

CHAPTER III - THE REGION





OVERVIEW

The Genesee-Finger Lakes Region is a diverse area encompassing nearly 4,700 square miles. This diversity is evidenced by the transition from the dense, urban form of the cities and villages to the vast, open areas of the rural towns.

The economic activities that take place within the region's borders are as diverse as the physical terrain. The region's development is strongly rooted in its history of manufacturing and agriculture. While these industries remain top contributors to the regional economy, an evolution through diversification continues as a host of business support, photonics, and biotechnology-related firms continue to increase their contribution.

For the transportation system to contribute effectively to the social and economic vitality of the region, it must be responsive to not only existing socioeconomic conditions but also to reaching the desired state of the region in the future, as determined by the community.

POPULATION

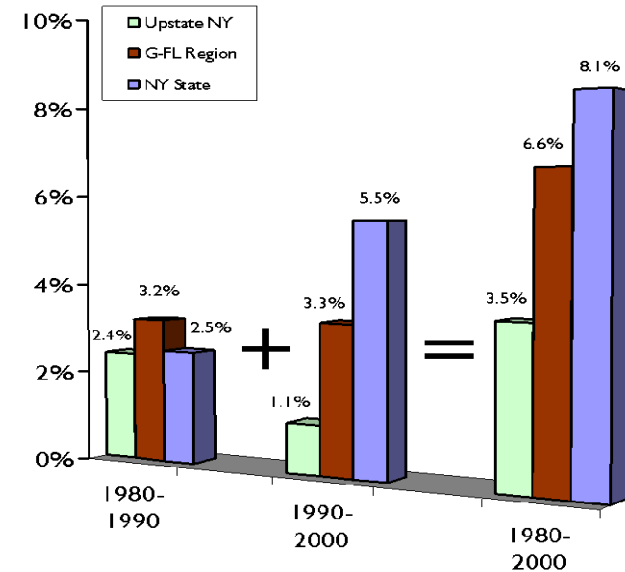
Who We Are

Based on the 2000 U.S. Census of Population and Housing, approximately 1.2 million people reside in the nine-county Genesee-Finger Lakes Region.

This represents an increase of nearly 40,000 residents between 1990 and 2000. The region experienced a steady growth rate over the past twenty years - just above three percent over each of the two 10-year periods of 1980 to 1990 and 1990 to 2000.

Exhibit 3 presents the growth rates of the region, Upstate New York, and New York State between 1980 and 2000 in 10-year increments and over the entire 20-year period. The region's growth in population outpaced population growth in Upstate New York over both 10-year periods. While the region maintained a steady growth rate in population between 1980 and 2000, the pace of growth in Upstate New York declined by more than half between 1990 and 2000 compared to the previous 10-year period.

Exhibit 3 - **POPULATION GROWTH RATE, 1980 TO 2000**



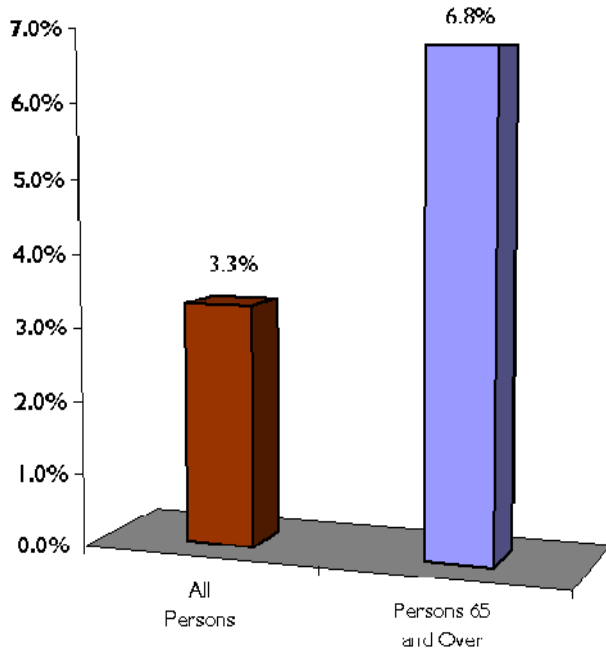
Population growth for the state as a whole was just the opposite of that in Upstate New York over the 20-year period. While population growth in the region outpaced that of the state between 1980 and 1990, the large influx of new residents in New York City and the surrounding downstate area (largely due to immigration) resulted in a growth rate for the state that exceeded the region's between 1990 and 2000.

Population growth in the region is expected to continue over the 20-year time period of the LRTP Update. However, this increase in population is forecasted to occur at a slower rate than in the past. The population of the region is projected to reach nearly 1.25 million residents in 2025. Regardless of the decreasing growth rate, the increase in population will result in more trips on the region's transportation system.

As presented in Exhibit 4, the growth rate of persons 65 years and older in the region between 1990 and 2000 was more than double that of the population as a whole. In 2000, one out of every eight residents of the region was 65 or older - consistent with Upstate New York as a whole.



Exhibit 4 - **POPULATION GROWTH RATE OF PERSONS 65 AND OVER, 1990 TO 2000**



Increases in life expectancy rates and the aging "Baby Boomer" generation will continue this trend over the period of the LRTP Update. The increasing senior segment of the Region's population will impact both the purpose of trips and the means by which they are made.

Where We Live

More than 60 percent (735,343) of the region's 1.2 million residents lived in Monroe County in 2000. Nearly 30 percent (219,773) of these persons resided in the City of Rochester, representing a decrease of over 10,000 residents between 1990 and 2000.

The largest number of persons outside Monroe County were to the east and south in Ontario (100,224 persons), Wayne (93,765), and Livingston (64,328)

counties, combining for over 20 percent of the region's population. Exhibit 5 presents the distribution of population by county in the region in 2000.

While Genesee and Seneca counties are forecasted to experience very slight decreases in population (less than 1.5 percent each), the distribution of population within the region by county in 2027 is projected to be nearly identical as it is today.

The distribution of population within the region is expected to remain fairly constant but the trend in the number of households increasing at a greater rate than residents means that trips are originating from a greater number of locations.

Between 1990 and 2000, the number of persons in the region increased 3.3 percent. During the same period, the number of households grew by 6.0 percent, with most of the growth in one-person households. Two-person households also increased and three or more-person households declined.

The result was a decrease of .09 persons per household (-3.2 percent) across the region in 2000 compared with 1990. Exhibit 6 presents the rates of change in number of persons, households, and persons per household.

Exhibit 5 - **POPULATION BY COUNTY, 2000**

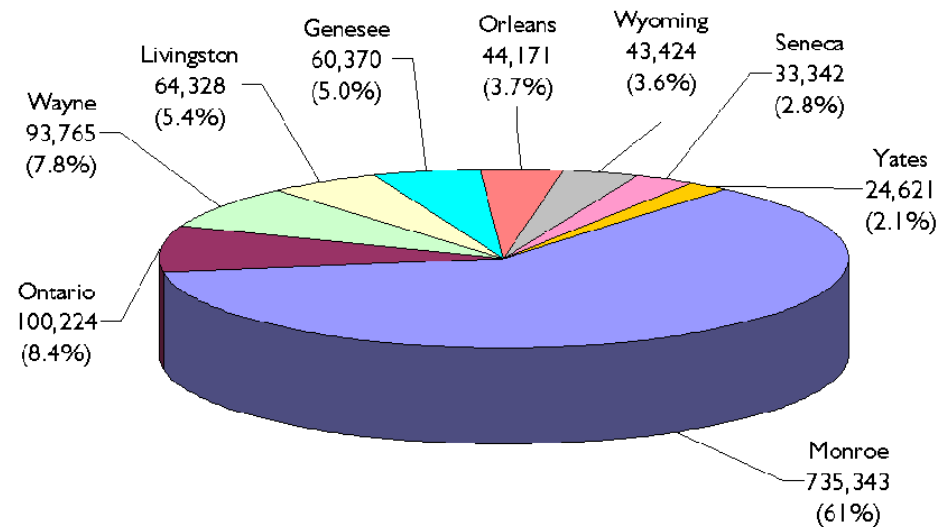
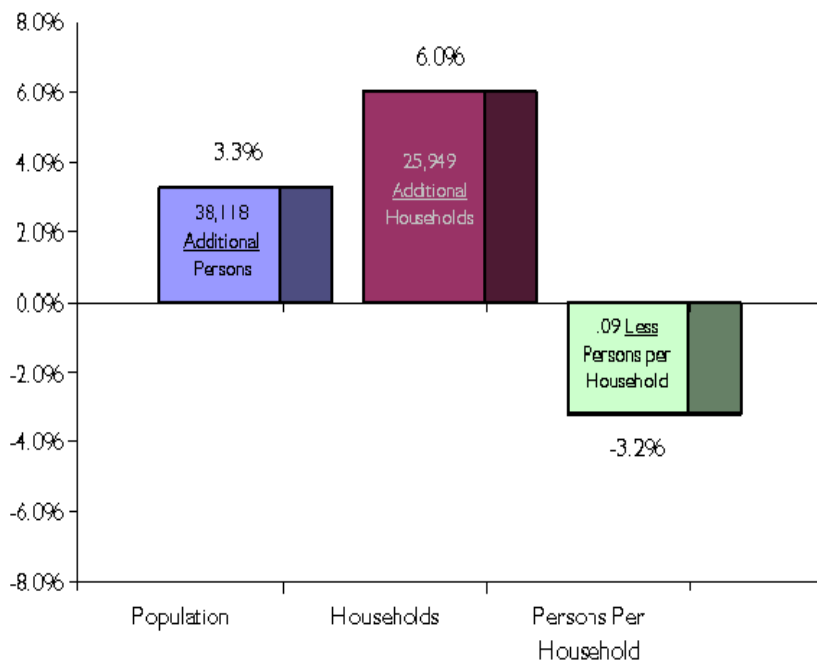




Exhibit 6 - HOUSEHOLDS & PERSONS PER HOUSEHOLD GROWTH RATE, 1990 TO 2000



EMPLOYMENT

What We Do

Based on 2005 NYS Department of Labor QCEW data, more than 28,000 establishments employing over one-half million workers are located in the region. Workers employed in the region earned in excess of \$20 billion in wages in 2005.

Over 80 percent of the workers in the region are employed by private businesses. In 2001, these establishments produced goods and services worth approximately \$50 billion - more than 12 of the 50 states.

Along with the rest of New York State and the majority of states in the Northeast and Midwest, manufacturing-related employment has and continues to decline as the industry continues its transition to higher value-added products. More than 10,000 manufacturing jobs in the region were lost between 2002 and 2005. Still, manufacturing firms employ more than 15 percent of all workers in the Genesee-Finger Lakes Region - a larger percentage than any other region in New York State.

For the most part, the regional economy has been able to absorb the significant decreases in manufacturing employment through increases in business-support and information services, health care, wholesale trade, and technology-related job opportunities. In 2002, the regional economy was in the midst of a recession that reduced employment by roughly 20,000 jobs from its 2000 peak. The regional economy has since begun to improve, adding nearly 4,000 jobs between 2002 and 2005.

In addition to manufacturing, services, and high technology, agriculture and related agribusiness activity remain major components of the economy. In spite of the decrease in manufacturing employment and the change in the type of goods produced in the region, the amount of goods (as measured by volume) from regional firms is expected to grow as a result of continued increases in productivity and consumer demand for regional products not only in the region but across the nation and around the world; a predominantly service-oriented economy is not likely in the region's future. Accordingly, the transportation system will need to safely and efficiently transport a larger volume of goods than it does at the present.

Where We Work

As with population and households, approximately 60 percent of the region's businesses are located in Monroe County (see Exhibit 7). However, roughly 70 percent of the region's employees work for establishments located in Monroe County. This is the result of a greater proportion of larger businesses being located

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in Monroe County. Based on an analysis of traffic counts, bus ridership, and congestion, GTC identified the primary commuter movements in the Rochester TMA (see Map 2). Multiple transportation facilities, including bus routes, service these commuter movements. For instance, the “Central North-South Corridor” is comprised of seven surface streets and six RTS bus routes.

Another trend that is expected to continue is the increasing influence of smaller employers. The average size of a business in the region has decreased from 21 workers in 2000 to 19 workers in 2005. This exemplifies the diversification of the region’s economy away from large manufacturers to smaller technology and service firms.

As presented in Exhibit 8, the number of at-home workers increased by just over 2,000 between 1990 and 2000. In terms of work-related commuting,

the number of at-home workers has and will continue to have minimal impact. Even at-home workers make trips - particularly, sales and service professionals - and many of these may occur at morning and evening peak travel periods.

The vast majority of workers in the region use personal automobiles to travel to work, either driving alone or carpooling (81.5 percent and 9.3 percent, respectively). Nearly four percent of workers biked or walked to work and approximately two percent used public transportation.

Between 1990 and 2000, the number of workers driving alone increased while all other means of transportation to work decreased. Exhibit 9 presents the means of transportation to work by employees residing in the region in 2000.

Exhibit 7 - NUMBER OF BUSINESSES, 1990 TO 2000

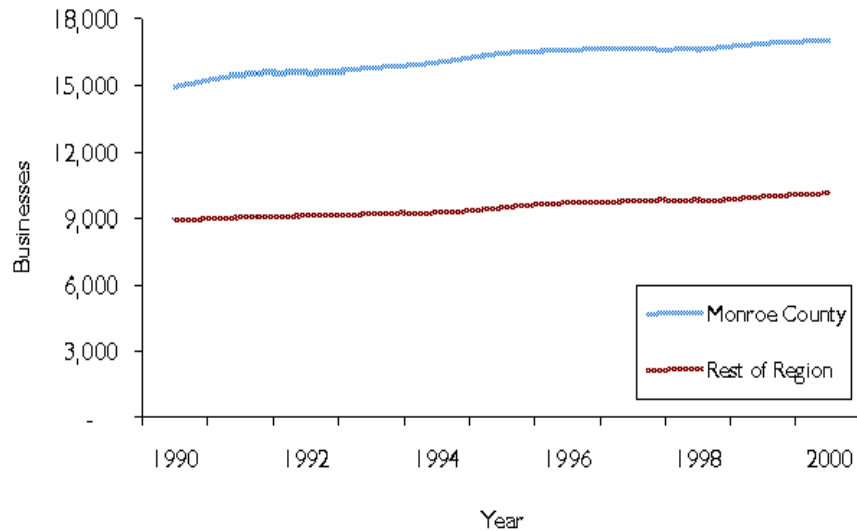
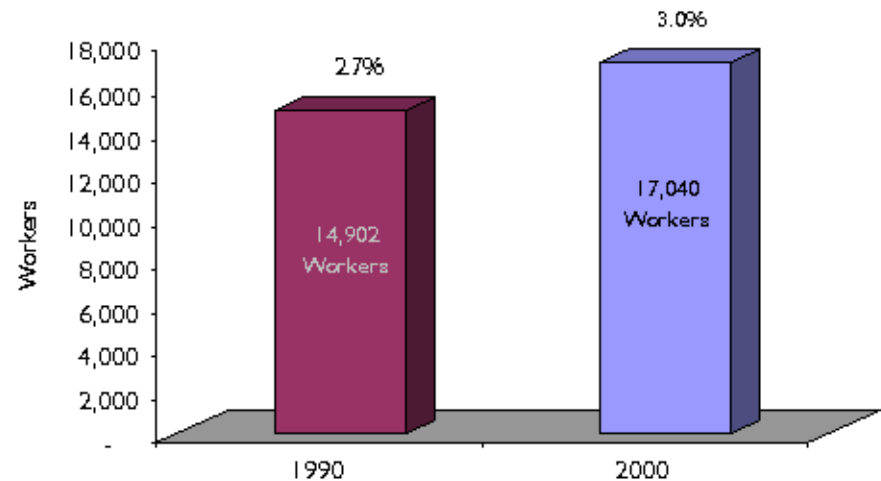


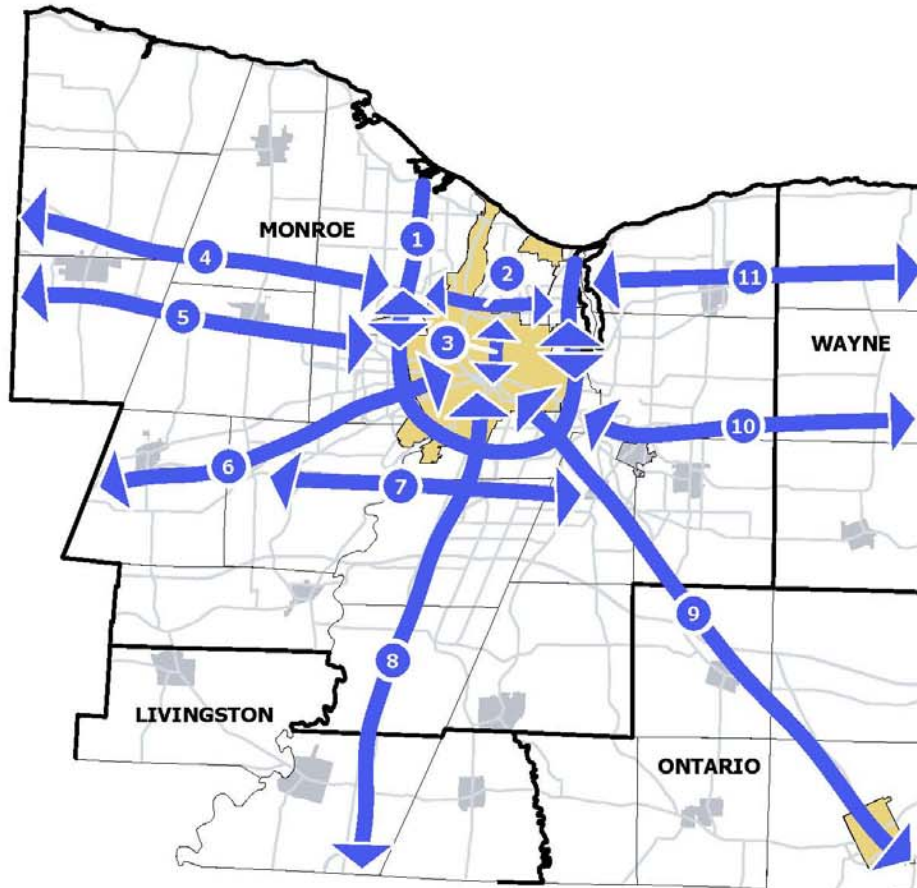
Exhibit 8 - AT HOME WORKERS, 1990 TO 2000





Commuter Corridors, 2007

Map 2



- 1 "Outer Loop"
- 2 Rt. 104 Corridor (within "Outer Loop")
- 3 Central North-South Corridor (Irondequoit to Downtown)
- 4 Rt. 104 Corridor (West)
- 5 Rt. 31/531 Corridor (West)
- 6 I-490 Corridor (West)
- 7 Rt. 252 Corridor
- 8 I-390 Corridor (South)
- 9 I-490/Rt. 332 Corridor (Southeast)
- 10 Rt. 441/Rt. 31 Corridor (East)
- 11 Rt. 104 Corridor (East)

Note:
 These corridors represent the movements made by commuters and are each comprised of multiple facilities, including transit routes.

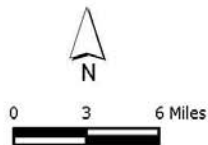
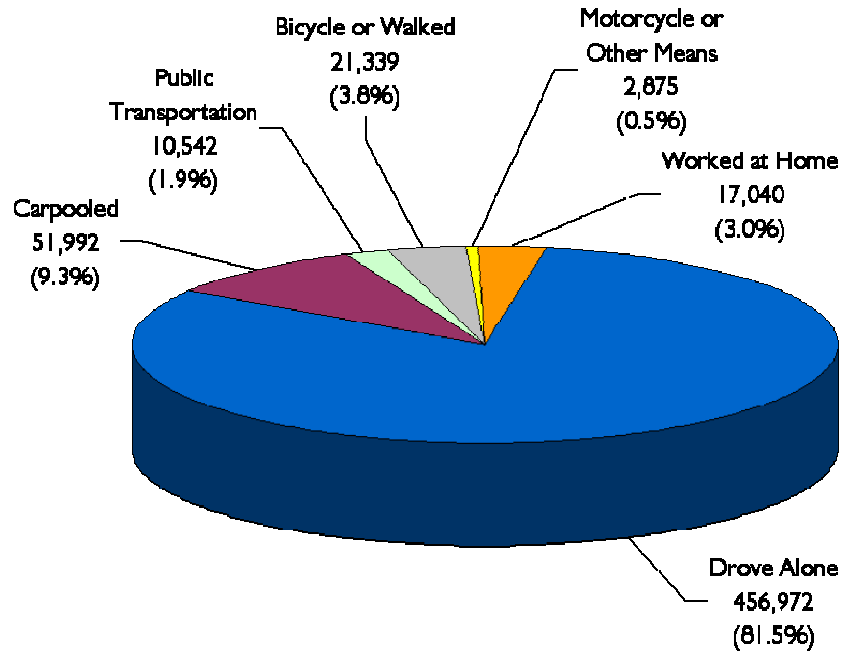




Exhibit 9 - MEANS OF TRANSPORTATION TO WORK, 2000



TRAVEL CHARACTERISTICS

The traditional focus of transportation planning has been on work trips made in the morning and evening peak (i.e., “rush”) hours. While these types of trips may be important to an individual because they are closely related to his or her ability to earn a living, work trips represent only 22 percent of all weekday trips. Significantly more trips are made during the week for other purposes including family, personal business, and social and recreational purposes. If the weekend and weekdays are combined, work-related trips account for only 17 percent of all trips we make (see Exhibit 10).

While the peak periods may be the times of day at which certain segments of the transportation system are in maximum use, these periods do not reflect the times when the majority of trips are actually being made. Nearly 50 percent of all weekday person trips are made between the morning and evening peak hours (i.e., between 9:00 AM and 4:00 PM). Accordingly, the off-peak

and non-work related components of travel in the region merit greater focus than they have traditionally been given (see Exhibit 11).

In addition, we travel almost as much on weekends as we travel during the week. During the week, we make about 3.96 trips per person per day, compared to 3.78 trips per person per day on weekends.

Privately-operated vehicles serve the vast majority (83 percent) of weekday non-work related person trips in the Rochester area. However, this is noticeably less than the 93 percent of weekday work-related person trips that are served by privately-operated vehicles. Conversely, there are significantly more weekday non-work-related person trips that are served by walking (8.1 percent) as opposed to work-related person trips (2.2 percent).

The higher percentage of non-work related walking trips might be due to the fact that the trip length of family and personal business-related trips on average is much shorter than the trip length of work-related trips (5.7 miles vs. 9.4 miles respectively), and these types of trips can be less time-sensitive.

Exhibit 10 - AVERAGE DAILY PERSON TRIPS BY TRIP PURPOSE, 2004

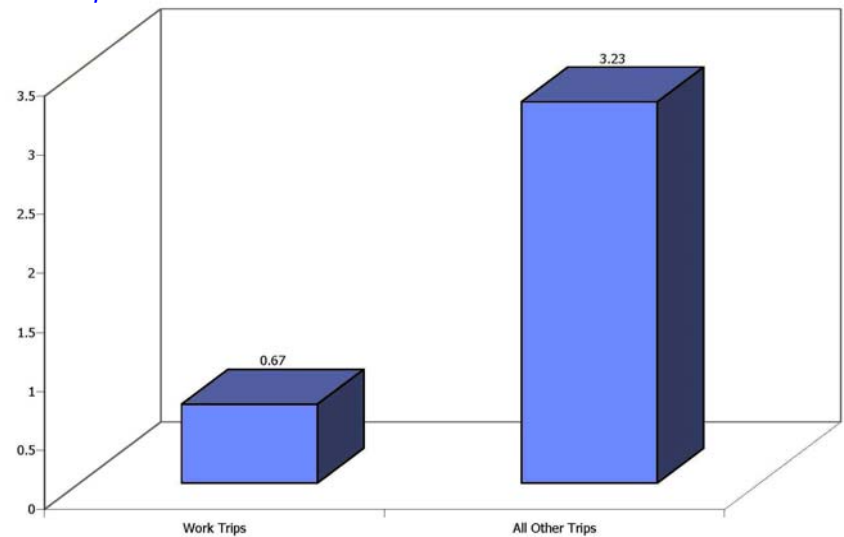
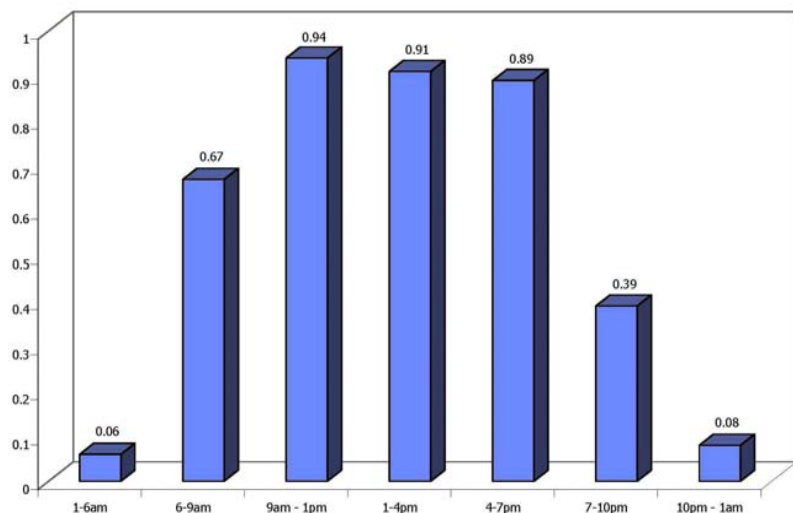




Exhibit 11 - **AVERAGE WEEKDAY PERSON TRIPS BY TIME OF DAY, 2004**



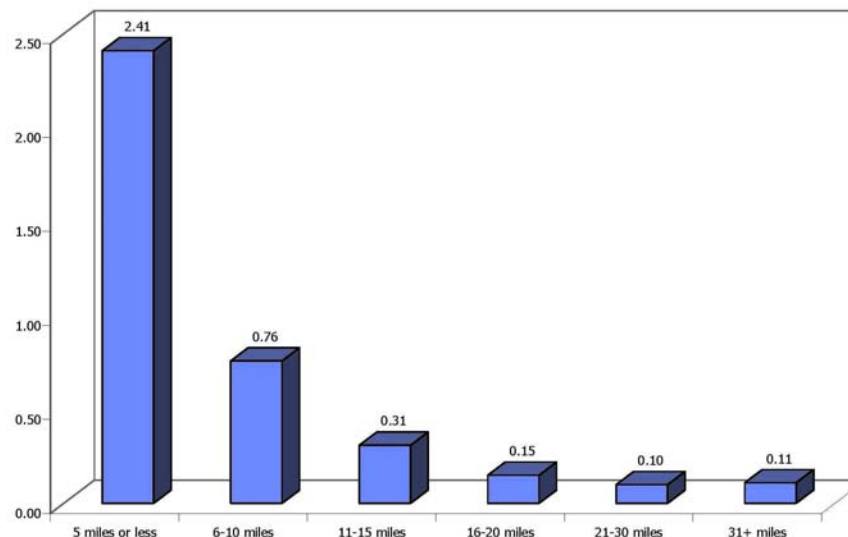
Nearly two-thirds (63 percent) of all person trips are less than five miles in length (see Exhibit 12). Of these short trips, 83 percent are served by privately-operated vehicles while 11 percent are walking trips. Both the percentage of trips that are less than five miles in length as well as the share of those trips made by walking have increased in recent years. Whereas bicycling currently accounts for less than one percent of all trips made, the number of trips by bicycle has also increased approximately eight percent since 1995.

While more than half (58 percent) of all households in the region have access to two or more vehicles, seven percent of all households in the Rochester area are zero-vehicle households. The vast majority of these zero-vehicle households are concentrated in the City of Rochester; however, even in suburban and rural areas throughout the region, zero-vehicle ownership ranges from 6 to 10 percent of all households (see Map 3 on the following page).

Current trip lengths, both in terms of miles and minutes, indicate that there is a large market of potential walkers and bicyclists that are cur-

rently driving. If safe, convenient and comfortable accommodations are in place, ideally linked with efficient public transportation services, it is possible that non-motorized transportation can have a much larger presence in the region's transportation system.

Exhibit 12 - **AVERAGE DAILY PERSON TRIPS BY TRIP LENGTH, 2004**



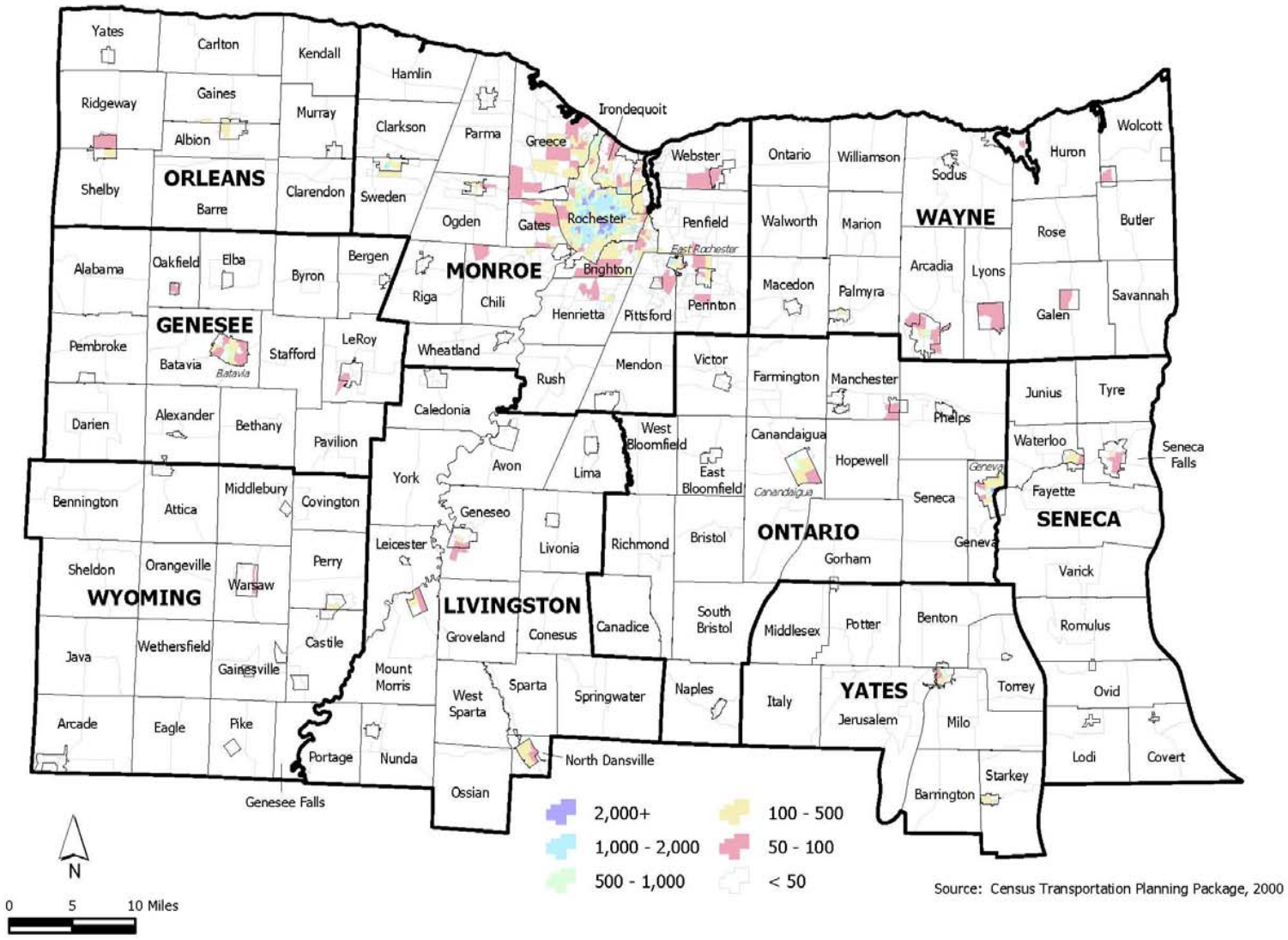
SAFETY

The financial loss of traffic crashes in the U.S. is estimated to be more than \$230 billion annually. Beyond their fiscal impact is the tremendous human toll that traffic crashes take. Across the nation, someone is killed in a traffic crash every 13 minutes; someone is injured every nine seconds. Nationally, the number of traffic fatalities increased three percent between 2001 and 2005. These troubling trends have prompted an increased national focus on traveler safety. FHWA's goal is to lower the rate of fatalities from 1.5 per one million vehicle miles traveled (VMT) to 1.0 per one million VMT. New York State's goal is to lower the rate of fatalities from 1.0 to 0.9 per one million VMT.



Zero Vehicle Households per Square Mile, 2000

Map 3

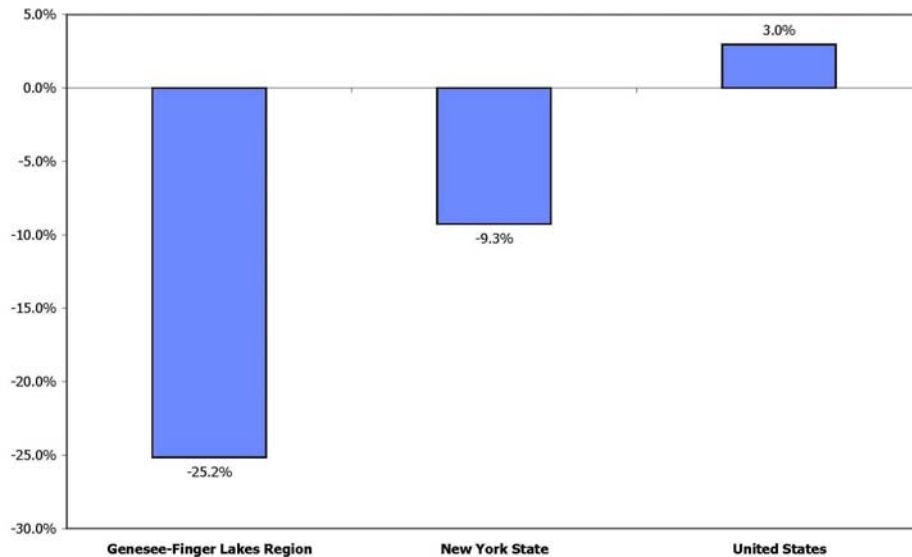


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Safety has always been a primary consideration in the transportation planning process in the Genesee-Finger Lakes Region. The total number of fatal and personal injury crashes in the region declined by 7.3 percent between 2001 and 2005. During that same period, the number of fatalities resulting from these crashes declined 25.2 percent, as opposed to a 9.3 percent decrease in New York State and a 3.0 percent increase nationally (see Exhibit 13). Fatalities to bicyclists and pedestrians in the region declined 26.3 percent between 2001 and 2005, compared to a 6.3 percent decrease state-wide and a 0.6 percent increase nationally.

Exhibit 13 - **PERCENT CHANGE IN MOTOR VEHICLE TRAFFIC CRASH FATALITIES, 2001 TO 2005**



While the data suggest that both the Genesee-Finger Lakes Region and New York State as a whole are making great strides at improving highway safety, other figures suggest that there are specific areas for this region to focus on. Drunk driving is a major safety issue on the region's roads. There were

more than 50 alcohol-related fatalities in the Genesee-Finger Lakes Region in 2005, nearly half of the total number of fatalities.

Motorcycle safety is another key concern for the region. There were 21 percent more registered motorcycles in the region in 2006 than just five years earlier. Fifteen people were killed in crashes involving motorcycles in the region in 2005; a fatality rate approximately four times that for all vehicles in the region. It is important to ensure that New York State's Motorcycle Safety Program, which offers rider instruction and field training at a number of locations across the state, is well-publicized and accessible to area residents.

The 2007 Highway Safety Strategic Plan (HSSP) for New York State sets forth the goals and objectives for safety on roadways throughout the state. The LRTP Update is supportive of and consistent with the findings of the HSSP.

SECURITY

While related to safety, security deserves separate emphasis. In the post-9/11 world, transportation plays an ever-increasing role in homeland and personal security efforts. The Genesee-Finger Lakes Region is fortunate to not be a disaster-prone area. Dangerous natural events such as hurricanes, earthquakes, tornadoes, and severe flooding are rare locally. Also, acts of terrorism are less likely to occur in this region than in other areas because there are fewer critical facilities and cultural landmarks that might attract such events.

Still, this region has the potential to experience significant weather-related events such as blizzards, ice storms, and minor floods that may impact the transportation system. This region is also home to power plants, dams, and major manufacturing facilities that could be targets of a terrorist event that would put the security of residents at risk. The transportation system must be able to respond to such security-related needs. The LRTP Update is supportive of and consistent with regional emergency management and evacuation plans as well as the Security and Safety Plan for Public Transportation, developed by RGRTA.



PRINCIPAL THEMES

Based on the analysis of existing and projected demographic and economic conditions and comments received during the development of the *LRTP: 2005-2025*, six principal themes emerged with respect to the opportunities and issues facing the region in which transportation can play a role. These principal themes remain relevant in this LRTP Update.

Creating Jobs

Throughout the public involvement periods it became evident that the primary concern of the region's residents was economic development and the associated creation of employment opportunities for them and their children.

Projections of future employment align with those of population - the number of jobs in the region will continue to increase but at a slower rate than in the past. Given that job growth in the region has lagged that of the nation and the rest of New York State, the forecasted increases are not satisfactory for a community with the quality of life that this region offers.

Of particular importance is the loss of younger workers to other areas – referred to as the "Brain Drain". There is a perception that job creation is hindered because employers do not feel there is an adequate supply of labor. Improved retention of younger workers may solve this dilemma.

Public comments suggested that the retention of younger workers would be improved by increasing their awareness of and connections to regional attractions and social opportunities.

Enhancing Community Character

Transportation facilities are integral to community character. As gateways, transportation facilities announce to residents (current and past) that they have returned home while providing an important first impression to visitors.

Given the importance of transportation facilities to the historical development of the region (most notably, the Erie Canal), the current and future

transportation system has an immediate impact on the perception and reputation of our community to visitors and residents alike.

Public comments suggested that improving the appearance of our gateways - highways and bridges leading into and out of the region as well as interregional transportation facilities - is essential to creating a positive impression of our region.

Improving Mobility for the Physically Challenged

The ability to access employment, social, and recreational opportunities can be difficult for the physically challenged. The quality of life of these individuals is directly related to their independence in performing day-to-day activities. The transportation system is a major determinant of the independence of these individuals.

The aging population of the region will place an increased emphasis on the need of individuals with physical disabilities to have adequate mobility options.

Public comments suggested that components of the transportation system beyond public transportation services must be responsive to the needs of physically challenged individuals.

Accessing Medical Services

The ability to access needed medical services, both emergency- and non-emergency-related, varies greatly across the region. Residents of Monroe County and surrounding areas have multiple health care facilities within a closer proximity than their rural counterparts.

The consolidation, and subsequent closings, of hospitals and health care facilities along with the emergence of new technologies has changed the nature of access to medical services within the region.

At present, a variety of transportation means are currently used to access medical services: private vehicles, public transportation (including paratransit), taxi services, specialized medical transportation services, public and



private human service agency transportation programs, volunteer services, and Medicaid transportation programs.

Public comments suggested that transportation's role in accessing medical services in the near future and over the 20-year period covered by the LRTP Update will need to quickly adapt to changes in the provision of medical services.

Integrating Environmental Considerations

Ground-level ozone is created when volatile organic compounds and nitrogen oxides combine with sunlight, and can have serious adverse health consequences. The majority of ground-level ozone in the region is created by sources outside its borders.

The region has taken measures to ensure that its transportation decision making does not exacerbate air quality problems in areas downwind. These measures resulted in the region having no exceedances of the National Ambient Air Quality Standard (NAAQS) for ground-level ozone in 2004, 2005, or 2006.

As a result, the NYS Department of Environmental Conservation petitioned the U.S. Environmental Protection Agency in April 2007 to remove the Rochester Metropolitan Statistical Area's designation of being in nonattainment of the ground-level ozone NAAQS.

While environmental considerations in transportation planning have historically been related to air quality, GTC commissioned the Genesee/Finger Lakes Regional Planning Council (G/FLRPC) to conduct the *Long Range Transportation Plan Non-Air Environmental Scan*.

G/FLRPC identified strategies that transportation agencies could take to mitigate their impacts in the following non-air resource areas:

1. Nonpoint Source Water Pollution
2. Terrestrial Habitat Modification
3. Open Space Modification
4. Historical/Cultural Modification
5. Noise Pollution
6. Light Pollution

7. Thermal Pollution/Urban Heat Island Effect

The *Long Range Transportation Plan Non-Air Environmental Scan* is incorporated into the LRTP Update as Appendix B, which is separately bound.

Given the importance of natural resources, transportation improvements must balance the needs of economic development with environmental protection in a manner consistent with federal and state requirements.

Balancing Regional Objectives and Local Priorities

As the designated MPO for the region, GTC is charged with ensuring that the transportation system is responsive to the needs of each individual community and the region as an integrated network of communities.

The policies and actions contained in the LRTP Update strive to balance regional objectives with local priorities in a manner that respects the decisions made at both levels. Of particular relevance is the impact that transportation and land use decisions have on each other. While land use decisions are made at the local level, many major transportation investment decisions are made at the regional level through GTC.

The public comments received acknowledged the periodic difficulties in coordinating the decisions made at the local and regional levels with respect to land use and transportation planning and investment.

The LRTP Update must provide a framework for ensuring that the transportation system allows for the parts and the whole to simultaneously thrive socially and economically.

During the development of the LRTP Update, additional emerging themes were identified as having a significant effect on the region's transportation system.

Incorporating a Broader View of Travel

The traditional focus of transportation planning and associated investment has been to identify and address issues impacting work-related commuting and the movement of freight. However, as noted above, the majority of



trips are taken for non-work related purposes outside of the morning and evening peak hours and over half of these trips are five miles or less.

While access to employment and the efficient movement of goods are critical to the region's economy, improvements to the transportation system and its operations for non-work-related activities are also important. Further development of safe and convenient accommodations for non-motorists can also offer the opportunity for transportation to positively impact public health by providing alternatives to traveling in vehicles.

Public comments suggested that improvements to the transportation system should more fully incorporate the needs of trips taken to access shopping, dining, recreational, and other social activities that constitute both a large amount of economic activity and major determinants of quality of life.

Managing Unprecedented Increases in Materials Costs

The rapid development of transportation systems in China, India, and other emerging nations to meet growing global economic demand has resulted in record increases in the price of materials in the United States, most notably steel, crude oil, and asphalt.

Since the *LRTP: 2005-2025* was adopted, increases in highway and street construction costs (including both materials and labor) have significantly outpaced general inflation, as measured by the Consumer Price Index.

Escalating costs in materials prices coupled with limited revenues have and will continue to compromise transportation providers' ability to maintain their existing infrastructure and services, as well as severely limit opportunities to make even minimal improvements.