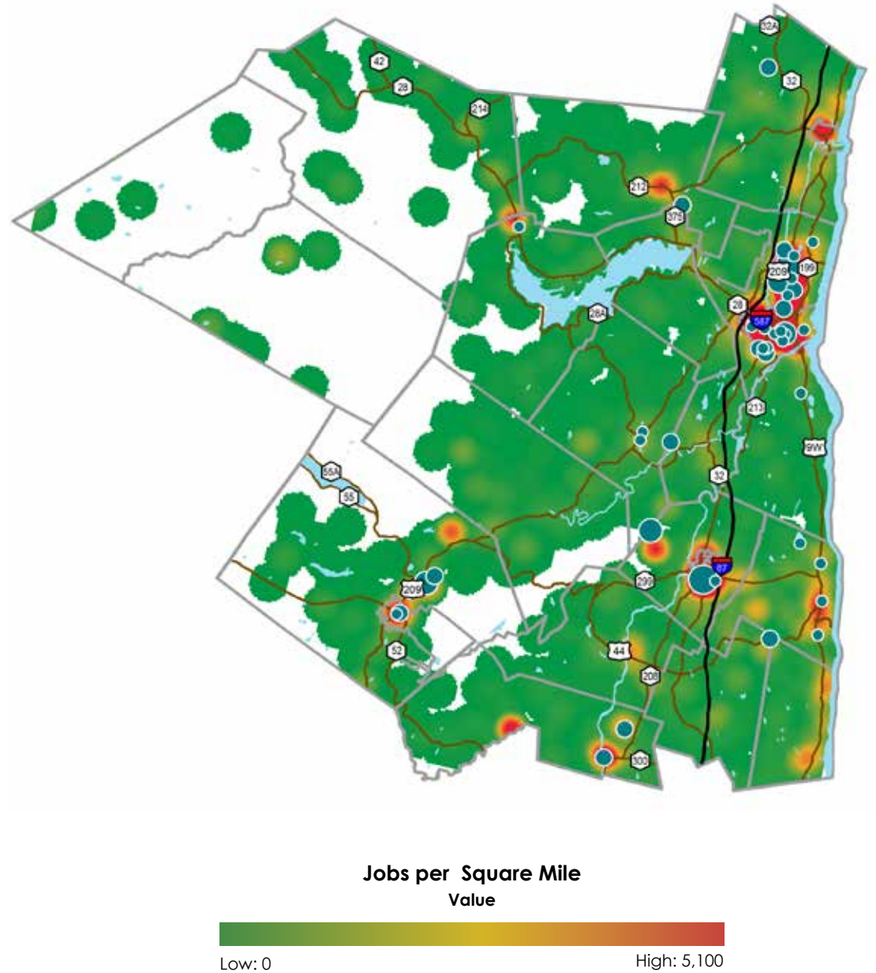


The top employment sectors in Ulster County include Health Care and Social Services, Retail Trade, Accommodation and Food Services, Educational Services, and Public Administration. The sectors showing the most notable gains in total employment share over time include Accommodation and Food Services, Construction, and Profession and Other Services sectors. Manufacturing, Educational Services and Retail Trade, while continuing to comprise large shares of total jobs in Ulster County, have shown steady decline between 2013 and 2020.

Of the top 50 employers in Ulster County, the majority are concentrated in the greater Kingston area, but the county's two largest employers – SUNY New Paltz and Mohonk Mountain House – are located in the greater New Paltz area and together create approximately 3,700 jobs. By comparison, 37 large employers in the Kingston area account for nearly 10,000 total jobs, while the Ellenville area reports only three firms or organizations that employ 200 people or more. When reviewed by industry classification, the areas of Health Care, Public Administration, Education, Accommodation & Food Services, and Retail account for 81% of the county's top employers, or just over 16,000 employees.

A number of notable pockets of employment can be found outside of the major employment centers. These typically include town centers and hamlets along state or county routes, such as Wallkill, Napanoch, Kerhonkson, Marlborough, Boiceville, West Hurley/Woodstock, Rosendale and Saugerties. Locations of resorts can be seen in pockets of rural employment areas away from these centers.

Figure 3.10: Employment and the Top 50 Major Employers within Ulster County [xii]



HOUSING

The national housing market experienced a rapid expansion at the end of the 1990s that continued through to 2005, but virtually all housing market indicators began to contract sharply around 2006 across the country due in part to the national housing and mortgage crisis. While the local housing market certainly suffered during the worst of the crisis between 2006 and 2008, it remained somewhat isolated from major "boom and bust" cycles seen in other parts of the United States. Existing single family home sales in Ulster County between 2011 and 2014 indicate that a housing market recovery is underway, although these numbers are still well-below the annual sales seen prior to the housing crisis (Figure 3.11). Another indicator of improving economic climate and is seen in Figure 3.12 with the increase in single family home construction. More recent data suggests that housing costs, both rental and owner-occupied, present a real challenge for the region's growth with over 40 percent of the households in the County now considered to be cost burdened.

Figure 3.11: Annual Existing Single-Family Homes Sold in Ulster County, 2005-2019 [xiii]

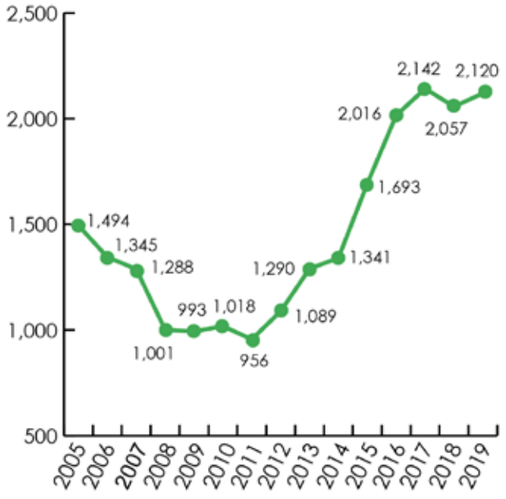
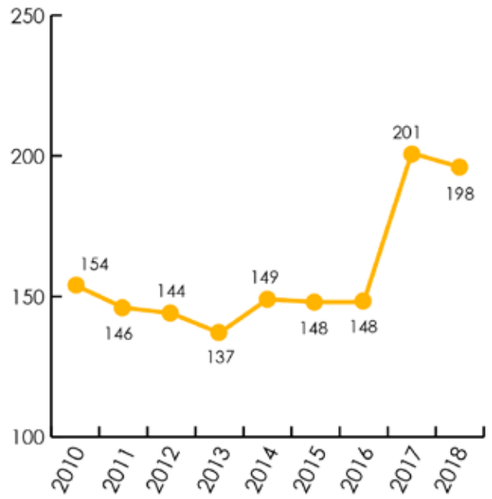


Figure 3.12: Residential Single Family Housing Permits, Ulster County 2010-2018



Overall, the total number of housing units in Ulster County has also been growing at a steady rate, showing a 7-8% increase between the past 2 decennial census counts. There are a number of factors at the local and regional level that can affect the vacancy rate of an area, including new construction, labor market

Figure 3.13: Ulster County Housing and Occupancy, All Units, 2013-2018 [xiv]

2013	**# Units** 83,559	**Homeowner Vacant Rate** 16.4%	**Rental Vacancy Rate** 6.9%
2018	**# Units** 84,874	**Homeowner Vacant Rate** 18.1%	**Rental Vacancy Rate** 5.3%

conditions, and median household income (which affects mobility). The reduction in household size and number of second homes contributes to the rather large increase in number of units as compared to the increase in population.

Vacancy status has long been used as a basic indicator of the housing market and provides information on the stability and quality of housing for certain areas. The data is used to assess the demand for housing, to identify housing turnover within areas, and to better understand the population within the housing market over time. As shown above, while overall homeowner vacancy rate is a healthy 18.1% in 2018, rental vacancy continues a steady decline, with rates as low as 1.1% in the Village of Ellenville and 2.2% in the City of Kingston.

Home prices in Ulster County tend to be above national and state averages: based on the 2018 American Community Survey, the median price of a home with a mortgage was roughly $233,900 in Ulster County, versus a nationwide median of $226,900. Home prices in the Kingston MSA, which had fallen by 30-35 percent during the slump (2007-09), have rebounded to a 2018 a median value of $233,900. [xv]

Window at Real Estate office with featured listings.

ANTICIPATED NEW HOUSING AND COMMERCIAL DEVELOPMENTS IN ULSTER COUNTY

There are numerous "major" developments (defined here as exceeding 10,000 sq. feet) in Ulster County that are at various phases in the approval process. Although the ultimate construction of some of these projects remains questionable, the LRTP assumes that housing and commercial projects will be completed within their build-out forecasts and are within the LRTP's planning horizon. Local traffic impacts resulting from major development projects are required to be addressed through the New York State Environmental Quality Review process; as such, no significant impacts to the transportation system in the immediate vicinity of the projects are anticipated. That said, regional traffic and transportation demand will grow if full build-out of the projects listed below is realized. This important factor is kept in mind as part of the traffic impact participation efforts of UCTC in the Ulster County referral process by using corridor growth percentages during the approval process. Implementation of system improvements is, however, difficult as the percent of traffic added by individual projects is usually only a small portion of the total traffic volume.

Below is a summary of the larger building projects (>10,000 square feet) currently being undertaken within the County along with the status and unit of square foot impact.

Figure 3.14: Anticipated Major Developments Pending or Underway in Ulster County [xvi]

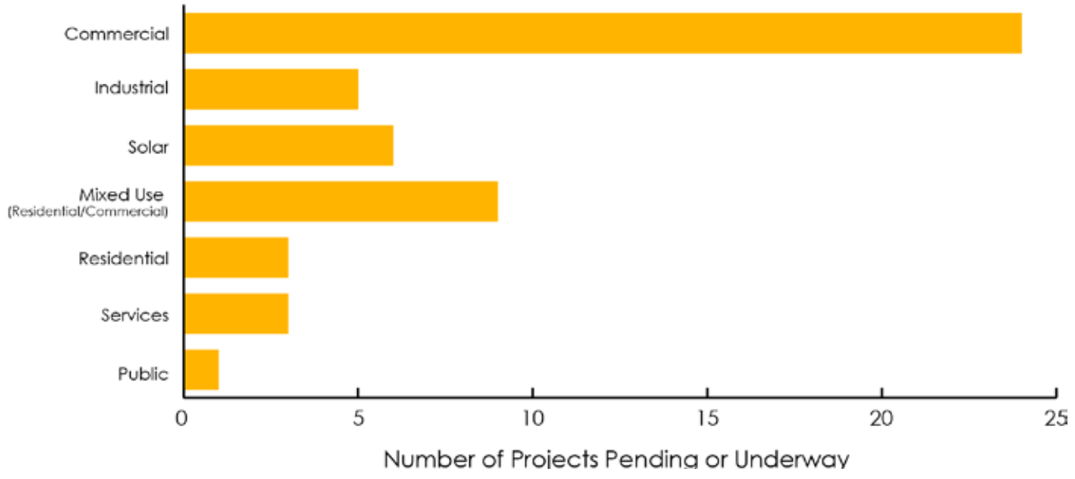
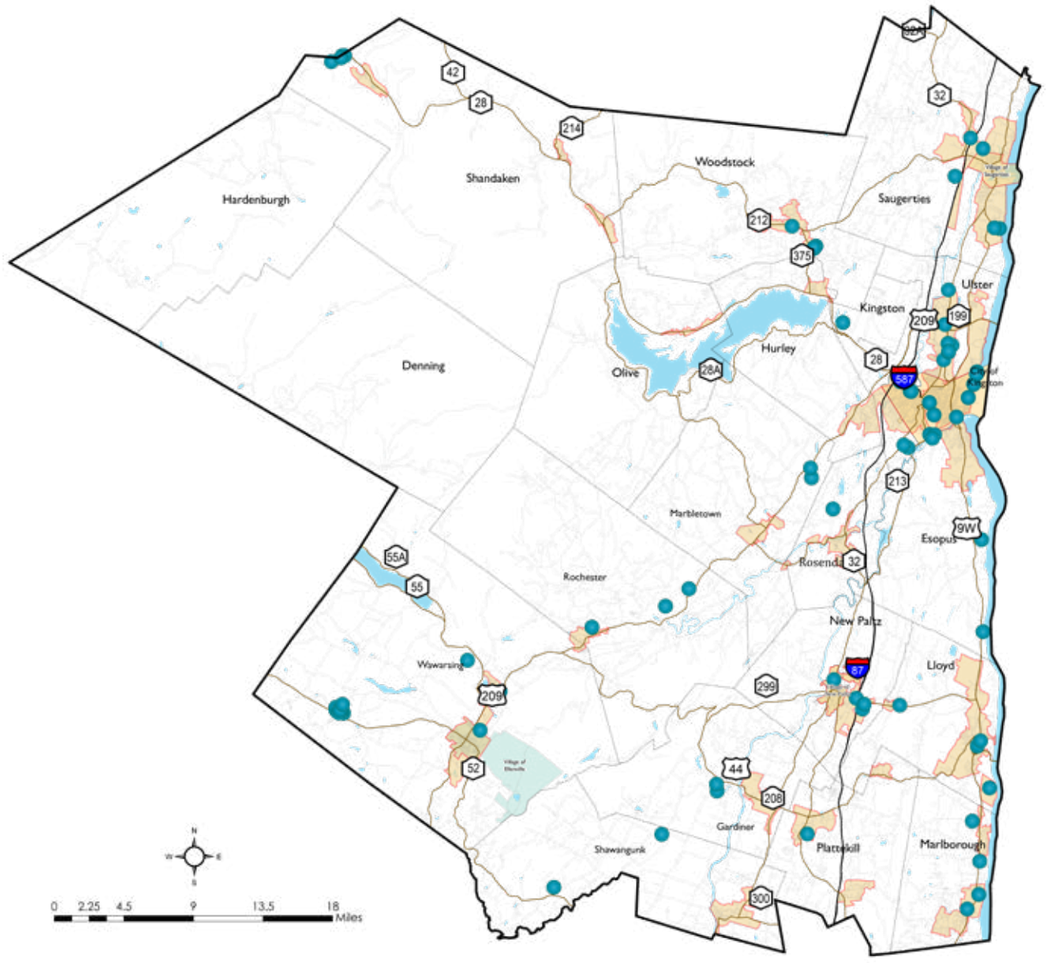


Figure 3.15: Anticipated Major Developments and Priority Growth Areas [xvii]



[I] US Decennial Census of Population, Ulster County 100% count, Census year 2010 & 2018 ACS 5 Year Estimate. Figure 4.1 represents each municipality's percentage of the total absolute (both growth and decline) population change for all Ulster County municipalities, not simple decennial-year-to-decennial-year population change.

[II] US Dept. of Transportation. FTA C 4703.1: Environmental Justice Policy Guidance for Federal Transit Administration Recipients. 8/2012. Last viewed online 2/15 at http://www.fta.dot.gov/documents/FTA_EJ_Circular_7.14-12_FINAL.pdf

[III] The term "Limited English Proficiency" is defined by the US Census Bureau as any person age 5 and older who reported speaking English "less than very well." Racial and ethnic minority populations are defined as: Asian American, Black or African American, Hispanic or Latino, Native Hawaiian and Other Pacific Islander, American Indian and Alaska Native.

[IV] Minority and age data derived from Census 2010; all other data derived from 2013and 2018 US Census ACS 5 Year Estimates.

[V] https://www.newyorkfed.org/regional-economy/profiles/kingston

[VI] New York State Dept of Labor Labor Market Profile for the Kingston MSA, issued 4/21/20.

[VII] New York State Dept of Labor. Significant Industries, Hudson Valley, 2019. https://labor.ny.gov/stats/PDFs/Significant-Industries-Hudson-Valley.pdf

[VIII] NYSDOT. Local Area Unemployment Statistics (Not Seasonally Adjusted), March 2020 Labor Force Data – Hudson Valley.

[IX] NYSDOL. Unemployment rates and labor force for Kingston MSA; all values are annual averages.

[X] Significant Industries. NYSDOL 2019. https://labor.ny.gov/stats/PDFs/Significant_Industries_Report_0610.pdf

[XI] Quarterly Workforce Indicators (QWI) Data. U.S. Census Bureau. 2019. Quarterly Workforce Indicators Data. Longitudinal-Employer Household Dynamics Programhttp://lehd.ces.census.gov/data/#qwi. Data represent annual quarterly averages.

[XII] NYSDOT System Performance & Asset Management Bureau; infogroup.com business point data for establishments with 10 or more employees. 2019. Infogroup data are used under license agreement with NYSDOT. Longitudinal-Employer Household Dynamics Program. U.S. Census Bureau. 2017. OnTheMap Application. http://onthemap.ces.census.gov/

[XIII] New York State Association of Realtors Annual Existing Single-Family Homes Sold.

[XIV] US Census American Community Survey 5-Year Estimates - 2010, 2013 & 2018, Housing Characteristics, Ulster County, New York State (Table CP04).

[XV] US Census 2018 American Community Survey 5 Year Estimate, Table S2506 FINANCIAL CHARACTERISTICS FOR HOUSING UNITS WITH A MORTGAGE

[XVI] Source: Ulster County Planning Department

[XVII] Source: Ulster County Planning Department

IV. THE TRANSPORTATION SYSTEM

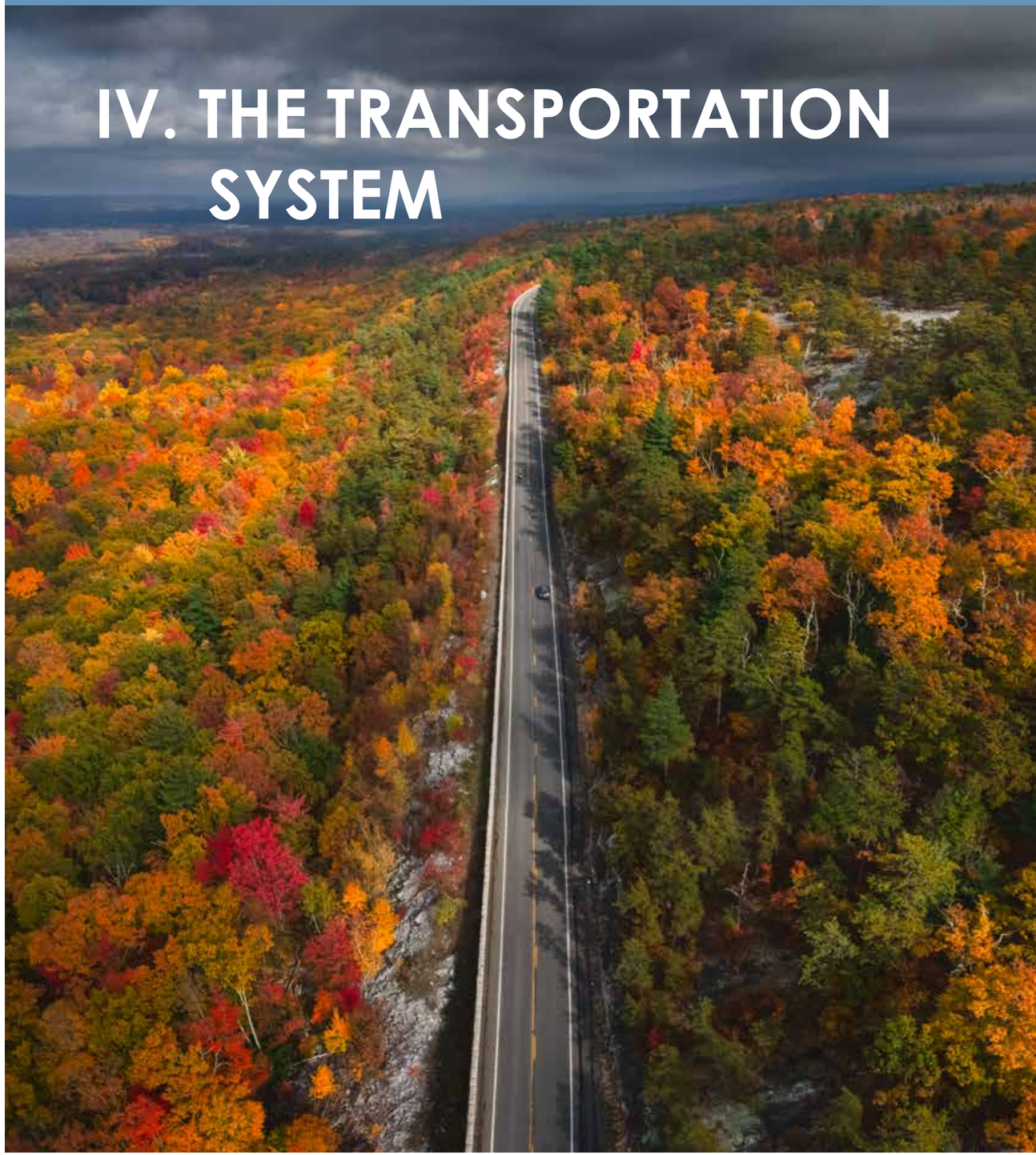


Photo by: Gerald Berliner

The regional profile in Section 3 describes Ulster County as a place, its people, and its businesses. The transportation system exists to serve the travel needs of these people and businesses.

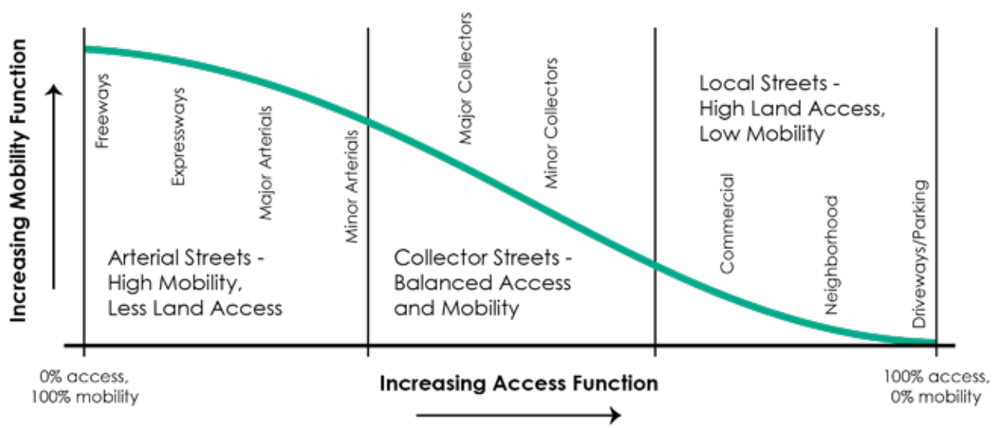
This section provides a summary of the modes that collectively comprise the Ulster County transportation system including highways and streets, transit operations, and facilities for non-motorized travel. This section describes the division of travel among these modes, existing safety related issues system wide, and freight movement across highways, railroads, waterways, and pipelines.

HIGHWAY SYSTEM

ROADWAY CLASSIFICATION AND JURISDICTION

Functional classification is a well-established system utilized by the Federal Highway Administration (FHWA) for grouping streets and highways into classes based on roadway characteristics and intended services. Basic to this process is the recognition that individual roads and streets cannot serve travel independently; rather, most travel involves movement through a network of roads. Thus, it is necessary to determine how to channelize travel within the network in a logical and efficient manner. Functional classification defines the extent to which roadways provide for through-travel versus the extent to which they provide access to land parcels. An interstate highway provides service exclusively for through-travel, while a local street is used exclusively for land access. Figure 4.1 illustrates the functional classification system.

Figure 4.1: Functional Classification of Roadways



Source: FHWA

Figure 4.2: Ulster County Roadway Functional Classifications

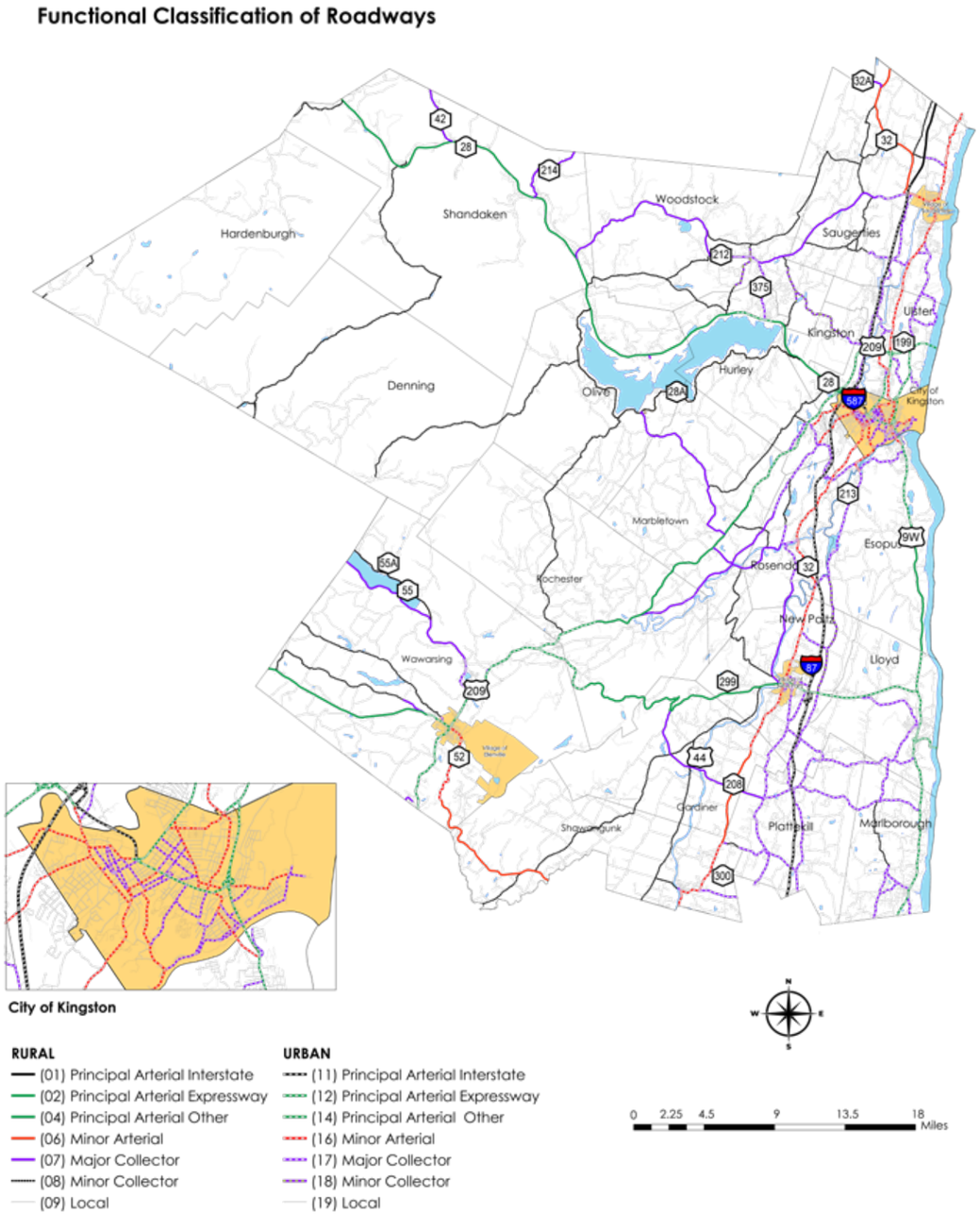


Figure 4.2 illustrates the Ulster County highway system by functional classification. Each roadway has a classification number based on its location, access, and capacity characteristics.

The majority (70%) of roads in UCTC's MPA are local roads, with 45% designated as rural local and 25% designated as urban local. Interstates comprise about 2% of the centerline miles, while other principal arterials comprise 6% of centerline miles. There are more rural centerline miles (60%) than urban centerline miles (40%) in the road system, which is a reflection of the rural land mass compared to urban developed land. Figure 4.3 provides a breakdown of UCTC's MPA centerline mileage by functional classification. It is important to note that Rural Local streets which are not eligible for federal funds make up 45% of the UCTC's road mileage.

Figure 4.3: Centerline Mileage by Functional Classification [i]

FC	Description	Centerline Miles	Percentage
1	Rural Principal Arterial Interstate	2.62	0%
4	Rural Principal Arterial Other	69.28	3%
6	Rural Minor Arterial	19.41	1%
7	Rural Major Collector	69.51	3%
8	Rural Minor Collector	188.16	8%
9	Rural Local	1,040.52	45%
11	Urban Principal Arterial Interstate	45.17	2%
12	Urban Principal Arterial Expressway	9.59	0%
14	Urban Principal Arterial Other	71.66	3%
16	Urban Minor Arterial	59.48	3%
17	Urban Major Collector	142.88	6%
18	Urban Minor Collector	13.81	1%
19	Urban Local	570.92	25%
Total		**2,303.01**	**100%**

NYSDOT, the New York State Thruway Authority (NYSTA), Ulster County, the City of Kingston, towns, and villages are responsible for maintaining and operating roadway facilities in Ulster County. The functional classifications described above assists in allocating resources and investment for roadways across these agencies.

Figure 4.4 summarizes the mileage and percentage of roadways by their respective jurisdiction. Over half (59%) of the roadway centerline miles in UCTC's MPA fall under the jurisdiction of towns. About 18% are county owned roads, while 13% are within NYSDOT's responsibility.

Figure 4.4: Centerline Mileage by Maintenance Jurisdiction [ii]

Maintenance Jurisdiction	Centerline Miles	Percentage
NYSDOT	293.85	13%
County	422.06	18%
Town	1368.35	59%
City or village	123.83	5%
Local Parks	0.55	0%
Other State agencies	8.96	0%
Other local agencies	28.77	1%
Private or Restricted Access	7.09	0%
NYS Thruway	47.78	2%
Other Toll Authority	1.62	0%
Bureau of Fish and Wildlife	0.03	0%
Army	0.12	0%
Total	**2,303.01**	**100%**

Functional class and jurisdiction are important not only in relation to operational and maintenance responsibility, but also in how roadway improvement projects can be funded. Funding eligibility limitations include:

- FHWA National Highway Performance Program (NHPP) can be used only on the National Highway System, which comprises the Interstates, all other Principal Arterials, and all designated NHS Connectors.
- FHWA Surface Transportation Program Block Grant program (STPBG) can be used on any facility except Local Roads and Rural Minor Collectors, thereby excluding 78% of roads in UCTC's MPA.
- FHWA Highway Safety Improvement Program can be used to address safety problems on any public road.
- New York State Dedicated Fund can be used only on State owned facilities.
- The Thruway Authority uses toll revenue to maintain its facilities.

ROADWAY ASSET CONDITION

Keeping pavements in a state of good repair is a central function of agencies with jurisdiction over roadways. Pavement condition is measured in two ways in New York. The first is surface condition, as measured through a visual scoring methodology. This method has been in place for many years and provides valuable information on underlying pavement problems. The second measure is ride-ability, as measured by the International Roughness Index (IRI). This is a more user-based metric. NYSDOT typically uses both methods to evaluate State highway system pavements. Some local governments and MPOs use the visual scoring method for locally owned roads, but this has not been done in Ulster County. As such, data is available only for the State Touring Route system. The most recent pavement data does not include visual pavement scoring and only includes IRI condition rating.

The IRI is determined by measuring the collective deviation from a smooth level surface in inches per mile. According to FHWA, an IRI of less than 95 inches/mile is considered "good ride quality" while an IRI between 96 and 170 inches/mile is considered "acceptable ride quality". Anything exceeding 170 inches/mile is "Unacceptable".

Figure 4.5 summarizes IRI by functional classification for State Touring Routes in Ulster County. A total of 365.93 centerline miles of roadways in Ulster County qualify as State Touring Routes while 362.72 centerline miles had a reported IRI in 2017. While the percent Unacceptable is very small except for rural collector roads, of greater concern is the percent Acceptable. NYSDOT's "Preservation First" approach to asset management is focused on these pavements, where less expensive pavement treatments can move the rating to Good, and more importantly extend the service life of the roadway for a number of years. Figure 4.6 shows that with over 51% of all state touring routes rated Acceptable, NYSDOT has a significant challenge in the coming years to maintain those facilities.

Figure 4.5: 2017 International Roughness Index (IRI) by Functional Classification on State Touring Routes

Functional Classification	Centerline Miles Scored		Good (<95)		Acceptable (=96-170)		Unacceptable (170+)	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Interstate	2.62	37.92	100%	88%	0%	11%	0%	1%
Expressway/Freeway	0	4.08	N/A	7%	N/A	74%	N/A	18%
Principal Arterials	69.28	60.98	54%	22%	34%	61%	12%	17%
Minor Arterials	19.41	46.11	27%	18%	73%	65%	0%	17%
Collectors	78.32	44	14%	9%	56%	69%	30%	22%
Total	**169.63**	**193.09**	**33%**	**31%**	**48%**	**54%**	**18%**	**15%**

Figure 4.6: IRI Summaries on State Touring Routes, 2017

TRAFFIC SIGNALS

Traffic signals are a key element of traffic control. Their location and timing affects the mobility of vehicles and pedestrians. National studies demonstrate that poorly timed traffic signals are responsible for a significant proportion of urban traffic congestion. Signal timing that does not allow sufficient time for pedestrians to cross a street can contribute to safety problems and act as a barrier to walking. The Manual on Uniform Traffic Control Devices (MUTCD) establishes minimum warrants that are to be met for installation of a signal, and for designation of exclusive turn lanes and movements.

Signal ownership is an important element, as each jurisdiction may have its own protocols for maintaining and retiming signals. Figure 4.7 summarizes signals owned by entity.

UCTC TRAFFIC SIGNAL WARRANT EVALUATION

The City of Kingston had identified 12 signalized intersections that were suspected to no longer meet the minimum traffic and safety warrants to justify their continued operation. In 2019, working under the guidance of Creighton Manning Engineering (CME), UCTC conducted a systematic evaluation of traffic conditions associated with those intersections throughout the City.

The primary objective was to evaluate traffic conditions at the locations and strategize appropriate measures for optimizing operations and safety for pedestrians, cyclists and the driving public. Removing unnecessary signals and substituting them with more appropriate regulatory and safety features (such as stop signs, warning lights, improved cross walks and lighting, curb bump-outs, and other engineering improvements) was considered.

Of the 12 locations evaluated, 11 were found to not meet any of the criteria required for a traffic signal to be installed. The City Department of Public Works has begun the process of removing the outdated signals and will monitor each location to ensure safe and efficient traffic operations.

Figure 4.7: Ulster County Signal Ownership

Maintaining Entity	Signals Owned	Signals Maintained
NYSDOT	126	132
City of Kingston	58	58
Private	7	1
Town of Ulster	3	6
Ulster County	4	1
Total	**198**	**198**

BRIDGE OWNERSHIP

Bridges provide necessary linkages across geographic or man-made barriers in the roadway network. A bridge that is not structurally sound and must be closed or load-posted creates a situation where all traffic, or just trucks, must detour. A bridge that is functionally obsolete in terms of narrow lanes can create a bottleneck, while one that has insufficient vertical clearance again results in truck detours.

The Ulster County transportation system includes 387 functional bridges; 40% are county-owned structures, 28% are NYSDOT-owned structures, and 19% are town-owned. The majority of bridges are classified as local rural facilities in townships, meaning these are generally smaller bridge structures carrying low volumes of traffic.

BRIDGE CONDITION

Federal law requires that all bridges be inspected biennially; those that have specific structural problems may require more frequent inspections. Inspections include evaluation and rating of numerous elements of the substructure, superstructure, and deck, with special attention paid to fracture-critical members. Underwater inspections occur no less than every 5 years to check for scour around bridge piers.

As part of the National Bridge Inventory (NBI), four key bridge components are assessed and scored: deck, superstructure, substructure, and culverts. This data is then reported back to FHWA on a regular basis. These components are rated on a 1-9 scale with a score greater than 7 being good, a 5 or 6 rated fair, and less than or equal to 4 being poor or structurally deficient. The lowest rating of the four components determines what condition a bridge is rated. Bridges in good condition suggest a newer or well-maintained bridge with no major investment needed. Bridges in poor or structurally deficient are safe to drive on but are reaching a point where substantial reconstruction or even replacement may be needed.

Figure 4.9 summarizes Ulster County bridges by owner and condition. Current data suggests that the majority of bridges in the Ulster system are in a reliable state of repair. However, just over ever one out of five bridges in the county is Poor or Structurally Deficient, indicating that there are many structures for which improvement will be necessary to ensure continued access and safety on the transportation system.

Figure 4.8: Ulster County Bridges by Owner

Municipality	City	Ulster County	NYC Water Supply	NYS Bridge Authority	NYS Thruway Authority	NYS DOT	State-Other	Town	Village	Grand Total
Crawford (Town)						1				1
Denning (Town)		19						2		21
Ellenville (Village)		1				5			3	9
Esopus (Town)		2			1	5		3		11
Gardiner (Town)		6				3		3		12
Hardenburgh (Town)		14						8		22
Hurley (Town)		1				1				2
Kingston (City)	1				4	5				10
Kingston (Town)		2								2
Lloyd (Town)		3		2		4		2		11
Marbletown (Town)		6	2			2		1		11
Marlborough (Town)						1				1
New Paltz (Town)		1			5	1		1		8
New Paltz (Village)									1	1
Olive (Town)		6	7					1		14
Plattekill (Town)					2	1				3
Rochester (Town)		21				3		9		33
Rosendale (Town)		3			5	4				12
Saugerties (Town)		12			6	4		4		26
Saugerties (Village)						2				2
Shandaken (Town)		25				18	2	20		65
Shawangunk (Town)		13				2		6		21
Ulster (Town)		3		1	7	18				29
Wawarsing (Town)		10	1			15		6		32
Woodstock (Town)		6				15		7		28
Grand Total	**1**	**154**	**10**	**3**	**30**	**110**	**2**	**73**	**4**	**387**

As shown in Figure 4.10, Ulster County owns more than half of the structurally deficient bridges in the county, contributing to the fact that 78% of structurally deficient bridges are owned by local governments. This is not unusual and is a consequence of the cost of major bridge projects combined with the limited options local governments have to pay for them. Figure 4.11 illustrates the locations and ratings of bridges. It should be noted that in 2015 Ulster County launched a major transportation initiative called "Building a Better Ulster County". That initiative will invest a total of nearly 10 million dollars in county funds and over 5 million dollars in state and local funds in a single year to improve county road and bridge infrastructure. Included in this is over 50 miles of new road surfaces, a minimum of 5 new bridge replacements and major repairs, shoulder installation at key pedestrian activity areas including schools, and several bank stabilization projects. This one time investment has helped the county to catch up to its major maintenance needs of its transportation infrastructure.

Figure 4.9: Ulster County Bridges by Owner, Condition and Sufficiency Rating

Owner	# of Bridges	Good	Fair	% Structurally Deficient
City of Kingston	1	100%	0%	0%
Ulster County	154	10%	60%	31%
NYC Water Supply	10	40%	40%	20%
NYS Bridge Authority	3	0%	100%	0%
NYS Thruway Authority	30	20%	63%	17%
NYS DOT	110	18%	71%	11%
State-Other	2	100%	0%	0%
Town	73	25%	51%	25%
Village	4	25%	50%	25%
Total	**387**	**17%**	**61%**	**22%**

Figure 4.10: Structurally Deficient Bridges by Owner

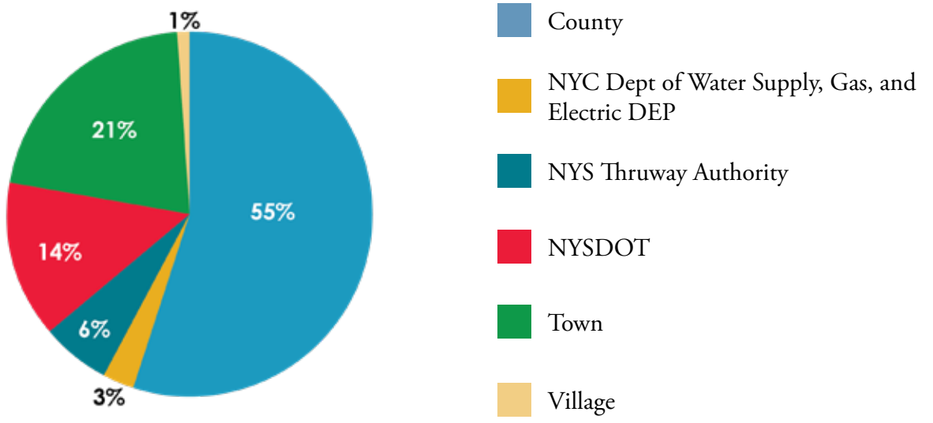
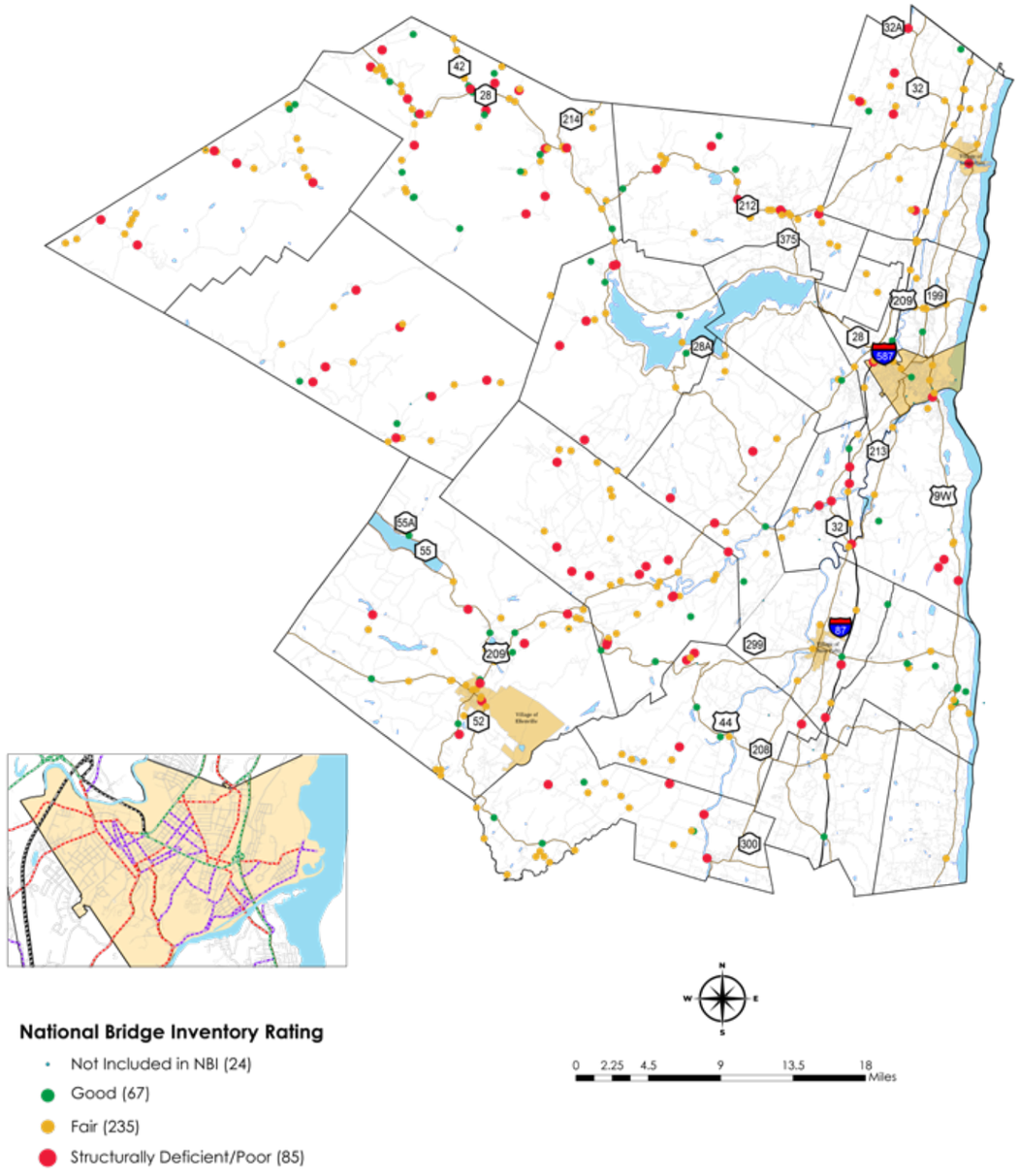


Figure 4.11: Ulster County Bridge Conditions (2019)



TRAVEL ON THE ROADWAY SYSTEM

SYSTEM USE

The UCTC's highway system exhibits a PM peaking traffic pattern in most corridors, which is driven by commuter travel. Some retail corridors, such as the Town of Ulster peak on Saturday afternoons. The I-587 corridor and its exits also exhibit weekend peaking with backups on Sunday night that often slow traffic to a crawl in the corridor from Kingston south.

CRITICAL CORRIDORS

Another way to view the roadway system is in terms of corridors. Critical corridors are those that serve major population centers including future growth areas; carry higher volumes of through traffic; carry higher volumes of freight movement; and serve primary economic generators, including recreational venues as well as traditional businesses. Ulster County's critical corridors include I-87 (NYS Thruway), I-587, US 9, US 209, NY 28, and NY 299 as illustrated in Figure 4.12. Figure 4.13 illustrates the variation in volume on critical corridors over time. Most volumes fluctuate similarly throughout the 1998 to 2012 time-frame, while US 209 observed a slight increase in traffic and SR 32 saw a decline, proportionally.

Figure 4.12: Critical Transportation Corridors

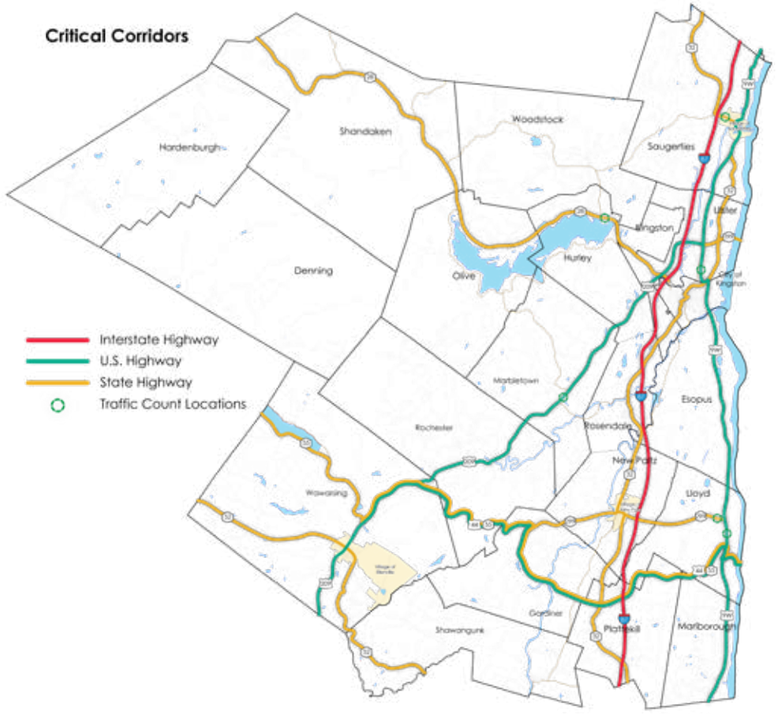
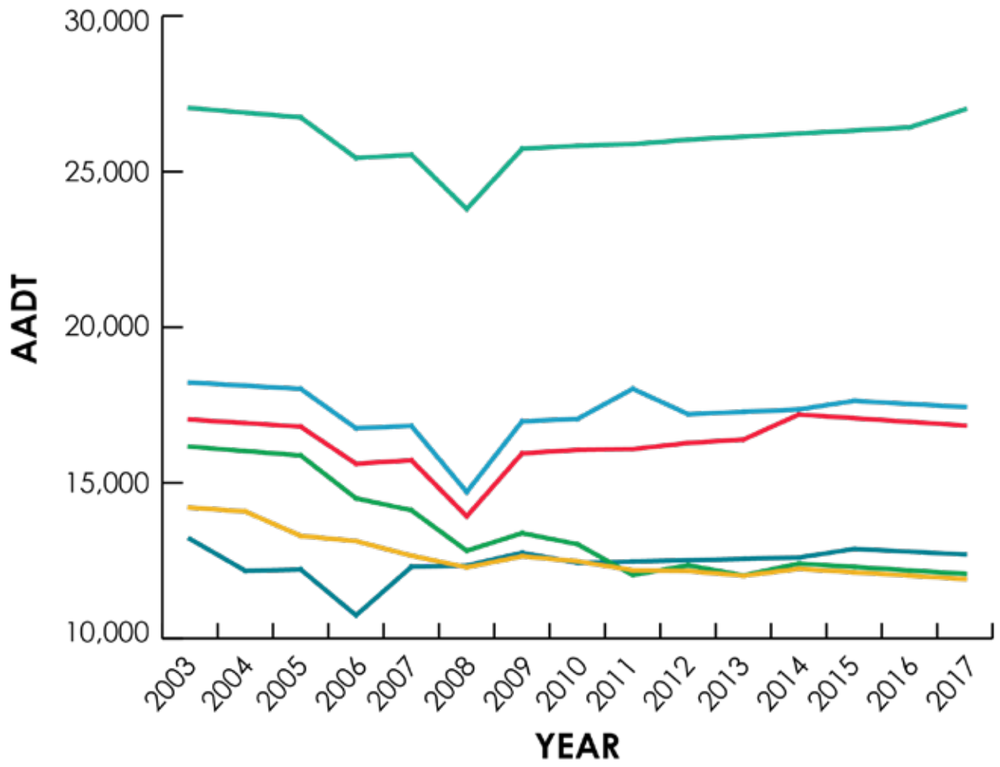


Figure 4.13: Average Annual Daily Traffic on Ulster County's Critical Corridors, 2003-2017

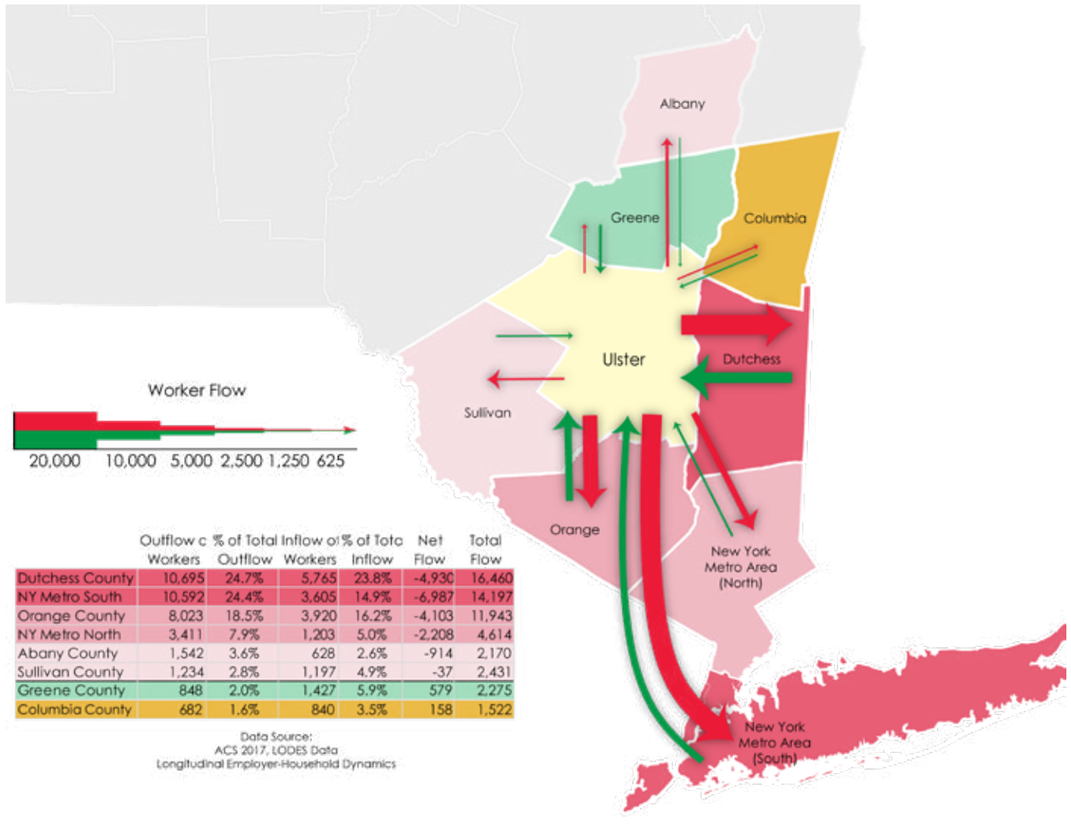


REGIONAL COMMUTATION

The UCTC's highway system exhibits a PM peaking traffic pattern in most corridors, which is driven by commuter travel. Some retail corridors, such as the Town of Ulster peak on Saturday afternoons. The I-87 corridor and its exits also exhibit weekend peaking with backups on Sunday night that often slow traffic to a crawl in the corridor from Kingston south.

Figure 4.14 depicts the variation in commuting patterns by counties adjacent to or surrounding Ulster County. The TMA region's workforce as a whole is on the move. While a large percentage of the workforce leave Ulster County every day (56%), both Dutchess (51%) and Orange (54%) experience similar commutation patterns. The top five counties for Ulster resident commuters were Dutchess, Orange, New York (Manhattan), Westchester, and Suffolk counties. Dutchess, Orange, Greene, Sullivan, and Suffolk counties are the top five counties contributing to inbound Ulster commuting patterns. These flows have considerable impact on congestion and drive investments in transit, park- and-ride facilities, and corridor improvements.

Figure 4.14: Commutation To and From Ulster County

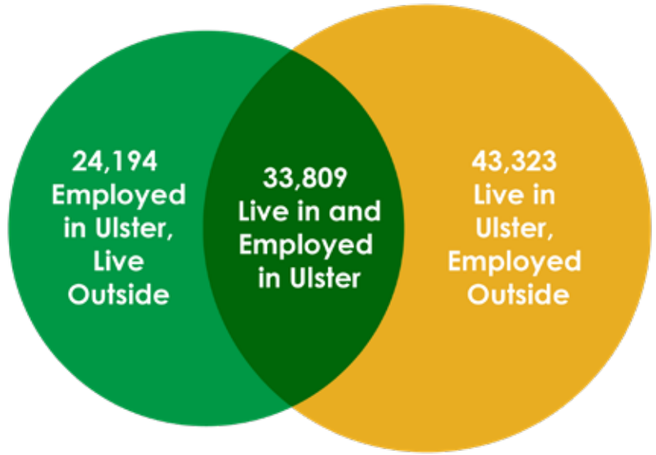


	Outflow c Workers	% of Total Outflow	Inflow of Workers	% of Tota Inflow	Net Flow	Total Flow
Dutchess County	10,695	24.7%	5,765	23.8%	-4,930	16,460
NY Metro South	10,592	24.4%	3,605	14.9%	-6,987	14,197
Orange County	8,023	18.5%	3,920	16.2%	-4,103	11,943
NY Metro North	3,411	7.9%	1,203	5.0%	-2,208	4,614
Abany County	1,542	3.6%	628	2.6%	-914	2,170
Sullivan County	1,234	2.8%	1,197	4.9%	-37	2,431
Greene County	848	2.0%	1,427	5.9%	579	2,275
Columbia County	682	1.6%	840	3.5%	158	1,522

Data Source:
ACS 2017, LODES Data
Longitudinal Employer-Household Dynamics

TRANSIT SYSTEM

Public transportation is an important transportation mode. It provides mobility to those unable to drive –"captive riders", including young people, senior citizens, those with disabilities, and drivers who cannot afford to own a car. An efficient transit system also captures "choice riders" – those that choose to travel by bus. Taken together, these transit trips offer an environmental benefit compared to automobile trips through reduced fuel use and emissions and reduced congestion in heavily traveled corridors.



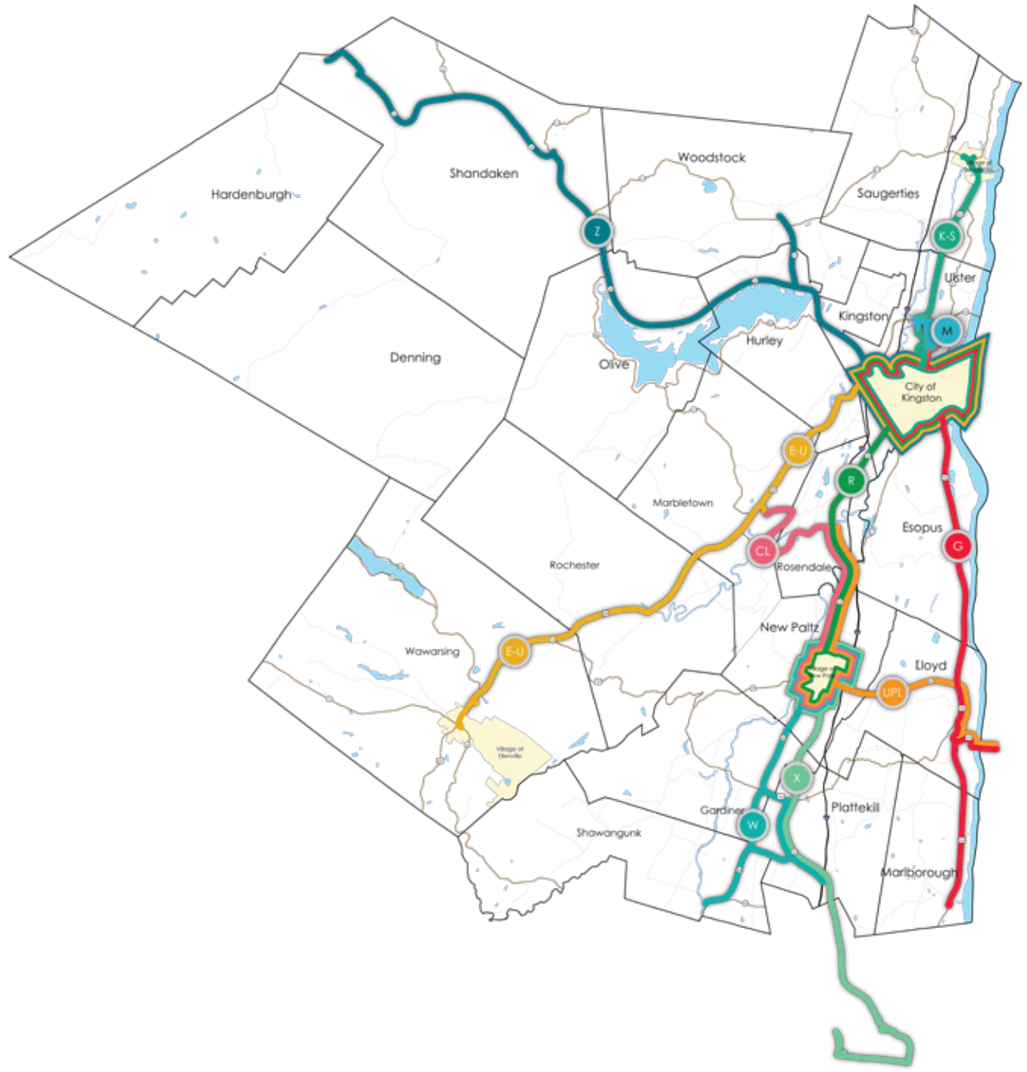
Public transit service in Ulster County changed significantly in July 2019 when Ulster County and the City of Kingston came to an historic agreement to expand Ulster County Area Transit (UCAT) service into the City of Kingston, thereby ceasing Kingston Citibus operations. One private intercity bus service -- Adirondack Trailways -- continues to operate service through Ulster County. Finally, commuter parking facilities along the I-87 Corridor compliment these transit services and allow for ride sharing. UCAT presently operates a total 15 scheduled fixed routes throughout Ulster County, including 3 looped routes serving the City of Kingston and 1 loop route serving the Village of New Paltz. In addition, qualifying residents within 1.5 mi. distance of any fixed route are eligible to receive paratransit service.

UCAT also offers rural route services by request to passengers in the rural areas of the county not served by the routes listed above. Passengers using this service must make appointments one day prior or at least a week in advance and confirm them the morning of the scheduled ride. Riders under 60 pay the normal fare, while passengers over 60 and registered with the Office for Aging can take one trip per week at a voluntary contribution level.

As of June 2020, UCAT owned a total of 46 vehicles – 35 devoted to fixed route service, 7 to paratransit service, and 4 for support service. Transit vehicles include heavy duty transit coaches, the newest of which are low-floor design to most easily accommodate those with mobility impairment; and lighter duty buses on a truck frame, known as cutaways. A full inventory of the UCAT vehicle fleet can be found in Appendix B. Six of these buses are hybrid gas/electric and biodiesel is utilized throughout the fleet. In 2020, Ulster County will purchase its first 3 all-electric transit vehicles.

Figure 4.15 provides a spatial reference for the location of UCAT routes throughout the county.

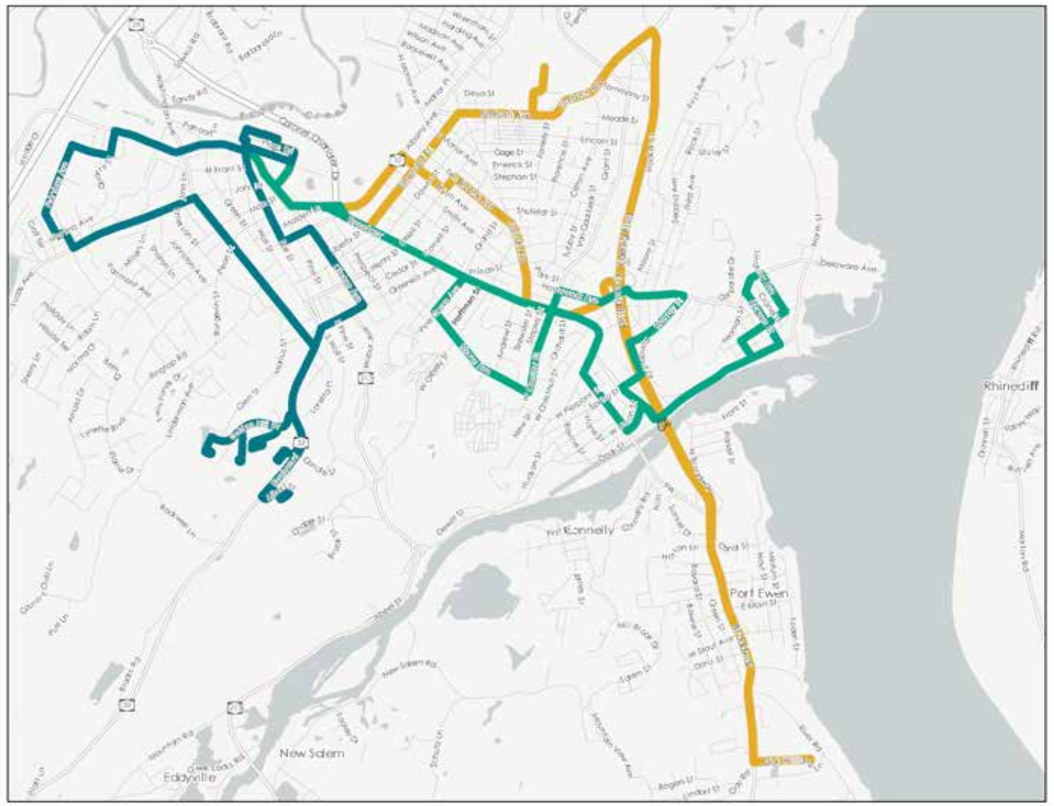
Figure 4.15: UCAT System Map



CITY OF KINGSTON SERVICE

Following the expansion of service in the City of Kingston by UCAT there have been several iterations of routes to meet the needs of riders and to encourage additional riders. Figure 4.16 provides details on the three routes primarily serving the City of Kingston.

Figure 4.16: UCAT Service in Kingston



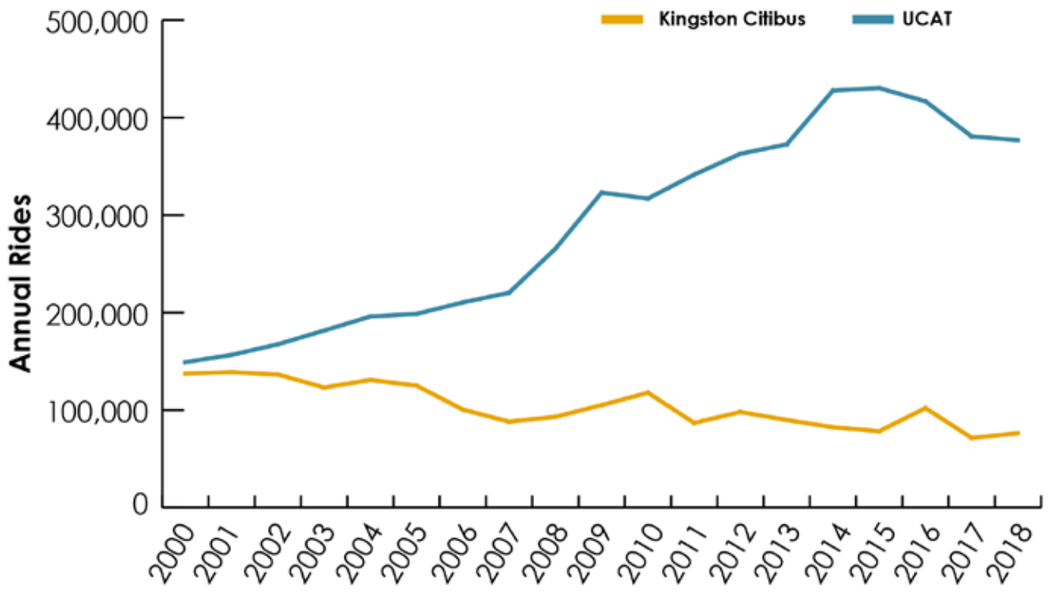
SYSTEM USE

Figure 4.17 summarizes UCAT and Citibus annual ridership for the period 2000 to 2018. Ridership data illustrates extensive growth on the UCAT system, with a 118% upswing in passengers in the past decade, a reflection of a significant expansion in service area and adjustment to rider reporting practices, which allowed transfers to count as an additional rider. Kingston Citibus ridership trends illustrates a steady decline in ridership, with an overall loss of 37% of riders since 2004. It is anticipated that the expansion of UCAT service into the City of Kingston in 2019 will have a positive effect on overall ridership throughout

the county by establishing more frequent service in the City of Kingston, providing a consistent fare and scheduling system throughout the public transit system, and further facilitating ease of use for riders.

Fares paid by riders finance only a portion of public transit systems and operations. Funding from FTA, the New York State Transit Operating Assistance program, and local match funds provide means to subsidize operations. One measure of financial efficiency is the farebox ratio, which is the percentage of operating expenses covered by fares. The UCAT farebox recovery has remained steady at about 8-9% over the past decade. This low recovery rate is typical for a small transit system.

Figure 4.17: Kingston Citibus & UCAT Passengers by System, 2000 - 2018 [iii]



INTER-CITY BUS

Ulster County is served by one intercity bus carrier, Adirondack Trailways. A majority of their operations provide access to a number of destinations outside the county and are used by a significant number of commuters traveling to the New York City metropolitan area. Trailways serves Saugerties, the transit terminal in Kingston, and three locations in New Paltz, including a terminal and location near the Thruway as well as Woodstock and the NYS Rt. 28 corridor. As a result of the service provided, any operators awarded routes by NYSDOT are eligible to receive FTA funds.

Upgraded in 2019, the Trailways NY Bus Terminal in Kingston, NY, received significant upgrades to improve ticketing facilities, accessibility and safety. FTA funding for the project was secured by the UCTC.

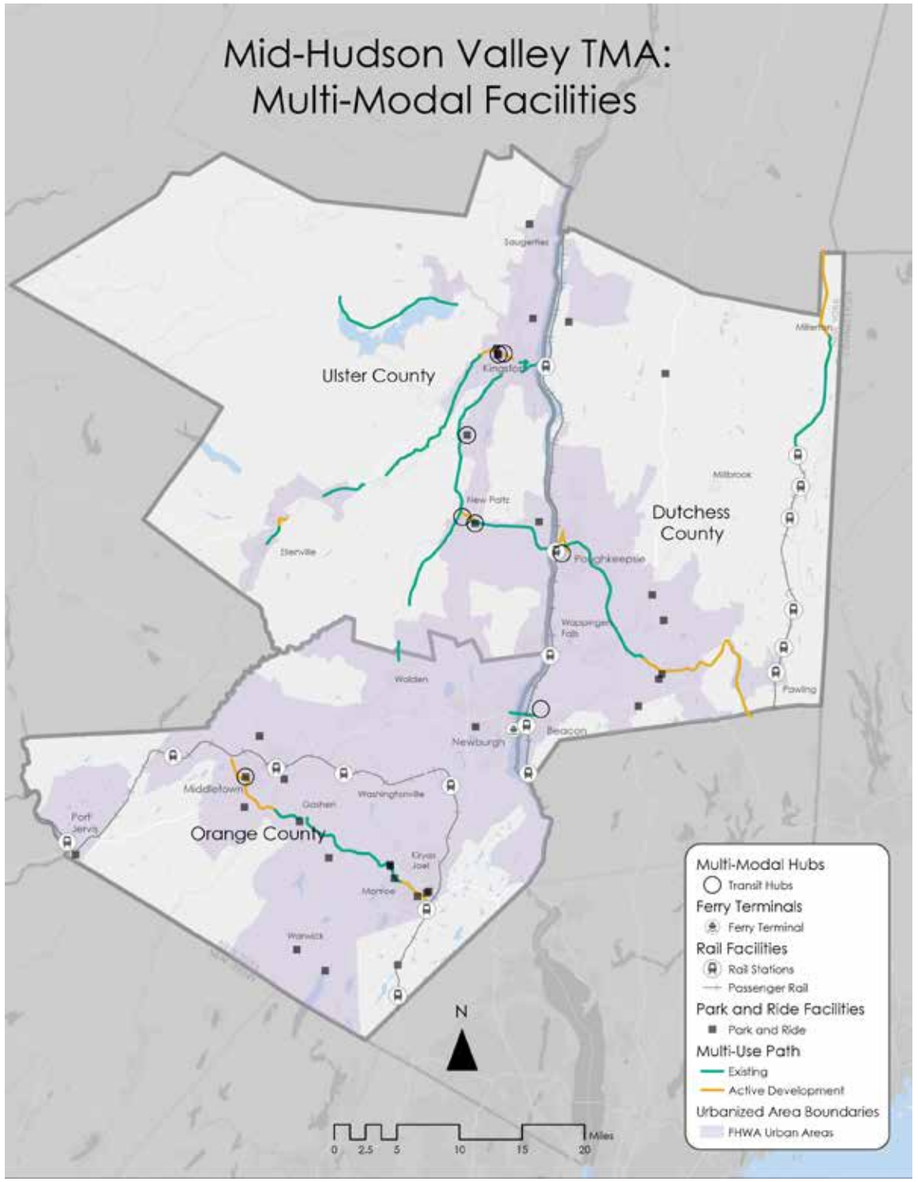
REGIONAL TRANSIT

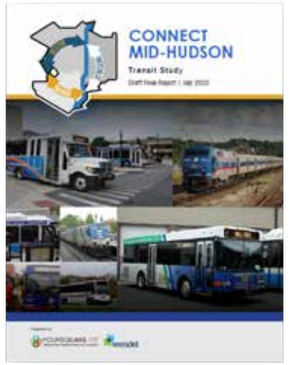
The Mid-Hudson Valley region, consisting of Ulster, Dutchess, and Orange Counties, is characterized by its small towns and cities, separated by rural farmland and undeveloped land along the Hudson River Valley. Its proximity to New York City allows many residents to commute into the City for work. The region is served by a robust and multi-modal transit network including bus, rail, and ferry services.

Federal transit funding helps support the various transit operations in the region. Parts of Dutchess, Orange and Ulster Counties fall within the census-designated Poughkeepsie-Newburgh Urbanized Area, also known as UZA 89. As federal funds are distributed at the UZA level, the three counties' Metropolitan Planning Organizations (MPO) have developed a funding sub-allocation process together with the New York State Department of Transportation (NYSDOT), and the Metropolitan Transportation Authority (MTA).

Through this sub-allocation process, federal transit funds flowing into the region are divided among the three counties, the Metro-North Railroad, and private commuter bus operations serving the region. However, a portion of these funds remain unallocated to a particular county or agency, and the three MPOs jointly decide how to spend the unallocated funds on regional transit investments.

Figure 4.18: Mid-Hudson Valley TMA Multi Modal Facilities





In 2019 and 2020, the three Mid-Hudson TMA MPOs partnered with the NYSDOT and regional transit agencies to develop the Connect Mid-Hudson report. The document presents recommendations on ways that the unallocated transit funds could be invested to improve regional transit service for Mid-Hudson Valley residents and commuters. The recommendations are preceded by an analysis of the unallocated transit funds available for investment, and a summary of identified transit issues that the recommendations could potentially address.

Connect Mid-Hudson Transit Study cover.

Key recommendations of the Connect-Mid Hudson Transit Study include the following:

- **Creation of a Transit Ombudsman –** to serve as an advocate and point of contact for the region's commuters, especially those who rely on publicly-subsidized but privately-operated commuter bus services.
- **Introduction of App-Based Microtransit Service –** to provide local mobility and regional connections where fixed-route service is either not available or not effective.
- **Expansion of Commuter Bus Service –** to address specific service gaps identified through an analysis of regional commuter patterns and current commuter services.
- **Capital Improvements –** focusing on roadway congestion hot-spots and capacity-constrained park-and-ride lots that impact the efficient operation of regional transit service in the Mid-Hudson Valley.
- **Creation of a Regional Transit Fund –** to create a structure for planning and dispensing the region's unallocated Federal transit funding.

Responsibility for the implementation of Plan recommendations will fall to the Mid-Hudson TMA members.

In February 2020, Ulster County and MPO staff evaluated proposals from bus manufacturers to purchase UCAT's first three all-electric buses.

MULTI-MODAL ACCESSIBILITY

The availability of multi-modal transportation options can alleviate network congestion by offering alternative modes of transportation, reducing single-occupant vehicle travel, and improving service integration within and across modes. In January 2020, the Mid-Hudson TMA produced a Technical Memo evaluating existing multi-modal conditions for the Mid-Hudson Valley Transportation Management Area (TMA). This evaluation identifies possible gaps in the network and recommends improvements. Figure 4.19 below shows the results for each multi-modal measure for Ulster County as well as the TMA average as a whole (Ulster, Dutchess and Orange County). The Multimodal Facilities Map in Figure 4.18 shows the bicycle network and major transit locations including train stations, ferry locations, transit hubs, and park & ride lots.

Figure 4.19: Mid-Hudson TMA Congestion Management Process Multi-Modal Measures

Multi-Modal Measures		UCTC Planning Area Status	TMA total/average (Dutchess, Orange, and Ulster Counties)
Park & Ride availability	The number of park & ride spaces and their percent occupancy during observations.	**685 spaces; 55% utilization**	Total Spaces: 3,646. Average utilization: 71%
Transit availability	The percentage of the population within a half-mile/quarter-mile of a train station, ferry station, transit hub, or bus route.	**Half-mile buffer = 50%, Quarter-mile buffer = 37%**	Average: Half-mile buffer: 45%, Quarter-mile buffer: 33%
Bicycle networks	The mileage of multi-use paths (including bridges with multi-use paths).	**50.4 miles**	Total: 92.7 miles
Bicycle parking availability	The number and percent of intermodal locations (train stations, ferry stations, transit hubs, park & ride lots) with bike parking (racks and lockers).	**6 of 11 locations (55%)**	Total locations: 25; overall coverage: 45%
Bicycle racks on buses	The percentage of public buses with bicycle racks.	**100% (35 of 35 buses)**	Average: 98%
Pedestrian networks	The percentage of sidewalk coverage within a half-mile/quarter-mile of key transit locations (train stations, ferry stations, transit hubs).	**Kingston Trailways and UCAT Kingston Plaza Hub: Half-mile buffer = 73%; Quarter-mile buffer = 92%**	N/A

NON-MOTORIZED SYSTEM

SYSTEM CHARACTERISTICS

Many people travel by bicycle and on foot, primarily for shorter trips. While many also use these modes for recreation, the focus here is on travel to meet specific needs. In some cases, people without access to an automobile or transit walk or bike out of necessity. Others do so as a travel choice. For the latter group, safety and convenience are significant factors. When a route is perceived to be unsafe, or there is a barrier to reaching the desired destination, people may choose to drive instead. The Journey to Work data (Figure 4.21) shows that 4% of all work related trips are made by walking or bicycling.

Bicyclist enjoying the Ashokan Rail Trail.

WALKING

Pedestrian travel requires a network of sidewalks without gaps and with accommodations for people with disabilities as defined by the Americans with Disabilities Act (ADA). There are instances, particularly in rural areas, where a wide shoulder is an acceptable substitute for a sidewalk. Safe pedestrian travel also requires protected crossings of busy streets with marked crosswalks and pedestrian signals and appropriate pedestrian phases at signalized intersections. Maintenance of existing sidewalks is also a constant concern for municipalities and residents.

BICYCLING

Bicycles are most often ridden on streets, and can be accommodated with designated bike lanes, wide curb lanes, or “Share the Road” signs and pavement marking.

MULTI-USE TRAILS

Ulster County is home to what is sometimes described as a “world-class” multi-use trail system. Multiuse trails can accommodate both bicycle and pedestrian travel. Because they are separate facilities, they are inherently safer for users. While trail use is often predominantly recreational, trails are also used for commuting and other travel needs. Ulster County currently has a robust trail network, consisting primarily of trails on former railroad rights of way:

- **Empire State Trail (EST) –** In January 2017, Governor Cuomo announced the Empire State Trail, a new initiative placing New York State at the forefront of national efforts to enhance outdoor recreation, community vitality, and tourism development. Approximately 400 miles of the Trail already exists in discrete, disconnected segments. When completed by the end of 2020, the Empire State Trail will be a continuous

750-mile route spanning the state from New York City to Canada and Buffalo to Albany, creating the longest multi-use state trail in the nation. In Ulster County, the EST connects to the Hudson Valley Rail Trail via the Walkway Over the Hudson State Park and travels north through the county via the Wallkill Valley Rail Trail and Kingston Greenline, before re-connecting to Dutchess County via the Kingston/Rhinecliff Bridge.

- **Hudson Valley Rail Trail (HVRT) –** The HVRT is a 12-foot wide, asphalt rail trail open for non-motorized uses, including walking, running, bicycling, horseback riding, inline skating, cross-country skiing and snowshoeing. The HVRT is flat or gently-sloped making it accessible to individuals with limited mobility. The HVRT currently extends 4 miles from the Walkway Over the Hudson State Historic Park (http://www.walkway.org/) — the longest elevated walkway in the world — in Highland (Town of Lloyd) eastward to Tony Williams Park located on South Riverside Road. A final trail segment was completed by Ulster County in 2018 bringing the trail further east to South Street in the Town of New Paltz. NYSDOT completed the final segment as part of its Empire State Trail effort, linking the HVRT with the Village of New Paltz through a mix of on-road and separated facilities. The EST then connects to the Wallkill Valley Rail Trail.

- **Wallkill Valley Rail Trail (WVRT) –** The WVRT is a primarily cinder/ stone dust rail trail open for non-motorized uses, including walking, running, bicycling, horseback riding, cross-country skiing and snowshoeing. The trail passes through Gardiner, New Paltz and Rosendale, where it crosses the restored Rosendale Trestle over the Rondout Creek. The WVRT now extends approximately 24-miles from the Town of Shawangunk/Town of Gardiner Town line to Rockwell Lane at the southern border of the City of Kingston, where on-road and separated segments constructed by the NYSDOT in 2020 will connect it to the Kingston Greenline.

- **Kingston Greenline –** The Kingston Greenline is a system of trails, linear parks, and complete streets that when fully developed will serve as a hub for several regional trails, including the Wallkill Valley Rail Trail, the O&W Rail Trail, and the Empire State Trail; the majority of elements of the Greenline are expected to be completed by 2020.

- **The O&W Rail Trail/ D&H Heritage Corridor** is a partially completed rail trail/ canal trail running nearly 35-miles through the Rondout Valley from Kingston to Ellenville and including various local rail trail segments, many of which have planned extensions to fill current gaps. The longest existing segment currently runs more than 12-miles along the Hurley and Marbletown Rail Trail segments. Descriptions of major segments are as follows:

  - The Hurley Rail Trail is a shared- use rail trail open for non-motorized uses, including walking, running, bicycling, horseback riding, inline skating (on the northern section), cross-country skiing and snowshoeing. The Hurley Rail Trail connects to the Marbletown Rail Trail and currently runs 3-miles (2.2-miles of 10-feet wide paved trail) along NYS Route 209 in Hurley. Trail connections into the City of Kingston are now in final design and right-of-way acquisition stages.

  - The Marbletown Rail Trail continues the Hurley Rail Trail southward for approximately 9-miles to the Town of Rochester. The cinder/ stone dust trail is open for walking, running, bicycling, horseback riding, cross-country skiing and snowshoeing.

  - A short extension of the O&W in the Town of Wawarsing and Village of Ellenville is under final design.

- **Ashokan Rail Trail (ART) –** Opened in the fall of 2019, the ART is a shared-use recreational trail running 11.5 miles along the northern edge of the Ashokan Reservoir between Basin Road in West Hurley and Route 28A in Boiceville. The ART was developed by the County of Ulster through an historic partnership with the New York City Department of Environmental Protection ("DEP"), which owns and operates the Ashokan Reservoir and adjacent lands. Open from sunrise to sunset year-round, the ART has provided public access to the County's scenic abandoned Ulster & Delaware Railroad corridor without a DEP Access Permit for the first time since the Reservoir was constructed in 1911. The ART trail surface is highly compacted crushed stone ranging from 10 to 12 feet in width, and this flat trail is ADA compliant and accessible for persons with disabilities. The ART is open for non-motorized uses, including hiking, bicycling, running, nature observation, cross-country skiing, and snowshoeing and offers three large public trailheads from which the trail can be accessed.

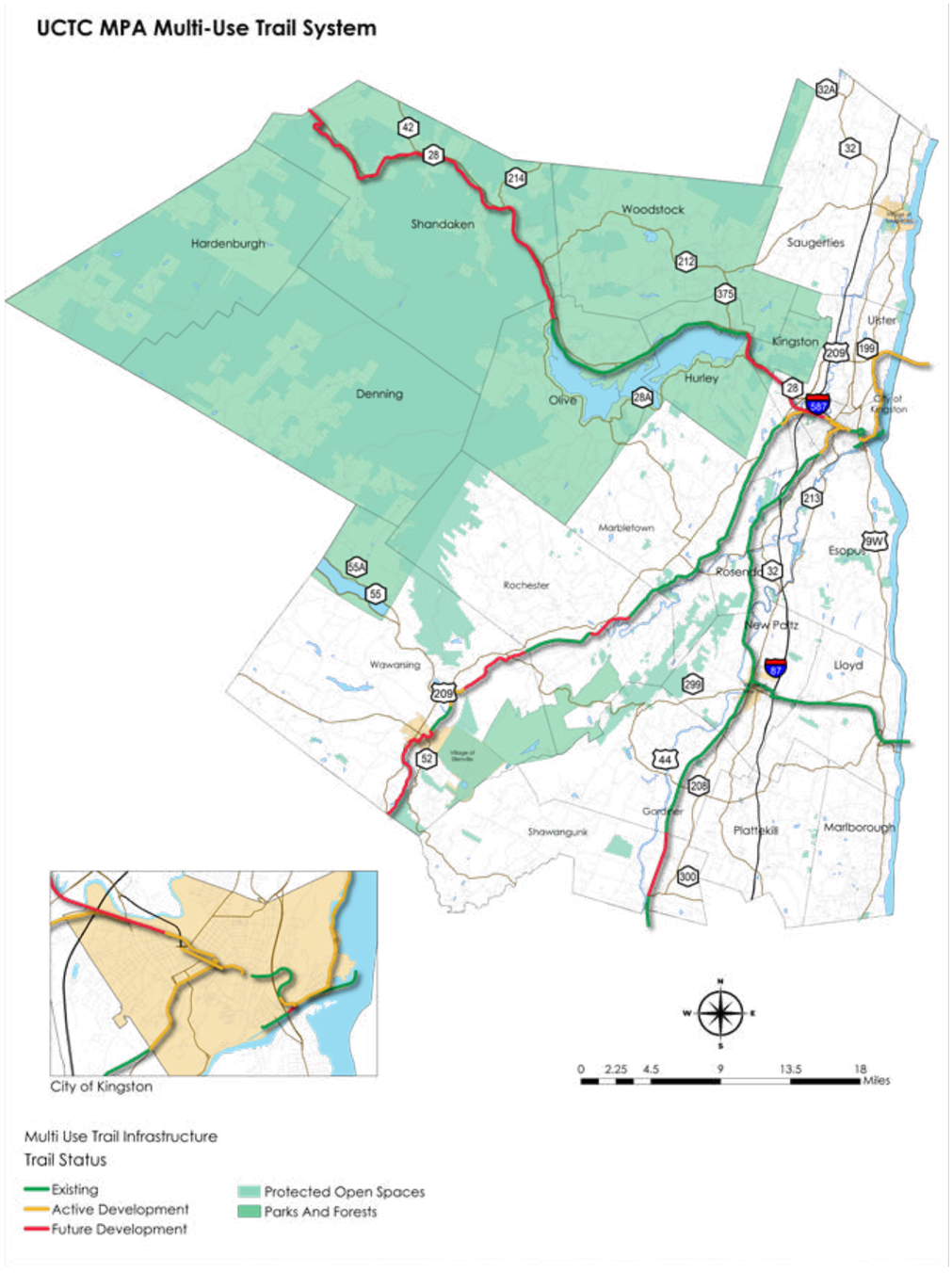
- **The Wallkill to Walden Rail Trail** is located a few miles south of the current end of the Wallkill Valley Rail Trail in the Town of Shawangunk. The 3.2-mile paved trail runs from the hamlet of Wallkill to the Town of Montgomery and Village of Walden in Orange County. The Trail is open for non-motorized uses, including walking, running, bicycling, inline skating, cross-country skiing and snowshoeing.

Figure 4.20 on the next page provides a geospatial reference of these trails.

SYSTEM USE

Uniform data is not generally available for non-motorized system use in most locations, although the UCTC as well as other trail users groups are beginning to recognize the value of reliable count data and are beginning to develop approaches to provide regular, uniform trail user counts. A recent sample of use on the Hurley portion of the O&W Trail suggests that approximately 80,000 people per year visit the facility. The Ashokan Rail Trail integrated its own counter system into its design and construction, providing them with a dynamic mechanism to instantly report and analyze pedestrian and cyclist count data. As of June 2020, after just over 9 months of continued operation, the ART managers reported 100,000 users.

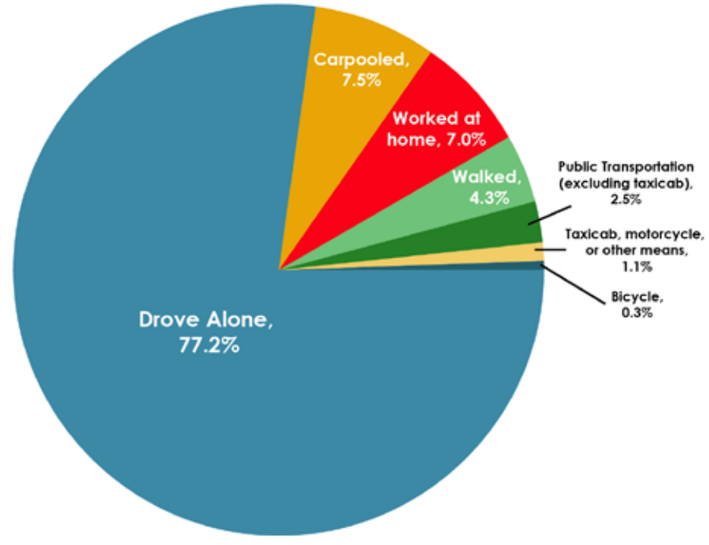
Figure 4.20: Non-Motorized System in Ulster County



MODAL SPLIT: HOW PEOPLE TRAVEL

The American Community Survey (ACS) is a product of the U.S. Census Bureau. It uses annual sampling to discover many facts about Americans, including travel patterns. According to the 2010 to 2018 ACS for Ulster County, 77% of work trips are made by a single-occupant automobile. Carpooling and working from home each comprise 7% while bicycling/walking follows at just under 5%. Only 1% of the population uses transit to reach work destinations, and another 1% represents "other" methods of commutation. Figure 4.21 illustrates Ulster County's modal breakdown.

Figure 4.21: Journey to Work Modal Distribution, 2018 [iv]



AUTO OWNERSHIP

According to the 2018 ACS, about 7.5% of all occupied housing units (both owned and rented) in Ulster County do not have a vehicle available to make daily trips. The majority (72%) of households have either one or two vehicles available to make daily trips; however, over 14,000 households have access to three or more cars. Figure 4.22 summarizes auto ownership by household. The high accessibility of vehicles contributes to the high volume of drive-alone commuting by Ulster residents. Ownership rates are much lower in urbanized areas, with 17.4% of Kingston households estimated to have no vehicle available. Comparatively, 15.7% of New Paltz Village households, 18.1% of Ellenville households and 13.3% of Saugerties Village households have no vehicle available.

Figure 4.22: Auto Ownership by Household in Ulster County, 2018 [v]

Auto Ownership	Vehicle Availability	Percent of Vehicle Ownership
No Vehicle Available	5,230	7.5%
1 Vehicle Available	23,375	33.6%
2 Vehicles Available	26,356	37.9%
3 Vehicles Available	14,578	21%
Total	**69,539**	**100%**

SYSTEM-WIDE SAFETY

Safety is of principle concern to all transportation agencies and the public, and the Ulster County Transportation Council (UCTC) believes improving transportation safety is a shared responsibility of the owners and operators of transportation facilities and services, travelers, law enforcement, and emergency responders. The major safety goals of this plan are to reduce fatalities and serious injuries in the UCTC planning area. Strategies to address safety, security, public health and other risks are key to achieving this goal, as well as others. Improving safety in transportation systems can increase efficiency and reliability of the system, encourage use across alternative transportation modes and improve quality of life for the public.

UCTC also understands that safe transportation systems are created by focusing on identifying, reducing and mitigating risks. Transportation facilities and services must be implemented using proven safety standards and be properly maintained, as well as consider multi-faceted strategies to improving safety.

These include:

- Appurtenances like signals, signs, pavement markings, rumble strips and barriers;
- Pedestrian, bicycle and transit facilities that follow current safety and accessibility standards;
- Education and enforcement actions that address driver behavior, a documented contributing cause in the large majority of fatal and serious injury crashes; and
- Prompt emergency response for crash victims.

Crash data is examined for long-term trends and averages to avoid short-term statistical anomalies and outlier datapoints that can lead to improper conclusions. In New York, police agencies submit a standard report after all crashes to the Department of Motor Vehicles (DMV). DMV in turn makes the coded data available to New York State Department of Transportation (NYSDOT), which uses a GIS-based application called the Accident Location Information System (ALIS) as its database. MPOs and other agencies may query ALIS for crash information by location, type, and other factors.

Figure 4.23 shows fatalities and serious injuries from 2010 to 2018. Serious Injuries and fatalities both declined between 2010 and 2016. However, the highest number of fatalities (24) occurred in 2017, and serious injuries increased by 25% between 2017 and 2018, hitting their highest total since 2010. Spikes in recent years highlight the importance of reviewing long-term data and addressing consistent safety impacts.

Figure 4.23 Fatalities and Serious Injuries by Year (2010-2018)

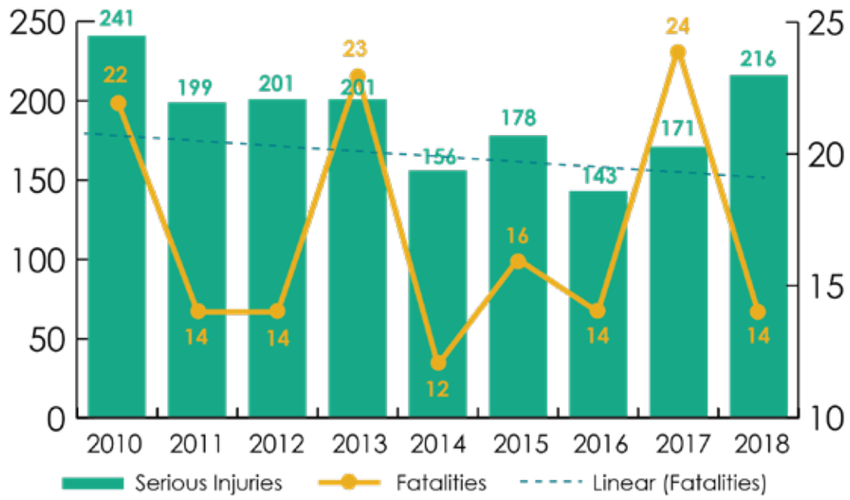


Figure 4.24: Fatalities and Serious Injuries by Crash Type (2010-2018)

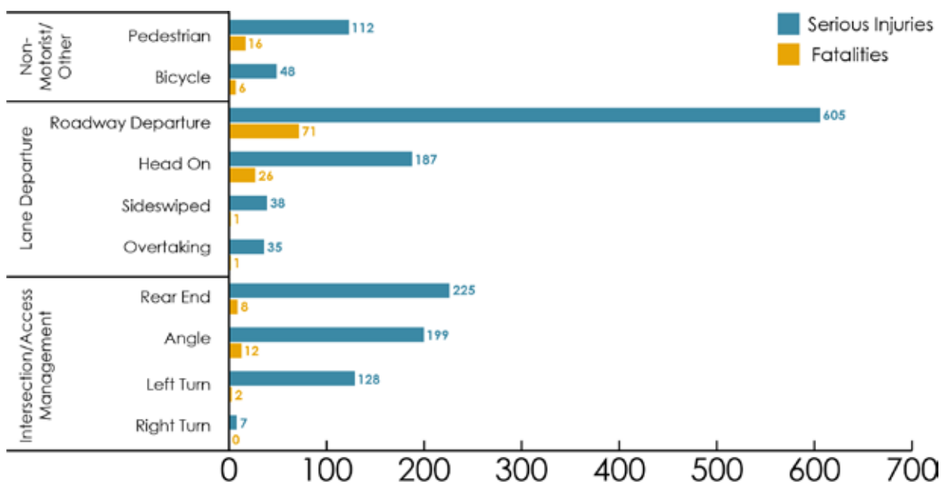


Figure 4.24 depicts fatalities and serious injuries by crash type. The leading crash type in both fatalities and serious injuries is roadway departure. However, major contributions to fatalities and serious injuries come from collisions with non-motorists and collisions at intersection/driveway conflict points.

Ulster County roadway departure fatalities are overrepresented, even compared to New York. While roadway departure crashes account for 46 percent of New York's fatalities, roadway departure contributes to 48 percent of UCTC fatalities. Systemic safety infrastructure treatments are implemented statewide following the guidance of the New York Roadway Departure Safety Action Plan and are an effective strategy for reducing fatalities and serious injuries, especially those in roadway departure crashes. Similarly, UCTC will utilize infrastructure safety countermeasures systemically to address physical risk characteristics found on roadways where severe roadway departure crashes occur the most frequently.

Figure 4.25: Fatalities and Serious Injuries by Emphasis Area (2010-2018)

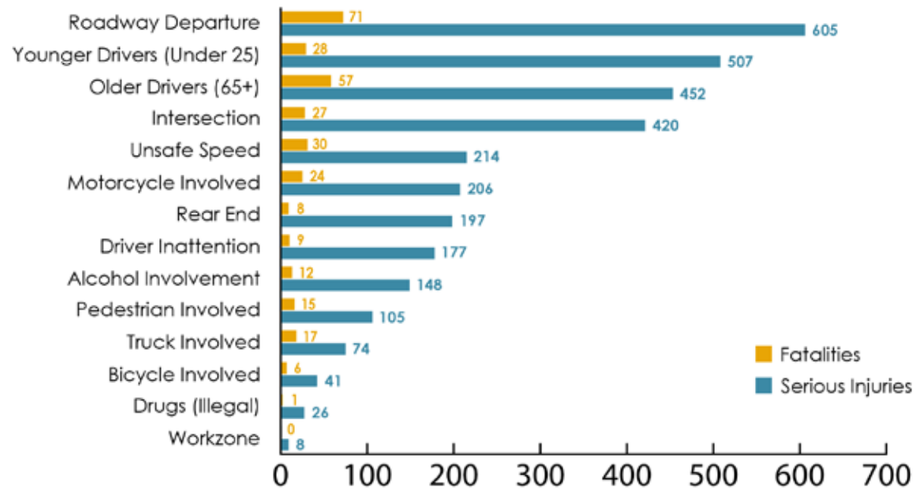


Figure 4.25 depicts fatalities and serious injuries by UCTC Safety Plan Emphasis Areas. Roadway departure, again, leads the way in contribution for both fatalities and serious injuries in the planning area. However, this graph also identifies several leading contributing factors in crashes resulting in fatalities and serious injuries that are focused on driver behavior, such as crashes involving younger drivers (under 25 years of age), aging drivers (65 and up), speeding drivers, and distracted drivers. Figure 4.25 also identifies vulnerable users that contribute significantly to fatality and serious injury totals, including motorcycle, pedestrian and bicyclist fatalities. This supports the need for a multi-pronged approach, utilizing enforcement, education, and emergency services, to supplement engineering and infrastructure improvement strategies.

Figure 4.25 summarizes crash data by severity in each jurisdiction from 2010-2018. The two largest municipalities in the county have the highest crash and injury totals: the City of Kingston and Town of Ulster. However, Lloyd and Saugerties have the highest fatality totals at 18 and 19 respectively.

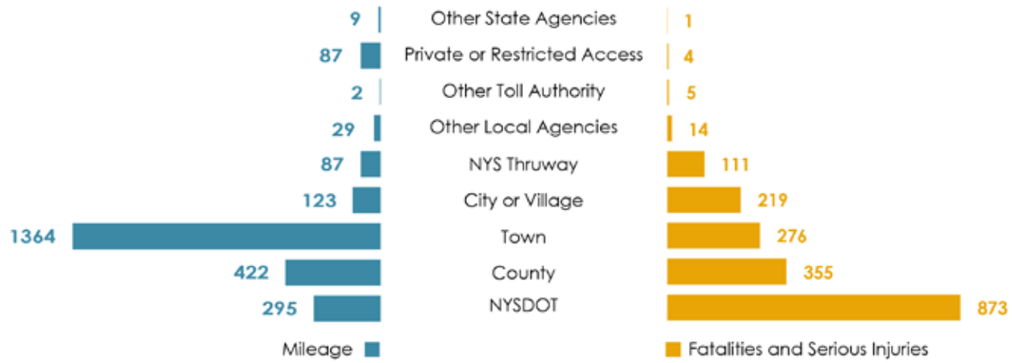
When considering for the relatively lower vehicle miles traveled (VMT) and population, an even more disproportionate number of fatalities have occurred in Lloyd, and though Kingston shows the highest total for serious injuries over the time-frame, Denning is significantly overrepresented in serious injuries when considering the smaller population.

Figure 4.26: Crash Severity by Jurisdiction (2010-2018)

	CRASH SEVERITY BY JURISDICTION			
Jurisdiction	Fatalities	Serious Injuries	All Injuries	Total Crashes
Catskill	0	1	2	16
Denning	0	10	27	65
Ellenville	0	28	237	809
Esopus	7	88	675	2,309
Gardiner	5	61	365	1,569
Hardenburgh	0	2	11	28
Hurley	7	46	365	1,282
Kingston, City	7	210	2,009	8,720
Kingston, Town	1	18	116	307
Lloyd	18	133	1,273	4,165
Marbletown	4	85	512	2,020
Marlborough	6	86	619	1,862
New Paltz, Town	5	72	1,022	3,903
New Paltz, Village	0	21	261	1,398
Olive	10	42	238	854
Pattekill	13	86	747	2,443
Rochester	13	80	470	1,808
Rosendale	5	53	451	1,775
Saugerties, Town	14	154	1,127	3,672
Saugerties, Village	5	15	221	1,007
Shandaken	2	27	245	825
Shawangunk	5	68	673	2,036
Ulster	14	165	2,310	8,737
Warwarsing	11	117	769	2,696
Woodstock	1	38	324	1,292
Total	**153**	**1,706**	**15,069**	**55,598**

Figure 4.27 depicts fatalities and serious injuries by roadway ownership, showing mileage of each roadway ownership type throughout the county planning area from 2010 to 2018. While most of the mileage in Ulster County is made up locally-owned roadways, state-owned roadways contribute the highest total of fatalities and serious injuries. However, county facilities have the highest total of fatalities and serious injuries locally, despite accounting for only a third as much roadway mileage as town roadways. VMT, speeds and other factors do contribute to these totals, as shown in other crash datasets, but this does help highlight the need for targeted local roadway strategies and improvements.

Figure 4.27: Fatalities and Serious Injuries by Roadway Ownership and Centerline Mileage (2010-2018)



THE FREIGHT SYSTEM

SYSTEM CHARACTERISTICS

As previously noted, the safe and efficient movement of freight is important to economic prosperity. As is true across the country, the largest share of goods movement is by truck. Trucking offers direct origin to destination movement for both long haul and local delivery.

As part of the FAST Act, FHWA has developed a National Highway Freight Network (NHFN) to prioritize the distribution of Federal resources and policy for the betterment of the highway portions of the freight transportation system in the nation. While Ulster County does not include any roads identified in the NHFN, New York State recognizes that the mileage limitations on the national network precluded a number of critical statewide and regional highway freight corridors from designation in these networks. Interstate 87 provides a significant north-south connection through the state. Other major truck corridors in Ulster County include:

- US 9W paralleling the Hudson traversing the eastern portion of the county
- US 44 providing an east-west connection through the southern portion of the county
- US 209 running from the southwest portion of the county north to Kingston
- NY 28 connecting Kingston to the northwest portion of the county
- NY 32 paralleling I-87 as a north-south connector and accessing downtown New Paltz
- NY 212 providing an east-west connection from Saugerties to the Catskill Mountains
- NY 213 providing a connection from I-87 in Rifton north to Kingston
- NY 299 running east-west in the southern portion of the county through New Paltz

Figure 4.28 summarizes truck counts where available in the Ulster County freight network.

The major industries in Ulster County are construction, manufacturing, financial, professional/business services, education, and healthcare. Of these industries, construction and manufacturing will generate the highest amount of freight traffic to and from Ulster County. The NYS Thruway runs through the county, Ulster is the major source of the high level of through traffic coming from New York City and the Mid-Atlantic to areas further upstate and west to Buffalo. The retail sector generates continuous urban delivery truck movements.

In terms of waterborne cargo, the Hudson River is also designated as “Marine Highway 87”. The harbors at Kingston and Saugerties utilize this highway as do docking facilities for oil transfer along the Hudson within Ulster County. The most significant volume of freight is associated with the connection between Albany to New York City.

CSX owns the only freight rail line in Ulster County, formerly known as the West Shore line which runs north-south along the Hudson River, connecting New York City to Albany. This Class 1 line carries high volume goods to, from, and through Ulster County. A secondary switching yard exists in Kingston. Most of this line is single track with a recently installed double track location in the Town of Esopus.

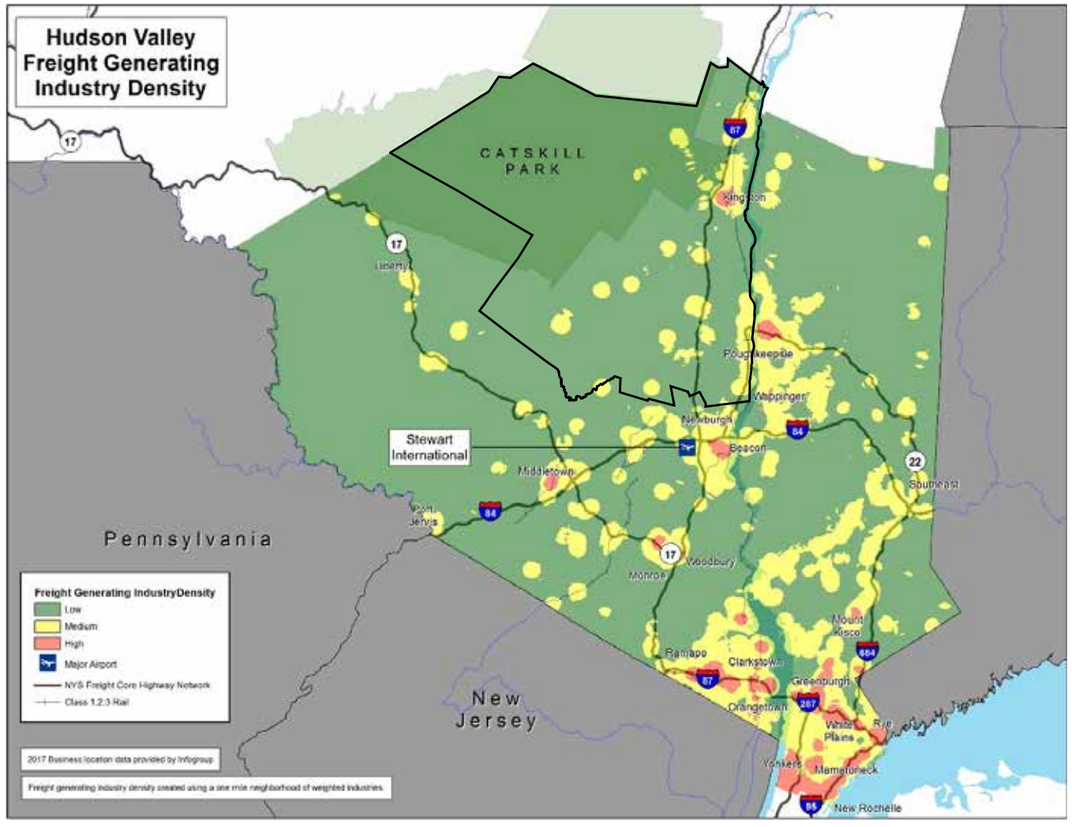
Figure 4.28: Truck Counts on Significant Freight Facilities [vi]

Road Name	Count Location	From	To	Count Year	Traffic Count	Trucks Count (Daily)	Percent Trucks (Daily)	Station
US 9W	Town of Esopus	RT 299	CR 24 North JCT	2015	11,744	2,079	17.70%	0018
US 9W	Town of Marlborough	Ulster CO Line	Milton Turnpike	2011	17,519	3,372	19.25%	0036
US 44	Town of Plattekill	CR 10 Milton Tpk	CR 22 Maple Ave	2016	4,469	843	18.86%	0278
US 209	Town of Hurley	CR 8 Wyncoop Ave	RT 28	2015	14,293	2,831	19.81%	0540
NY 28	Town of Ulster	RT 209	Ulster/ Kingston T/L	2015	18,867	3,717	19.70%	0226
NY 28	Town of Shandaken	RT 212 MT Temper	RT 214 Phoenicia	2015	5,628	1,185	21.06%	0230
NY 32	Town of New Paltz	CR 154 Horsenden Rd	Start 32/213 OLAP	2016	8,909	1,753	19.68%	0270
NY 32	Town of New Paltz	Start RT 32 OLAP at Chestnut	CR 154/ Horsenden rd	2013	10,087	1,110	11.00%	0025
NY 32	Town of Plattekill	RTS 44 55 Modena	Ulster Co LN	2016	5,038	827	16.42%	0244
NY 212	Town of Woodstock	CR 47A Rock City Rd	RT 375	2016	9,611	1,582	16.46%	0551
NY 213	Town of Rosendale	CR 26A	Start 32/213 OLAP	2015	6,531	1,342	20.55%	0592
NY 299	Town of New Paltz	Springtown rd	Start RT 32 OLAP at Chestnut	2015	12,968	1,760	13.57%	0573

SYSTEM USE

The majority of Ulster County's top trade partners on the state/international level are within the northeast. Pennsylvania, New Jersey, Massachusetts, and Connecticut are all major export and import trade partners.

Figure 4.29: Hudson Valley Region Freight-Generating Industry Density [vii]



Source: NYSDOT

Through the review of local and national trade partners, it is clear that much of the traffic entering and exiting Ulster County utilizes major interstates, like the NY Thruway. The CSX rail line carries high volume freight cargo to, from, and through the Ulster County, while various low-volume, high-value commodities may arrive via Albany International Airport, north of Ulster County in Albany, or Stewart International Airport, south of Ulster County in Newburgh, and travel to Ulster County via truck.

RAIL FREIGHT

The West Shore Railroad is the only active rail freight line in Ulster County. The line runs from Weehawken, New Jersey, across the Hudson River from New York City, north along the west shore of the river to Albany, New York and then west to Buffalo. Passenger service on the line ended completely by 1960. The line now serves as CSX Transportation's principal freight route from Western points to New Jersey, via the former NYC Selkirk Yard. West of the Hudson Palisades, beginning at North Bergen Yard in Bergen, NJ, the line is now referred to as the River Subdivision of CSX Transportation and passes directly through Ulster County as shown in Figure 4.30.

Local trains delivering freight to businesses and industries located along the River Subdivision operate out of yards located at North Bergen, NJ; Kingston, NY and Selkirk, NY. Other than local freight, commodities include grain, oil, ethanol, trash, and other mixed intermodal and commodity freight. Bakken crude oil shipments are also travelling more frequently on the corridor as well, with full shipments generally heading south for refinement in New Jersey and empty tank cars returning north.

RAIL TRAFFIC AND RAIL SAFETY

The most recent count data available for the West Shore Rail Line in Ulster County was compiled in 2012 as part as the Boices Lane Rail Road Crossing Safety Assessment. Daily regularly scheduled trains that cross the at-grade railroad crossing on Boices Lane were provided by CSX for the month of August 2012 as part of that study. Weekday and weekend data is shown below. Consultation with NYSDOT Region 8 Rail staff in 2020 indicated that these 2012 volumes continue to be representative of more recent observations.

Crude oil shipments heading south through Kingston for refinement.

Figure 4.30: CSX West Shore Line

Figure 4.31: West Shore Line Train Movements (as provided by CSX September 2012)

Day of the Week	Total/Day	South/Day	North/Day
Monday	23	12	11
Tuesday	27	12	15
Wednesday	30	14	16
Thursday	31	15	16
Friday	29	14	15
Saturday	27	14	13
Sunday	24	13	11
Week Totals	**191**	**94**	**97**

A mother with three children traverses the uneven gap between sidewalk segments at the CSX track on Foxhall Ave. in Kingston. The City of Kingston has secured funding to provide new sidewalks in this location and is working with NYSDOT to secure HSIP Rail funds to improve the crossing. Source: UCTC July 2018.

The issue of rail safety has become a topic of increasing concern among residents and officials, after several tragic collisions between CSX trains and automobiles and pedestrians in Saugerties and the City of Kingston. In 2019, UCTC joined a panel of staff from agencies including CSX, Federal Railroad Administration, local law enforcement and safety, and NYSDOT to discuss possible measures to reduce these types of collisions in the City and beyond. Education and enforcement of respecting private property where rail operations occur was chief among the suggested recommendations. This was followed by a focused effort to reach out through face to face contact, lectures and educational materials to area residents and students that interact directly with CSX properties.

From 2010 to 2019 there have been 9 crashes involving trains in the UCTC planning area. However, this statistic only examines crashes along the roadway reported through the typical crash reporting methods and does not typically included incidents involving pedestrian trespass along CSX properties. Over the same 2010 to 2019 period there were 18

reported incidents involving trespassers on CSX property resulting in 11 fatalities and 9 injuries. Figure 4.32 shows the location of crashes and casualties as reported through crash and Federal Rail Administration data. The majority of crashes and trespass incidents occur in the City of Kingston.

SYSTEM OPERATIONS

MAP-21, followed through in the FAST Act, shifted the focus of the metropolitan transportation planning process to a performance-based, outcome-oriented perspective. As discussed in the Introduction, this means that UCTC must select projects, actions, and strategies in the long-range plan that will result in a regional transportation system that best meets the needs of the traveling public across a variety of dimensions. These include not only asset management and safety, but also mobility and the reliability of travel.

"F) Operational and management strategies.

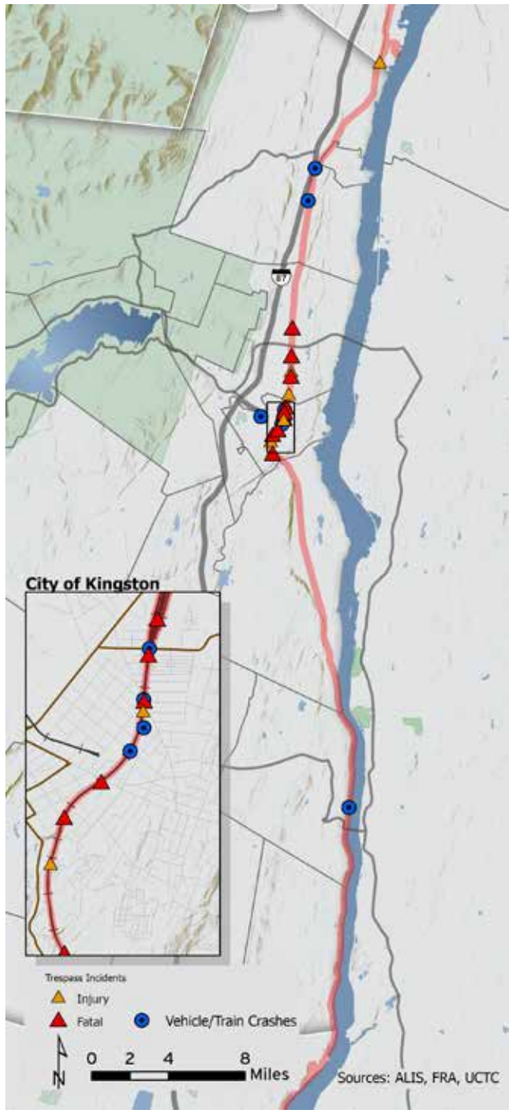
Operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods."

23 U.S. Code § 134. (h)(i)(2)(F)

TRAFFIC OPERATIONS MANAGEMENT

Ulster County is served by a network of roadways ranging from interstate expressways to local town and village streets. Recent traffic volume counts and network analyses show that, for the most part, there is little traffic congestion in Ulster County and travel within the region occurs without excessive delay. However, there are isolated areas where intersections or roadway segments experience moderate to severe recurring delays. One such area is the Route 28 Corridor in the Town of Ulster at the roundabout area. Traffic congestion in this area is caused by the confluence of State Routes 28, 209, Interstate 587, and the NYS Thruway. Other areas experiencing recurring traffic delays in Ulster County include the Kingston Broadway Corridor,

Figure 4.32: Rail Safety Incidents



Kingston Uptown Stockade District, Route 9W in the Towns of Ulster and Marlborough, Route 299 in New Paltz and Lloyd, and the Mid-Hudson Bridge.

In addition to recurring traffic congestion, several areas in Ulster County experience moderate to severe nonrecurring traffic congestion. Nonrecurring congestion is congestion caused by nonrecurring events such as crashes, disabled vehicles, blocked railroad crossings, work zones, adverse weather events, and planned special events. Areas in Ulster County experiencing significant nonrecurring congestion include the NYS Thruway and the West Shore Railroad Corridor area in Kingston. Nonrecurring congestion can occur anywhere at anytime and is difficult to measure or predict.

Figure 4.33 shows existing traffic congestion in 2014. This data was obtained from the UCTC's travel demand forecast model, which computes current and future roadway volume-to-capacity (V/C) ratios using various data inputs such as household, employment, posted speeds, roadway functional classification and the physical characteristics of the roadways.

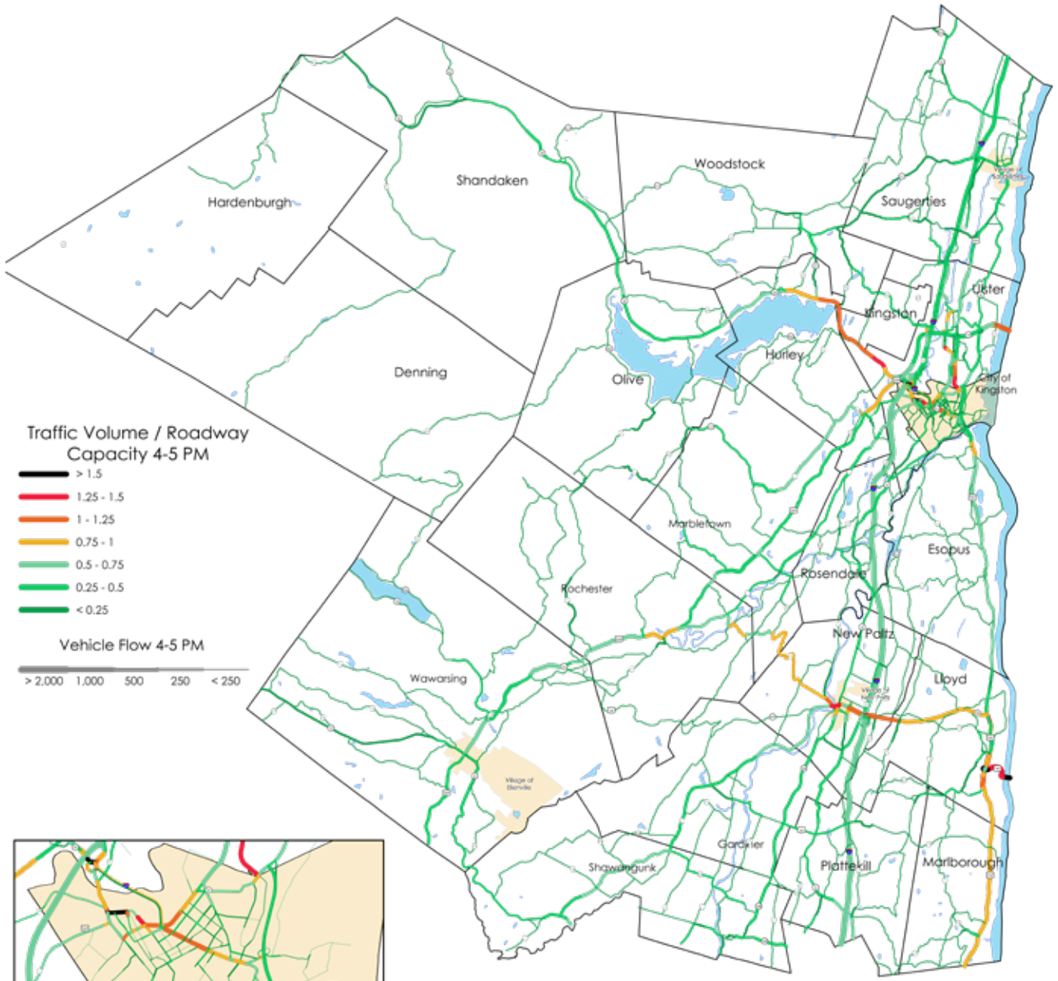
Future growth with no system improvements is expected to exacerbate existing areas of congestion with few new areas of congestion appearing. Instead, congestion will expand to adjacent segments along existing areas of congestion.

Since 2006 there has been a steady downward trend in Vehicle Miles Traveled (VMT) at the local level. This trend has continued as evidenced in Figure 4.34. Statewide VMT follows a similar trend, with current levels Continuing to decline. Keeping these trends in mind, VMT and congestion are expected to increase at a slower rate than previous models have shown but are still expected to grow.

FROM PLANNING TO PROJECTS: BROADWAY IMPROVEMENTS

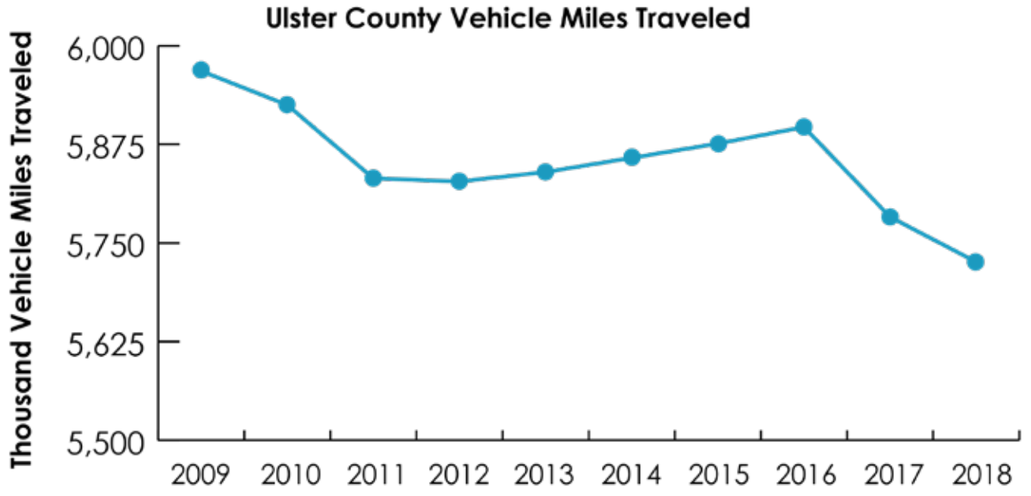
The metropolitan planning process seeks to foster a collaborative and cooperative framework to guide transportation investment decisions. There is perhaps no better example of this process than on Broadway Avenue in Kingston. As far back as 2008, UCTC – at the request of NYSDOT and City of Kingston – began a planning process to address congestion and safety concerns at the I-587 intersection with Broadway and Albany Avenue. The process included an interactive charrette with local residents who were asked to explore street traffic safety configurations with NYSDOT, county staff and design experts. The final series of recommendations included a preference to convert this complicated intersection into a modern roundabout. Later, in 2015, UCTC was again approach by the City to begin examining the entire Broadway corridor to address pedestrian and cycling safety concerns, traffic flow, and aesthetics, resulting in the "Build a Better Broadway" corridor study. Since that time, UCTC staff have worked closely with local sponsors and NYSDOT to ensure that funding was secured for project implementation, including nearly $13 million in combined federal, state and local aid. Today in 2020, the major components of these two landmark studies are under construction, resulting in improvements that will last for decades to come.

Figure 4.33: Year 2014 Volume/Capacity and Total Traffic Flow



City of Kingston

Figure 4.34: Yearly VMT in Ulster County



Mohonk Road, County Route 6, Town of Marbletown

Our transportation system has evolved from something that is static and provides a defined level of service to something that can be actively managed to optimize the level of service in real time. Technology, generally under the terminology of Intelligent Transportation Systems (ITS), has done a great deal to enable regional transportation system management and operations. This can typically be accomplished at a significantly lower cost than a capital project that constructs new roadway capacity. This approach does result in ongoing annual costs for staffing traffic management centers, software licenses, and the like. Application of management and operations strategies can be grouped in these areas:

- **Traffic Management –** Actively managing traffic flow results in more efficient mobility. This can be accomplished in a number of ways. Computer controlled traffic signal systems do a much better job of optimizing signal timing, avoiding unnecessary delay. The most advanced of these systems is known as traffic adaptive signal control that optimizes signal timing continuously in response to the volume of traffic, pedestrians, and other users. An arterial signal system can be equipped with transit signal priority, which enables buses to trigger a green light to stay on schedule. In situations where there is high peak volume and very directional flow in opposite directions in the AM and PM periods, reversible lanes can be used. In this case, a center lane is reversed to provide added capacity for the predominant direction. Variably priced toll lanes, often known as High Occupancy Toll (HOT) lanes because they usually are available to other than single-occupant vehicles, can be created on expressway facilities. The price is adjusted dynamically in response to traffic volume to maintain free flow conditions. The ability to display variable speed limits is another tool that can be used to improve safety and traffic flow on congested freeways.

- **Incident Management –** This is a subset of traffic management whose objective is to improve response to highway incidents to restore traffic flow more quickly. This requires promptly detecting the incident, both through 911 calls and use of closed-circuit television cameras and other devices, and accurately dispatching the appropriate emergency services resources. It also means response agencies, including police, fire, EMS, transportation or public works departments, and towing companies sharing standard operating procedures and training. The Strategic Highway Research Program (SHRP2) developed a multidisciplinary training course for these responder groups. The course is now available through New York State DOT. The National Unified Goal for Traffic Incident Management addresses safe, quick clearance; responder safety; and interoperable communications.

NYSDOT provides free roadside emergency services on major highways throughout the state.

- **Traveler Information –** Informed travelers make better decisions regarding their mode, route, and time of travel. When information about transportation system conditions is transmitted in real time, the entire system can operate more efficiently. For example, when an incident occurs that closes lanes on a roadway, upstream drivers can be informed to find alternate routes or use preplanned detours, reducing the traffic queue. Similarly, people can be informed ahead of time of severe weather and road conditions, and be provided with routing information for large special events. This can also benefit tourists who are not as familiar with the roadway system as local residents. Systems can also be put in place to assist those who want to use public transit, with applications to plan their trip, see the schedule, and be informed at stops when the next bus or train will arrive. There are a number of techniques and devices that are used to facilitate traveler information. In 2000, the Federal Communications Commission designated 511 as a national traveler information number. In the intervening years, state and local governments developed 511 systems. 511NY can be accessed both by phone and through the Internet at www.511ny.org. It provides both real time information and trip planning services for a variety of modes across the state. Dynamic or variable message signs (DMS/VMS) have become commonplace on our highways, as has Highway Advisory Radio (HAR) to inform motorists of road conditions. In recent years, there has been a shift from public agency to private sector provision of traveler information. There are a number of Internet applications that perform these functions, including Google™ maps that show current traffic and assist with route selection; and Waze©, which collects data from smart phones of users who are logged on to determine traffic conditions.

511
Traffic, Travel and Transit Info
www.511ny.org

- **Electronic Toll Collection (ETC) –** Systems like E-Z Pass® New York create multiple benefits. By automating toll collection on the New York State Thruway and various bridges, ETC speeds traffic flow through toll barriers, thereby reducing congestion. Toll tags are required for the HOT lane pricing technique discussed above. Finally, tags can be used as traffic probes to monitor traffic flow and speed through a series of roadside readers. In that instance, identifying information is stripped from the data to ensure privacy of account holders.

- **Commercial Vehicle Operations –** This is a subset of ITS that is dedicated to making truck transport safer and more efficient. It involves such techniques as electronic verification of a truck's credentials, and weigh-in-motion where appropriately equipped trucks do not have to stop at weigh stations. One of the newer techniques involves electronic logbooks that are transmitted to the trucking company's dispatcher to verify the truck's location and the driver's compliance with federal hours-of-service rules. This is not yet a publicly accessed function, but may become so.

- **Other Management Systems –** Parking management systems are typically deployed in central business districts. They can be used to notify drivers via the Internet of the availability of parking spaces in garages and lots. This can save both time and cost associated with people circulating around a downtown looking for parking. Port and terminal management systems can control the flow of trucks in and out of a facility to maximize mobility and efficiency.

The U.S. DOT connected vehicle research program is a multimodal initiative that aims to enable safe, interoperable networked wireless communications among vehicles, infrastructure, and personal communications devices. Connected vehicle research is sponsored by the DOT and others to leverage the potentially transformative capabilities of wireless technology to make surface transportation safer, smarter, and greener. Research has resulted in a considerable body of work supporting pilot deployments, including concepts of operations and prototyping for more than two dozen applications.

http://www.its.dot.gov/pilots/

The use of technology has great potential to expand beyond these applications in order to improve safety and efficiency of travel. The U.S. Department of Transportation has been sponsoring the Connected Vehicle research program (see box). This has a dual focus on vehicle-to-infrastructure communication (V2I) and vehicle-to-vehicle communication (V2V). One example of using this technology to improve safety is the Cooperative Intersection Collision Avoidance System (CICAS). When connected vehicles talk to each other and the traffic signal, crashes caused by red light running may be eliminated. Drivers may receive active warnings of pedestrians waiting to cross the street, or cyclists in a bike lane.

The ultimate success of the Connected Vehicle program will require commitments from public agencies to instrument the infrastructure, and from automobile and truck manufacturers to instrument their vehicles according to communications standards promulgated by U.S. DOT.

CONGESTION MANAGEMENT PROCESS

Congestion continues to be an issue that UCTC has worked to measure and define, locate, manage, and integrate and evaluate in the planning process. Member agencies of the Mid-Hudson TMA including UCTC, OCTC, and DCTC, have undertaken efforts to address congestion concerns in the region through the Congestion Management Process (CMP). As part of the work completed, a macro analysis was conducted to identify key congested areas in the region on the National Highway System (NHS) utilizing data from the National Performance Management Research Data Set (NPMRDS) and the assistance of AVAIL Labs. These areas were identified using a number of congestion measures including Level of Travel Time Reliability (LOTTR), Truck Travel Time Reliability (TTTR), Travel Time Index (TTI)), and Total Excessive Delay per Mile (TED/mile).

Hairpin turn on Route 44/55.

Each of the congestion measures—LOTTR, TTTR, TTI, and TED/mile—employs a threshold of acceptability for road segments on the NHS.

For LOTTR, there is a national threshold of 1.5, indicating that travel time during the worst period fluctuates by 50 percent. This threshold was set by FHWA in their performance measure reporting and adopted by all three Mid-Hudson MPOs. For TTTR the CMP analysis used 3.99, which is the threshold established for the Upstate region (including the Mid- Hudson TMA) in the NYS Freight Plan[viii]. For TTI, there is no such national standard. The CMP analysis used a threshold of 2.0, meaning that it takes twice as long to traverse a segment during the most congested period as it does during a free-flow period. There is also no national threshold for TED/mile, and values range widely across different areas. The CMP analysis used 40,000, which is the same figure chosen by the Syracuse Metropolitan Transportation Council and results in a similar passing rate to the LOTTR and TTI thresholds.

Figure 4.35 provides a summary of NHS roadways in the Mid-Hudson TMA and their relation to the threshold values for the identified congestion measures.

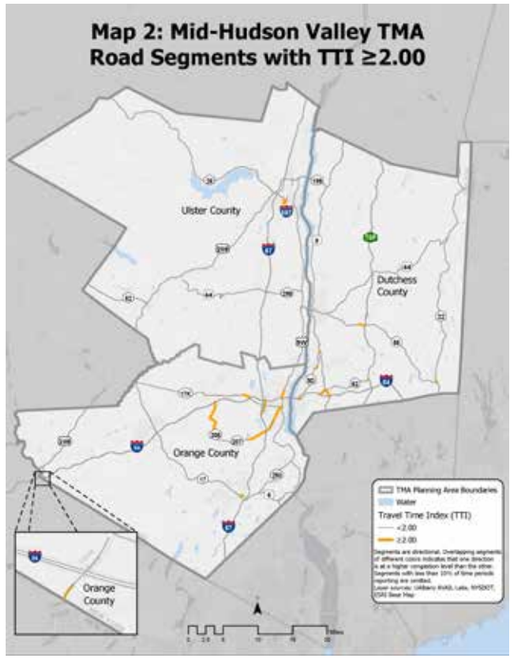
Figure 4.35: TMA – Overall Congestion & Reliability

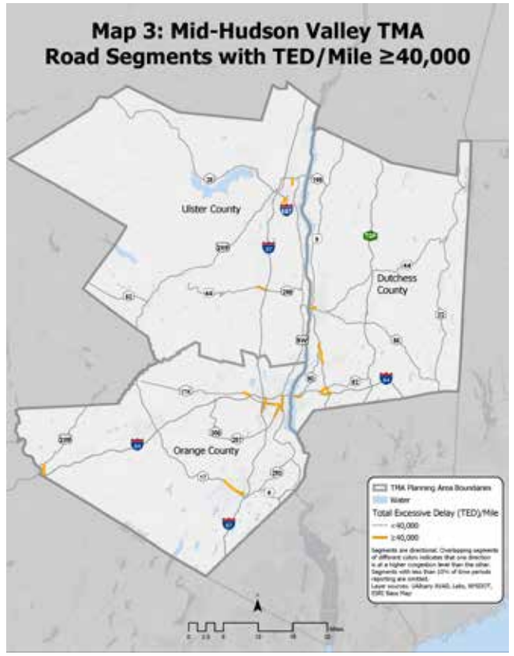
Measure	Threshold	% of Segments Passing	% of Roadway Miles Passing
TTI – Peak Period Congestion	2.0	94%	97%
TED/mile – Total Congestion	40,000	90%	96%
LOTTR – Reliability	1.5	89%	94%
TTTR – Freight Reliability (Interstates Only)	3.99	95%	98%

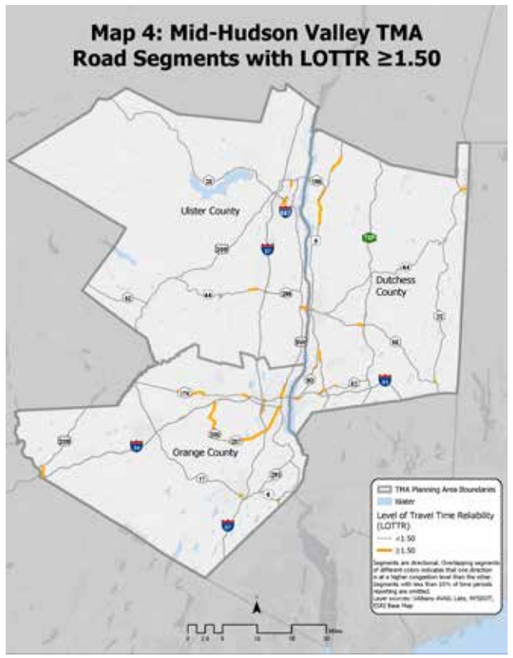
Based on 2018 data, 94% of Traffic Message Channels (TMCs) that meet the data completeness threshold 'passed' the peak period congestion (TTI) threshold of 2.0. For reliability (LOTTR), 89% of segments 'passed' the threshold of 1.5, while 90% of segments 'passed' the threshold of 40,000 for total congestion (TED/mile), and 95% of interstate segments 'passed' the threshold of 3.99 for truck reliability (TTTR). Because many of the failing segments are small fragments near intersections and interchanges, the percentage of roadway miles that pass these thresholds is even higher. The majority of the roadway mileage that does not meet the threshold values in the TMA occurs outside of the UCTC planning area. Figure 4.35 provides the locations of segments not meeting the thresholds set out in the CMP.

The Mid Hudson Valley Bridge.

Figure 4.36: Mid-Hudson TMA CMP Segment Threshold Analysis [ix]







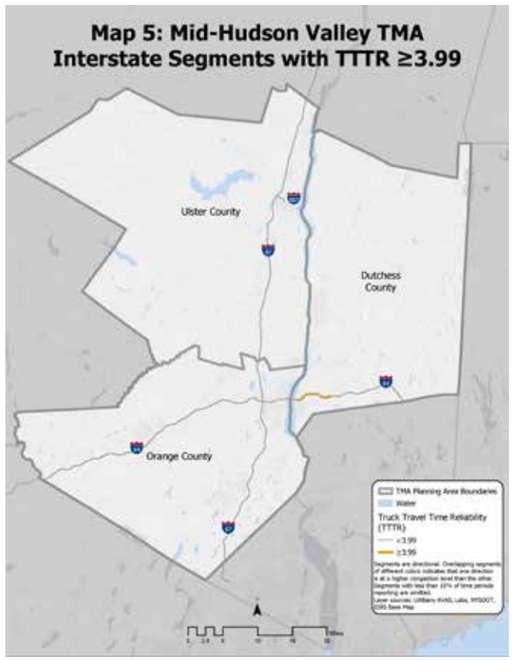
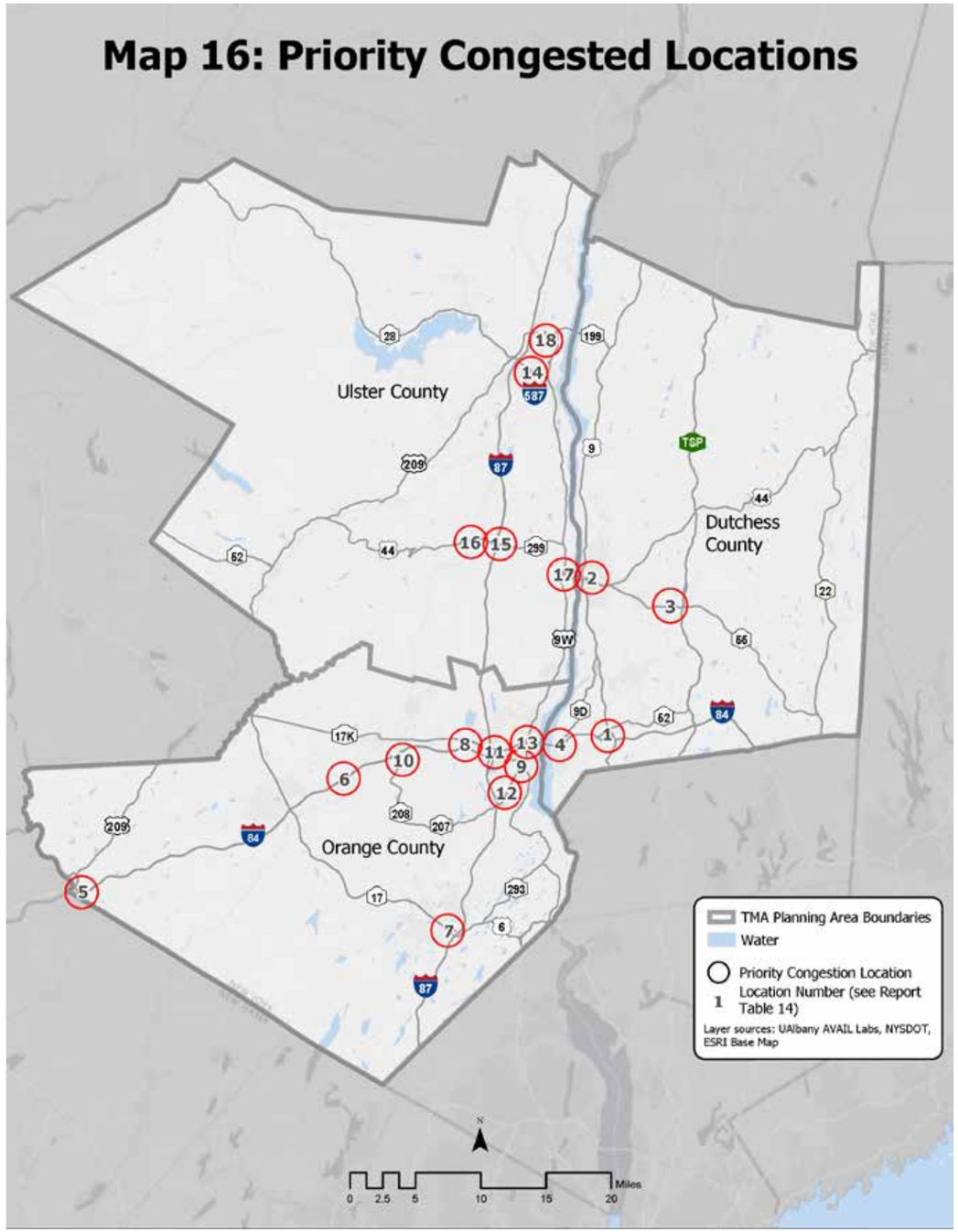


Figure 4.37: Mid-Hudson TMA Priority Congestion Locations [x]



In addition to the threshold analysis, the CMP also established a list of Priority Analysis Locations of the worst performing segments in the TMA for further review. Through the next step of the CMP, these locations will be examined to identify the underlying issues and consideration will be given to projects that alleviate those conditions contributing to congestion. Figure 4.37 contains the Priority Congestion Locations identified in the CMP.

The Priority Locations identified in Ulster County include I-587 and Route 32 (14), Route 299 near I-87 (15), Route 299 near Route 32 (16), Route 44/55 near the Mid-Hudson Bridge (17), and Route 9W near Route 199 (18). Construction is currently underway in at the intersection of I-587 and Route 32 to install a roundabout to help alleviate some of the congestion experienced at the location. UCTC will continue to advocate for the advancement of plans and projects to address congestion throughout the planning area and region, with a specific focus on those locations cited above.

[i] New York State Department of Transportation Road Inventory System (RIS)
[ii] New York State Department of Transportation Road Inventory System (RIS)
[iii] Statewide Mass Transportation Operating Assistance Program (STOA)
[iv] American Community Survey, 2018. Commuting Characteristics by Sex. Table S0801
[v] US Census, Table S2504: Physical Housing Characteristics for Occupied Housing Units, Ulster County, ACS 5 Year.
[vi] New York State Department of Transportation Traffic Data Viewer, https://www.dot.ny.gov/tdv
[vii] New York State Department of Transportation New York State Freight Transportation Plan 2019
[viii] New York State Department of Transportation New York State Freight Transportation Plan 2019
[ix] Congestion Management Process for the Mid- Hudson Valley Transportation Management Area: Technical Memo 1: TMA-wide Macro-Level Screening
[x] Congestion Management Process for the Mid- Hudson Valley Transportation Management Area: Technical Memo 1: TMA-wide Macro-Level Screening

V. SUSTAINABILITY, CLIMATE CHANGE AND TRANSPORTATION RESILIENCE

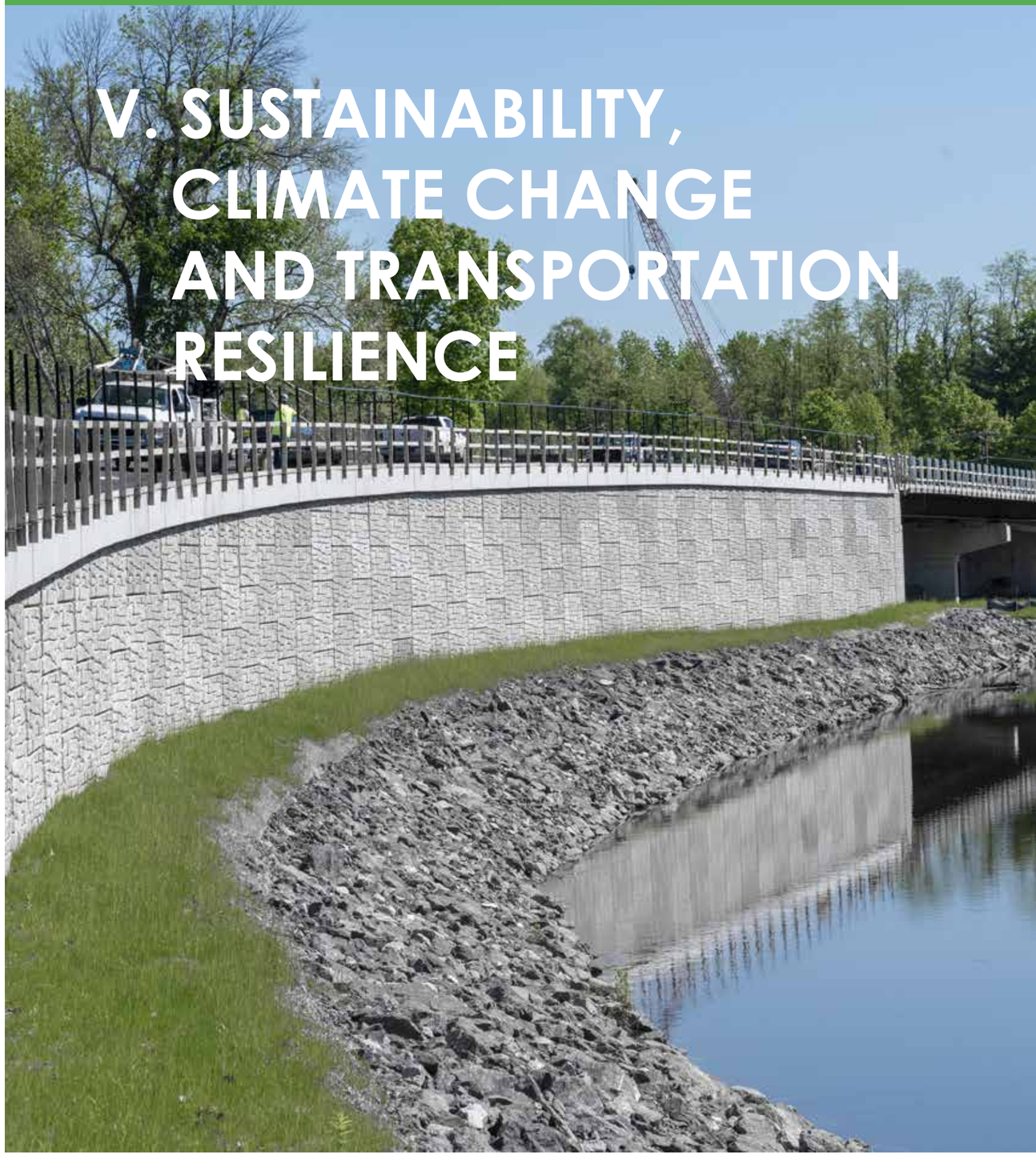


Photo by: KC Engineering and Land Surveying, PC

MITIGATION OF TRANSPORTATION IMPACTS ON THE ENVIRONMENT

"A long-range transportation plan shall include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan."

23USC134(i)(2)(D)

It is incumbent on UCTC to broadly consider the potential environmental impacts of the actions proposed in the long-range transportation plan, and programmatic means to mitigate those impacts. In doing so, it is important to differentiate this discussion from the detailed project-level environmental analysis that is required under the National Environmental Protection Act (NEPA). An example of a programmatic mitigation is addressing air quality impacts from emissions from construction equipment involved in pavement and bridge projects.

There are many different types of environmentally sensitive areas and potential impacts to the natural and human environment that may be affected by various actions associated with the 2045 LRTP.

These include (but are not necessarily limited to):

- Threatened and Endangered Species
- Wetlands
- Floodplains
- Surface and Ground Waters
- Stormwater Management and Erosion and Sediment Control
- Hazardous Materials
- Air Quality
- Historical/Cultural Resources
- Right-of-Way/Property Impacts, Including Impacts to Parks, Farmland and Neighborhoods
- Scenic Viewsheds
- Traffic and Train Noise
- Climate Change

Procedure and technical guidance on environmental matters relating to the planning, design, construction, operation, and maintenance of transportation facilities is detailed in the NYSDOT Environmental Procedures Manual.[i] In addition, Chapter 7 ("Overview of Environmental Process") of the NYSDOT Procedures for Locally Administered Federal Aid Projects (PLAFAP) manual discusses the project advancement and environmental procedures that must be followed to satisfy applicable environmental laws, including the NYS Smart Growth Public Infrastructure Policy Act.[ii] NEPA and SEQR, and many other State and federal environmental regulations, require that environmental considerations be addressed in transportation decision making, plans and programs. Most transportation capital and maintenance projects have the potential to affect natural and human-made resources in both positive and negative ways. Lead agencies and project sponsors in charge of transportation projects and MPOs must strive to ensure full and objective consideration of all reasonable alternatives that avoid adverse impacts to the environment and communities. Where adverse impacts are unavoidable, lead agencies and project sponsors must identify the impacts and incorporate measures to mitigate impacts to the maximum extent practicable.

Flooded Road.

Certain environmentally-sensitive areas are easily identified and mapped through well-established state and federal programs and their associated digital resources. These include state and federally-protected wetlands and floodplains. In addition, the locations of historical/cultural resources and threatened or endangered species can be accessed and evaluated on a location-specific basis through available mapping and databases as well as through consultation with state and federal agencies such as the NYS Department of Environmental Conservation, the State Office of Parks, Recreation and Historic Preservation, the US Army Corps of Engineers, and the Federal Fish and Wildlife Service, as well as other similar or supporting local, state and federal offices.

The Ulster County Planning Department and the Ulster County Department of the Environment have developed several geographic resources to help communities in Ulster County plan for the protection of sensitive areas and focus development in areas capable of supporting growth and having access to needed infrastructure. These "Activity Centers" are shown in the map on page 49. The UCTC, through Plan 2045, will utilize this geographic resource as a tool to assist in the development of plans and projects that will enable the transportation system in these areas to meet the challenges that come with growth.

All of these resources together provide the foundation for programmatic environmental mitigation. UCTC is committed to examining the potential for negative impacts from the overall program of projects, actions, and strategies that comprise Plan 2045, and to institute programmatic responses.

CONSULTATION WITH RESOURCE AGENCIES

In an effort to coordinate the discussion of potential environmental mitigation activities, the UCTC contacted appropriate Federal, State, and tribal, wildlife, land management, regulatory and resource agencies regarding the 2045 Long Range Transportation Plan. Responses received can be found in Appendix C.

SUSTAINABILITY, CLIMATE CHANGE AND TRANSPORTATION RESILIENCE

Sustainability is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[iii] The concept known as the "triple bottom line" functions as the predominant theory addressing sustainability in practice. Triple bottom line (TBL) accounting expands the traditional reporting framework to consider not only financial performance, but also environmental and social performance. The theory and practice of sustainable transportation has evolved from these basic concepts. Today it is regarded by federal and state agencies as an important component of transportation planning and it is one that Ulster County Transportation Council strives to integrate into its daily operations.

Triple Bottom Line of Sustainability

At its core, sustainable transportation refers to the planning, design, construction, and operation of transportation facilities in a manner that will have minimal or zero net negative impact on the natural environment. This is achieved through a variety of mechanisms at programmatic and project levels. On a programmatic level, it includes adherence to federal aid procedures for projects – in particular, federal and state permitting and environmental review processes. It also includes serious evaluation of the need for new facilities in the first place, seeking to avoid unnecessary investments and their possible negative long-term impacts. On a project level, it involves the integration of innovative approaches that mitigate or diminish negative impacts on the environment into the design and construction process. Techniques are being developed that extend the life of transportation infrastructure and make maintenance activities more environmentally friendly. Of increasing importance in our understanding of transportation's impacts on the environment is the recognition of the transportation-land use connection, which identifies cumulative impacts that transportation systems can have on communities and the environment over time, primarily through induced growth brought on by the presence of new or expanded transportation facilities. Finally, identifying and encouraging technologies that can reduce transportation's contribution of green house gas emissions represent a central component to the implementation of sustainable transportation.

CLIMATE CHANGE

NYSDOT GreenLITES Program

GreenLITES (Green Leadership In Transportation Environmental Sustainability)," a transportation environmental sustainability rating program. NYSDOT developed the GreenLITES certification program to better integrate these principles by:

- Recognizing and increasing the awareness of the sustainable methods and practices we already incorporate into NYSDOT project designs and daily operations.
- Expanding the use of these and other innovative alternatives which will contribute to improving transportation sustainability.

GreenLITES is a **self-certification program** that distinguishes transportation projects and operations based on the extent to which they incorporate sustainable choices. This is primarily an internal management program for NYSDOT to measure our performance, recognize good practices, and identify where we need to improve.

UCTC's approach to climate change and transportation resilience is based on multi-layered guidance established through local, state, regional, and federal precedent and action. In 2010, New York State along with 10 other U.S. states and the District of Columbia signed a Declaration of Intent to create the Transportation and Climate Initiative of the Northeast and Mid-Atlantic States (TCI) – a regional transportation approach intended to help states build the clean energy economy of the future. The group, which includes the New York State Department of Transportation, New York State Department of Environmental Conservation, and New York State Energy Research and Development Authority, has agreed to work together with other member agencies to reduce greenhouse gas emissions, minimize the transportation system's reliance on high-carbon fuels, promote sustainable growth and address the challenges of vehicle-miles traveled.

COMMUNITY TRANSPORTATION PLANNING ASSISTANCE

The UCTC sets aside annual funding to allow MPO and Planning Department staff to provide planning and design assistance as well as educational training for communities in developing their comprehensive plans, establishing design parameters for major projects, establishing access management and pedestrian/bicycle provisions in land use controls, and assisting in decision-making for capital investments and designs that become part of or impact the transportation system. A primary goal is to ensure that communities understand the fundamental link between transportation and land use.

Today, the TCI is directed by state and district agencies located within the 13 TCI jurisdictions of New York, Vermont, New Hampshire, Maine, Massachusetts, Connecticut, Rhode Island, New Jersey, Pennsylvania, Maryland, Delaware, Virginia, and the District of Columbia.

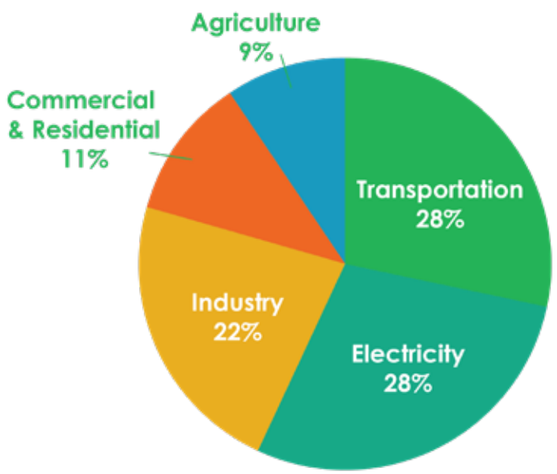
In June of 2019, New York State lawmakers agreed to the NYS Climate Leadership and Community Protection Act (6 NYCRR Part 496) – the most ambitious climate legislation enacted in the United States to date. The Act will require the state to achieve a carbon free electricity system by 2040 and reduce greenhouse gas emissions 85% below 1990 levels by 2050. Efforts over the past decade to reduce emissions in New York State have focused on the power sector, making New York's electricity some of the cleanest in the nation. Given that transportation is now the largest and growing share of GHG emissions in New York State and the region, **emissions from fuel consumption have been identified through the Act as a primary target for reduction.**

TRANSPORTATION & CLIMATE INITIATIVE
Of the Northeast and Mid-Atlantic States

Recognizing that more than one third of all carbon emissions come from the transportation sector, participating states started taking action through working groups focused on regional priorities, such as clean vehicles and fuels. Several TCI states are also now working together to explore potential regional policies to improve transportation systems and reduce pollution.

https://www.transportationandclimate.org/content/about-us

Figure 5.1: Total Greenhouse Gas Emissions by Economic Sector, Entire US. Source: US EPA (2018) Inventory of US Greenhouse Gas Emissions, 1990-2016.



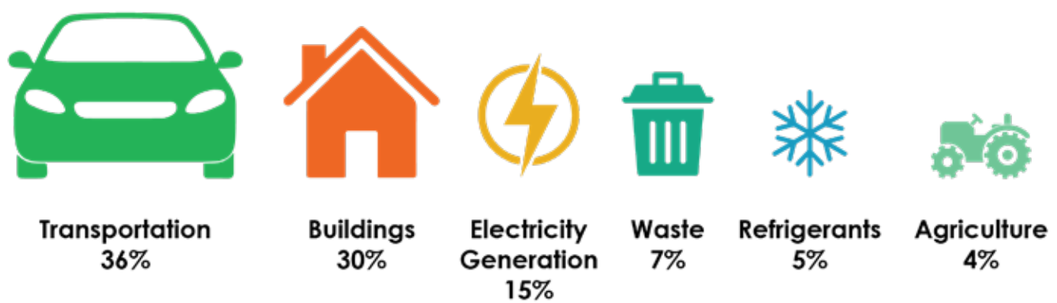
A CLOSER LOOK: TRANSPORTATION AND GREEN HOUSE GAS EMISSIONS IN NEW YORK AND ULSTER COUNTY

According to the US EPA, transportation generates the largest share of greenhouse gas emissions (GHGE) in the United States, accounting for 28% of total GHGE. Greenhouse gas emissions from transportation primarily come from burning fossil fuel for our cars, trucks, ships, trains, and planes. Over 90 percent of the fuel used for transportation is petroleum based, which includes primarily gasoline and diesel.[iv]

In New York State, the share of transportation as a source of total GHGE is even greater, with transportation accounting for 36% of the state's GHGE footprint. According to the NYS Greenhouse Gas Inventory, carbon dioxide (CO2) largely accounts for transportation GHG emissions from fuel use at 98%; methane and nitrous oxide (N2O) account for the remaining mix of GHGE from on-road, gasoline-fueled vehicles.[v] In addition, note that in this analysis vehicles not primarily used for transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse tractors and forklifts) are classified in the sector of primary use, be it commercial or industrial.[vi]

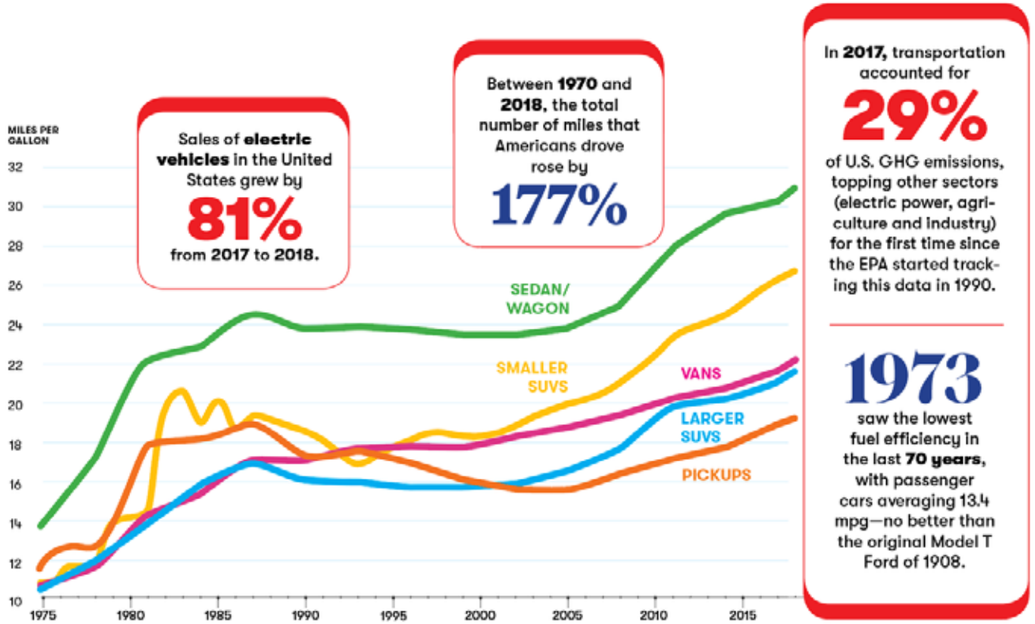
Developing a greenhouse gas (GHG) emissions inventory is one of the first steps toward setting emission savings goals and measuring progress toward achieving those goals. While a variety of sophisticated methods exist to calculate GHGE at the local level, data is often limited and becomes obscured when attempting to scale down to more detailed levels of analysis. A simple method that communities can use to estimate GHGE is to use local vehicle-miles-traveled (VMT) and average fuel economies to calculate total fuel consumption and GHG emissions.

Figure 5.2: Main Sources of Greenhouse Gases in NYS



Source: NYSDEC

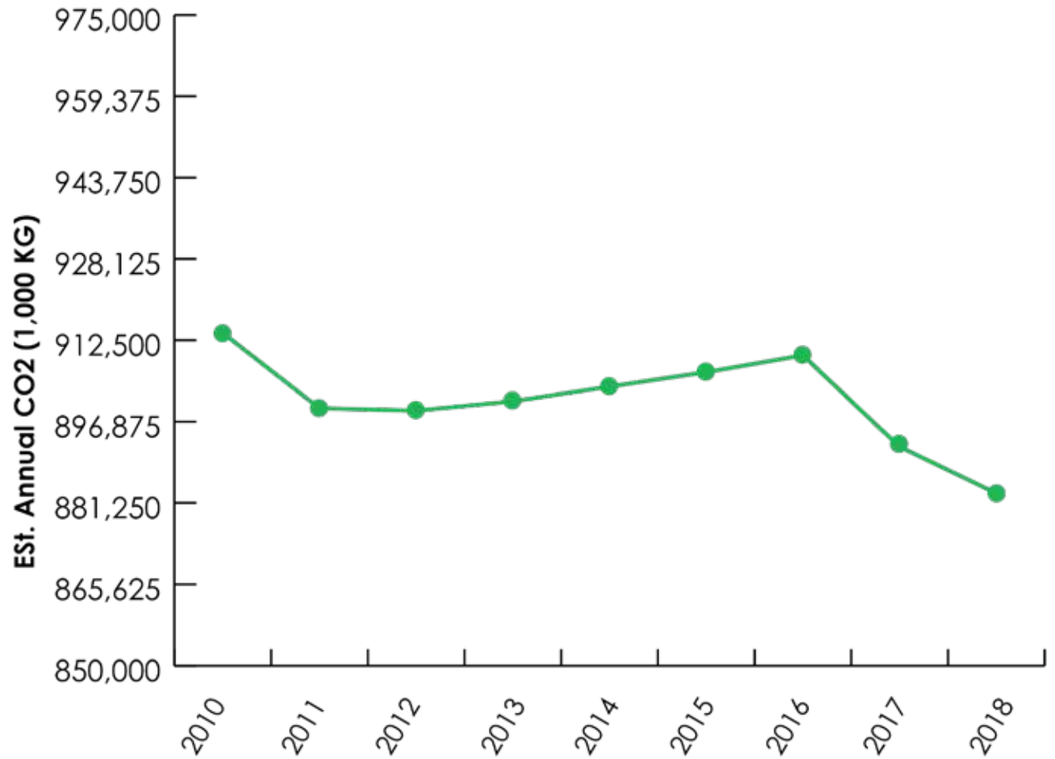
Figure 5.3: Share of Vehicles on the Road, Entire US[vii]



Even though tail pipe emissions continue to improve, more vehicles on the road means a steady increase in GHGE over time.

Climate change is directly linked to more frequent and intense precipitation events, which can increase the risks of flooding and extreme events and impact transportation infrastructure.

Figure 5.4: Estimated Annual Green House Gas Emissions from On-Road Transportation Sources, Ulster County, 2010 - 2018



The chart above illustrates the estimated carbon dioxide emissions on an annual basis in Ulster County using annual VMT estimates applied to all on-road vehicle classes. The rapid decline in estimated emissions between 2016 and 2018 is likely attributable to deceases in both annual VMT and overall fuel consumption.

Light duty vehicles that burn regular gasoline – passenger cars, light trucks, vans and sport utility vehicles – accounted for nearly 64% of GHGE from transportation in 2018. While many of the brands of vehicles on the road may be relatively fuel efficient with decent emissions standards, their disproportionately large share of the transportation system explains their collective impact on total emissions. This is further illustrated by travel to work data for Ulster County.

According to the US Census Bureau, 77.2% of people employed in Ulster County travel to work alone; private vehicle commuter travel accounts for a total of 85% of trips to work, further underscoring the impacts that the share of light duty vehicles on the road has on GHGE in Ulster County.

Figure 5.5: Share of Vehicles on the Road, Ulster County, 2018

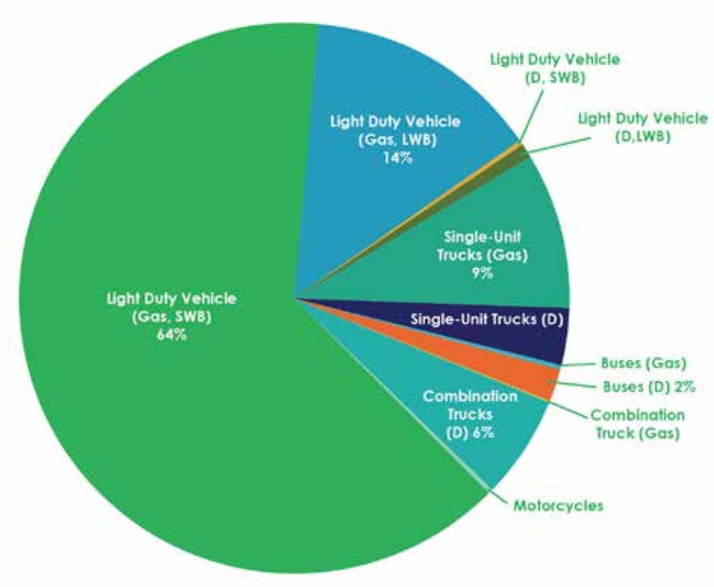
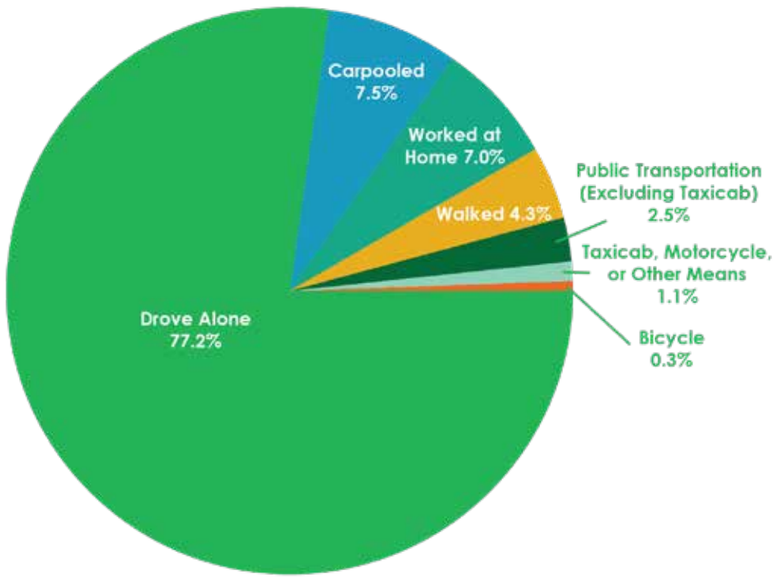


Figure 5.6: Journey to Work Modal Distribution, Ulster County, 2018

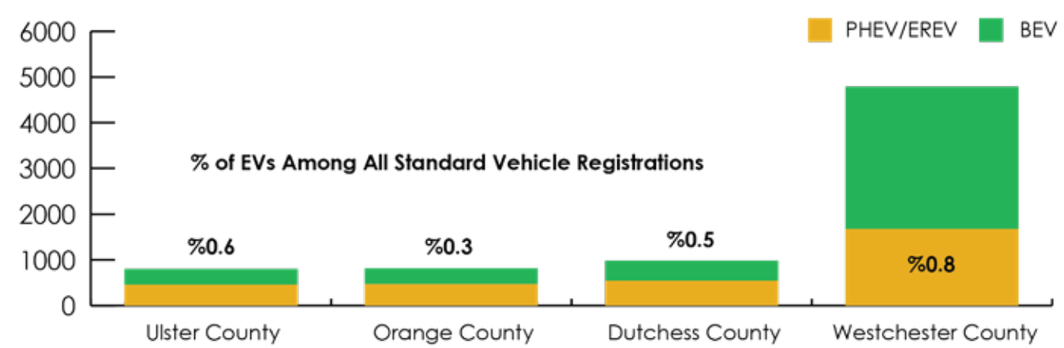


Firetruck being rescued by tow truck from culvert that has collapsed due to severe flooding.

In addition to policies that encourage drivers to leave their cars at home and seek alternatives to single-occupancy motor vehicle travel, solutions that make those vehicles cleaner to use must be developed if tangible reductions in GHGEs are to be achieved. Electric vehicles are very likely the best answer to that problem at this time.

EVs represent a very small share of the vehicle fleet among the universe of registered vehicles in the region and across the state, typically accounting for less than one percent of all standard registrations depending on location. Dense metropolitan areas are likely to see the largest share of EVs at this time due to a variety of factors, such as shorter average trip distances, higher concentration of charging stations, and larger household incomes. A snapshot of EV ownership trends across the Mid-Hudson and NY Metropolitan regions supports these assumptions.

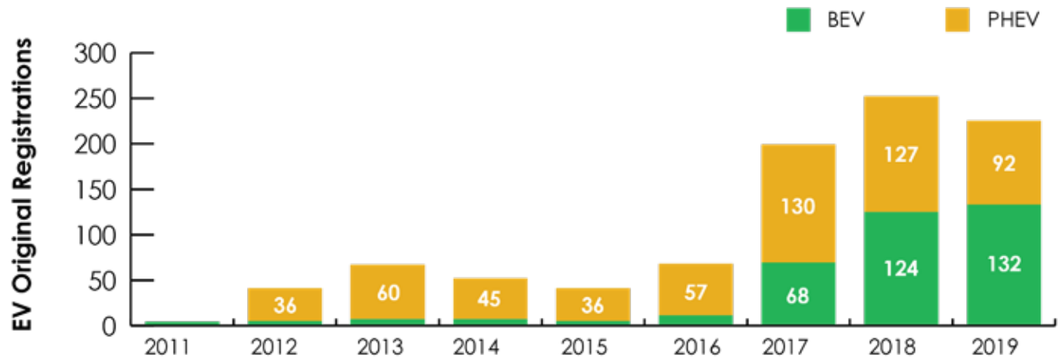
Figure 5.7: EV Registrations for Selected Counties, 2020

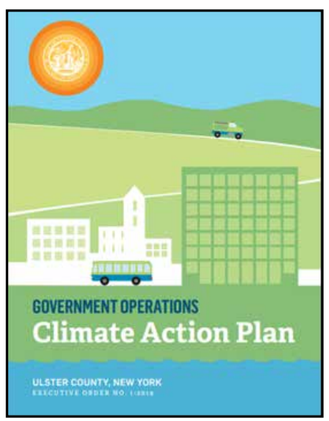


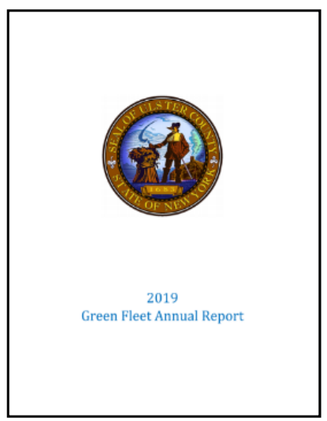
PHEV = Plug In Hybrid Vehicle BEV = Battery Electric Vehicle EREV = Extended Range Elec. Vehicle

While the total number of registered EVs is relatively small compared to all vehicles, the share has been growing. As shown below, the number of EVs registered in Ulster County **TRIPLED** between 2016 and 2018. Over time, the rate of change and share of EVs will depend largely on economic conditions, state and federal financial incentives for purchase, fuel costs, and EV range per charge.

Figure 5.8: EV Registrations in Ulster County Over Time







Local action by communities will be a key factor in the success of GHGE reduction

ASSESSING VULNERABILITIES

The transportation sector consists of an interconnected system of assets and derived services, but a changing climate undermines the system's ability to perform reliably, safely, and efficiently. Many federal, state and municipal agencies have developed frameworks and tools to assess climate change transportation resilience. In response to the major flooding events of Super Storm Sandy and Hurricane Irene and Lee, NYSDOT developed the Scour Critical/Flood Prone Bridge Program, an initiative developed to strengthen New York State's at-risk bridges to withstand the increasing frequency of severe weather events and storms. To date, NYSDOT has replaced at least 5 bridges in Ulster County on critical corridors that will be more resilient to future flooding, including the Mt. Tremper bridge on Rte 28 shown here, which is being built higher and longer to avoid Esopus Creek floodwaters.

TRANSPORTATION RESILIENCE

Transportation Resilience refers to the ability of the transportation system to withstand, respond to, and recover rapidly from natural and man-made disruptions.

While developing plans and policies to reduce GHGEs, states and communities are simultaneously trying to effectively manage, operate, and maintain a safe, reliable transportation system that is under increasing threats posed by a changing climate. Extreme weather events are becoming more frequent and intense due to climate change, and long-term climatological trends are slowly but inexorably changing how transportation systems need to be planned, designed, operated, and maintained. A "new normal" is evolving and State departments of transportation (DOTs) are turning their focus toward building resilience. [viii] Recognizing these challenges, in 2015 the Federal Highway Administration published its Climate Change Adaptation Guide. [ix] The Guide outlines methods to incorporate climate change considerations into how agencies plan and execute their transportation system management and operations (TSMO) and maintenance programs to help the agency become more resilient to unanticipated shocks to the system.

Example of severe flooding and resulting infrastructure and property impacts.

Adaptation seeks to address anticipated potential future changes resulting from a changing climate, such as higher sea level, more frequent and intense weather events, and increased temperatures. Each of these has an impact on transportation infrastructure and operations and is of particular concern in the Ulster County Metropolitan Planning Area. There are over 40 miles of tidal coastal area in the Hudson River Valley that is subject to impacts from rising seas. There are also numerous rivers and streams that are prone to flooding. Severe flooding and storm

surge damage from Hurricane Irene in August of 2011 and Tropical Storm Sandy in October 2012 illustrate the seriousness of extreme weather events. Given the long life span of transportation assets, planning for system preservation and safe operation under current and future conditions constitutes responsible risk management, a concept addressed through transportation resiliency planning. Resiliency, requires a system-wide approach to providing transportation services before, during, and after an event. It is critical to ensure that evacuation, emergency response, and short and long-term recovery are not impeded by loss of facilities. This is done through assessing vulnerability and applying adaptation strategies to selected infrastructure.

Sustainable transportation is an element of creating sustainable communities, addressing issues associated with quality of life, livability, and social equity. A key component of creating livable communities is having transportation choices available to everyone. A multimodal system that integrates walking, bicycling, transit, and automobile access is one that provides residents with more choices of where to live, work, and play. Integrating land use planning with transportation improves livability by fostering a balance of more compact mixed-use neighborhoods that recognizes the importance of proximity, layout, and design to help keep people close to home, work, services, and recreation. Recognition of the importance of neighborhood character, community, and social justice in the planning and execution of transportation investments has therefore been integrated into the process itself when it is done well.

Sustainable transportation in practice can also be a mechanism by which federal, state and local agencies can conserve limited fiscal resources. By focusing on the right investments, in the right place at the right time, these agencies can accomplish the goal of establishing a sustainable transportation system that reduces unnecessary growth and new facilities, lowers the costs associated with maintenance, and avoids repeated risks to investments.

This notion forms the basis of the NYS Department of Transportation's "Forward Four" Principles, developed in 2012 in an effort to guide transportation investment decisions in an era of limited financial resources.[x] The Principles place a priority on transportation investment decisions that preserve the existing system through a focus on preventive, corrective and demand work. Its system perspective elevates the discussion from the project level to a consideration of the most effective methods for managing financial and operational risk. It emphasizes return on investment and investing in a transportation system that "considers the relative and cumulative value of transportation assets as they benefit the public, economy and environment."

NYSDOT's "Forward Four" Guiding Principles of Sustainable Transportation

Based on the above data and discussion, the following mitigation measures should be considered when developing UCTC transportation policy.

Figure 5.9: Possible Measures to Reduce Emissions and Improve the Transportation System for All Users[xi]

Electrification (Buses & Freight)	Electrification (Personal Vehicles)	Sustainability Planning	Regulatory Incentives	Affordability	Driver Pricing Reforms/Cost Incentives	Infrastructure Improvements	Public/ Alternative Transportation Options
Port Equipment Electrification	Rebates & Tax Incentives ✓	Transit-Oriented Development and In-fill Development	Real Estate Level of Service Review	Income-Based Transit Fares; Discounts for kids, seniors ✓	Dynamic Parking Prices	State-of-Good-Repair improvements for Roads ✓	Expansion of transit service to underserved areas ✓
Electrify Local Delivery Vehicles	EV Charging Infrastructure Incentives ✓	Non-road Equipment (Farms, Construction, Lawn equipment)	Transit Oriented Zoning	Direct Rebates/ Dividend ✓	Congestion Pricing	State-of-Good-Repair improvements for Transit ✓	Rural Public Transportation ✓
Electrify Transit Bus Fleets ✓	Electrifying Carshares/ Rideshares	Adjusting Routes to Avoid Traffic	Transportation Demand Management	Financing Programs for EVs ✓	Weight Distance Fees	Complete Streets ✓	Caresharing and Bikesharing ✓
Electrify School Buses (V2G Potential)	Carpool Lane Access for ZEV's	Resilient Transportation Infrastructure ✓	Road Safety Liability	Telework ✓	Parking Pricing and Parking Cash Out	Bond Measures	Rideshare and Vanpools ✓
Zero-emission Fleet Commitment ✓	Public Awareness Programs ✓	Active Transportation and Community Planning ✓		Tax Credits ✓	Occupancy and High Traffic Pricing	Bike Accommoda-tions ✓	Employer-sponsored Transportation
Heavy-duty EV Utility Rate Design Reform	Vehicle Retirement Incentive Programs ✓				Pay as You Drive	Traffic Calming ✓	Bus rapid Transit & Express Bus Routes

Future iterations of the Long Range Transportation Plan will seek to establish focused metrics such as those shown above that can be analyzed over time to measure progress.

Measures with a ' ✓ ' indicate those that have been advanced within Ulster County through Federal, state or local initiatives.

[i] NYSDOT Environmental Procedures Manual. Available online at https://www.dot.ny.gov/divisions/engineering/environmental-analysis/manuals-and-guidance/epm
[ii] NYSDOT PFLAP Application. Available online at https://www.dot.ny.gov/divisions/operating/opdm/local-programs-bureau/locally-administered-federal-aid-projects
[iii] World Commission on Environment and Development (1987). Our Common Future. Oxford: Oxford University Press. p. 27.
[iv] https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#t1fn2
[v] Page 29 https://www.dec.ny.gov/docs/administration_pdf/ghgguide.pdf
[vi] https://www.dec.ny.gov/docs/administration_pdf/ghginv2019.pdf
[vii] Source: "The Road More Travelled" Smithsonian Magazine. https://www.smithsonianmag.com/history/when-michigan-students-put-car-trial-180974374/
[viii] https://ops.fhwa.dot.gov/publications/fhwahop15025/fhwahop15025.pdf
[ix] https://ops.fhwa.dot.gov/publications/fhwahop15026/fhwahop15026.pdf
[x] NYSDOT. http://www.cdtcmpo.org/policy/jun12/forward.pdf
[xi] https://www.dec.ny.gov/docs/administration_pdf/climtranslides081519.pdf

VI. GOALS, OBJECTIVES, PERFORMANCE MEASURES AND NEEDS

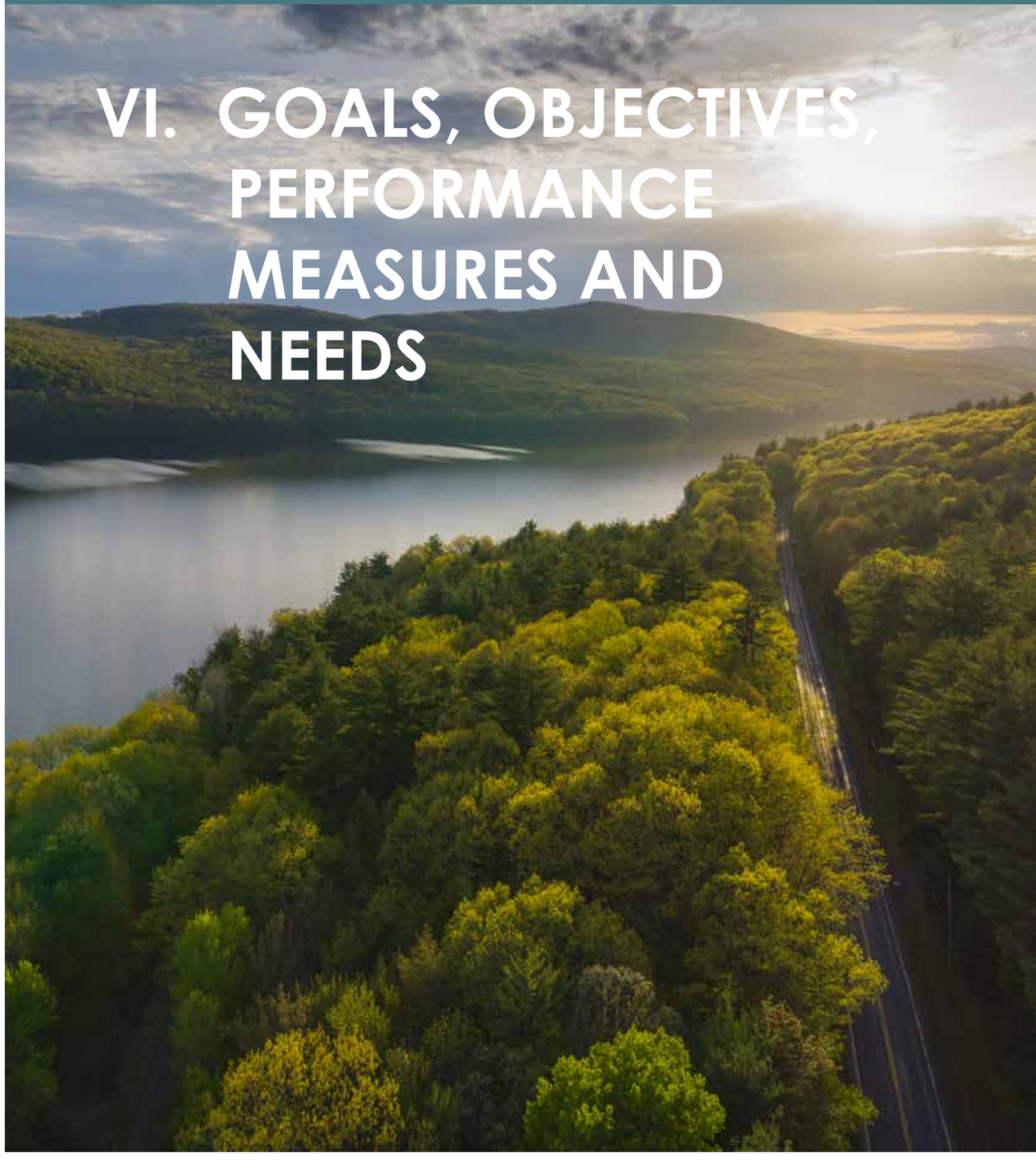


Photo by: Gerald Berliner

GUIDING PRINCIPLES

The LRTP needs were determined using the following major principles:

An Affordable Transportation System: Affordability is a key determinate that underlies the discussion of need. With limited fiscal resources, every jurisdiction that owns and operates part of UCTC's transportation system must consider what they can afford to operate, maintain and improve now and in the future. Elements of the transportation system that are overbuilt may need to be realigned to new forecasts of population growth or economic activity. Pressure to accommodate high traffic volume even when it occurs infrequently, such as peak recreation or holiday volumes, may need to be overlooked in favor of more pressing maintenance needs and changing trends may force investment for safety or sustainability reasons such as cycling or climate change. The transportation system plan must be SMART enough to adapt to these needs and flexible enough direct the financial resources where they are needed most. One example of this is consideration in the context of infrastructure age and condition, such as when bridge is nearing the end of its predicted useful life, the owner may want to replace it, but may only be able to afford a rehabilitation that will add ten years to the life cycle.

The needs in this Plan have been constrained by forecasts of affordability.

Land Use Focus: The LRTP focuses on Primary Corridors and the places they link in order to support an efficient land use pattern of compact development capable of serving the multimodal needs of urban centers. These centers include Kingston, Ulster, New Paltz, Saugerties, Woodstock, and Ellenville and the smaller hamlets along these corridors of Rosendale, Marlboro, Highland, Gardiner, Wallkill, Stone Ridge and Phoenicia. The corridors themselves will also receive priority in project selection for system preservation and multimodal mobility actions.

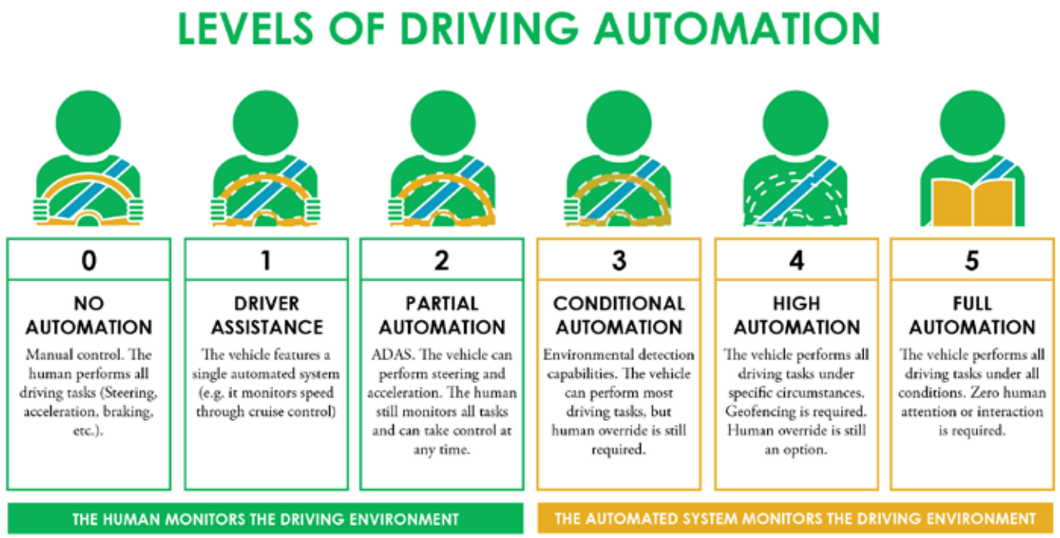
User Expectations: Another balance that must be struck is between the expectations of transportation system users and the feasibility of meeting those expectations. Input from stakeholder and public meetings and other contacts (see Appendix D) was utilized to understand these expectations. With the advent of performance-based, outcome-oriented planning, the user perspective must be more explicitly considered in the development of the Plan. As UCTC moves ahead in measuring and reporting performance across a number of metrics, the public and decision makers will be given more explicit information on how planned investments are impacting their travel. An example of this is the regional Congestion Management Plan. While the perspective of the travelers may help UCTC set priorities, fiscal constraint and engineering feasibility will impose limits on meeting expectations.

Main Street, Phoenicia *Ulster County NY*

Technological and Social Change: This LRTP relies on the credible forecasts of future conditions, some of which are seen in both National and State policies such as climate change, use of alternative fueled vehicles, disruption in the transit sector, and the needs of an aging population. There is also the recognition that unanticipated changes can happen that may have profound impacts on community and transport needs. This is one reason behind the requirement that the LRTP be updated at least every five years.

The LRTP recognizes a number of potential major shifts from traditionally understood transportation system functions. While these do not explicitly affect the quantification of need, they are worthy of discussion.

- **Transportation technology:** Level 1 autonomous vehicle features are now optional among a wide variety of new vehicles today. The next generation of self-driving cars will be entering the fleet in greater numbers within the time horizon of this plan, including across delivery, freight and transit sectors. Connected vehicles communicate continuously with other vehicles and with roadside infrastructure like traffic signals. The primary focus is a positive impact on safety resulting from a variety of crash-prevention and crash-avoidance applications. Autonomous vehicles perform across a continuum of self-driving features. Simple applications like self-parking cars are available now. Fully autonomous cars are currently in testing and development. When these vehicles reach full acceptance, they have the potential to influence everything from car ownership to travel demand. People currently unable to drive, including children, seniors, and those with disabilities, may be able to rely on autonomous cars for transport. Early examples of automated trucks are also in development. These may increase efficiency of long haul trips by obviating the need for driver hours-of-service rules; and assist in the implementation of off-hours urban delivery schemes.
- **Shared Mobility:** Shared mobility is an umbrella term that encompasses a variety of transportation modes including carsharing, bikesharing, peer-to-peer ridesharing, on-demand ride services, microtransit, and other modes. Shared mobility has the potential to vastly decrease the costs of transportation for users by allowing riders to select the mode that best suits their needs, thereby releasing them from the burden of car ownership and single-occupancy trip generation. Simultaneously, the distribution of the costs and benefits that shared mobility will have on public transit, local congestion, and transportation equity, are not yet fully known or understood.
- **Communications technology:** There is no question that the Internet and related communication technology will continue to evolve. This will have unknown impacts across many industries, and on individual lifestyle choices, including greater emphasis and popularity of remote work and learning, which changes trip types and VMT generation.
- **Sustainable communities:** There is a growing focus on how to become more sustainable in terms of energy generation and consumption, locally sourced food, and urban form and structure. There may be unexpected improvements in any of these areas that can affect travel demand and mode choice.



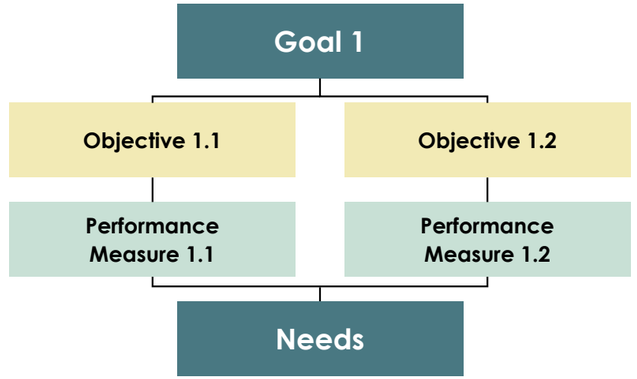
Source: https://www.synopsys.com/automotive/autonomous-driving-levels.html

- **On-line Shopping:** Increased use of on-line shopping will create additional needs related to freight and local delivery while at the same time offer a reduction in congestion at major retail centers.
- **Climate Change:** State policies as well as local goals will drive increase use of electric vehicles significantly altering emissions over the life of the LRTP as well as seeing the introduction at scale of charging technology.
- **Mode Shift:** increase focus on walkable communities, trails, and bicycle use will drive the need to invest in pedestrian and bicycle facilities over the life of the Plan.

GOALS

Goals form the foundation of the LRTP. They offer explicit guidance on the priorities for the investment of transportation dollars, the outcome of that investment and the importance to the region served by the Ulster County Transportation Council.

The Goals are founded on three core principles: that the transportation system must serve the needs of its community today, respond to change, and be affordable for all users. Implementation of these simple principles relies on understanding the complex interactions of preservation versus expansion, accommodation of new or expanding uses and different modes, and the use of new products or technology. Goals are the base on which stand the strategies, plans, and priorities for investment.



The Goals in the LRTP were developed in coordination with the following::

- UCTC leadership, through the Policy and Technical Advisory Committees.
- The FAST Act, which established seven National Performance Management Goals that all states and MPOs must use as a basis for performance-based planning (see Introduction, p. 4).
- The New York State Department of Transportation, which has a set of principles called the Forward Four. These principles define NYSDOT's overall approach to its stewardship of the State Highway System which are detailed in Section 2 of this report (System Performance).
- Stakeholder and Public Input.

Note: Goals are not in order of priority. Priorities are established as projects, strategies, and actions.

OBJECTIVES

Each Goal is supported by a series of **objectives**. Objectives add specificity, spelling out how implementation will support goal achievement. The objectives in the LRTP are specific, measurable, achievable, relevant and time-bound ("SMART") For example, "Improving pedestrian safety" as an objective is not SMART, while "Reducing pedestrian fatalities and severe injuries from crashes by 10% over the first 10 years of the Plan" can form the basis for selecting actions.

PERFORMANCE MEASURES

Objectives are in turn supported by **performance measures**. To initiate performance-based planning, the UCTC has selected metrics that will be used to measure achievement or progress on each objective. In each case, there must be a means to collect or access the necessary data, analyze it, create solutions, and fund

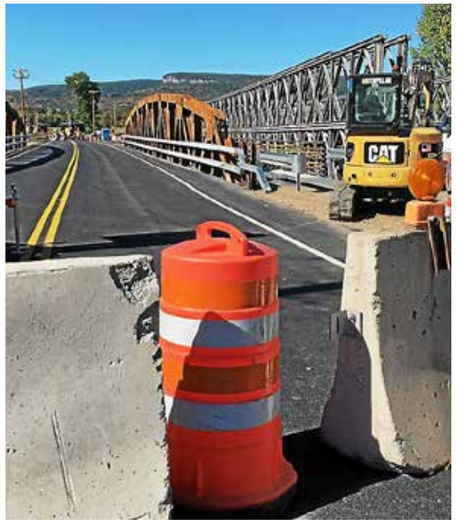
implementation. It should be noted funding is a major challenge to achieve many of these objectives. One example is the lack of federal funds to meet long term local bridge goals while at the same time local funding for bridges is hampered by the NYS-mandated tax cap. The tax cap limits many smaller municipalities capabilities to fund transportation improvements.

NEEDS

The LRTP directs the investment of available resources towards meeting the region's priority **needs**. Priority Needs are determined using the using the following decision process:

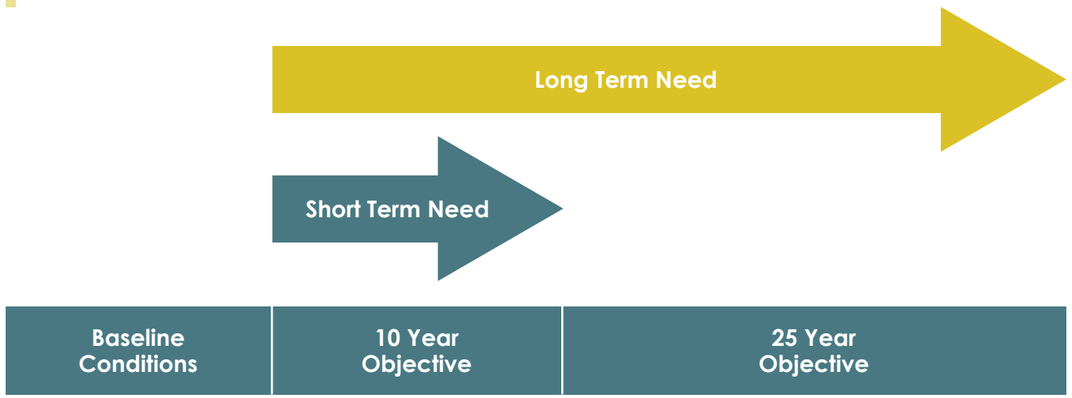
- Guiding Principles: Affordability, Land Use, User Expectations, Technological and Social Change.
- Plan Objectives: Identify the most important objectives to accomplish over the life of the plan"
- Current Conditions and Forecasts: Examine barriers and solutions based on current knowledge.

Needs span the twenty-five year reach of the plan. Some may be addressed in the near term, while others will be of greater concern ten or twenty in the future. Sometimes satisfying needs is sequentially dependent, when a preliminary step facilitates the next one.



The Carmine Liberta Memorial Bridge crosses the Wallkill River in New Paltz.
Daily Freeman

Figure 6.1: Transportation Objectives and Time-Based Need



The illustration above depicts the concept of time-based need and may apply to any of the transportation system elements. Using bridge condition as an example, the baseline may be 28% Good, the 10-year objective is to increase that to 45% Good, and the 25 year objective to 60% Good.

FEDERAL PERFORMANCE MANAGEMENT REQUIREMENTS

The following eight Ulster County LRTP goals, objectives and performance measures were developed prior to the January 2018 US DOT Performance Measurement requirement and represent the UCTC's core focus areas. They should not be confused with Federal Performance Management Goals, which are detailed in the System Performance Report in Section 7 of this document.

GOAL 1: SYSTEM PRESERVATION

Wynkoop Rd bridge in Hurley.

Invest in transportation system infrastructure to bring all facilities and modes into a state of good repair.

The UCTC is committed to continuously evaluating the condition of our roads and streets, bridges, sidewalks, transit buses and facilities, and traffic signals and other devices. System Preservation will rely on utilizing a risk-based asset management approach. Investment decisions will utilize NYSDOT's "preservation first" methodology as opposed to a "worst first" approach. This approach applies low to moderate cost treatments to more assets that are in fair condition to extend their service life for several years rather than spending greater dollars fixing those assets that are already in poor condition and whose further deterioration does not greatly increase the cost of repair. Achieving this goal requires striking a balance between projects that address infrastructure that is already in poor condition and those that apply the preservation approach to infrastructure in fair condition.

OBJECTIVE 1.1 – BRIDGE INFRASTRUCTURE

- **A** Reduce the number of structurally deficient bridges on the State highway system by 10% by 2025, and 20% by 2045.
- **B** Reduce the number of locally owned structurally deficient bridges by 5% by 2025, and by 10% by 2045.
- **C** Improve functionally obsolete bridges that are not structurally deficient only when the bridge poses a demonstrable safety hazard, or an impediment to economic development.

Performance Measure 1.1: Number of structurally deficient bridges reported by NYSDOT to the National Bridge Inventory.

Status

The definition of Structurally Deficient (SD) changed in 2018 and removed some additional conditions that could trigger a bridge to be considered structurally deficient. Despite this change in methodology, the number of structurally deficient bridges reported in the NBI increased from 69 bridges to 85. This increase occurred largely on the local bridge system which increased from 48 to 66. Improvements were seen on the state system from NYSDOT and the NYSTA with a reduction of 3 structurally deficient bridges. This emphasizes the importance of bridge funds for the local system which encompasses nearly 60% of bridges in the UCTC MPA.

Number of Structural Deficient Bridges

Owner	2014	2019
City	1	0
County	36	47
Town/Village	11	19
NYSDOT	13	12
NYSTA	7	5
NYSBA	0	0
NYC Water	1	2

Need – Bridges

To meet the short-term objective for bridge conditions, there will be 5 fewer State bridges and 10 fewer local bridges classified as structurally deficient by 2025.

To meet the long-term objective for bridge conditions, there will be 10 fewer State bridges and 20 fewer local bridges classified as structurally deficient by 2045.

In all cases, bridges on critical corridors and within urban areas will receive priority.

OBJECTIVE 1.2 – PAVEMENT INFRASTRUCTURE

A Reduce the number of lane-miles of pavement on critical corridors rated Poor or IRI rated Unacceptable by 20% by 2025.

B Reduce the number of lane-miles of pavement on other State Touring Routes rated Poor, or IRI rater Unacceptable by 15% by 2025.

C Achieve a State of Good Repair for all Federal-aid eligible pavements by 2045, where that is defined as "State of good repair is the condition state of the system that can be maintained in perpetuity at the lowest annual cost."

Performance Measure 1.2: Pavement ratings, using NYSDOT surface scoring methodology and International Roughness Index.

Status

Data collection on locally owned streets and roads continues to be a significant need. NYSDOT implementation of routine pavement scoring has lagged behind promised timelines. Accordingly, UCTC lacks knowledge of the extent of the need on the local system and the owners of these roads do not have a basis for making the best pavement management decisions.

Needs - Pavements

Significant mileage of arterial pavements on the State Touring Route System are rated Fair, or have IRI scores rated unacceptable. NYSDOT faces significant challenges to meet stated pavement goals. A "Preservation First" approach will make the most economically efficient use of available fiscal resources for pavement work. The LRTP directs NYSDOT Region 8 to support and implement a focus on Primary Corridors first.

OBJECTIVE 1.3 – TRANSIT INFRASTRUCTURE

A Maintain the UCAT a fleet to meet the Federal Transit Administration guidelines for service life for each category of bus over the life of the Plan.

Performance Measures 1.3: Transit fleet profile updated annually; UCAT Transit Asset Management (TAM) Plan.

UCAT Bus at the ready.

Status

Refer to Appendix B for full UCAT transit fleet profile.

Needs - Transit Fleet

UCAT acquired the Kingston Citibus fleet in 2019 and is in a continual process of fleet modernization. As of 2020, UCAT has 35 active fixed route buses, 7 active paratransit buses and 4 support vehicles. The average age of fixed-route vehicles is 5.5 years and the average age of paratransit vehicles is 6.5 years. UCAT has begun the long-term process of fleet electrification with orders for the first three 35' electric buses purchased for delivery in 2021.

The UCTC is supporting two active planning studies focusing on the various complexities and needs associated with fleet electrification and the identification of an additional site for expanded fleet storage space.

GOAL 2: ECONOMIC VITALITY

Invest in transportation system improvements that are necessary to support the current regional economy and make strategic system investments to support future economic growth.

Each sector of the regional economy places different demands on the transportation system. Consumer-oriented sectors like health care and retail establishments require good access by all modes for both customers and workforce. Manufacturing and warehouse/distribution requires efficient freight access. Tourism destinations are often seasonal with steep travel demand peaks. While transportation is only one factor in economic success, its importance cannot be underestimated.

OBJECTIVE 2.1 – COORDINATION WITH ECONOMIC DEVELOPMENT GOALS

A Coordinate the transportation needs identified by regional economic development entities with investment in the transportation system. Support large scale economic trends and investments by making corridor improvements, addressing congestion and improving transit connections.

Performance Measure 2.1: Ensure that Critical Corridors satisfy and support economic development objectives.

Status

Under review. Public participation process and continual feedback from key agencies, local municipalities, businesses and economic development entities will be instrumental in gauging this measure.

GOAL 3: SAFETY

Improve the safety of all users of the transportation system by responding to identified safety deficiencies and proactively addressing future safety needs.

The public expects to be able to travel safely, whether they are driving, using public transit, walking, or bicycling. Safety is reflected primarily in the number and severity of crashes. Fatal and severe personal injury incidents are always of greater concern than those that cause minor injuries or only property damage. Because of the role of human behavior in crashes, safety is considered in terms of the "4 Es": engineering, education, enforcement, and emergency response. The LRTP considers safety both reactively, by addressing high crash locations; and proactively, by looking at demographic and societal trends and getting ahead of problems. An aging population will require a greater investment in signage and wayfinding and other proven techniques that address safety needs of elderly drivers and pedestrians.

The LRTP also considers the content and objectives of the NYSDOT Strategic Highway Safety Plan (SHSP). The existing SHSP focuses on intersection, pedestrian, and lane departure crashes, with proposed actions to mitigate both frequency and severity.

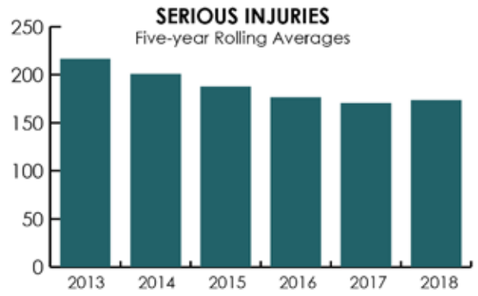
OBJECTIVE 3.1 – MOTOR VEHICLE SAFETY

A Reduce the number of fatal and serious injury motor vehicle crashes on the federal aid eligible highway system by 5% for each 5 year period of the Plan.

Performance Measure 3.1: Number of fatal and serious injury motor vehicle crashes reported through New York State crash records systems.

Status

UCTC is currently conducting a planning area safety study that will determine where crashes are over-represented, what factors are contributing to crashes, and identifying solutions to improve the safety of roadway users. This effort includes recommended solutions for up to 10 locations. The Safety Analysis will be used to inform projects for consideration on the Transportation Improvement Program (TIP).



Need– Motor Vehicle Safety

Based on the record, UCTC will need to reduce average fatal crashes by 1 and injury crashes by 90 in each five-year period of the plan.

OBJECTIVE 3.2 – PEDESTRIAN AND BICYCLE SAFETY

A Reduce the number of crashes resulting in fatality and serious injury to pedestrians and bicyclists by 5% for each 5 year period of the Plan.

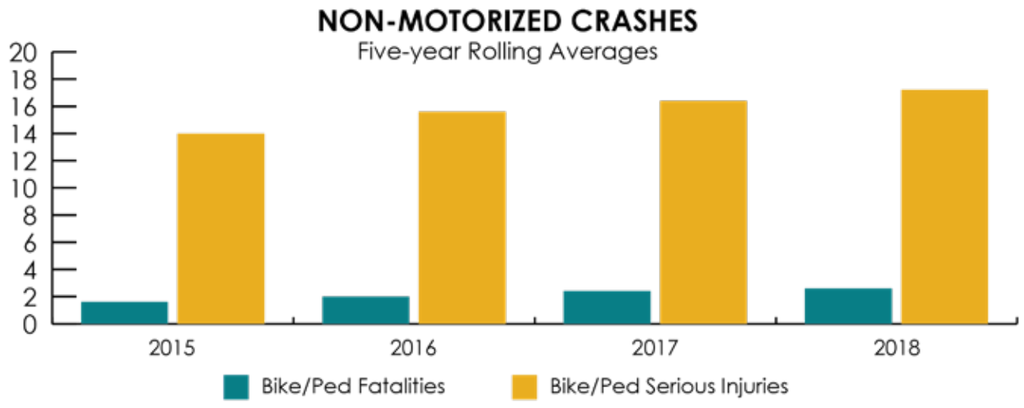
Performance Measure 3.2: Number of crashes resulting in fatality and serious injury to pedestrians and bicyclists reported through New York State crash records systems.

Status

UCTC's ongoing safety analysis will provide the necessary data on locations and causes of crashes involving pedestrians. NYSDOT recently implemented the Pedestrian Safety Action Plan, which provides added pedestrian safety treatments to all roadways under state jurisdiction in UCTC's planning area. Select local streets in the City of Kingston also received funding and implementation is ongoing.

Need

Based on the objective, which combines bicycle and pedestrian crashes, UCTC needs to reduce annual fatalities by one and injuries by 11 during each five year period.



OBJECTIVE 3.3 – TRANSIT SAFETY

A Reduce the number of crashes involving transit vehicles that result in fatality or serious injury to zero over the life of the Plan.

Performance Measure 3.3: Number of crashes in Ulster County involving transit vehicles reported through the New York State crash records system.

Status

Reported Crashes over time provided below

Reported Crashes Involving UCAT Buses, 2015-2019

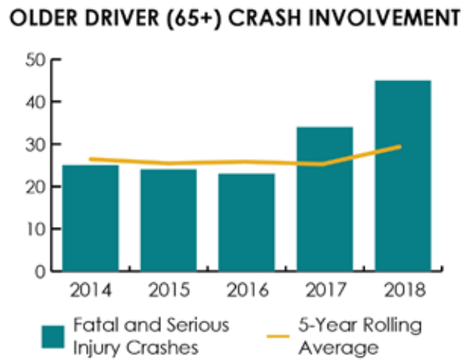
2015	2016	2017	2018	2019
1	1	2	2	1

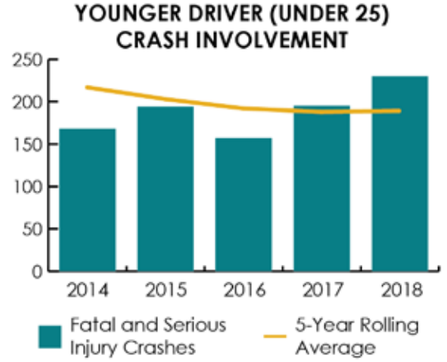
OBJECTIVE 3.4 – SAFETY OF SPECIAL USER GROUPS

A Improve the safety of senior citizens, young people, and handicapped and other identified user groups through pro-active measures that have demonstrated crash reduction potential.

Performance Measure 3.4: Number and severity of crashes involving identified special user groups reported through the New York State crash records system.

Status





Need– Safety of Special User Groups

This objective requires matching demographic trends to current and evolving practice for systemic safety improvements and countermeasures. The implementation of NYSDOT's Intersection and Pedestrian Safety Action Plans is an extremely positive first step and is presently informing the UCTC Road Safety Action Plan. This Plan will detail crash trends throughout the county and specific information on appropriate investments.

GOAL 4: SUSTAINABILITY

Ensure that transportation system users have a sustainable and secure environment and that the transportation system is capable of providing adequate service during severe weather events.

The sustainability of the transportation system infrastructure and the security of transportation system users is a critical investment factor in this LRTP. While the initial perspective on this planning factor related to security concerns from terrorist events, experience with Hurricane Irene and Superstorm Sandy has made it clear how important it is for the transportation system to be able to be maintain function during these events and provide security for residents through evacuation, rescue, and recovery phases.

OBJECTIVE 4.1 – RESILIENCY PLANNING

A Complete an Ulster County Transportation Infrastructure Resiliency Plan no later than 2021.

Performance Measure 4.1: Completed Resiliency Plan in coordination with Ulster County Departments of Public Works and the Environment

Status

Resilience planning coordination underway; UC Department of the Environment has coordinated with UCTC and DPW to focus initial efforts on stream/road crossings in multiple watersheds throughout the county. Future efforts will focus on other elements of the transportation system through a comprehensive resiliency study.

Washout damage from Hurricane Irene, Shandaken. *Daniel Case*

OBJECTIVE 4.2 – RESILIENCY PLAN IMPLEMENTATION

A Implement the high priority recommendations for critical infrastructure resiliency by 2025.

Performance Measure 4.2: Number of high priority infrastructure resiliency recommendations implemented, monitored annually from Resiliency Plan completion through 2025.

Status

Resilience planning coordination underway between 2015-2020; UC Department of the Environment has coordinated with UCTC and DPW to focus initial efforts on stream/road crossings. Future efforts will focus on other elements of the transportation system through a comprehensive resiliency study. DPW is also engaged in a public policy of ensuring that its bridge and culvert replacement plans can survive a minimum of 50 yr. flood re-occurrence interval.

Need– Resiliency Planning

UCTC is responding to this need by including a Resiliency Plan/Vulnerability Study in its current Unified Planning Work Program. Once that study is completed, a commitment to implementing high priority recommendations will be a policy for future funding. It is noted that several non-federal transportation funding sources are available for this effort including FEMA disaster mitigation funds and special funding in the New York City watershed.

Culvert washout. *Ulster County Culvert Assessment Project*

OBJECTIVE 4.3 – TRANSIT SYSTEM SECURITY

A Reduce the number of security-related incidents at bus stops and on transit vehicles operated by UCAT.

Performance Measure 4.3: Monitor and assess the extent to which UCAT implements its Public Transportation Agency Safety Plan (PTASP).

Status

FTA and FHWA published the final rule on Statewide and Nonmetropolitan Transportation Planning and Metropolitan Transportation Planning on May 27, 2016. On July 19, 2018, FTA published the Public Transportation Agency Safety Plan (PTASP) Final Rule, which requires certain operators of public transportation systems that receive federal funds under FTA's Urbanized Area Formula Grants to develop safety plans that include the processes and procedures to implement Safety Management Systems (SMS). The rule applies to all operators of public transportation systems that are recipients and sub-recipients of federal financial assistance under the Urbanized Area Formula Program (49 U.S.C. § 5307).

MPOs are required to reference the safety performance targets and agency safety plans in their TIPs and Metropolitan Transportation Plans updated or amended after July 20, 2021. The planning products must include a description of the performance measures and performance targets used in assessing the performance of the transportation system, for transit asset management, safety, and the FHWA performance measures. This should also include, to the maximum extent practicable, a description of the anticipated effect of the TIP toward achieving the performance targets identified in the metropolitan transportation plan, linking investment priorities to those performance targets.

The safety targets included in the Ulster County Area Transit Public Transportation Agency Safety Plan was endorsed by the UCTC on December 18, 2019 under UCTC Resolution 2019-20 and approved by UCAT on May 22, 2020.

GOAL 5: MOBILITY AND RELIABILITY

NYSDOT is investing over $10 million in safety and congestion improvements.

Provide for efficient and reliable travel by all modes by investing in strategies that mitigate both recurring and non-recurring congestion.

Mobility is a measure of the efficiency of travel. The predictability of travel time is one measure of that efficiency and of increasing concern to commuters, transit operators, freight movers and other logistic companies. Knowledge of recurring congestion can be factored into schedules whereas, non-recurring congestion such as that caused by highway incidents, work zones, or weather events makes it difficult to plan time-sensitive travel. The strategies for reducing the variability of travel time are different from those that address recurring congestion, often focusing on the active management and operation of the transportation system.

OBJECTIVE 5.1 – ADDRESS RECURRING CONGESTION

A Reduce vehicle-hours of delay that occur as a result of recurring congestion on principal arterials and arterial streets.

Performance Measure 5.1: Total peak-period vehicle-hours of delay.

Status

The CMP effort mentioned above is ongoing and will address travel time reliability.

OBJECTIVE 5.2 – ADDRESS TRAVEL TIME RELIABILITY

A Improve the reliability of travel time on principal arterial highways to an averaged travel time index of 1.25 by 2025, and maintain that level to 2045.

Performance Measure 5.2: Travel time index for principal arterial highways averaged over peak periods, reported every 5 years.

Status

The CMP effort mentioned above is ongoing and will address travel time reliability.

OBJECTIVE 5.3 – FREIGHT MOBILITY

A Identify truck bottlenecks by 2021.

Recurring congestion is known to occur on several key road segments in Ulster County.

Performance Measure 5.3: Freight mobility analysis completed by 2021.

Status

These three objectives are being addressed through UCTC work with the other MPO's in the TMA to complete a Congestion Management Process (CMP) This effort includes cooperation with the SUNY Albany Visualization and Performance Labs (AVAIL) to improve the use and functionality of the National Performance Management Research Data Set (NPMRDS) dataset for use through the Mid-Hudson TMA Congestion Management Process. The dataset is a much more functional and reliable source for measuring congestion, but it requires significant investment of staff time in order to interpret data and generate useful outputs.

Need –Implementation of Congestion Reducing Strategies in the Congestion Management Process

The Congestion Management Process (CMP) forecasts congestion on the region's roadways and evaluates congestion-reducing strategies. Data currently provides locations of areas that experience reoccurring congestion. Solutions may involve the use of intelligent transportation systems, structural improvements or changes in work hours to avoid peaks, to name a few. Most importantly, the CMP provides for a means to evaluate the effectiveness of such strategies.

Need– Improve Freight Mobility

UCTC will need to identify truck bottlenecks within the next 5 years and develop a program of projects to eliminate bottlenecks by 2025.

OBJECTIVE 5.4 – TRANSPORTATION TECHNOLOGY

A Facilitate deployment of the Connected Vehicle program technology as it is rolled out by USDOT and vehicle manufacturers.

B Monitor progress of penetration of autonomous vehicles in the general auto fleet and develop appropriate plans and policies.

Performance Measure 5.4: Monitor deployment of connected vehicle technology and ITS infrastructure – annually.

Status

UCTC is working to ensure that sufficient funds are available to commuter carriers in the region to utilize intelligent transportation system practices. UCAT currently has a mobile application that shows the location and expected arrival of buses, which is associated with its AVL system.

Need – Support Deployment of Transportation Technology

UCTC will work to include all public transit carriers in the TMA region within the 511 system by 2021 and equip all buses with AVL and continue to utilize and expand the functionality of the exiting mobile bus application to provide more accurate data and expand to paratransit service.

UCTC will facilitate deployment of the Connected Vehicle program technology as it is rolled out by USDOT and vehicle manufacturers. Monitor progress of penetration of autonomous vehicles in the general auto fleet and develop appropriate plans and policies.

GOAL 6: ACCESSIBILITY AND CONNECTIVITY

Create and maintain a well-connected transportation system that provides access throughout Ulster County for people and goods traveling by all modes.

A well-designed transportation system provides convenient access to destinations both within and beyond UCTC's planning area. Whether people travel by car, bus, bicycle, or on foot, they need to reach destinations that include employment, school, health care, shopping, and other services. Access is measured not only spatially, but also by time of day. Transit access is especially important to low-income and minority populations that have fewer travel alternatives.

Similarly, freight movement that supports local business requires convenient access from National Highway System roads and freight terminals to final destinations across Ulster County.

OBJECTIVE 6.1 – TRANSIT ACCESSIBILITY

A Improve transit access in Kingston, New Paltz and Ellenville, and major intra-county corridors by 2025 so that route structure provides convenient access to prescribed destinations, and hours of operation facilitates access to employment. Continue to modify transit operations as necessary to address changes in population and economy through 2045.

Performance Measure 6.1: Number of employers, healthcare facilities, and schools within ¼ mile of bus routes; number of employment opportunities not accessible within transit operating hours. Increase in ridership along key corridors.

Status

The CMP effort will assist in identification of or the performance measure noted above. Additionally it is noted that UCTC facilitated UCAT's assuming transit service in the City of Kingston and the restructuring of routes within the City in accordance with the performance measure. Intra county transit needs are currently being determine by a TMA sponsored regional transit plan know has Connect Mid-Hudson.

Need - Transit Accessibility

Improve transit access so that route structures provide convenient access to prescribed destinations, and hours of operation facilitates access to employment. Continue to modify transit operations as necessary to address changes in population and economy through 2045. Improved service in Kingston is ongoing with UCAT having taken over service within the City and restructured the routes. New Paltz transit is likely to see increased demand as the community grows with new destinations west of Thruway. Ellenville is significantly underserved and other transit options may be appropriate for this area.

Village of Ellenville, NY.

OBJECTIVE 6.2 – PEDESTRIAN ACCESSIBILITY

A Improve pedestrian access through completion of sidewalks in critical locations by 2025; and throughout urban and suburban locations by 2045.

Performance Measure 6.2: Sidewalk inventory updated every 5 years.

Status

UCTC is currently completing a sidewalk inventory for major activity centers in its planning area.

Need - Pedestrian Accessibility

Improve pedestrian access through completion of sidewalks in critical locations by 2025; and throughout urban and suburban locations by 2045. Encourage local development approvals to include pedestrian improvements where warranted.

OBJECTIVE 6.3 – BICYCLE ACCESSIBILITY

A Provide safe and convenient access for cyclists through a system of on-road accommodations, completion of the Ulster County trail system, and access to transit systems for cyclists.

Performance Measure 6.3: Bicycle facility inventory updated every 5 years.

Status

Refer to Section 4 for a full inventory of all non-motorized facilities in the Planning Area.

Need - Bicycle Accessibility

Provide safe and convenient access for cyclists through a system of on-road accommodations and completion of the Ulster County trail system.

Cyclists enjoying trail system.

OBJECTIVE 6.4 – FREIGHT ACCESSIBILITY

A Improve designated connections from the National Highway System to shipper/receiver destinations throughout Ulster County in priority order through the life of the Plan.

Performance Measure 6.4: Roadway inventory (geometry and operations) for "last mile" connections.

Status

Under development

Need - Freight Accessibility

Improve designated connections from the National Highway System to shipper/receiver destinations throughout Ulster County in priority order through the life of the Plan.

GOAL 7: PROTECT AND ENHANCE THE ENVIRONMENT

Contribute to making Ulster County a sustainable place by protecting and enhancing the natural and built environment, reducing greenhouse gas and other motor vehicle emissions, supporting sustainable construction and maintenance practices, and coordinating land use and transportation plans.

Transportation and the environment are inextricably linked. Impacts can be negative as a result of road construction and maintenance activities, energy consumption and air emissions associated with motor vehicle travel, and noise associated with railroad grade crossings. Impacts can also be positive by actions that facilitate the switch of single-occupant vehicle trips to shared ride modes or non-motorized travel. It is also valuable to encourage the use of alternative fuel vehicles by providing essential infrastructure.

OBJECTIVE 7.1 – LAND USE

A Implement transportation investments that support the goals of regional, county and local land use plans, throughout the life of the Plan.

Performance Measure 7.1: Conformity of project investments with land use plan recommendations, reviewed as plans are updated.

Status

Task performed by staff and members of the Ulster County Planning Board; staff support provided by UCTC.

Need - Coordinate with Land Use Plans

Land use planning in New York is done by local governments through comprehensive plans and zoning ordinances. UCTC supports land use concepts that result in more compact development in and around existing activity centers and the preservation of transportation capacity along primary corridors through access management. UCTC will continue to focus on transportation investments that are consistent with these broad policies and will work closely with local governments so that they understand how their land use plans and decisions can be best supported by transportation plans and investments.

OBJECTIVE 7.2 – CLIMATE CHANGE

A Reduce greenhouse gas (GHG) emissions from on-road vehicles through support of travel demand management and alternative fueled vehicles.

Performance Measure 7.2: GHG emissions modeled annually.

Status

Annual GHGEs are reported under Section 5 and have shown an overall decline due primarily to reductions in annual VMT. Estimates will be updated as improved data is made available.

Need - Reduce Greenhouse Gas Emissions

In June of 2019, New York State lawmakers agreed to the NYS Climate Leadership and Community Protection Act (6 NYCRR Part 496) – the most ambitious climate legislation enacted in the United States to date. The Act will require the state to achieve a carbon free electricity system by 2040 and reduce greenhouse gas emissions 85% below 1990 levels by 2050. While this goal is not specific to the transportation sector, emissions from vehicles constitute about one-third of the state's GHG emissions. UCTC can contribute to accomplishing the statewide goal by actions and programs that reduce fossil fuel consumption. These include reducing VMT by shifting trips from single-occupant vehicle mode to both shared-ride modes that include transit and carpooling, and to non-motorized modes. Concurrently, UCTC can encourage vehicle owners to switch to more efficient and alternative-fueled vehicles. These include hybrids, plug-in hybrids, and electric vehicles (EV).

Ulster County has already begun installing EV charging stations in county owned parking facilities. Working with NYSERDA, they can expand that program not only in response to demand, but as a means to facilitate EV purchase decisions. Ulster County is now focusing significant resources toward the goal of transit system electrification. UCTC will support efforts by partner agencies and departments to continue planning for EV implementation throughout all modes and sectors.

UCTC will also continue to monitor the use of existing park-and-ride facilities and the need for additional capacity or new facilities particularly in southern Ulster County.

Electric Vehicle Charging Station at the Ulster County Office Building.

OBJECTIVE 7.3 – IMPACTS OF NEW CONSTRUCTION

A Reduce environmental impact of roadway and bridge construction and maintenance by sharing best practice on sustainable methods to county and municipal transportation agencies.

Performance Measure 7.3: Assessment of transportation agencies on use of sustainable construction and maintenance practices. Funding priority to use of sustainable techniques as part of TIP development.

Status

All federal aid construction projects included on the UCTC TIP are required to adhere to US Clean Water Act – Phase II Stormwater compliance practices. In some instances, federal aid sponsors are electing to go beyond basic stormwater compliance and integrate best practices as standard practice. NEPA and SEQR are also required components of every federal aid transportation construction project, further emphasizing the need for integrating sustainable practices into construction.

Need - Reduce Impact of Construction

There are a number of ways that construction of roads, bridges, and even trails can create negative environmental impacts. These range from emissions from construction machinery to materials that are used, to stormwater runoff from construction sites. There are well documented ways to reduce and mitigate many of these impacts, but research is also underway on "green construction" techniques. UCTC will research these techniques and share them with County and Town highway superintendents and will provide additional points for TIP projects that utilized these techniques.

GOAL 8: TRANSPORTATION EQUITY

Develop and integrate strategies that seek to mitigate negative effects related to the transportation system that impact the most vulnerable members of the community, such as low-income residents, minorities, children, persons with disabilities, and older adults.

Negative health effects related to the transportation system can fall hardest on vulnerable members of the community, such as low-income residents, minorities, children, persons with disabilities, and older adults. Households in low-income areas typically own fewer vehicles, have longer commutes, and have higher transportation costs.

Inadequate or substandard infrastructure in low-income and minority communities can prevent people from using active transportation. It can also make walking and bicycling unsafe for those who do rely on these modes to get around, leading to higher incidences of collisions involving pedestrians and cyclists.

Low-income and minority communities are more likely to be located near highways and other transportation facilities that produce local reduced air quality, and to suffer from negative health effects such as asthma. These communities are also less likely to have convenient access to parks, healthcare, and healthy food.

Many of the strategies that transportation agencies can take to increase active transportation, improve safety, improve air quality, and improve connectivity can improve equity if they are targeted in low-income and minority communities. [i]

OBJECTIVE 8.1 – LAND USE

A Ensure equity in the transportation planning process by focusing public outreach efforts within EJ communities.

Performance Measure 8.1: Planning projects within or adjacent to EJ communities as identified in the UCTC LRTP receive specific attention and focus of the public outreach process.

Status

Transportation Equity was added to the 2045 LRTP for the first time in 2020. Future updates of the LRTP will include further inquiry regarding transportation equity and useful metrics to evaluate its implementation.

[i] US DOT, Transportation and Health: Equity. https://www.transportation.gov/mission/health/equity

VII. System Performance Report

Photo by: Keith Perry, Hudson Valley Drones

The 2040 UCTC Long Range Transportation Plan contained specific performance measures that were utilized by UCTC to program its planning funds as well as in choosing TIP programs and adjusting the goals and objectives in the plan. The current federal regulatory environment requires UCTC to address specific performance measure regulations adopted by the Federal Highway Administration {FHWA) and the Federal Transit Administration (FTA).

UCTC's Plan 2045 addresses actions that are necessary for the implementation of Transportation Performance Management (TPM) in carrying out the federally- required planning and programming activities. In addition, Plan 2045 includes the public transportation performance management requirements to advance the general policy and purposes of the public transportation program to "foster the development and revitalization of public transportation systems". The following seven national performance goals for the Federal-Aid Highway Program are addressed in the Plan.

NATIONAL TRANSPORTATION PERFORMANCE MANAGEMENT GOALS:

It is in the interest of the United States to focus the Federal-aid highway program on the following national goals:

1. **Safety –** To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
2. **Infrastructure condition –** To maintain the highway infrastructure asset system in a state of good repair
3. **Congestion reduction –** To achieve a significant reduction in congestion on the National Highway System
4. **System reliability –** To improve the efficiency of the surface transportation system
5. **Freight movement and economic vitality –** To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
6. **Environmental sustainability –** To enhance the performance of the transportation system while protecting and enhancing the natural environment
7. **Reduced project delivery delays –** To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

23USC §150(b)

The Federal Highway Administration defines Transportation Performance Management (TPM) as a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals.

Investment Decisions

Using goals, measures, and data to make better informed decisions about how to invest transportation funding.

Aimed at a Better Performing Transportation System

Setting targets, developing plans, reporting results, and being accountable for performance.

For Connected and Productive Communities

Focusing on the effective delivery of goods and safe, reliable journeys to work, to school, to shopping, to community activities.

On May 27, 2016, the FHWA and the Federal Transit Administration (FTA) issued the Statewide and Nonmetropolitan Transportation Planning and Metropolitan Transportation Planning Final Rule, referred to as the Planning Rule. This rule details how state DOTs and MPOs must implement the new MAP-21 and FAST Act planning requirements, including the new **transportation performance management** provisions, in the statewide and metropolitan planning process. In accordance with the Planning Rule, UCTC must include as an element of its Long-Range Transportation Plan (LRTP) a description of the performance measures and targets that apply to the UCTC planning area and a **System Performance Report.** UCTC addresses the federal actions that are necessary for the implementation of performance-based planning, including the following system performance report that describes the condition and performance of the transportation system with respect to required performance targets.

The System Performance Report evaluates the condition and performance of the transportation system with respect to required performance targets, and reports on progress achieved in meeting the targets in comparison with baseline data and previous reports. **The Planning Rule specifies the following timeframes for when UCTC must include the System Performance Report in the LRTP:**

- In any LRTP adopted on or after May 27, 2018, the System Performance Report must reflect Highway Safety (PM1) measures.
- In any LRTP adopted on or after October 1, 2018, the System Performance Report must reflect Transit Asset Management TAM measures.
- In any LRTP adopted on or after May 20, 2019, the System Performance Report must reflect Pavement and Bridge Condition (PM2) measures.
- In any LRTP adopted on or after May 20, 2019, the System Performance Report must reflect System Performance, Freight, and Congestion Management and Air Quality Improvement Program (PM3) measures.
- In any LRTP adopted on or after July 20, 2021, the System Performance Report must reflect Transit Safety measures.

A DYNAMIC PLANNING ENVIRONMENT

1. HIGHWAY SAFETY IMPROVEMENT PROGRAM AND HIGHWAY SAFETY

The 2017 New York Strategic Highway Safety Plan (SHSP) is intended to reduce "the number of fatalities and serious injuries resulting from motor vehicle crashes on public roads in New York State." The SHSP guides the New York State Department of Transportation (NYSDOT), the MPOs, and other safety partners in addressing safety and defines a framework for implementation activities to be carried out across New York State. The NYSDOT Highway Safety Improvement Program (HSIP) annual report documents the statewide performance targets.

The UCTC has adopted the NYSDOT statewide 2020 targets for the following Safety Performance Measures based on five year rolling averages per Title 23 Part 490.207 of the Code of Federal Regulations September 25, 2019 via UCTC Resolution 2019-19. In addition, the UCTC conducted a detailed safety analysis of its transportation system. A summary of that work is provided in Section 4 of this MTP.

Figure 7.1: NYSDOT 2020 Safety Performance Targets

Performance Measures	New York Performance (2018) Baseline)	New York 2020 Forecast	New York 2020 Target
Number of Fatalities	1,084	1,020	1,040.4
Fatality Rate	0.86	0.82	0.826
Number of Serious Injuries	11,242	10,392	11,017
Serious Injury Rate	8.89	8.42	8.709
Number of Non-Motorized Fatalities and Serious Injuries	2,736	2,557	2,626.8

Figure 7.2: NYSDOT Safety Performance Target Progress

Performance Measures	NY 2017 Performance 5-Year Average 2013-2017	NYSDOT Target 2020
Number of Fatalities	1,084	1,040.4
Fatality Rate	0.86	0.826
Number of Serious Injuries	11,242	11,017.0
Serious Injury Rate	8.89	8.709
Number of Non-Motorized Fatalities and Serious Injuries	2,736	2,626.8

Future iterations of this report will require "descriptions" of progress achieved toward targets, including "information that is available at the time of the plan adoption, such as information that has been reported as part of the reports required under 23 CFR 490.107."

2. TRANSIT ASSET MANAGEMENT

The Federal Transit Administration (FTA) published a final Transit Asset Management (TAM) rule on July 26, 2016. The rule applies to all recipients and subrecipients of Federal transit funding that own, operate, or manage public transportation capital assets. The rule defines the term "state of good repair,"

requires that public transportation providers develop and implement TAM plans, and establishes State of Good Repair (SGR) standards and performance measures for four transit asset categories: rolling stock, transit equipment, transit infrastructure, and facilities. Figure 2.3 below identifies the federal transit asset performance measures.

Figure 7.3: FTA TAM Performance Measures

Asset Category	Performance Measure and Asset Class
Rolling Stock	Percentage of revenue vehicles within a particular asset class that have either met or exceeded their useful life benchmark
Equipment	Percentage of non-revenue, support-service and maintenance vehicles that have met or exceeded their useful life benchmark
Infrastructure	Percentage of track segments with performance restrictions
Facilities	Percentage of facilities within an asset class rated below condition 3.0 on the Transit Economic Requirements Model (TERM) scale

Baseline Conditions and Performance Targets

Figure 2.4 presents the baseline performance/conditions for transit assets in the UCTC planning area as well as related performance targets. Ulster County Area Transit was among the first public transit providers in NYS to adopt a transit asset management plan, which became effective October 2018. The UCTC agreed to support these transit asset targets at that time and most recently on April 23, 2019 via UCTC Resolution 2019-04.

Ulster County Area Transit (UCAT) is the county-owned operator of bus transportation in Ulster County, NY.

Figure 7.4: Transit Asset Management Measures and Performance Targets

Asset Category – Performance Measure	ULB	2017 Target	2018 Target	2019 Target	2020 Target
Rolling Stock					
Age/% of revenue Vehicles exceeding ULB	Increase % of ULB by 2%	12%	14%	16%	16%
Service Vehicles- ULB	Maintain the ULB of 50%	50%	50%	50%	50%
Preventive Maintenance					
Mechanical Failures	Decrease 5% annually	187	<178	<169	<150
Service Vehicles- ULB	Maintain the ULB of 50%	50%	50%	50%	50%
Road Calls/Interruption of Service	Decrease 4.5% annually	88	84	80	75
Facility					
% of facility rated under 3.0 on TERM scale	--	15%	13%	10%	10%
Fuel Station TERM Scale Rating	Maintain TERM scale of 4 or above	4.5	4.5	4.5	4.5
Safety					
Accidents per vehicle miles traveled (accidents/ total miles)	Continue annual decline	.05%	<.05%	<.05%	<.05%
ADA/Reliability					
On Time Performance %	--	79%	85%	90%	90%
Missed Trips	--	0	0	0	0
Performance Indicators					
Passenger per Revenue Mile	Increase 1.5% annually	$12.94	$12.89	$12.85	$12.65
Cost per Passenger	Decrease annually	50%	50%	50%	50%
Road Calls/Interruption of Service	Decrease 4.5% annually	88	84	80	75

Source: Ulster County Area Transit 2017 Performance Management Plan

3. PAVEMENT AND BRIDGE CONDITION (PM2)

FHWA published the Pavement and Bridge Condition Performance Measures Final Rule in January 2017. This rule, which is also referred to as the PM2 rule, establishes six performance measures for pavement and bridge condition on Interstate and non-Interstate National Highway System (NHS) roads. **The PM2 measures are:**

- Percent of Interstate pavements in good condition;
- Percent of Interstate pavements in poor condition;
- Percent of non-Interstate NHS pavements in good condition;
- Percent of non-Interstate NHS pavements in poor condition;
- Percent of NHS bridges (by deck area) classified as in good condition; and
- Percent of NHS bridges (by deck area) classified as in poor condition.

Pavement Condition Measures

The four pavement condition measures represent the percentage of lane-miles on the Interstate and non-Interstate NHS that are in good condition or poor condition. The PM2 rule defines NHS pavement types as either asphalt, jointed concrete, or continuously reinforced concrete pavement (CRCP), and defines five pavement condition metrics that states are to use to assess pavement condition:

- **International Roughness Index (IRI) –** an indicator of roughness; applicable to all three pavement types.
- **Cracking percent –** percentage of the pavement surface exhibiting cracking; applicable to all three pavement types.
- **Rutting –** extent of surface depressions; applicable to asphalt pavements only.
- **Faulting –** vertical misalignment of pavement joints; applicable to jointed concrete pavements only.
- **Present Serviceability Rating (PSR) –** a quality rating that is applicable only to NHS roads with posted speed limits of less than 40 miles per hour, for example toll plazas and border crossings. A state may choose to collect and report PSR for applicable segments as an alternative to the other four metrics.

Bridge Condition Measures

The two bridge condition performance measures refer to the percentage of bridges by deck area on the NHS that are in good or poor condition. Bridge owners are required to inspect bridges on a regular basis and report condition data to FHWA. The measures assess the condition of four bridge components: deck, superstructure, substructure, and culvert.

Figure 7.5: Performance Rating Thresholds

Metric Rating	Good	Fair	Poor
Deck	≥ 7	5 or 6	≤ 4
Superstructure	≥ 7	5 or 6	≤ 4
Substructure	≥ 7	5 or 6	≤ 4
Culvert	≥ 7	5 or 6	≤ 4

The bridge condition measures are expressed as the percent of NHS bridges in good or poor condition. The percent is determined by summing the total deck area of good or poor NHS bridges and dividing by the total deck area of the bridges carrying the NHS. Deck area is computed using structure length and either deck width or approach roadway width.

Bridges in good condition suggests that no major investment is needed. Bridges in poor condition are safe to drive on; however, they are nearing a point where substantial reconstruction or replacement is needed.

Pavement and Bridge Condition Performance Target Requirements

Performance for the PM2 measures is assessed over a series of four-year performance periods. The first performance period began on January 1, 2018 and runs through December 31, 2021. NYSDOT must report baseline performance and targets at the beginning of each period and update performance at the midpoint and end of each performance period.

The PM2 rule requires state DOTs and MPOs to establish performance targets for all six measures and monitor progress towards achieving the targets. **States must establish:**

- Four-year statewide targets for the percent of Interstate pavements in good and poor condition;
- Two-year and four-year statewide targets for the percent of non-Interstate NHS pavements in good and poor condition; and
- Two-year and four-year targets for the percent of NHS bridges (by deck area) in good and poor condition.

MPOs must establish four-year targets for all six measures by either agreeing to program projects that will support the statewide targets or setting quantifiable targets for the MPO's planning area. The two-year and four-year targets represent expected pavement and bridge condition at the end of calendar years 2019 and 2021, respectively.

The Eddyville Bridge on Route 213 in Eddyville, NY.

NYSDOT Pavement and Bridge Condition Baseline Performance and Established Targets

This system performance section discusses performance for each applicable target as well as the progress achieved by the MPO in meeting targets in comparison with system performance recorded in previous reports. The federal performance measures are new and therefore, performance of the system for each measure and associated targets have only recently been assessed and developed. Accordingly, this first LRTP system performance section highlights performance for the baseline period of 2017. NYSDOT will continue to monitor pavement and bridge condition performance and report to FHWA on a biennial basis. Future system performance reports will discuss progress towards meeting the targets since the establishment of this initial baseline.

NYSDOT established statewide PM2 targets on May 20, 2018. UCTC was then required to establish PM2 targets no later than November 16, 2018. UCTC agreed to adopt NYSDOT's PM2 performance targets on July 24, 2018 via UCTC Resolution 2018-15. By adopting NYSDOT's targets, UCTC agrees to plan and program projects that help NYSDOT achieve these targets.

Figure 6 presents baseline performance for each PM2 measure for New York and for the UCTC planning area as well as the two-year and four-year statewide targets established by NYSDOT.

Details regarding the NHS and bridge conditions in Ulster County are provided in Section 4 of this report.

Figure 7.6: Pavement and Bridge Condition (PM2) Performance and Targets

Performance Measures	New York Performance (2018 Baseline)	New York 2-year Target (2020)	New York 4-year Target (2022)
Percent of Interstate pavements in good condition	52.2%	46.4%	47.3%
Percent of Interstate pavements in poor condition	2.7%	3.1%	4.0%
Percent of non-Interstate NHS pavements in good condition	20.4%	14.6%	14.7%
Percent of non-Interstate NHS pavements in poor condition	8.3%	12.0%	14.3%
Percent of NHS bridges (by deck area) in good condition	20.2%	23.0%	24.0%
Percent of NHS bridges (by deck area) in poor condition	11.7%	11.6%	11.7%

**For the first performance period only (January 1, 2018 through December 31, 2021), baseline condition and 2-year targets are not required for the Interstate pavement condition measures.*

4. SYSTEM PERFORMANCE, FREIGHT, AND CONGESTION, MITIGATION & AIR QUALITY IMPROVEMENT PROGRAM MEASURES (PM3)

On January 18, 2017, FHWA published the system performance, freight, and Congestion, Mitigation and Air Quality Improvement Program (CMAQ) Performance Measures Final Rule in the Federal Register. This third FHWA performance measure rule (PM3), which has an effective date of May 20, 2017, established six performance measures to assess the performance of the NHS, freight movement on the Interstate System, and traffic congestion and on-road mobile source emissions for the CMAQ Program. **The performance measures are:**

For the National Highway Performance Program (NHPP)

1. Percent of person-miles on the Interstate system that are reliable, also referred to as Level of Travel Time Reliability (LOTTR);
2. Percent of person-miles on the non-Interstate NHS that are reliable (LOTTR);

For the National Highway Freight Program (NHFP)

3. Truck Travel Time Reliability Index (TTTR);

For the National Highway Freight Program (NHFP)

4. Annual hours of peak hour excessive delay per capita (PHED);
5. Percent of non-single occupant vehicle travel (Non-SOV); and
6. Cumulative two-year and four-year reduction of on-road mobile source emissions for CMAQ funded projects (CMAQ Emission Reduction).

Traffic congestion on the Carmine Liberta Bridge in New Paltz on an autumn afternoon.

The three CMAQ performance measures listed above are applicable only to designated nonattainment areas or maintenance areas for National Ambient Air Quality Standards by the Environmental Protection Agency. The UCTC meets all current air quality standards and is not subject to establishing targets for these performance measures. The remaining performance measures are described below.

For the National Highway Freight Program (NHFP)

Travel time reliability refers to the consistency or dependability of travel times on a roadway from day to day or across different times of the day. For example, if driving a certain route always takes about the same amount of time, that segment is reliable. It may be congested most of the time, not congested most of the time, or somewhere in between, but the conditions do not differ very much from time period to time period. On the other hand, if driving that route takes 20 minutes on some occasions but 45 minutes on other occasions, the route is not reliable.

The LOTTR is defined as the ratio of the longer travel times (80th percentile) to a normal travel time (50th percentile) over applicable roads during four time periods that cover the hours of 6 a.m. to 8 p.m. each day (AM peak, Mid-day, PM peak, and weekends). The LOTTR ratio is calculated for each roadway segment. The segment is reliable if its LOTTR is less than 1.5 during all four time periods. If one or more time periods has a LOTTR of 1.5 or above, that segment is unreliable.

The two LOTTR measures are expressed as the percent of person-miles traveled on the Interstate or non-Interstate NHS system that are reliable. By using person-miles, the measures take into account the total number of people traveling in buses, cars, and trucks over these roadway segments. To obtain total person-miles traveled, the length of each segment is multiplied by an average vehicle occupancy for each type of vehicle on the roadway.

The sum of person-miles on reliable segments is divided by the sum of person-miles on all segments to determine the percent of person-miles traveled that are reliable.

TTTR Measure

The TTTR measure assesses travel time reliability for trucks traveling on the Interstate. A TTTR ratio is generated by dividing the 95th percentile truck travel time by a normal travel time (50th percentile) for each segment of the Interstate system over five time periods throughout weekdays and weekends (AM peak, Mid-day, PM peak, weekend, and overnight). The time periods cover all hours of the day.

For each Interstate segment, the highest TTTR value among the five time periods is multiplied by the length of the segment. The sum of these length-weighted segments is then divided by the total length of Interstate to generate the TTTR Index.

Travel Time Data

The travel time data used to calculate the LOTTR and TTTR measures is provided by FHWA via the National Performance Management Research Data Set (NPMRDS). This dataset contains historical travel times, segment lengths, and Annual Average Daily Traffic (AADT) for Interstate and non-Interstate NHS roads.

PM3 Performance Target Requirements

Performance for the PM3 measures is assessed over a series of four-year performance periods. States must report baseline performance and targets during the first part of the performance period and update performance at the midpoint and end of each performance period.

For the LOTTR and TTTR measures, the first performance period began on January 1, 2018 and runs through December 31, 2021.

New York State Thruway in winter.

The PM3 rule requires state DOTs and MPOs to establish performance targets for each measure and monitor progress towards achieving the targets. NYSDOT must establish two-year and four-year state targets for the Interstate LOTTR, TTTR, Non-SOV Travel, and CMAQ Emission Reduction measures. For the non-Interstate NHS LOTTR and PHED measures, NYSDOT must establish four-year targets.

Within 180 days of NYSDOT establishing targets, MPOs must establish four-year performance targets for both LOTTR measures, the TTTR measure, and, if applicable, the CMAQ Emission Reduction measure. MPOs establish targets by either agreeing to program projects that will support the State's targets or setting quantifiable targets for the MPO's planning area.

The two-year and four-year targets represent expected performance at the end of calendar years 2019 and 2021, respectively.

NYSDOT PM3 Baseline Performance and Established Targets

This system performance report discusses performance for each applicable target as well as the progress achieved by the MPO in meeting targets in comparison with system performance recorded in previous reports. The federal performance measures are new and therefore, performance of the system for each measure and associated targets have only recently been assessed and developed. Accordingly, this first LRTP system performance report highlights performance for the baseline period prior to 2018. NYSDOT will continue to monitor performance and report to FHWA on a biennial basis. Future system performance reports will discuss progress towards meeting the targets since this initial baseline report.

NYSDOT established PM3 targets on May 20, 2018. In consultation with the New York MPOs, NYSDOT subsequently recalculated and amended the State's LOTTR targets after discovering an error in the formula used to determine the 2018 baseline. UCTC was required to establish PM3 targets no later than November 16, 2018. UCTC agreed to support NYSDOT's PM3 performance targets on July 24, 2018 via UCTC Resolution 2018-14. By adopting NYSDOT's targets, UCTC agrees to plan and program projects that help NYSDOT achieve the State's targets.

Figure 7 presents baseline performance for the LOTTR and TTTR measures for New York and for the UCTC planning area as well as the two-year and four-year targets established by NYSDOT.

Figure 7.7: System Performance and Freight (PM3) Performance and Targets

Performance Measures	New York Performance (2018) Baseline)	New York 2-year Target (2020)	New York 4-year Target (2022)
Percent of person-miles on the Interstate system that are reliable (Interstate LOTTR)	94.5%	85.0%	84.9%
Percent of person-miles on the non-Interstate NHS that are reliable (Non-Interstate NHS LOTTR)	85.9%	N/A	71.4%
Truck travel time reliability index (TTTR)	1.38	2.00	2.11

The UCTC 2045 LRTP addresses system performance and freight reliability, identifies infrastructure needs within the UCTC region, and provides funding for targeted improvements. Detailed Goals related to congestion are provided in Section 6 of this document under Goal 5: Mobility and Reliability.

On or before October 1, 2020, NYSDOT will provide FHWA and UCTC a detailed report of performance for the PM3 measures covering the period of January 1, 2018 to December 31, 2019. NYSDOT and UCTC will also have the opportunity at that time to revisit the four-year PM3 targets.

5. TRANSIT SAFETY

The Public Transportation Agency Safety Plan (PTASP) final rule (49 C.F.R. Part 673) requires certain operators of public transportation systems that are recipients or subrecipients of FTA grant funds to develop safety plans that include the processes and procedures necessary for implementing Safety Management Systems (SMS). The final rule becomes effective on July 19, 2019. Each transit operator is required to certify that it has a safety plan meeting the requirements of the rule by July 20, 2020.

Each safety plan must include, at a minimum:

- An approval by the agency's Executive and Board of Directors (or an equivalent authority);
- The designation of a Chief Safety Officer;
- The documented processes of the agency's SMS, including the agency's Safety Management Policy and processes for Safety Risk Management, Safety Assurance, and Safety Promotion;
- An employee reporting program;
- Performance targets based on the safety performance measures established in FTA's National Public Transportation Safety Plan (NSP);
- Criteria to address all applicable requirements and standards set forth in FTA's Public Transportation Safety Program and the NSP; and
- A process and timeline for conducting an annual review and update of the safety plan.

The UCTC is required to set performance targets for each performance measure, per 23 C.F.R. § 450.306. Those performance targets must be established 180 days after the transit agency established their performance targets. Transit agencies are required to set their safety performance targets by July 20, 2020. In accordance with 49 U.S.C. 5303(h)(2)(B) and 5304(d)(2)(B), each State and transit agency must make its safety performance targets available to States and Metropolitan Planning Organizations to aid in the planning process. 49 C.F.R. § 673.15(b) requires, to the maximum extent practicable, a State or transit agency to coordinate with States and Metropolitan Planning Organizations in the selection of State and MPO safety performance targets

In coordination with its public transit carrier, Ulster County Area Transit, on December 18, 2019 UCTC endorsed the Safety Targets outlined in UCAT's PTSAP under UCTC Resolution 2019-20 as follows:

Figure 7.8: Ulster County Area Transit Public Transportation Agency Safety Plan Safety Performance Targets

Safety Performance Targets

Year	Fatalities	Injuries	Safety Events	System Reliability	Preventable Accidents	Non Preventable Accidents
2019	0	0	<1% per vehicle mile	90%	1	2

Bike lanes on Hurley Avenue, Kingston, NY. Photo credit: City of Kingston

VIII. THE FINANCIAL PLAN

Note: Section VIII was revised on April 25, 2023 to address an FHWA corrective action; readers should refer to https://ulstercountyny.gov/sites/default/files/documents/planning/8_The%20Financial%20Plan%20_Revised.pdf for the latest iteration of the UCTC LRTP Financial Plan

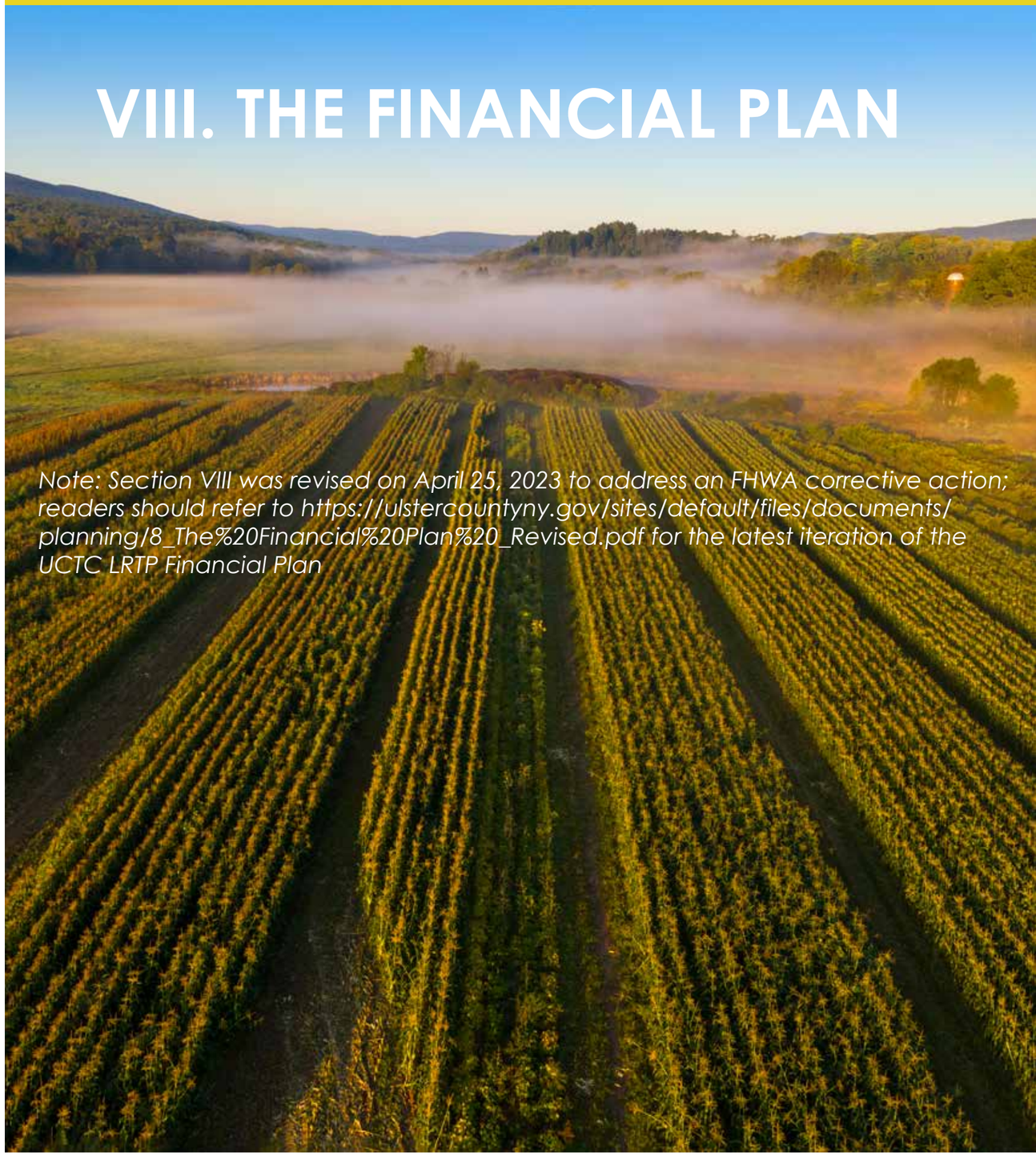


Photo by: Gerald Berliner

The Financial Plan is a critical element of the UCTC Long Range Transportation Plan. Federal law has required since 1991 that an LRTP must include a Financial Plan whose purpose is to ensure that there are adequate resources for implementation. This ensures that the project included in the LRTP have a reasonable chance of being funded and prevents the LRTP from becoming a wish list of projects beyond likely available funding.

Federal law requires that the Financial Plan meet the following criteria:

- Be developed cooperatively by the MPO, the State, and the transit operator(s);
- Demonstrates how the adopted LRTP can be implemented;
- Enumerates the resources that are reasonably expected to be made available over the life of the LRTP, including both public and private sources;
- May recommend additional financing strategies to fill identified funding gaps;
- May include "illustrative projects" that would be included in the LRTP if additional resources became available; and
- Demonstrates the financial capacity to maintain and operate the transportation facilities included in the LRTP.

Further, all project and program cost estimates must be adjusted to year of expenditure dollars, using agreed upon cost inflation factors. This adjustment further contributes to the LRTP being realistic.

All of these steps lead to the creation of a fiscally constrained Plan that does not count on resources that are not reasonably expected to be available.

The UCTC LRTP has met all of these conditions through the following actions:

REVENUE FORECASTS (TABLE 8.1)

Forecasts are provided by fund source for all current programs of the FHWA and FTA; New York State highway, bridge, and transit programs; and major local capital improvement programs. The initial forecasts for FHWA programs and for New York State Dedicated Highway and Bridge Fund are based on the adopted 2020-2024 UCTC Transportation Improvement Program and confirmed by NYSDOT. NYSDOT provided the forecasts for the Consolidated Local Street and Highway Improvement Program (CHIPS). Ulster County, in the role of transit operator, provided the forecasts for federal, state, and local transit programs.

The agreement that was reached among these parties on the revenue forecasts includes the following:

- Revenue forecasts are generated for five year blocks. This was determined to be an acceptable level of detail for the LRTP.
- The baseline for calculating revenue forecasts for all FHWA and State fund sources is the current adopted UCTC Transportation Improvement Program. The baseline for calculating revenue forecasts for FTA programs is the last either three or five years of FTA apportionments, whichever was most consistent.
- Funding for FHWA programs is based on the most recent UCTC 'fair share' allocation and held flat for the first five years (2020-2024). It is then increased by 2% for each of the subsequent blocks.
  - **Caveat:** While the forecasts are made for current FHWA fund sources, it is understood that these may change over time. MAP-21 made significant changes in FHWA programs, with some programs eliminated and others consolidated. If FHWA programs are changed in the next Federal transportation authorization, prior to the update of the LRTP, the Financial Plan may be amended. Similarly, it is assumed that the Federal share will remain at 80% for most programs.
- Funding for FTA programs is held flat for the first five years (2020-2024). It is then increased by 2% for each of the subsequent blocks.
  - **Caveat:** While the forecasts are made for current FTA fund sources, it is understood that these may change over time. MAP-21 made significant changes in FTA programs through program consolidation and such consolidation is likely to continue in the future. If FTA programs are changed in the next Federal transportation authorization, prior to the update of the LRTP, the Financial Plan may be amended.
- Funding for New York State programs for highway and bridge construction is held flat for the first five years (2020-2024). It is then increased by 2% for each of the subsequent blocks.
  - The amount of NYS Dedicated Fund is based on 2014 funding and adjusted for inflation.
  - **Caveat:** The Consolidated Local Street and Highway Improvement Program (CHIPS) provides state funding to local governments for eligible capital projects. It is distributed on a formula basis, and also subject to the annual New York State budget/appropriations process. The forecast assumes it will be funded at current levels and escalated as indicated. The Financial Plan may be amended if the CHIPS budget in subsequent years is significantly different from the forecast.

Rondout area road improvements.

- New York State Region 8 funds some system preservation activities on a region-wide basis (known as "multi-county" funding). These funding blocks provide for pavement rehabilitation, bridge rehabilitation and replacement, sign and guiderail replacement, traffic signal upgrades, pavement marking activity, and other "where and when" needs. The expenditure represents a significant use of federal funds. Use of this funding within the UCTC's planning area is not easily documented and therefore no estimate of the availability of these funds is included. The UCTC anticipates that these funds will, however, be made available to maintain the performance standards set in the LRTP.
- Funding for New York State transit programs is based on prior allocations (2017, 2018, 2019) and held flat for the first five years (2020-2024), then increased by 2% for each of the subsequent blocks.
  - **Caveat:** The New York State Transit Operating Assistance (NYSTOA) program is a formula based program that provides funding to transit operators to subsidize their operations. Passengers and revenue-miles of service are the key metrics; they are multiplied by formula rates. The numbers of annual passengers and miles are assumed constant for the purposes of projecting revenue. The program is subject to annual appropriation as well as periodic program and funding sources reauthorization by the State Legislature. The Financial Plan may be amended if the NYSTOA budget in subsequent years is significantly different from the forecast.
  - The New York State Transit Capital Assistance program funds one-half of the non-Federal share of approved FTA capital projects. Funding is contingent on the annual budget/ appropriations process.

Ellenville, NY. Photo Credit: Gerald Berliner

- Local Funding for highways and bridges. This represents locally funded capital projects by Ulster County to preserve and maintain assets that may or may not be on the Federal Aid Highway System. It is understood that this does not include all local expenditures but does include the majority of those not funded with CHIPS. Because such expenditures are subject to budgetary decisions of local government, there are no assumptions of available funding from these sources. In addition, it should be noted that tax caps are likely to affect the investment in infrastructure at the local level. It also includes the local match for FHWA program expenditures.
  - **Caveat:** FHWA provides 80% of the funding for approved projects. There is a program in New York State called the Marchiselli program that provides three-quarters of the non-federal share, or 15%, for locally sponsored FHWA projects. This comes from the Dedicated Highway and Bridge Fund. The local sponsor provides the remaining 5%. The amount available for Marchiselli funding is subject to the annual State budget process, and may be inadequate to meet all funding needs in future years.
- Local Funding for the County transit system is held flat for the first five years (2020-2024). It is then increased by 2% for each of the subsequent blocks. This represents the local match to NYSTOA as well as additional local investments.
- Discretionary funds, such as those provided through state or federal solicitation and awarded on a competitive basis, are provided at the conclusion of the revenue chart but are not included as projected revenue. Relevant examples include the Transportation Alternatives Program (TAP), the federal program that traditionally funds trail and other non-motorized projects, BridgeNY, which funds local bridge and culvert projects. While eligible applicants in Ulster County have been very successful at competing for these types of funds, they are not consistently made available year to year and their distribution is subject to a variety of factors, including eligibility, annual budgetary constraints, and frequency of issuance.

Figure 8.1: FHWA Revenue Summary

UCTC Long Range Transportation Plan Revenue Forecast, 2020-2044

All Figures in Millions of $

FHWA (Millions of $)	19/20 Baseline	2020-2024	2025-2029	2030-2034	2035-2039	2040-2044	
National Highway Performance Program (NHPP)	$3.680	$18.400	$18.768	$19.143	$19.526	$19.917	
Surface Transportation Block Grant Program (STBGP FLEX)- Includes STBGP	$1.899	$9.495	$9.685	$9.879	$10.076	$10.278	
STBGP Off-System Bridge (STBGP-OFF)	$1.177	$5.886	$6.004	$6.124	$6.246	$6.371	
STBGP Large Urban (STBGP LG URBAN)	$0.300	$1.500	$1.530	$1.561	$1.592	$1.624	
Highway Safety Improvement Program (HSIP)	$0.094	$0.471	$0.480	$0.490	$0.500	$0.510	
HSIP RAIL	$0.190	$0.950	$0.969	$0.988	$1.008	$1.028	
FHWA Subtotal	**$7.340**	**$36.702**	**$37.346**	**$38.185**	**$38.948**	**$39.727**	**$190.999**

Figure 8.2 FTA Programs

FTA Programs (Millions of $)	19/20 Baseline	2020-2024	2025-2029	2030-2034	2035-2039	2040-2044	
Sec 5307/5340 Small Urban	$1.015	$5.075	$5.176	$5.280	$5.385	$5.493	
Sec 5307 Urban/Mid-Hudson TMA	$0.560	$2.802	$2.858	$2.915	$2.973	$3.033	
Section 5310	$0.123	$0.615	$0.628	$0.640	$0.653	$0.666	
Section 5339 Kingston UA	$0.345	$1.724	$1.758	$1.793	$1.829	$1.866	
Sec 5339 Mid-Hudson TMA	$0.424	$2.119	$2.161	$2.205	$2.249	$2.294	
Inter-County Commuter Bus, Mid Hudson TMA	$2.608	$13.041	$13.301	$13.568	$13.839	$14.116	
FTA Subtotal	**$5.075**	**$25.375**	**$25.883**	**$26.400**	**$26.928**	**$27.467**	**$132.053**
Federal Subtotal	**$12.415**	**$62.077**	**$63.319**	**$64.585**	**$65.877**	**$67.194**	**$323.052**

Figure 8.3 State Funds

State Funds (Million of $)	19/20 Baseline	2020-2024	2025-2029	2030-2034	2035-2039	2040-2044	
NYS Dedicated Highway & Bridge Trust Fund	$2.074	$10.372	$10.579	$10.791	$11.007	$11.227	
CHIPS	$6.914	$34.569	$35.261	$35.966	$36.685	$37.419	
State Highway/ Bridge Subtotal	**$8.988**	**$44.941**	**$45.840**	**$46.757**	**$47.692**	**$48.646**	**$233.877**
Transit State Operating Assistance	$1.746	$8.730	$8.905	$9.083	$9.264	$9.450	
State Transit Subtotal	**$1.746**	**$8.730**	**$8.905**	**$9.083**	**$9.264**	**$9.450**	**$45.431**
NYS Funds Subtotal	**$10.73**	**$53.671**	**$54.745**	**$55.840**	**$56.957**	**$58.096**	**$279.308**
				State and Federal Subtotal $617.360			

Figure 8.4 Local Matching Funds

Local Matching Funds	19/20 Baseline	2020-2024	2025-2029	2030-2034	2035-2039	2040-2044	
Match to FHWA	$0.139	$0.695	$0.709	$0.723	$0.738	$0.752	$3.617
Match to FTA	$0.768	$3.842	$3.918	$3.997	$4.077	$4.158	$19.992
Local Share Subtotal	**$0.907**	**$4.537**	**$4.627**	**$4.720**	**$4.814**	**$4.911**	**$23.609**
			Est. Total Aid Over Life of the Plan: $640.969				

8.5 Other Supplemental or Competitive Funds

Other Supplemental or Competitive Funds	19/20 Baseline	2020-2024	2025-2029	2030-2034	2035-2039	2040-2044	
Extreme Winter Recovery Program	$0.402	$0.410	$0.418	$0.426	$0.435	$0.444	
PAVENY	$1.578	$1.610	$1.642	$1.675	$1.708	$1.742	
Modernization and Enhancement Program	$0.434	$2.168	$2.212	$2.256	$2.301	$2.347	
Accelerated Capital Transit Program	$0.143	$0.714	$0.728	$0.743	$0.758	$0.773	
Tap/Rec Trails	$1.358	$6.791	$6.927	$7.065	$7.207	$7.351	
	$3.915	**$11.693**	**$11.927**	**$12.165**	**$12.408**	**$12.657**	**$60.850**

DATA NOTES:

The baseline funding amount is established and then projected over the life of the plan. **For each revenue line item, the baseline funding value was estimated using the following methods:**

- FHWA revenue estimates based on the 2020-2024 UCTC TIP, divided by 5.
- FTA revenue estimates based on the average of previous 3 year federal allocations (2017, 2018, 2019).
- NYS Dedicated Highway and Bridge Trust fund based on SFY 2014/15 and adjusted for inflation to 2020 dollars.
- CHIPs, Extreme Winter Recover and PaveNY funds based on payments to all Ulster County municipalities in SFY 19/20.
- Transit State Operating Assistance based on average of 2015, 2016, 2017, 2018 and 2019 awards.
- Local Federal FHWA share based on 5% match of UCTC 2020-2024 Federal fair share of STP Block Grant funds.

- Local Federal FTA share based on 10% of required match of FTA funds allocated to public transit providers and 20% required match of FTA funds allocated to private transit providers.
- TAP/Rec Trails based on the average of all awards to Ulster County recipients that have been included on an approved TIP during the TIP years 2015-2024.
- MEP and ACT transit funds based on 2015, 2016, & 2017 awards.

COST FORECASTS

With the revenue projections completed, the Financial Plan can now estimate the dollar amount of projects and programs that can be programmed within the context of fiscal constraint. Project costs are matched to revenue forecasts by fund source and five-year time blocks. Since the first six years includes projects already programmed in the Transportation Improvement Program, cost estimates have a reasonably high level of accuracy. Projects further out in the LRTP are defined by a planning level design concept and scope. With each successive update of the LRTP, projects will move into the first time block with more refined estimates.

IX. RECOMMENDED PLAN OF PROJECTS

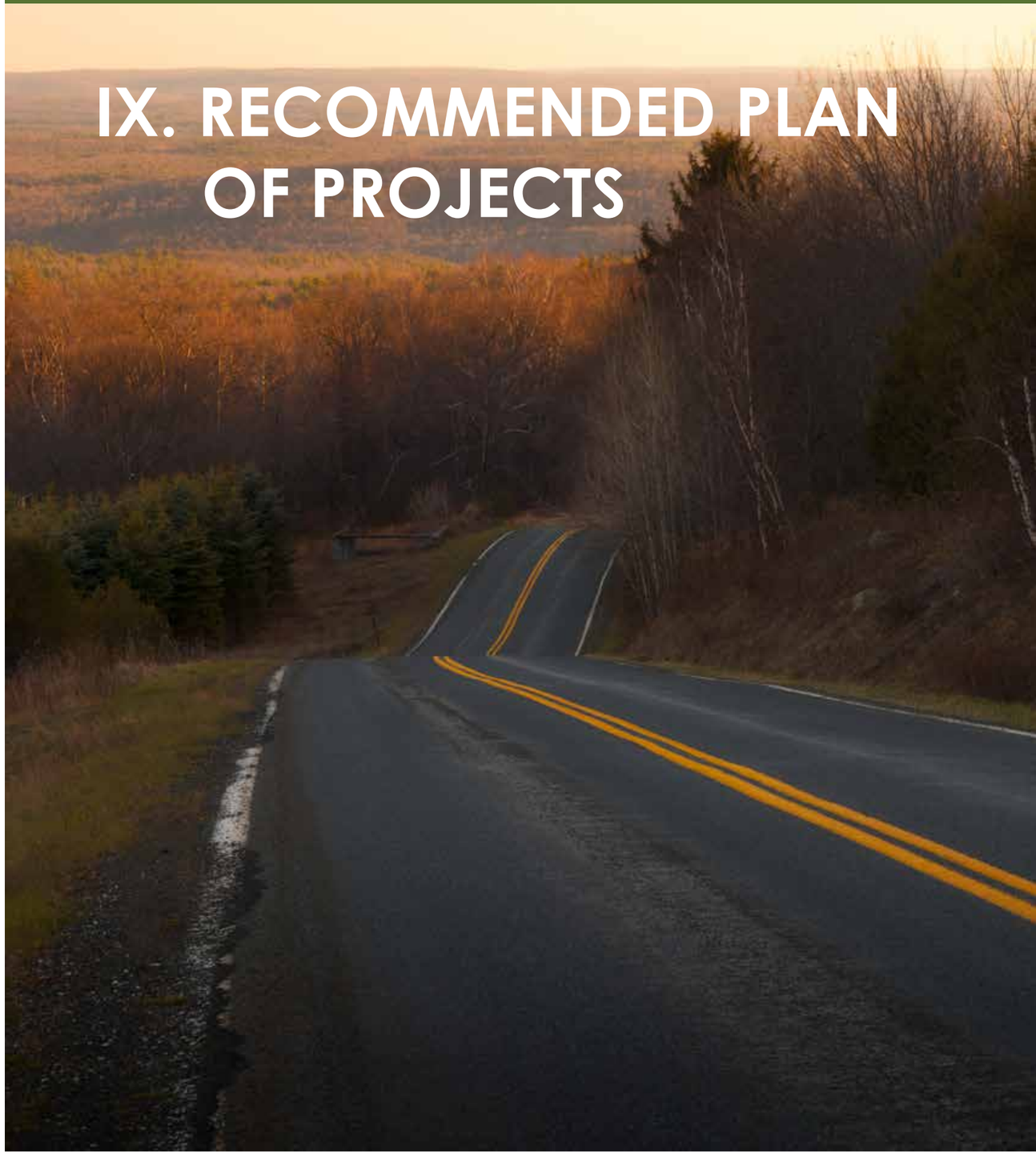
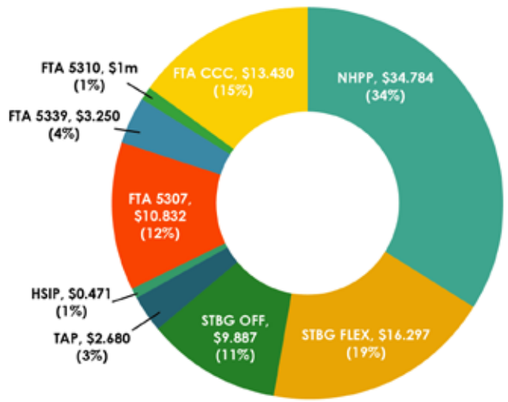


Photo by: Gerald Berliner

The Recommended Plan of Projects identified in the following pages is directly linked to the UCTC's FFY 2020-2024 Transportation Improvement Program (TIP), recently updated on October 1, 2019. The TIP includes a priority list of proposed federal and state supported projects and strategies to be implemented after the initial adoption of the TIP. A detailed financial summary is provided in each iteration of the TIP. As shown in Figure 9.1, the UCTC 2020 TIP included over $23 million in FTA related capital projects and $64 million in FHWA related capital projects supporting local, state and county efforts; required local and state fund matches account for an additional 20% or roughly $17.4 million.

The 2020 – 2024 TIP/STIP was developed by MPOs statewide in 2018/19. At that time, NYSDOT provided MPOs with anticipated allocations for federal aid-eligible projects. Based on projects programmed during previous TIP years and the amount of federal aid made available to the UCTC planning area for the 2020 – 2024 period, the UCTC once again focused on ensuring that projects with phases already obligated would receive funding priority as opposed to adding new projects. A small number of projects were removed from the TIP which were deemed as no longer necessary or which would be advanced utilizing non-federal shares.

Figure 9.1: UCTC TIP Funds Distribution, 2020-2024

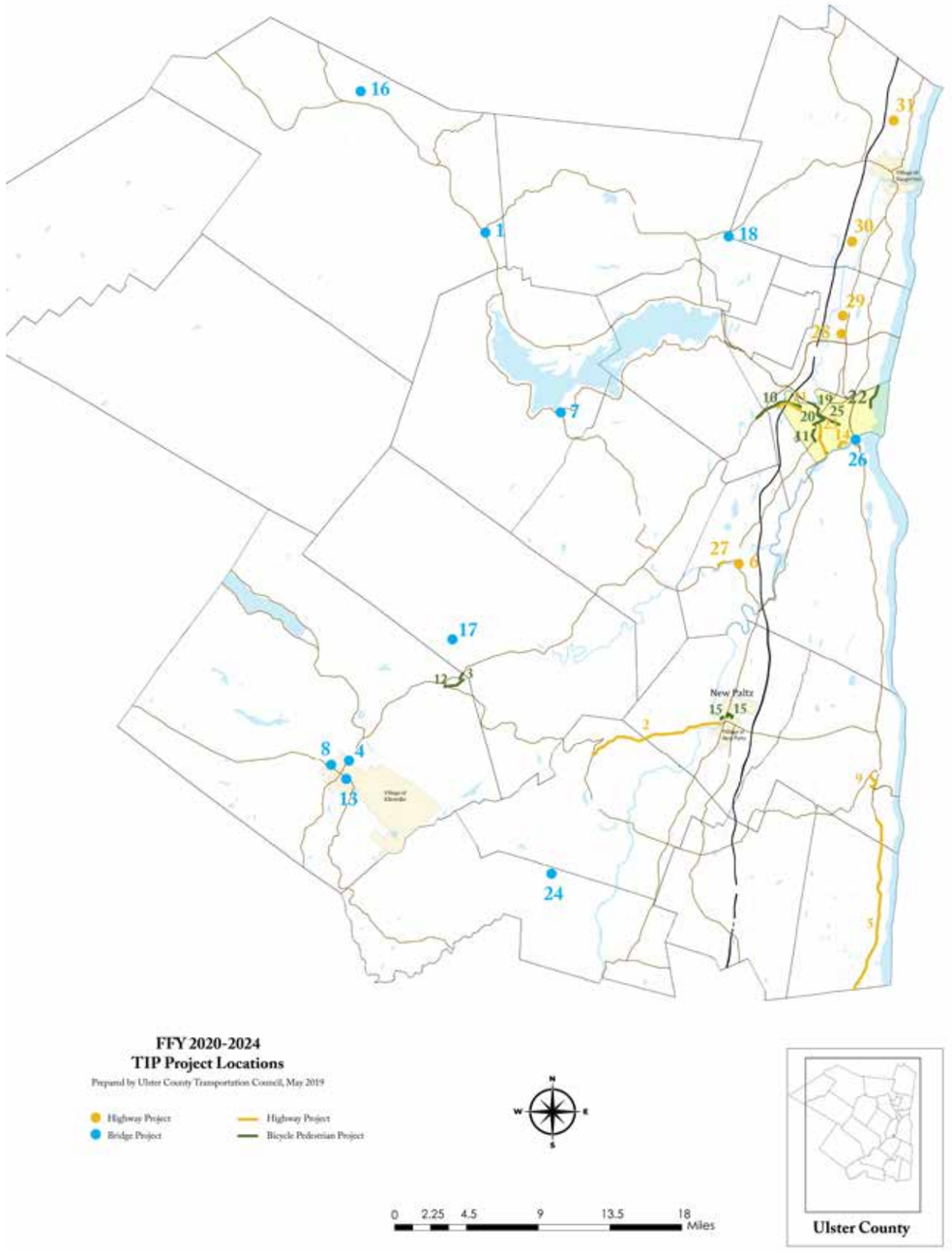


As explained in Section 8, federal aid revenues are not necessarily guaranteed; as such, the Recommended Plan of Projects has been prioritized based on need and the level of funding reasonably expected to be available into the future. Projects currently programmed on the TIP with phases underway/obligated are included as "Short Range" projects. Short Range projects can be expected to be initiated or completed during the 2020 – 2024 TIP or next iterative cycle.

Projects that are currently programmed on the TIP but have not yet commenced are typically included in the "Mid Range" project listing. In this instance, however, no Mid Range projects have been identified, as routine reductions in federal aid to new local projects has been steadily reduced over the past 3 TIP update cycles. No new projects have been added to the TIP in outlying years (except for those with discretionary, independent fund sources) and every project presently listed on the TIP has had funds obligated on one or more phases.

Long Range projects are those that have not yet been included on an approved TIP but may be eligible for federal aid as resources allow in outlying years (2025 – 2045). Long Range projects are organized to conform to the goals and objectives of the UCTC Year 2045 Long Range Transportation Plan but have no specific funding source or sponsor identified at this time. These are sometimes referred to as "conceptual projects" and have been arranged according to the LRTP goals.

Figure 9.2: 2020 – 2024 Transportation Improvement Program, State and Local Highway, Bridge and Trail Projects (refer to table on following page for project list)



SHORT RANGE RECOMMENDED PLAN OF PROJECTS

Map Reference	PIN	Project Name	Municipality
1	801846	Rts 28/Esopus Creek Bridge Replacement BIN 109120	T/Shandaken
2	805111	County Route 7&8-Route299 Roadway Repaving	T/New Paltz Gardiner
3	817747	Route 209 Sidewalk Improvement	T/Warwarsing
4	817749	SR 209/Fantine Kill Brdg Spstr rplemnt BIN 1095450	V/Ellenville
5	823954	Rt 9W Repaving	T/Marlborough&T/Lloyd
6	846059	Lease of T/Rosendale Park & Ride Lot on Route 32	T/Rosendale
7	875713	Route 213 Extension (CR4) Tongore Bridge rep BIN#30	T/Olive
8	875771	Cape Ave/Beerkill Bridge Rehab BIN 3347440	V/Ellenville
9	875781	Tillson Ave: From Route 9W to Route 44/55	T/Lloyd
10	875804	Kingston Rail Trail: Preserve, Improve O & W RR	C/Kgstn&T/Ulst&T/Hrly
11	875913	Route 32 Klingberg Ave to Amy Kay PKWY Sidewalks	C/Kingston
12	875925	D&H Canal/O&W RR Trail	T/Warwarsing
13	875927	Clinton Ave/North Gully Bridge Rehab. Bin#2262980	V/Ellenville
14	876027	Abeel Street: Stage 1	C/Kingston
15	876122	Village of New Paltz Sidewalk Improvements	T/New Paltz
16	876161	Peck Hollow Rd over Peck Hollow Stream	T/Shandaken
17	876175	Fantinekill Bridge Replacement BIN 3347600	T/Rochester
18	876176	Wolven Bridge Replacement over Sawkill BIN 3346510	T/Woodstock
19	876182	Midtown Linear Park Cornell St to Westbrook Ln	C/Kingston
20	876184	Henry St Pedestrian Improvements	C/Kingston
21	876194	Hurley Ave Repaving: Washington Ave to City Line	C/Kingston
22	876199	Hudson Landing Trail	C/Kingston
23	876202	Wilbur Ave repaving from Greenkill Ave to Abeel St	C/Kingston
24	876216	Rehab of BIN 3347510 CR 18 over Shawangunk kill	T/Shandaken
25	878049	Bike/Ped Improvements along Broadway. TEP award	C/Kingston
26	880862	Wurts Street/Dock Street Bin#1007350	C/Kingston
27	881354	RT 213 Sidewalk and road settlement repair in the vicinity of Binnewater	T/Rosendale
28	893244	RR Crossing Improvement: Grant Ave	T/Ulster
29	893245	RR Crossing Improvement: Leggs Mills Rd	T/Ulster
30	893295	RR Crossing Improvement: Glasco Tpke	T/Saugerties
31	893296	RR Crossing Improvement: Peoples Rd	T/Saugerties

SHORT RANGE TRANSIT PROJECTS

Figure 9.3: UCAT 5 Year Program, 2020-2024 (in total dollars)

	2020	2021	2022	2023	2024	Total
Capital	$1,895,480	$626,600	$1,405,800	$474,000	$640,000	**$5,041,880**
Preventative Maintenance	$805,000	$805,000	$805,000	$805,000	$805,000	**$4,025,000**
Project Administration	$410,000	$410,000	$410,000	$410,000	$410,000	**$2,050,000**
Operating Assistance	$1,200,000	$1,200,000	$1,200,000	$1,200,000	$1,200,000	**$6,000,000**
Total	**$4,310,480**	**$3,041,600**	**$3,820,800**	**$2,889,000**	**$3,055,000**	***$17,116,880***

UCAT provides the UCTC with its 5 year capital program at a minimum during each TIP update cycle or when any relevant updates are made which would require similar updates to the UCTC TIP. As shown above, the current UCAT 5 year program includes costs for buses and other capital assets as well as the necessary costs associated with operating the transit system, including Preventative Maintenance, Project Administration, and Operating Assistance. The anticipated 5 year costs of the system are within the anticipated dollars available as estimated within the TIP and through the Financial Plan in the previous section.

LONG RANGE RECOMMENDED PLAN OF PROJECTS

Long Range projects are organized to conform to the Goals and Objectives of the UCTC Year 2045 Long Range Transportation Plan (Chapter 2) but have no specific funding source or sponsor identified at this point in time. In some cases Long Range projects are generalized. More specific projects are identified where supporting plans and projects exist. (A comprehensive listing of all UCTC plans is included in Figure 9.5 with a detailed analysis of goal conformity and overlap. The supporting planning projects listed below are exemplary and should not be considered exhaustive). In the event that UCTC should issue a call for new projects in advance of 2025, those new projects should also conform to the following goals.

GOAL 1 – SYSTEM PRESERVATION

Invest in transportation system infrastructure to bring all facilities and modes into a state of good repair.

Recent paving of a road in Ulster County.

Recommended Long-Term System Preservation Projects

- Extending the useful life of existing highway, bridge, and transit facilities through asset management and improved design principles, seeking to maximize longevity of existing facilities.
- Reconstruction and rehabilitation of existing highway, bridge, and transit facilities in a manner that supports extension of their useful life. New facilities will be designed to be resilient to climate change and multi-modal.
- Extend the useful life of public transportation facilities – capital rolling stock, terminals, and shelters –to ensure service reliability. New capital rolling stock will be fuel efficient and support multi-modal.
- The Kingston-Rhinecliff and Mid-Hudson Bridges are maintained at a high standard of condition and traffic functionality.
- Conduct a local/county Bridge Preservation Repair and Replacement Analysis to establish priorities for capital expenditures.

Supporting Plans and Projects

- NYSDOT Preservation First/Forward Four Principles.
- Ulster County Transit System Coordination and Development Plan (2012).
- Ulster County Pavement Management Program (ongoing).
- Ulster County Transportation Infrastructure Resiliency and Vulnerability Assessment Planning (future program).
- City of Kingston Traffic Signal Warrant Evaluation (2020).
- UCAT Storage Facility Site Selection (2020).

GOAL 2 – ECONOMIC VITALITY

Invest in transportation system improvements that are necessary to support the current regional economy and future proposals for economic development.

Recommended and Representative Long-Term Economic Vitality Projects

- Identify critical transportation investment opportunities in regional activity centers that will result in significant, lasting, and positive economic impacts for the region.
- Identify innovative strategies to secure adequate financial support for such projects, such as leveraging of discretionary federal aid, including the Better Utilizing Investments to Leverage Development (BUILD) program, Transportation Alternatives Program, FTA unallocated 5307 funds available to Ulster County, and innovative public-private partnerships.
- Rehabilitation of existing and/or construction of new intermodal facilities in Kingston and New Paltz.
- Conversion of I-587 from an Interstate highway to a state road, allowing access.
- Frank Sottile Boulevard/Route 199: Alternative Number 4, Construct East Bound Ramps Only. Town of Ulster.

Supporting Plans and Projects

- Intermodal Analyses for Kingston (2009) and New Paltz (2015).
- City of Kingston I-587 at Albany Avenue/Broadway Intersection Study (2011).
- Washington Avenue Corridor Study (2005).
- Saugerties Area Mobility Analysis (2007).
- Marlboro Hamlet Area Transportation Plan (2008).
- City of Kingston Uptown Stockade Area Transportation Plan (2009).
- Building a Better Broadway – Corridor Conceptual Design Plan (2015).

Ski lifts at Belleayre Mountain Ski Center, Highmount, NY.

GOAL 3 – SAFETY

Improve the safety of all users of the transportation system by responding to identified safety deficiencies and proactively addressing future safety needs.

Recommended Safety Projects

- Improve the function of intersections through improved design that increases safety, reduces delay, and improves mobility.
- Implement engineering recommendations identified in complete Safe Routes to School Action Plans and similar studies.
- Implement complete streets policies and programs that improve and modernize central corridors to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.
- Implement public safety awareness programs that improve driver, bicyclist and pedestrian safety.
- Route 32 at Exit 20 I87 intersection improvements, Town of Saugerties.
- Route 9W lane re-configuration improvements, Towns of Marlboro and Lloyd.
- Top 5 recommended projects identified in the Ulster County Road Safety Plan (2020).

Supporting Plans and Projects

- Washington Avenue Corridor Study (2005)
- Marlboro Hamlet Area Transportation Plan (2008)
- City of Kingston Route 32 at Fair Street Intersection Study (2006)
- City of Kingston/Town of Ulster - Quiet Zone and City of Kingston Pedestrian Safety and Mobility Analysis (2006)
- Saugerties Area Mobility Analysis (2007)
- Ulster County Integrated Advance Train Detection and Arrival Prediction Implementation Plan (2008)
- City of Kingston Uptown Stockade Area Transportation Plan (2009)
- Town of Ulster – Boices Lane Rail Crossing Study (2013)
- Ulster County Safe Routes to School Program (2015)
- Building a Better Broadway – Corridor Conceptual Design Plan (2015)
- NYS Strategic Highway Safety Plan (2017)
- Ulster County Road Safety Audits (2019)
- Ulster County Road Safety Action Plan (2020)
- City of Kingston Traffic Signal Warrant Evaluation (2020)
- Rail Trail/Roadway Intersection Inventory and Analysis (2020)
- Wallkill Valley Rail Trail Community Opportunity Plan (2020)

Empire State Trail

GOAL 4 – SECURITY

Ensure that transportation system users have a secure environment and that the transportation system provides residents of Ulster County with adequate service in the context of severe weather events.

Recommended Long-Term Security Projects

- Ensuring a safe, secure and accident-free freight system.
- All at-grade rail crossings are designed in a manner that will protect motorists, pedestrians, bicyclists, and area residents and prevent collisions.

Supporting Plans and Projects

- City of Kingston/Town of Ulster - Quiet Zone and City of Kingston Pedestrian Safety and Mobility Analysis (2006)
- Ulster County Integrated Advance Train Detection and Arrival Prediction Implementation Plan (2008)
- NYS Strategic Highway Safety Plan (2010)
- 2009 NYS Rail Plan

GOAL 5 – MOBILITY AND RELIABILITY

Provide for efficient and reliable travel by all modes by investing in strategies that mitigate both recurring and non-recurring congestion.

Recommended Long-Term Mobility and Reliability Projects

- Improve transit and service frequency and reliability along critical corridors, including NYS RT32, 9W, Broadway Kingston, and US 209.
- Improve transit service and frequency between critical nodes, such as schools, hospitals, essential services, regional transit centers and regional activity centers.
- Ensure appropriate transit support facilities are available to handle increase transit ridership and service needed capital investments.
- Integrate technology that will improve transit service efficiency and increase ridership, including Computer Aided Dispatch (CAD), Automatic Vehicle Location (AVL) and other driver, dispatch and passenger information and on-board systems.

Route 209, Hurley, NY.

- Invest in facilities that encourage alternative modes of transportation, such as transit, pedestrian and bicycle facilities, including sidewalks, trails and bike facilities integrated into transit capital improvements.
- Implement or upgrade regional Intelligent Transportation Systems (ITS) technology along regional corridors of significance, including integrated signal technology, emergency signal preemption, advanced signal detection along rail lines, automatic toll collection, and traffic monitoring.
  - E.g. transit signal prioritization to permit signal preemption for transit buses along Route 299 at the Chestnut Street, Manheim Boulevard, Cherry Hill Road, and Putt Corners Road intersections.
- Establish a mobility management program to coordinate existing and future services of public, not-for-profit and private transportation throughout the Mid-Hudson region.
- Rehabilitation of existing and/or construction of new intermodal facilities in Kingston and New Paltz.
- Explore options for encouraging micromobility as a means of providing first mile/last mile connectivity between transit and destinations.
- Explore options for implementing mobility as a service (MAAS) technologies and route planning as a means of improving access to and enhancing existing transportation services.

Supporting Plans and Projects

- City of Kingston/Town of Ulster - Quiet Zone and City of Kingston Pedestrian Safety and Mobility Analysis (2006)
- Saugerties Area Mobility Analysis (2007)
- Marlboro Hamlet Area Transportation Plan (2008)
- Ulster County Integrated Advance Train Detection and Arrival Prediction Implementation Plan (2008)
- Ulster County Non-Motorized Transportation Plan (2008)
- Kingston Intermodal Facility Site Location and Conceptual Design Analysis (2009)
- Finding Rosendale Circulation and Access Plan (2015)
- New Paltz Intermodal Facility Plan (2015)
- Building a Better Broadway – Corridor Conceptual Design Plan (2015)
- Ulster County Coordinated Human Services Transportation and Public Transit Plan (2017)
- Ulster County Transit Integration Plan (2018)
- Marlboro/Lloyd Route 9W Corridor Management Plan (2019)
- City of Kingston Traffic Signal Warrant Evaluation (2020)
- Mid Hudson Valley Congestion Management Plan Update (2020)
- Connect Mid Hudson Regional Transit Plan (2020)

Aerial view of the Ulster County Area Transit (UCAT) Building.

GOAL 6 – ACCESSIBILITY AND CONNECTIVITY

Create and maintain a well-connected transportation system that provides access throughout Ulster County for people and goods travelling by all modes.

Recommended Long-Term Accessibility and Connectivity Projects

- Continue to fill gaps in the existing non-motorized transportation system in an effort to create a seamless regional non-motorized system of transportation.
- Invest in filling gaps in the existing sidewalk network throughout Ulster County's activity centers through sidewalk and shoulder construction, reconstruction and rehabilitation projects.
- Invest in complete streets projects within all activity centers with a specific focus on key corridors. Focus on facilities such as improved crosswalks, bike lanes and other amenities that facilitate alternative forms of transportation among a population of varying physical abilities and means of transportation.
- Evaluate the need for facilities that meet Americans with Disabilities Act standards and program the necessary measures to ensure compliance within applicable federal-aid eligible facilities.
- Establish or improve wayfinding facilities to foster a coordinated approach to mobility and access of business, cultural and other critical facilities throughout the county and region.
- Conversion of I-587 from an Interstate highway to a state road, allowing access.
- I87 Exit 18 and Rte 299 congestion mitigation and alternative improvements, Town of New Paltz.

Supporting Plans and Projects

- City of Kingston - Route 32/Fair Street Intersection Alternatives Analysis (2006)
- Ulster County Non-Motorized Transportation Plan (2008)
- Saugerties Area Mobility Analysis (2007)
- Marlboro Hamlet Area Transportation Plan (2008)
- City of Kingston - Intermodal Facility Site Location and Conceptual Design Analysis (2009)
- City of Kingston - Uptown Stockade Area Transportation Plan (2009)
- City of Kingston - I-587 at Albany Avenue/Broadway Intersection Study (2011)
- Finding Rosendale Circulation and Access Plan (2015)
- Building a Better Broadway – Corridor Conceptual Design Plan (2015)
- Wallkill Valley Rail Trail Community Opportunity Plan (2020)
- Connecting Kingston Signage and Wayfinding Plan (2020)
- Ellenville/Wawarsing Signage and Wayfinding Plan (2020)
- Ulster and Delaware Corridor Revitalization Study (2020)
- UCTC Community Sidewalk Digitization and ADA Assessment (2020)

GOAL 7 – PROTECT AND ENHANCE THE ENVIRONMENT

Contribute to making Ulster County a sustainable place by protecting and enhancing the natural and built environment, reducing greenhouse gas and other motor vehicle emissions, supporting sustainable construction and maintenance practices, and coordinating land use and transportation plans.

Recommended Long-Term Projects that Protect and Enhance the Environment

- Reduce or eliminate risks at all at-grade railroad crossings in an effort to mitigate the effects of train horn noise and establishing new quiet zones, particularly in densely-populated areas.
- Design and construct transportation facilities that reduce if not avoid altogether impacts to the natural environment.
- Support the design and construction of transportation facilities that lessen impacts on water quality and decrease species mortality and habitat loss.
- Incorporate the use of sustainably-manufactured and reused materials in the design and construction process.
- Invest in infrastructure necessary to expand the use of alternative fuel vehicles among citizens and public and private sector organizations.
- Support Ulster County Department of the Environment's efforts toward county fleet vehicle electrification.
- Support Ulster County Area Transit's efforts toward transit fleet electrification.
- Improve access to EV charging stations for Ulster County residents and visitors.

EV Charging station at the Ulster County Office Building. *Daily Freeman*

Supporting Plans and Projects

- City of Kingston/Town of Ulster - Quiet Zone and City of Kingston Pedestrian Safety and Mobility Analysis (2006)
- Ulster County Non-Motorized Transportation Plan (2008)
- Ulster County Transportation Infrastructure Resiliency and Vulnerability Assessment Planning (programmed 2015/16)
- Wallkill Valley Rail Trail Community Opportunity Plan (2020)
- Mid Hudson Valley Congestion Management Plan Update (2020)
- Connect Mid Hudson Regional Transit Plan (2020)
- Building a Better Broadway – Corridor Conceptual Design Plan (2015)
- Ulster County Transportation Council Metropolitan Transportation Plan Section on Sustainability, Climate Change and Transportation Resilience

Ellenville, NY. Photo Credit: Gerald Berliner

DOCUMENTATION OF FISCAL CONSTRAINT

As explained in Section 8, this plan is required to demonstrate that recommended expenditures, adjusted by agreed upon inflation rates, do not exceed reasonably expected revenues that were developed through a cooperative process involving UCTC, NYSDOT, and Ulster County as the primary transit operator. It is also incumbent upon UCTC to demonstrate the fiscal capability to maintain and operate the regional transportation facilities included in the LRTP.

The revenue forecast shown in Section 8 is broken into multi-year blocks to assist in the matching of revenue and expenditure. The recommended plan of projects is treated in a similar manner for the initial phases of the LRTP, with Short Term recommendations matching the first revenue period (2020 – 2024) and Mid Term recommendations the second revenue period (2025 – 2045). As seen above, UCTC made the decision to address Long Term recommendations in a more goal-driven conceptual manner, based on the recognition that each five year update of the LRTP will recognize additional project actions in what are the out-years of this plan. While it is very useful to compare estimated expenditures with forecasted revenue on a time period basis, UCTC understands that it is the entire LRTP that must demonstrate fiscal constraint.

As shown in Table 9.4, while there may need to be minor adjustments to the short term program when the current Transportation Improvement Program is updated, the LRTP is well within the requirements of fiscal constraint. Additional definition of the FTA program will also be required, but proposed bus replacement and capital needs outlined among the Long- term recommendations can be accommodated within available revenue.

Figure 9.4: UCTC Long Range Transportation Plan Fiscal Analysis Core Federal Aid Program Areas

All Figures in Millions of $

	2020-2024			2025-2045		
	Revenue (Actual)	Project Costs (Actual)	Revenue - Cost	Revenue Forecast	Project Costs	Revenue - Cost
FHWA Programs						
National Highway Performance Program (NHPP)	$34.784	$34.784	0	$77.354	$77.354	0
Surface Transportation Block Grant Program (STGP FLEX)	$16.297	$16.297	0	$39.917	$39.917	0
STBGP Off-System Bridge (STBGP-OFF)	$9.887	$9.887	0	$24.745	$24.745	0
Highway Safety Improvement Program (HSIP)	$0.471	$0.471	0	$1.980	$1.980	0
FHWA Total	**$61.439**	**$61.439**	**0**	**$143.997**	**$143.997**	**0**
FTA Programs						
Sec 5307	$10.832	$10.832	0			
Section 5310	$0.600	$0.600	0			
Section 5339	$3.250	$3.250	0			
Inter-County Commuter Bus, Mid Hudson TMA	$13.430	$13.430	0			
FTA Total	**$28.112**	**$28.112**	**0**			

The UCTC LRTP does not include specific cost estimates for mid-term or long-term transit actions. Transit capital needs, operating services and other associated costs are funded according to available resources. The projected capital needs are not expected to exceed available capital revenue.

The above table illustrates the results of a fiscally-constrained 5-year, short term plan of projects. Given that all projects and fund sources are tied directly to the UCTC 2020-2024 TIP, all known project costs are accounted for.

Critical Bridge Over Water Program bridge replacement on Rtes 44/55, Town of Gardiner.

The goal-driven approach to recommended projects, actions, and programs when combined with the fiscal analysis demonstrates UCTC's commitment and capability to maintain and operate the regional multimodal transportation system. As noted in the determination of needs, UCTC is committed to an affordable transportation system. As a result, the recommended plan does not include construction of new facilities that will add to the maintenance burden of local governments or NYSDOT. Any new facilities of significant stature and complexity would need to be financed through discretionary funds (such as the Federal Better Utilizing Investments to Leverage Development (BUILD) program) and/or new, public/private sources. The multicounty asset management preservation program that NYSDOT Region 8 used to direct funding to pavement, bridge, and ancillary asset needs provides a methodology for meeting the infrastructure preservation needs of the State highway system.

UCTC does acknowledge the concern about the fiscal capability of local governments to address transportation system needs of facilities under their jurisdiction. As noted previously, federal aid for local projects is severely limited as a result of lack of growth if the FHWA programs and direction of a greater share of the overall program to the National Highway System. The CHIPS program provides the only direct source of state resources for local road and bridge construction. Funding major asset needs from local general budgets remains a challenge. UCTC is committed to directing its resources to the most critical local system needs when they are available.

INNOVATIVE FINANCING OF TRANSPORTATION PROJECTS

Continued inability of the US Congress of pass meaningful and timely transportation funding legislation, combined with the uncomfortable regularity of global economic disruptions has made it clear that states, MPOs and regions must develop new, innovative methods of funding transportation projects outside of the traditional federal reimbursement framework that states have relied upon for nearly 7 decades.

THE FAST ACT INNOVATIVE FINANCE PROGRAMS

The FAST Act created the National Surface Transportation and Innovative Finance Bureau, a new office intended to help streamline and improve the application process for the Department's credit assistance programs. Specifically, the FAST Act does the following:

- **Leveraging Federal Dollars.** The Transportation Infrastructure Finance and Innovation Act (TIFIA) program leverages federal dollars by facilitating private participation in transportation projects and encouraging innovative financing mechanisms that help advance projects more quickly. While the FAST Act cuts funding to the TIFIA program, it reduces the minimum project size for TIFIA, provides funding to cover the loan evaluation costs typically borne by the borrower, and provides flexibility to States to use Federal formula dollars to cover credit subsidy costs.
- **Increases Eligible Projects Under RRIF.** The Railroad Rehabilitation and Improvement Financing (RRIF) program lends funds to entities that are building rail infrastructure. The FAST Act makes transit-oriented-development elements of passenger rail station projects eligible for RRIF.

Further, the FAST Act creates the National Surface Transportation and Innovative Finance Bureau (Bureau) to provide assistance and communicate best practices to project sponsors looking to take advantage of DOT credit programs. The Bureau will help:

- **Streamline the application process for DOT credit programs.** The FAST Act directs the Bureau to improve the application processes for Departmental credit programs through streamlined review and transparent approval processes.
- **Promote innovative financing best practices for Public Private Partnerships (PPP) across all modes.** The FAST Act ensures DOT credit assistance provided to PPP projects is transparent to the public.

Coordinate the progress of environmental review and permitting process. Consistent with the Department's goals to improve project timelines, the Act requires the Bureau to coordinate efforts to improve efficiency and effectiveness of the environmental review and permitting process.

Other approaches may include:

- **State and regional bonds.** State legislatures should propose ballot initiatives that provide significant bonding to repair, replace and, where necessary, expand transportation facilities. The favorability of such initiatives could be improved by encouraging regional economic development councils to focus bond efforts toward regional needs, thereby emphasizing the benefits to the local system.
- **New revenue streams.** Expanded tolling, increases in state and federal gas taxes, sales taxes, EV user fees, mileage-based user fees and other potential revenue sources.
- **Alternative fund source identification.**
  - Greater private participation in infrastructure development by transferring risk and responsibility from public project sponsors to private sector engineers, contractors and investors.
  - The City of Kingston has effectively been utilizing state funds, such as the NYSERDA "Cleaner Greener" and NYSDEC Smart Growth programs as part of the local share or as a means of supplementing the federal share of project costs for sidewalks and traffic signals.

TRANSIT BUS INTEGRATION

In September 2016, the finalized Ulster County/City of Kingston Sales Tax Agreement acknowledged the importance of intermunicipal cooperation and further sought to "facilitate a single bus transit system within the County, and operated by the County, so long as such system does not result in any additional cost to the County." UCTC began the Bus Transit Integration project to explore issues which affect the current nature of transit service in Ulster County and to provide local leaders and the public with the information necessary to clearly and objectively evaluate the benefits and costs associated with consolidating services

In July of 2019, Kingston Citibus officially ceased operations and UCAT began operating 3 new routes and paratransit services in the City. To date, operations continue to be adjusted to guarantee optimum service for Kingston residents. Ridership has been steadily improving as UCAT staff continually evaluates service and optimizes routes to best serve riders.

Figure 9.5: Long Term Plans and Projects Conformity with LRTP Goals

Plans and Projects	Goal 1 - System Preservation	Goal 2 - Economic Vitality	Goal 3 - Safety	Goal 4 - Security	Goal 5 - Mobility & Reliability	Goal 6 - Accessibility & Connectivity	Goal 7 - Protect the Environment	Goal 8 - Equity
Plans and Projects (listed in the order by which they were completed)								
Ulster County Pavement Management Program (ongoing)	▲							
Ulster and Delaware Corridor Revitalization Study (programmed 2020)		▲				▲	▲	
Ulster County Transportation Infrastructure Resiliency and Vulnerability Assessment Planning (programmed 2020)	▲	▲	▲	▲	▲		▲	▲
Rail Trail/Roadway Intersection Inventory and Analysis (ongoing 2020)			▲		▲	▲		▲
UCTC Community Sidewalk Digitization and ADA Assessment (ongoing 2020)	▲		▲			▲		▲
Wallkill Valley Rail Trail Community Opportunity Plan (2020)		▲	▲			▲	▲	
Ellenville/Wawarsing Signage and Wayfinding Plan (2020)		▲	▲			▲		
Ulster County Road Safety Action Plan (2020)			▲	▲	▲			
City of Kingston Traffic Signal Warrant Evaluation (2020)	▲		▲		▲			▲
Connecting Kingston Signage and Wayfinding Plan (2020)		▲	▲			▲		
Marlboro/Lloyd Route 9W Corridor Management Plan (2019)	▲	▲	▲		▲	▲		

Figure 9.5: Long Term Plans and Projects Conformity with LRTP Goals

Plans and Projects	Goal 1 - System Preservation	Goal 2 - Economic Vitality	Goal 3 - Safety	Goal 4 - Security	Goal 5 - Mobility & Reliability	Goal 6 - Accessibility & Connectivity	Goal 7 - Protect the Environment	Goal 8 - Equity
Ulster County Road Safety Audits (2019)			▲	▲	▲			
Ulster County Safe Routes to School Program (2015)			▲	▲	▲	▲		▲
Building a Better Broadway – Corridor Conceptual Design Plan (2015)	▲	▲	▲		▲	▲	▲	▲
Finding Rosendale Circulation and Access Plan (2015)		▲	▲			▲		
Town of Ulster – Boices Lane Rail Crossing Study (2013)	▲	▲	▲		▲			
City of Kingston Uptown Stockade Area Transportation Plan (2009)		▲	▲		▲	▲		▲
Marlboro Hamlet Area Transportation Plan (2008)	▲	▲	▲		▲	▲		
Ulster County Non-Motorized Transportation Plan (2008)		▲	▲		▲	▲	▲	▲
Saugerties Area Mobility Analysis (2007)	▲	▲	▲		▲	▲	▲	▲
City of Kingston/Town of Ulster - Quiet Zone and City of Kingston Pedestrian Safety and Mobility Analysis (2006)		▲	▲	▲			▲	▲
City of Kingston Route 32 at Fair Street Intersection Study (2006)	▲		▲		▲		▲	
Washington Avenue Corridor Study (2005)	▲	▲	▲		▲		▲	

Figure 9.5: Long Term Plans and Projects Conformity with LRTP Goals

Plans and Projects	Goal 1 - System Preservation	Goal 2 - Economic Vitality	Goal 3 - Safety	Goal 4 - Security	Goal 5 - Mobility & Reliability	Goal 6 - Accessibility & Connectivity	Goal 7 - Protect the Environment	Goal 8 - Equity
Frank Sottile Boulevard/Route 199: Alternative Number 4		▲			▲	▲		
Conversion of I-587 from an Interstate highway to a state road, allowing access.		▲	▲		▲	▲		▲
Regional and State Plans								
Mid-Hudson Congestion Management Process (2020)		▲			▲	▲		
Mid-Hudson Transit Plan (Connect Mid Hudson) (2020)					▲	▲		▲
NYS Transportation Asset Management Plan for the NHS (2019)	▲	▲			▲	▲		
NYS Freight Transportation Plan (2019)		▲		▲	▲	▲		
NYS Highway Safety Improvement Program (HSIP) Strategic Highway Safety Plan (2017)			▲			▲	▲	▲
NYS Pedestrian Safety Action Plan (2016)			▲		▲	▲	▲	▲
Transit Plans and Projects								
Transit System Electrification (2020)					▲	▲	▲	▲

Figure 9.5: Long Term Plans and Projects Conformity with LRTP Goals

Plans and Projects	Goal 1 - System Preservation	Goal 2 - Economic Vitality	Goal 3 - Safety	Goal 4 - Security	Goal 5 - Mobility & Reliability	Goal 6 - Accessibility & Connectivity	Goal 7 - Protect the Environment	Goal 8 - Equity
Improve transit and service frequency and reliability along critical corridors and within urban centers		▲			▲	▲	▲	▲
UCAT Storage Facility Site Selection (2020)					▲	▲	▲	▲
Connect Mid Hudson Regional Transit Plan (2020)					▲	▲	▲	▲
Ulster County Transit Integration Plan (2018)		▲			▲	▲	▲	▲
Ulster County Coordinated Human Services Transportation and Public Transit Plan (2017)					▲	▲	▲	▲
New Paltz Intermodal Facility Plan (2015)		▲			▲	▲	▲	▲
Ulster County Transit System Coordination and Development Plan (2012)		▲			▲	▲	▲	▲
City of Kingston - Intermodal Facility Site Location and Conceptual Design Analysis (2009)		▲	▲		▲	▲	▲	▲

Appendix

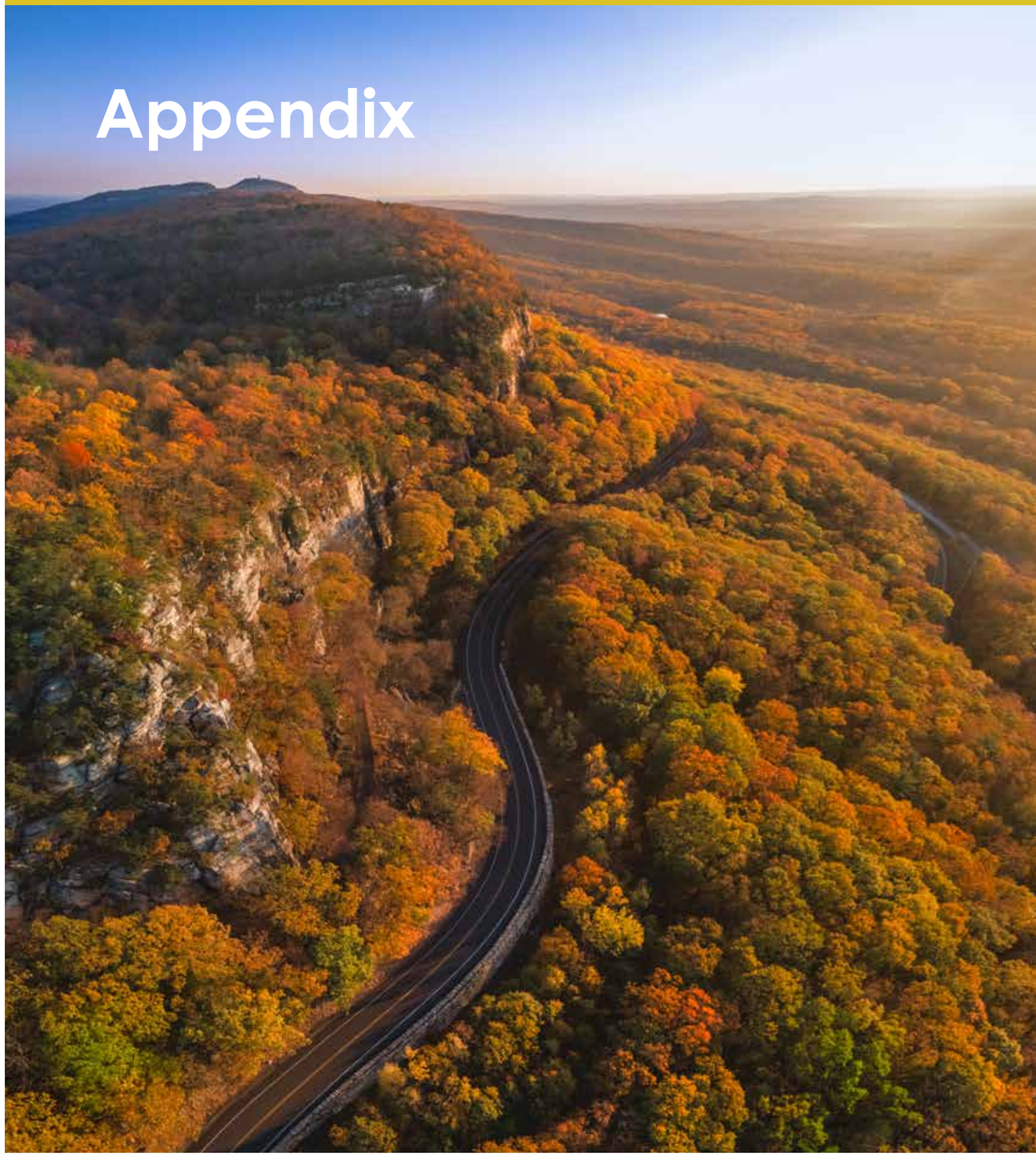


Photo by: Gerald Berliner

APPENDIX A: FEDERAL REQUIREMENTS CHECKLIST ULSTER COUNTY TRANSPORTATION COUNCIL

FAST Act Reference	Relevant UCTC LRTP Section or Page reference
The metropolitan transportation planning process shall include the development of a transportation plan addressing no less than a 20-year planning horizon as of the effective date. [23 CFR § 450.324 (a)]	Plan 2045 addresses a 25 year planning horizon in coordination with the Mid Hudson TMA MPOs of Dutchess and Orange County
In formulating the transportation plan, the MPO shall consider factors described in § 450.306 as the factors relate to a minimum 20-year forecast period. [23 CFR § 450.324 (a)]	Refer to pages 24-27
The transportation plan shall include both long-range and short-range strategies/actions that provide for the development of an integrated multi-modal transportation system (including accessible pedestrian walkways and bicycle transportation facilities) to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand. [23 CFR § 450.324 (b)]	Refer to Sec. 4
The MPO shall review and update the transportation plan at least every 5 years. [23 CFR § 450.324 (c)]	Last updated 9/30/15; latest iteration approved 9/22/2020
The MPO, the State(s), and the public transportation operator(s) shall validate data used in preparing other existing modal plans for providing input to the transportation plan. In updating the transportation plan, the MPO shall base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The MPO shall approve transportation plan contents and supporting analyses produced by a transportation plan update. [23 CFR § 450.324 (e)]	US Census 2018 American Community Survey represents the latest available source of socio-economic and demographic information available and has supplemented previous data where available. Other data sources such as LEHD, NPMRDS and NYSDOT data sources similarly supplement previous versions
The metropolitan transportation plan shall, at a minimum, include: [23 CFR § 450.324 (f)] …	
(1) The current and projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan;	Refer to Sections 3 and 4
(2) Existing and proposed transportation facilities (including major roadways, public transportation facilities, intercity bus facilities, multi-modal and inter-modal facilities, non-motorized transportation facilities (e.g., pedestrian walkways and bicycle facilities), and inter-modal connectors) that should function as an integrated metropolitan transportation system, giving emphasis to those facilities that serve important national and regional transportation functions over the period of the transportation plan.	Refer to Sections 3 and 4 for existing facilities; Refer to Section 9 for proposed facilities
(3) A description of the performance measures and performance targets used in assessing the performance of the transportation system in accordance with § 450.306(d).	Refer to Section 7
(4) A system performance report and subsequent updates evaluating the condition and performance of the transportation system with respect to the performance targets described in § 450.306(d), including—	Refer to Section 7
(i) Progress achieved by the metropolitan planning organization in meeting the performance targets in comparison with system performance recorded in previous reports, including baseline data; and	Does not apply; 2020 is first year UCTC is required to include a System Performance Report
(ii) For metropolitan planning organizations that voluntarily elect to develop multiple scenarios, an analysis of how the preferred scenario has improved the conditions and performance of the transportation system and how changes in local policies and investments have impacted the costs necessary to achieve the identified performance targets.	Does not apply
(5) Operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods;	Refer to Section 6
6) Consideration of the results of the congestion management process in TMAs that meet the requirements of this subpart, including the identification of SOV projects that result from a congestion management process in TMAs that are nonattainment for ozone or carbon monoxide.	Refer to Sections 4 and 6
(7) Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure, provide for multi-modal capacity increases based on regional priorities and needs, and reduce the vulnerability of the existing transportation infrastructure to natural disasters. The metropolitan transportation plan may consider projects and strategies that address areas or corridors where current or projected congestion threatens the efficient functioning of key elements of the metropolitan area's transportation system.	Refer to Sections 4, 6, & 9

FAST Act Reference	Relevant UCTC LRTP Section or Page reference
(8) Transportation and transit enhancement activities, including consideration of the role that intercity buses may play in reducing congestion, pollution, and energy consumption in a cost-effective manner and strategies and investments that preserve and enhance intercity bus systems, including systems that are privately owned and operated, and including transportation alternatives, as defined in 23 U.S.C. 101(a), and associated transit improvements, as described in 49 U.S.C. 5302(a), as appropriate;	Refer to Sections 4, 6, & 9
(9) Design concept and design scope descriptions of all existing and proposed transportation facilities in sufficient detail, regardless of funding source, in nonattainment and maintenance areas for conformity determinations under the EPA's transportation conformity regulations (40 CFR part 93, subpart A). In all areas (regardless of air quality designation), all proposed improvements shall be described in sufficient detail to develop cost estimates;	UCTC meets air quality attainment; Refer to Section 9 for Plan of Projects and reference materials
(10) A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. The discussion may focus on policies, programs, or strategies, rather than at the project level. The MPO shall develop the discussion in consultation with applicable Federal, State, and Tribal land management, wildlife, and regulatory agencies. The MPO may establish reasonable timeframes for performing this consultation;	Refer to Section 5
(11) A financial plan that demonstrates how the adopted transportation plan can be implemented.	Refer to Section 8
(i) For purposes of transportation system operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain the Federal-aid highways (as defined by 23 U.S.C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53).	Refer to methodology detailed in Section 8
(ii) For the purpose of developing the metropolitan transportation plan, the MPO, public transportation operator(s), and State shall cooperatively develop estimates of funds that will be available to support metropolitan transportation plan implementation, as required under § 450.314(a). All necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan shall be identified.	Refer to methodology detailed in Section 8
(iii) The financial plan shall include recommendations on any additional financing strategies to fund projects and programs included in the metropolitan transportation plan. In the case of new of funding sources, strategies for ensuring their availability shall be identified. The financial plan may include an assessment of the appropriateness of innovative finance techniques (for example, tolling, pricing, bonding, public private partnerships, or other strategies) as revenue sources for projects in the plan.	Refer to methodology detailed in Section 8 and discussion in Section 9 regarding Innovative Finance
(iv) In developing the financial plan, the MPO shall take into account all projects and strategies proposed for funding under title 23 U.S.C., title 49 U.S.C. Chapter 53 or with other Federal funds; State assistance; local sources; and private participation. Revenue and cost estimates that support the metropolitan transportation plan must use an inflation rate(s) to reflect ' 'year of expenditure dollars," based on reasonable financial principles and information, developed cooperatively by the MPO, State(s), and public transportation operator(s).	Refer to methodology detailed in Section 8
(v) For the outer years of the metropolitan transportation plan (i.e., beyond the first 10 years), the financial plan may reflect aggregate cost ranges/ cost bands, as long as the future funding source(s) is reasonably expected to be available to support the projected cost ranges/cost bands.	This is the case in UCTC's Long Range Plan; refer to methodology detailed in Sections 8 and 9
(vi) For nonattainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure the implementation of TCMs in the applicable SIP.	Does not apply to UCTC
(vii) For illustrative purposes, the financial plan may include additional projects that would be included in the adopted transportation plan if additional resources beyond those identified in the financial plan were to become available.	Refer to Section 9
(viii) In cases that the FHWA and the FTA find a metropolitan transportation plan to be fiscally constrained and a revenue source is subsequently removed or substantially reduced (i.e., by legislative or administrative actions), the FHWA and the FTA will not withdraw the original determination of fiscal constraint; however, in such cases, the FHWA and the FTA will not act on an updated or amended metropolitan transportation plan that does not reflect the changed revenue situation.	
(12) Pedestrian walkway and bicycle transportation facilities in accordance with 23 U.S.C. 217(g).	Refer to Section 4
The metropolitan transportation plan should integrate the priorities, goals, countermeasures, strategies, or projects for the metropolitan planning area contained in the HSIP, including the SHSP required under 23 U.S.C. 148, the Public Transportation Agency Safety Plan required under 49 U.S.C. 5329(d), or an Interim Agency Safety Plan in accordance with 49 CFR part 659, as in effect until completion of the Public Transportation Agency Safety Plan, and may incorporate or reference applicable emergency relief and disaster preparedness plans and strategies and policies that support homeland security, as appropriate, to safeguard the personal security of all motorized and nonmotorized users. [23 CFR § 450.324 (h)]	Refer to Section 7

APPENDIX B: ULSTER COUNTY AREA TRANSIT FLEET INVENTORY

Veh ID	Year	Body Mfg.	Model	Length	Seats	Fuel	Model	Trans	Del Date	Fund Source	PIN	Cost New	Miles
42	05	ORION	ORION 7	40	34	HYBRID/D	ORION VII	ELECTRIC DRIVE	12/19/09	NY-03-450,X549,X553	8TRU30.001	$468,509	287,670
55	10	ORION	ORION 7	35	32	HYBRID/D	ORION VII	ELECTRIC DRIVE	7/29/10	ARRA-NY-96-X021-00	8TRU30	$553,192	372,630
56	10	ORION	ORION 7	35	32	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/07/10	ARRA-NY-96-X021-00	8TRU30	$553,192	402,860
57	10	ORION	ORION 7	35	32	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/14/10	NY-90-X614-00	8TRU30	$553,192	374,426
58	10	ORION	ORION 7	35	32	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/21/10	NY-90-X614-00	8TRU30	$553,192	368,821
59	10	ORION	ORION 7	35	32	HYBRID/D	ORION VII	ELECTRIC DRIVE	10/14/10	NY-90-X654-00	8TRU30	$553,192	404,918
60	12	GILLIG	LOW FLOOR	29	26	DIESEL	LOW FLOOR	B400R	01/09/12	NY-90-X654-00	8TRU53	$353,009	283,373
61	12	GILLIG	LOW FLOOR	29	26	DIESEL	LOW FLOOR	B400R	01/10/12	NY-90-X654-00	8TRU53	$353,009	277,059
62	14	EL DORADO	PASSPORT	30	25	DIESEL	HC/TC	3000 pts	07/12/13	NY-90-X668-00	8TRU28	$223,226	174,111
63	14	EL DORADO	PASSPORT	30	25	DIESEL	HC/TC	3000 pts	07/12/13	NY-90-X668-00	8TRU28	$223,226	192,081
67	15	EL DORADO	PASSPORT	30	25	DIESEL	HC/TC	3000 pts	12/29/14	NY-90-X720-00	8TRU62	$238,600	221,190
69	15	EL DORADO	PASSPORT	30	25	DIESEL	HC/TC	3000 pts	11/24/15	NY-90-X752-00	8TRU62	$198,627	174,658
70	15	EL DORADO	PASSPORT	30	25	DIESEL	HC/TC	3000 pts	11/24/15	NY-90-X752-00	8TRU62	$198,627	189,526
71	15	EL DORADO	PASSPORT	30	25	DIESEL	HC/TC	3000 pts	11/24/15	NY-90-X752-00	8TRU62	$198,627	167,336
72	15	ARBOC	SPIRIT	24	17	UNLEADED	CG33803	6L90	07/23/15	LOCAL FUNDS	8TRU82	$142,000	111,903
73	17	EL DORADO	PASSPORT	30	25	DIESEL	HC/TC	B400R	01/25/17	NY-90-X765-00	8TRU64	$247,855	144,261
74	17	EL DORADO	PASSPORT	30	25	DIESEL	HC/TC	B400R	01/27/17	NY-34-0016-00	8TRU84	$247,855	137,429
75	17	EL DORADO	PASSPORT	30	25	DIESEL	HC/TC	B400R	01/27/17	NY-34-0016-00	8TRU84	$247,855	160,537
76	17	EL DORADO	PASSPORT	30	25	DIESEL	HC/TC	B400R	01/25/17	NY-34-0016-00	8TRU84	$247,855	126,470
78	18	GILLIG	LOW FLOOR	30	26	DIESEL	LOW FLOOR	B400R	03/12/18	2017-045	8TRU78	$407,803	57,681
79	18	GILLIG	LOW FLOOR	30	26	DIESEL	LOW FLOOR	B400R	03/16/18	2017-045	8TRU78	$407,803	50,058
80	18	ARBOC	SPIRIT	26	21	UNLEADED	CG33803	6L90	10/03/18	2018-009	8TRU	$145,500	32,100
81	18	ARBOC	SPIRIT	26	21	UNLEADED	CG33803	6L90	10/03/18	2018-009	8TRU	$145,500	25,278
82	18	ARBOC	SPIRIT	26	21	UNLEADED	CG33803	6L90	10/03/18	2018-009	8TRU	$145,500	36,810
83	19	GILLIG	LOW FLOOR	40	31	DIESEL	LOW FLOOR	B400R	03/15/19	2018-009	8TRU	$433,166	13,532
84	19	ARBOC	LOW FLOOR	26		GAS	CG33803	6L90	10/02/18	2019-073	8TRU	$145,540	3,923
85	19	ARBOC	LOW FLOOR	26		GAS	CG33803	6L90	02/27/20	2019-073	8TRU	$148,492	4,416
86	19	COACH/FORD	PHOENIX	23	18	GAS	E-450	Z-TYPE	06/03/20	2019-038	8TRU	$66,511	359
87	19	COACH/FORD	PHOENIX	23	18	GAS	E-450	Z-TYPE	06/03/20	2019-038	8TRU	$66,511	368
9072	07	GILLIG	LOW FLOOR	35	32	DIESEL	LOW FLOOR	B400R	09/15/07	NY-03-0425	8TRU22	$307,160	330,404
9073	07	GILLIG	LOW FLOOR	35	32	DIESEL	LOW FLOOR	B400R	09/15/07	NY-90-X552-00	8TRU22	$307,160	319,877
9111	11	GILLIG	LOW FLOOR	35	32	DIESEL	LOW FLOOR	B400R	04/01/12	NY-96-X024 | NY-90-X552	8TRU22	$378,295	239,187
9112	11	GILLIG	LOW FLOOR	35	32	DIESEL	LOW FLOOR	B400R	04/01/12	NY-90-X67-00 | NY-96-X024	8TRU22	$378,295	237,915
9161	16	FORD	PHOENIX	23	14	GAS	E-450	Z-TYPE	06/20/16	NY-90-X769-00	8TRU74	$66,511	44,915
9162	16	FORD	PHOENIX	23	14	GAS	E-450	Z-TYPE	06/20/16	NY-90-X769-00	8TRU74	$66,511	46,259

APPENDIX C: CONSULTATION WITH RESOURCE AGENCIES

In compliance with 23 USC 134(i) 4, 135(f) 2(D), 134(g) 1, 135(b) 2, and 134(g) 3, the following message was distributed by UCTC on July 27, 2020:

ULSTER COUNTY TRANSPORTATION COUNCIL

Patrick K. Ryan, County Executive, Chair

July 27, 2020

RE: Consultation with Regulatory Agencies in the Development of UCTC's Long Range Transportation Plan

Dear Sir or Madame:

The Ulster County Transportation Council (UCTC) has recently begun the development of its latest 5-year update to its Long Range Transportation Plan as described under US Code Title 23 §134(i) – Metropolitan Transportation Planning ("Development of Transportation Plan").

The UCTC has been designated by the Governor of the State of New York as the Metropolitan Planning Organization (MPO) responsible, together with the State, for the comprehensive, continuing, and cooperative transportation planning processes for the Kingston Urbanized Area and, together with Orange and Dutchess Counties, a portion of the Mid-Hudson Valley Transportation Management Area (TMA).

The Fixing America's Surface Transportation (FAST) Act requires Metropolitan Long Range Transportation Plans (LRTPs) to be developed, as appropriate, in consultation with State and local agencies regarding land use management, natural resources, environmental protection, conservation, and historic preservation. The consultation shall involve, as appropriate, comparing available plans, maps or inventories. (References include: 23 USC 134(i) 4, 135(f) 2(D), 134(g) 1, 135(b) 2, and 134(g) 3.)

The FAST Act also requires LRTPs to include a generalized discussion of potential environmental mitigation activities and potential mitigation areas, including activities that may have greatest potential. The mitigation discussion shall be developed in consultation with Federal, State and Tribal wildlife, land management, and regulatory agencies (references include: 23 CFR 134(i) 2(B), 135(f) 4, and 134(g) 3(B).).

I would therefore like to take this opportunity to encourage your organization to participate in our Long Range Plan update process. A detailed description of the update, including schedules, drafts and opportunities for public engagement, can be found online at https://ulstercountyny.gov/transportation-council/long-range-transportation-plan

An approved Long Range Transportation Plan must be completed no later than September 30, 2020.

Sincerely,

Brian C. Slack
Principal Transportation Planner
Ulster County Transportation Council

bsla@co.ulster.ny.us u (845) 334-5590

CC: D. Doyle, Director

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bmckenna@woodstockny.org;
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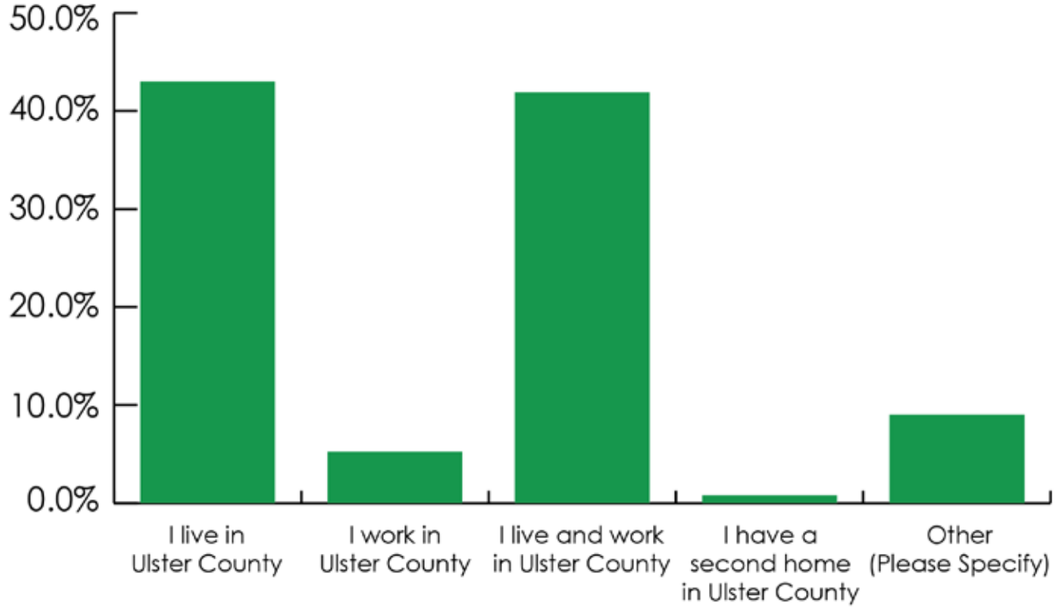
Jk.kkzf@yahoo.com;
sosborn@marlboroughny.us;
togtsupv@hvc.rr.com

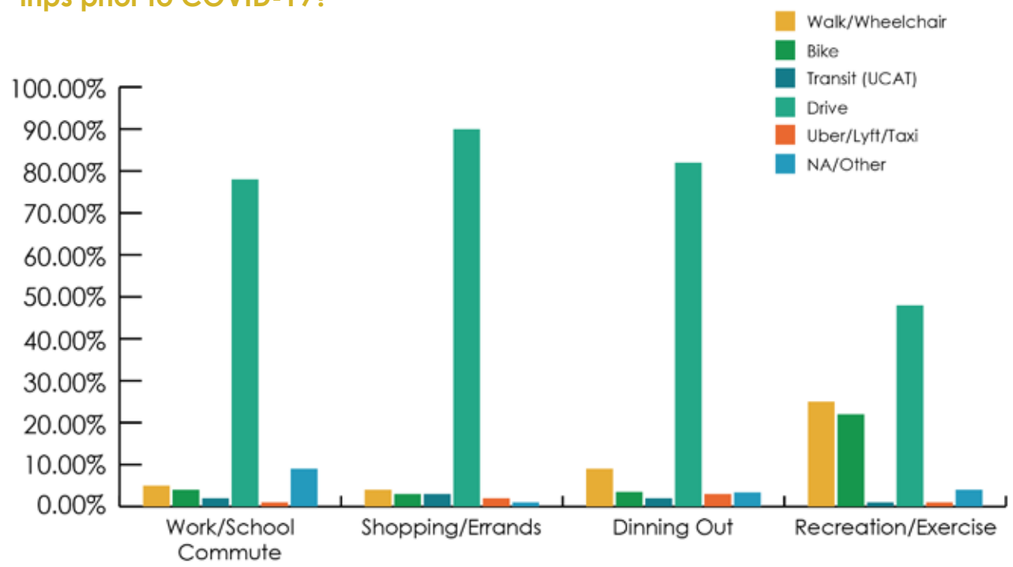
APPENDIX D: SURVEY RESPONSE SUMMARY

What is your connection to Ulster County?

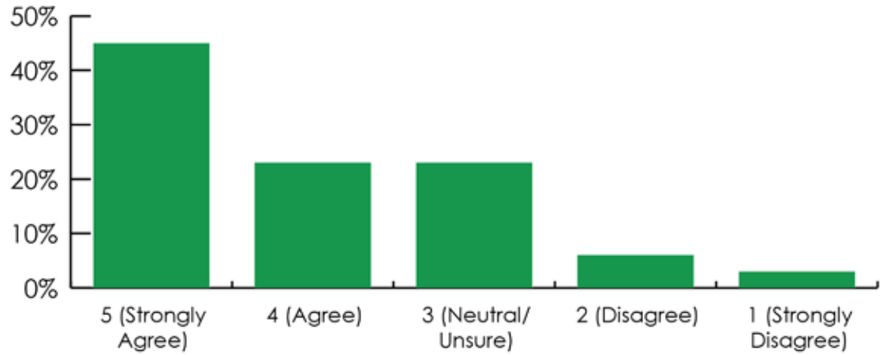
Answer Choices	Responses	
I live in Ulster County	43.01%	157
I work in Ulster County	5.21%	19
I live and work in Ulster County	41.92%	153
I have a second home in Ulster County	0.82%	3
Other (Please Specify)	9.04%	33
	Answered: 365	



What was your primary mode of transportation for the following types of trips prior to COVID-19?

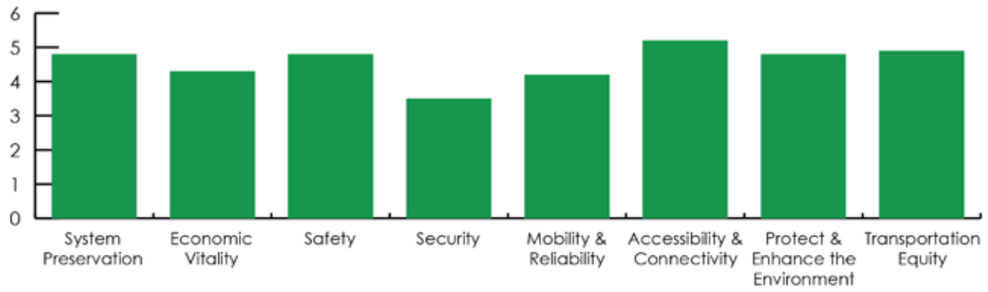


The Ulster County Transportation Council (UCTC) has drafted the following Vision Statement that serves as a foundation for the Plan's goals and objectives. Please use the slider (1 being strongly disagree and 5 being strongly agree) to indicate your level of agreement with the Vision Statement, as shown below:



"In the year 2045, Ulster County's transportation system is capable of affordably supporting its vibrant communities, which are attractive to businesses and to people of all ages and stages of life. The transportation system provides appropriate links to the region and beyond, and is viewed by all as an economic and environmental ¬¬asset and a major contributor to quality of life. Communities are supported by a transportation system that provides safe access by all modes of travel. There is a robust economy, with diverse businesses whose need for efficient freight and personal transportation service is routinely met."

The Plan has eight goals that inform priorities and strategies to implement the Vision. Please review and rank the goals by sliding them into position or changing them numerically (1 being the highest priority and 8 being the lowest).



PLEASE TELL US IF ANYTHING IS MISSING FROM THE GOALS

Servicio de transporte para las áreas más limitadas y lejanas | Transportation service for the most limited and remote areas

Make it affordable

No mention of trailways bus or rail commuters
Creativity approach all goals with both environmental and conservation in mind while thinking outside the box and being innovative

This format ranking 1-8 is not easy to use

Though I don't note that anything is missing, I suggest that these be the 8 guiding principles with ranking.

9w corridor service, with parking spots.
Efficiency: Run all programs in a way that are respectful of the taxpayers and ensure that the system has minimal waste. This should be priority 1!
The goals seem fine on the surface; however many of them should be combined as one. Example: Equity, safety, and security should be one item. This should be number 1. If you need eight goals try to create them without making people choose among those.

SAFETY> Bike riding on the "nt state bike path" is NOT SAFE in New Paltz

Nah that's a pretty solid list ngl

Ensuring that the transportation systems stay up to date & relevant with progressing technologies.

Stop spending money on rail trails and fix the roads and bridges first
Major community outreach and better marketing. Our LOOP bus is an incredible resource that not many people use or really understand. People assume it's just for college kids due to the huge SUNY logo on the side.
When conflicts arise between protecting the environment and encroaching on it through a new Transportation access, protection of the environment should be the highest priority.

Would be great to see a more explicit commitment to people of color and to making transportation in our county equally available for people of all income levels. (This is similar to the wording in the "transportation equity" section, but a bit stronger.)

Complete streets that include protected bike lanes
It's not clear what modes of transportation you're considering within these goals. They should be more specific about reducing cars on the roads and providing more sidewalks and safe routes for bikers and pedestrians. Everything is so vague that the statement could be interpreted a thousand different ways, which seems counterproductive, depending on who is running the local governments.

Transportation be available to get you to other counties for work, pleasures etc.
Ability to connect to Dutchess system frequently during morning and evening rush hours to allow greater use of public transportation and less MH Bridge congestion.

Supporting and developing active transportation networks. Develop rail trail signage systems.

Safe travel by bike and foot is important to residents and to bring recreation dollars into the county.

Connect Ulster County to communities across the Hudson River
Accessible, ease, connectivity of communication to the public... it is often difficult to navigate transportation options.. different technologies and sources of communication should be utilized and/or updated.. city maps, websites, literature and be posted in frequently visited areas.

The busses should operate on a consistent schedule seven days a week, for longer hours.
The goals are great. Equity is listed as my first because those included in that goal are suffering now from the poor transportation system.
The time frame is too long in Vision Statement. This is needed much sooner.

I haven't read the *entire* document, but what I read looks good!

These are difficult to rank in this way because all of these goals are dependent on one another to function smoothly.
Transportation within the county should also focus on connecting transportation with tourism and unique shopping within the county (I.E. - Kingston Stockade District, Woodstock, Saugerties, Phoenicia, New Paltz, Walkway over the Hudson, Rocking Horse Ranch, Mohonk Mountain House, Minniwaska, Ice Caves Mountain, Skydive The Ranch, etc).

Safety should include review and vetting of herbicide use along transportation system,

It is there, but connectivity of existing modes could be accomplished now.
Creating transportation that connects Dutchess and Ulster County together. I am a Bard student and rely on getting medical care in Kingston. Without a car I end up spending a lot of money for ubers and lyfts.

Align transport systems so that they aid climate change mitigation and social and economic restructuring

N/a
Seems like there's overlap between some of the goals, or at least, a few that focusing on will have also positive impact in some of the others

Bicycle secure parking.

Can there be transportation between red hook and Kingston?
They confuse me and overlap--can't expect to get reliable data since it makes there be a winner and loser in the above goals, whereas many people want things equally but have to put some at the bottom of list. I would not have conflated security in basic transport plus possibly-foolish efforts to run no matter what in 'severe weather events'. Those seem like two different things.

Nothing

Without equity our transit system won't abide.
I ranked safety low be/c I think it is a given. Severe weather is increasing and trying to ensure that "we" can get around in the midst of it will likely be an expensive implausibility. Emergency services will have to be prepared for terrible conditions. As the exodus from the south grows, congestion can only be countered by not expecting one car for every person.
Yes, interconnecting through-out the region: between counties, between eastside & westside of the Hudson River corridor, with urban centers. To have a network. Parking lots are also an important part of the network. Well-maintained sidewalks are important more state and county roads, along with alternative transportation.

Please add a public bus across the river. Kingston is the closest town to Bard College, and we need this connection A LOT.
A goal sets a concrete destination with clear steps to achieving it. These are not goals. These are rambling concepts written in "Committee Jargon." An excellent transportation plan will simultaneously achieve all of these concepts without having to pick one as most important and one as least important.
any mention of links from ground transportation to waterborne movement of goods and people and the logistics, infrastructure, and connections between
In 25 years, many people will be working virtually. The major job markets will be the metropolitan areas and individuals working from home will require access to NYC on a once a week or more basis. There needs to be a high-speed rail installed along the Hudson from Albany, one from Boston, and one going south out of NY. Locally, the technology to facilitate automated driving will be required in 25 years. To the greatest extent possible, things that people need will be grouped in communities to limit the need for transportation and the cost of it. It appears as if our highway system is adequate, but will have to be maintained. Traffic flow could be significantly improved by Smart Lights, which register when cars are waiting, and by such developments as roundabouts. It is difficult to predict whether individuals will adopt the use of public transportation.
At this moment, it appears that many people are going to struggle to survive, in which case, owning and maintaining a car may not be affordable for a number of people. In that case, public transportation, whether it be a bus or an automated taxi system, will be critical.
Numbering as the survey demands isn't the best way to do this. There should be a 3 tier priority system that you divide up the points into.
A high priority should be making transportation economically accessible, ensuring that transportation is right and not a privilege. Accessibility for elderly and disabled users should also be a high priority.

ZERO CARBON PLAN

Rural transportation is needed.
How about prioritizing non-motorized transportation. Ulster did have a plan, seems it's abandoned. Too much pablum about "all modes." Cars already have all the roads, what about a commitment to the "other modes" like walking, bike lanes, more U-CAT routes. What about e-vehicles? Didn't exist until recently and now eBikes, eScooters, maybe eSkates soon. Also above there is no option to use multiple modes as "primary," like bike to a U-CAT, or walk on both ends of a trip, etc.

Parking and bypass routes around the center of towns heavily impacted by tourism, such as Woodstock and Saugerties.

Improve rail system on this side of the Hudson to allow better access to NYC without driving.

Education, awareness and promotion of services, especially to vulnerable community members, non-english speakers, etc

do not want to see buses day and night this is the country not the city we don't need to be like the city

I'd like transportation from Bard College to Kingston

More bike lanes and other environmentally supportive methods of transportation

Continuing education and safety training for bus drivers. Some get complacent, I know, I work there.

Nothing I can think of.

Better transportation for college students.

Connect Bard to Kingston!

Improved support for alternative transportation (specifically for bicycle and pedestrian routes of travel).

No

I live in Dutchess county and would really like to have public transport to work in Ulster County!

Encourage intergovernmental coordination. Examine methods to fund transportation.

Ensuring daily service, affordable, reliable public transport to all and bike lanes everywhere in Ulster County

Create/expand public transportation systems that support health (bike lanes!) and lower GHG emissions (public transport)
Better para-transit system (further the the current 1.5 miles from fixed route) and better hours for people traveling to and from work in nyc.
Strict penalties for land developers and builders who do not follow zoning laws. Zoning laws should not be changed to suit the land developers/builders which will lead to more congestion (especially over the bridges), deforestation which takes away animal's habitat and destroys ecosystems.
Provide more alternatives beyond the train and the Adirondack Trailways for people who have to commute to NYC for work because it's too difficult to make a living in Ulster County. The bus in particular is very mixed in it's quality of service. We live in Kerhonkson and have a very long drive just to catch the bus. We need more options desperately.

bike lanes with barriers agains cars more rail trails walkways for children going to school

In my opinion, none.

Be cost effective. Substitute Uber/Lyft for bus routes.
Transportation equity should mention specifically measures to promote and ensure racial equity and inclusion in all aspects of public transportation

Innovation such as on call ride share model

Commitment to use 100% electric buses.
Communication - Just because you build it does not make people use it. How to incentivize and advertise a new transportation system?
1) Had a hard time distinguishing System Preservation apart from Safety, Security, Protect & Enhance Environment, Economic Growth. I put System Preservation 7th but it is inherent in all the others - when looking at Preservation projects in the System, the criteria for prioritization should be Safety, Security, Transportation Equity, etc. as ranked above.

2) Economic Vitality will be an outcome, a product, of investments in and focus on the other goals. Marketing to promote the ease, connectivity, affordability, cleanliness, and climate benefits of using public transportation in an area where the majority of adults own a personal vehicle and either don't think about alternative transportation or presume undesirable conditions.

No

Sanitation - cleaning and disinfecting regularly, especially the seats and handles and anything else that gets touched.

reducing number of cars on roads (which will likely reduce congestion)
A rethinking of changing how to safely move transportation into modes less harmful to the environment.
I would bike to work if my road wasn't so dangerous to cyclists, or if I had access to the rail trail closer to my home.

I would also happily take a shuttle or bus to work and the grocery store if there was a stop near my apartment building.
Please create a cross-bridge public transportation option that would go from Kingston in a loop to Bard and Rhinecliff, to facilitate the Bard community's connection to our nearest urban area, and to help residents of Kingston who work at Bard College have greater access to their livelihoods.

cross-bridge public transportation option that would go from Kingston in a loop to Bard and Rhinecliff

Help address subsurface utilities that pose long term system preservation issues.

Bike lanes and bike racks.
Linkages to Dutchess and other regional systems and the Metro North and AMTRAK train lines as well as Stewart and Albany Airports

recreational transportation
I think that "Transportation Equity" likely includes this, but I think that fare equity for public transportation (for example, ensuring that low-income residents don't pay more as a result of monthly vs. daily fare structure) should be a crucial consideration.
I did not see the word "rural" once in the goals and Ulster County includes a lot of rural area. The rural area routes have historically been effected by extreme weather events that cut people off from accessing food, water and services.
Please consider a bus system that links the Kingston area with Dutchess County: Bard College , Poughkeepsie, even Hudson or at least other towns in Dutchess County

Perhaps this is in the Connection goal, but public transport across the river would be great.
These goals are a bit vague. I'd like to see an investment in infrastructure to encourage bicycle use as a practical form of transportation on roads (i.e. bike lanes) and road design that encourages pedestrian usage, so that people will want to walk places instead of getting into their cars.
These are excellent goals. As a member of the Bard College community, I support the recommendation for public transit from campus to Kingston .
I wouldn't say that anything is missing but it's difficult to rank them. That is, I think all the goals are very important, perhaps equally so.

I would appreciate having a cross-bridge public transportation option that would go from Kingston in a loop to Bard and Rhinecliff

Creating more bicycle infrastructure which also promotes cycling as alternative means of transportation.

Can this happen any earlier?

A loop bus/public transportation option across the bridge to Duchess County would be great.
I would like to see a bus route connecting Ulster and Dutchess Counties to provide the people in those communities easier access to retail, educational and cultural activities.

No discrimination on public transportation

It would be great to see public transportation extended to cover a cross-river route over the Kingston/Rhinecliff bridge.
As an employee of Bard College, I'd appreciate a cross-bridge public transportation option that would go from Kingston in a loop to Bard and Rhinecliff/Rhinebeck, to facilitate the Bard community's connection to our nearest urban area.

Affordability of fare.

Fix the sidewalks

Reliable, regular, affordable mass transportation options to NYC should be the #1 goal, particularly from the Ellenville region. The difference between Ellenville and New Paltz or Kingston is the lack of access to NYC.

Regional connectivity, to e.g. Poughkeepsie, NYC, Albany

IF FUNDING RESOURCES WERE UNLIMITED, WHAT IS ONE THING THAT YOU WOULD DO TO IMPROVE TRANSPORTATION IN ULSTER COUNTY?

Servicio comunitario | Community service

Make it free for students and part-time workers with valid IDs

Have a light rail along the Hudson to make it easier to connect with train stations across the River.

Provide more of it to more destinations for free

Bike lanes on major roads, sustainable public transportation into rural roads.

Better schedules, keeping updates current

Introduce fees for parking and park/natural resource access for non-UC residents.

Bus or light rail running continuously on all major thoroughfares
Greatly increase the frequency of buses, the range of buses especially in rural areas, and fix the disabled/Medicare rider discount so that it's all day and not just 9am to 3pm. Us disabled people have lives outside of the morning.

Build pedestrian walkways and bike ways underground and in bridges vs trails and sidewalks and crosswalks.

Light rail to and from Poughkeepsie, Newburgh and Kingston; better bike paths through the village

commuter light rail. or expand rural bus service

Widen car lanes (a lot) to accommodate bikes and pedestrians
Add light rail connecting Kingston, New Paltz, western Ulster County to Poughkeepsie & Newburgh (employment hubs) with multiple stops both lower-income neighborhoods and those with many businesses/employers. Connect more rural areas to places with greater density to facilitate employment opportunities in both areas and to raise the tax base/employment in rural communities.
Removal of dangerous dead trees along our roadways. This has cost the lives of people in our county and continue to be a danger.

More Bus service, more bike lanes, BRING BACK THE WEST OF HUDSON PASSENGER TRAIN!!!!!!
Better bus system (more often and more lines), shuttle routes for tourist destinations (like wineries, breweries &parks) and bringing back safe rider-like services (provide a van or two or 2 in the county at night to prevent DUIs)

Down with car culture!

Light rail system to outlying communities

9w corridor service

Better bike/walking lanes along roadways
Additional bike paths and additional land protected from development since thee we t

Is one of the reasons why people come to

Visit and live here!

Advertising
1. BIKE LANES—you have more people in Kingston using bikes out of necessity than in any other community: keep them safe.

2. There should always be a free morning and evening bus/shuttle—this area will only get more difficult for those already vulnerable.

Congestion & littering issues

Busses on 20 minute schedule 6am- 7pm Woodstock-Kingston-Rosendale-New Paltz and Kingston-Marbletown-Accord-Ellenvile and hourly 8pm-11pm and 5am. Also have van buses to connect Gardiner, Highland, Kehonkson, Phoenicia and Saugerties to the main routes.

Repave all roads and provide more options for people to take public transportation and/or taxi services to go out to towns like New Paltz and Kingston. (I've been stuck in NP at 11pm on a Friday night in the summer with no way of getting home via taxi)
We need real public transportation asap. All of us are driving endlessly for errands when we should be required to and able to use real public transportation. And with no resource barrier any public transportation should be 100 percent green. Hydrogen fuel cell buses? And constant rotating between towns too with great timetables. Would also cut down on drunk driving!

Increase transportation times and add more busses and vans.

Be like little towns in Mexico. Give access to everywhere by public transportation

Build routes and increase frequency.

Better bike lanes

More bike trails
Have better transportation alternatives for folks in rural/semi-rural areas. We have a nonprofit on Old Post Road in Esopus - it's impossible for our volunteers and clients to reach us without cars. There is a stop on 9W and Old Post, but for people with disabilities or people not in excellent physical shape, they can't go from that stop up the steep hill to us. We're about a mile and a quarter up the hill from that stop, so it's pretty useless for most people. Also, kids from SUNY New Paltz would love to volunteer here, but they have no way to get here without using cars.
The public transportation options are anemic at best, especially in rural areas, such as Esopus. People here are constantly driving into New Paltz or Kingston for basic necessities. We have to find better, greener, and more efficient ways to get people around.

More options for getting to LGA JFK and EWR Airports

Electric and kneeling busses

If our incredible trails & mountain range is the tourist draw WHY is this not served with public transportation?

Continue to expand and improve connections to Metro North in P'keepsie.

Make the towns more walk/bike friendly and improve bussing

Mass transit between New Paltz and Poughkeepsie train station.

A new bridge to Dutchess County at the end of NY299 East

Expand bus routes and UCATS key infrastructure through larger Towns in Ulster County like Lloyd, Gardiner and New Paltz.

More round a bouts

Increase availability and accessibility.

Create alternate pathways in & around New Paltz to reduce traffic from the interstate during peak tourist season.

More paved and connected traffic free ped/cycling paths

A car ferry for north and south riding on the Hudson River.

An interconnected web of bike/walking trails and improved sidewalks

Bridge and existing roadways
A robust system of buses and rail trails. As an environmentalist I am a bit torn, but I do think a paved rail trail would make it more viable as a commuting path. It is currently considered more recreational.

Clear lines marking outside lanes and reflective markers in the middle of the road so drivers can see in foggy conditions.

Frequent and widespread above ground transportation

More rail trails.
Please help with a public transit connection across the Kingston-Rhinebeck Bridge. This would make things *much* easier for me. Connection between Rhinebeck/ Red Hook/ Tivoli and Kingston would open up economic opportunity and assist train transit to NYC.

Bike Lanes and bus system
1) Ideally, we'd have trains providing service north-south and across the river.

2) Better bus service would be a plus--more routes and more frequent service. I love riding public transit, but the current service is too infrequent to be useful for me. I also don't really understand the bus maps--where and how do I get on? Do I just wave down the bus?

Bus service between Kingston and the Rhinebeck area, including up to Bard, would be really useful for some.

3) I would like a paved, separated-from-traffic bike route connecting all communities, including Saugerties-Kingston-Rosendale-New Paltz and the surrounds (paving the rail trails?). There would be covered bike shelters with places to securely lock one's bike (combination of racks, bike lockers, bike valet) at transit hubs and major destinations.

Stop digging up the streets for no apparent reason
Add routes based on survey of those who would use them. Make it possible for those who work in Dutchess to get from home to work. The bridge traffic pre-COVID19 was too congested.

Increase bus hours in the evenings and expand service on weekends in Kingston.

Provide medical transport for EVERYONE who needs it.

Availability to more parts of the county and more time options for public transport.
Reduce on-street parking to one side of the road only. Increase municipal parking garages in strategic locations. Add bike lanes in the vacated parking spaces. Create loop roads around/over/under main streets for though traffic.

Include bike and walk lanes in all road upgrades/repaving projects.

I would provide regular and reliable service throughout the county on a set schedule
Connect more trails - hiking, biking, rail trails, etc - so that residents can go farther off roads and connect to other trails, towns, and businesses.

Connect Ulster and Dutchess transportation across the Kingston Bridge.

Remove the commercial cargo rail from midtown Kingston

definitely trains, or find a way to connect as many rail trails as possible to make safer and more interconnected bike paths

Equip all busses with wifi and outlets for charging.

Make it as green and as environmentally friendly as possible!!

Fix & properly maintain roads and bridges

Improve accessibility and availability immediately.
Maintain the roads properly, including establishing a mandatory standard that all manhole covers in the county be flush with the road surface.
Unlimited? More trails and separated bike lanes on *every* street and low-cost short-term rental system (such as Bixi/Citi Bike) for bikes and scooters! Oh, and enforcement for people running red lights and stop signs in the City of Kingston!
I would consider having trolleys that access different locations in the county do dependence on automobiles becomes less imperative.

Regular bus service from New Paltz to Accord.
I would increase stops, destinations (including tourist, shopping, and medical), and frequency throughout the county to keep us all connected, provide exclusive and low cost/no cost busing to the elderly and handicapped (one route exclusively for such places as The Birches, Ulster Gardens, and other senior and/or section 8 housing with fees based on income by requiring a special pass), and have limited runs throughout the night for people going to/from work (I.E. - hospital workers).
The Albany Avenue/Ulster Avenue Corridor from Foxhall Avenue to Chambers Elementary School. A road diet, new sidewalks, trees, etc

Passenger train service.

Reestablish train transportation!

uniform surfaces and wide shoulders - manage trees and growth along sides of the trails

Reliable public transport, bus, light rail, separated bike paths, sidewalks.

complete rail trail linkages

Please consider creating a cross-bridge public bus line that connects Kingston and Bard!!!

Open air trolleys in the warmer months that move from uptown to downtown Kingston
My experience is with UCAT. I would like the bus to have a as robust a schedule going east and west as it does going north and south on rout 209. And to run on holidays- many people still have to get to work on holidays. I've used the bus only when my car wasn't working and am grateful for it!
Ability to get from one transportation hub to the other, for example, bus station to train station. Wifi and mobile device charging on the bus.
Expand non-motorized along all roadways by adding a 15-20 foot path that has a barrier to secure the site from motorized vehicles from crossing over and prevent accidents

free, ubiquitous bus service pleasantly radiating from centers

Keep Dennis Doyle.

Promote more "mass transit"

Expand routes

electric commuter bus running continuously throughout major County routes
Find and implement ways to effectively communicate to all residents and visitors in the County the various modes of transportation available to them on an ongoing basis.

Create an educational component for middle school through high school on all modes of transportation available in the County including trips to ride, use, experience.
Bike racks all shopping centers, supermarkets, and government buildings; racks not the usual hold front wheel only cheapies, but hold the bike securely at least two places (good designs online).

Accessibility to all people
If funding resources were unlimited, I would like to see more access to pubic transportation, especially since housing is becoming more expensive in Kingston. Low income families are moving to areas that are more affordable, but lack adequate public transportation. For example, if you move to Accord, and don't live on 209, it might be harder for you to access transportation because the bus stop is not within walking distance to your house. I would also like to see the bus schedule times extended. Sometimes people have to wait a long time to get a connecting bus.

something 100% environmentally excellent
We just need way more of it. More routes, more connections and more service time. I would use it if it were there, but it is not so I must drive instead.
Provide free, sustainable transportation to all residents of Ulster County, normalizing and expanding the routes of travel to encourage residents to make use of public transportation and decrease greenhouse gases and other pollutants.
I would want more reliable public transportation that was more easily accessible and understandable. I would want a system that runs so well, that more people utilize the buses then their own cars for getting to work and school. I would want clearly marked bus stops and routes that cover more area. Also I would want more sidewalks to connect residents to the bus stops safely. Boulevard should have a sidewalk connecting Kingston to the Institute for Family Health and the Jail. The sidewalks also should be maintained, so those in wheelchairs or with strollers can easily utilize them.

More/better bike lanes and mass transit options like light rail (in an unlimited resource setting)

replace/upgrade sidewalks and curb ramps in villages and cities

Added routes

Illegal drugs

replace all deficient bridges
To protect our environment and secure our economy, replace all internal-combustion engines with less harmful alternatives; to promote equity, fully fund carpooling / ride-sharing; schedule regular busing or equivalent along ALL state and county roads, major & arterial city and village streets, and to all recreation areas; and give bicycles and a pair of shoes to all who want them;

I don't know exactly--but something truly visionary. Where is in the world is it already being done?

Make all cars and trucks electric And build more e-charging stations.
Green infrastructure as part of every aspect of transportation for better water quality, air quality, and improved opportunities for open space and linear parks.

More buses across the river. Encourage people NOT to rely on their private cars.
If funding were unlimited I'd love to see trolley lines reappear navigating from town to town. Once upon a time you could take a trolley from New Paltz to Highland - wouldn't it be great if you still could?
Stop drivers from killing vulnerable road users. Require sidewalks along every municipal street. Reduce road lane width and speed for drivers in cars. Paint a bike lane on every road, removing on-street parking, as needed. Build a robust bicycle road and trail network with UCAT connections. Increase the UCAT system with all buses running hourly from 6 am to 12 am. Add UCAT service to Lake Minnewaska, Mohonk Preserve and Mohonk Mountain House to reduce driving. Reduce all town speed limits to 20 mph and all highways to 45 mph. It works on Rt 28. It should be standard on all of Ulster's State Highways. Install bike racks everywhere.

Provide better links to other transportation hubs (eg Amtrak) at more frequent intervals.
provide free public transit throughout the County and preserve and improve the working waterfront while confronting sea level rise and global warming

Installation of a high speed train to NYC.

Funding isn't unlimited and there isn't any one cure-all.
If funds were non-issue, busses should be free and run frequently. Specifically make the service to Poughkeepsie more streamlined.
Expand frequency and stops to neighboring towns that offer attractions such as farms/farmers markets, wineries, distilleries, hiking, recreation, etc. Also, market the improved transportation offerings, as many residents do not know about it/are unfamiliar.

Build new Rail and get the transportation network be zero carbon.
Create a rail system that ran along the thruway or 9w with reliable electric bus service in each town to travel out from the rail system.

Rural transportation.

a train system. frequent bus stops

Provide more public transportation for people without cars.
How about if intelligence was unlimited? How about running a town like a parking lot, gates at every street route in that would not allow more vehicles in than could be safely accommodated.

Shared ride point to point, to reduce need for private cars.

Bike lanes.

Improve the rail system. Would allow more people to work in NYC metro, improve economic situation in Ulster County.

More frequency, longer running hours of buses.
We are significantly hamstrung by 2 major issues: 1) The Thruway is badly outdated and cannot support modern traffic levels. We would be in a much better position to market abandoned sites, compete for new business and support our tourism economy if the Thruway were expanded to 3 lanes in each direction between Harriman and Albany. An economically meaningful number of Downstate/NJ tourists are avoiding coming up here because of the horrible return trip on weekends. They're leaving earlier, and taking their dollars with them when they do come up here. Expanding the Thruway would put us on a more level playing field with other regions of the country that have better infrastructure. And the project would inject a lot economic activity into the Hudson Valley as we begin to recover from the Pandemic. 2) Pat Ryan has talked about quality train service on this side of the river - it would be huge. Our residents would have more opportunities for employment, 2nd home money would come here more freely from Downstate, and tourism would certainly increase markedly. Local transportation improvements would naturally follow from foundational improvements like those above, as we'd have more economic activity in general.

Traffic studies to improve commuting corridors and transportation links. The traffic in Ulster County along certain routes is heavy.

Run buses on schedules where people can actually use them to commute to a job. The Z line, specifically...

Create a monorail rapid transit network around the county, and connect it to Poughkeepsie train station.
With unlimited resources, I would like to see a transportation system that addresses the needs of the lower income community as a whole. There a many instances where the route is just to complicated or involves too many stops. A more direct and simplified system of transportation should be availbale to those in need which should include medical transportation and to work so they can xontinue to provide for their familied as best they can.

run more buses daily m- fri but weekend service should remain limited

Infrastructure and continuous upgraded vehicles.
Add something like light rail from the Rondout to Uptown Kingston, then along the 28 and/or 209/199 corridors. And while we're at it, why not add 9W or 32 to that mix, if funding was unlimited? While COVID is currently making mass transit less safe, thinking about greener transportation options will serve our communities well in the future. Parking lots are not the priority in the most vibrantly realized cities/regions.

Create more transportation from remote areas to Kingston

Improve and increase public transportation options so that county residents aren't so dependent on automobiles.

Make the buses more available during peak times and places. For example, currently, the Saugerties/Kingston bus only runs hourly, making it impossible for students to get to SUNY Ulster for 8:00/9:00 am classes; and is an unreasonable form of transportation to get to and from work.

More bike lanes

Connect across the River

Electric buses

Add service throughout the system, allow the busses to run into later in the evening.

More busses and easier ways to get across the river into Kingston

Make a cross bridge public bus that would bring bard/red hook/ Tivoli to Kingston!!! Please!!!!
Bicycle and pedestrian only routes through every town that are easily and safely accessible. More ev charging stations using alternative energy sources.

I'd love to see a fully electric bus fleet complete with free wifi in addition to gondolas.

Make it more accessible to people in rural areas.

Another bridge across the Hudson River

Increase frequency of bus trips to improve availability and usefulness.

Public transportation to locations not served or nort well served at present.

Have it go across the bridge to Dutchess county!
Improve alternative modes sidewalks, bicycle parking and bikeways. Lobby to allow municipalities to designate roads to speed limits less than 30 mph (without state approval of each individual situation)
Expand public transport to reach all Ulster County residents, ensure safe buke lanes available throughout the county, and reinstate and expand upon the railway infrastructure for passenger transport that was destroyed during the last century. The last one is especially relevant to establish more serious connectivity to places outside the county.

$ for infrastructure/paving especially busy roads like 32, 44, and 299

Better bike lanes and more spaces to charge electric vehicles.
Bike routes throughout the county so kids and students bike to school/college. Great public low emissions transportation systems.
Improve the para transit for the elderly and disabled(I am legally blind and cannot drive so I am stranded if my wife is unavailable to drive me since I live 1 mile past the 1.5 mile limit) that live more the the current 1.5 miles from a fixed route

RESTRUCTURE/INCREASE PARATRANSIT - Just as welfare offers trips (car service) to/from doctors offices free of charge, there should be a way for disabled people who are not on welfare to get to the doctor's office. Instead (as in the case of my legally blind husband) they said they are unable to go more than a mile and a half off the route to pick/drop him off which would mean my husband would have to walk a mile on a state highway with no sidewalks & then wait for a pick up. I think it is disgusting that NY/Ulster County cares more about building a rail trail/walkway over the needs of the disabled.

Invest in water ferry transportation

Provide a bus that allows Bard College students a safe and secure ride to Kingston.

more rail trails to encourage bike comuting

Bike lanes
If funding sources are unlimited (as stated in your question) why pick just one thing? Do you mean if resources were limited? I mostly drive myself but I have used the UCAT system occasionally over the years and I think public transportation is so important. I have noticed that the bigger buses are often quite empty (but that may be due to the routes/times I have been on). If not already done, I would conduct a study on ridership and perhaps purchase more smaller buses, preferably hybrid.

More service
Make it possible to efficiently travel around time reliably and without extended waits covering and connecting a vast area so that it would be possible to live here without a car.

More lanes on 9w in smaller towns

Invest heavily in a range of non-fossil fuel based transportation options; incentivize people's use of those options

We need more buses everywhere! And more often!

Better service to outlying areas. Improve access to SUNY Ulster

Provide more areas for charging electrical cars.
My top choice would have to be bike accessibility. The current state of the rail trails (though maximizing the environments nature state while simultaneous providing a path for transportation) is not accessible for road bikes. Individuals riding on road bikes must take to streets with 55mph speed limit which poses a danger to bicyclists. Figuring out how to develop a flat paved path system similar to that of present-day Europe would be beneficial to many residents of Ulster county. There are currently two paved trails: one beginning in New Paltz and extending eastward toward Poughkeepsie and the other near Hurley. Ulster should consider the development of similar trails that connect the many nearby towns and villages in the county (i.e. Stone Ridge, Hurley, Rosendale, High Falls, Ashokan, New Paltz, Clinton dale, Modena, Gardiner, etc.)

Return Money to taxpayers

Sustainability - reduce greenhouse gas and other motor vehicle emissions from all public transportation

Continue connecting,expanding and maintaining access to bike paths

Make ubiquitous and easy
It would be fantastic if the public transportation system (i.e. a bus line) could connect to Dutchess county, especially Bard College and the Rhinecliff train station. That type of extension would serve many residents of both counties and bolster the economic vitality of Ulster county.

make it more accessible for bikes and pedestrians
Fill in all the potholes and road damage that are causing damage to vehicles and endangering the lives of motorists - and then maintain the roads so that these safety issues do not reoccur. Although unlimited funds would allow for further improvements, these basic deficiencies are currently my primary concerns.

More and nicer buses on more routes.
Develop projects that repair the system from the bottom up, from the sewers to the surface, and create access for all modes of travel but prioritizes pedestrians, bicyclists, and non-motorized travel and develop a very frequent transit system that would effectively enable people to make the switch from the personal vehicle to other modes of travel
Establish a network of electric light rail systems throughout the county to provide easy access to all major destinations for both locals and tourists.

Run UCAT and LINK bus services at weekends, connect rail trails

Find a way to widen Main Street in the Village of New Paltz or feasibly route around it - or something, please.
Restore the rail trails back to (light) rail. As much as I love rail trails for nonmotorized transportation (I am chair of New Paltz Bike/Ped Committee), I wish we kept the infrastructure for light rail...

Light rail

more buses to more places

I use the bus to go to the train it's fine with me
Programs such as state-wide refillable passes (paper and digital) that work across all types of public transportation could be very helpful. There should be shuttle loops to all state parks and shopping at least hourly, as well as express lines. I live on Vineyard Ave in Highland. There is no sidewalk or shoulder, and it would be both dangerous and lengthy for me to walk from my residence to a bus stop. I would have to drive to the bus stop, which defeats the purpose. So, I also suggest to increase development of walkways leading to bus stops that are very clearly called out so everyone knows where to go and are capable of walking there. It would also be very nice if there were bike rentals readily available and biking lanes on all our main roads!

Bring the trollies back.

local trains
Address equity. I've seen people waiting a long time for a taxi outside of Hannaford in Kingston. I've even given people rides home because they were waiting longer than the time it took me to shop. As a society, we should be working to help people with limited means. I can't fully appreciate how challenging it must be to get groceries home when you don't own a car. These individuals are unlikely to respond to this survey. Maybe someone could do qualitative research at places like grocery stores.
Airport transit—Stewart. Albany. Tri-state via hubs such as rail/bus connections. Rail connection. Improve accessibility of schedule. Improve online presentation of schedule.

More access in rural areas.
Have buses start running in New Paltz at 7 am on weekdays because part of the year we have to be at work by 8 am. Also, if the busses can stop at or by the Old Main circle.

Wider coverage.

Increase public transportation options

Increase the number of roots and frequency.

Expanding the public transportation network to suburbs
certain places are hubs. For example SUNY New Paltz. It would be nice to go to campus taking a bus from Kingston (where many staff and faculty leave), going to Esopus, and to New Paltz on the 9W, 299 route. Some folks coming from the South could take the bus at the Highland P&R.

Expanded and improved mass transit

Add a train on this side of the river.

I would add safe cycling routes along more roads and shuttles with request-a-stop option.

bike lanes everywhere

More bus routes

Bike Rentals

Fix the potholes and other road imperfections.
Please create a cross-bridge public transportation option that would go from Kingston in a loop to Bard and Rhinecliff, to facilitate the Bard community's connection to our nearest urban area, and to help residents of Kingston who work at Bard College have greater access to their livelihoods.

Bike lanes on 9W, Ulster Ave, Albany Ave and a hugely expanded rail system. But hey, I'm a big biker

Total conversion to zero emissions vehicles and transportation.
Integrate sewer and water systems into the Complete Streets model, acknowledging the fact that the long-term sustainability of these streetscapes is contingent on the fact that aging underground utilities do not fail and compromise street surfaces.
Limit cars in Uptown, Midtown, and Rondout neighborhoods, encourage walking and/or bicycling, and offer short distance alternative transport modes for those who cannot walk or bicycle.

Take it to the larger roads in all Towns to provide a wider range of transport to seniors to due errands and shop

Run on weekends

More routes

Protected bike lanes, connected rail trail that don't use shared roadways.
The most glaring hole in Ulster County's transportation system is the lack of any public transport link connecting Ulster County, especially Kingston, to Dutchess County. I work at Bard, and it would be transformative for me to be able to get to work on public transport, or to be able to get my students to Kingston to engage the community over here (many students do not have cars). I also have frequently had guests arrive at Rhinecliff station by train, and the difficulty of them not being able to easily cross the river has been a constant problem. Uber/Lyft is not reliable or fast enough in this area to compensate.
Clean, safe and energy efficient modes of transportation county-wide with links to other counties on both sides of the Hudson River, train stations and airports

Easy and efficient access to transportation to all residents, whether vehicle users or not.
(Given that establishing a County-wide subway system would be somewhat outlandish,) I would eliminate fares for public transportation.

service across the bridge to Rhinecliff

Connections to Dutchess County / Red Hook and Rhinebeck specifically
I work at Bard College and it would be incredibly helpful to have some sort of public transportation from the Kingston area to the college.

Greatly expand the transportation network to support all modes equally: pedestrian, bicycle, mass transit, water, air, rail.
Invest in bridges to ensure that they are resilient against extreme weather events so that people have access to essential goods and services.

repair roads

Make is solar powered and free.

More bike infrastructure. Public transport for commuters across the river.
In addition to actively building infrastructure for increased bicycle transit and pedestrian usage, I'd like to see a bus/shuttle from Kingston to Rhinebeck/Rhinecliff train station/Bard College.

Light rail through Kingston!
Have the public transportation much more visible and work more seamlessly into our lives, so that even those with cars/means to get around without would prefer to take part in order to reduce carbon emmissions, and to not overburden vulnerable populations with having to go out of their way or do extra work to be able to just live their lives.

Make it as green as possible.

A light-rail system linking the two sides of the Hudson.

Bard's interest in having a cross-bridge public transportation option that would go from Kingston in a loop to Bard and Rhinecliff

Make it possible for everyone to get where they need to go

Invest in more public transit connecting towns, especially between Ulster and Dutchess
Create a transportation system that is publicized and gives easy access to everyone. there should be no need to for bus stops without seating/roof. Make sure that people can connect to the schedule and time frame of buses through an app/number that actually updates it in real time. Create a system that connects ulster county to other towns, Red Hook, New Paltz, Tivoli, Rhinebeck, etc. Since people from everyone rely on Kingston's resources, if someone lost their job or their car, they need to be able to get around.

Evaluate the areas rail trails/ paths and create a commute by bike route plan vision.
Up-grade all county roads with 3-5 foot shoulders where possible. This would allow safer bicycle usage as well as vehicle driver comfort. Road travel surface would get longer life also.

Add more busses

Have regular bus stops from Kingston to Red Hook, Bard College, Tivoli, Rhinebeck.
Cross bridge transportation to Dutchess County.

And a light rail system in Kingston.

Connect Ulster County with Dutchess County via affordable, frequent public transit across the Kingston Bridge.

Connections to Dutchess County, in particular service across the Kingston-Rhinecliff Bridge.
connectivity to Ulster county from Bard college/Tivoli/Red Hook - its something all of my students wish were improved and I myself wish for too

Ulster county is severely lacking in accessible pedestrian options. Roads should include sidewalks, and it is vital that these sidewalks do not dead end at the edge of a construction project. They should be part of a network that allows people to get around and recreate.

Extend routes/increase service!
Would love to see a cross-bridge public transportation option that would go from Kingston in a loop to Bard and Rhinecliff, to facilitate the Bard community's connection to our nearest urban area!

Safety and Security

I don't use public transit so can't speak to what is most needed

Transportation connecting to Dutchess County and a closer train connecting to Grand Central

It would be great to see public transportation extended to cover a cross-river route over the Kingston/Rhinecliff bridge.

Invest in expanding the Greenland, put up surveillance cams and/or increase police presence

Cross-bridge public transportation: express making 3 stops in a loop: Kingston--Rhinecliff--Bard College/Red Hook

Better public transportation options on 209 toward Ellenville and across the bridge to Bard College and Rhinecliff.

use electric buses and make schedule and routes more comprehensive and accommodating

Rail access on this side of the river connecting NYC metro area, Albany, Poughkeepsie (Metro North), Kingston.

Light commuter rail lines between the Ulster county municipalities.

more buses/routes

Cross-bridge route to Rhinecliff train station and Bard College.

Make it free for everyone.

Connect all of the multi-use trails.

Free public transportation for all

allow more convenience for seniors to meet medical transportation needs

Increase public transportation to areas of outdoor activities such as state parks and preserves.
connect various bus lines together better

More traffic circles.

Free public transportation that goes to the most remote areas, and all routes runs every 15 minutes

Preservation of our Transportation system. Bring it back to a better than good rating.
I would give a grant to the underpaid taxi companies so they could update their fleet and give a better experience to people using their service.

later service at night time.. expressed shopping

Reliable, regular, affordable mass transportation options to NYC should be the #1 goal, particularly from the Ellenville region.

Invest in ways to impove efficiency without hindering service. Don't ever run a public transit system with the expectation of making a profit. It is an investment.

Better connectivity, to avoid funneling traffic from many directions into a small number of congested locations

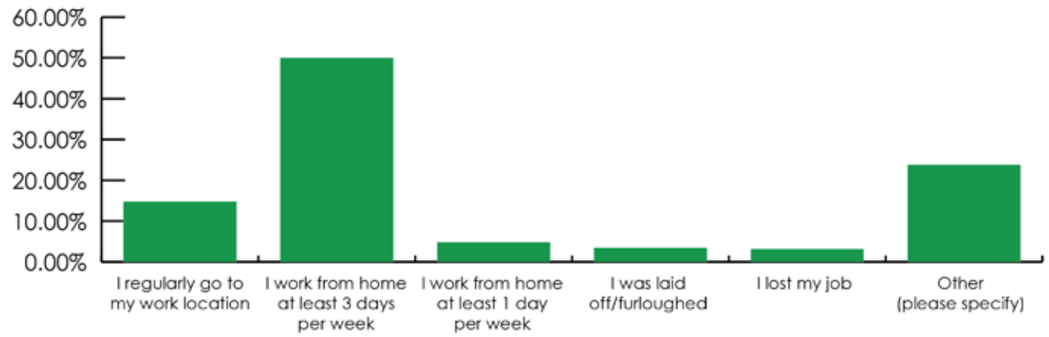
Make schedules accessible And posted in common shopping areas

shoulders and sight distance

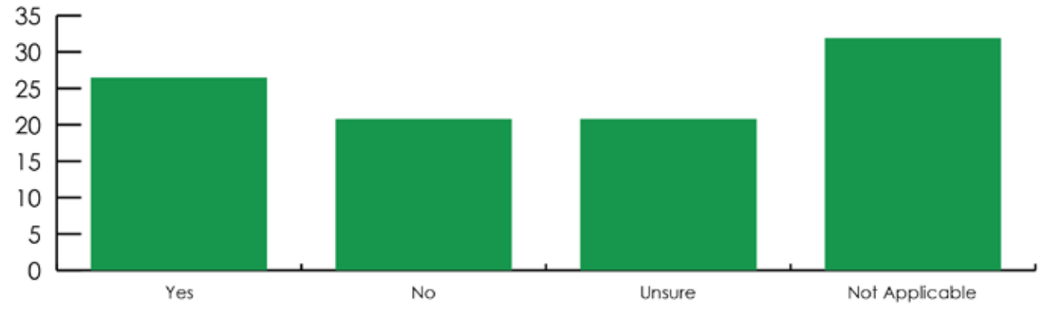
Improve mass transit

provide free electric charging stations in many places and convert all buses to all electric

How have your work patterns changed after COVID-19?



If you indicated that you now work from home some or all the time, please tell us if you think your employer will continue to allow this arrangement in the future (once the current pandemic is over)?



PLEASE TELL US IF AND HOW YOUR TRANSPORTATION AND/OR RECREATIONAL PATTERNS HAVE CHANGED DURING COVID-19?

we use the rail trails much more for biking and running

We walk more.
Reduced outdoor activities

Only drive or walk (no public transportation yet)
I barely go anywhere during Covid.
Drive much less

Do not use public recreational areas as much

I go fewer places, both locally and beyond.

I drive less, take my bike more now that the weather has been better for biking...not sure about winter
No longer commute, spend more time in local nature spots but can only visit mid week as all parks etc are blow out on weekends.

Much less driving - no where to go!

drive less stay home more
I haven't been able to see a dentist, even through an emergency, because my dentist was on a bus line that hasn't operated since March.

Yes

I am driving much less, working from home, and kids are at home.

Driving much less

Was taking the bus to NYC a few days a week. Now I don't.
The lack of commuting means we drive less. We spend more time walking/biking, sometimes for an errand, but mostly for recreation. We no longer go to a gym to workout. Our driving is mostly limited to our town, though we occasionally need to go to Kingston or Poughkeepsie to buy things unavailable here. We are supporting local businesses rather than ordering things online.

Less travel

I worked from home before covid. Now I make Fewer shopping trips.

I drove alot less in 2020 until it got nice out.
I don't use my car except to enjoy outdoor rec away from where ppl are (my hikes and runs tend to be out of town now, as NP gets too busy)

not leaving home very often

Less traffic therefore less travel time on my way to and from work

I am out a lot less and we are down to one car from two

Less international travel and I have made my local travel much more efficient.

Not driving as much, riding bikes more—wish there were bike lanes.

Not driving daily to get to work. Not getting enough exercise.

Traveling less for recreational purposes, staying closer to home.
We have two cars, and one of them used to go to NYC several days a week. Now we only use one car and we have not been to NYC since March. We are driving way way less. Our kids used to take the school buses to and from school but needed to be picked up and driven to a zillion things a week. No one goes anywhere now. Entire days go by where we don't even drive anywhere.

Not dining out as much, fit in shopping before 9 pm, find reliable childcare while we work

More biking

I stay home more often.

Less time on roads

I'm hardly ever leaving the property.

Drive less, bike more.

Driving less, going out to restaurants/events much less, staying home more.

I worked from home for 4+ years prior to COVID then lost my job. I travel even less now.
As a retired senior living alone, I'm mostly staying home, driving to shop and do errands only a couple days per week, mostly for curbside pick-up. Previously, I went out almost every day, as much for the social contact as for practical needs. I'm going to Kingston rather than my usual New Paltz, as the latter seems to be filled with out of state license plates from COVID rampant states.

Driving more for recreation, walking locally to recreation near our house. In New Paltz where the sidewalks are not existent.

Staying local more, less driving to cities like Kingston, Newburgh, Poughkeepsie.

Much less driving, more hiking locally
For a while, we were all home as much as possible. Now that things are out of total lockdown, our schedules have started to move back towards the former routine. The big change will be in processing intake of customers/residents with respect to COVID screening and temperature measures.

Recreationally, everything is dead. The most I can do now to support local businesses is order takeout and tip heavily. As someone with industry training in film, it's terrible to see how quickly what was a once-booming local industry begin to stagnate and retract. Here's hoping the folks leaving NYC start to take their commercial film opportunities upstate, but on the flip-side, that it does not significantly affect local housing rates.

Less travel
Due to my disability, I cannot participate in any event with others. Driving, alone, throughout the Hudson Valley... That's my therapy!

I stay home more often and don't go into town like I used to

More cycling, much less driving

Driving less

I have traveled a lot less, and been home more.

very limited to essential
Used to drive 29 miles to work, did not for three months, and am again.

I rarely go anywhere in order to avoid congested places.

I hardly go out

I primarily drive for transportation, and I have been driving/going out less

More hiking, more rail trailing.

More staying home! Not as much outdoors recreation

now bike for recreation
I drive less overall as I try to avoid running any errands at the big box stores. As I feel more comfortable going out in public again, I prefer to bike or walk when I can.

I don't travel much anymore
Drastically. I stay at home even though we're in stage 4 of reopening. I can't account for others' behaviors/ health status so I've stayed home and will probably do so until winter 2021 when a vaccine may become available.

I've been biking more.

I am staying home most of the time- except to leave to get groceries or medications.

I no longer take the bus, because I work from home the vast majority of the time.

Travel has been reduced significantly.
I rely on the WV and W&O rail trails more for recreational walking and biking, especially when private trails are closed or other local trails were jam packed and didn't feel safe. I am generally out 2-3 times a week and commute on them rarely.

I drive far less
I only use my car once every week or two to run errands. If I go to trailheads, I go earlier in the morning or later in the evening to encounter fewer people.

Significantly less transportation use

I have less time for recreation because my kids have no school and camps.

I exercise less

I'm finally able to bike to places more.

Travel less & recreate closer to home in less well known public parks
drive less

hike and bike more

I am not driving to my job for the most part.

I rarely leave home - once a week for shopping, and as needed for medical/dental appointments or automobile service.
I previously commuted to Rhinebeck five days a week. I am now working from home exclusively, and will likely work from home 3 or 4 days a week, once office reopens. I drive fewer miles and walk/bicycle more frequently for short trips.

Running/bicycling for exercise is about the same.

Less driving. No trips to NYC. No air travel to anywhere.
Mostly the same for me though it is really problematic that it is summertime, 90+ degrees, and all of these wonderful local swimming spots are being patrolled. I think it is a HUGE problem that we have all of this natural beauty and it is unaccessible for people to really enjoy. It's a travesty. Anyway, I hope someone puts some thought into how to have inviting spots that are managed and people are not being treated so punitively because no one wants to take on the responsibility (...and I noticed that the DEC is ridiculously hands off). I mean PLEASE...put some trash receptacles around and have someone manage tending to them. This isn't rocket science.

Not going out to restaurants, or bars.Doing more outside social gathering.

I walk and bike more in the city I live in. I drive about 1/16-1/8 of the time and distance I used to on a weekly basis.

No change.
I stay home most of the time. I shop for my household and my daughter's (as she has a new baby) one day a week. I used to visit close friends on a weekly basis, take weekend trips about once a month, visit family scattered about throughout the state, and try to take a vacation every year, but I have no recreational plan or pattern since the pandemic. I don't go anywhere unless I have to because I have a mother who is on oxygen and has a compromised immune system and a brand new grandchild, neither of whom I want to put at risk.

We are not carpooling

Walking more

Not flying or taking bus yet. With precautions still doing everything else.

Total reliance on outdoor recreation.

lots of walking on trails...

I use the bike and hiking trails more often wearing a mask.

More time to bike on trails

we have driven our two electric cars about 75% fewer miles since March.

I use public transportation slightly less frequently but still find I rely on it when I do use it.

Rarely need to fill the gas tank as rarely go anywhere other than work, home and out for essentials.

Drive less. Bike/walk more.

Have mostly not traveled at all. A little more now.

I travel less on the weekends as many places are crowded.

I only drive to work and have greatly reduced shopping

work from home often

I drive a lot less. Bike and walk a lot more

unchanged

My husband and I continue to take drives as a means of relaxation and have increased the number of times we go each week.

Less driving around since for safety reasons

Ride less; shop by bike less.

I have to walk everywhere or call a cab I can't afford a car
Covid-19 has drastically changed our recreational patterns. Social distancing is our new way of life, so socialization has come to a halt.
We stay home alot and go out only in our own car--never use bus or anything except for emergency transportation back from hospital but it wasn't available

less travel
Reliable transportation is increasingly needed as an essential worker. Although recreational activities have decreased, transportation is continuously needed for shopping/ medical care.

I have been going out less, and thus driving less.
Driving to Catskills more often for hiking/other recreation where social distancing is possible; driving to local towns significantly less (used to drive to Kingston & New Paltz at least 2, 3 times per week and now not at all)

Much less travel both commuting to work and discretionary trips.

Reduced bus schedule limited my shopping

fewer trips for retail/grocery needs
I've had to drive when & where I would have taken the bus, especially on the weekend, early in the morning and late at night, to New Paltz, Poughkeepsie and other more distant locations.

Just much less travel

I drive to work only for now until there's a vaccine. I avoid public transport as much as possible nowadays.

In all ways: much more local and very limited transportation for short chores & recreation.
I drive a lot less - and I love it. When I do drive it is to get out and enjoy the local parks/trails/rivers or to go grocery shopping or pickup. I'm spending more time in the regional/county parks - and love it. Part of this is due to lack of commute to work means I can just leave when I am done and go. I drive slower, and feel more relaxed with less people on the road as well.
I'm bicycling a lot more for transportation and recreation. I'm happy we have the trails that we do have.
During The Pause, the reduced number of cars on roads felt like IT SHOULD BE THAT WAY ALL THE TIME. It was quiet, it was safer, it was approaching peaceful.

Yes we rarely go anywhere very far and only by car or locally by bike

I'm not travelling as much recreationally.

Have no need for recreation before or after. Work needs to be done when it needs to be done.
I rarely shop and mostly do outdoor activities for recreation. I travel to New Paltz less frequently because I'm not comfortable entering businesses.
I am working from home 5 days a week and no longer have a commute to work. With that said, my personal travel on the weekends has increased (hiking, drive in movies, etc.), as I look to leave my home when I have time off/am not working.

The lack of any clean public transportation along with the use of as automobile.
I travel much less and also plan trips such as going to the grocery store on the same day I will need to do something else like a Drs. appointment.

I commute less, but I take more long drives as a way of getting out of my house.

Have not changed, except briefly road riding was more pleasurable without excess cars and trucks.
No longer can go to live music events, which I did regularly. No longer shop for myself - I use Instacart.

Attend meetings on Zoom instead of driving to them. Home most of the time.
I have been driving out of New Paltz only for doctors' appointments whereas normally I'd be driving as far as Woodstock, Beacon or the city for recreation and shopping.

Much less driving all around.
yes, driving way less and staying close to home when driving. Recreational patterns have totally changed, as places I normally frequent are overrun with people (state parks, local hiking trails and swimming areas, etc)

Minimal changes

Drastically dropped the amount of driving I do for non necessity shopping, family visits, appointments.
Less driving due to lack of places to go, and also combining trips and shopping for longer periods at one time. I am fortunate to live on a rural road and have large property, so I have stopped using area recreation resources to give space for others that don't have at-home opportunitites. (And also to avoid crowds)

I can't go to shows in the city because there are no shows and I'd rather not ride Metro-North currently.
I have not been able to do mamy things I would normally participate in as they are all closed or the regulations are severe enough its less enticing to go. I remain confident that Ulster has the best in mind for its residents and when it is safe to allow these things to resume, they will. You all do the best you can with what youve got. Thank you

A lot less travel, only very local car travel (only two tanks of gas from March-July). A lot more walking or biking.

no chahbes

I have not been taking trips out of state. I shop less and use my car less.

I only go out when it's necessary. Until COVID-19 is under control, I do not go on recreational actives.

I don't go anywhere.

More hiking, no Recreational shopping

Everything has changed

I make less trips out of my home and order more online to be delivered to my home.

Can't take public muni anymore. Walk or ride bike now
I used to wake up at 4:30 am

To commute on Shortline to the City.

I'm scared to sue public transportation, which sucks because I don't drive.

Less driving. I have less time for recreation because of childcare.
My transportation mode has not changed. I do limit my trips to necessary locations. This means work, medical visits, grocery store, etc.

I haven't been driving as much because I've been working more from home.

Less travel locally and almost none outside the county.

Less driving due to telecommuting, less events to attend.
Less than once a week total for journey to work, social, and recreation combined.

I leave home only for essential tasks.
INCONVIENT TRAVELING SCHEDULE FOR MY HUSBAND - Metro North changed it schedule to include additional stops on the 4:45 am train which means he has to take the earlier 4:15 am train to get to work on time. UPL bus had cancelled service and now has a shortened schedule (last bus from Poughkeepsie train station is 5:45 pm). Due to the lack of transportation, I have to pick up/drop off my husband at the train station everyday. PLEASE PLEASE BRING BACK THE 6:50pm UPL (from the Poughkeepsie train station) so I would be able to pick him up in Highland's Sunoco Gas Station and wouldn't have to deal with the bridge traffic.

Lessened
I barely leave Kingston. For context, I've filled my gas tank twice since March. I normally commute to Hudson so fill up 1+ time per week in the pre covid world.
I do not have the UCAT upl bus to take me over the bridge when I return from work in the evening since the bus only runs until 5:45 pm now with no known date to resume a full schedule
We were driving to the New Paltz park and ride 3 days a week and commuting round trip those days. Now we are working remotely full time.
I can't travel to Kingston at all unless I pay for an Uber. They also rarely want to cross the toll bridge so it's hard to even get an Uber.

stay at home and walk and bike a lot

I drove less but still find many roads unsafe for bike travel or walking

Staying closer to home and limiting excursions. I have not used any public transportation during the pandemic.

Limited. Not leaving house more than necessary.

Not much change

Reduced use of automobile; reduced outdoor recreation involving all forms of transportation

I have not taken the metro north and therefore have not used the UCAT bus to get back into ulster county

No

Yes, staying very local

No change.
I rely more heavily on my car. Gyms have closed and the few paths that exist are overcrowded due in part to an influx of tourists in the area.

No intl travel. Drove around NYS instead
Normally I would go camping and hiking and on road trips to visit family and friends a great deal more than I have been able or willing to during Covid.

More time to exercise

I bike more

I travel less now, but will travel more and more as the pandemic situation improves.

I am wanting to bike and walk more rather than drive so that I get get outside

I drive far less than before.

Staying closer to home.

I have used my car so much less that it actually had issues when I started it up again. I have recreated closer to home. As the pandemic has let up a bit, I have driven to the Catskills for recreation.

I don't travel far away (haven't been more than 50 miles from home) and I only recreate locally since COVID-19.

Working from home, no longer need to commute to NYC frequently

I go very few places but walk more which has been wonderful
I was driving over 100 miles per day, 5 days per week, commuting to work, plus personal travel on weekends. Now I have weeks when I don't drive at all. We walk and hike from our home as a base.
I used to walk 12 minutes (0.7 miles) to work (25 minutes round-trip). Now I work from home. We are taking more neighborhood walks and doing much less soccer-parent taxi service for our children.

Drive a lot less, almost only local trips to grocery store

less driving, no eating out at restaurants, fewer recreational activities apart from hiking

no
I no longer drive to work 5 days a week. I no longer drive to retail shopping on the weekends. I no longer drive to beaches in NY, NJ, CT, MA, & NH. I no longer drive to airports and fly to a vacation spot. I do continue to drive about 5 minutes to local parks for exercise daily. I do continue to drive 5 minutes to the grocery store weekly. I do continue to drive to Hyde Park and Poughkeepsie to visit family weekly. If I owned a bike and there were bike lanes, I would be biking to most places rather than driving as I have much more time flexibility during COVID-19 and am fully taking advantage of having more exercise.

Limited long trips

I have not been driving as much as I was before

minimal travel

I am driving less often locally and not traveling outside of the region.

Less driving of my vehicle. More hiking/biking.

Rarely go out.

I am afraid to touch anything not knowing if it was cleaned.

Less travel.

I drive less

My need and ability to travel is temporarily negligible.

Travel is limited to food shopping. No recreation.

A tank of gas lasts for at least a month. I stay at home most of the time.

not much change

less driving, more recreation by foot from home

I drive much, much less, as we spend most of our time at home. Which also means that we have canceled traveling this summer.

We no longer commute to work and use the car only for necessary shopping trips.

Travel less and recreate (hike and bike) more.

Got to do additional bike riding while in lockdown!

I'm driving much less. I go only to the supermarket and to do essential errands.

I drive a lot less, and go for more walks in the area.

I drive quite a bit less. Do more walking.

We don't leave home very often. Our recreational activities that require transportation are extremely limited.

I hardly drive anymore. I walk. And I do not take the bus to NYC or Amtrak.

Home a lot more often. Less driving. More biking

Not travelling as much.
I carpool less to outdoor recreational activities, which increases the carbon footprint of said activities. Conversely, less recreational activities overall may offset this change.
Going fewer places, driving less to shop and attend cultural events. Since warm weather, and since I'm working exclusively from my home, I'm driving more to take advantage of recreational opportunities at a greater distance.

I still drive but do not leave my home except to shop for groceries, do banking, and Dr. appointments.

reduced by 90% or more

Driving less often

Not driving or going out.

None

I cycle more.

I am driving less and biking more, because I'm spending more time closer to home.

alot less driving

Yes as doing less driving and in person shopping and dining and not attending cultural events and performances in person

Unchanged.

More use of recreational transportation areas

I spend less time doing recreational activities away from home (specifically shopping and dining).

Similar to before, but most shopping now done online.

I drive much less

We bought kayaks and a roof rack for the car to take them to different places.

I drive very little and I ride my bike much more for local errands and recreation

I drive much less . I no longer go into NYC very often at all
We continue to spend lots of time outdoors, but always have. We now notice many folks doing the same, creating congestion in wild spaces. More bike/hike spaces please!

Leaving the house much less.

I don't go anywhere anymore.

yes, not traveling at all; biking and walking close to home

I rarely drive anywhere, other than to do necessary errands.

I go fewer places.

I carry out most of my errands on foot, except for major grocery shopping (I live in Kingston).
Spending way less money commuting with gas and tolls from Kingston to Red Hook. I now work from home but will be bringing my daughter to the nursery school anyways there starting in September.

I drive much, much less. I still rarely go anywhere. My recreation consists of walking from where I live.

Very little moving around.
Yes, now that I am working from home, and cannot drive, I wish I was able to go to kingston on my own to get groceries. But instead I have to wait for my fiance to get home from work to go anywhere.

Has not continue to bike for both commuting/errands and recreation.

Traveling less locally and cancelled longer distance trips altogether.

not changed

Yes. Fewer trips across the bridge and no recreational activities anymore

Not driving as much, walking and biking more. We need better bike lanes to encourage more bike transportation!

I'm home more; drive less.
I never use public transportation. I started to go to free public areas such as parks a lot more often than the paid recreational areas because there were all closed.

I hardly leave my house! I haven't put gas in my car since April.

Don't do recreation. Only essential shopping (groceries) by car.

We are driving much less, but when we do drive, are making mostly the same trips to the same locations (except to work).
Was WFH for several months, now back in the office 2-3 half days a week (and commuting 40 mins each time). No longer driving to any restaurants, shopping--only to/from work and to/from outdoor recreation (hiking, etc.)

I am no longer commuting to work

Quarantined, less transportation and only going outside for what's needed (food, etc)

I have traveled very little aside from shopping and drives for my 16-year-old to practice

I am doing less traveling for work but traveling more for recreation to get outside in a space that allows me to be socially distanced from other people - trails for hiking and running etc.

decreased

increased walking

much less driving, currently but, that will change and I will be back on the road.

I am traveling far less.

number of trips reduced

I am staying home on the weekends instead of traveling around the region

I don't go very many places.

Significantly less driving. More bicycling and walking.

I've been going to the mountain less because there's no parking up there

Drastically, During our covid-19 pandemic my trips were limited to work and grocery

I basically stopped driving to all the places I used to go to except the supermarket and the farm.

I stay home instead of going out hiking.

Bike more

For me, not much.

bus service has been limited.. walking

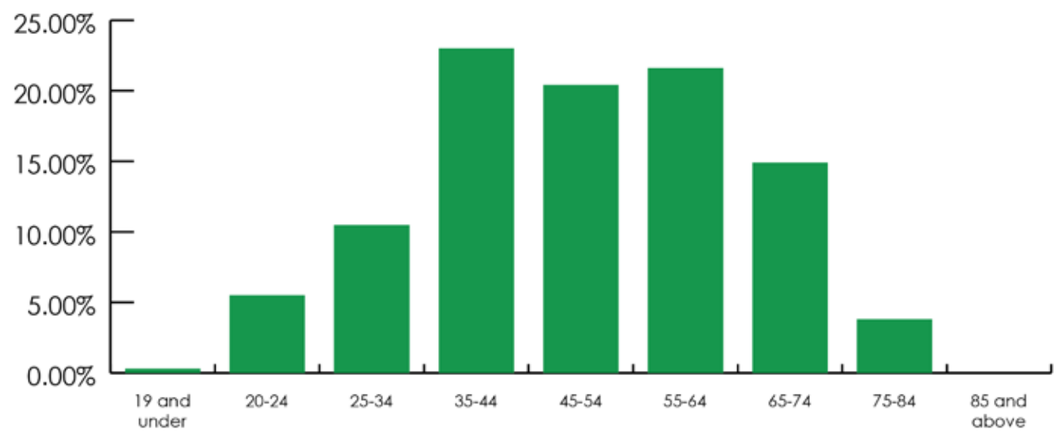
Staying local more; less commuting to work as well.

No public transportation right now. But I intend to resume using the bus if and when I work from the office.
Walking/cycling for recreation way up, online shopping except Target/Groceries/Home-Depot. Driving mileage way down, but car getting more wear and tear in the driveway from kids hitting it with their bikes, etc!

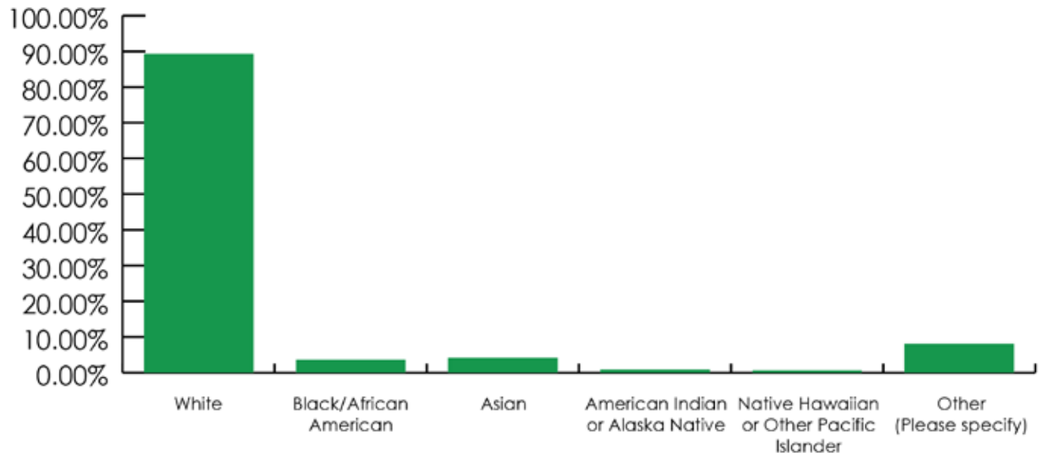
Stay at home more than ever

mostly I stay home now. I used to go on the trails and to the parks.
I have reduced my local travel by chaining errands, shopping less frequently and limiting my patronage at restaurants and other live entertainment opportunities.
much less driving

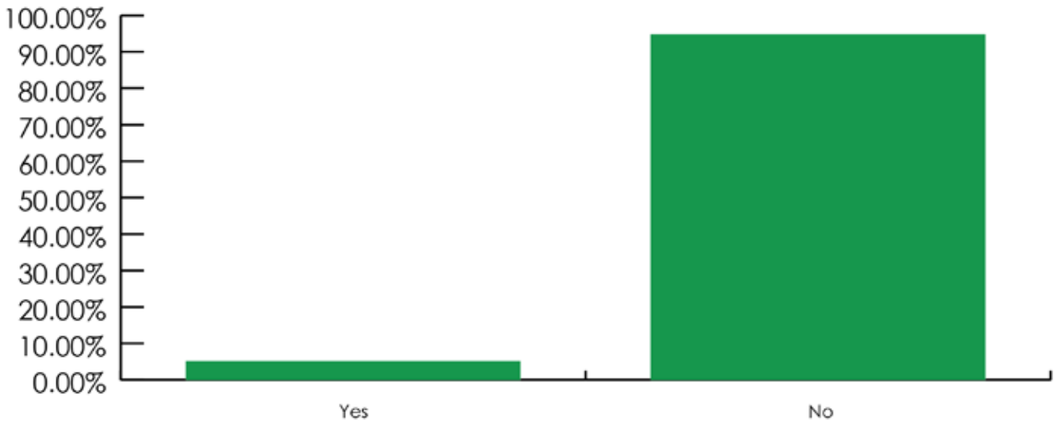
What is your age?



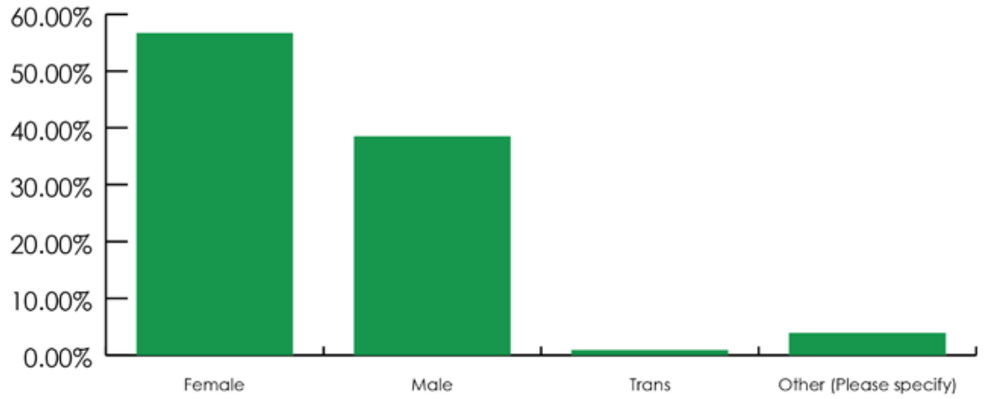
What is your race? (Select all that apply)



Do you identify as Hispanic/Latinx?



What is your gender?



PLEASE SHARE ANY OTHER COMMENTS YOU HAVE FOR THE FUTURE OF TRANSPORTATION IN ULSTER COUNTY.

More buses, better schedules

Be innovative while preserving the history of the area.
I'd love to see us less car-dependent, despite our spread-out geography and low density. We can, however, limit the distances people drive by providing more public transportation. Park & Ride lots (with bike racks!) near efficient bus/light rail service would be a dream come true, especially if they made it easy to transport a bike with you. When the many, many millions of dollars come raining down on us, I hope we will reduce the priority of fossil fuel-based transportation, where through supporting non-powered transportation (safe walking & biking) or through supporting solar/electric, etc. It would also be great to find ways to make it easier to cross the Hudson River.

You have many at-risk families. Ask yourself if your transportation plan assists them.

How about a light rail

I really hope we get real public transportation! Would be so great.
My now-18 YO grandson who has lived with us for several years used UCAT for work, to get to school, and for social occasions until we gave him a car. Just wanted to give you some praise!
Get in touch with seniors & those who USE public transportation> LOCAL LEADERSHIP lives in a bubble & all have cars.....LISTEN TO ACTUAL PEOPLE & stop with the clique hive mind
Keep it up y'all, public transportation is key to developing cities and providing basic access to needs for residents without the finances to afford personal transportation.

More bike paths free from or physically protected from car traffic
Thanks for this survey and your important work. Please work to reduce our carbon footprint by encouraging modes of travel other than cars, and when cars are needed, providing ample electric car charging stations.

Please expand rail trails.

Please help us get across the Kingston-Rhinebeck Bridge with public transit!!

More protected bike lanes in Saugerties so it could be a form of transportation
We need more separated bike/walk lanes, more pedestrian- and bike friendly routes and spaces (this includes covered bike parking), more bus service (always with the bike racks), LOWER SPEED LIMITS (especially through town centers such as Rosendale), better urban planning so that residents aren't forced to drive everywhere.
Transportation is the lifeblood of any community, the community will remain stagnant when its people cannot travel to find a sustainable position because of the lack of of transportation

Continue support for rail trail and active transportation networks. Increase bus availability and expand schedules. Lack of, or inefficient transportation affects so many people's access to recreation, jobs, and services.
I live near Ellenville. The only transportation for those without cards is UCAT- which is NECESSARY. I hope when/if I need it, I can get transport for medical appointments- which are almost all out of town.

The schedules could be more clear. Especially where they show links between routes.
More rail trails! These are great modes of transportation for recreation, exercise, and connecting communities for economic growth.

Need to move beyond county lines and connect northern parts of the county....not just south to Poughkeepsie

Public surveys are a great start!
The wildlife is flourishing due to our limited involvement. That's what makes Ulster County so attractive. How can we encourage more of that. Give tax breaks to companies that encourage working from home, something.

Walking on roads in Ulster County is unacceptably unsafe. Few roads have shoulders.

Thank you for your work on this!

A well thought out infrastructure that makes people less dependent on their cars would be so wonderful.
To me, transportation also means the upkeep of roads, bridges, and traffic control devices. I would like to see the roads repaired, the traffic control signals (and their cabinets) upgraded and vehicle detection installed, and the brush cleared to make signage more visible (I.E. - South Wall Street in Kingston, Frank Sottile Blvd in T/Ulster).

Thanks for asking for input!

Expand and support UCAT stops/hours.

Upkeep yes, but no more construction when it comes to car transportation.
Please use uniform neat signage in all communities.. mark road crossings also... Clear the parts of the trail which cross in dangerous spots - Main Street in New Paltz.. The unkept garden on the north section must be cleared. Cars cannot see walkers or bikers as they approach Main Street.
Rail trail signage could be improved right now, the O&W and Wallkill Valley Rail Trail have access points a mile apart in Rosendale, there should be a sign at the junction.

N/A

provide guidance for personal mobility changes that coming and its accomodation
Better connections with other rail providers. Why don't we have better connections with Beacon train station and rhinecliff Amtrak station.
Bicyclists should be given access to all bridges. Bicyclists should not be denied any road without there being access to a parallel road. Bicyclists should be accommodated during construction. New buildings, shopping centers, etc. should show their plans to accommodate bicyclists. Stoplights should accommodate bicyclists. Signs should show the most bicycle-friendly roads through congested areas, which should not be the longest way, but the most direct. The first state to grant equal rights to the road to bicyclists was New York in 1887.
Good luck, and make it environmentally good please.

we need more of it.
Switching our way of life to primarily sustainable resources is necessary to lessen the terrible affects of climate change that will increase in times to come.
More greenways/bike lanes would be great, especially on rural routes like Lucas Turnpike that have heavy traffic; some paved bike lanes like HV Rail Trail between Highland/Poughkeepsie would be amazing. Maybe even a more easily accessible bus or light rail route between Kingston/NP/Poughkeepsie, etc. and other Ulster towns would be amazing (more of a pipe dream).

Added senior benefits
I have an EV (Nissan Leaf) and I applaud, encourage and value building the EV infrastructure. Plus a big one: envision and develop the Hudson and Esopus as viable and vital modes of transport and commerce as they were in the last century.
Sidewalks, green spaces for transportation corridors & in urban centers, and a further network to improve private/public transportation that reduces GHG reductions; and that makes mobility a right not a priviledge.

Please connect across the river (Red Hook + Bard College), please!
I live close enough to work to use a scooter/bike on a good weather days. The thing that keeps me from buying one and using it is the lack of safe roads that I can go 35mph on. I'd need to travel 44/55 or 208 and with no shoulder, high speed travel and trucks, it's just unsafe. Yet, I so would make this investment to travel this way if it was possible.

Look to The Netherlands for a playbook. Don't f it up.
Please take a look at https://postcabonlogistics.org for an overview of moving goods and people from place to place in a carbon constrained future
In order for public transportation to be utilized, it is going to have to be substantially subsidized. The people who will use it generally cannot afford an automobile and are living below or at the poverty level.

Keep it simple.

Accessibility is key

This is so important in terms of equity, job creation, and even tourism to the region. I look forward to seeing the Ulster County transportation system improve.

Rural transportation.
No mention of enhancing enforcement of existing rules of the road, including video. May require state action for full enforcement, but planning to work with law enforcement leaves the stool of "engineering, education, enforcement" more wobbly than it already is.
I dread the point when I may be unable to drive myself. There is NO way to get ANYWHERE without a car. I'm 2 miles from town center and shopping. Many people are much further. BTW, I am on the Woodstock Complete Streets Committee and the Planning Board.

More public transportation is really needed for Ulster County to connect to more affordable housing in the rural areas.
While it is tricky as it may add more automobile traffic, adding an extra lane to the thruway would lessen the congestion and, possibly, pollution.
Please think about and push hard for the larger changes we need to be competitive with other regions of the country. I'm happy to take take a call or be part of focus groups, etc. I've long had an interest in transportation and take note of what I see when I travel the country for business. (Also, on another note - removing the toll booths is good start for the Thruway, I'm excited for that project to be completed)
It would be great if the UCAT system was designed to be attractive and useful to tourists/visitors. Many people arrive by Trailways and no one has any idea that they can take a local bus to visit other communities and destinations, like the ART or Belleayre.

Monorails

County level daily transportation connections to Dutchess county seem like a wise idea.

We need more opportunities to use environmentally responsible modes of transportation.
X p.m bus should leave from the plaza, like the a.m run does, instead if heading out from golden hill. A 12:30 to new paid a direct would be a benefit to riders. The alternative is to wait for the 2:20, or to take the ellenville bus to Stone Ridge campus, sit for 20 minutes, then take the college link bus into new paid a.

PLEASE CONNECT BARD AND RED HOOK TO KINGSTON VIA BUS

Our state and nation ought to be further ahead in regard to transportation. I do believe Ulster County has the ability to get ahead on this issue and perhaps be a regional leader on it. I'm happy this survey is being conducted!
Parking for cars in lots at bus stops in Rosendale and New Paltz needs expansion. Better pedestrian access in Kingston southward on Rt. 32 from Stewart's to Golden Hill is important. That area seems to be a disaster waiting to happen.

Accept change.
If transportation will continue to be planned for the benefit of businesses and profits, then it will be a net loss of opportunity for the entire county. People over profits should guide planning henceforth.

More routes for more out of the way resident areas and better para-transit Service
ACCESSIBLE TRANSPORTATION IS EXTREMELY IMPORTANT AND SHOULD BE ADDRESSED AS SOON AS POSSIBLE BECAUSE WE HAVE A LARGE GROUP OF SENIORS, DISABLED AND PEOPLE WHO DON'T DRIVE WHO HAVE TO PAY CAR SERVICE OR RELY ON OTHER PEOPLE JUST TO GET AROUND.

We need to reduce reliance on cars/individual transport to meet climate goals. Biking is vital!

more bike lanes
Public transportation is so important for people to get to work, to the grocery store, so many important destinations. If there isn't a good reliable system the citizens who need it for their essential trips it will be at risk.

Bike lanes

Create a better traffic flow to encourage business growth
The UCAT system is beyond obsolete in comparison to the public transportation systems of other occidental countries. We can agree that some individuals rely on the UCAT as a means to go to and from their home, work, grocery store, etc., but the people of Ulster County deserve a more robust, modern, and efficient system.
After Covid, if there are eventually emission-free or low-emission, frequent buses between Kingston (where I live) and New Paltz (where I work) I would use them instead of driving.
Make it a ride share on call. Add short "trollies" covering short distances in new paltz, Kingston, saugerties, Woodstock, and Ellenville

As I stated earlier, adding a bus line that went into Dutchess County would be a fantastic addition for residents of both areas.
Electric buses will provide cost savings for fuel and maintenance, and remove diesel exhaust from our cities. Please consider making a commitment to use electric transportation.
I think a lot about how Uber, electric vehicles, and scooters would change transportation in the future and how they may present policy and legal issues for use on the existing system. When planning and designing new transportation corridors, it is very difficult to move from our experience now and imagine a completely different paradigm. I wonder how the long-range transportation plan could more effectively inform our planning and design processes for projects now.

Stop burning fossil fuels and start using renewable energy sources.

I appreciate the work you are doing in updating Ulster County's Long-Range Transportation Plan
- thank you.

I would love to see more frequent routes in New Paltz. I would also love to see service expanded to Mohonk Preserve and Minnewaska.
I recommend that you do a study on the infrastructure in European countries that effectively use public transportation, and see how it can be applied to New York. Make it easy and appealing to all. Consider campaigns to change the mindset of Ulster County residents who always use their personal vehicle.
thanks for being there

I hope that we will see more bus and light rail availability in the county soon.
It would be great if there were reliable, affordable ways to get to towns for shopping, recreation spots for hiking, etc., without needing a car. It is a failing in the U.S. generally. As in other things (e.g., healthcare) we are behind Europe in this.
We have lived here for 20 years. Driving to work was once pleasant, but is now frustrating with many drivers taking risks (speeding, tailgating, passing on double lines, cutting people off, etc.). It would be good to find a way to improve drivers as well as the mode of transportation. Perhaps make drivers take a road test every five years to keep their licenses?

There should be a lot more safe trails for people to walk and ride bikes on, ones not shared with cars preferably.
Please create a cross-bridge public transportation option that would go from Kingston in a loop to Bard and Rhinecliff, to facilitate the Bard community's connection to our nearest urban area, and to help residents of Kingston who work at Bard College have greater access to their livelihoods.

Golf carts.
Few cars, more alternative modes of transport for all ability levels. More public education and funding for bicycling, better bike lanes and protection for cyclist, driver education about how to share the road with cyclists, etc.

I would love to see more public transportation in this area, and much better biking infrastructure in Kingston.
I do think a public transportation link from Red Hook or Bard College to Kingston shopping and/or cultural areas, at least on weekends, would be a good idea.
I think that it would be good to have a public transportation option that would go across the Kingston-Rhinecliff Bridge between Kingston, Bard College, and Rhinecliff. This would connect the Bard College community to its nearest urban area and be mutually beneficial for the College community and the Ulster County economy (it would also allow Ulster County residents greater access to the programming offered by the College, specifically artistic and cultural events).

Bicycle transportation is seriously undervalued here.

There needs to be a cross-bridge public transportation option that would go from Kingston in a loop to Bard and Rhinecliff train station. Many people commute via Amtrak and we need a way to reduce all those cars on the bridge.
Bicycle & pedestrian friendly cities can be a major driver of economic growth because of the lifestyle it supports and the people it attracts.

Need to link Kingston Northern Dutchess (Bard/ Rhinecliff) with public transportation across the Kingston Bridge.

As mentioned earlier, I support transit between Bard College campus and Kingston.

I wish that some organization would resurrect public transportation to NYC by boat on the Hudson.
It would be fantastic to commute across the river by bus to work (at Bard) and also for student to have public transportation to get to Ulster county for shopping, recreation, and to interact with community groups.

Please consider alternatives such as cycling for transportation.

Please concentrate on maintaining better road surfaces. More paving, less chip/seal.

DO NOT PUT UNNECESSARY traffic lights !!!!! They only slow down traffic and ANNOY everyone!!!!!

If we had a bus, so many of my underserved students from Ulster County could take classes for free at Bard College.

Less cars, more sidewalks (especially around the Mall area). better bike lanes, light rail system in Kingston
Bard College's plans for expanding tuition-free education for members of the Kingston community would be significantly supported by improvements in public transit infrastructure crossing the Hudson River. This would benefit both the college and the community tremendously.

please note in future surveys the term "female" and "male" refer to sexes not gender identities.
Would love to see a cross-bridge public transportation option that would go from Kingston in a loop to Bard and Rhinecliff, to facilitate the Bard community's connection to our nearest urban area!
I work at Bard, and I am thinking about where to buy a home. If there were an easy public transport option over to Kingston I'd love to look there!
I work at Bard College. There are MANY foreign students and students with no cars (hundreds!) who would LOVE to have ways to get to Kingston to shop at the malls/stores on 9W (in addition to the trips 2x/week provided by Bard). You might consider facilitating this to increase tax revenue from this source (working with Bard's transportation office to offer different days/times). Thanks!

Please continue to ask the people for input!

It would be great to see public transportation extended to cover a cross river route over the Kingston/

Rhinecliff bridge.

I do NOT support BIKE LANES

Would love to see improved public transportation along 209 as well as a cross-bridge route.

Thanks for doing this work.

they could streamline in a little bit more better

More buses! More Bike racks! Thank you.
I believe that the pandemic will have long lasting impact to the travel patterns in the Hudson Valley. I think travel between Urban centers will lessen as we come out of the crisis.

APPENDIX E: PUBLIC COMMENTS

Submitted during the period August 1 – August 31, 2020

8/27/2020

Ulster County Transportation Plan comments

Congratulations for a job well done. If it weren't for the covid-19, I would have very few comments. However, I feel that the recent events have completely upended all of the financial assumptions in this document. New York State and New York City are on the verge of bankruptcy. Terrified residents of New York City have poured into our area. I am afraid that the 20% local match for Highway projects will no longer exist. Furthermore, even the federal funds may be cut due to the need for immediate stimulus and the fact that it takes many years to actually spend Highway funds.

My biggest worry is the large number of substandard bridges in our County. It seems highly unlikely that in the near term there will be funding for repairs or replacement. Even though repairs are already scheduled. it may be necessary to implement one-way traffic and/or load limits for these bridges.

I have noticed major increases in traffic volume on route 212 and connecting roads. Much more hiking, biking and overall traffic. This may be temporary, but will have an impact on traffic patterns.

The table on Railroad traffic dates back to 2014 before the massive increase in the use of tanker cars.

I feel there is going to be a revolutionary transformation for passenger and Freight Vehicles due to electrification. Tesla currently holds over 80% of the market and no competition has the engineering expertise or the battery capacity to catch up. They have over 18,000 installed chargers in the continental United States. No one else has anything close. Ford and VW are working on a competitive system with a few thousand installed. The Tesla Chargers are automatically billed to your account and avoid all the awkward problems with the competition. I have close friends with a Bolt who do extensive traveling. they report total disasters with maintenance and payments for the competitive, widely spaced chargers. I find it very strange that New York State is using taxpayer funds to subsidize these substandard, expensive chargers. VW is required as part of their diesel cheating scandal to install a nationwide charging system. In light of all this I think New York State's efforts are a waste of time and money.

I tried to take your survey, but it refused to advance to the second page.

With great respect for your hard work

Alex Wade

8/31/2020

Hi Brian,
Per our conversation just now, attached is the Ex Summary of the 2019 State of the Trails Report submitted by UCTAC to the Economic Development, Tourism, Transit & Housing Committee (our parent committee) in June, 2020.
Please accept this as a comment on the draft LRTP.
Best,
Kevin Smith,
2020 UCTAC Chair (attachment follows)

Kevin D. Smith, Chairman
Woodstock Land Conservancy

Ulster County Trails Advisory Committee 2019-2020 Summary to the Legislature

May 2020 COVID-19 Update: Ulster County's shared-use trails provide an extraordinary refuge, supporting physical and mental health, social connection and access to nature.

The coronavirus pandemic brought an enormous increase in visitation to parks and trails in early 2020. With the closing of schools, workplaces, shopping centers and movie theaters, people turned to the public spaces that remained open. Nationwide, many trails and parks reported increased usage ranging from 200% to over 470%. Locally our parks, preserves and trails revealed themselves as the essential public infrastructure they

are, as essential refuges during a public health crisis. The demand was so great that some trails and trailheads filled beyond their safely manageable capacity and were forced to close.

This showed us what planners, park and recreation professionals have known and argued for a long time: we invest in parks and trails because they are critical to our quality of life, our health, and our economy. We are now witnessing and living this reality firsthand in Ulster County in unprecedented fashion. In the second half of 2020, as the County and region shifts its focus to when and how to responsibly 'reopen' our businesses and vital tourism sector, our trails and parks will be central to those efforts as well.

We literally changed the Trails Map in 2019: Ulster County Government's bold vision and commitment – with partners in government, NPOs and trail organizations – to build and steward a connected network of high-quality shared-use trails – is paying off. 2019 saw the largest expansion of shared-use trails in Ulster County in several decades. The County will continue reaping those benefits as several Empire State Trail & other trail projects are slated for completion. By year's end, a major portion of Ulster County's premier shared-use trail network will be open as part of New York's 750-mile Empire State Trail! It could not come at a more important time for the County.

Trail Vital Signs – Snapshot of major 2019-2020 Projects & Forecast:

- 75 miles of nonmotorized multi-use trails completed and in public use, out of a potential 123 miles.
- 20 miles of new trail were opened in 2019, on 4 trail corridors
- Ulster County trails received at least 600,000 visitors in 2019
- The longest continuous off-road stretch is 22 miles, on the Wallkill Valley Rail Trail
- 12.4 miles of new trail are in active planning stages and could open in 2020
- The Empire State Trail will be completed, connecting Ulster County to a 750-mile trail system extending statewide, from New York City to Canada, and from Albany to Buffalo.
- A Corridor Revitalization Study will examine the 5-mile segment of County-owned corridor between Highmount and Big Indian in the Town of Shandaken.
- 12 miles of the Wallkill Valley Rail Trail, from Rosendale to Kingston, is undergoing restoration by the Open Space Institute (OSI) and Wallkill Valley Land Trust during summer and fall of 2020.
- Closing just 4 gaps totaling 9.6 miles would result in a continuous trail from the City of Kingston to Ellenville, and from Kingston to Wallkill, ' knitting' six new communities into the trail network.

See p.2 UC Trails "Vital Signs" Table summary of major shared-use trail projects (completed, under-construction, in-planning, envisioned) & p. 3 Map 2020 UC Shared-Use, Non-Motorized System

"Vital Signs" of Ulster County Trails - Status of Rail Trails & Shared-use Paths, 2019-2020

Railroad corridor/ section	Total corridor length (miles)	Completed trail in use		Completed trail needing upgrade	Trail planned or in construction		Trail route defined but not planned or constructed	Trail corridor acquisition needed (miles)	Mileage completed in 2019	Mileage planned to open in 2020
		Off-road	On-road Connection		Off-road	On-road Connection				
U&D: Highmount to Big Indian	5.0						5.0			
U&D: Big Indian - Phoenicia	8.0						8.0			
U&D: Phoenicia to Boiceville	6.0						6.0			
U&D: Ashokan Rail Trail (NYC DEP)	11.5	11.5							11.5	
U&D: Basin Rd. to Rte 28A	1.6						1.6			
U&D: Rte 28A to Kingston Plaza	4.5							4.5		
U&D to O&W: Rte 209 corridor link	1.8						1.8			
U&D: Kingston Midtown Linear Park	0.8				0.8					
U&D: Kingston Point Rail Trail (Phase 1)	1.1	1.1							1.1	
U&D: Kingston Point Rail Trail (Phase 2. Trolley Museum)	0.4						0.4			
U&D: Kingston Point Trolley Path	0.8	0.8					(footpath link)			
O&W: "Kingston Rail Trail Project" (Kingston - Hurley connector)	1.8				1.8					1.8
O&W Rail Trail: Hurley to Accord	13.0	13.0								
O&W Rail Trail: Accord to Kerhonkson	4.3	3.5					0.8			
O&W Rail Trail: Kerhonkson - Ellenville	5.8	1.2			4.6					
O&W Rail Trail: Ellenville - Spring Glen	4.5							4.5		
Walkill Valley Rail Trail: Gardiner to Ulster*	22.0	22.0		11.0	9.0*					9.0*
Walkill Valley Rail Trail: Shawangunk Correctional	1.4							1.4		
Walkill Valley Rail Trail: Town of Shawangunk	2.4	2.0	0.4							
Walkill Valley Rail Trail: Walden/Orange County section	2.2	2.2								
Walkill Valley Rail Trail: Kingston connection (EST)	2.5					2.5				2.5
Empire State Trail (EST): Kingston to Rhinecliff Bridge	3.7					3.7				3.7
Rhinecliff Bridge walkway and approach (EST)	1.9				1.9	1.6				1.9
Hudson Valley Rail Trail: Town of Lloyd	3.5	3.5								
Hudson Valley RT: Town of Lloyd (Phases 3 & 4)	2.0	2.0							2.0	
Hudson Valley RT New Paltz Connection (EST)	3.1	1.6	1.5						3.1	
River to Ridge Trail & Foothills Loop	6.0	5.2	0.8						2.2	
Walkway over the Hudson	1.3	1.3								
Totals:	**122.9**	**70.9**	**2.7**	**11.0**	**9.1**	**7.8**	**23.6**	**10.4**	**19.9**	**9.9**

*Note: 2020 Improvements to 9 miles of existing Wallkill Valley Rail Trail (by Open Space Institute) in Towns of Rosendale and Ulster are not included in totals.

8/31/2020

Brian,

I really needed to submit this particular message your way before 5:00 p.m. today, at the conclusion of the business day. What I can honestly state, very briefly/concisely, is the very important message sent by me to other transportation agencies, as well as public transportation authorities (In Eastern New York State, Throughout The State of Vermont, & Western Massachusetts). The fact of the matter is that I really need to be in close proximity from my immediate family members since my devotion/loyalty is 100% extremely sincere. There are a lot of other considerations that I need to really carefully determine, also based on various, precarious past circumstances (in this one particular case, commuting scenarios that must never ever occur again). I will NOT (and cannot) (and MUST NOT) settle for, as one individual had responded to me on the phone, at the beginning of this particular month (August 2020), "It is just the nature of the beast." The aforementioned, Brian, is just not right, and, also, NOT fair. And I am really 100% determined to do all the can be possibly done by me to find a realistic, doable, long term solution, not just for my own sake, but for other individuals as well - really helping to better our communities (ameliorate society for the 100% positive). What has been written by me to the various above other transit organizations is, most likely, as one other individual had told me once, and 100% agreed, is the implementation of a microtransit van/ shuttle service available to all (Who Who Work/Live In Ulster County) [Scheduled Either 24 Hours In Advance or 48 Hours In Advance], within the same hours as regular fixed route bus service. It should, as well as really could be a 100% vital service, considering various situations that are a real reality right now (the new normal, as one of my siblings stated to me), painting not a good picture of the public transportation situation in so very many countless (too many to even count) locations. In other words, not a lot of people are taking public transportation due to various, legitimate reasons.

It should be a major priority for the administrative representatives throughout the Ulster County, New York seat to make 100% sure that all passengers are confident, as well as both safe and secure. It should also be majorly important for the public transit service serving the county is receiving the accounted revenue via these particular 'lifeline' mobility methods (the regular fixed route bus service and the microtransit van/ shuttle service, available to all, scheduled in advance).

I am submitting this particular letter to your attention before 4:50 p.m. today, and will next access e-mail at some point during the evening, tomorrow, September 1, 2020.

Take good care, Brian. Stay safe. Be well.

Sincerely,

Andrew Barret

cc: Mr. Jordan Posner, Mobility Coordinator, Green Mountain Transit
Ms. Michele Boomhower, Director of Policy, Planning, & Intermodal Development, Vermont Agency of Transportation

2045

Long Range Transportation Plan

For the Period October 1, 2020
to September 30, 2024

UCTC

ULSTER COUNTY TRANSPORTATION COUNCIL

Prepared By:
Ulster County Transportation Council
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https://ulstercountyny.gov/transportation-council