

transportation

Transportation touches nearly all of people's daily activities. Increasingly, people are seeking more choices for how to travel, including biking on paths, walking on sidewalks, hopping on buses, connecting for shared rides, driving electric or hybrid cars, or just driving on well-maintained roads. In order to make the best solution for how to get somewhere not always "drive there alone," alternative ways to move from place to place need to be convenient, affordable, and fun.

Besides expanding choice, broadening transportation alternatives can result in a healthier population, less traffic congestion, fewer accidents, and fewer emissions and other environmental impacts. A sustainable transportation system seeks to minimize negative impacts while providing a good level of service. Enhancing the transportation system to serve all residents equitably will require insight into the social structure as well as the infrastructure of the community.

Although there is no single fix to the challenge of increasing choice and convenience for consumers while simultaneously reducing energy use and emissions from transportation, there is growing interest in the community in having good options available. From record Tompkins Consolidated Area Transit (TCAT) ridership to thriving Ithaca Carshare and the well-used Cayuga Waterfront Trail, demand is growing from throughout Tompkins County for a variety of ways to get around. This is a system-wide challenge that will require multi-faceted solutions to create the transportation infrastructure the community is ready to embrace.

PRINCIPLE

Tompkins County should be a place where transportation choices are efficient, affordable, and healthy for people and the environment.

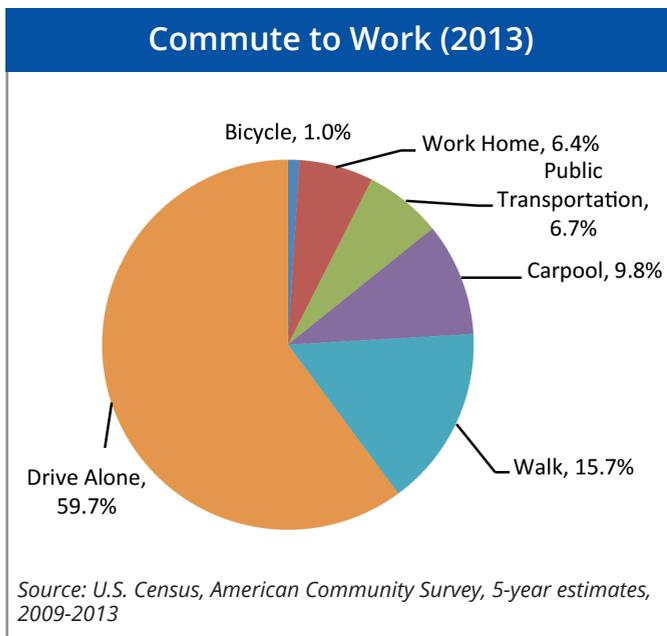
POLICIES

It is the policy of Tompkins County to:

- Maintain and improve critical elements of the existing transportation network to support the safe movement of people and goods.
- Reduce the use of fossil fuels in transportation.
- Shift travel away from driving-alone to biking, walking, carpooling/ridesharing, and using public transit.
- Support a pattern of land use that allows people to move efficiently and affordably.
- Provide for the safe and effective movement of freight to, from, and within the county.
- Continue to provide airport services that support community and business needs.
- Consider the needs of populations that are particularly challenged by transportation when developing systems and alternatives.

SNAPSHOT OF THE COUNTY TODAY

Studying the commute to work is a good starting point to assess transportation in the community. In 2013, 60 percent of commuters drove alone to work. Additionally, of the roughly 25 percent of people who work in the county but live elsewhere, fully 82 percent drove alone to work. Tompkins County has higher percentages of residents bicycling,



carpooling, walking, and working at home than in New York State as a whole. Not surprisingly, these figures are impacted strongly by factors such as community density, individual wealth, and age. Non-automobile use was higher in the City of Ithaca and other areas where development is compact and, not coincidentally, most of the student population is concentrated; countywide, 65 percent of wealthier people drove alone versus only 38 percent of people below the poverty level; and 78 percent of people over 60 years old drove alone versus only 35 percent of 20-24 year olds.

While commute trips are important, they only represent a portion of the total daily trips taken. For all trips, privately owned vehicle trips still represent the most common method of getting around, with walking and carpooling showing strong numbers in trips having to do with family, personal, social, and recreational outings.



Winding Road, Tompkins County

Drive

There are approximately 1,400 miles of roads and 200 bridges in the county. The State highways that run through the county are critical to its economy and are the routes used by in-commuters and by virtually all freight service bringing goods into and out of the county. According to the Ithaca-Tompkins County Transportation Council (ITCTC), the total number of vehicle miles traveled in 2013 on roads in Tompkins County was 673 million miles. U.S. Census data indicates approximately 15,000 workers commute each day into Tompkins County from adjacent counties. The geography of Tompkins County results in much county and regional traffic being funneled through the City of Ithaca, where bottlenecks can occur.

Walk and Bike

As of 2014, there were 14 miles of designated multi-use trails, 25 miles of designated bike routes, and four miles of marked bike lanes in the county. Forty-six percent of all village and city streets had sidewalks. These figures do not clearly indicate the amount of walking and biking that occurs in the community, as many pedestrians and cyclists use the existing street network to get around and can be seen commuting in all types of weather. The *Tompkins Priority Trails Strat-*



Photo by TCAT

Commuting on Cascadilla Gorge Trail

egy completed in 2014, found targeted trail development in the next two to five years could create a cohesive network to form the basis of an impressive destination-quality trail system and local recreation and transportation resource.

Bus

Bus service within Tompkins County includes fixed route bus service by TCAT and Gadabout paratransit service for older and disabled residents. Residents are fortunate to have access to such a high-quality bus service, as was acknowledged in the award given by the American Public Transportation Association to TCAT in 2011, when it was named Outstanding Public Transportation System in North America in the category of transit operators providing fewer than four million annual trips. In 2013, TCAT's ridership was 4.5 million, up 1.1 million rides from 2009. TCAT is essentially operating at full capacity. Any significant expansion in service will require major investments in facilities to store and maintain buses, as well as development of new strategies to fund the capital and operational costs of running an expanded transit system. Such investment is dependent on TCAT's public and private partners, as well as State and Federal funding.

Bus service to and from Tompkins County is provided by Shortline and Greyhound buses, as well as regional transit partners from the surrounding counties. Cornell University also operates its Campus to Campus bus, providing express, business-class bus service between Ithaca and New York City. Megabus, operating out of Binghamton, is an example of a low-cost bus option from the area, but it requires travel to get there, pointing out the need for enhanced intercity transportation options in the region. Ithaca Airline Limousine provides local transportation options, as well as eight scheduled daily trips between Syracuse Airport or Amtrak station and Ithaca allowing Tompkins County residents to easily access bigger airline markets and rail services. Several private taxi services also operate in the Ithaca area.

Rail

Historically, seven distinct railroad routes served the county, but now there is only one active rail line. Norfolk Southern carries coal to the Cayuga Power Plant and rock salt from Cargill's underground mine near Myers Point in Lansing. Although the rail line is currently geared toward moving commodities, there may be opportunities in the future to utilize the corridor for other transportation purposes, including rail transport to support industrial or tourism development, or trail use for recreation or commuting.

Air

The Ithaca Tompkins Regional Airport has until recently been financially self-sustaining with all expenses being paid from revenues generated. By one accounting, it contributes more than \$66 million annually to the local economy, and supports almost 400 aviation-related jobs, with a combined payroll of more than \$5.3 million. The airport is currently served by Delta, US Airways, and United with nine flights to Philadelphia, Newark, and Detroit each day. Over 102,000 passengers flew out of the Ithaca Tompkins Regional Airport in 2013.

In 2012, the airport created the first FAA-funded airport sustainable master plan in the United States, which was the recipient of multiple awards. The vision for the master plan focuses on both the future aviation needs of the community and also how the airport can be more sustainable in the future.

ISSUES AND OPPORTUNITIES

The High Costs of the Current System*

Transportation infrastructure, including highways and public transit, represents a huge and ongoing public investment. New York State, Tompkins County, and local municipalities struggle to maintain the existing network of roads, bridges, and public transit, even though annual transportation expenditures (including engineering, equipment, staff, construction projects, operations, etc.) by all levels of government within Tompkins County total about \$65 million, with the bulk of that coming from the County and local municipalities. Increasingly, funding is not sufficient to meet all the transportation infrastructure needs and competition for federal and state transportation dollars is increasing significantly throughout the region while those funds are shrinking.

In order to maintain the functional capacity of the highway infrastructure, as well as the levels of TCAT and Gadabout service upon which people depend, funding entities need to make selective investments in maintenance, technology, and design to increase the efficiency of the existing network.

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Shifting People from Driving Alone**

Beyond working to save money on transportation maintenance, future transportation decisions also need to consider shifting demographics. As the population ages, there will be increasing demand for expanded, often costly, transportation services for the elderly, particularly those in more remote rural areas. Meanwhile, the national trend with younger residents is a shifting preference toward compact, walkable communities that do not require car ownership for daily trips. These two groups together provide interesting opportunities for providing transportation options that can reduce individual car use. Improving transportation alternatives will also help to improve mobility for all, including youth, elderly, low-income, and physically challenged, who do not have the option of relying on a personal automobile for transportation or simply prefer not to travel this way.

Making this shift a reality will require a three-pronged focus on development patterns, alternatives to drive-alone, and increased working from home.

PATTERNS OF DEVELOPMENT. One way to reduce automobile traffic and support alternative modes of transportation is by encouraging compact development in locations near employment centers and served by transit and trails. By supporting housing development in these areas and

providing adequate sidewalks, bike facilities, and bus service, a robust transportation network can be created. Doing so will not only promote livable communities, but will also keep overall transportation maintenance costs down and reduce the wear and tear on infrastructure. If, instead, development patterns continue as they have, the functional quality of the major highways will deteriorate. This will lead to more traffic congestion, longer commutes, and, in general, more time spent in traffic.

ALTERNATIVES TO DRIVING ALONE. Automobile ownership and use

is a significant household expense and using different methods of travel can result in substantial savings. Bicycling and walking offer healthy options to move around, particularly in urbanized areas where distances between destinations are shorter. While the public transit system currently faces constraints in its ability to expand, it is clear community demand is exceeding capacity. A way to



Tompkins Consolidated Area Transit in Operation

* For more information see the Development Patterns Chapter, "The Cost of Sprawl" section.

** For more information see the Healthy Communities Chapter, "Streets and Roads" section.

expand operations in the future needs to be identified. Ridesharing is also growing and actively being nurtured in the community with opportunities for expansion. Applying communication technologies to make alternatives more convenient for people is another area to pursue. Creating easy payment methods, real-time bus tracking, online carpooling services, and other information technology based services can help give people the confidence to try different methods of transportation.

WORK FROM HOME. Accounting for six percent of workers, the trend to work from home has seen a steady increase since 2000. Building on this uptick in interest should be a priority, as even working from home one day each week would greatly reduce the impacts from drive-alone trips.

Complete Streets

The Ithaca-Tompkins County Transportation Council has identified a network of roads to form a Complete Streets Network for the urbanized area of Tompkins County. A

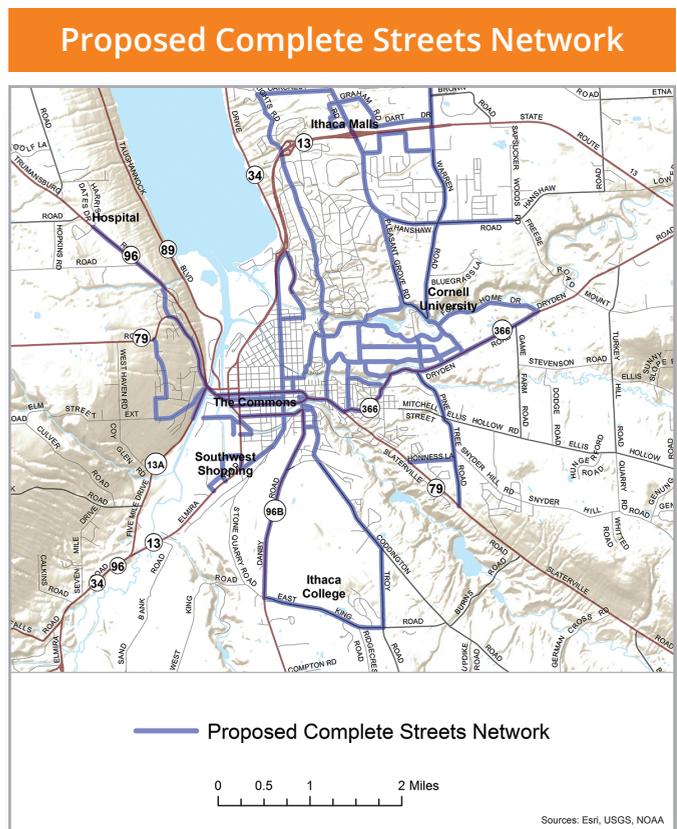
A complete street is designed to enable safe access for all pedestrians, bicyclists, motorists, and bus users to move safely along and across the street.

complete street is designed and operated to enable safe access for all users, so pedestrians, bicyclists, motorists, and bus users of all ages and abilities are able to move safely along and across the street. Complete Streets are an important component to a high-functioning transportation network that includes bike lanes, sidewalks, and bike boulevards. The roadways selected have been inventoried to determine what complete street design components currently exist, with the hope that over time, as maintenance and construction takes place on these roads, additional complete street components will

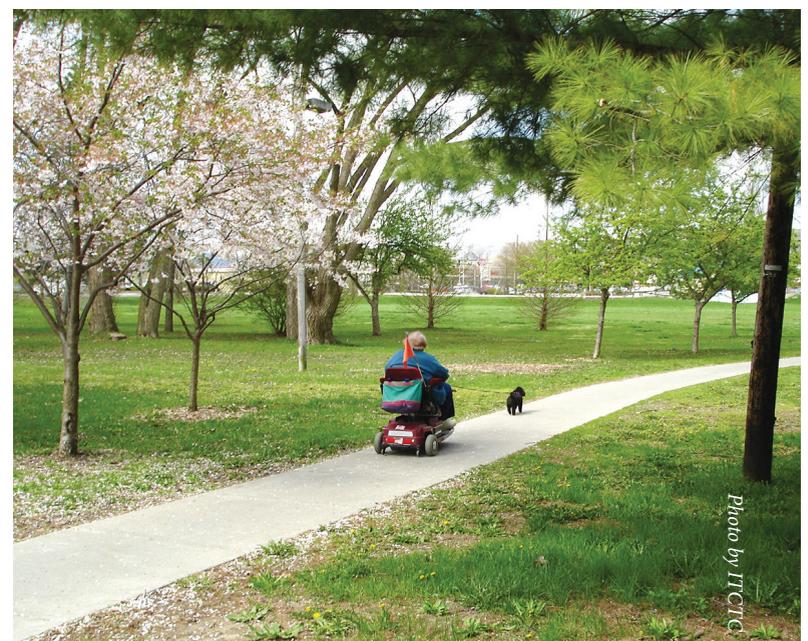
be added. The vision of the map is of a network that ties together numerous residential, employment, and activity centers to allow travelers multiple transportation options to reach their destinations.

Transportation-Insecure

People who do not drive can include youths, older persons, persons with disabilities, and low-income citizens who cannot afford a vehicle. Viable transportation alternatives for these persons include riding buses, biking, walking, carpooling and the like. Another category of the transportation-insecure are low-income residents who own a car but can face major disruptions to their lives when their vehicle breaks down or is otherwise unavailable. They may not be



Source: Ithaca-Tompkins County Transportation Council



Accessing the Park, Titus Flats

Photo by ITCTC

able to get to work, to medical appointments, or transport their children between home and childcare providers.

These transportation-insecure citizens could directly benefit from increasing the availability of viable transportation options. These citizens can often remain isolated in their homes with few options for getting around, particularly in the rural areas of the county. The ability to travel within and between communities is essential to maintaining independence, health, and social connections. Efforts to promote mobility options, such as walking, obtaining rides with family, friends, volunteers, or neighbors; public transportation; and transportation provided in connection with services from community agencies and the healthcare system can help reduce transportation insecurity.

Rural Transit

For decades, rural public transit systems have relied on funding received for non-emergency Medicaid transportation. In 2013, New York State changed how it manages and funds Medicaid transportation, resulting in drastic decreases in revenue for many nearby counties. Ride Tioga First Transit ceased operation in December 2014 and Schuyler and Cortland Counties' bus service to Tompkins County is threatened by this loss of revenue as well, impacting commuters who come to Tompkins County for employment. In addition, the community of West Danby, which is served by buses coming from Tioga County, will be affected by the discontinued service from Tioga County. As a result, the Tompkins County Legislature included funding in its 2015 budget to implement a West Danby Van Pool. While local TCAT service is not impacted directly by the Medicaid funding changes due to its unique public-private funding mechanism, the county is affected by reductions in service, particularly to commuters in surrounding counties, and continues to struggle with the high cost of rural service and constrained fiscal resources.

Sustaining High-Quality Air Service

The past few years have seen a trend in declining numbers of passengers flying out of the Ithaca Tompkins Regional Airport. In 2011, the figure was at an all-time high of 121,733 passengers. The figure dropped slightly in 2012, to nearly 119,000, and

dropped again in 2013 to 102,000. Confidence in the Airport was undermined during early 2013 when there was a threat of elimination of federal funding for the control tower. That issue has since been resolved but the trend has continued. In the period of January through May 2014, the number of departing passengers was down nearly 18 percent from the same period in 2013. With the important role of the airport in the community and its benefits of business stimulation, emergency medical evacuation services, and time and cost savings to residents accessing a home-town airport, it will be critical to stem the tide of lost passengers and once again attract passengers at the higher levels enjoyed previously.

Transportation's Role in Greenhouse Gas Emissions*

Surface transportation is by far the largest single sector energy user in the community. Transportation accounted for 42 percent of the energy consumed in Tompkins County in 2008, and contributes roughly a third of all community emissions.¹

In addition to reducing the number of drive-alone trips and developing land so that more people can easily get from their homes to jobs and services, other important steps to reduce energy use in transportation include increasing the adoption of more efficient and alternative fuel vehicles, building the necessary supporting infrastructure for those vehicles, and addressing inefficiencies in current operations, such as improving traffic light timing and adopting anti-idling ordinances.

VEHICLE EFFICIENCY AND ALTERNATIVE FUELS VEHICLES.

Vehicle fleet efficiency and fuel mix are key components of any successful strategy to reduce fossil fuel energy consumption and emissions, as cars and trucks will continue to be important components of all future transportation scenarios. Use of hybrid and electric vehicles in Tompkins County is higher than in surrounding areas, but is still only considered "Fair" by the National Renewable Energy Laboratory and there is significant room for increased adoption. For example, there are currently only 54 electric vehicles in operation in the

county, and just five public electric vehicle charging stations. Tompkins County can take steps to position itself as a for-

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* For more information see the Energy and Greenhouse Gas Emissions Chapter, "Transportation" section.

ward-thinking community State or Federal agencies turn to when piloting programs to roll-out these technologies by planning for the infrastructure necessary for deployment.

INEFFICIENCIES IN CURRENT OPERATIONS.

Another way to reduce transportation emissions and improve the transportation experience overall is to improve the efficiency of the traffic flow, such as installing smooth-flowing roundabouts and reducing the wait time at intersections by improving traffic light timing and turn signals. Of course, these and all improvements need to be made with all users of the streets in mind, including bikes and pedestrians. Municipal adoption of anti-idling ordinances for municipal fleets, at truck stops or other areas where idling is excessive can also play a role in greenhouse gas emissions reductions and improvement in air quality.

TAKING ACTION

STRATEGIES. Specific actions that support this chapter are included in the action steps identified in the ITCTC's *2035 Long Range Transportation Plan (2014)*, the *Tompkins Priority Trails Strategy (2014)*, the *Tompkins County 2020 Energy Strategy (2010)*, and the *Cleaner Greener Southern Tier Regional Sustainability Plan (2013)*.

The *Long Range Transportation Plan* identified select transportation initiatives and projects for implementation. One example is to promote active and shared transportation options to local government staff and officials and within the community as a whole.

The *Priority Trails Strategy* identified priority actions to develop five key trails to create an outstanding trail-based recreation and transportation network. One of those five trails is the Black Diamond Trail, connecting the four State Parks in the county.

The *Energy Strategy* identified ten new local measures that should be taken to put the community on the path to achieving a 20 percent reduction in greenhouse gas emissions by 2020 and 80 percent by 2050. One of those measures is to reduce the number of miles driven by private vehicles in the

community by helping them switch from single-occupancy vehicles to walking, biking, taking transit, carpooling, and telecommuting.

The *Cleaner Greener Regional Sustainability Plan* looked at the issues of energy, greenhouse gas emissions, and sustainability at the regional level and identified 22 top actions to implement to achieve emissions goals. These included creating a region-wide electric vehicle and alternative fuel infrastructure deployment plan and improving connectivity of pedestrian, bike, and transit routes, especially around downtowns, transit stops, and schools.

PARTNERS. The ITCTC is the primary agency charged with transportation planning activities, so many of the planning-related actions will be spearheaded by the ITCTC. Other key partners are TCAT, NYSDOT, Tompkins County Planning and Highway departments, local municipal planning and public works departments, Cornell University and Ithaca College, Ithaca Carshare, Way2Go, and Cornell Cooperative Extension of Tompkins County.

COUNTY ROLE. County Government plays a critical role in the planning and maintenance of County-designated roads and bridges and operation of the Ithaca Tompkins Regional Airport. In addition, as one of the three main funding partners of TCAT and the designated recipient of Federal Transit Administration funds, the County plays a role in transit planning and operation.

County Actions to be Initiated within Two Years

- Identify the most critical elements of the County-owned highway infrastructure network for use in prioritizing investment of County funds.
- Conduct a study to identify electric vehicle charging station development needs and opportunities.
- Investigate additional park and ride and other ways to provide better, safer access to existing transit routes in suburban and rural areas.

¹ Air flight emissions are tracked, but not counted in these emissions since the data are incomplete, as private air flights are not included. Both incoming and outgoing commercial flights were estimated to have released 916 tons eCO₂.