



SYRACUSE METROPOLITAN
TRANSPORTATION COUNCIL

Transportation Atlas

May 2015



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This document was prepared with financial assistance from the Federal Highway Administration and the Federal Transit Administration of the U.S. Department of Transportation through the New York State Department of Transportation. The Syracuse Metropolitan Transportation Council is solely responsible for its contents.

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To the reader

The Syracuse Metropolitan Transportation Council (SMTC) created this Transportation Atlas in 2015 as a component of our 2050 Long-Range Transportation Plan. (For a detailed description of the SMTC, see page 7.) This Atlas compiles various existing conditions data for our planning area and is intended to serve as a reference document for planners, policy makers, and any interested citizens in Central New York.

The Atlas starts with an overview of our regional planning context and the specific planning area for the SMTC. The next section includes a selection of demographic information that is commonly used by transportation planners, including population density and change over time, household characteristics, age, poverty, race, language, income, and employment. Current land use and an overview of our water resources are included in the next section. The Infrastructure section inventories the various types of transportation facilities that exist in our region: roads, bridges, rail, transit, trails, and bicycle facilities. In the Mobility section you will find maps and other data describing how people and freight move around, including commuting patterns, commuting times, and choice of travel mode. The final section of the Atlas includes information on vehicular, bicycle, and pedestrian accidents. Each topic is generally covered in a two-page spread that includes maps along with other relevant data in charts or graphics, and text that describes the data for that topic. Key points from each topic are listed at the top of the left-hand page.

This is not a comprehensive atlas for Central New York, as it is focused on the information that is crucial to the SMTC's transportation planning work. The intent is for this Atlas to answer many of the questions that the SMTC staff commonly receive about the current state of the transportation system in our region and for this document to form the basis for the development of our 2050 Long-Range Transportation Plan. We anticipate that the Transportation Atlas will be updated once new decennial Census data is available (following the 2020 Census). We hope you will find this document useful. If you have questions about the content or would like additional information, please contact the SMTC staff at (315) 422-5716 or contactus@smtcmpo.org.

About the data

The maps in this document generally contain some combination of standard base map elements - parks, water, roads, etc. - all of which are displayed in the legend of the introductory maps in the first section. These elements are not listed on subsequent map legends because of space limitations; rather, the data that is highlighted on each particular layout is displayed in each legend.

A variety of data sources were used to create the maps; each data source is listed on the bottom right of one or both of the maps on each layout. For maps with Census, American Community Survey (ACS), or Census Transportation Planning Products (CTPP) data, the geography is also specified (block, block group, tract, or Transportation Analysis Zone [TAZ]). Generally, the smallest available geography was used, with certain exceptions. ACS data are shown at the tract level because the margins of error are too high at smaller geographies and maps showing a change between the 2000 and 2010 Census also use tracts because the boundaries of the smaller geographies (blocks or block groups) may not be comparable between decennial censuses. Other maps, such as several in the Mobility section, use data at the town/city because this seemed to be the most visually understandable geography for the topic. Note that in dot density maps, dots are placed randomly within each Census geography and do not represent specific locations of data.

For maps and analysis with decennial Census data, data from 2010 was used, as well as 2000 decennial data to calculate population and household change maps. The ACS and CTPP data in this document is from 2006-2010, which is based on sample data across those five years.

Data other than Census, ACS, or CTPP is not aggregated based on any Census geography. For example, data points on accident maps represent actual locations of accidents and are not summarized within a particular geography/polygon. Therefore, there are relatively few choropleth maps (maps that display a coverage of polygons with a range of colors) in sections other than Mobility and Demographics, and maps are generally made up of points, polygons, and/or lines that represent actual locations of data.

In addition to maps, a chart or graphic has been included in most layouts. Unless otherwise sourced, data for these graphics is the same as the map on that layout.



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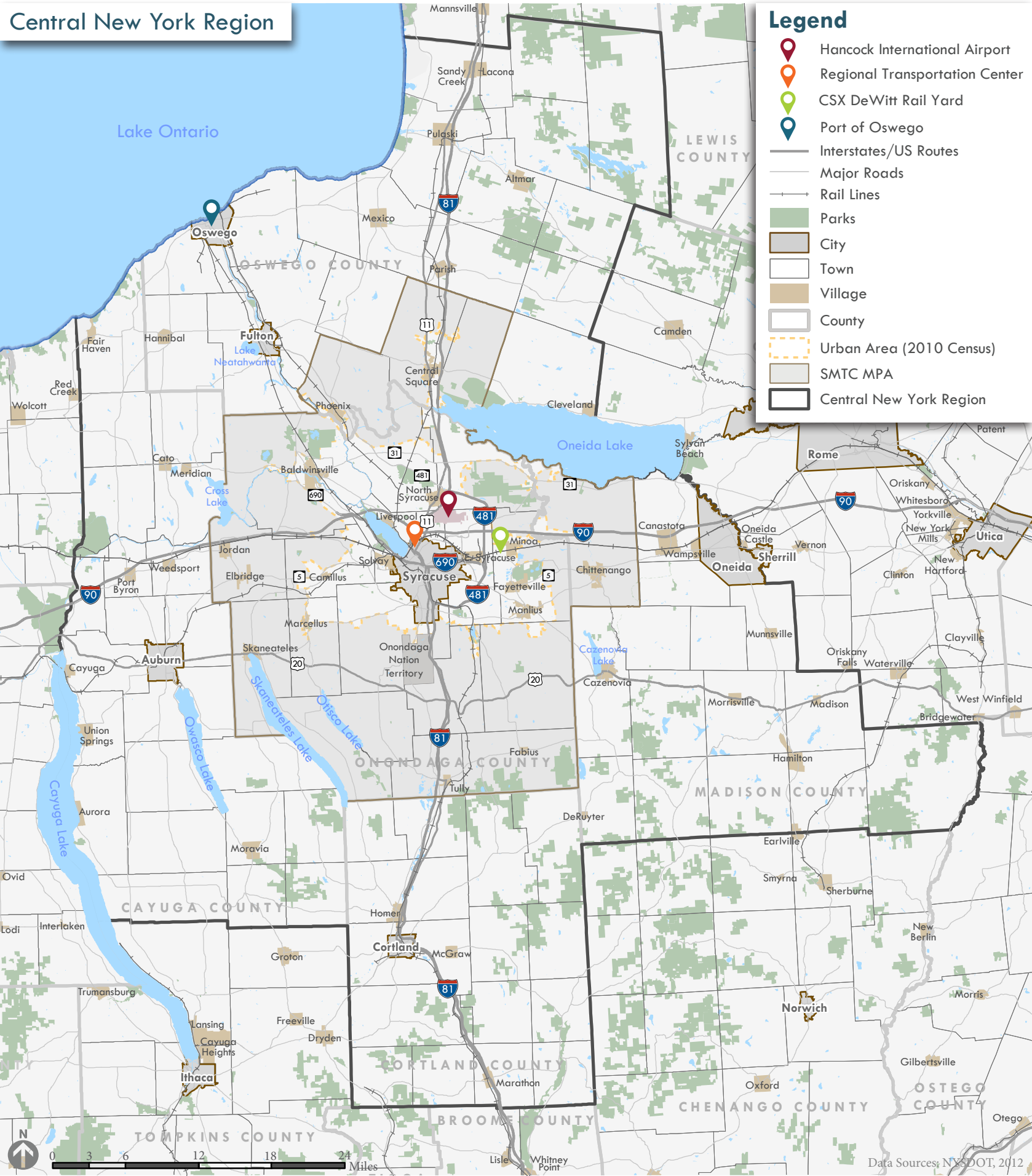
● INTRODUCTION

Regional Context ——— 4

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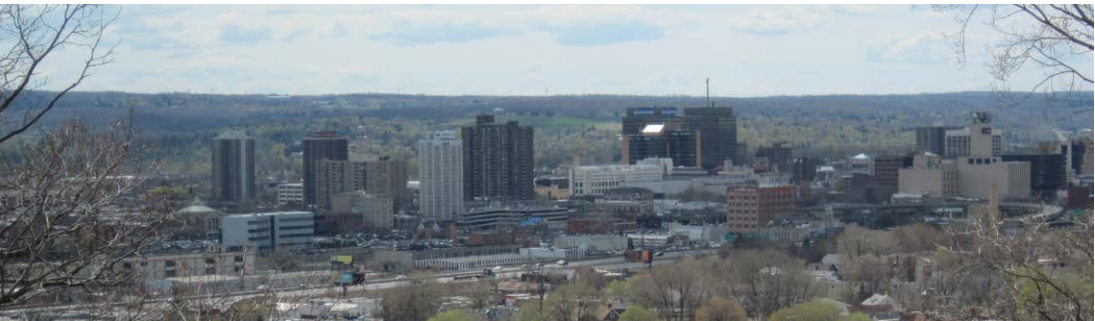
Regional Context

- The five-county CNY Region covers an area of approximately 4,000 square miles, with a population of almost 800,000 residents.
- Onondaga County and the City of Syracuse are located at the transportation crossroads of CNY, with direct access to major interstate corridors and a number of multi-modal transportation facilities.



The Central New York (CNY) region includes Cayuga, Cortland, Madison, Onondaga and Oswego counties (as defined by the Regional Economic Development Council). Located in the center of New York State, CNY is in close proximity to Rochester, Buffalo, Albany, and Binghamton, and is about a four-

to-five hour drive from New York City, Toronto, Boston, and other major cities in the Northeast. The region covers an area of 4,146 square miles and has a population base of approximately 791,500 residents comprising an urban center, suburban areas, small cities and towns, and rural farming communities.



A view of the downtown Syracuse skyline against the backdrop of the hills of southern Onondaga County, as seen from Lincoln Park on the city's northside.



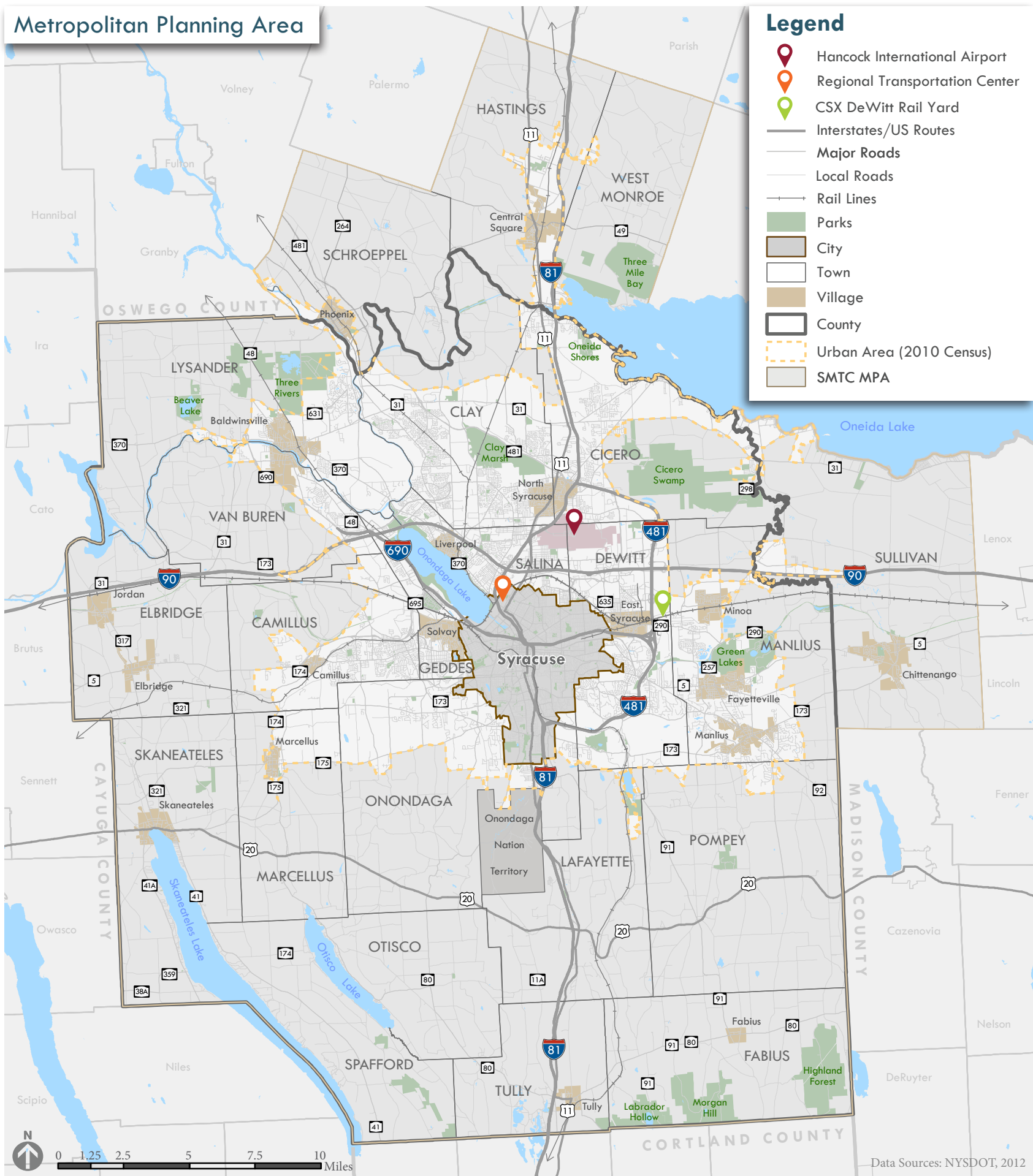
Syracuse and Onondaga County benefit from their location at the center of New York State. The establishment of the Erie Canal and the subsequent development of major railroad corridors as well as the interstate highway system across Onondaga County ensured Central New York's rise to prominence through continual access to major transportation routes for nearly two centuries.

Today, Onondaga County continues to benefit as the transportation crossroads of Central New York. Interstate 81 serves as a significant north-south corridor reaching from Canada to Tennessee. It intersects the NYS Thruway (I-90) just north of the City of Syracuse in the center of Onondaga County. The NYS Thruway runs east-west across all of New York State linking with major interstate corridors in neighboring states. Onondaga County has two other facilities that are part of the interstate highway network: I-481 and I-690. I-481 provides access around the eastern periphery of Syracuse, then becomes NYS Route 481 as it extends west of I-81 and continues to the City of Oswego. I-690 connects to I-481 east of Syracuse and to I-90 west of Syracuse. This highway also has an extension farther northwest as NYS Route 690. Other significant east-west corridors that span across the state include US Route 20 and NYS Route 5.

The CNY region is served by a number of multimodal transportation hubs. Commercial passenger and freight air travel are served by the Syracuse Hancock International Airport. The Regional Transportation Center offers Amtrak passenger rail service and intercity bus services. CSX's DeWitt Rail Yard is a major intermodal freight facility. The Port of Oswego is the first U.S. port-of-call and deep-water port on the Great Lakes from the St. Lawrence Seaway, and handles more than one million tons of cargo annually. These multimodal hubs are critical elements of the transportation network for moving people and goods to support the economy in CNY.

SMTC Metropolitan Planning Area

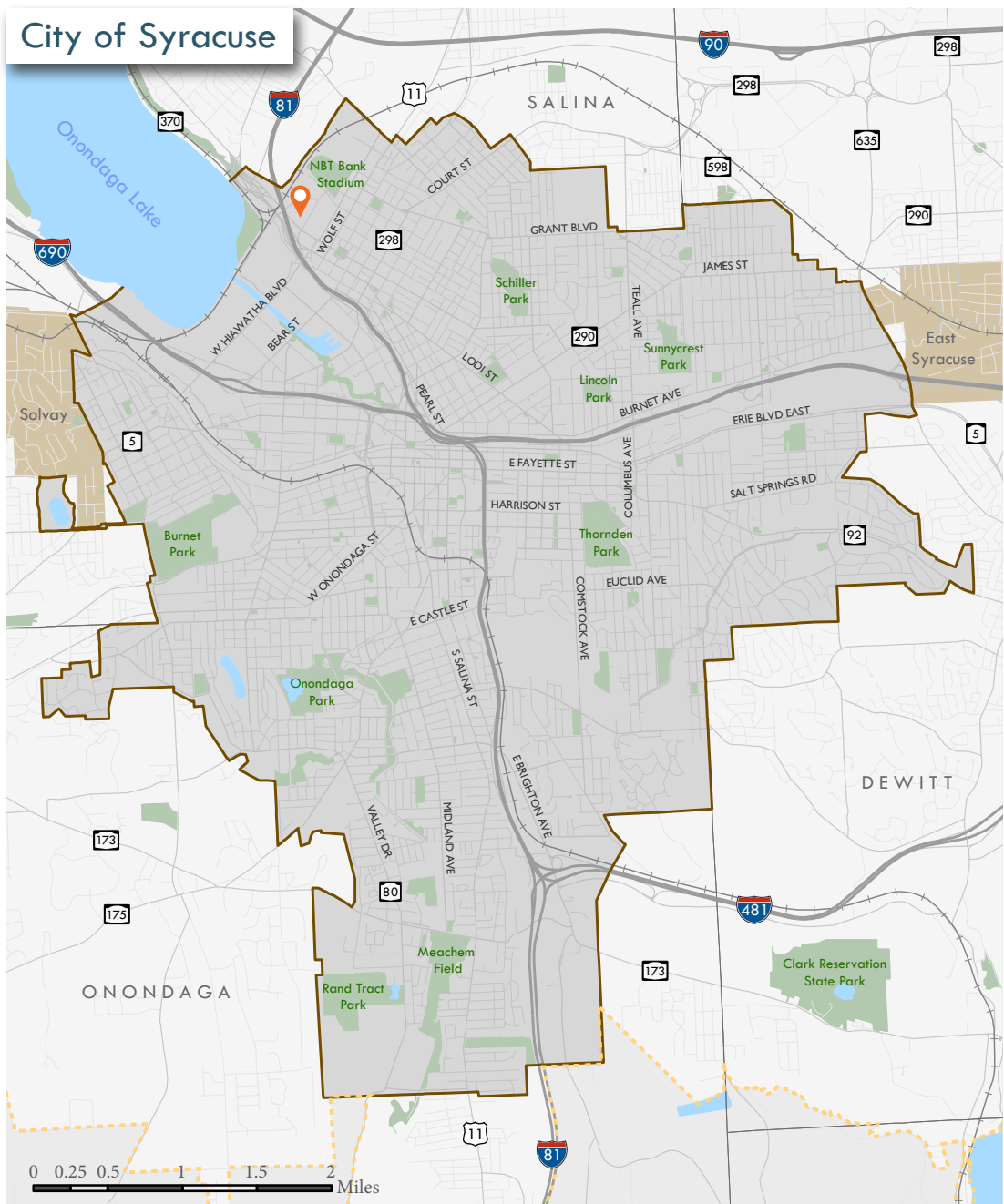
- The SMTC is responsible for transportation planning and the administration of federal transportation capital funds within Onondaga County and portions of Oswego and Madison Counties.
- The SMTC's planning area includes 23 towns, 18 villages, one city (Syracuse), and the Onondaga Nation.



The Syracuse Metropolitan Transportation Council is a state-designated Metropolitan Planning Organization (MPO), responsible for administering comprehensive, continuous, and cooperative transportation planning. The Council's planning jurisdiction, called the Metropolitan Planning Area (MPA), includes Onondaga County and portions of Madison and Oswego counties. As the Metropolitan Planning Organization for the Greater Syracuse Metropolitan Area, the Council, as directed through federal metropolitan transportation planning policy, acts as a clearinghouse where long-term and immediate transportation planning decisions are made for the region.

The MPO defines the geography of the MPA (with approval from the Governor). The MPA must include at least the existing urbanized area (as defined by the U.S. Census Bureau based on population density) and the contiguous area expected to become urbanized over a 20-year planning horizon.

The Urban Area Boundary (UAB) is an expansion of the Census-defined urbanized area that includes those areas that are locally considered to have urban characteristics but that do not have the population density necessary to qualify for inclusion in the urbanized area (for example, airports, warehousing districts, or parks).



The urbanized area is the densely settled portion of our region, as defined by the U.S. Census Bureau (generally those census tracts with at least 1,000 persons per square mile). The UAB is the official "urban/rural" boundary for functional classification and roadway design standards. The MPO also defines the UAB (with approval of the Federal Highway Administration). The SMTC must reexamine the UAB and the MPA each time new decennial census data are released. Both the MPA and UAB boundaries seen on this map were updated in 2013 to reflect the 2010 Census. The current MPA consists of: all of Onondaga County; the Town of Sullivan in Madison County; and the entire towns of Schroepfel, Hastings, and West Monroe plus the urbanized portion of the Town of Granby in Oswego County. This results in a total of 23 towns (plus the small portion of the Town of Granby), 18 villages, the Onondaga Nation, and one city (Syracuse) that are in the MPA. The decision to include entire towns outside of Onondaga County in the MPA was based on the percentage of a town's total population that commutes into Onondaga County. Federal transportation funds may be spent on capital projects and planning studies in any of the municipalities within the MPA. The SMTC planning process leads to the allocation of millions of dollars in federal transportation funding each year. This funding goes toward road, bridge, safety, transit, and bicycle and pedestrian projects as well as planning studies addressing multimodal issues throughout the MPA. The SMTC cannot implement particular transportation improvements, but serves as a collaborative forum where transportation issues are studied. Implementation of capital projects and other recommendations from SMTC studies is the responsibility of the member agencies and the infrastructure owners.

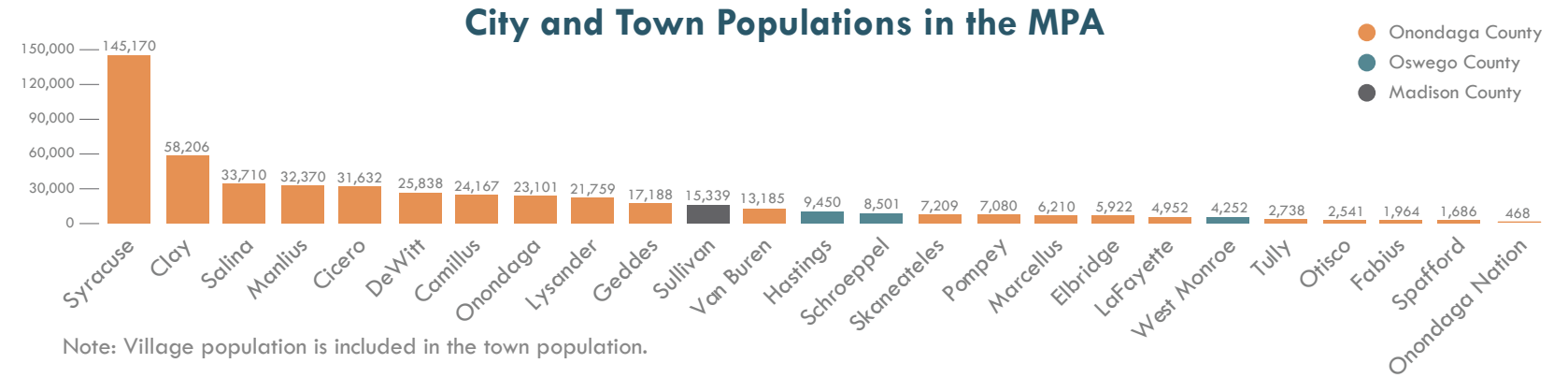
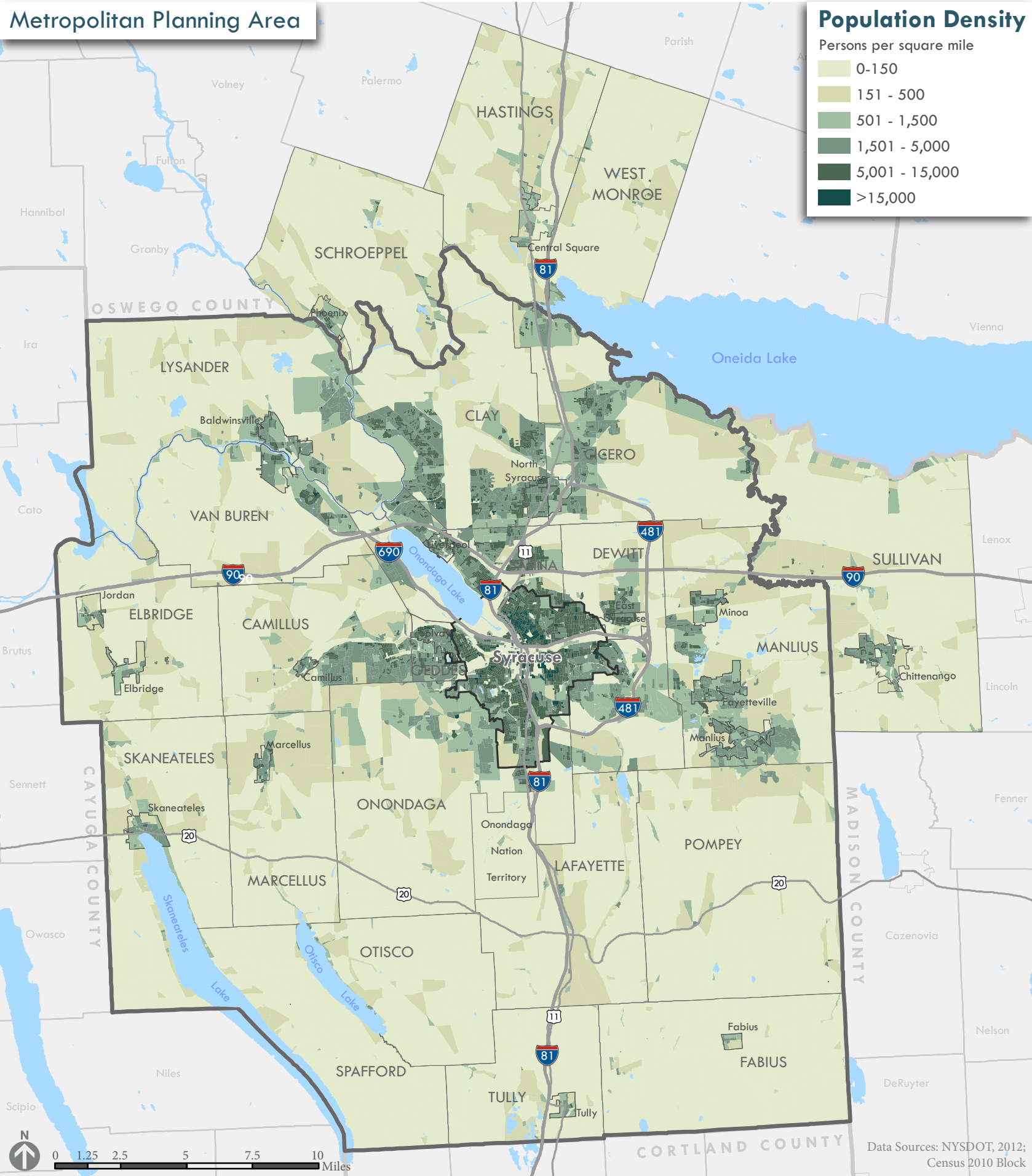


● **DEMOGRAPHICS**

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Population Density

- Population is concentrated within the City of Syracuse and towns immediately adjacent to the City.
- The northern and eastern portions of the region are generally more densely populated than the southern and western portions, with pockets of density in the villages throughout the region.
- The highest population density is found on the northside of the City of Syracuse.

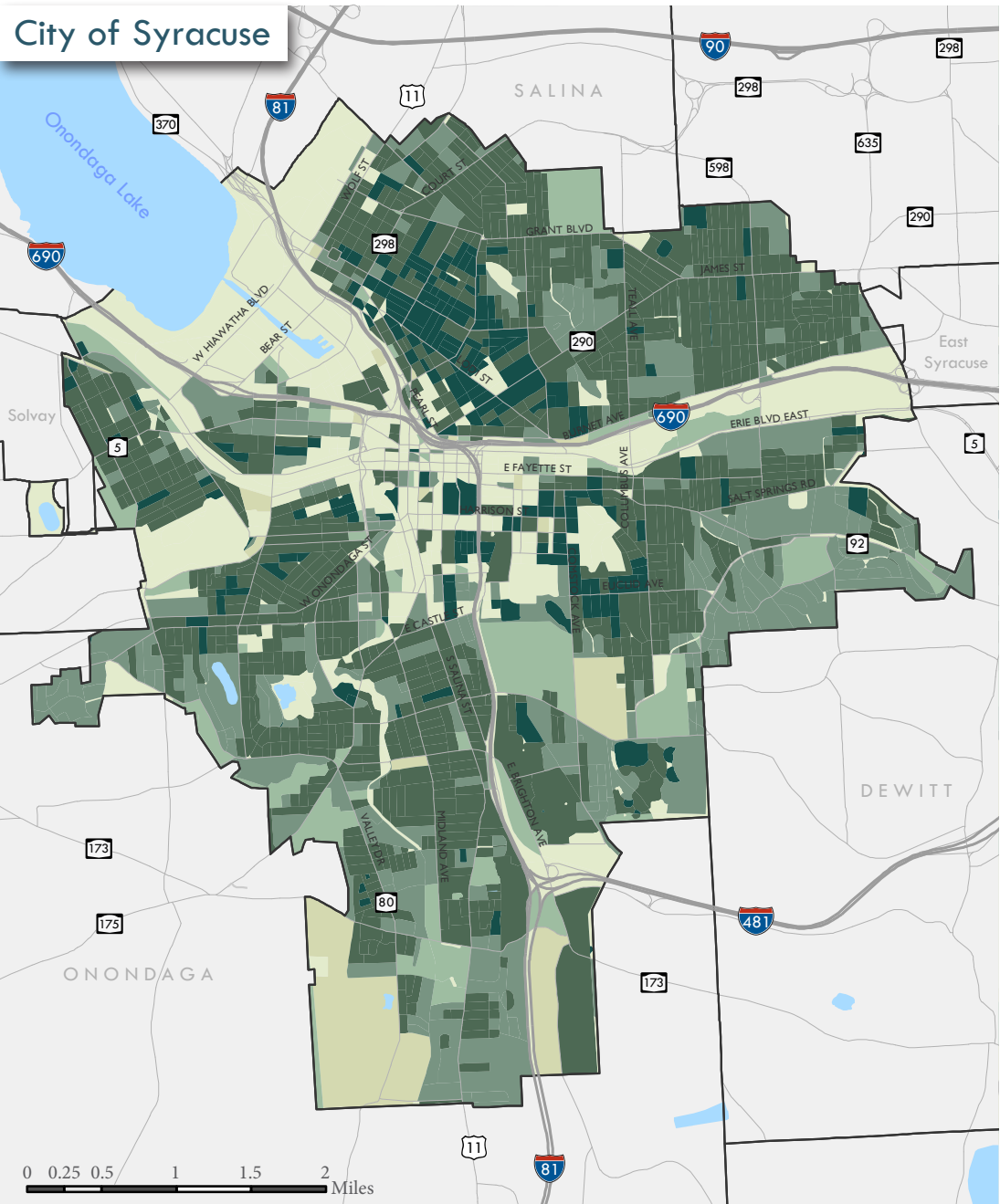


Just over 30 percent of Onondaga County's total population lives in the City of Syracuse according to the 2010 Census, making the City of Syracuse's population greater than any other single town within Onondaga County and

the Metropolitan Planning Area. The second most populous municipality within Onondaga County is the Town of Clay, with 58,206 people or 12.5 percent of the County's total population. Outside of the City, the towns

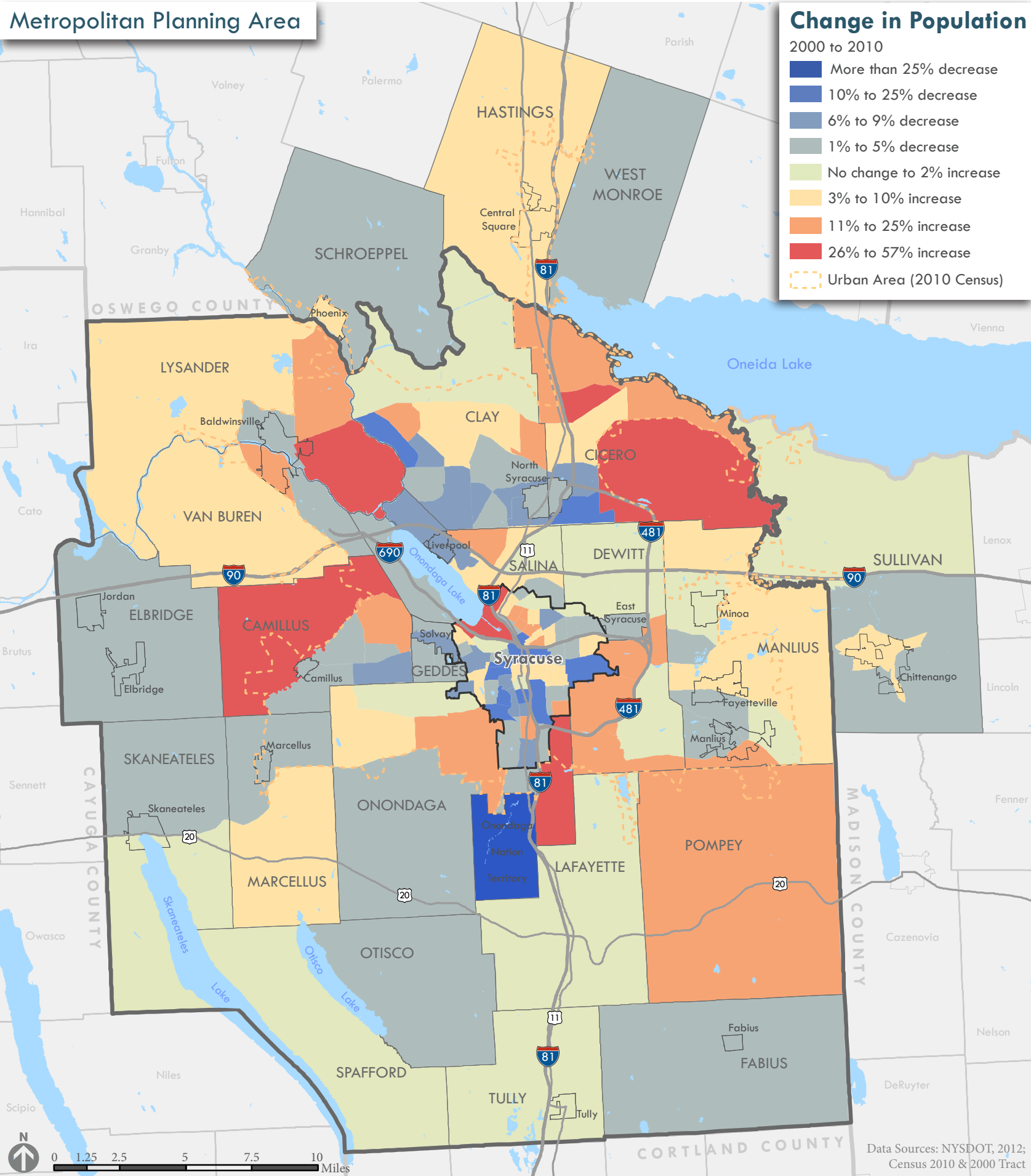
immediately adjacent to the City are generally the most populous with a marked concentration of population to the east and especially, the north of the city. These towns generally have a suburban character, but in some cases, particularly for the towns immediately adjacent to the city, areas with a more urban character. The towns south of the city and to the far west of the city have much lower population density and a much more rural character, although pockets of density can be found in the numerous villages throughout the area.

Within the City of Syracuse, the highest population density is found on the northside. Some areas of the City show very low population density, on par with the most rural areas of the County. The low-density areas of the City are generally occupied by special non-residential land uses, such as large City parks, Destiny USA, the NBT Bank Stadium - Regional Market - Regional Transportation Center complex, and Syracuse University's main campus. Other low-density areas include Erie Boulevard, which is characterized by very suburban-style retail uses, and Downtown Syracuse, which has only recently experienced a renaissance of residential space as evidenced by the very small pockets of high density within downtown.

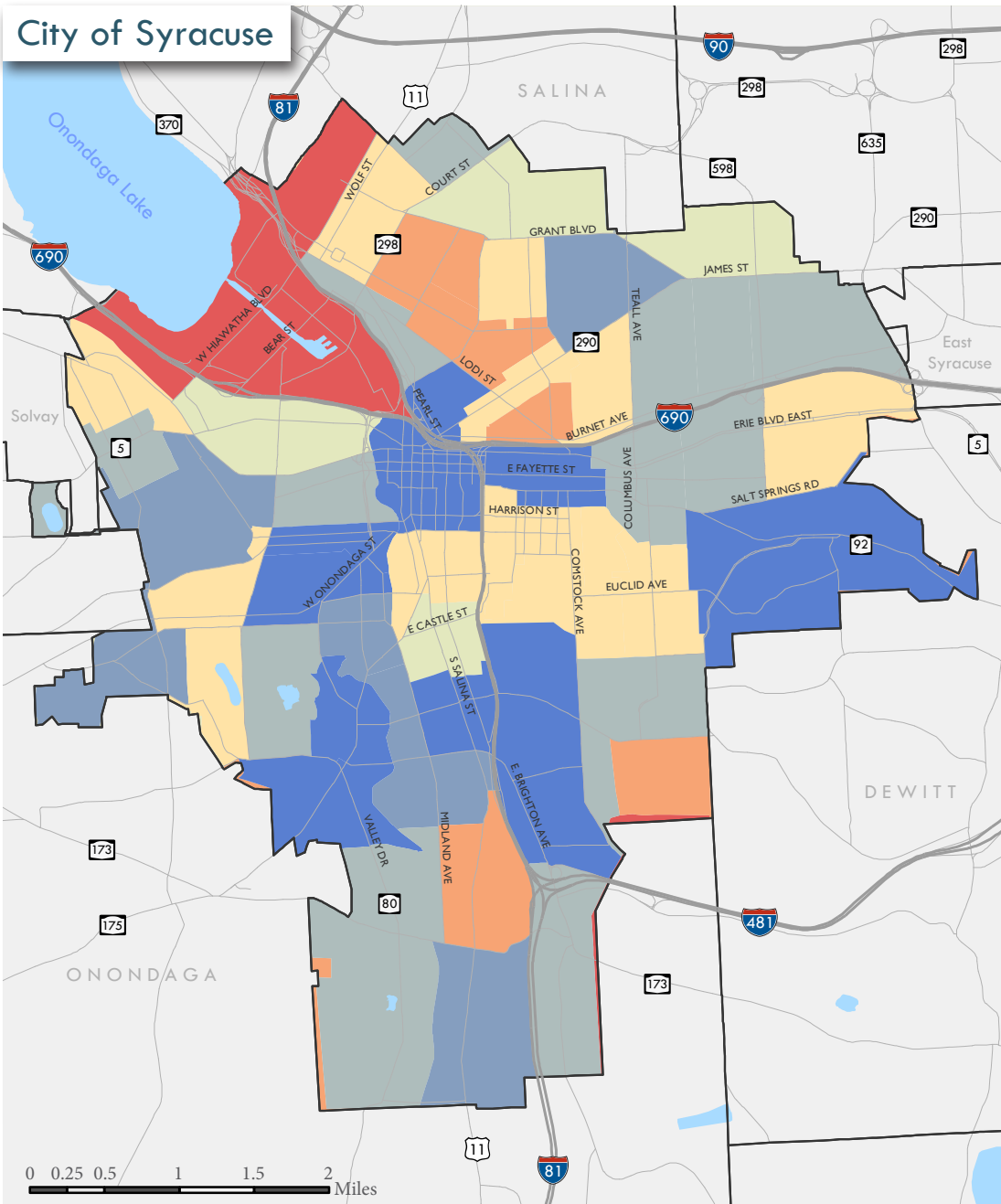
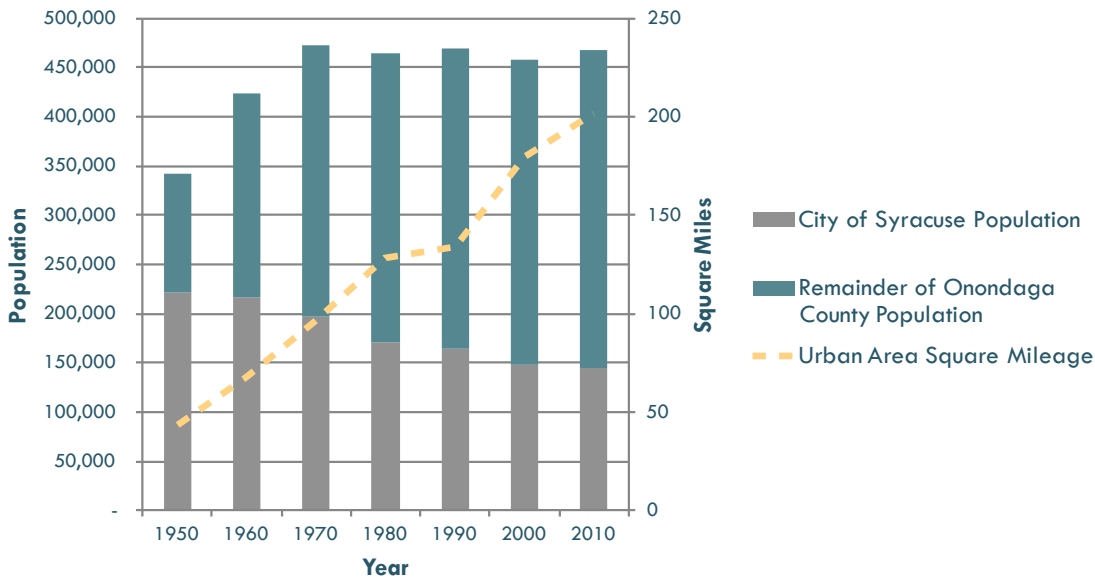


Population Change

- Onondaga County’s population peaked in 1970. The total population of the County has remained fairly stable since then, though individual municipalities have experienced more pronounced gains and losses in population.
- The land area considered “urban” has continually increased since 1950.
- The City of Syracuse’s total population peaked in 1950 and has continuously declined since then.



Population of City of Syracuse and Onondaga County with Square Mileage of Urban Area, 1950 to 2010

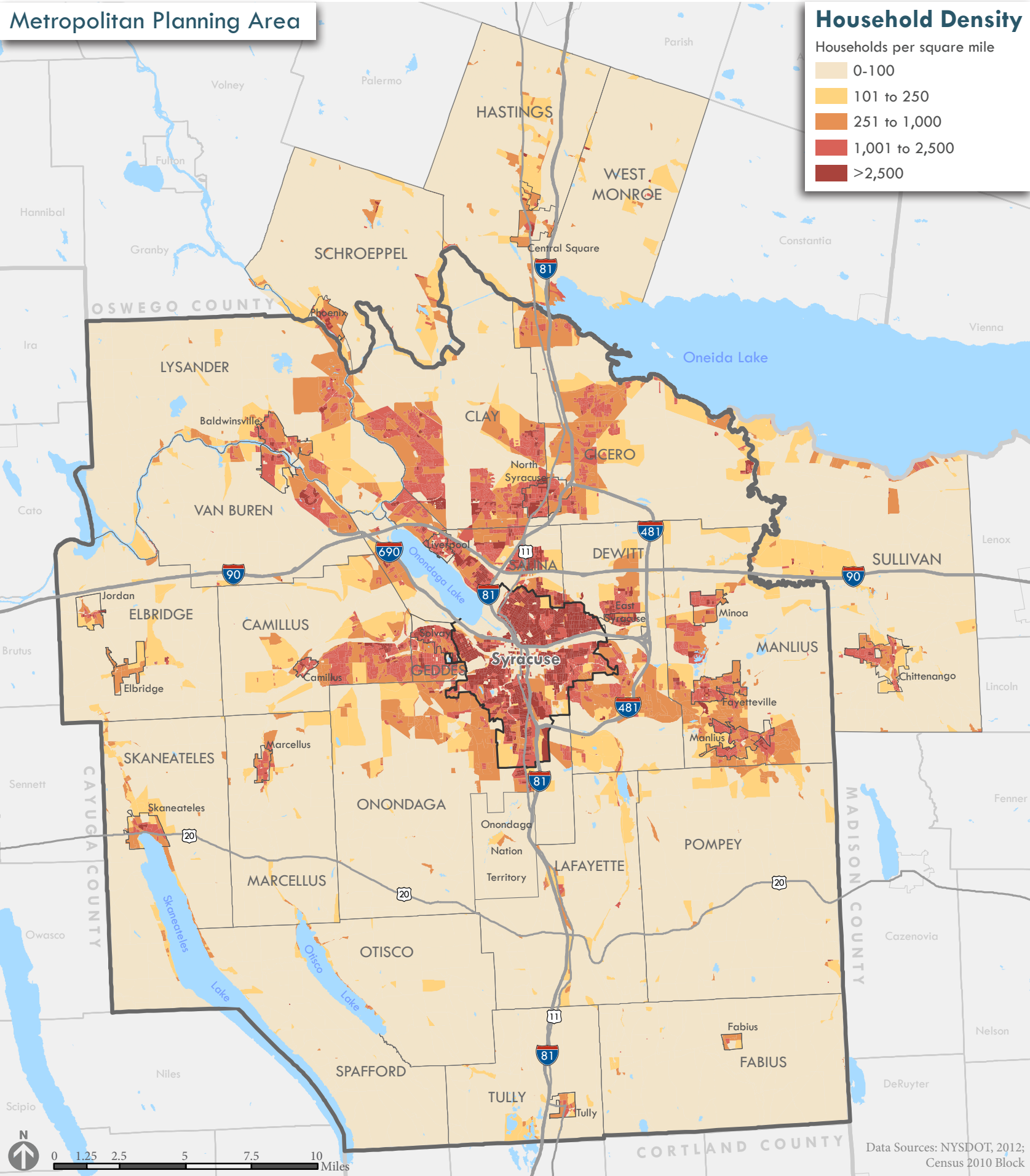


The total population of the MPA (using the 2010 boundary) increased from 495,354 in 2000 to 504,672 in 2010. This is a total increase of 1.9 percent over the 10-year period. The County’s population peaked in 1970 and has remained fairly stable since that time. However, the City of Syracuse saw its population decline from over 220,000 people in 1950 to 145,170 people in 2010. When the County’s population peaked in 1970, over 40 percent of the County’s total population resided in the City of Syracuse. In 2010, the City’s population accounted for just over 30 percent of the County’s total population.

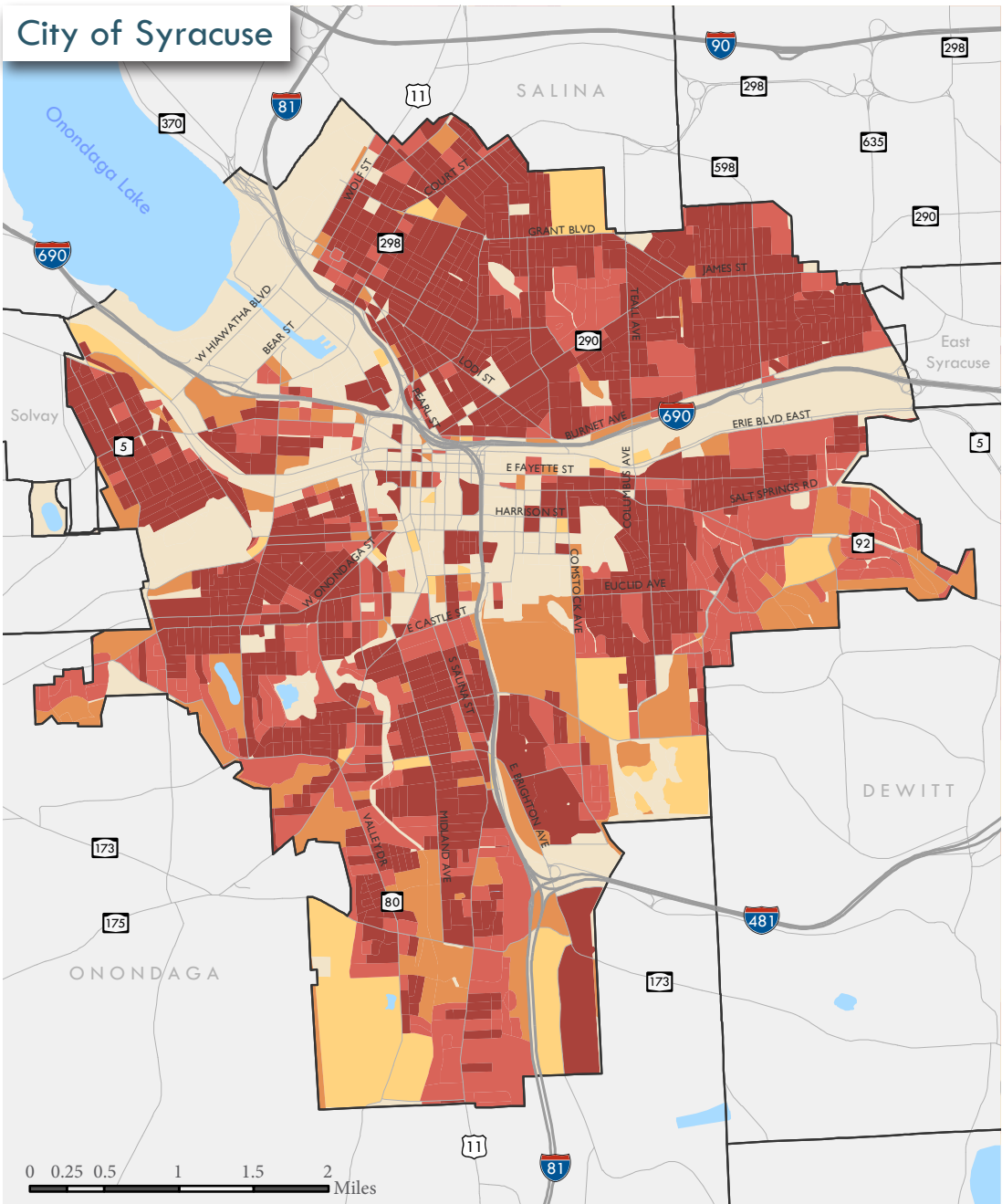
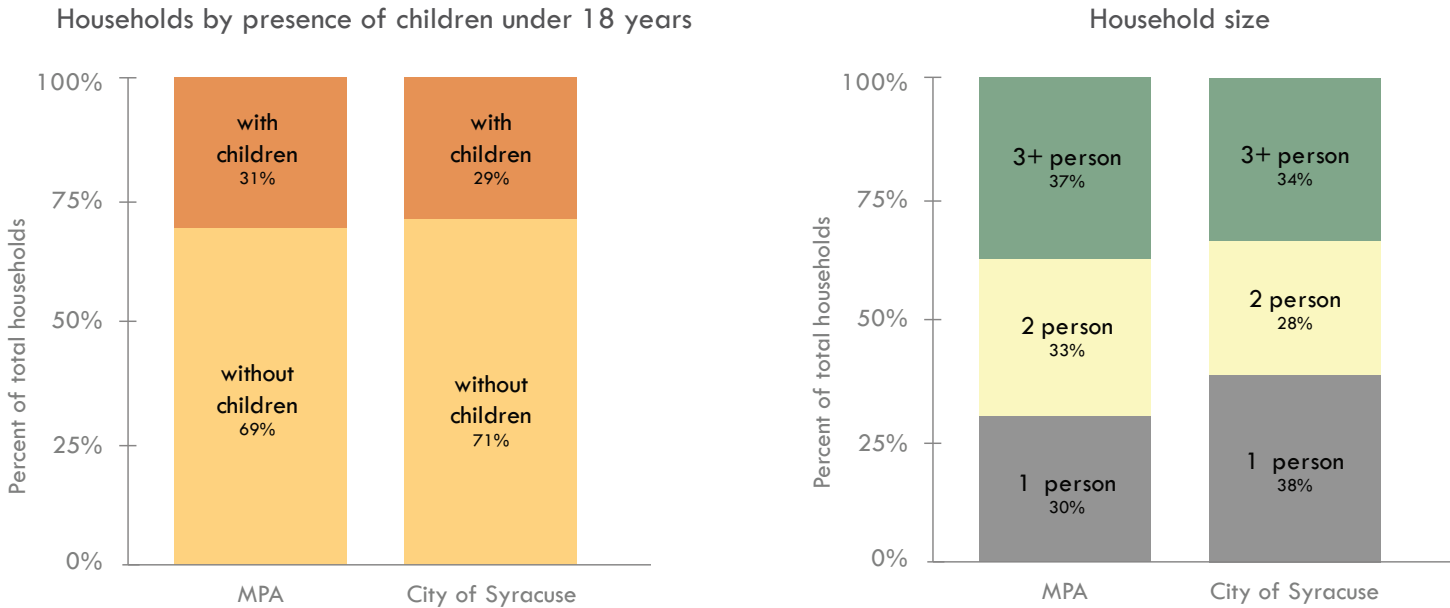
The most substantial population loss for the City of Syracuse occurred between 1970 and 1980, when the City population declined by nearly 14 percent. This outflow of population slowed down between 1980 and 1990, but increased again to a loss of over 10 percent from 1990 to 2000. The 2010 Census data show a loss of less than 1 percent of the City’s population over the last decade, but only time will tell if this is a first step toward population stabilization within the City of Syracuse. The decline of the City population coupled with a fairly stable County population indicates that the population has decentralized over time, and this trend is also reflected by the expansion of the Urban Area (an official boundary that encompasses the densely settled portion of our region, containing what most people would characterize as both urban and suburban areas). Towns around the City of Syracuse have experienced some growth even as Onondaga County’s population has stayed relatively flat. In the most recent interval from 2000 to 2010, the highest growth generally occurred in towns north and northwest of the City. Towns adjacent to the City saw lower levels of growth, or some decline, likely due to the fact that these “inner ring” suburbs were mostly built out over the previous decades.

Households

- The geographic pattern of household density is very similar to population density, with the highest density in the city and the adjacent towns.
- Average household size in the MPA is 2.41 people.
- About 30% of all households in the MPA are 1-person households.



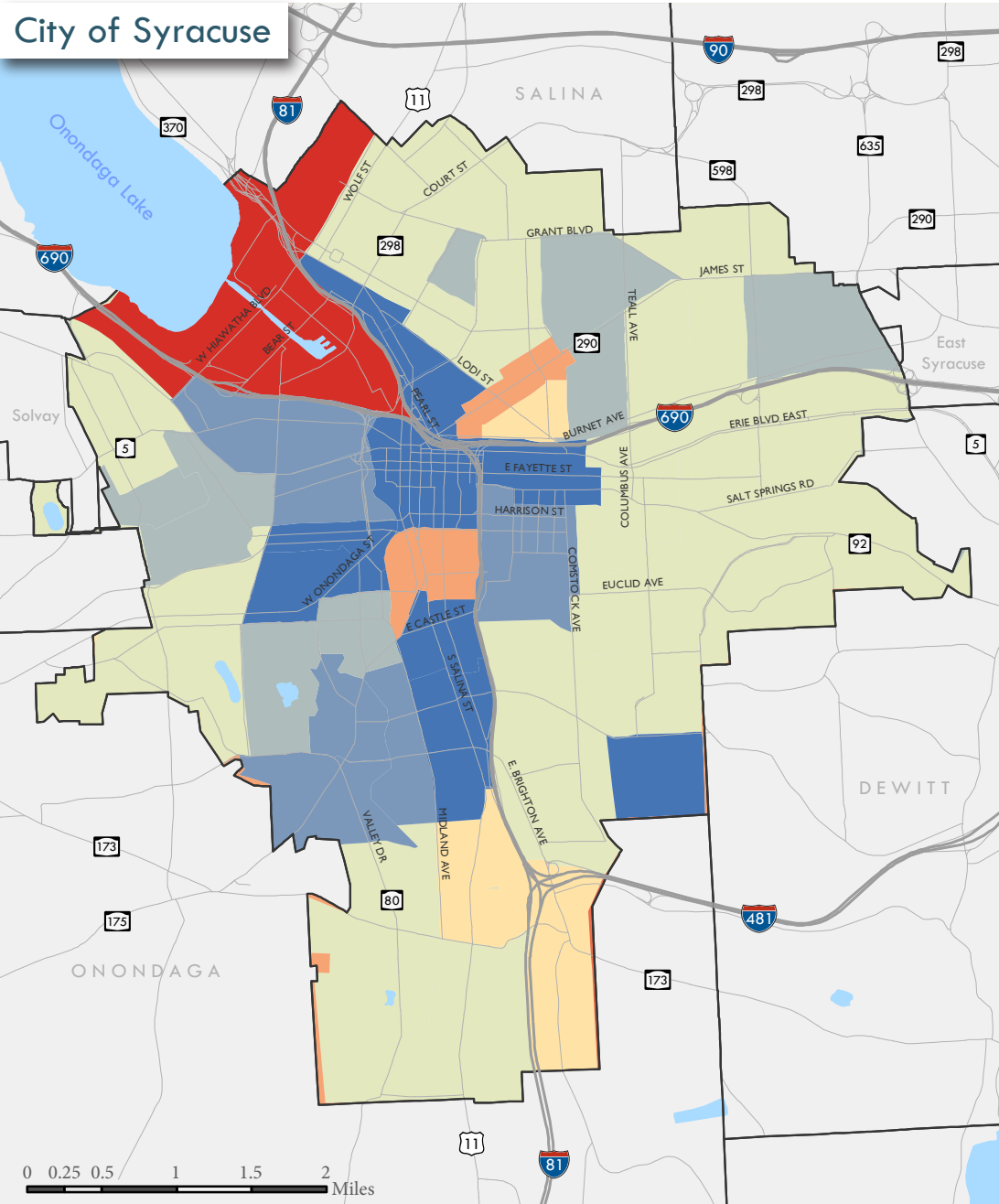
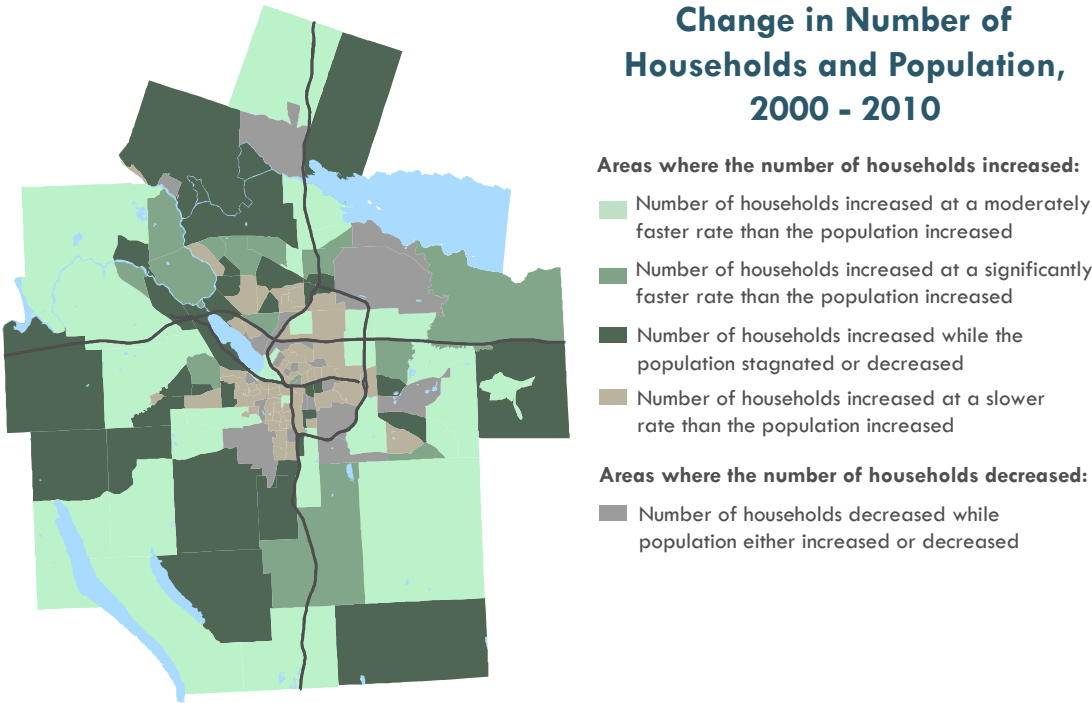
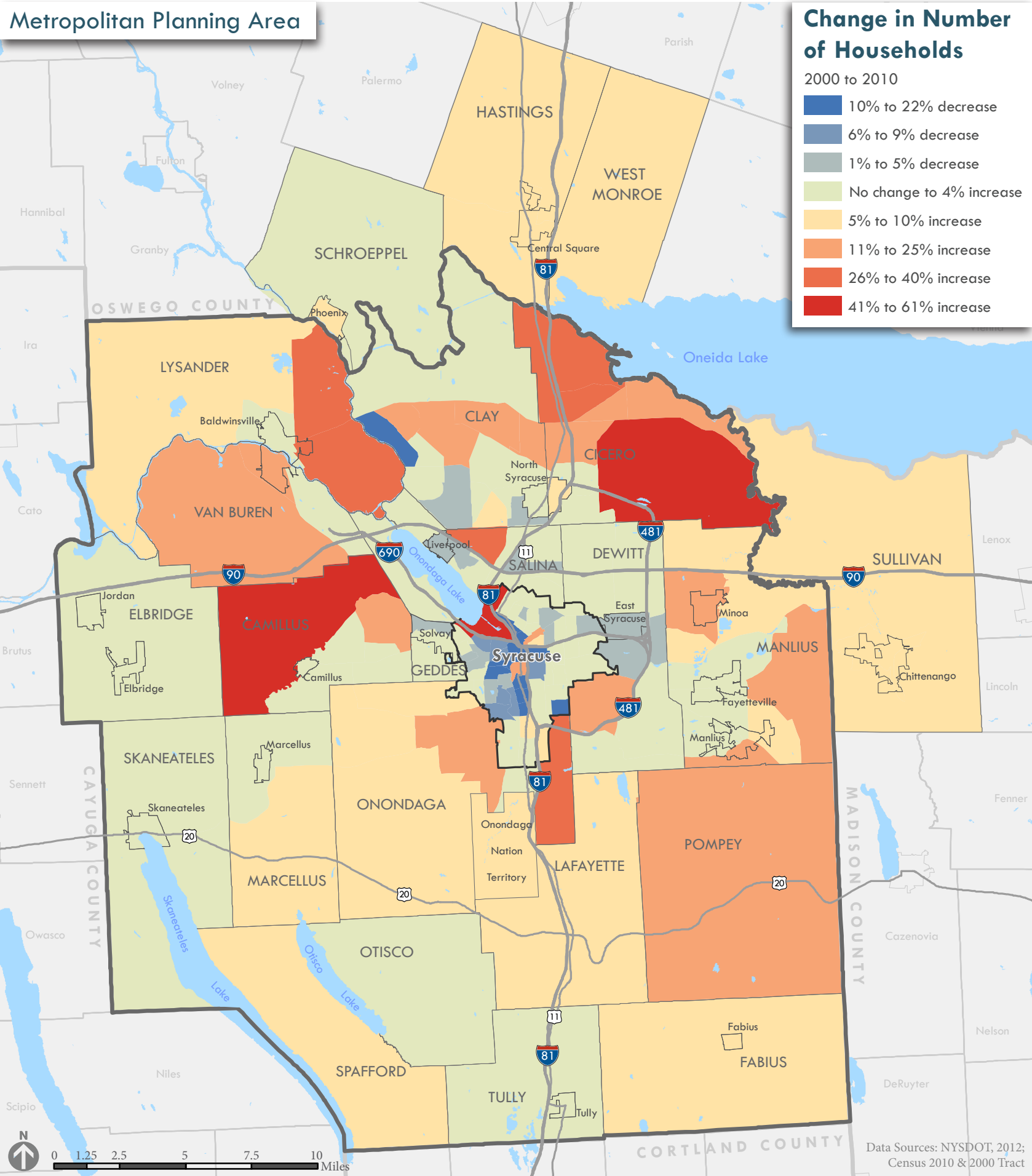
Household Characteristics



The density of households throughout the region is very similar to the density of population throughout the region, with the highest density of households located in the City of Syracuse and additional areas of density adjacent to the city and in the villages throughout the region. There were 202,476 total households in the MPA according to the 2010 Census with an average household size of 2.41 people. Average household size is slightly lower in the City of Syracuse – 2.31 people – than in the overall MPA. One-person households make up 30 percent of the total households in the MPA, another 33 percent of households consist of two people, and the remaining 37 percent of households include 3 or more people. Only about 30 percent of the total households in the MPA have at least one member under the age of 18.

Change in Number of Households

- Between 2000 and 2010, the total number of households in the MPA grew at twice the rate of the population increase within the MPA.
- Growth in households was concentrated primarily in towns at the edges of the MPA.
- In most of the MPA, the increase in number of households outpaced the increase in population.

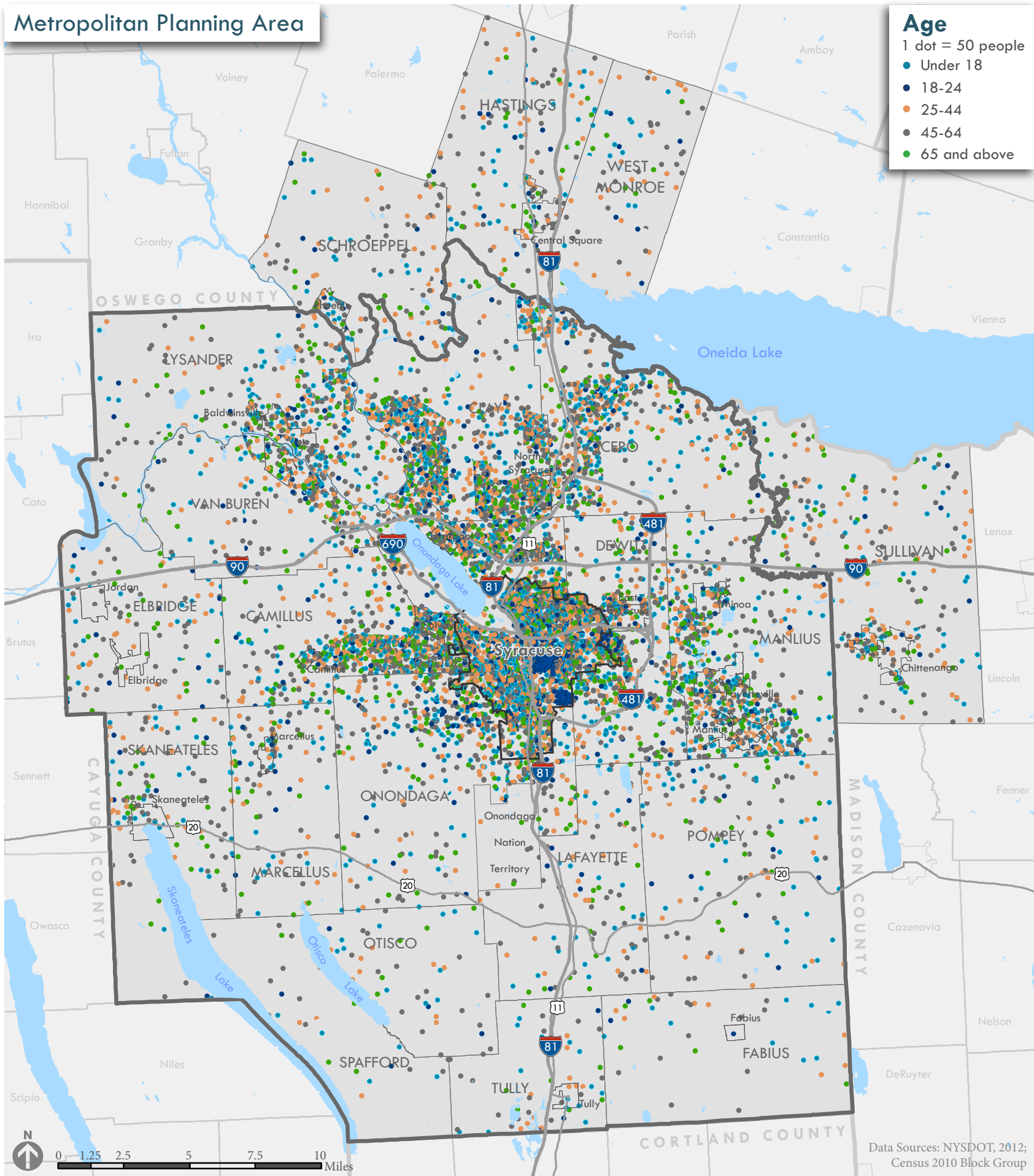


Between 2000 and 2010, the number of households in the MPA increased from 195,045 to 202,476. As shown by the maps at left, this growth in households primarily occurred in the towns at the edges of the MPA, outside of the City of Syracuse. Exceptions include some areas of decreasing households in the towns of DeWitt, Salina, and Clay, as well as a few areas within the City that experienced an increase in the number of households. Large parts of the MPA, including much of the City, saw a relatively constant number of households over this decade (zero to 4% increase).

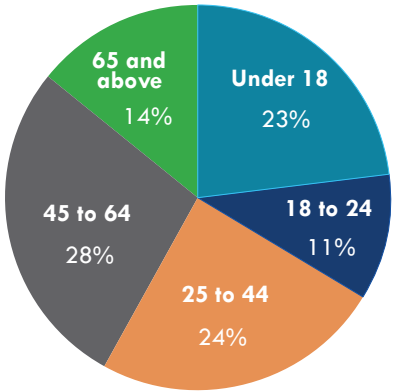
Household change should be considered alongside the change in population. In our region, the increase in households has outpaced the increase in population. The growth in the population of the MPA between 2000 and 2010 was only 1.9 percent, while the number of households increased 3.9 percent over the same time frame. Some areas of the region experienced this disproportionate growth in households more acutely than others. The green areas on the small map at left show the areas of the MPA where the number of households increased faster than the population, with the darkest green denoting areas that experienced an increase in the number of households with either a stagnating or declining population. This situation – household growth outpacing population growth – coincides with the increase in smaller households, including one-person households, and the expansion of our urban area.

Age of the Population

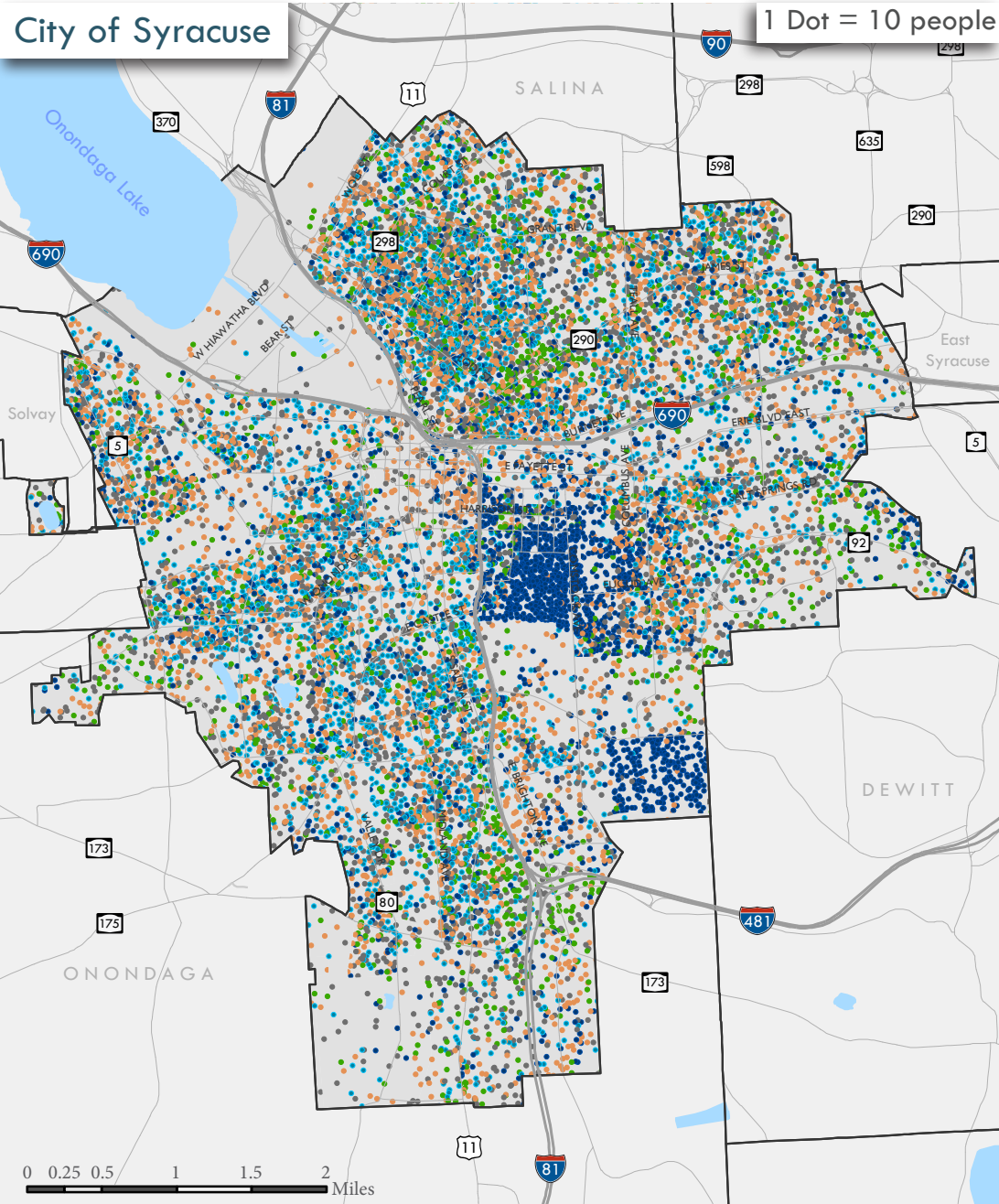
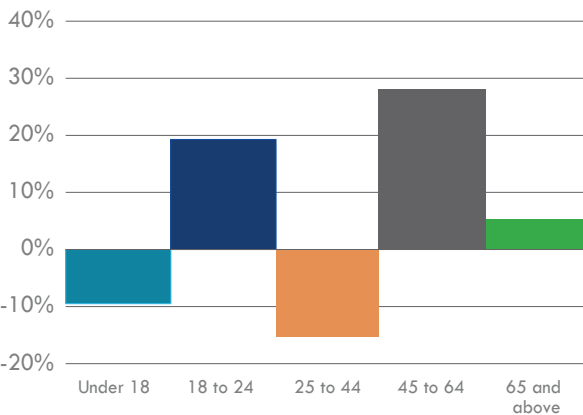
- Over half of the MPA population is between the ages of 25 and 64.
- Median age has increased and recent growth in the 45-64 year age group outpaced growth in any other bracket, reflecting the aging of the “Baby Boom” generation.
- Age groups are generally evenly distributed except for concentrations of young adults around local colleges.



2010 MPA Population by Age Group



Percent Change in Population by Age Group 2000-2010



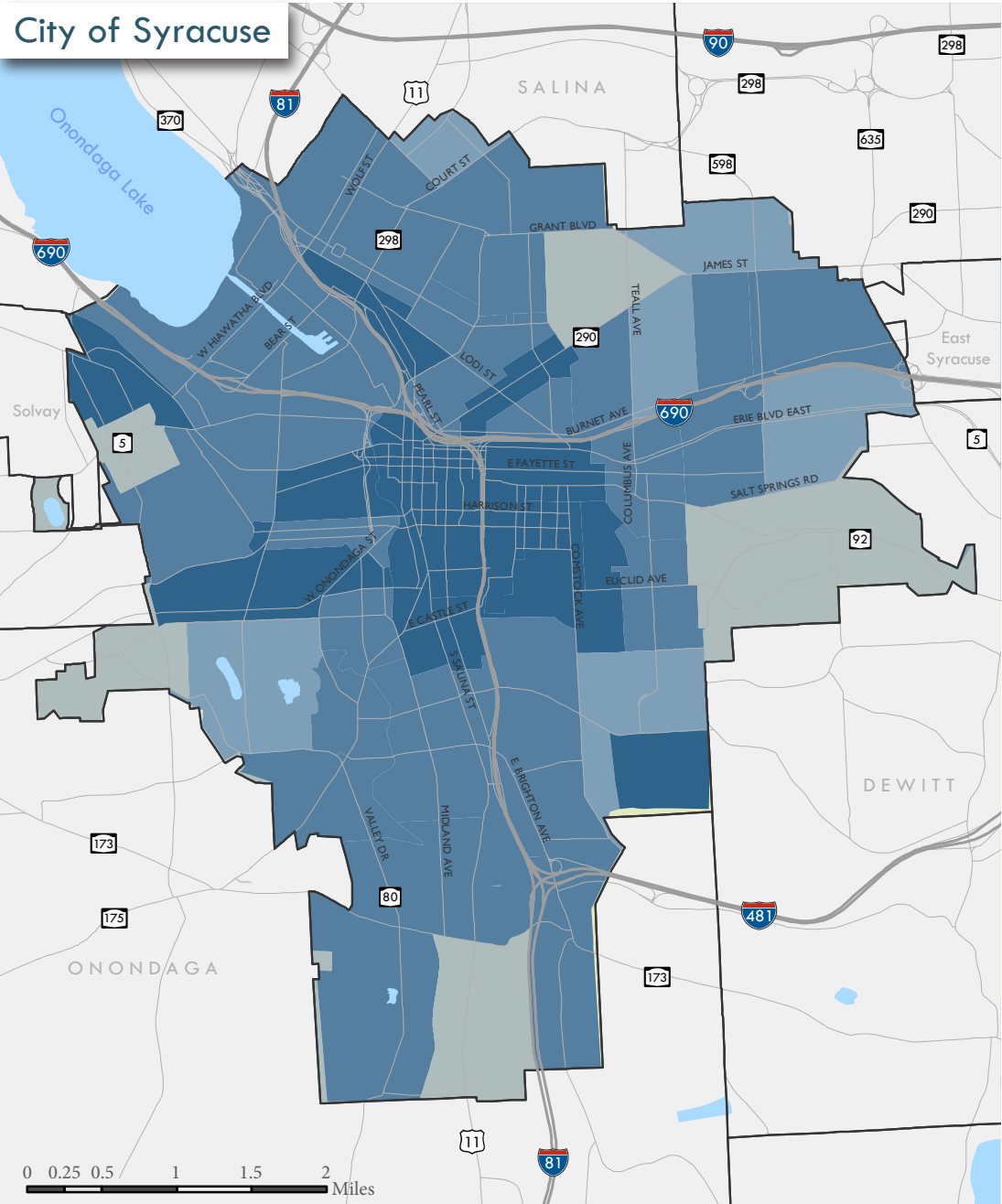
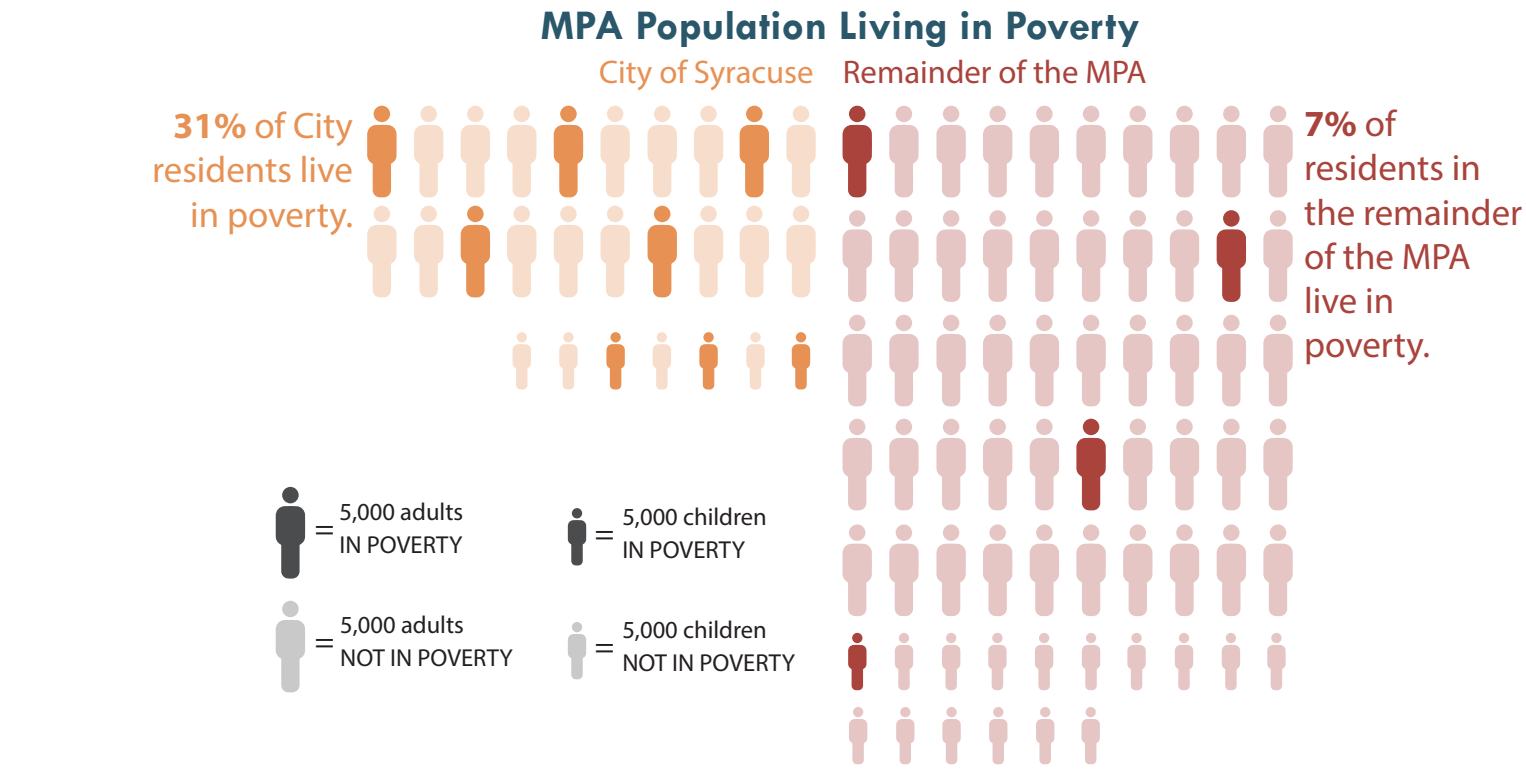
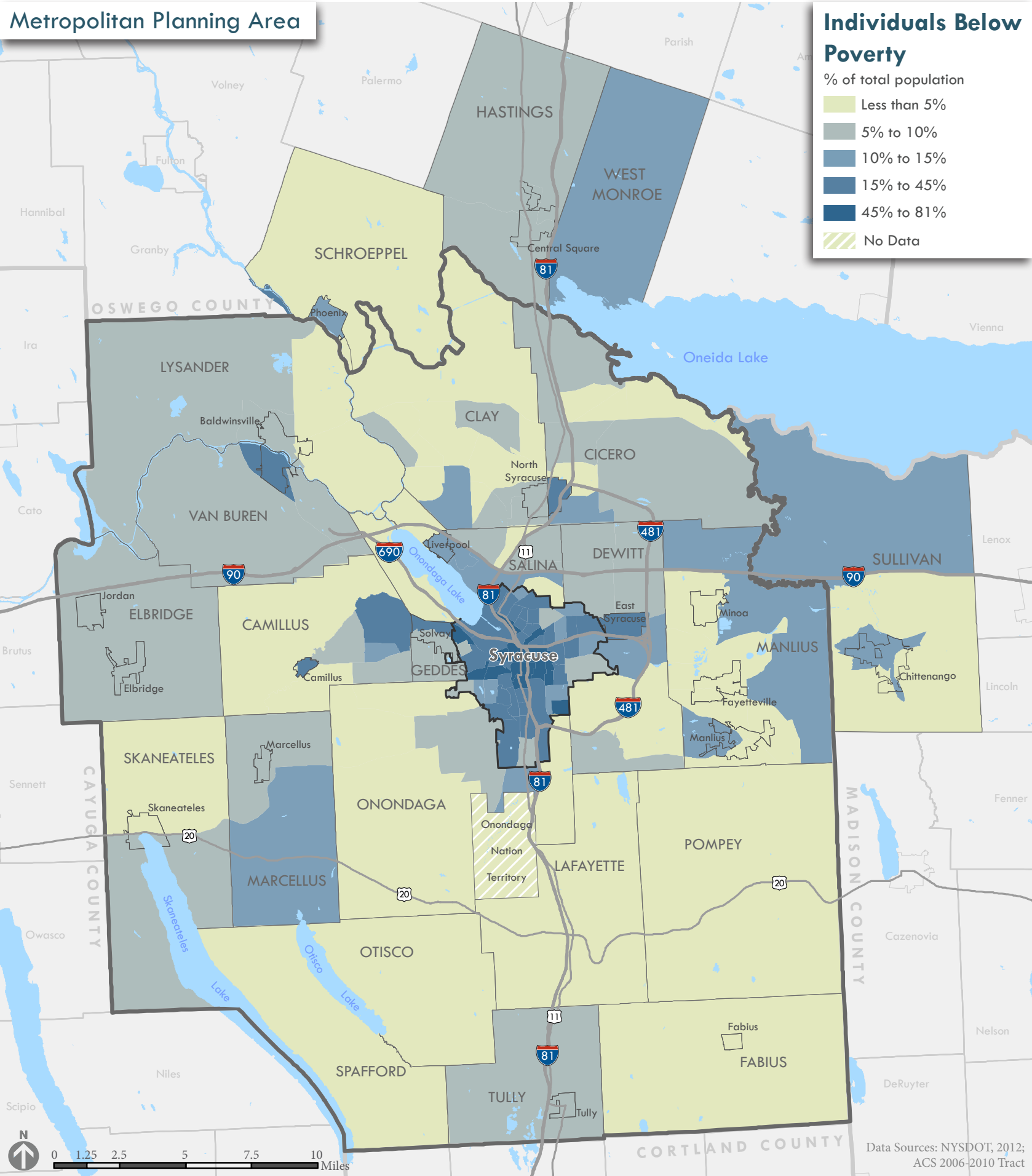
Overall, all age groups seem to be fairly well-distributed throughout the region, with a few exceptions such as the concentrations of young adults (18-24 years) around Syracuse University, Lemoyne College (along the City of Syracuse-Town of DeWitt boundary), and Onondaga Community College (in the Town of Onondaga). Some concentrations of senior citizens are also evident at the southern end of the City of Syracuse and along James Street near downtown Syracuse (due to the presence of senior housing and assisted living facilities).

Age impacts the travel and mobility needs of the population. People under 18 years of age make up 23 percent of Onondaga County’s population. This group is either legally too young to drive or still very likely to be dependent on their parents for transportation. Eleven percent of Onondaga County’s population falls into the 18-24-year-old category, which likely includes many college students who may not have access to their own vehicle or, if they do have their own vehicle, do not follow typical commuting patterns. Taken together, the 25-44-year-old group and the 45-64-year-old group constitute the core of the workforce – and thus commuters – and account for over half of Onondaga County’s population. Those age 65 or older make up 14 percent of Onondaga County’s population. Many of these people are likely retired. This group may also have physical mobility limitations.

Although over 85 percent of the MPA population was under the age of 65 in 2010, trends suggest that the region has an aging population. Median age in Onondaga County has climbed from 29.7 years in 1980 to 38.6 years in 2010. Between 2000 and 2010, the number of MPA residents aged 45-64 years grew by nearly 30 percent, outpacing growth in any other age bracket. This age group represents the large “Baby Boom” generation – those born between approximately 1946 and 1966.

Poverty

- Poverty in our MPA is concentrated within the City of Syracuse.
- Poverty rates are higher for children under 18 than for the general population.

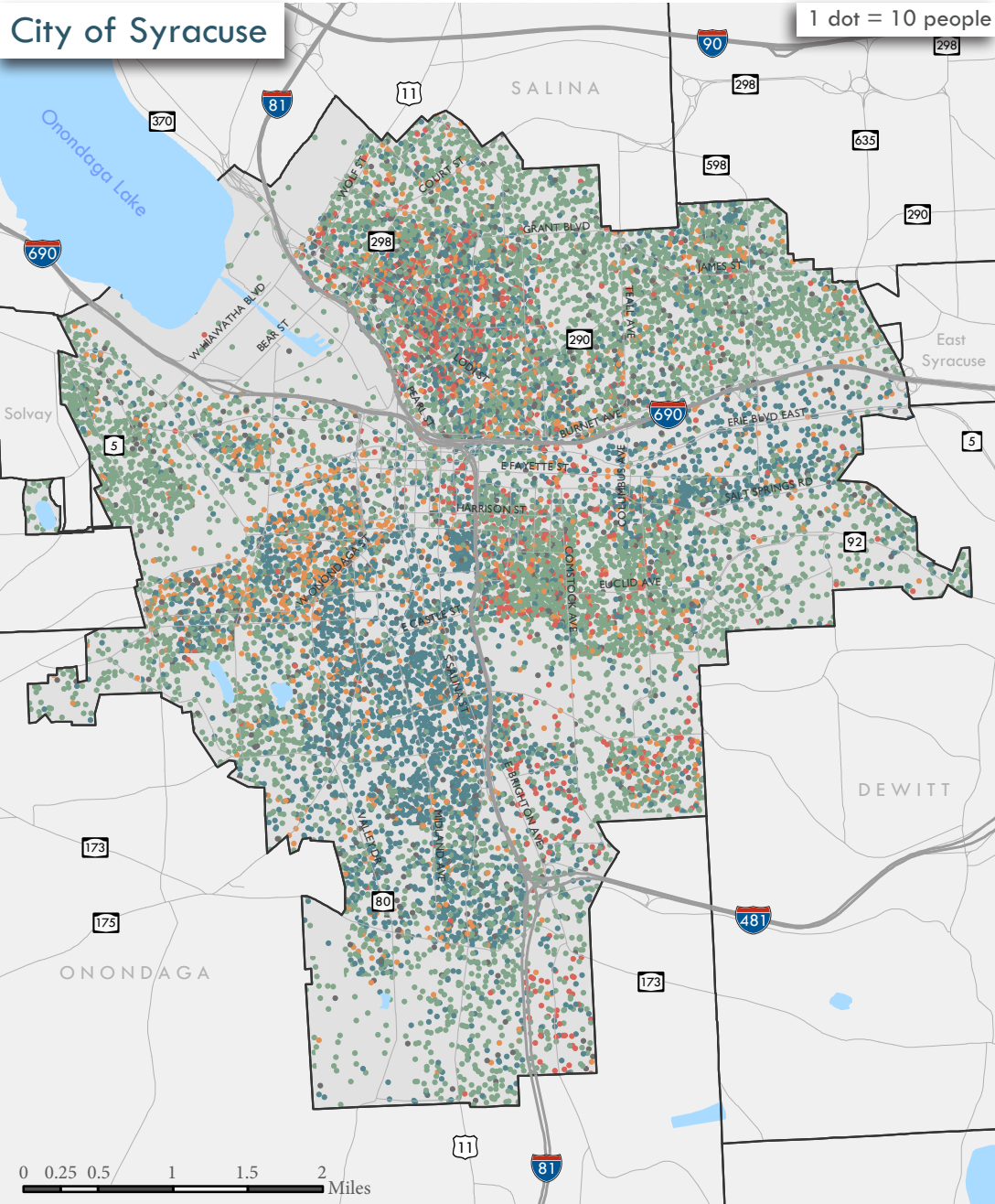
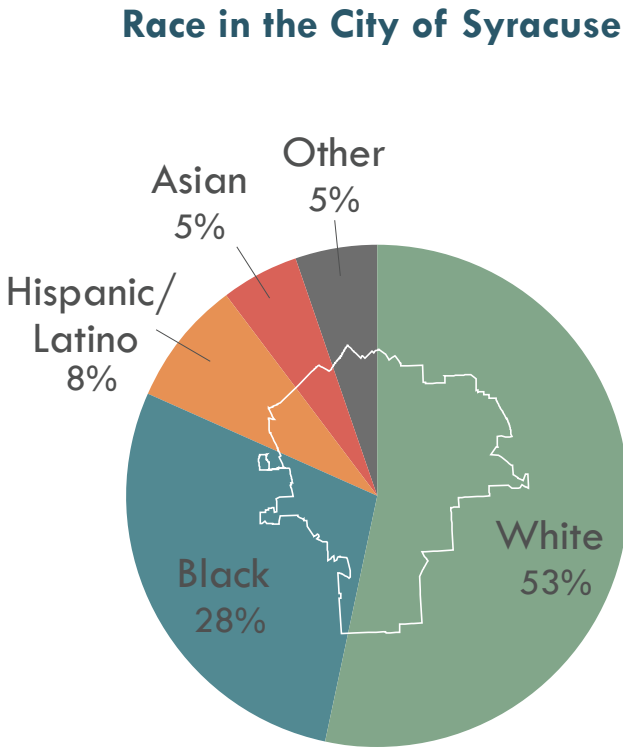
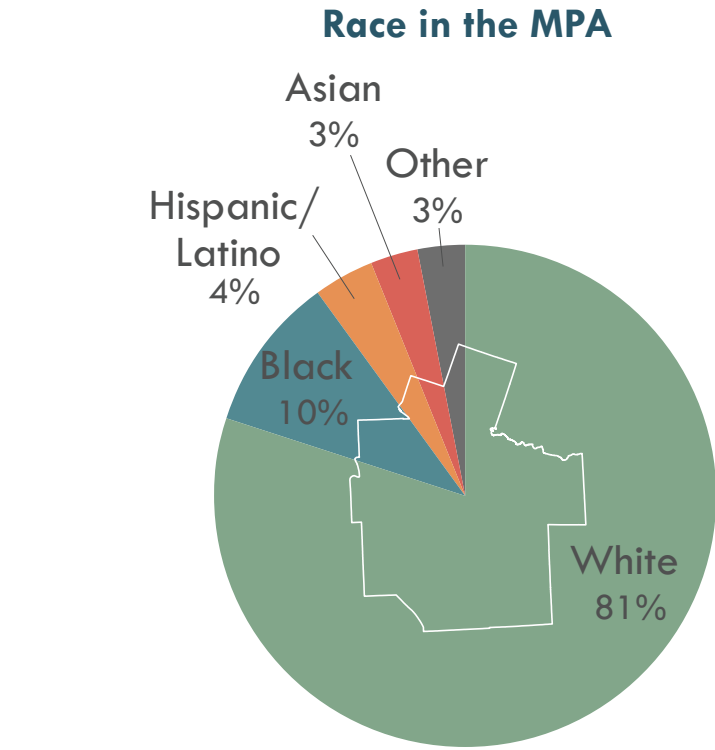
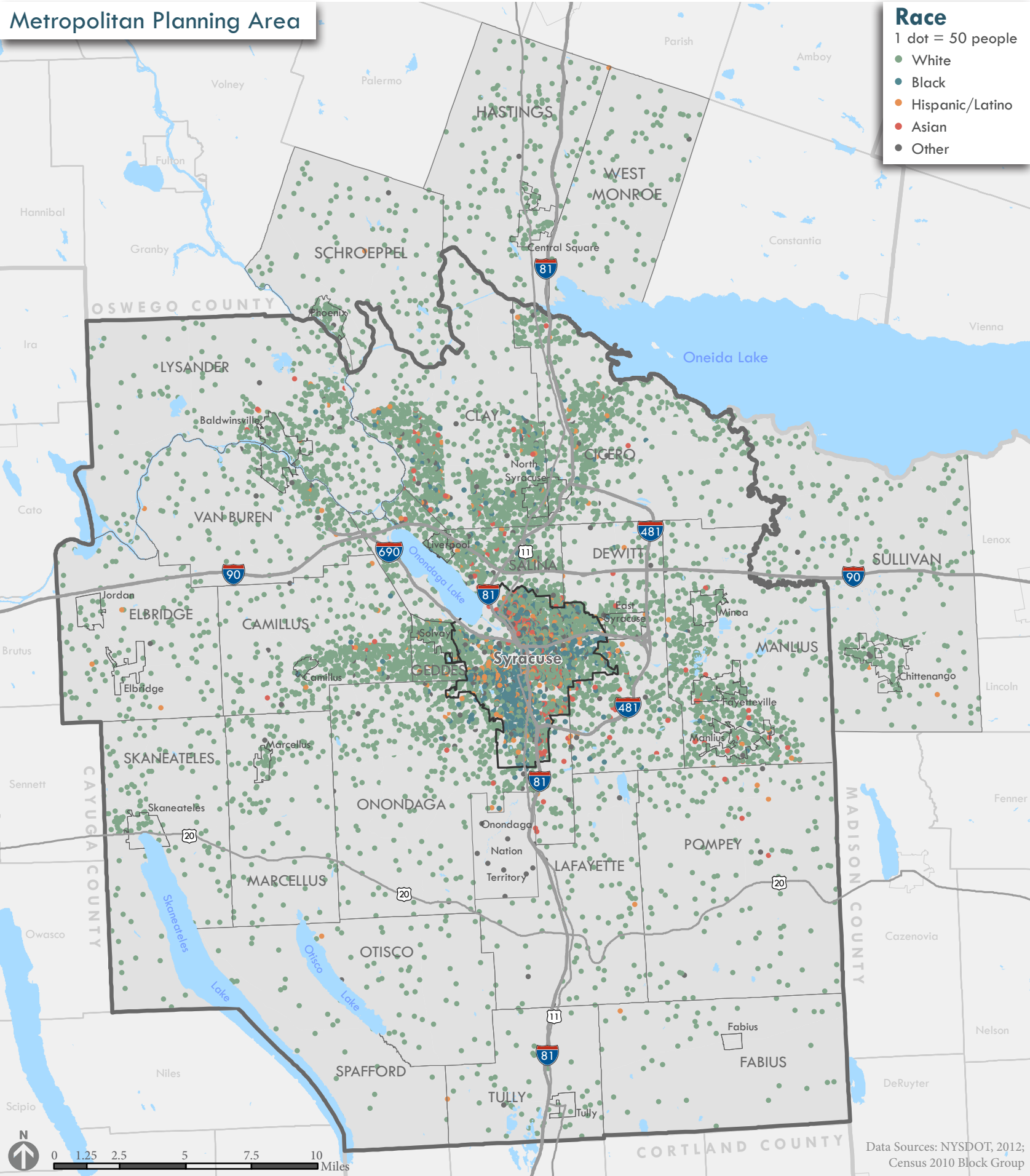


Poverty rates vary significantly across our region. The MPA map at left shows large areas of the MPA with very low poverty (less than 5 percent); however, the areas with the lowest poverty also tend to overlap with the areas of our lowest population density. Within the more populated areas of the MPA outside of the city, poverty rates are mostly in the range of 5 percent to 15 percent. The poverty rate in the MPA overall is 13 percent, while the poverty rate in the City of Syracuse is 31 percent. As the map shows, in some areas of the city the poverty rate exceeds 45 percent. There are over 64,700 individuals that live in poverty in our MPA, and over 41,400 of these people reside in the City of Syracuse. The poverty rate is higher for children than for the general population in both the MPA and the city, with 19 percent of children in the MPA living in poverty and 44 percent of children in the City of Syracuse living in poverty.

(Note: These statistics rely on the 2006-2010 American Community Survey Data for poverty status in the last 12 months, with percentages [rates] based on the Census-defined “population for whom poverty status is determined,” which does not include people living in college dormitories and institutional group quarters. The ACS uses set dollar value thresholds that vary by family size and composition and adhere to the standards specified by the Office of Management and Budget Statistical Policy Directive 14.)

Race

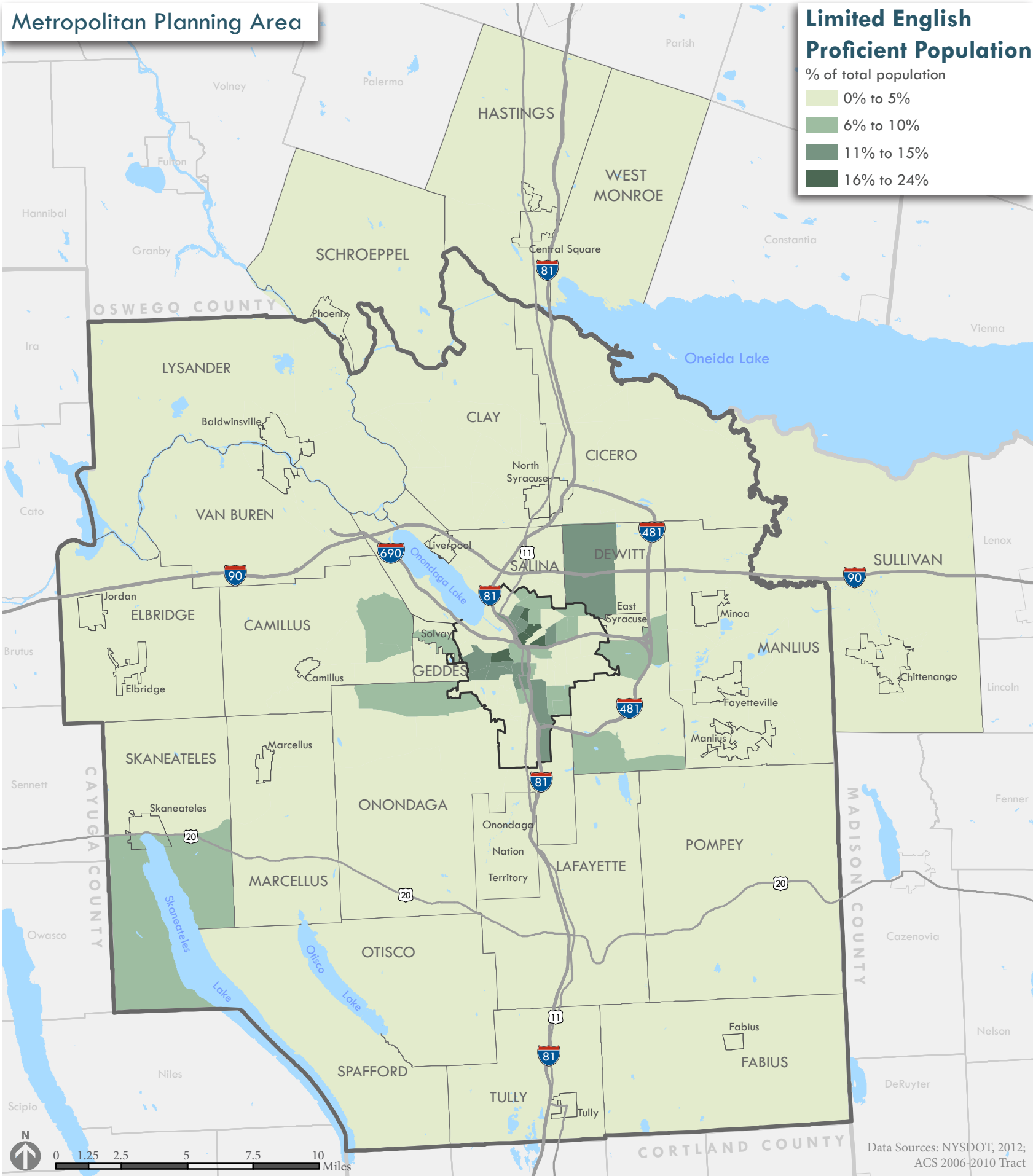
- Over 80% of the total MPA population is white, while only 53% of the City of Syracuse population is white.
- Non-white residents are primarily clustered in the neighborhoods just outside of downtown Syracuse.



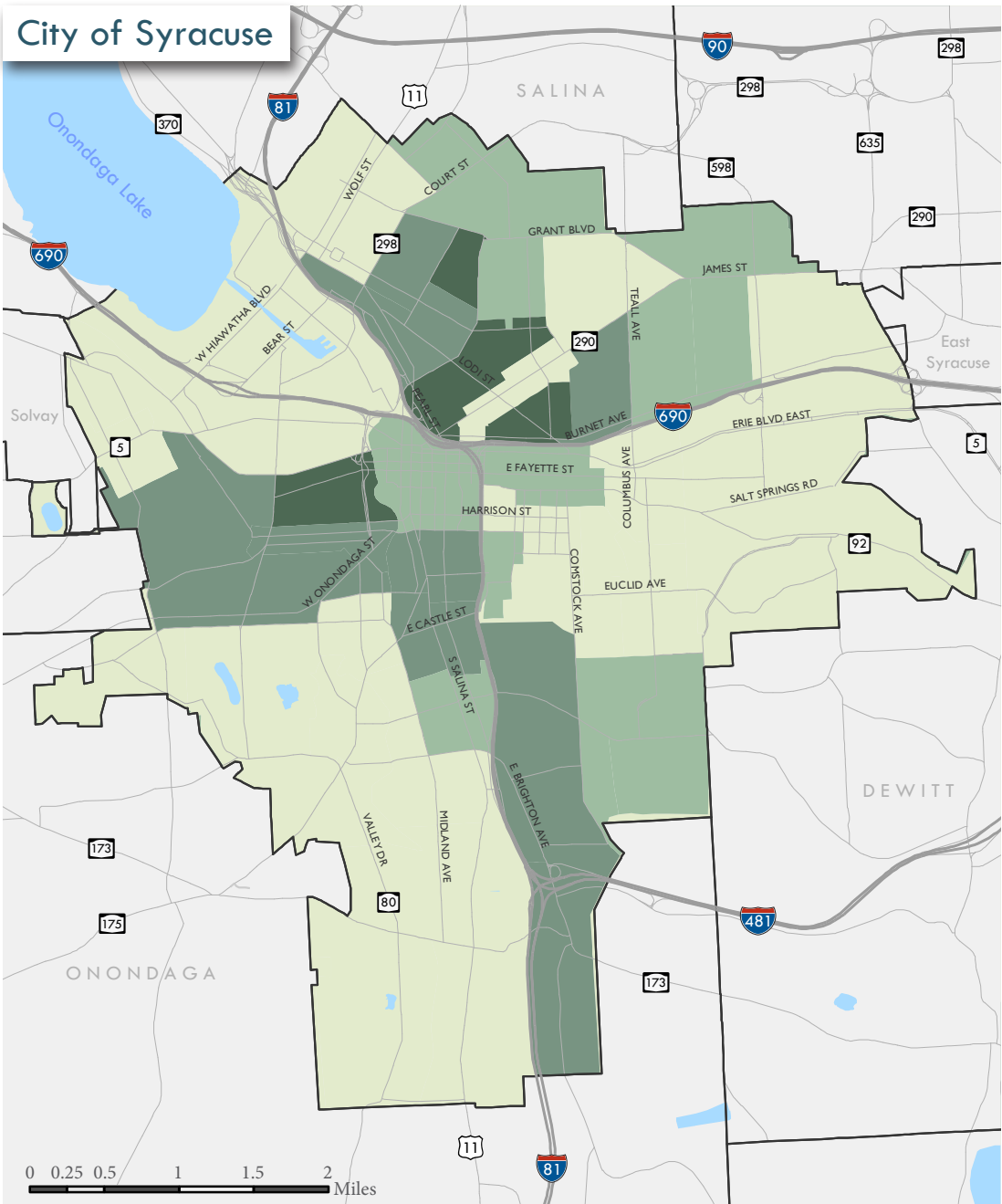
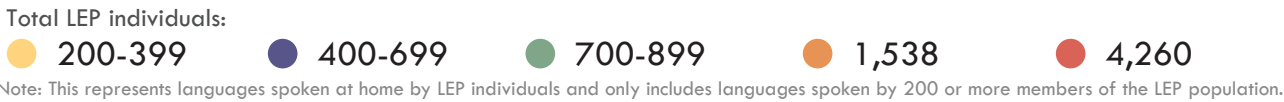
As shown by the maps and charts at left, there are notable differences between the racial makeup of the MPA population as a whole and the City of Syracuse population. While over 80 percent of the MPA population is white, only 53 percent of the City of Syracuse population is white. Seventy percent of the MPA's non-white population resides in the City of Syracuse. City neighborhoods generally show more racial diversity than the towns outside of the City; however, even within the city, racial groups are not evenly distributed across neighborhoods. The City of Syracuse map at left shows black residents clustered primarily in neighborhoods south of downtown and west of I-81, Hispanic/Latino residents clustered in neighborhoods west of downtown, and Asian residents primarily clustered in northside neighborhoods.

Limited English Proficiency (LEP)

- 3% of the MPA population has limited English proficiency.
- The Limited English Proficient population is concentrated in the City of Syracuse, particularly near downtown.
- Over 30 languages are spoken in the MPA.



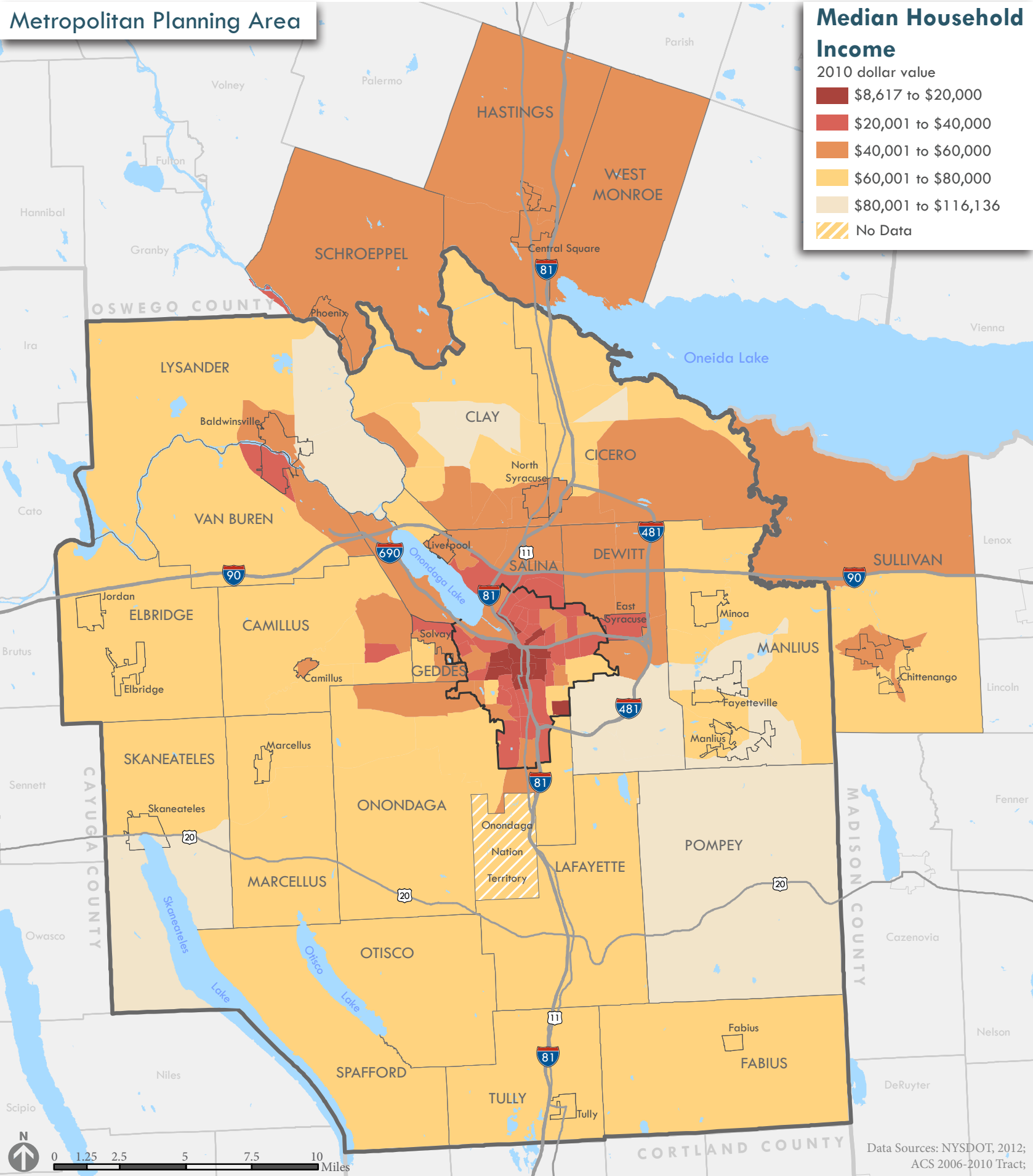
Most Common Languages Spoken by LEP Individuals in the MPA



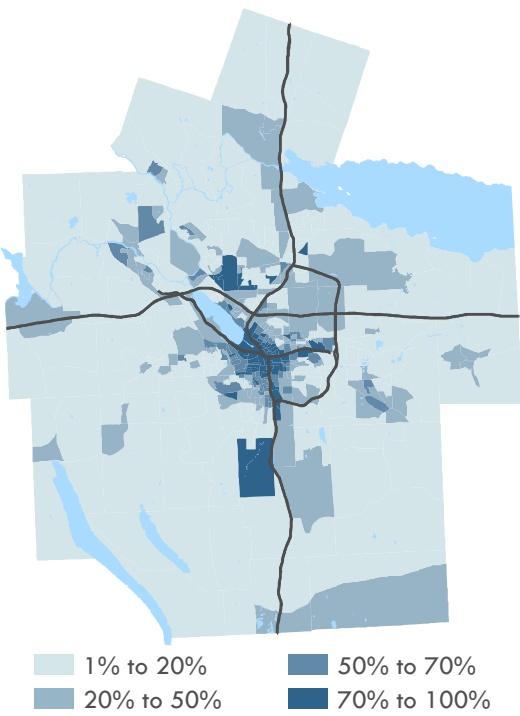
Individuals that report speaking English “less than very well” are considered to have limited English proficiency (LEP). The LEP population makes up 3 percent of the total MPA population and 6.5 percent of the City of Syracuse population. The LEP population is concentrated within the City, particularly within a few Census tracts just north and west of downtown Syracuse. Over 30 languages are spoken within the MPA, with the most common shown above. Spanish is the language most commonly spoken by the LEP population in the Syracuse MPA.

Household Income

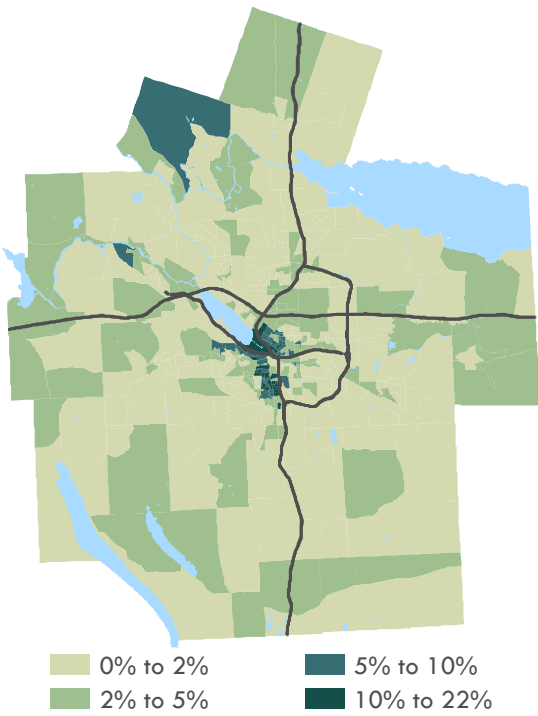
- Median household income is \$30,891 in the City of Syracuse and \$50,676 for Onondaga County as a whole.
- Only two towns within Onondaga County have a median household income less than the County-wide median.
- Among suburban towns, the Town of Pompey has the highest median household income (\$88,438) and the Town of Schroepfel has the lowest (\$47,675).



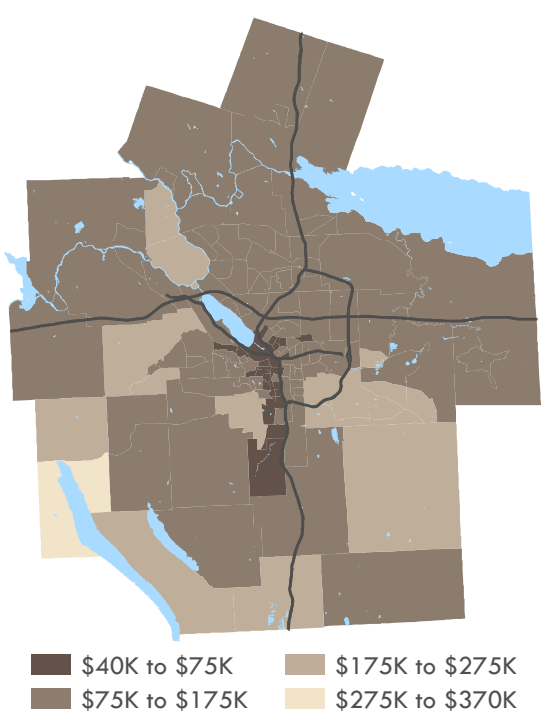
Percent Renter Occupied



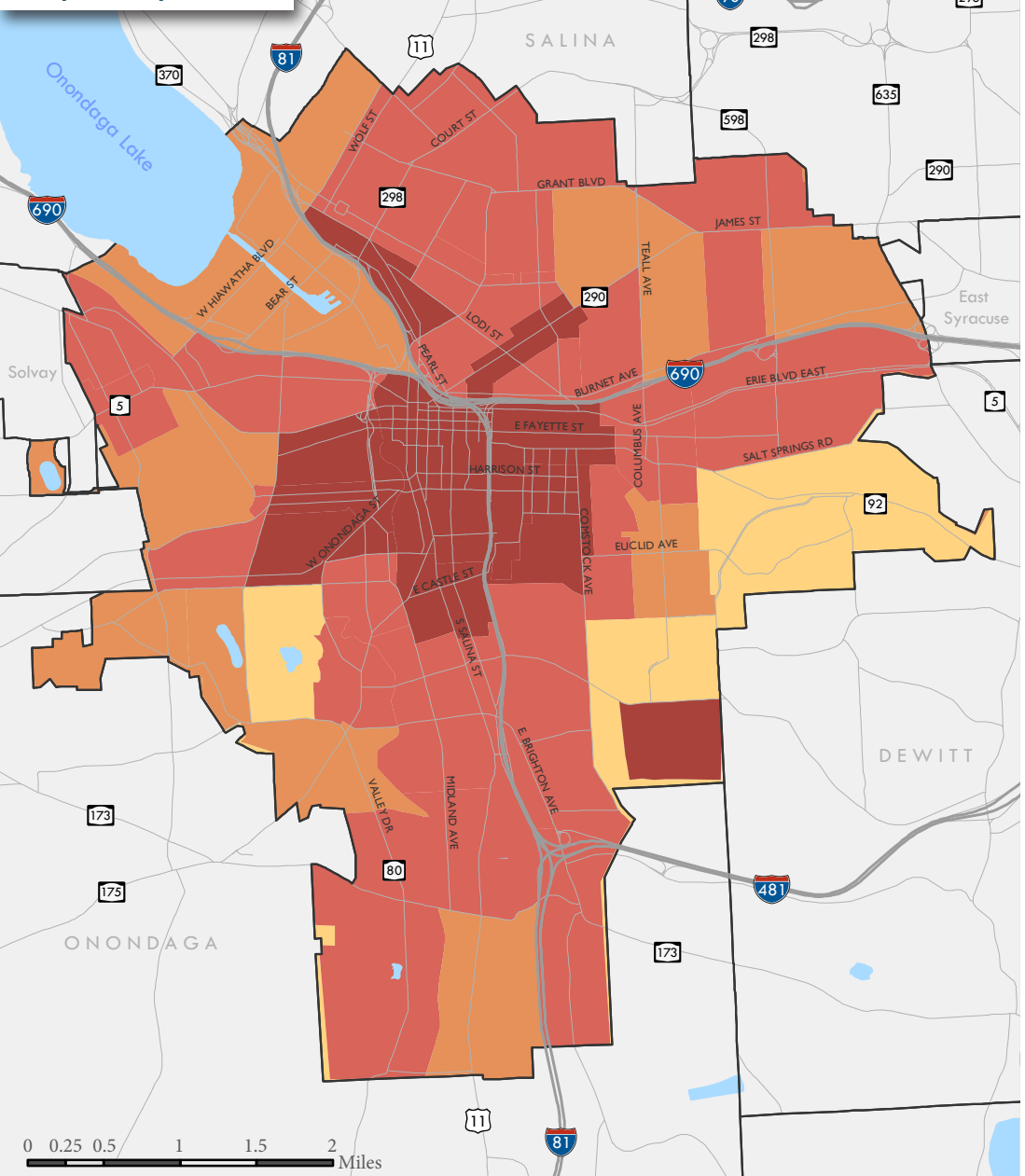
Percent Vacant Housing



Median Home Values



City of Syracuse

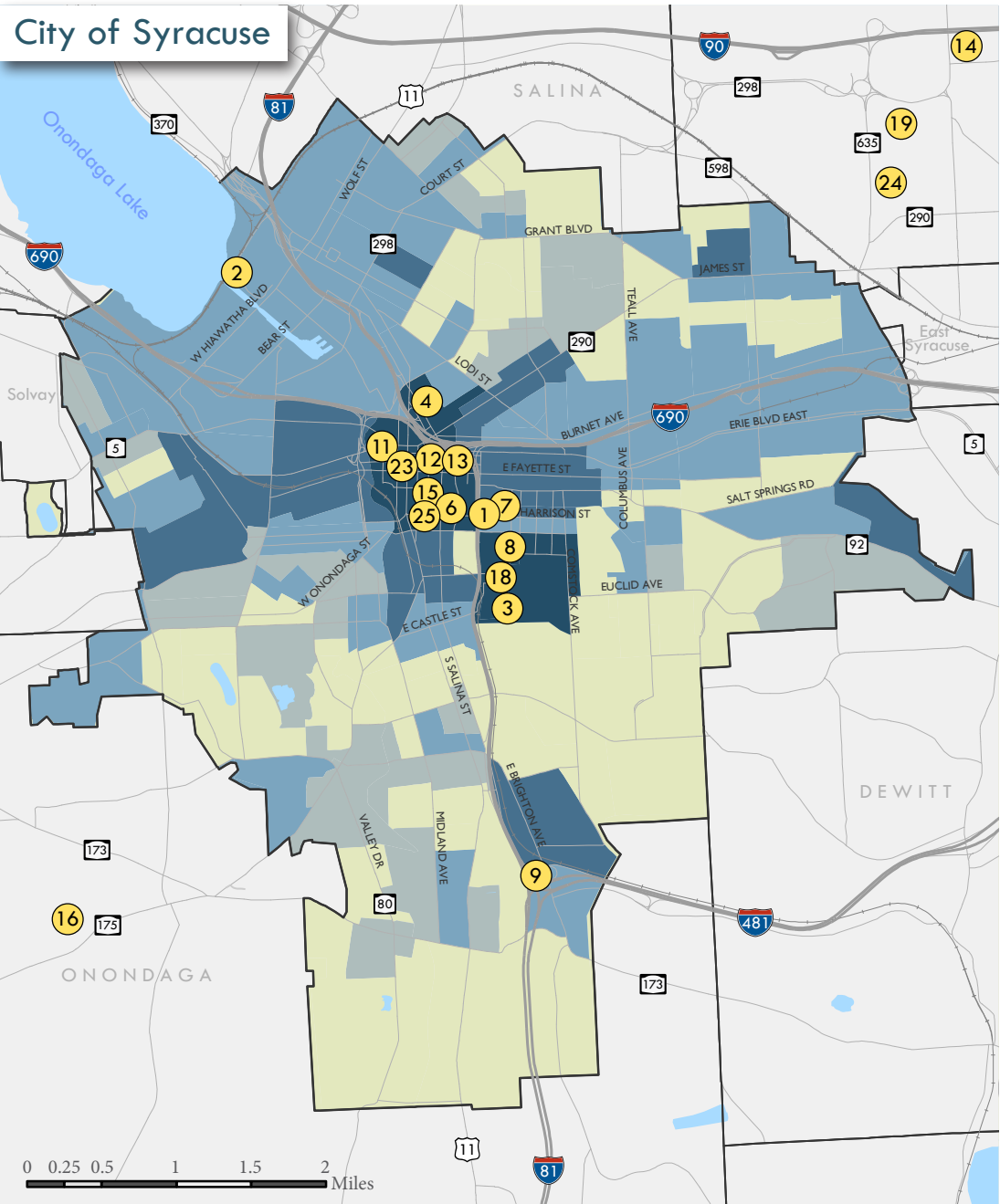
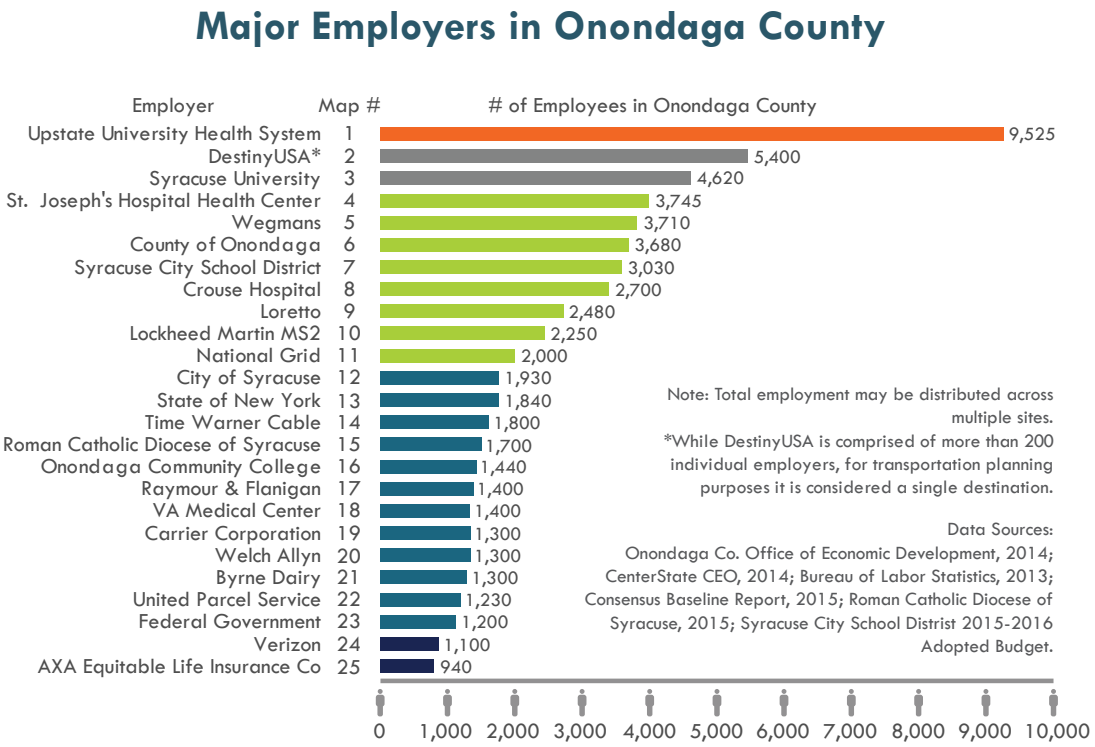
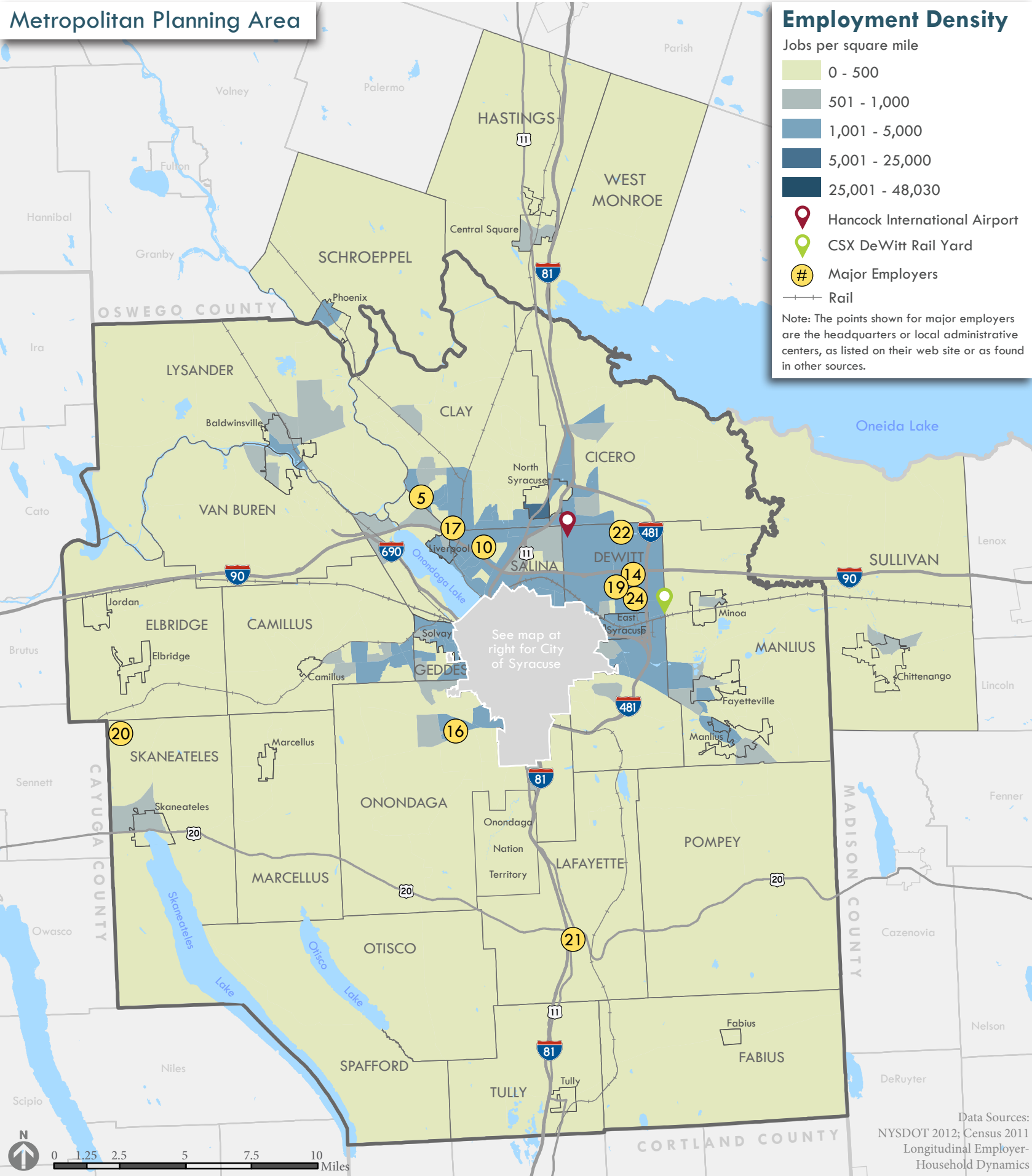


The median household income in the City of Syracuse, based on 2006-2010 ACS data, is \$30,891, while the median household income in Onondaga County is \$50,676. However, of the 19 towns in Onondaga County, only two towns (Salina and Van Buren) have median household incomes less than the County-wide median. Among suburban towns within the MPA, the Town of Pompey has the highest median household income, at \$88,438, and the Town of Schroepfel has the lowest median household income at \$47,675.

The small maps above show other household characteristics that are often associated with income. The highest levels of renter-occupied housing are generally found in areas with lower household income, primarily downtown Syracuse and the immediately adjacent neighborhoods. There is also a high level of renter-occupied housing in the southwestern corner of the Town of Clay, which has many apartment complexes. Vacant housing units are concentrated within the lowest-income areas of the City. As would be expected, the areas with the highest median household income and highest median home value generally coincide with each other.

Employment

- Total regional employment is approximately 246,400, with 82 percent of that total located in the City of Syracuse and the five largest towns (DeWitt, Clay, Salina, Cicero, and Manlius).
- Three of the region's ten largest employers are located on University Hill. However, most (57 percent) of the jobs in the City of Syracuse are located outside of Downtown or University Hill at smaller employers.



The employment density maps illustrate the importance of Downtown Syracuse, University Hill, and the inner-ring suburbs to the regional economy. Three of the region's ten largest employers are located on University Hill, and many of the region's other major employers are clustered in or near Downtown and University Hill. The northern portion of the Town of DeWitt, which benefits from access to Hancock International Airport, I-90, I-481, and a major railroad hub, is also home to major employers.

The City of Syracuse is the region's economic core, with over 90,000 jobs (37 percent of the region's total) located in the city. Approximately 20,000 of these are located in Downtown Syracuse and another 18,000 are located on University Hill. Put another way, 15 percent of the region's total employment is packed into a pair of districts totaling just over one square mile. While several of the region's largest employers are located in these two parts of the city, it is worth noting that the bulk of the jobs in Syracuse (52,700 jobs, or 57 percent of the city's total) are at smaller employers distributed throughout the city, such as in the Erie Boulevard corridor or the Lakefront area.

The municipality with the greatest number of jobs, after the City of Syracuse, is the Town of DeWitt with 43,220 total jobs. Taken together, the Towns of DeWitt, Clay, Salina, and Cicero are home to nearly as many jobs as the City of Syracuse, with employment density (number of jobs per square mile) greatest near the city. Employment centers radiate out from the city to the west, north, and east along rail lines and major roadway corridors.

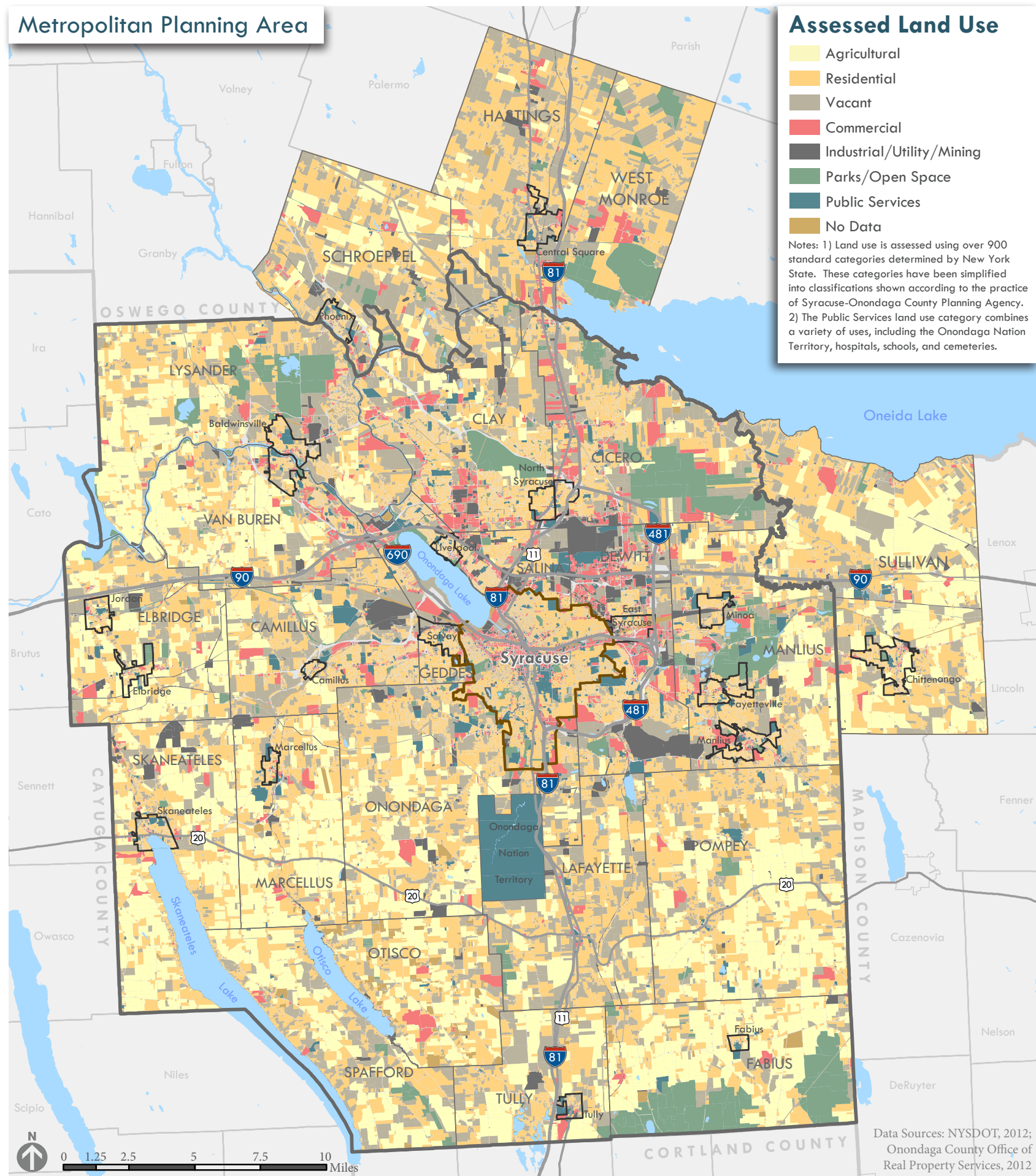
The region's villages and hamlets, many of which are located at the junction of major roads, also play an important role economically. Suburban centers, like Skaneateles, Baldwinsville, and Fayetteville, are focal points for shopping and small businesses, as well as for manufacturing.



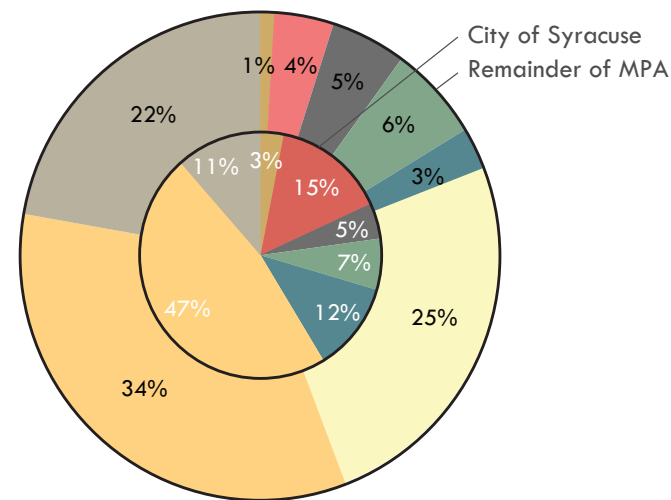
● **LAND USE AND ENVIRONMENT**
Land Use — 32
Water Resources — 34

Land Use

- Residential use is the largest single land use (by area) in the region.
- Between 2000 and 2010, the towns located along the northern edge of Onondaga County (Lysander, Clay, and Cicero) and the City of Syracuse added the greatest number of new residential units.
- Commercial uses are primarily situated along major transportation facilities.

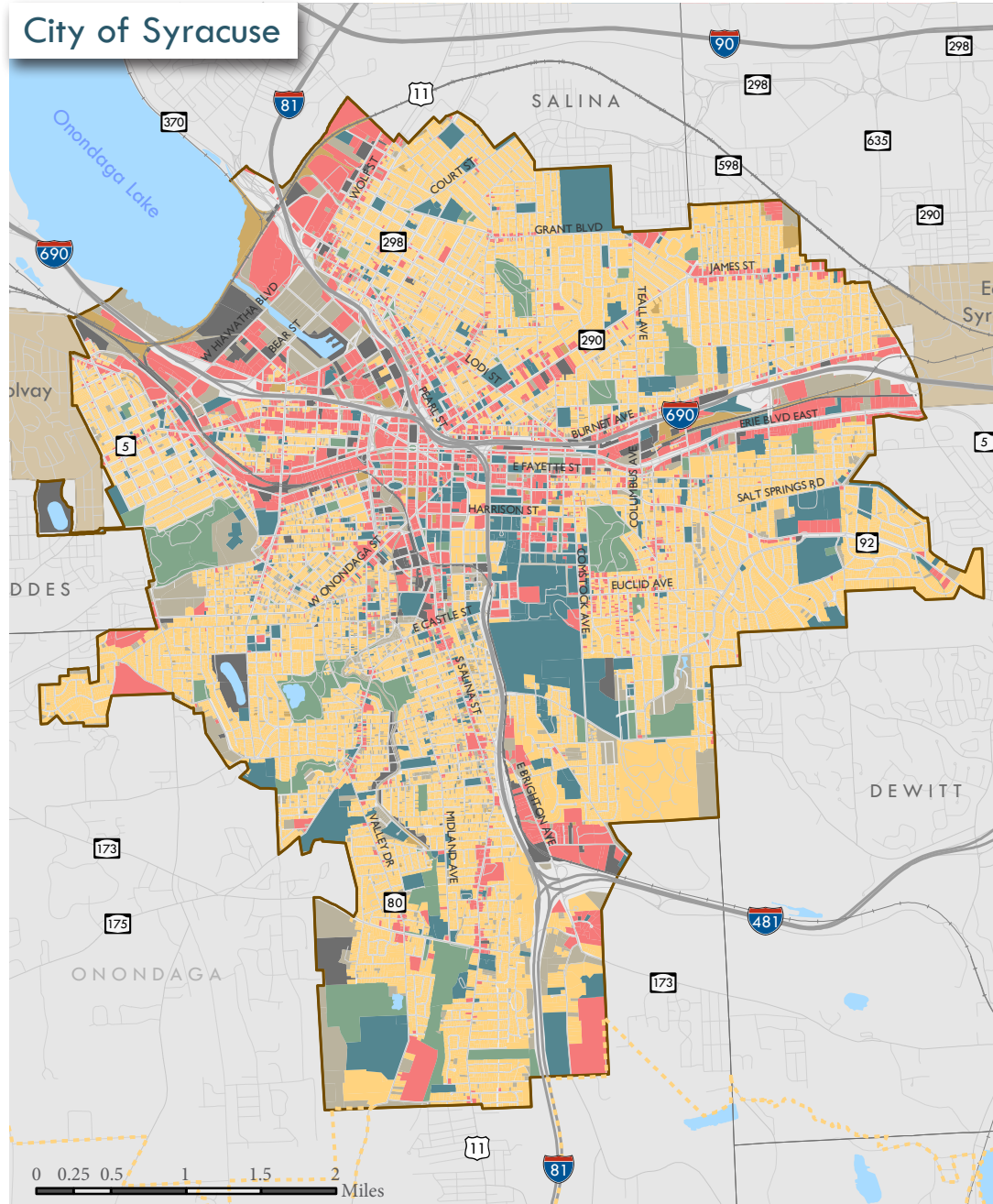
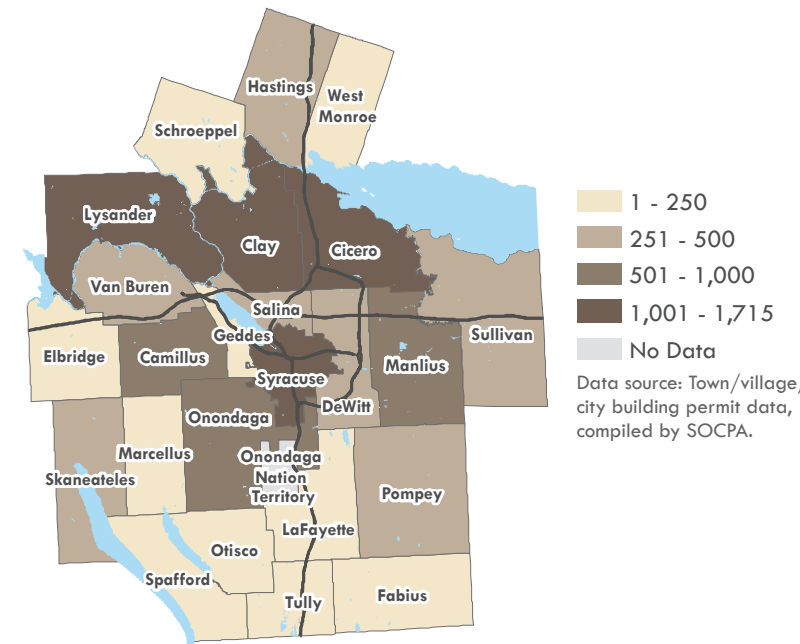


Percent of Total Land Area by Assessed Land Use, City of Syracuse and Remainder of MPA



Note: See legend at left for land use categories.

New Residential Units Created by City/Town, 2000 - 2010

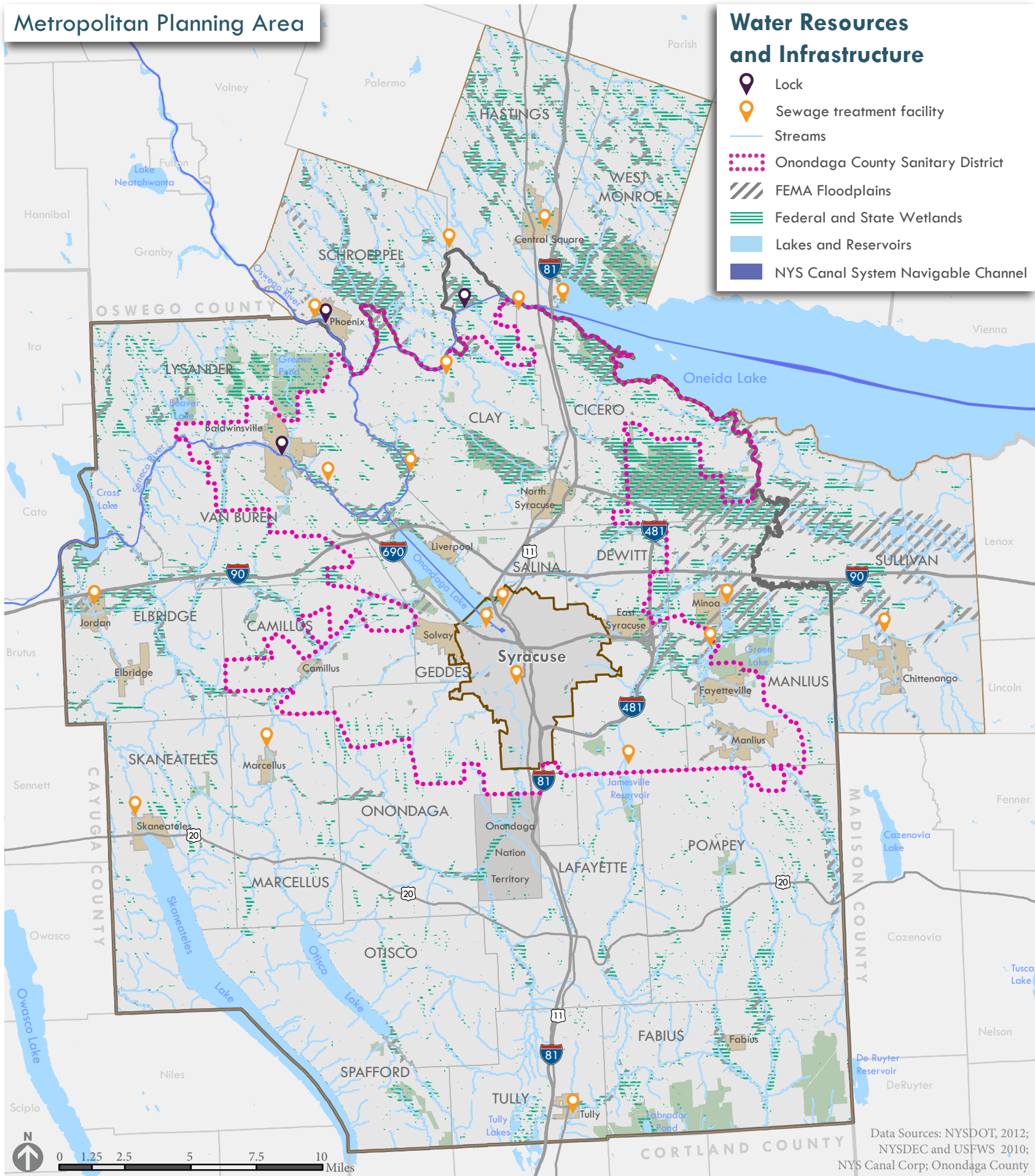


These maps show existing land use as identified by town, village, and city assessors. Note that “land use” is distinct from “zoning.” A zoning map reflects a community’s zoning ordinance and represents the preferred uses for parcels, whether or not those uses are currently present. A land use map shows the actual use of that land. Land use categories shown in these maps are based on New York State’s Property Type Classification Codes, a uniform set of land use categories used by assessors statewide.

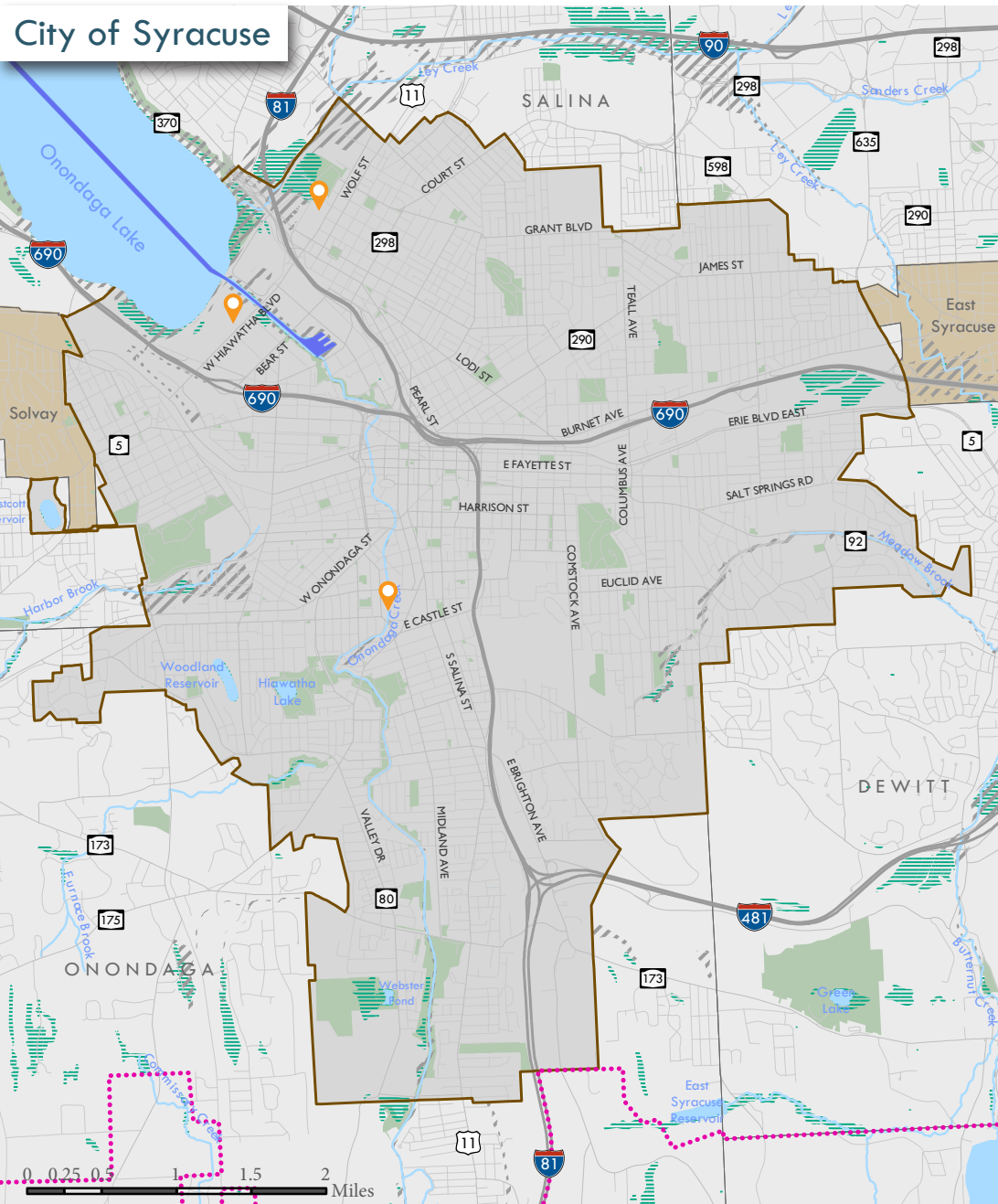
Nearly 60 percent of the land outside of the City of Syracuse falls into two land use categories: residential and agricultural. Residential uses surround the City of Syracuse and radiate outward from it along major transportation corridors. In the eastern, western, and southern parts of the MPA, homes give way to farmland as one gets farther away from the city. North of the city, the transportation infrastructure and flat topography have facilitated residential development. The Towns of Lysander, Clay, and Cicero gained more new residential units than other suburban towns between 2000 and 2010. The only other municipality to add over 1,000 new residential units during that period was the City of Syracuse.

Water Resources

- Many community plans seek to preserve water resources and provide public waterfront access.
- Since the late 1990s, the Onondaga County Sanitary District has expanded by more than 12,000 acres to facilitate proposed residential subdivisions, without accompanying regional population growth.
- The NYS Canal System continues to ship freight by barge, moving more than 96,000 tons in 2013.



Many of the recreational assets in our community are linked to our water resources, such as the Onondaga Creekwalk (above) and Oneida Shores County Park (right).



The MPA has a vast array of water resources that fulfill many functions. Local trails often run adjacent to waterways and waterfronts may present opportunities for economic development. Many local plans seek to preserve water resources and provide public access where appropriate.

Wetlands provide flood and stormwater control, filter pollutants, and provide wildlife habitat. Floodplains also provide a buffer between development and potentially-damaging floods. Protecting these natural resources is essential to maintaining the abundant, high-quality water that Central New Yorkers depend on for drinking and recreation. Encroachment of new development and increasing stormwater runoff created by impermeable surfaces, such as roads and parking facilities, can threaten our water resources.

The ability to effectively deal with wastewater influences the amount, density, and location of new development in our region. Access to Onondaga County's trunk sewer system is confined to properties located in the Sanitary District. However, according to the Onondaga County Sustainable Development Plan, the County has agreed to meet developers' requests to add more than 12,000 acres to the district to facilitate proposed residential subdivisions since 1998. This expansion occurred without accompanying regional population growth. At the same time, the aging infrastructure in the urban core and inner-ring suburbs continues to require ongoing and costly maintenance.

Waterways also provide a transportation function. The Syracuse MPA is the crossroads for the N.Y.S. Canal System, which extends to ports such as New York City, Buffalo, and Oswego. Although the Canal System is mostly used for recreational purposes, some freight shipping by barge still occurs. According to the NYS Thruway Authority and Canal Corporation, more than 96,000 tons of freight were shipped using the Canal System in 2013, which was a 124 percent increase from 2012.

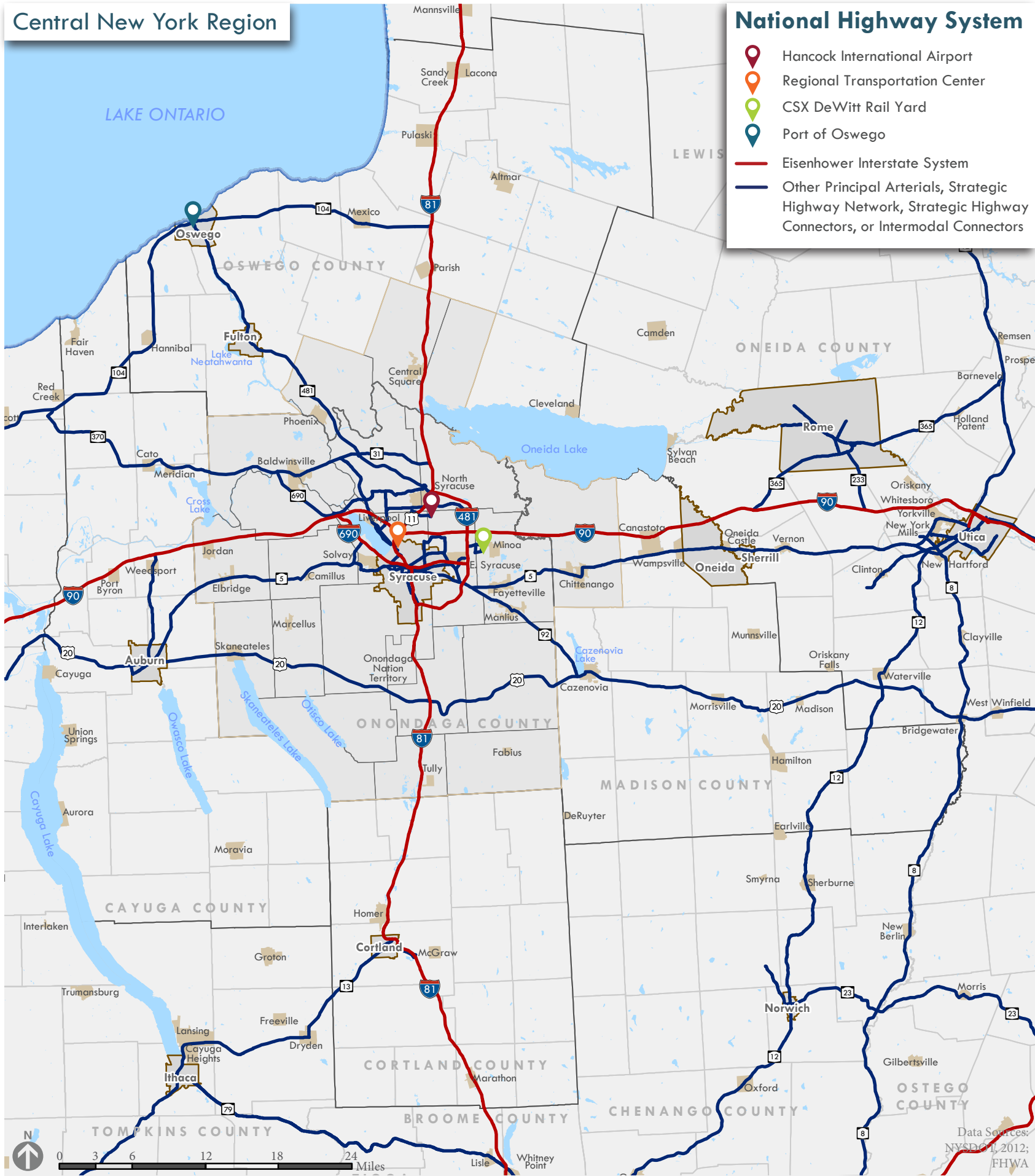


● **INFRASTRUCTURE**

- Interstates and National Highway System — 38
- Functional Class ————— 40
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Interstates and National Highway System

- The NHS consists of interstates and other key roadways that are important to the nation’s economy, defense, and mobility as determined by U.S. DOT in cooperation with states, local officials, and MPOs.
- Roads on the NHS are prioritized for receipt of federal transportation funding.
- In the SMTC planning area, 43 roads representing 292 centerline miles are included on the NHS.



Components of the National Highway System

The NHS consists of the following categories of roadways. Some roads may carry more than one classification.

Interstate: The Eisenhower Interstate System of highways retains its separate identity within the NHS.

Other Principal Arterials: These are highways in rural and urban areas which provide access between an arterial and a major port, airport, public transportation facility, or other intermodal transportation facility.

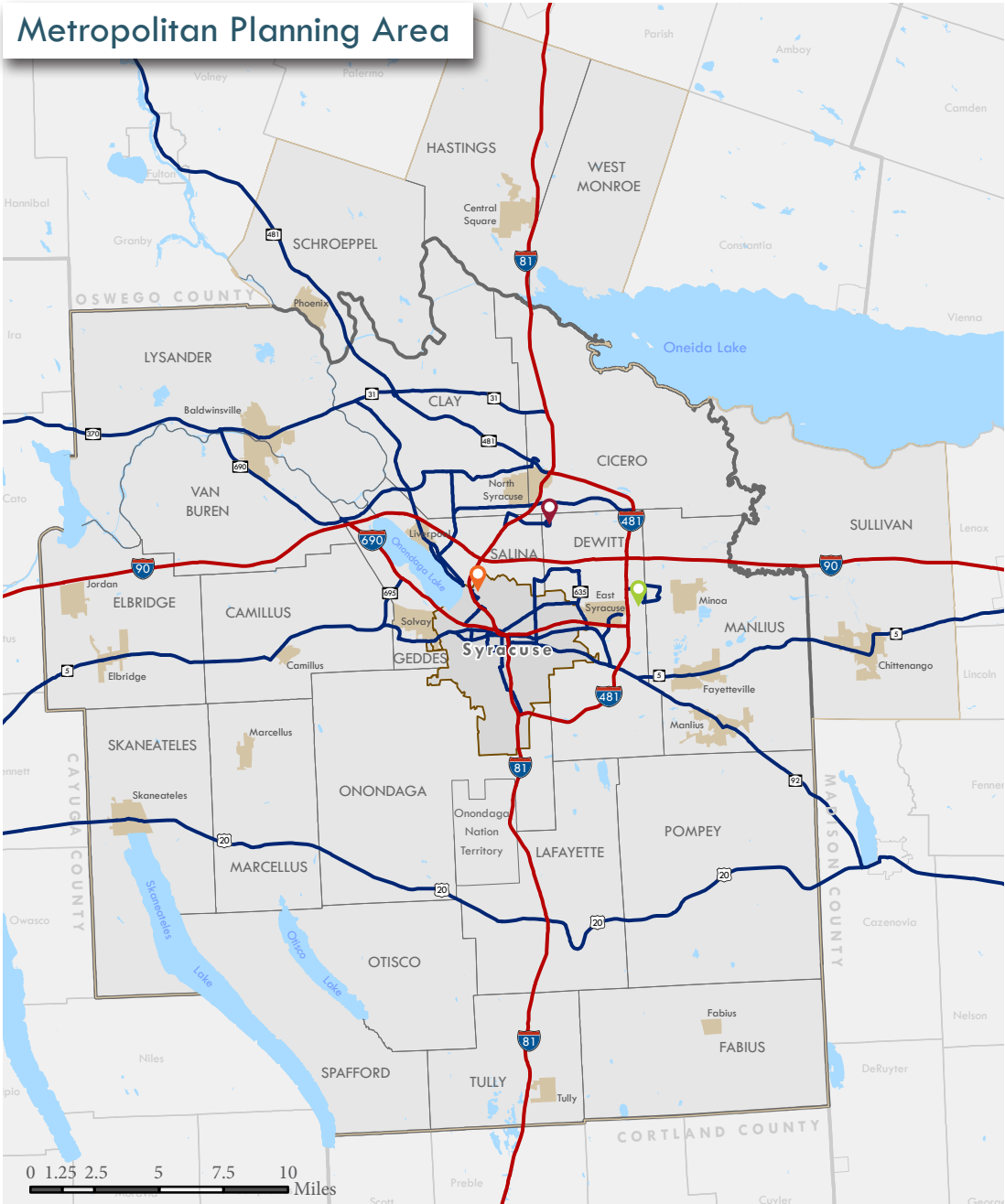
Strategic Highway Network (STRAHNET): This is a network of highways which are important to the United States’ strategic defense policy and which provide defense access, continuity and emergency capabilities for defense purposes.

Major Strategic Highway Network Connectors: These are highways which provide access between major military installations and highways which are part of the Strategic Highway Network.

Intermodal Connectors: These highways provide access between major intermodal facilities and the other four subsystems making up the National Highway System.



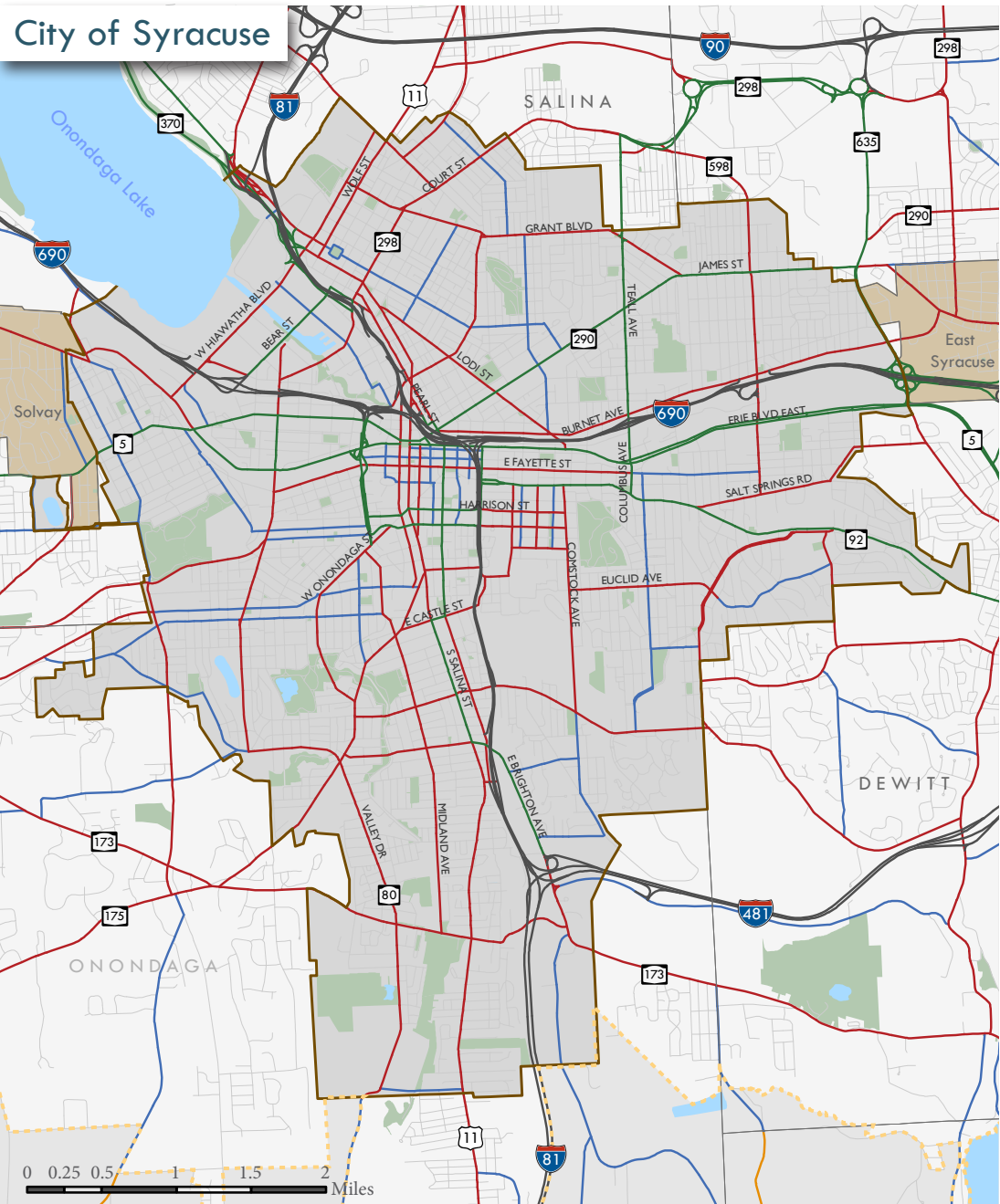
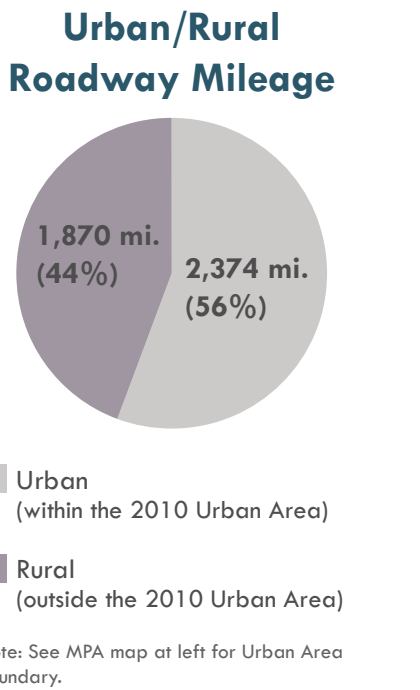
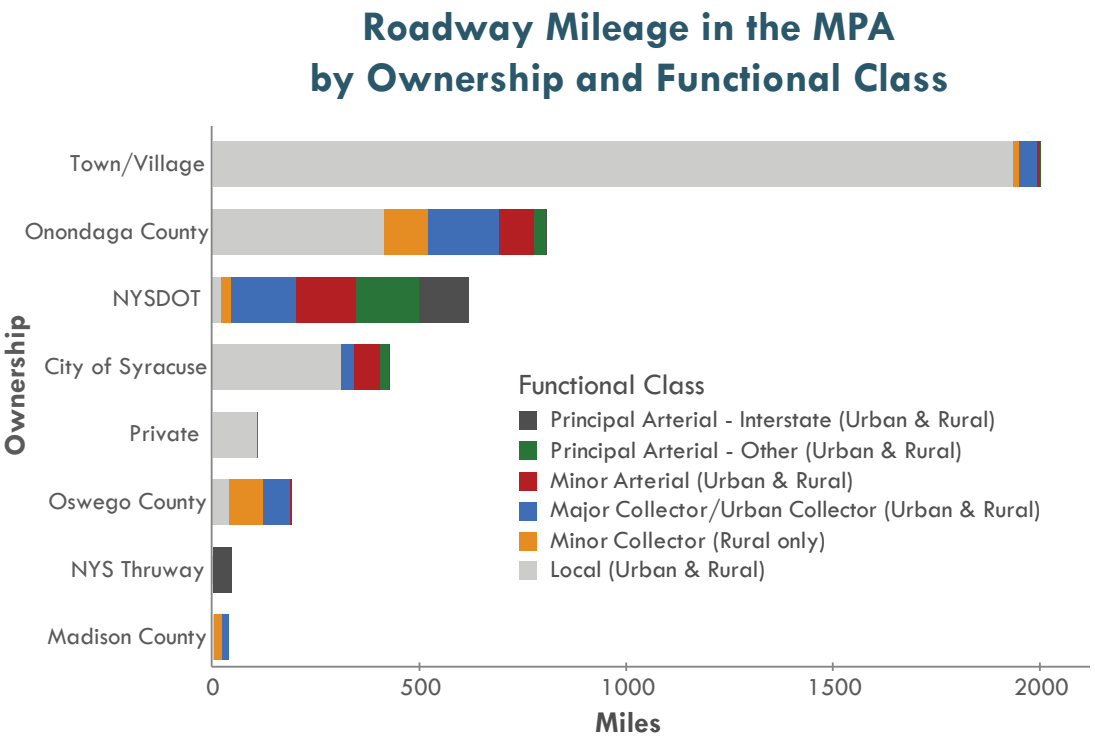
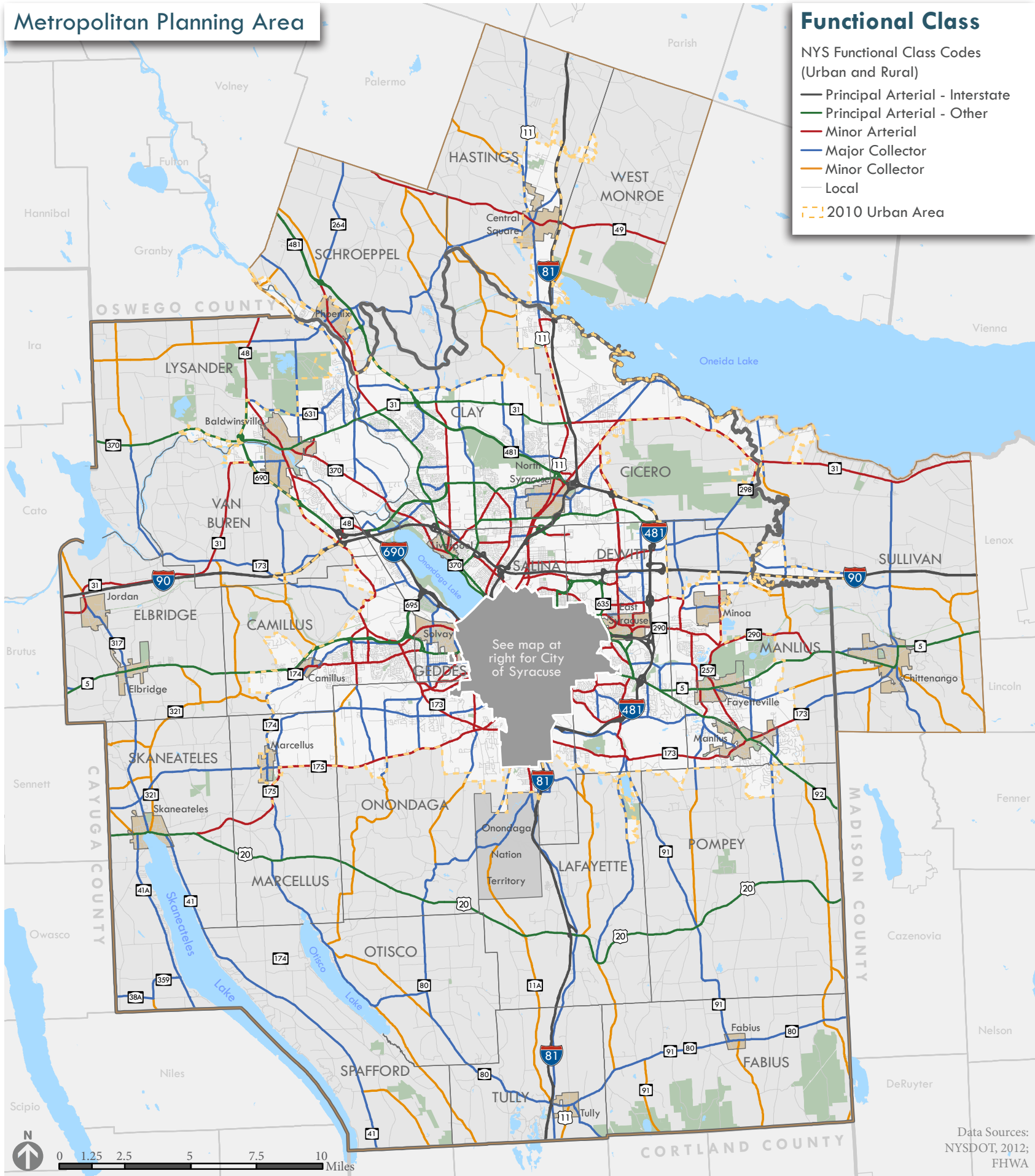
Traffic on Interstate 81 in the Town of Cicero.



Since Interstates 81 and 90 form the crossroads of Central New York, these primary facilities, along with Interstates 481 and 690 and several other roadways, are essential links to the local, regional and national transportation network known as the National Highway System (NHS). The NHS consists of roadways important to the nation’s economy, defense, and mobility and was developed by the US Department of Transportation (DOT) in cooperation with the states, local officials, and MPOs. Given the importance to the local, regional and national economy and mobility, the NHS roadways are prioritized, especially interstates, for receipt of federal transportation funding. The US DOT apportions funding through the National Highway Performance Program specifically for use on the NHS. Per the 2014-2018 Transportation Improvement Program, nearly \$162 million dollars has been programmed to several bridge or highway projects on the NHS inside the Metropolitan Planning Area. At the state level, in 2014, \$900 million dollars was apportioned. Within the SMTC planning area, 43 roads representing 292 centerline miles are included on the NHS.

Functional Class

- Functional Classification is the process by which roads are categorized according to the type of service they are meant to provide.
- Functional Class is directly related to federal aid-eligibility, which determines if a road can receive federal transportation funding.

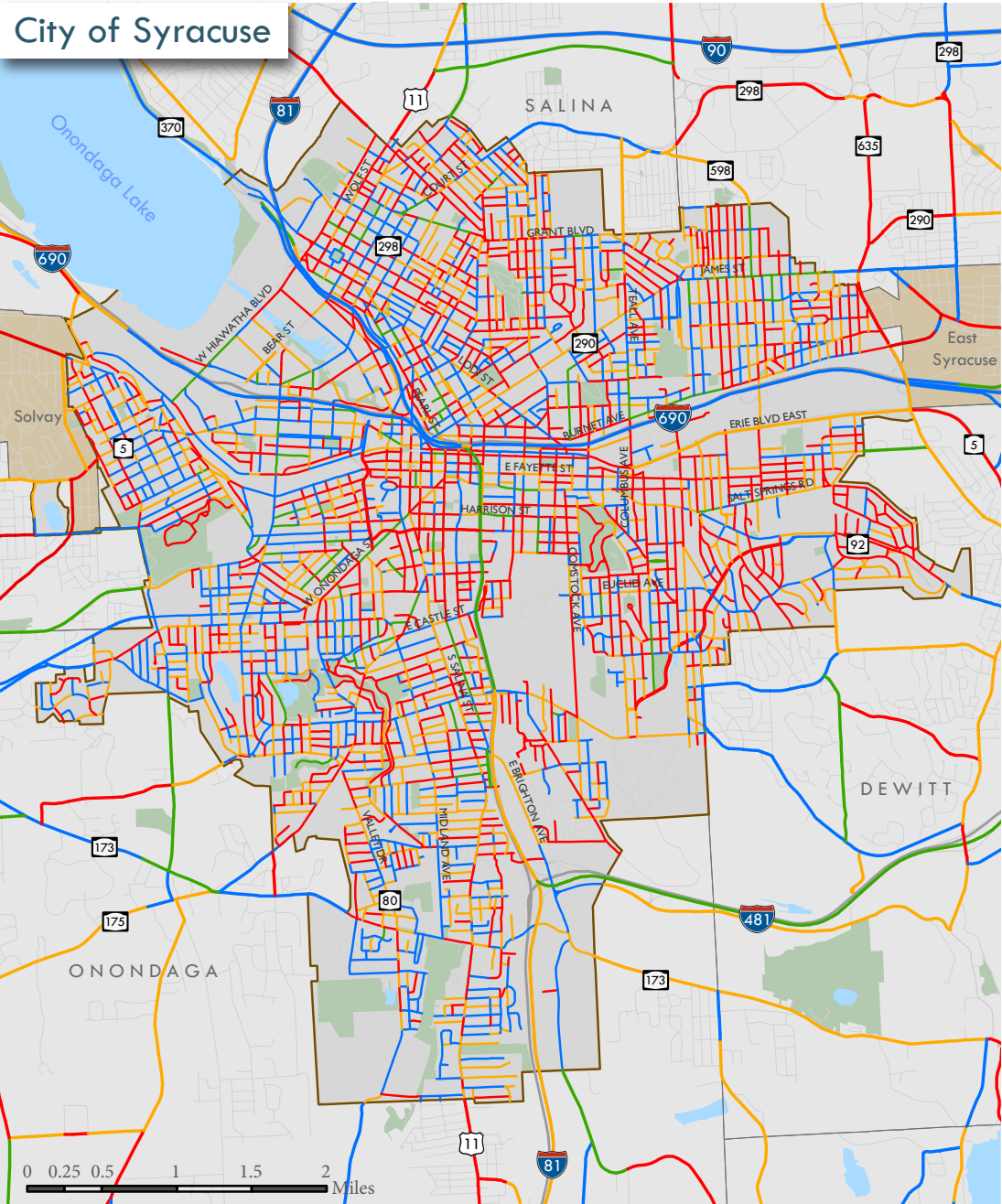
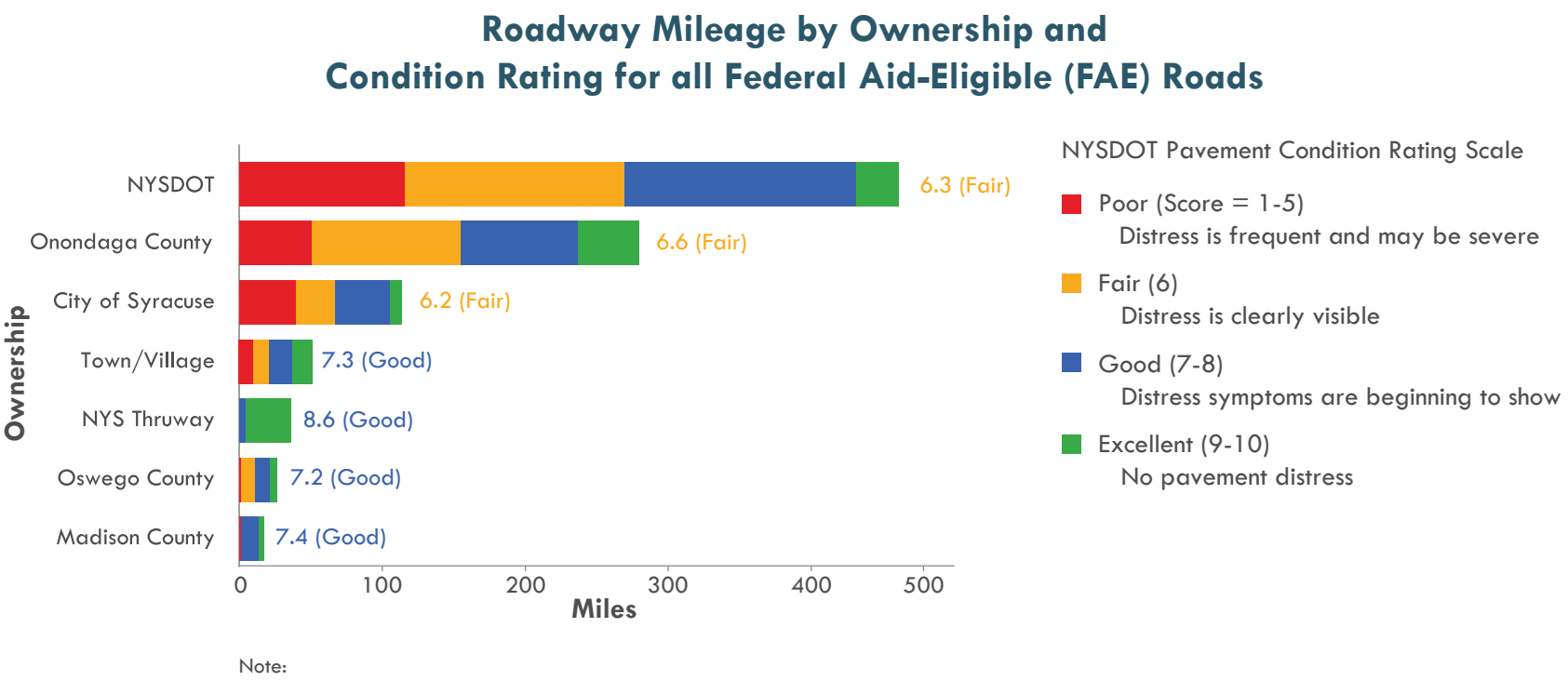
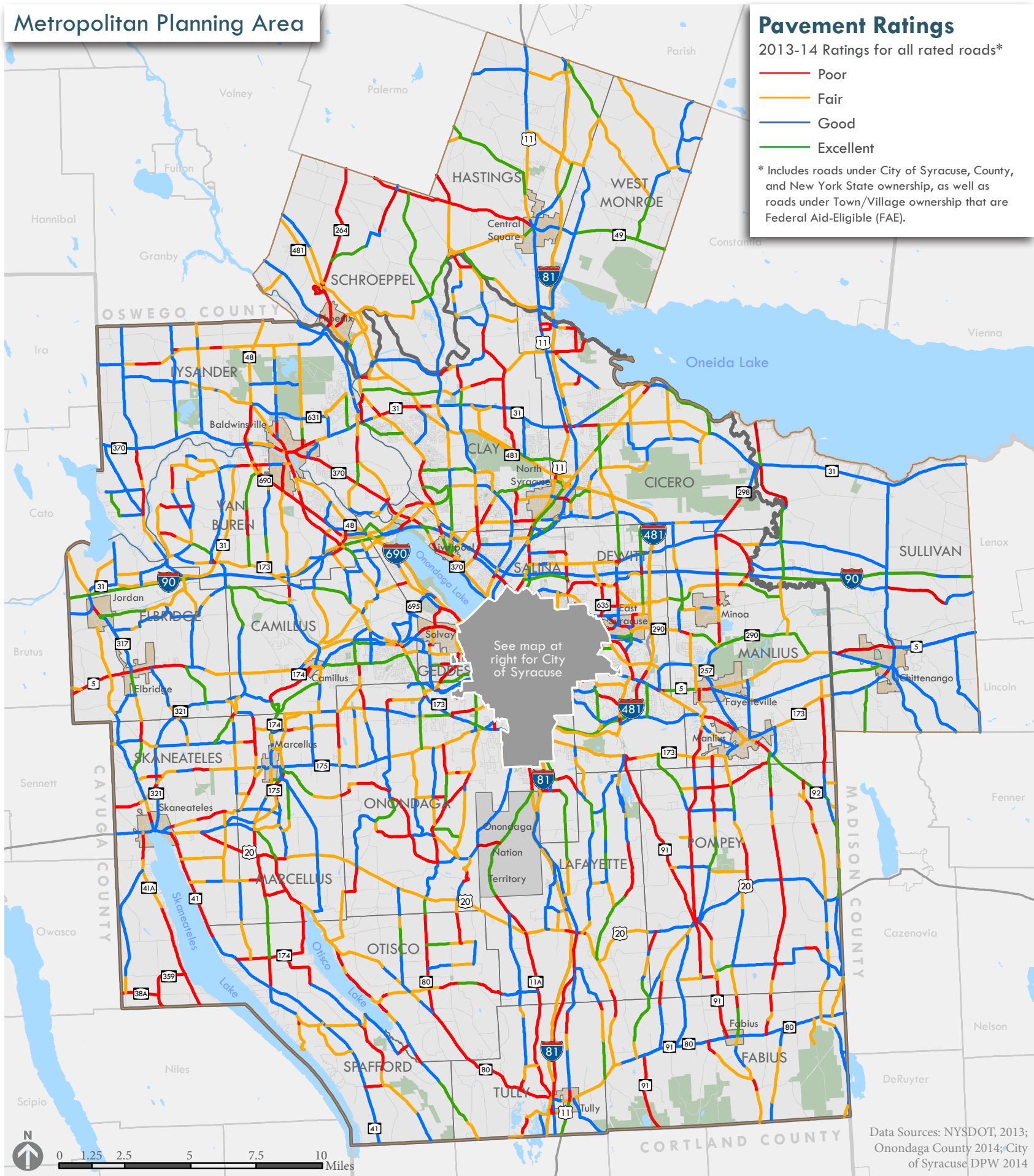


Functional classification, or “Functional Class,” categorizes roads according to their character and the role they play in the transportation network. This hierarchy ranges from high-speed Interstates for long-distance trips between cities to low-speed local roads providing access to individual properties. In between are arterials, which provide a high level of mobility for longer trips within the region, and collector roads, which connect traffic traveling between local roads and arterials or Interstates. Roads are also identified as being urban or rural. For example, within Onondaga County, Interstate 81 inside of the SMTC’s urban area boundary is considered an Urban Principal Arterial; outside of the urban area boundary, I-81 is considered a Rural Principal Arterial.

Functional classifications are directly related to federal-aid eligibility, which determines whether a road may receive federal transportation funding. Federal-aid eligible status is given to those roads that provide critical connections within or between communities. Minor Collectors and Local roads (both urban and rural) are not federal-aid eligible.

Pavement

- Pavement is rated on a scale from 1 (Poor) to 10 (Excellent).
- In the 2013-2014 rating cycle, the average pavement rating for all rated roads in the MPA was 6.5 (Fair).
- A significant portion of Transportation Improvement Program funds - 41% in the 2014-2018 program - are programmed to pavement projects.

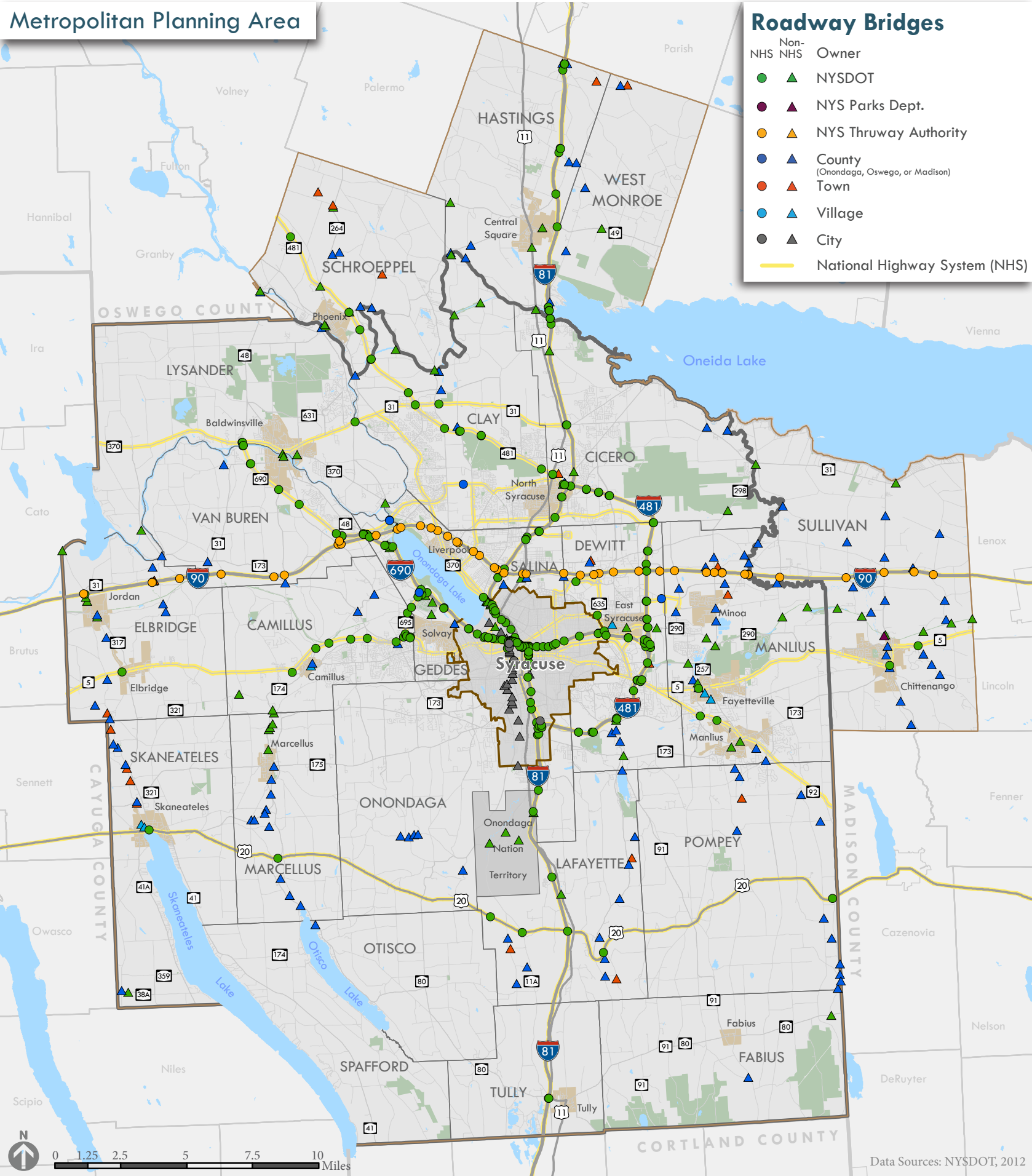


The City of Syracuse, Onondaga County, the NYSDOT, and the New York State Thruway Authority each complete a pavement management system on a yearly basis. The rating scale used for each of these jurisdictions is based on the NYSDOT scale, as described in the above graphic. Towns and villages do not rate their own roads; the NYSDOT rates all of the federal-aid eligible (FAE) roads under town and village ownership in the MPA.

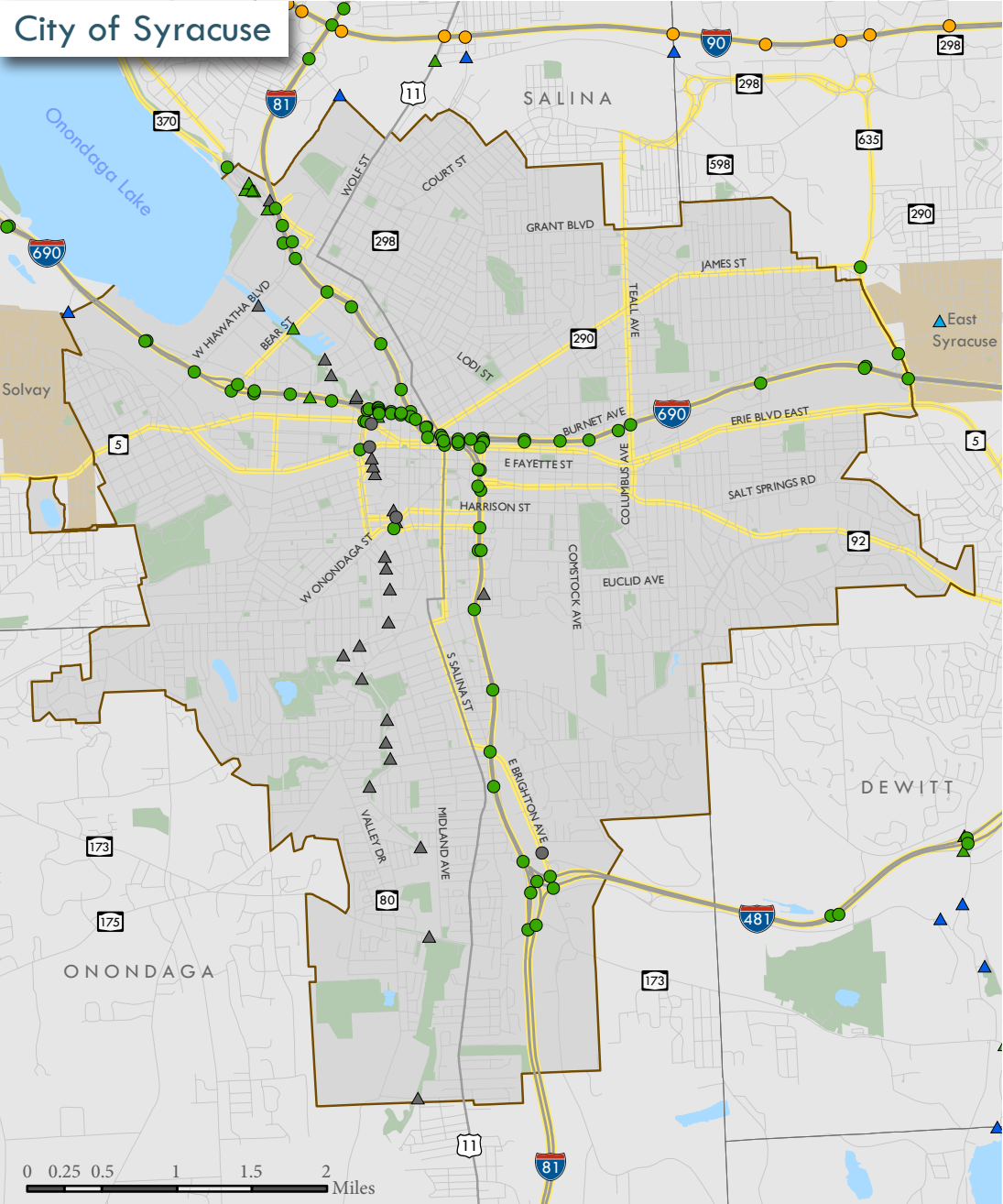
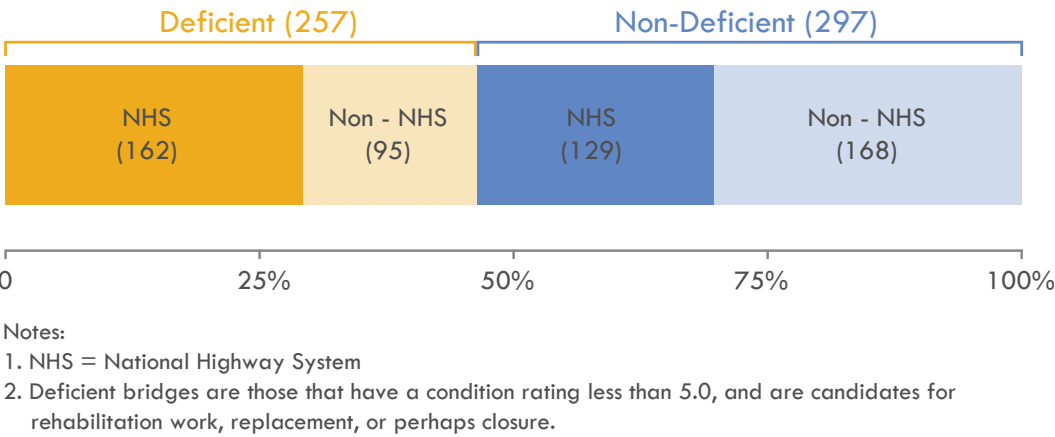
During the 2013-2014 rating cycle, the average pavement rating for all rated roads in the MPA (totaling 1,895 miles) was 6.5, or Fair; the average rating for all Federal Aid-Eligible (FAE) roads (totaling 988 miles) was 6.6, also Fair. From 2009 to 2012, the average pavement rating declined from 7.1 to 6.3, then increased to 6.6 before going back down to 6.5 this year. Pavement maintenance is the category that receives the biggest portion of Transportation Improvement Program (TIP) funds; in the 2014-2018 TIP, 41 percent of funds were programmed to pavement projects.

Bridges

- Bridges are rated by the NYSDOT at least once every two years.
- The MPA has 554 bridges, 46% of which are considered deficient.
- A significant portion of Transportation Improvement Program (TIP) funds - nearly 40% in the 2014-2018 TIP - are programmed to bridge projects.



Deficient and Non-Deficient Bridges in the MPA (554 total bridges)

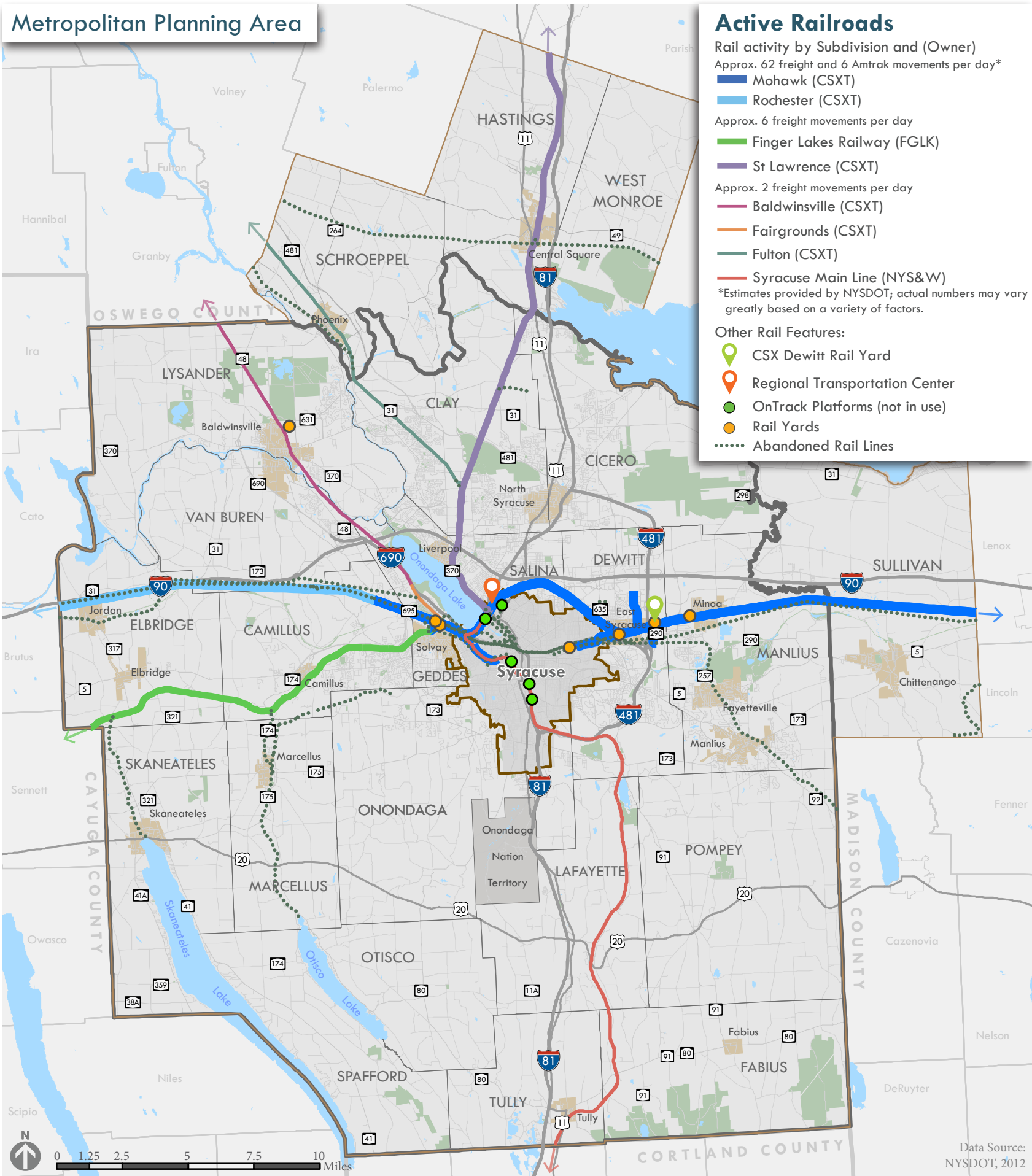


The New York State Department of Transportation (NYSDOT) defines a bridge as a structure that is erected over a depression or an obstruction (such as water), and that has a track or passageway for carrying public traffic. As of the 2011-2012 rating cycle, the MPA has a total of 554 bridges that are owned by a variety of local, county, and state jurisdictions. According to NYSDOT, each element of every bridge span in the state is inspected at least once every two years on a scale from 1.0 to 7.0. A bridge's condition rating is the weighted average of the scores given to its components during inspection. Bridges with a condition rating between 5.0 and 7.0 are considered non-deficient, which means that no bridge distress has been identified. Bridges with a condition rating less than 5.0 are considered deficient, and are candidates for rehabilitation work, replacement, or perhaps closure. The average rating for bridges in the MPA was 5.17 in 2011-2012, and the median condition rating was 5.09.

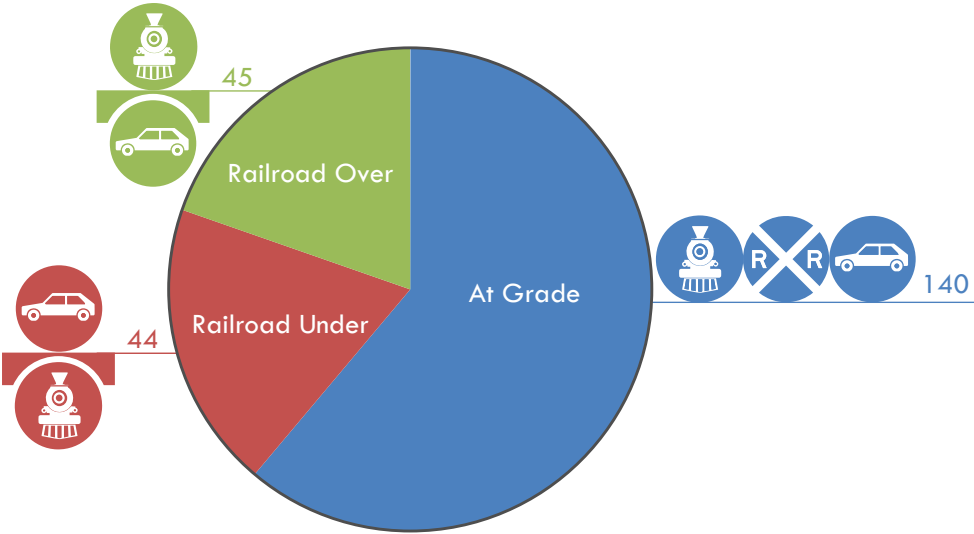
SMTC has been tracking the percentage of deficient bridges for several years, and it has generally been increasing. During the 2005-2006 rating cycle, the percentage of deficient bridges was 36 percent, compared to 46 percent in 2011-2012 (note that since the MPA has expanded during this time, the comparison is not one-to-one). A significant portion of Transportation Improvement Program (TIP) funds are devoted to maintaining bridges in our region; for the most recent TIP (2014-2018), 39 percent of funds have been programmed to bridge projects. Bridges on the National Highway System (NHS) are prioritized for federal funding.

Rail Facilities

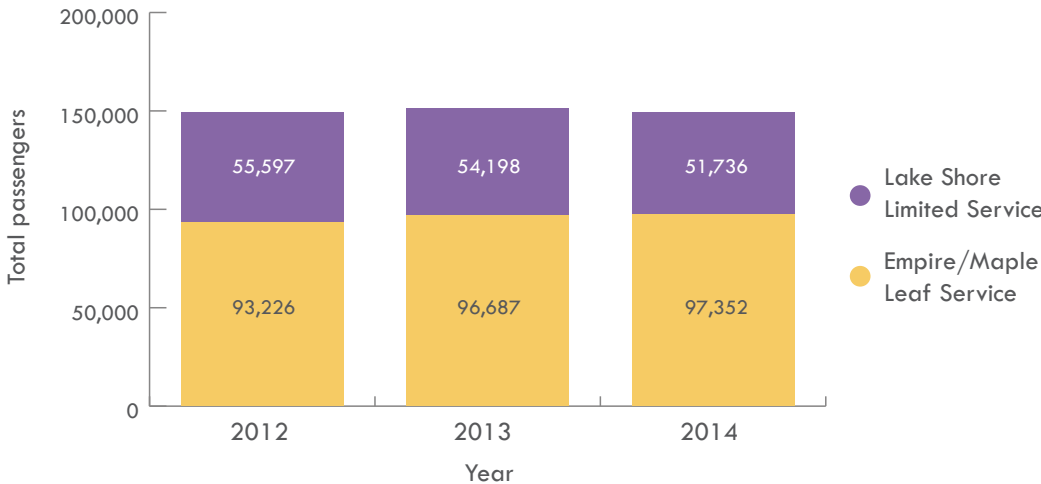
- CSX (Class I) operates 82% of the total mileage of active rail lines that run within the MPA.
- The CSX intermodal terminal at the DeWitt Rail Yard is a major facility that serves the Northeast and is the only facility of its type between New York City and Buffalo.
- Passenger rail service is provided by Amtrak at the Regional Transportation Center on the CSX mainline.



Types of Rail Crossings in the MPA



Total Amtrak Activity (boarding & detraining passengers) at Syracuse Station



Note: The Lake Shore Limited provides daily service from Boston/New York City to Chicago. Multiple trains per day provide the Empire Service from New York City to Niagara Falls, NY, and the Maple Leaf Service extends to Toronto, Canada.
Source: National Association of Railroad Passengers, 2015



Cargo containers stacked on rail cars at CSX's DeWitt Rail Yard. Looking east from Fremont Road bridge (a.k.a. Ratnour Bridge).

There are 305 miles of active rail lines within the MPA with 251 miles categorized as Class I, 31 miles classified as Class II, 23 miles as Class III, and about a mile of terminal lines. There are approximately 70 railroad bridges. Of these, road owners own 34 and railroad owners own 36. Additionally, there are 140 at-grade crossings.

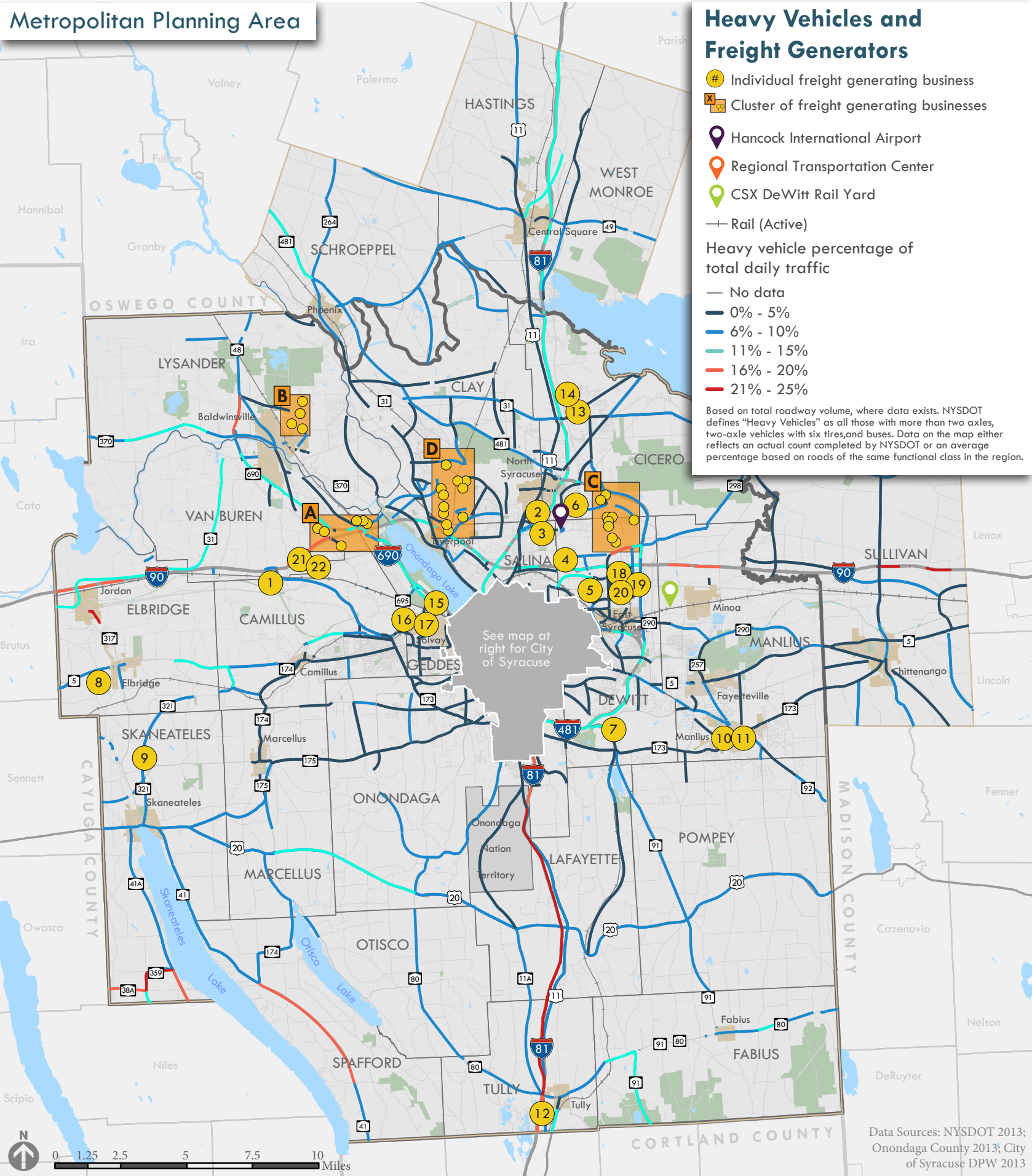
Rail passenger service is provided by Amtrak at the William F. Walsh Regional Transportation Center (RTC). Amtrak provides intercity service on three routes: Lake Shore Limited, Empire Service, and Maple Leaf. OnTrack operated passenger shuttles from 1994 to 2007 to and from Downtown, Destiny USA, and Syracuse University. OnTrack service has since been discontinued, but the infrastructure, which includes 6 railroad stations, is still in place.

For freight, there is one major (Class I) carrier, CSX Transportation; one regional (Class II) carrier, New York, Susquehanna & Western Railway (NYS&W); and one shortline (Class III) railroad, Finger Lakes Railway. CSX operates the Chicago Main line that links Central New York with New York City, New England, and the Midwest. The Baldwinsville, Fulton, and St. Lawrence Subdivision lines north of Syracuse are operated by CSX as well, with the St. Lawrence Subdivision being the gateway to Montreal and Canada. The NYS&W interchanges with CSX in Syracuse and with Norfolk Southern Railway and the Canadian Pacific Railway in Binghamton. The Finger Lakes Railway operates between Solvay and Geneva. It has an interchange with CSX in Solvay and an interchange with the Norfolk Southern in Geneva.

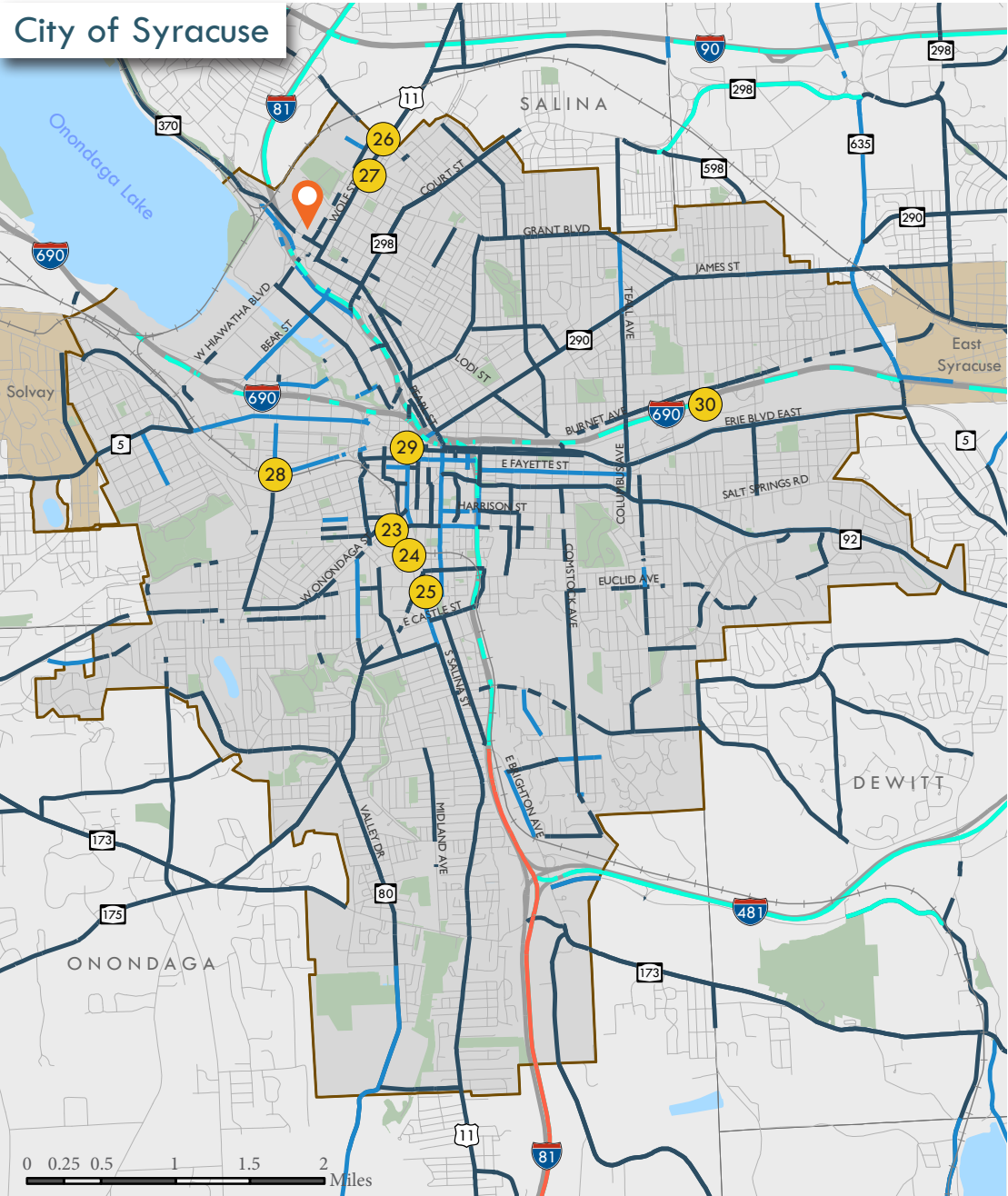
CSX also operates the intermodal terminal at the DeWitt Rail Yard, which is a major intermodal facility that handles international containers to/from Chicago, domestic containers, and "trailer on flat car;" it is the only terminal of its type between New York City and Buffalo. The DeWitt Yard is also one of three major classification yards operated by CSX in New York State.

Freight

- Many businesses that ship goods by truck are located in the northern half of Onondaga County.
- Heavy vehicles make up 10% or less of the total traffic volume on most roads in the MPA.
- Most of the local interstate system experiences 11% to 15% heavy vehicles. However, some sections, such as I-81 south of the City of Syracuse, experience higher percentages.



- # Freight generating businesses
- | | | |
|------------------------------|----------------------------------|-------------------------------------|
| 1 Sysco Food Services | 11 L & JG Stickley | 21 Mobil Oil Corp. |
| 2 US Postal Service | 12 Aldi | 22 Sunoco, Inc. |
| 3 Mohawk Global Logistics | 13 Clinton's Ditch Co-Op | 23 Byrne Dairy |
| 4 Bossong's Delivery | 14 Paul deLima (Factory Store) | 24 Hanford Pharmaceuticals |
| 5 Singer Transport | 15 Crucible Materials | 25 Coyne Textile Services |
| 6 Riccelli Enterprises | 16 Frazer & Jones Co. | 26 Crouse-Hinds, Cooper Industries |
| 7 Hanson Aggregates | 17 RockTenn Corrugated Pkg. | 27 Syracuse Packaging International |
| 8 Tessa Plastics | 18 Spirit & Sanzone Distributors | 28 Amerada Hess Corp. |
| 9 Welch Allyn | 19 INFICON | 29 C. H. Robinson Worldwide |
| 10 FM Sales and Distribution | 20 Anaren Microwave | 30 Kilian Manufacturing |
- Clusters of freight generating businesses
- A Thruway/I-690 Interchange**
Americold Logistics
Coca Cola Bottling Co.
FedEx Ground
Gypsum Wholesalers
JB Hunt
Terpening Trucking
- B Radisson Corporate Park**
Ainsley Superior
Anheuser-Busch
Gypsum Express
McLane Northeast
- C Northern Blvd Industrial Area**
ABF Freight System
BBX
Con-Way Freight
Federal Express
Ince Motor Freight
New England Motor Freight
New Penn Motor Express
Swift Transportation Co.
UPS
- D Woodard Industrial Park**
Barrett Paving Materials
Dot Foods
Eagle Comtronics
Onondaga Beverage
Packing Corp. of America
Pioneer Warehousing and Distribution
Raymour & Flanigan Furniture
RiteAid
Rotondo Warehouse
TJ Sheehan Distributing
Paul deLima (Corporate Address)



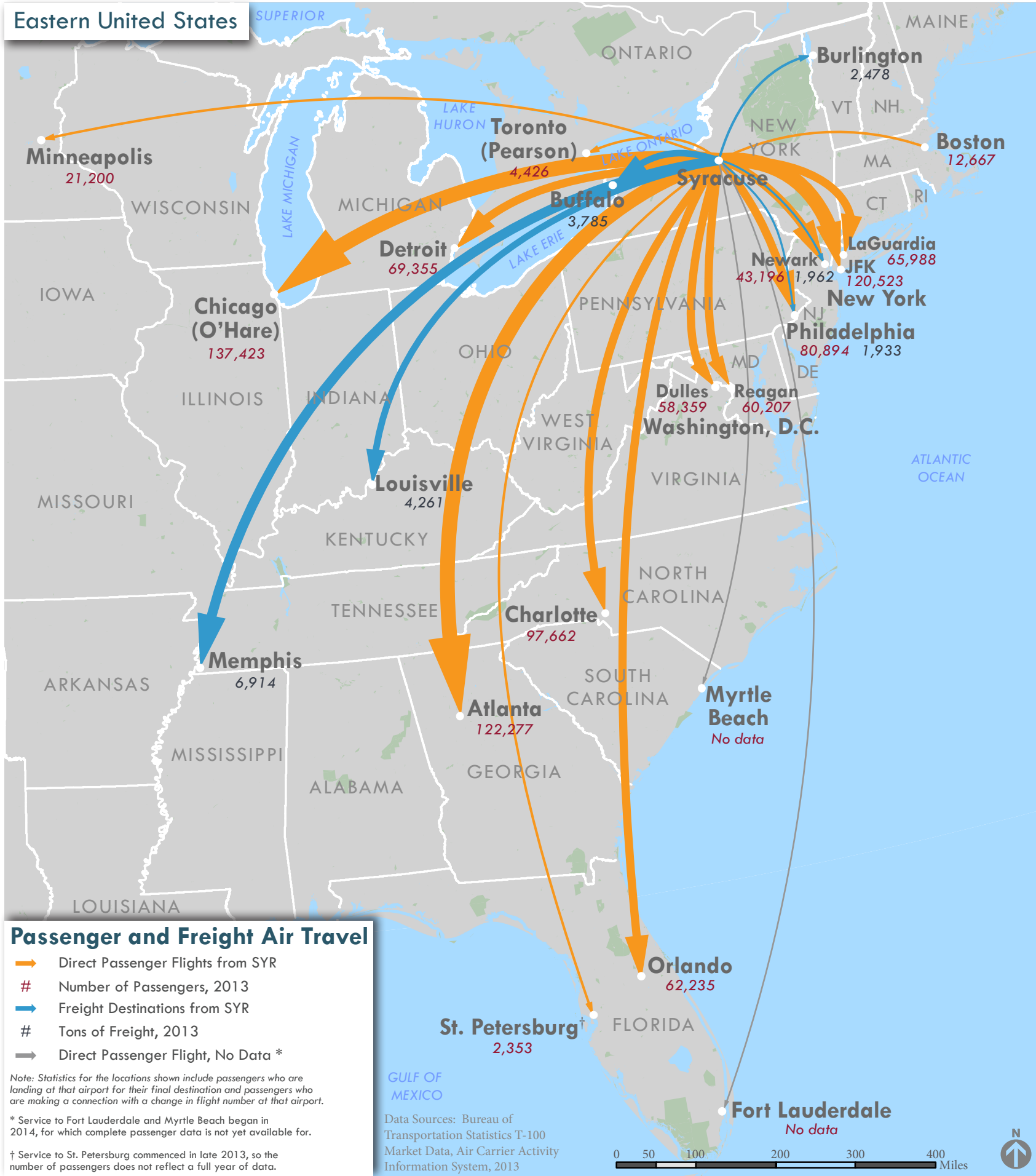
The SMTC, with input from NYSDOT and CenterState CEO, identified 60 large businesses within the MPA that generate multiple daily truck shipments. These “freight generating businesses” include establishments such as goods manufacturers, food processors, and warehouses. Retail establishments, shopping malls, restaurants, and similar establishments within our region that may send or receive a daily shipment or two of goods were not included in this inventory.

Most of the freight-generating businesses in our planning area are distributed throughout the northern half of Onondaga County, with a few businesses at the southern and western fringes of the county. Four clusters of freight-generating businesses are apparent: near the NYS Thruway/I-690 interchange at John Glenn Boulevard; the Radisson Corporate Park in Lysander; along Northern Boulevard in Cicero; and the Woodard Industrial Park along Morgan Road in Clay.

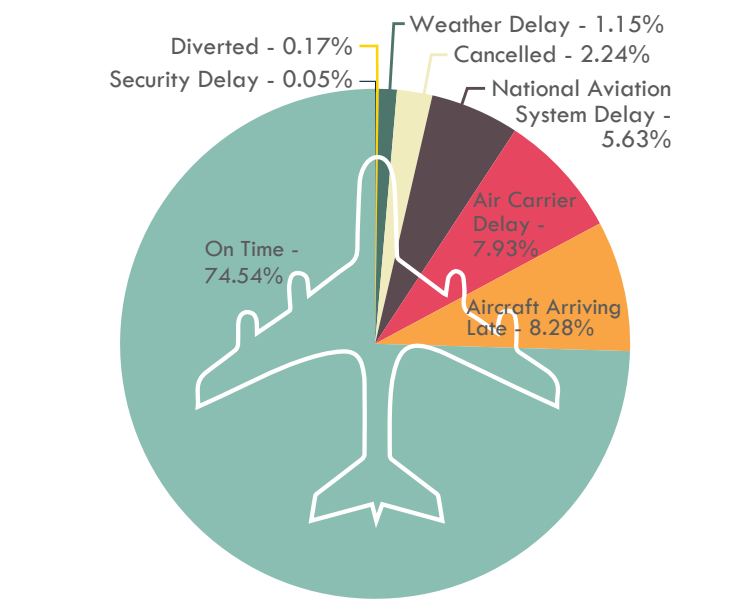
The maps show heavy vehicle volumes as a percentage of total daily roadway traffic. The majority of highlighted roadways (those with data available) experience heavy vehicle volumes of 5 percent or less. This includes many roadways within the City of Syracuse. The majority of the local interstate system experiences 11 percent to 15 percent heavy vehicles; however, Interstate 81 south of the City of Syracuse experiences heavy vehicle volumes in excess of 20 percent of total traffic, and portions of the NYS Thruway exceed 15 percent heavy vehicle traffic. Rural areas in the southern half of Onondaga County and in rural portions of Oswego County tend to have heavy vehicle volumes between 6 percent and 10 percent, but occasionally have higher percentages of heavy vehicles.

Air Travel

- The top three air cargo destinations from Syracuse are Memphis, Louisville, and Buffalo.
- The top three single airport destinations for passenger flights from Syracuse are Chicago (O'Hare), Atlanta, and New York (JFK).
- Approximately three out of four flights into Syracuse arrive on time.



On-Time Arrival Performance, 2013



Planes Landing in SYR, by Year

Year	Number of Landings
2005	28,651
2006	23,490
2007	21,815
2008	21,231
2009	19,340
2010	19,341
2011	17,741
2012	21,858
2013	21,060
2014	20,276

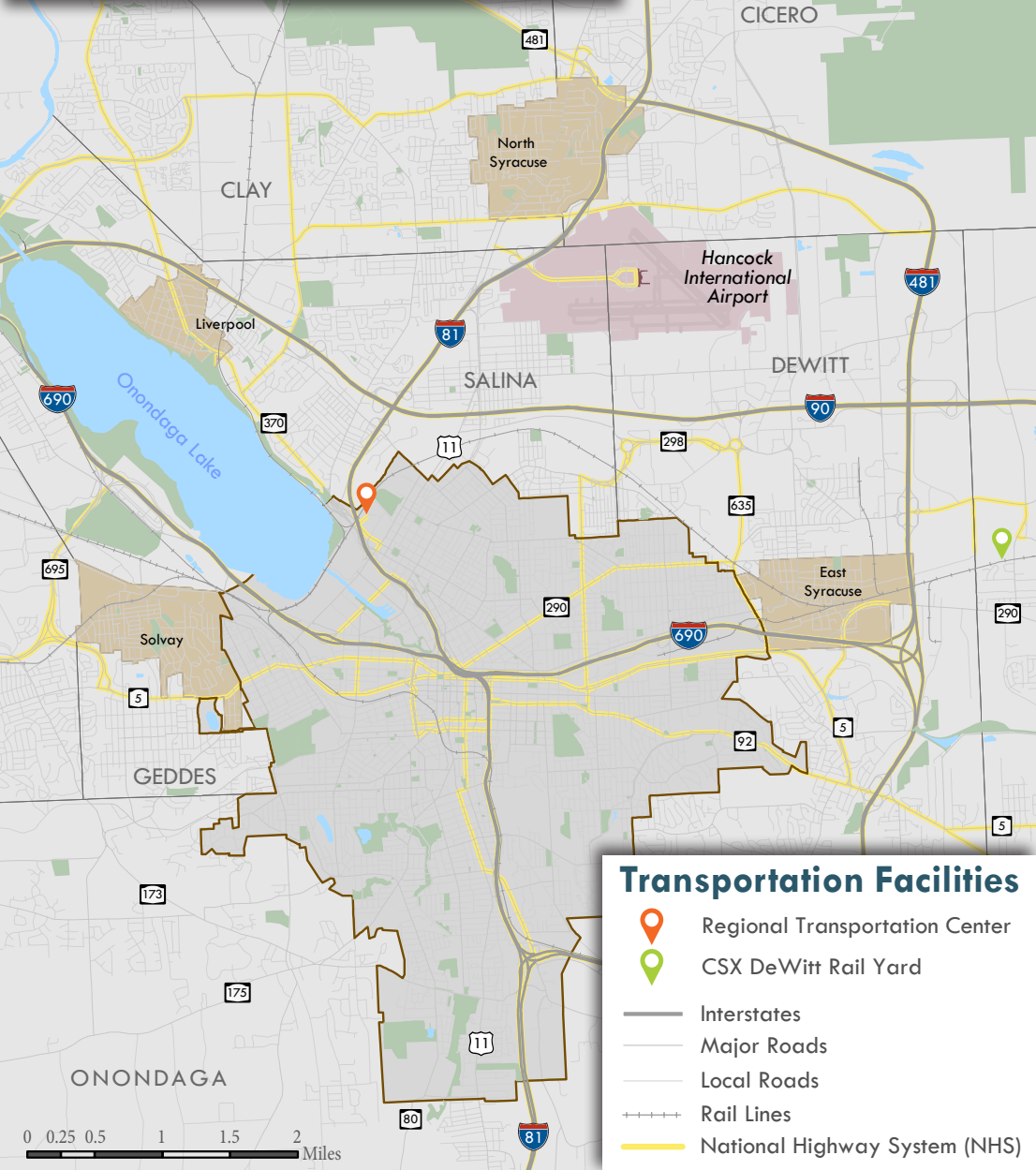
The Syracuse Hancock International Airport (Hancock) provides service to several passenger and air cargo destinations across the northeast. The airport has two usable runways, measuring 9,003 ft. and 7,500 ft. in length (each 150 ft. wide). A third runway has been permanently closed. With nearly one million passenger enplanements in 2013, the Federal Aviation Administration classifies Hancock as a medium hub. The top three single airport destinations from Syracuse, by total passengers (including those reaching their final destination and those making a connection), are Chicago O'Hare, Atlanta, and JFK airport in New York. However, New York City is the most common destination when the other two airports in the region (Newark and LaGuardia) are considered; nearly 230,000 passengers flew from Syracuse to one of the three New York City airports in 2013.

In 2013, Hancock ranked 87 out of the 559 commercial service airports in the U.S. for passenger enplanements. (For comparison, Rochester and Albany, ranked 81 and 82, respectively.) A total of 162,500 tons of air cargo landed at Hancock in 2013, which was a 2.76 percent increase from 2012. Of the 129 cargo service airports in the U.S., Hancock ranked 68 based on weight of air cargo landings, while Rochester and Albany ranked 73 and 99 respectively.

During the past decade, the number of planes landing at Hancock fluctuated widely from a 2005 high of 28,651 landings to a 2011 low of 17,741. Three-quarters of all flights arrive on-time. Aircraft arriving late, air carrier delays, and national aviation system delays result in more than 21 percent of the late arrivals, with weather delays accounting for only one percent of late arrivals.

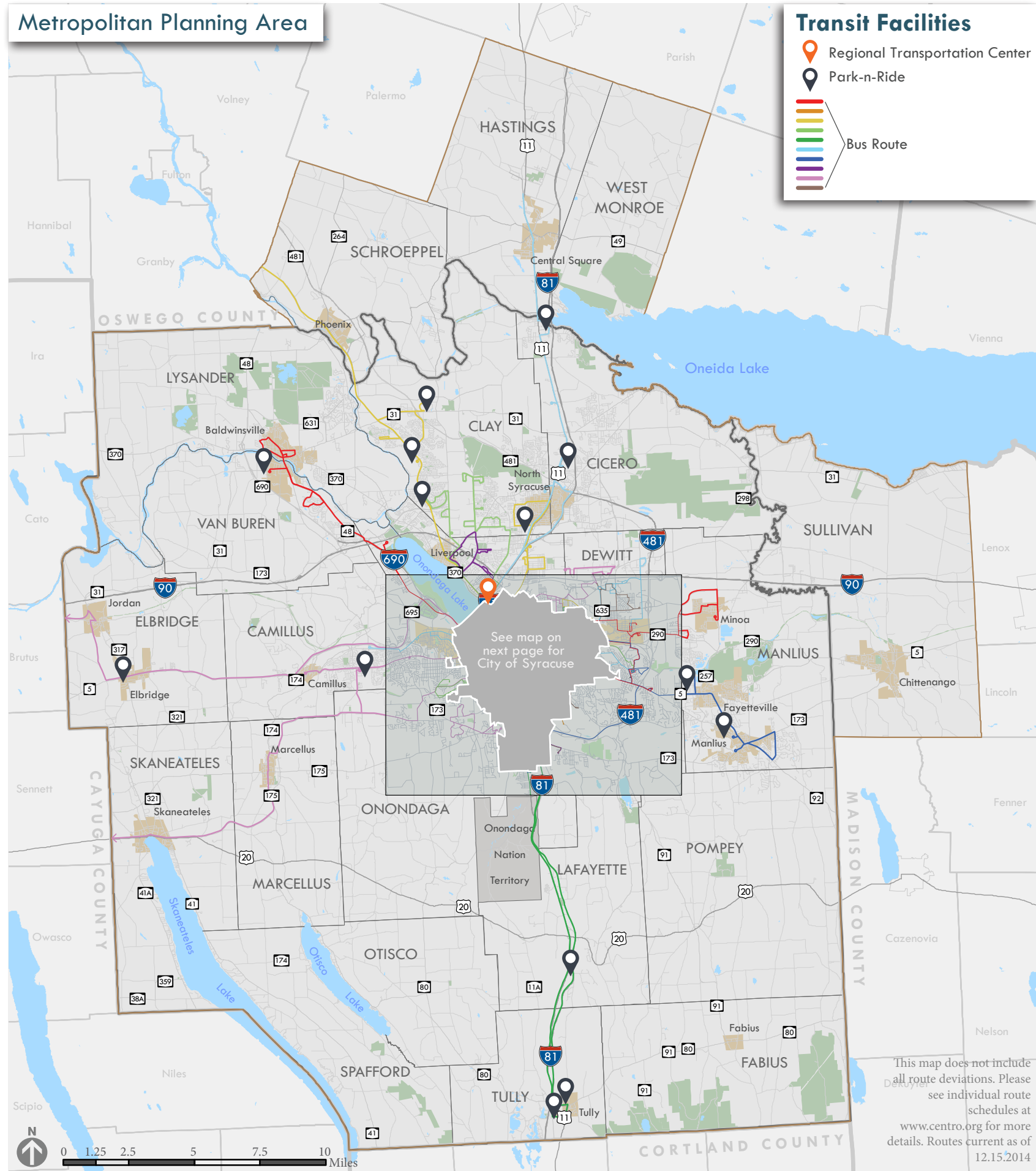
Hancock is located approximately 7 miles north of downtown Syracuse. Hancock's main entryway, Colonel Eileen Collins Boulevard, connects directly to Interstate 81 approximately three miles north of the I-81 interchange with the New York State Thruway (I-90).

City of Syracuse and Airport Vicinity

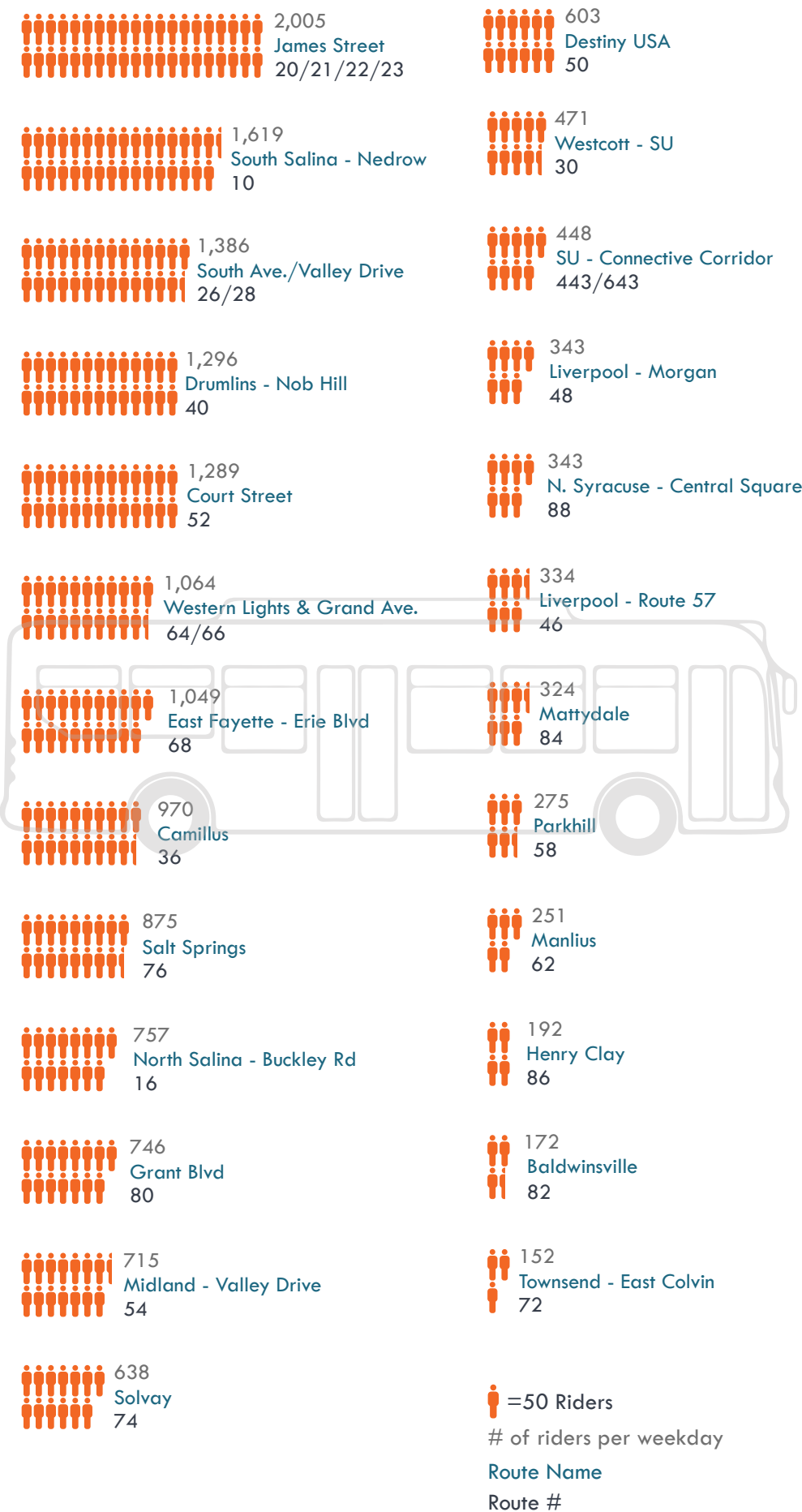


Transit

- Over 18,000 people ride the primary Centro bus routes on an average weekday in the Syracuse area.
- All Centro routes in the region run to and from the Centro Transit Hub in Downtown Syracuse.
- Weekday bus ridership is highest on the routes that serve City of Syracuse neighborhoods and adjacent sub-urbs; the James Street corridor has the highest daily bus ridership.



Average Weekday Ridership by Centro Route (2013)



Source: Centro

Note: This figure does not include ridership on special routes for the New York State Fair, the Syracuse City School District, Syracuse University and hospital shuttles, or paratransit.

The Central New York Regional Transportation Authority (Centro) provides public transit service in Onondaga, Oswego, Cayuga, and Oneida Counties. Centro's Transit Hub in Downtown Syracuse opened in 2012; all of Centro's bus routes in the Syracuse area originate at and return to the Hub.

Bus routes run along all of the major transportation corridors in the City of Syracuse, including Genesee Street, Erie Boulevard, Salina Street, Midland Avenue, South Avenue, James Street, Court Street and Wolf Street. In some cases, numerous Centro bus routes run along a corridor.

Destinations served in and around the city include the William F. Walsh Regional Transportation Center, LeMoyne College, Onondaga Community College (OCC), Bryant and Stratton College, DestinyUSA, Shoppingtown Mall, and Great Northern Mall. Centro also has multiple bus routes that serve the Syracuse University area, including a free bus route developed in partnership with the university known as the "Connective Corridor." Buses on the Connective Corridor run between Syracuse University and Downtown Syracuse every 30 minutes during weekdays and every 40 minutes on weekends.

Over 18,000 people ride the Centro bus routes shown here on an average weekday in Onondaga County. Total annual ridership is nearly 10 million passengers, including all the routes shown as well as service for the New York State Fair (approximately 500,000 passengers), the Syracuse City School District (approximately 1.2 million passengers), Syracuse University and hospital shuttles (nearly 2 million), and other special services such as paratransit. The most heavily used bus routes in the region are those that provide service in the City of Syracuse and adjacent suburbs. The James Street routes have the highest total ridership in the region with 2,000 riders daily; buses on James Street serve the Sedgwick, Lincoln Hill, and Eastwood

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Transit

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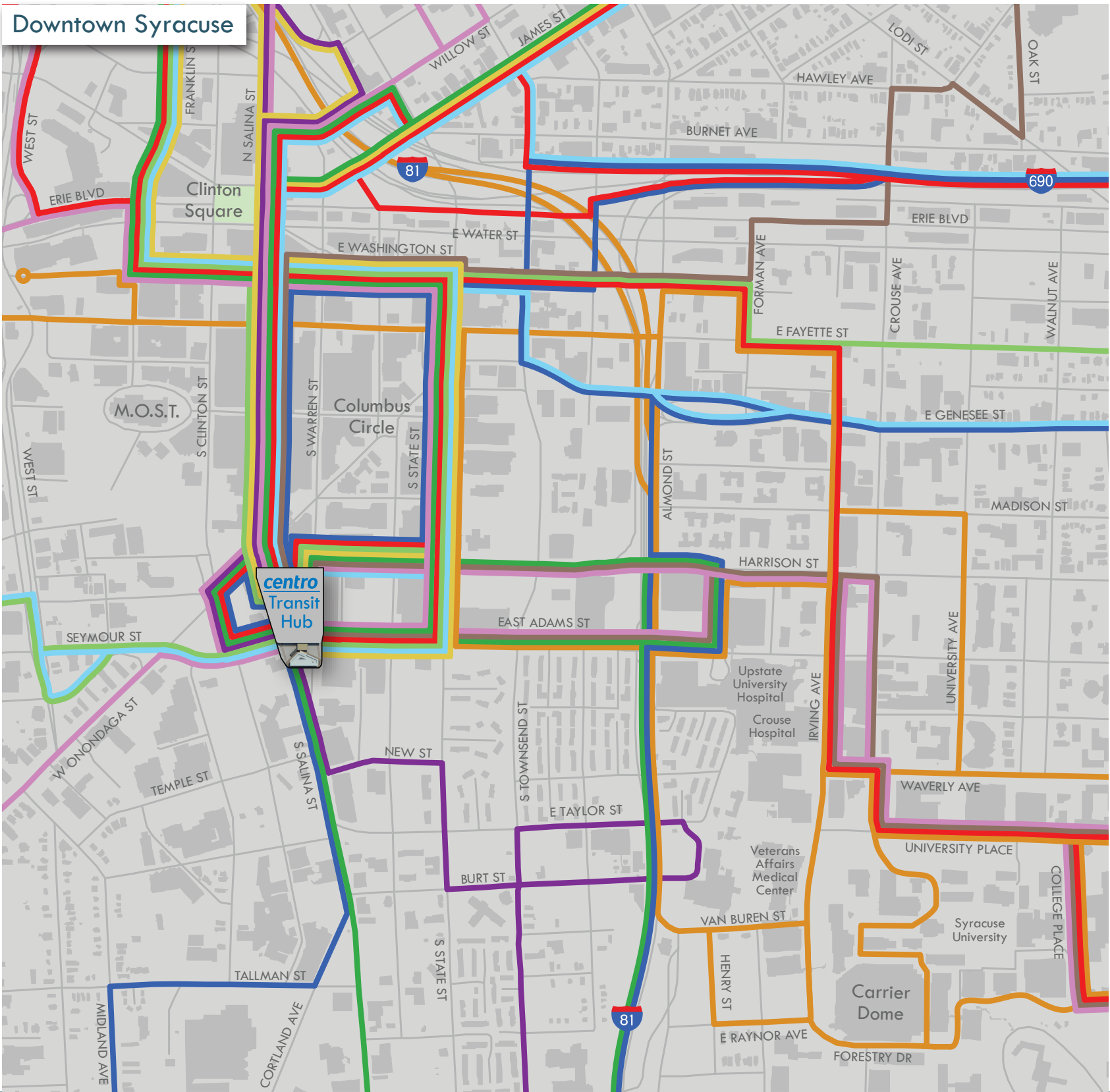
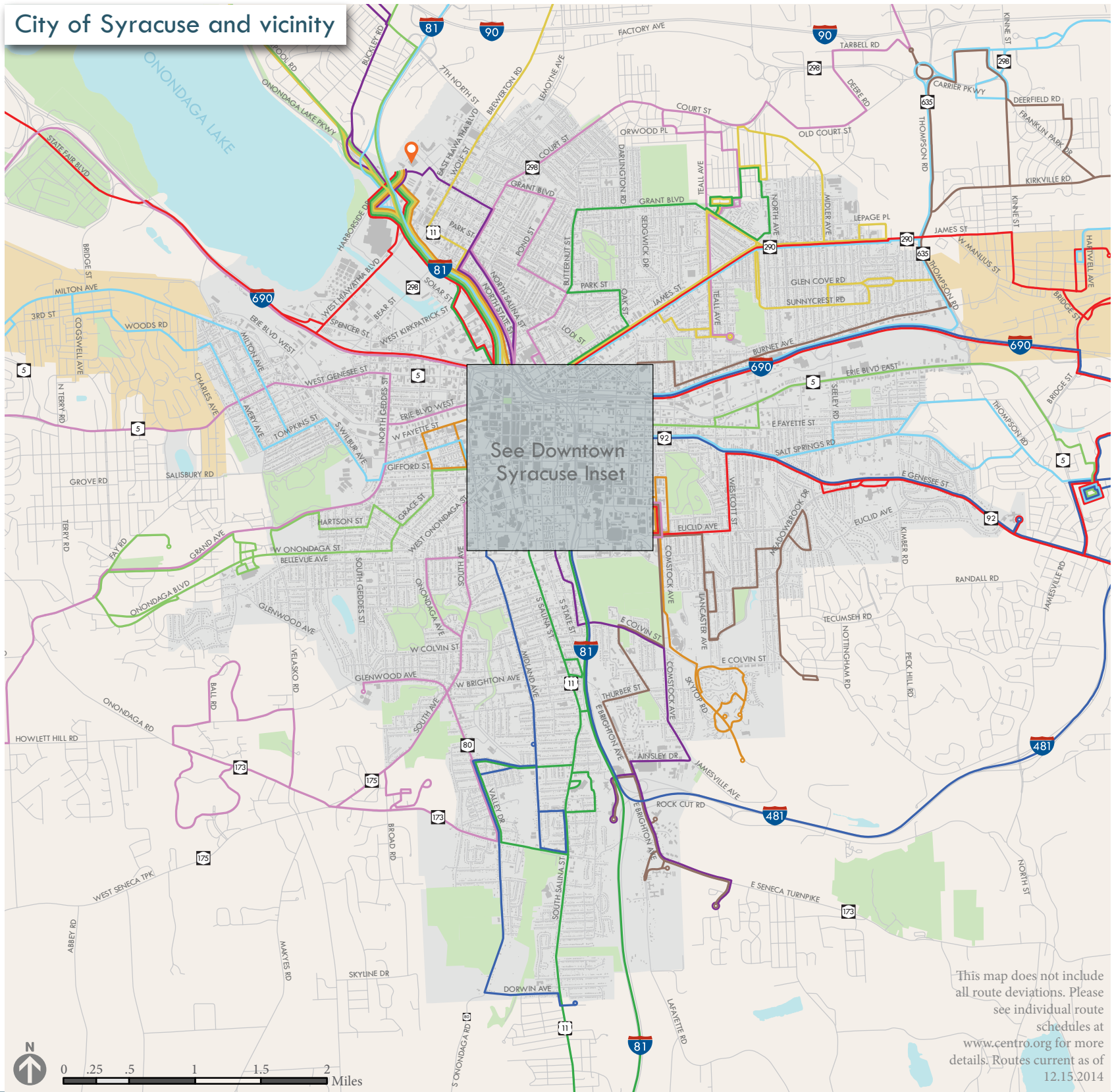
neighborhoods, and selected James Street routes connect to the villages of East Syracuse and Minoa. Other heavily used corridors include the South Salina Street routes (which also serve Nedrow) and the South Avenue routes, which run to OCC. Bus service extends to most of the area's villages and population centers; buses on the Liverpool/Phoenix routes also run to the City of

Oswego. Two bus routes extend west to the City of Auburn. (Centro also operates in Oneida County, but no bus routes currently connect Syracuse to communities east of Onondaga County.) While multiple routes serve the communities to the north, west, and east of the city within Onondaga County, only one route – serving the Village of Tully – goes to the south. No fixed-route bus service is available in

the sparsely populated southeastern and southwestern parts of the region. Ridership on the routes that primarily serve suburban communities tends to be substantially lower than ridership on the routes that serve city neighborhoods. The routes to Baldwinsville, the Parkhill/Carrier Circle area, and Manlius carry fewer than 300 riders a day.

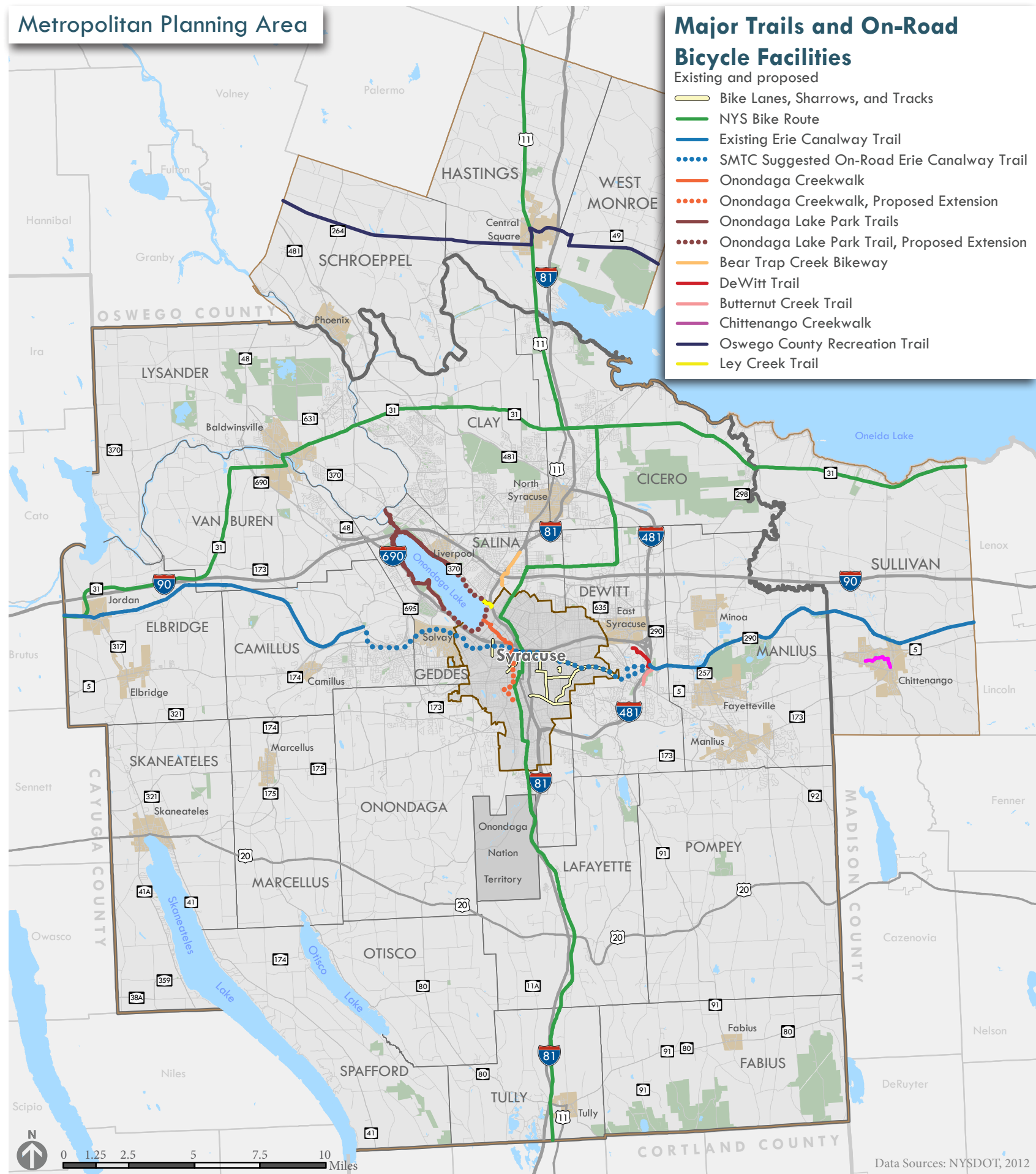


The Centro Transit Hub at Salina St. and Adams St. in downtown Syracuse opened in 2012.



Trails and Bicycle Facilities

- Bicycle and pedestrian projects have received around 6% of federal transportation funds in recent years.
- Bicycle facilities within the MPA are primarily found within the City of Syracuse in the form of bike lanes, shared lane markings, and cycle tracks; and in various towns, in the form of shared roads and wide shoulders.



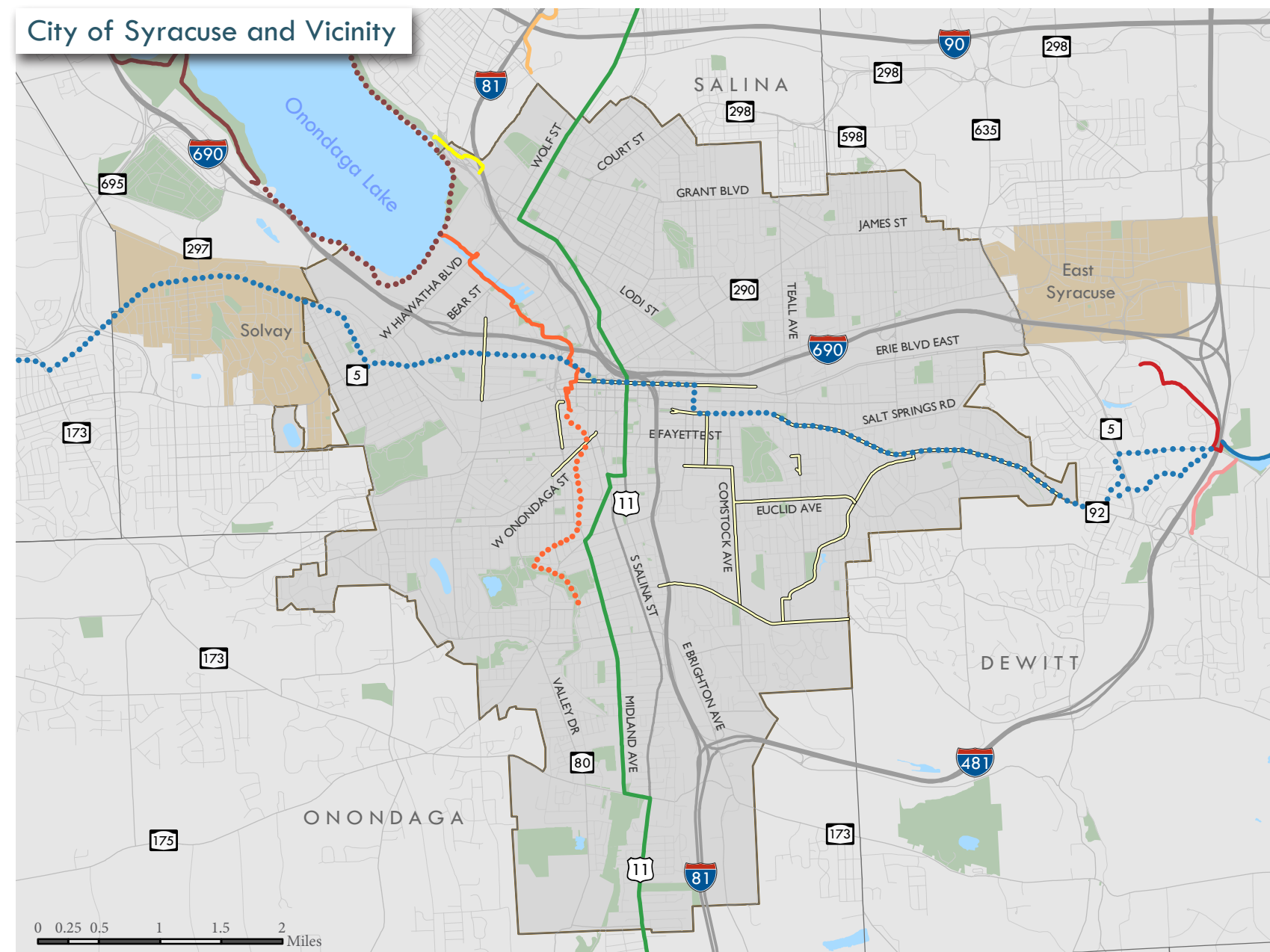
The MPA has three prominent existing trails. The Onondaga Lake Trail, or “Loop the Lake Trail,” was recently expanded with the opening of the West Shore Extension in May 2014; the next phase of this trail will connect to the Onondaga Creekwalk. The Creekwalk currently runs from Onondaga Lake to Armory Square, and extensions are envisioned to Kirk Park and eventually to the southern border of the city at Dorwin Avenue. The New York State Erie Canalway Trail passes through the Syracuse area, but the gap in the off-road route between Camillus and DeWitt is one of the largest gaps in the state. To address this, the SMTC recently developed a short-term on-road connection (see map), and is working with the municipalities along the route to get this

route signed, while continuing to develop a permanent route for the trail that is off-road to the extent possible.

The City of Syracuse has been expanding its bicycle infrastructure over the past few years as well, with the Connective Corridor project and the addition of shared lane markings (sharrows) and bike lanes to a handful of streets. New York State Bicycle Routes 5 and 11 are signed through the SMTC area, and continue throughout the state. The route markings primarily serve as way-finding signs, as there is little dedicated bike infrastructure along these routes.

Beginning in the early 1990s, federal legislation required more consideration of bicycle and pedestrian travel and increased the funding available for related infrastructure. Under the current

transportation legislation – Moving Ahead for Progress in the 21st Century (MAP-21), passed in 2012 – multiple bicycle and pedestrian related funding programs that previously existed were consolidated into a single program, called Transportation Alternatives (TA). Funding for the TA program is much lower than the dedicated funding levels under previous legislation, and states have the authority to transfer up to half of the TA money to other unrelated projects. In the SMTC MPA, only 6 percent of capital funding within each of the last three funding cycles has been programmed for bicycle and pedestrian projects.



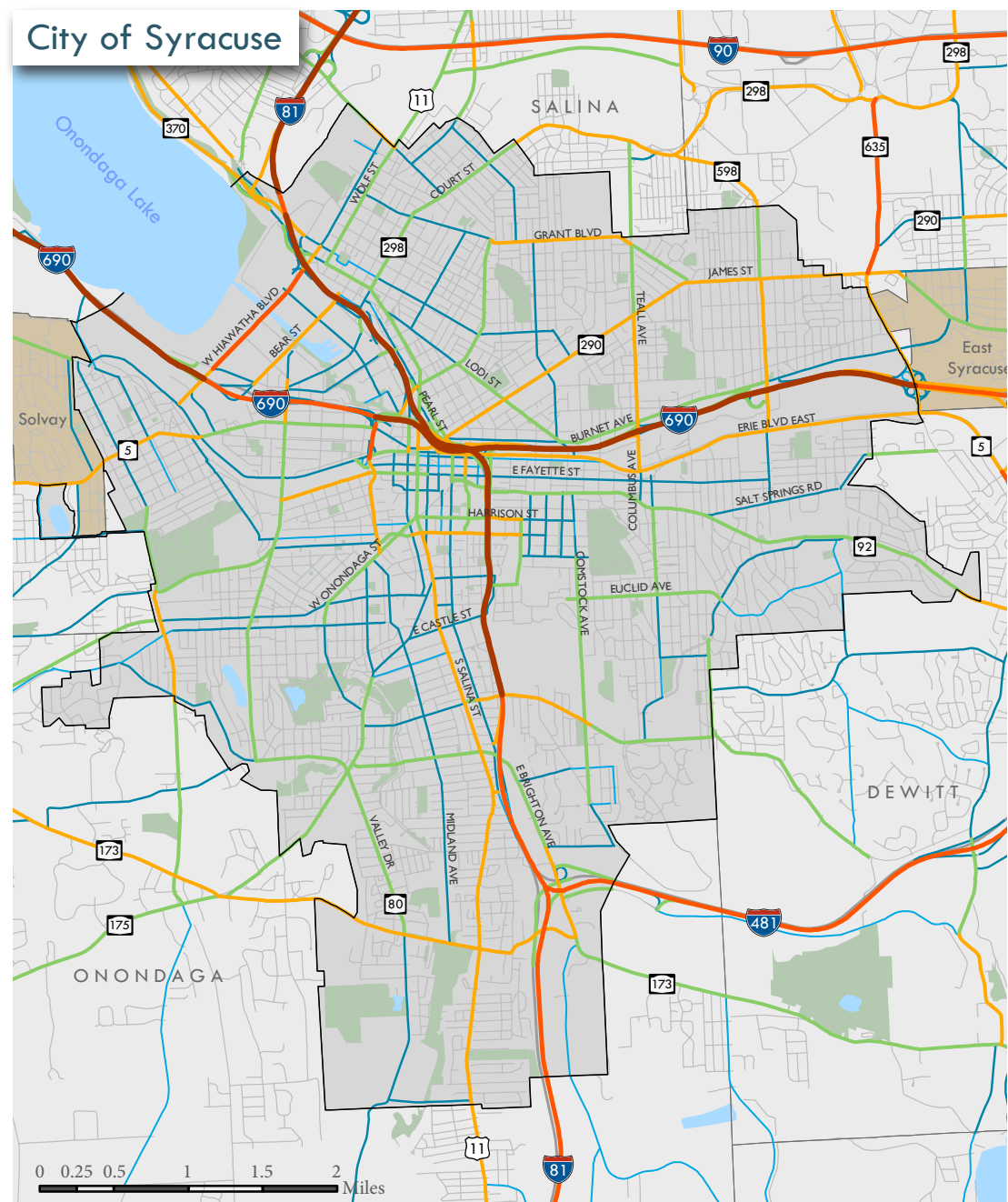
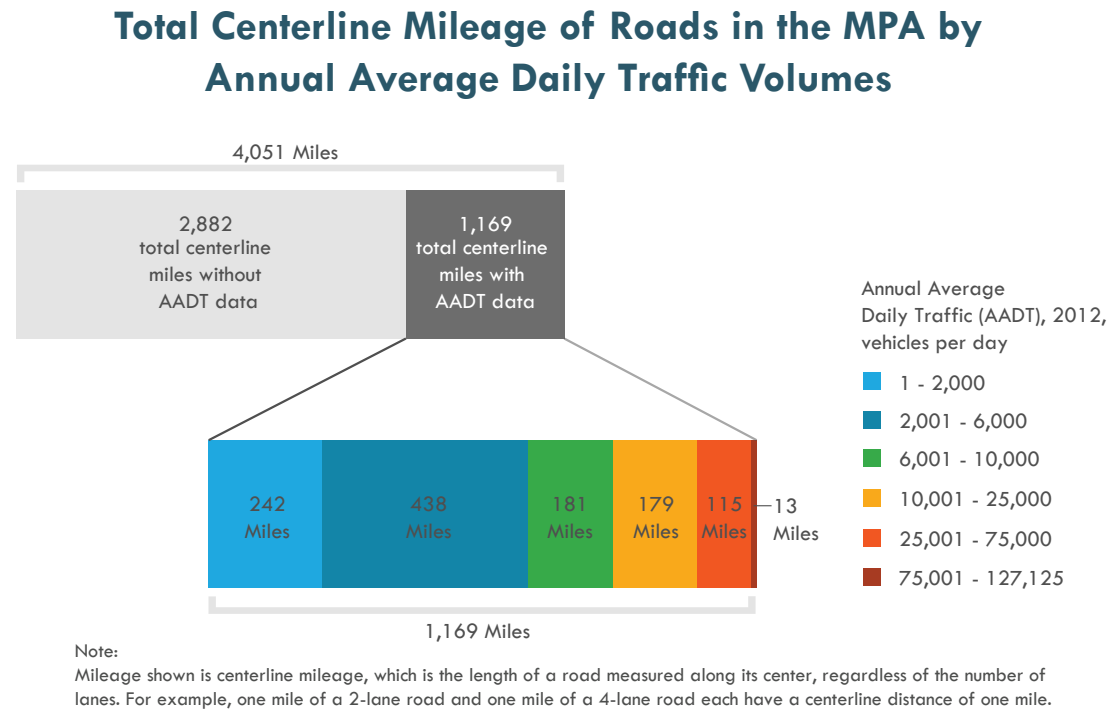
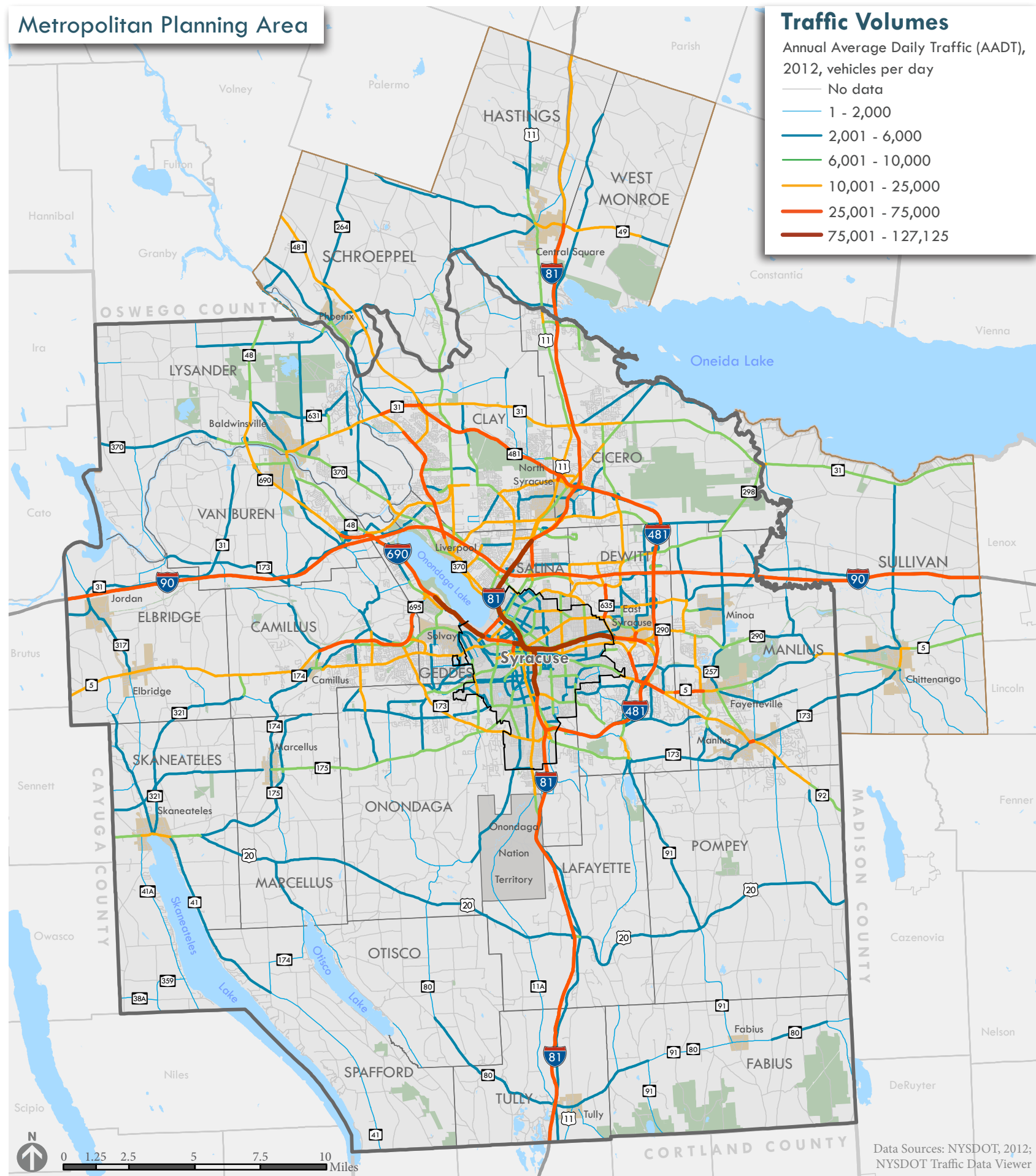


● **MOBILITY**

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Traffic

- Annual average daily traffic, or AADT, represents the typical daily volume of traffic on a road segment.
- The highest volume roads in our region, I-690 and I-81 in and around downtown Syracuse, have AADT between 100,000 and 128,000 vehicles.
- Most of the roads in the region for which traffic volumes are available carry fewer than 6,000 vehicles a day.



Annual average daily traffic, or AADT, is a value frequently referenced by traffic engineers and planners. AADT is the total daily traffic averaged over a full year and is expressed in vehicles per day. AADT is typically estimated for a road segment based on a sample count taken over a few days (during the work week). This short count data is seasonally factored based on trends observed at continuous count stations in order to calculate an annual average day. The roads with the highest traffic volumes in our area are I-690 and I-81, which reach peak volumes (127,000 and 102,000 vehicles per day, respectively) near their junction in downtown Syracuse. I-481 in DeWitt sees its peak volume (65,000 vehicles per day) in the segment between East Genesee Street and I-690. The busiest segment of surface street in the region, East Genesee Street (Route 5) between Erie Boulevard East and Lyndon Road (45,000 to 54,000 vehicles per day), is busy, in part, because it provides access to the I-481 interchange in DeWitt.

There are many miles of roads - primarily local roads and residential streets - for which no traffic volume data is available. Traffic volume data is available for only about a quarter of the total road mileage (by centerline) in the region, and most of these roads are relatively low-volume roads that carry fewer than 6,000 vehicles per day. These are the local streets that provide access to individual driveways, and funnel traffic to the higher-volume collector and arterial roads. The highest volume roads - those carrying over 25,000 vehicles per day - make up a very small fraction of our total regional road mileage. However, these high-volume roads are the conduits for thousands of trips every day in and through the region. In between these two extremes are a few hundred miles of roads that carry moderate volumes of between 6,000 and 25,000 vehicles per day and provide connections between the local streets and major highways.

Commuting Patterns

- In most suburban towns, relatively few workers commute into, or stay within, that town to work. The Town of DeWitt is an exception outside of the City, drawing in a large number of workers from outside the town.

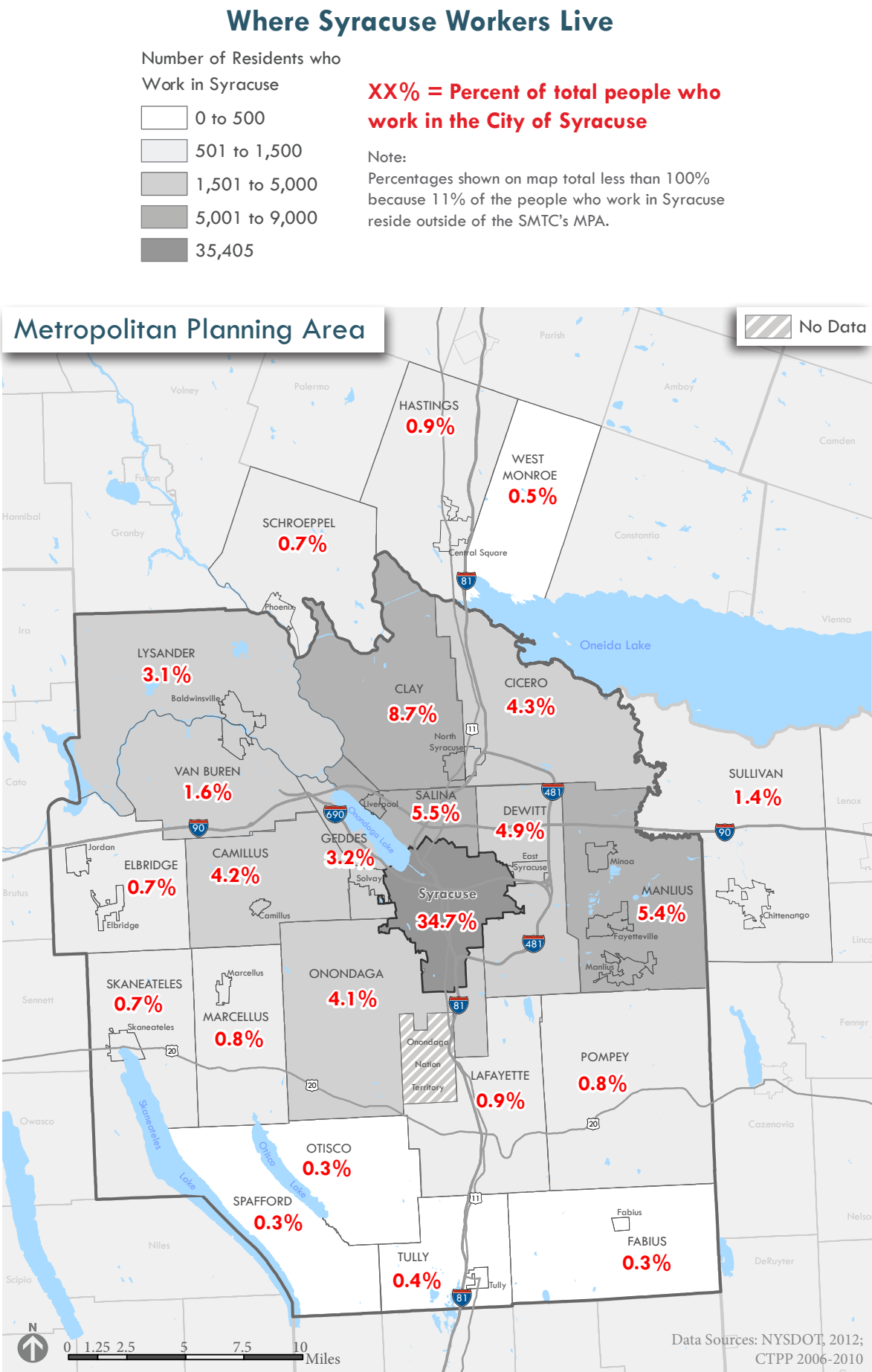
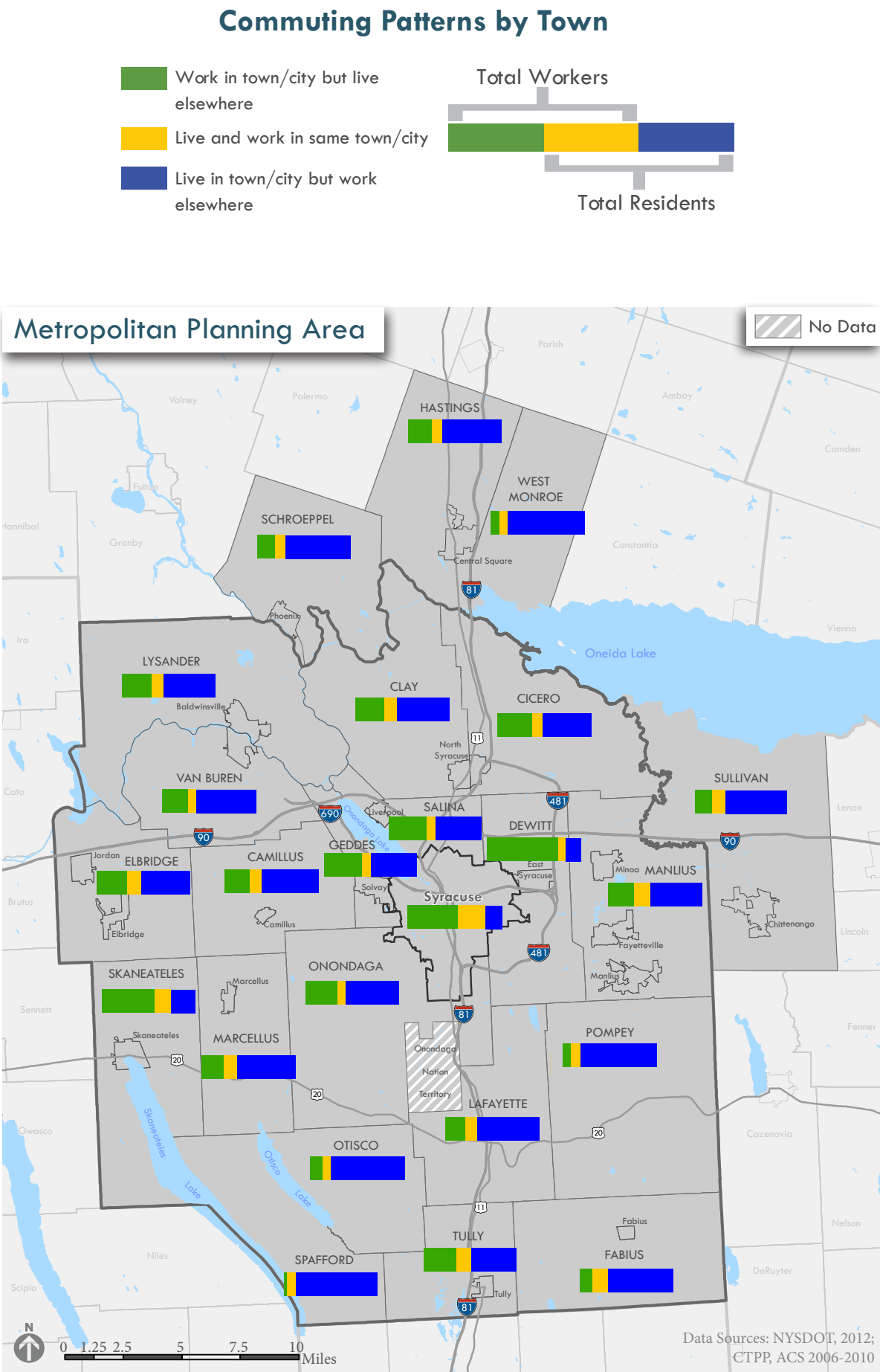
The map at right shows the relative proportions of different types of commuting patterns by town. Each town has workers that commute into that town (green), commute to a job within that same town (yellow), or commute to a job in another town (blue). The bars on the map at right are all the same length, and so are not representative of the actual number of employees or residents, but the segments within each bar show the relative proportion of the types of commuters in each town.

Most towns in our region tend towards being “bedroom communities,” where most town residents commute elsewhere for work. These towns have relatively long blue segments on the map at right. The rural towns in southern Onondaga County and in Oswego and Madison counties have the greatest proportion of residents that work elsewhere.

The Town of DeWitt attracts more workers from outside of the town, relative to the town’s own population, than any other community in our region, as shown by the relative length of the green segment for this town. Syracuse and Skaneateles also attract relatively high proportions of workers from outside their communities.

Syracuse has the highest proportion of workers that both live and work within that community, as shown by the relative length of the yellow segment.

- Thirty-five percent of the people who work in the City also live in the City. The remaining workers commute in from suburban towns, with the towns north and east of the City contributing the greatest number of workers.

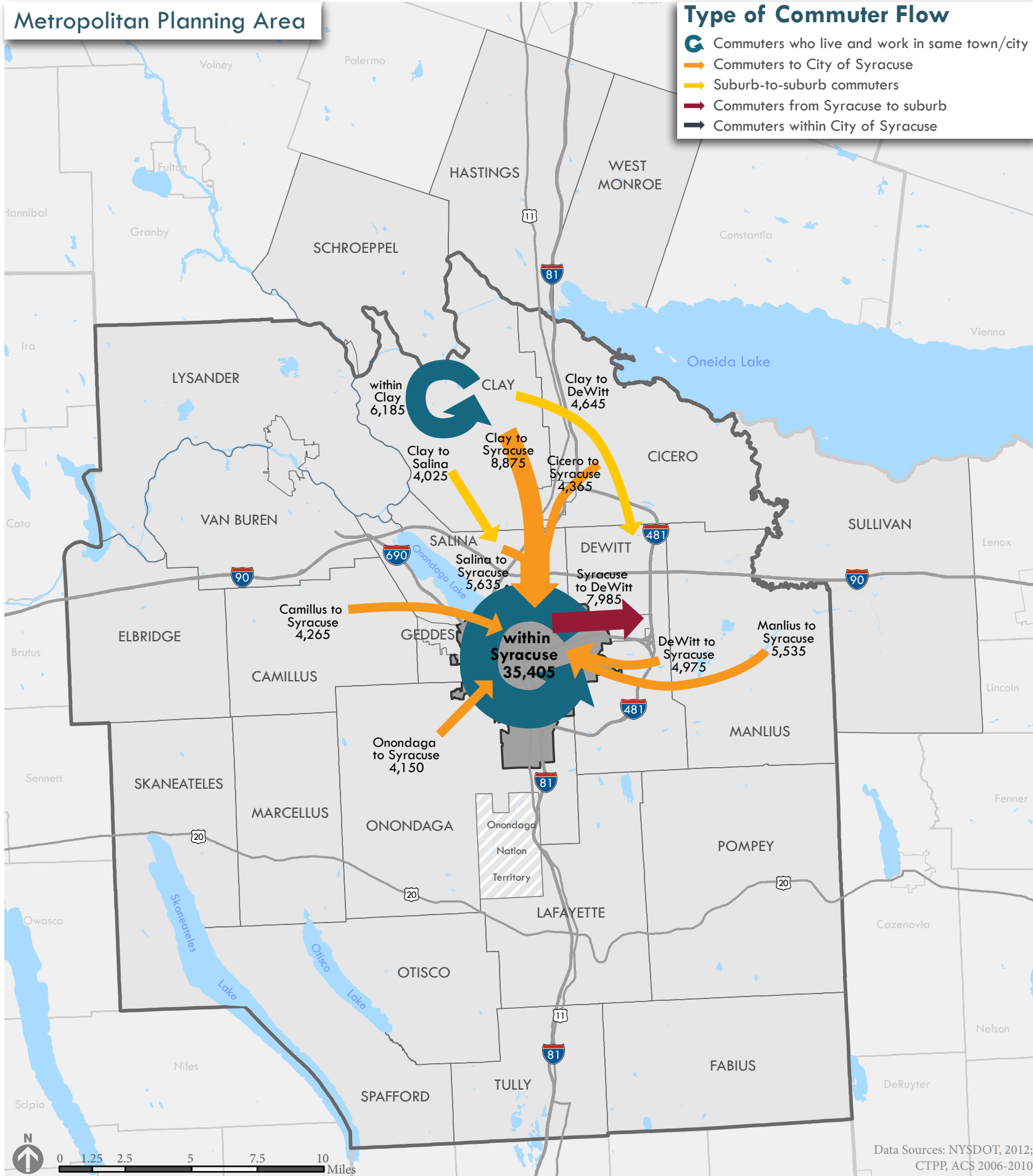


With more than 35 percent of the total jobs in the MPA, the City of Syracuse accounts for more jobs than any other individual municipality in the region. Therefore, the commuting patterns of workers that work in the City of Syracuse heavily influence the overall travel patterns in the region, and it is useful to understand where these workers reside.

The shading in the map at left represents the number of people from each town that work within the City of Syracuse. In total, nearly 100,000 people work in the City of Syracuse. The percentages on the map at left indicate the portion of these 100,000 workers that live in each individual town throughout the MPA, as well as those that live in the City of Syracuse. Of the total people who work in the City, 35 percent also live in the City, 54 percent live in other towns throughout the MPA, and 11 percent live outside of the MPA. This amounts to approximately 35,000 people commuting within the City of Syracuse and approximately 65,000 people commuting into the City of Syracuse from outside the City on a typical workday. The more-populous towns just north and east of the City, such as Clay, Cicero, Salina, DeWitt, and Manlius, are home to the largest percentages of City workers outside of the City, with 4.3 percent (Cicero) to 8.7 percent (Clay) of the total City of Syracuse workers residing in each of these towns.

Commuter Flows

- The most substantial commuter flow within the region is within the City of Syracuse, with over 35,000 commuters who both live and work in the city.
- A total of nearly 19,000 people live in the towns of Clay, Cicero, and Salina and work in the city, making this the second largest concentration of commuters in the region.



Significant Commuter Flows by Workplace and Residence

Top workplace locations
for Syracuse residents:

	No. of workers
Syracuse	35,405
DeWitt	7,985
Salina	2,930
Clay	1,970
Onondaga	1,570

Towns with the greatest number of residents that also work in that town:

	No. of workers
Clay	6,185
DeWitt	3,770
Manlius	3,720
Salina	3,475
Cicero	2,635

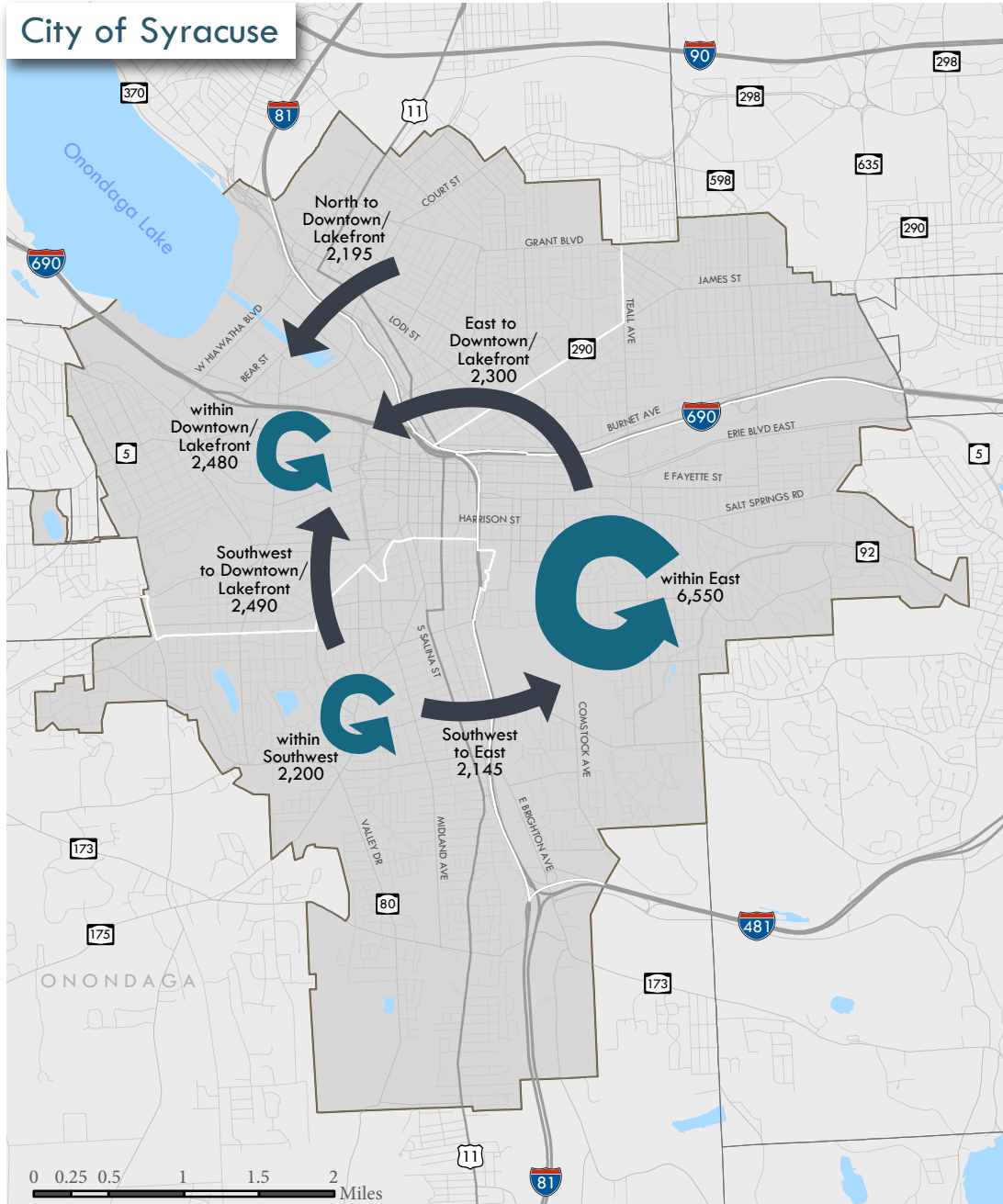
Top residences for people
who work in Syracuse*:

	No. of workers
Clay	8,875
Salina	5,635
Manlius	5,535
DeWitt	4,975
Cicero	4,365

*In addition to the City of Syracuse

Top suburb-to-suburb
commuter flows:

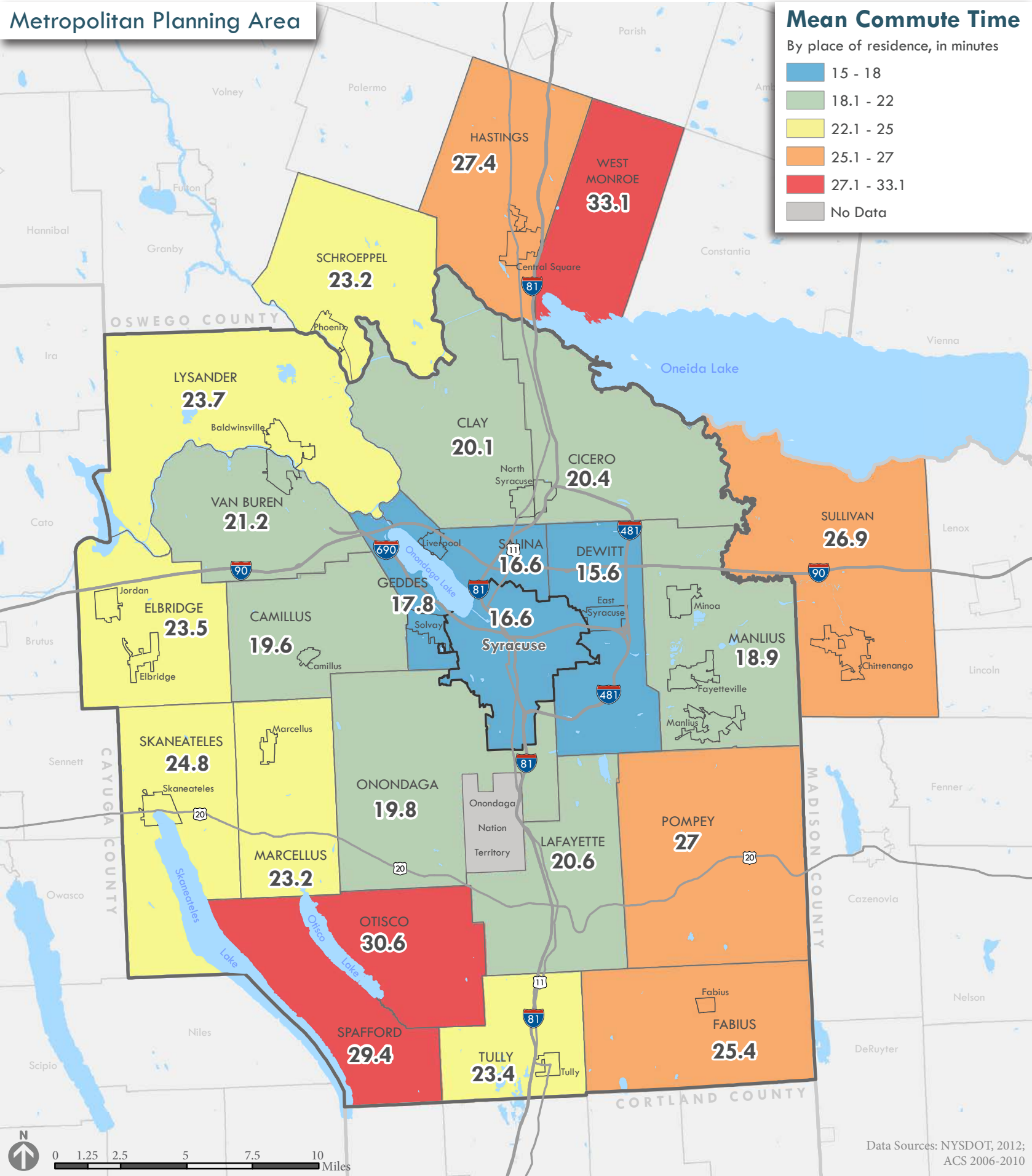
Residence - Workplace	No. of workers
Clay - DeWitt	4,645
Clay - Salina	4,025
Manlius - DeWitt	3,300
Cicero - DeWitt	2,985
Salina - DeWitt	2,655



The maps shown here are based on a dataset that summarizes, for each individual town/city in our region, how many residents of that town/city work in every other town/city in our region. From this information, town-to-town commuter flows (i.e. the volume of people traveling from one town to another to get to work) can be inferred. Since there are over 20 towns plus the City of Syracuse within our MPA, there are over 400 different town/city-level residence and workplace pairs in the region (plus additional commuters who live outside the MPA but who work in the MPA). The MPA map at the far left shows only those residence/workplace pairs that include more than 4,000 people. If all of these people went to work on any given day, the numbers shown on the map would be the total number of people traveling from home to work in a single day; this is the commuter flow. By far, the largest single flow of commuters is within the City of Syracuse itself, with over 35,000 people who both live and work inside the city. The total volume of commuters from the northern suburban towns of Clay, Cicero, and Salina into the City of Syracuse is nearly 19,000 people, making this the second most substantial concentration of commuters in the region. Although the city dominates as the single most significant commuting destination, some notable suburb-to-suburb flows (such as Clay to DeWitt), “reverse commuter” flows (Syracuse to DeWitt), and flows within a single town (such as people who both live and work in Clay) also occur in our region. Within the City of Syracuse, a large number of people commute within the eastern portion of the city, likely reflecting the number of people who work at Syracuse University and the hospitals and live within the immediately surrounding neighborhoods. There are also substantial flows from throughout the city to the Downtown/ Lakefront area, likely due to the number of jobs concentrated Downtown as well as at Destiny USA.

Commuting Times

- The average commute time for Onondaga County residents is 19 minutes, below the national average of 25 minutes and well below the statewide average of 31 minutes.
- The Town of DeWitt has the shortest average commute time (by residence) in the region: 15.6 minutes.
- The Town of West Monroe has the longest average commute time (by residence) in the region: 33.1 minutes.



Commute Time

By number of working residents



- Notes:
1. There are 234,108 total working residents in the MPA.
 2. The travel time to work data displayed on these pages is by residence, not by workplace.
 3. Workers who work at home are not included in the graphic; 3% of all MPA workers work from home.

Commute times can say a lot about a community. When trips to work are well above the national average (25 minutes), it may suggest a lack of suitable housing options, a transportation problem, a lack of suitable job opportunities, or some combination of these factors. The longest commutes in New York State are in the New York City area, where workers face both congested transportation facilities and housing costs that rise steeply with proximity to the central business district. The average commute time for workers in Queens, for example, is 42 minutes, in spite of being only 12 miles from job-rich Manhattan. In the Syracuse area, on the other hand, commute times reflect both housing affordability and ease of access to job centers. The average worker

living in the Syracuse area spends about 19 minutes getting to work – six minutes below the national average. As the Commute Time graphic (above) shows, 32 percent of the region’s workers have commutes under 15 minutes, and only 18 percent have commutes of 30 minutes or more. Half of the region’s workers have commutes in the 15-to-29 minute range. In our region, commute time varies primarily with proximity to the City of Syracuse. While there are office parks and commercial centers scattered across the region, the city’s importance as an employment center is reflected in the map of Mean Commute Time (left), which shows average travel time to work generally increasing with distance from the city. The three suburban towns with the shortest average commutes (15 to 18 minutes) are adjacent to the city: Salina,

DeWitt, and Geddes. Towns with average commutes of 18 to 22 minutes are just beyond this inner ring and make up a secondary ring of towns, including Clay, Cicero, Manlius, and Camillus. Towns with average commutes over 23 minutes long, such as Sullivan, Pompey, Spafford, Skaneateles, and Schroeppel, make up the outermost ring. Many other factors contribute to variations in average commute times, including access to freeways and how people get to work. For example, in the City of Syracuse, more than 4,000 workers commute by public transportation. Sixty percent of these trips are more than 30 minutes long, according to Census data.

How We Get to Work

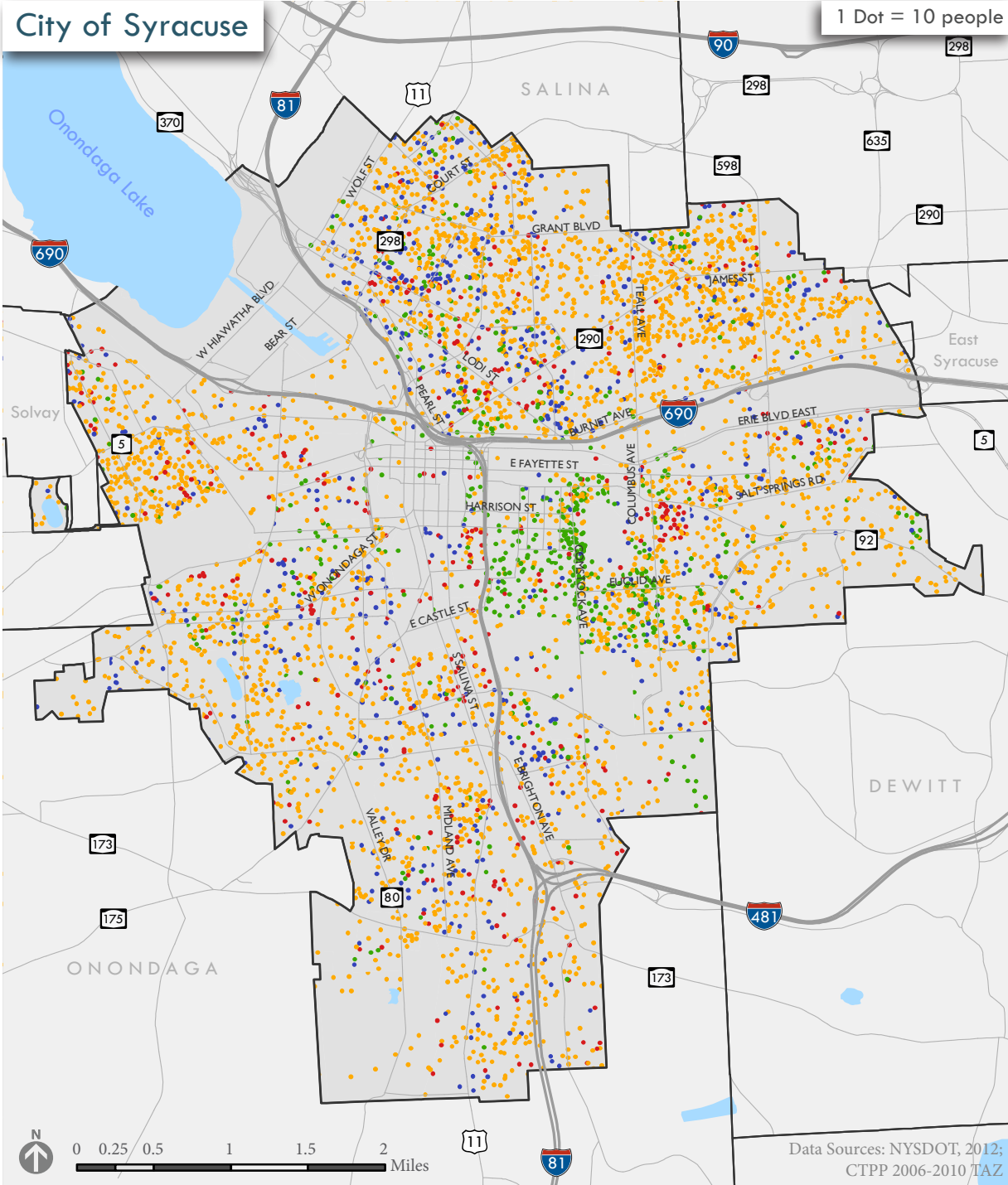
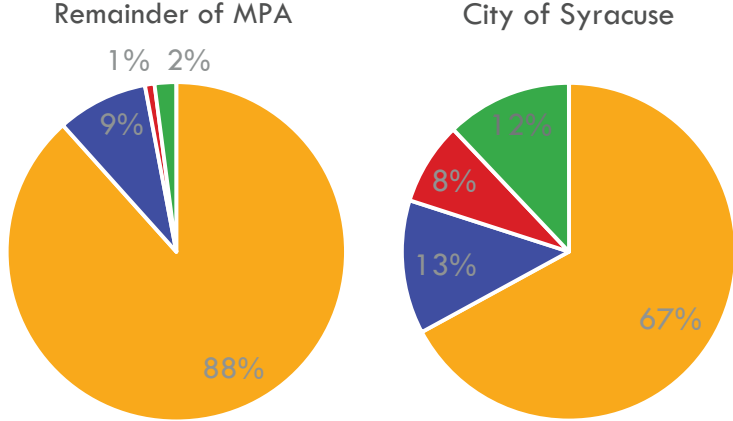
- Nearly nine out of ten commuters who live in suburban and rural towns drive alone to work; in the City of Syracuse slightly less than 70 percent of commuters drive alone.
- Carpooling, walking, and biking to work are all more common in the City than in the remainder of the MPA.

Driving alone is the most common method of traveling to work in our MPA. Nearly nine out of every ten suburban and rural town residents drive alone to work. Public transit, walking, or biking to work are uncommon in suburban and rural areas. Only three percent of residents commute by these means. The remaining nine percent of MPA residents outside of the City of Syracuse carpool to work.

In the City of Syracuse, slightly less than 70 percent of residents drive alone to work, and the percentages of City residents who take public transit (8 percent) or who walk or bike to work (12 percent) are notably higher than in the remainder of the MPA. However, as shown in the map at right, the residents who choose alternative modes of transportation are clustered in specific areas throughout the City. The University Hill neighborhoods are home to colleges, hospitals, students, and families. Given the mixture of uses, walking, biking, and public transportation use are much more common here than in other areas of the City. Concentrations of residents who carpool or use public transit are also evident in the Northside, Southside, and Near Westside areas.

Means of Transportation to Work

- 1 Dot = 10 people
- Drive alone
 - Carpool
 - Public transportation
 - Walk or bike

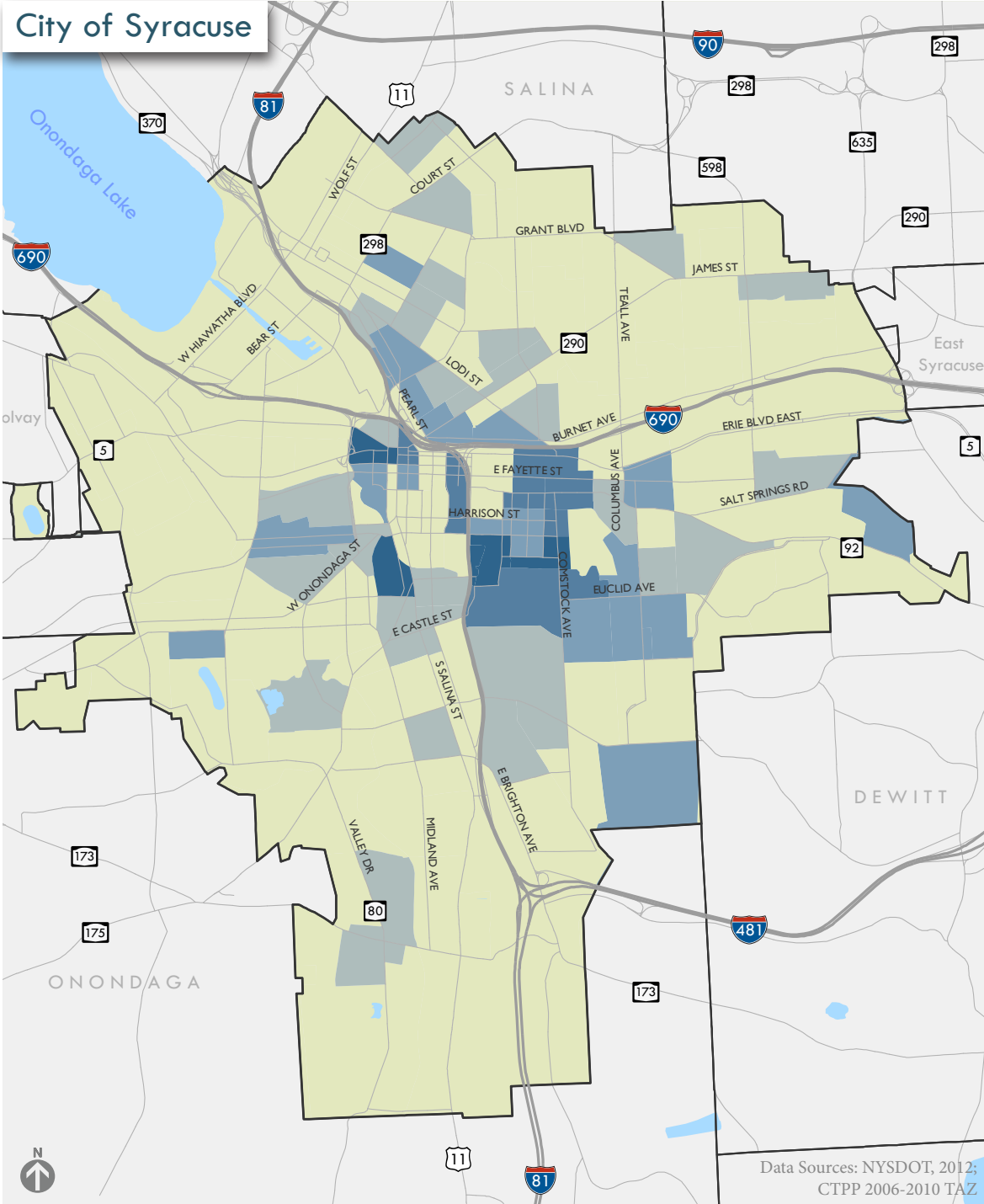


- Within the City, residents who bike or walk to work are highly concentrated in the neighborhoods close to downtown and University Hill, or near a neighborhood business district.

Workers Who Bike or Walk to Work

- % of working residents
- 0% to 10%
 - 11% to 20%
 - 21% to 50%
 - 51% to 75%
 - 75% to 100%

- Notes:
1. The data in these maps is based on residence, not workplace.
 2. Carpooling is defined as an instance when an ACS survey respondent indicated that including him or herself, at least one other person rode to work in the same car, truck, or van the previous week; it is unknown whether all of the people in the car, truck, or van were going to work or another destination.
 3. The maps/data omit workers who worked from home, as well as those who commuted by motorcycle, taxis, or the Census's 'other' category; combined, these make up 3.9% of the MPA's workers.



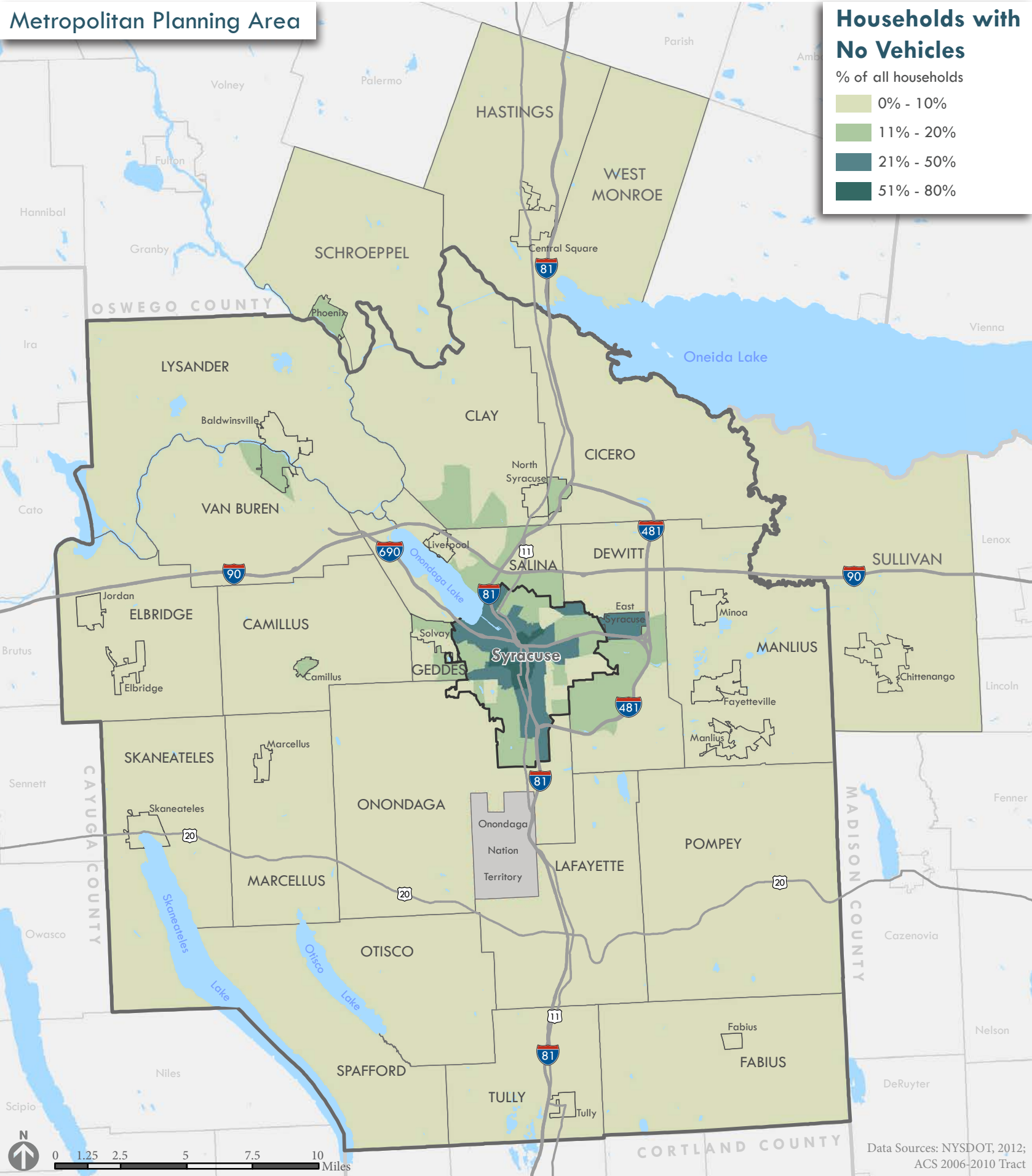
Biking or walking to work is becoming much more common within the City of Syracuse. The “Means of Transportation to Work” map on the previous page highlights concentrations of City residents who bike or walk to work. The “Workers who Bike or Walk to Work” map on this page further emphasizes this point by showing the percentage of all working residents who bike or walk to work for specific areas of the City.

As shown here, in some areas of the City, more than 75 percent of all working residents bike or walk to work. The areas producing the highest percentages of walkers and bikers are in the greater University Hill area near the main campus of Syracuse University, SUNY ESF, and the adjacent hospitals. These destinations support jobs and are located close to housing, which makes biking and walking a convenient commuting option. Neighborhoods within and near downtown such as Armory Square, Hawley Green, and Prospect Hill also offer convenient access to jobs located within walking and biking distance.

Other neighborhoods, such as the Near Westside, portions of the Valley and the Southside, and areas south of University Hill, also generate relatively high percentages of residents who bike or walk to work.

Households and Vehicle Availability

- In the City of Syracuse, more than a quarter (26.4%) of households have no vehicles.
- In the remainder of the MPA, 5.6% of households have no vehicles.
- The majority of “car-light” households (where the number of vehicles available is less than the number of workers) are concentrated in the City of Syracuse.



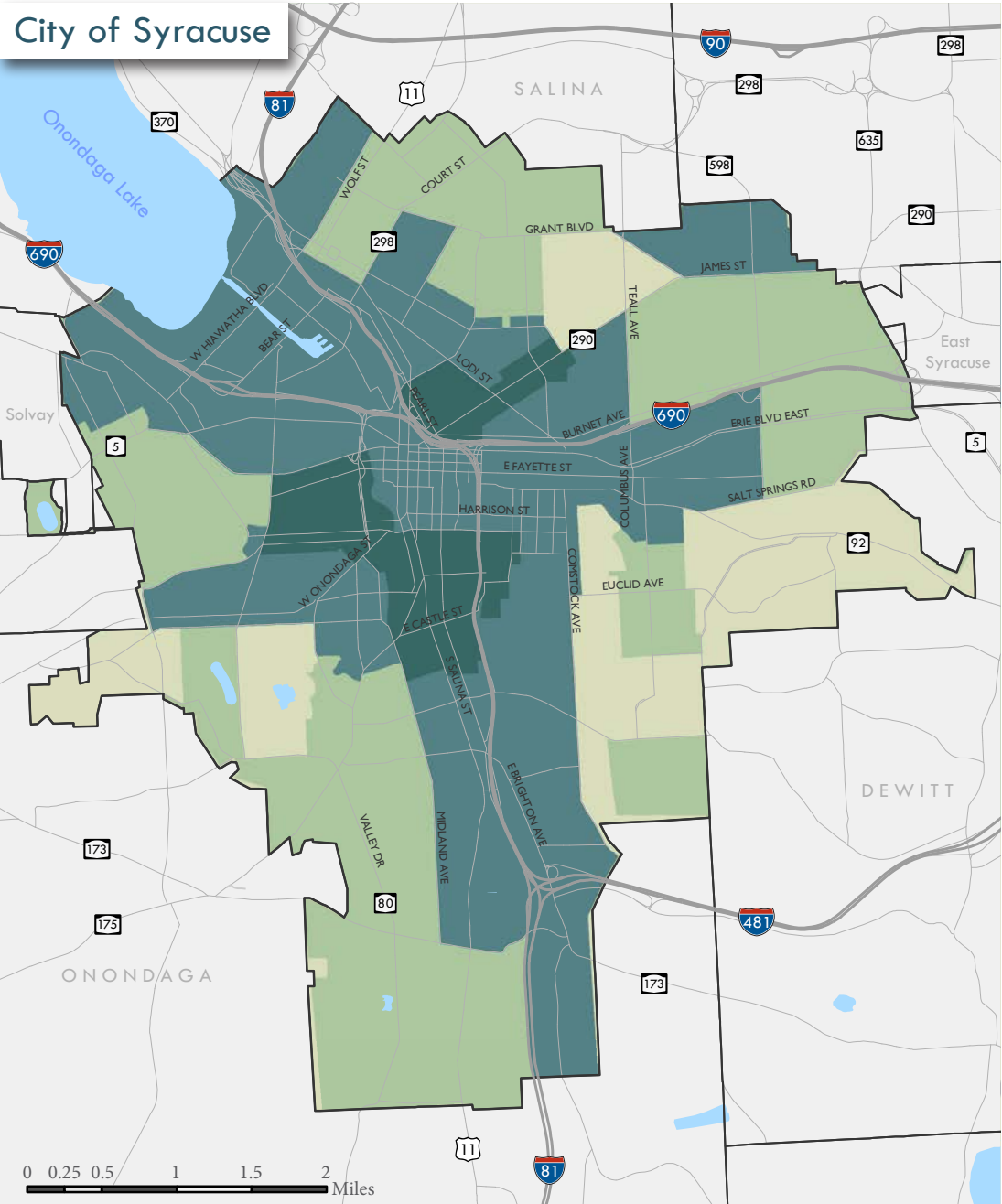
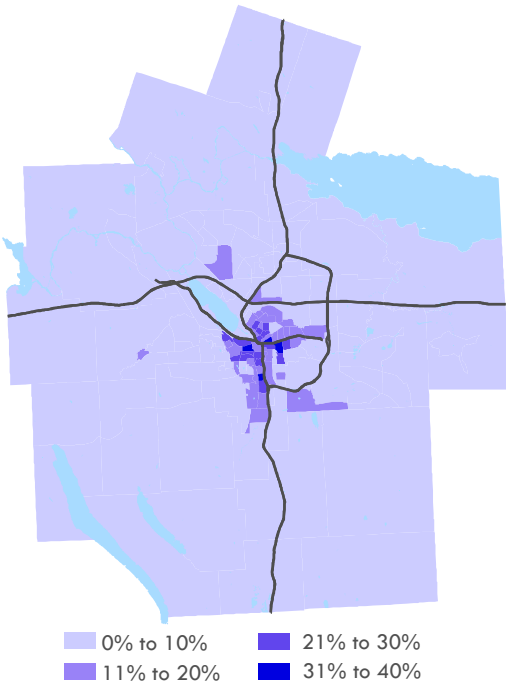
Households in the MPA by Number of Workers and Number of Vehicles Available

Vehicles Available	Workers in Household				
	0	1	2	3	4+
0	14,752	6,529	1,198	330	60
1	28,439	37,915	6,116	601	73
2	11,413	23,299	36,684	2,772	352
3	1,438	4,485	9,508	4,060	704
4+	430	1,308	2,549	1,802	1,100

Number of “car-light” households, which are defined as households in which the number of workers exceeds the number of cars

Note:
Percentages in the small map at right are based on workers in households. Workers in group quarters or student housing are excluded. Workers in households constitute 87% of all workers in the MPA. Source: CTPP 2006-2010, Tract

Percentage of Workers in “Car-Light” Households



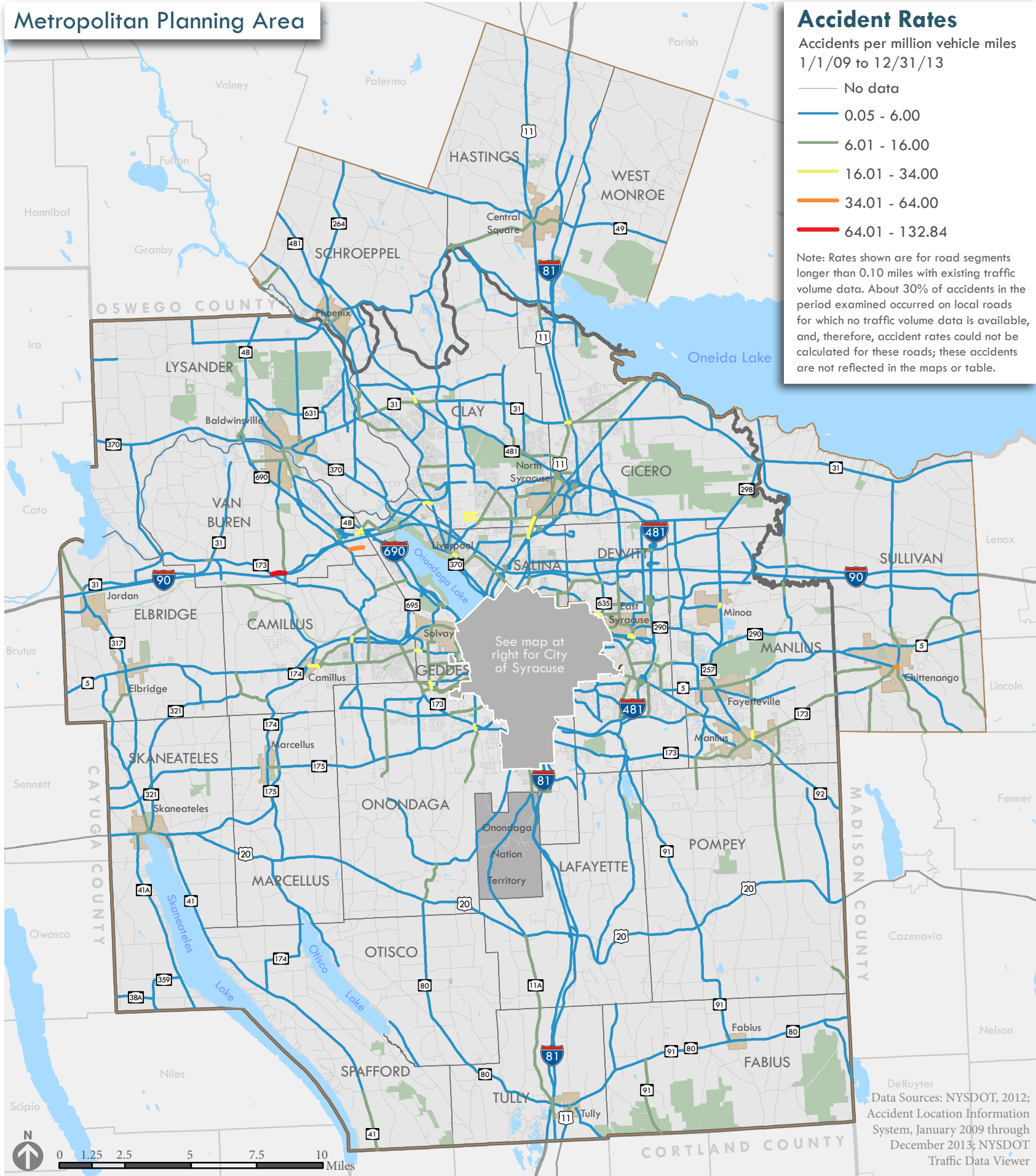
In the City of Syracuse, 26 percent of households have no vehicle. As shown on the map at left, the majority of these households are located in three pockets: (1) west of I-81, with a small section extending just east of I-81; (2) west of West Street and south of Erie Boulevard West; and (3) just north of the I-690 and I-81 junction. In the remainder of the MPA, 5.6 percent of households have no vehicle, with concentrations located in some of the villages, including East Syracuse, Camillus, Baldwinsville, and North Syracuse.

The most commonly occurring type of household in the MPA has one worker with one vehicle available, followed by households with two workers and two vehicles available. The majority of “car-light” households (where the number of vehicles available is less than the number of workers) are located in the City of Syracuse, with concentrations shown along I-690 and I-81. Most “car-light” households have either one worker and no vehicle, or two workers and only one vehicle. Workers in these households likely use some means other than a single-occupancy vehicle to get to work, such as transit, carpooling, walking or biking, or may work from home.



Accidents

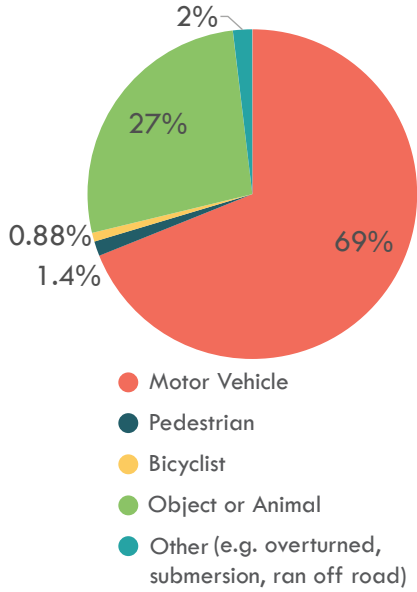
- Accident rates tend to be higher in the urban area than in the rural areas.
- The vast majority of accidents involved multiple motor vehicles or a motor vehicle and an object or animal.
- Less than 1 percent of accidents resulted in fatalities, and approximately 20 percent of accidents resulted in personal injuries.



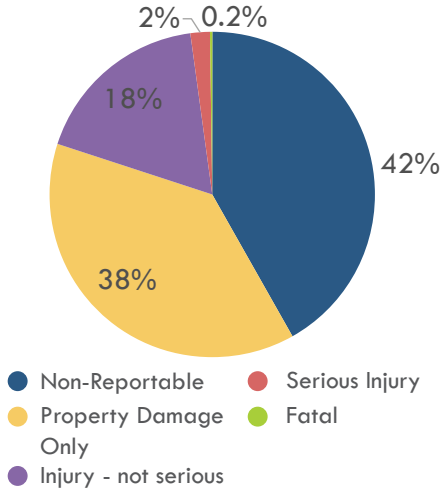
Overall Average Accident Rates by Roadway Functional Class, in the MPA

Functional Class	(accidents per Million Vehicle Miles)	
	Rural	Urban
Principal Arterial - Interstate	0.3	0.7
Principal Arterial - Other	2.8	7.4
Minor Arterial	3.7	12.4
Urban Collector	NA	12.9
Major Collector	5.3	NA
Minor Collector	7.1	NA
Ramps (Urban & Rural)	3.3	

Accident Types

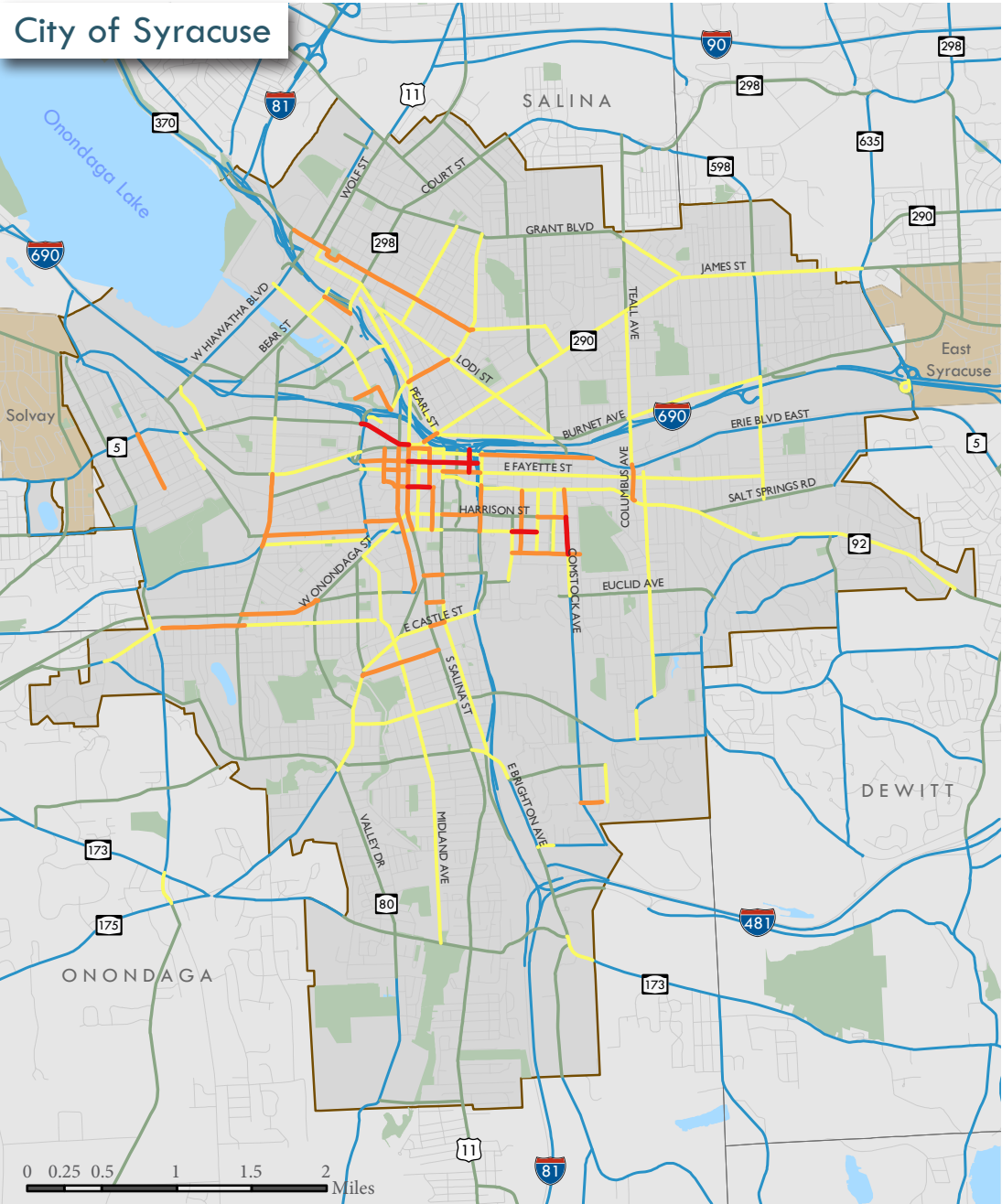


Accident Severity



Notes:

1. A "non-reportable" event may include property damage to any single vehicle of less than \$1,000, with no personal injuries and no fatalities.
2. A "serious injury" is one that keeps the injured person from leaving the accident scene without some assistance.
3. "Other" events (including "non-auto" and "not entered") are not displayed.

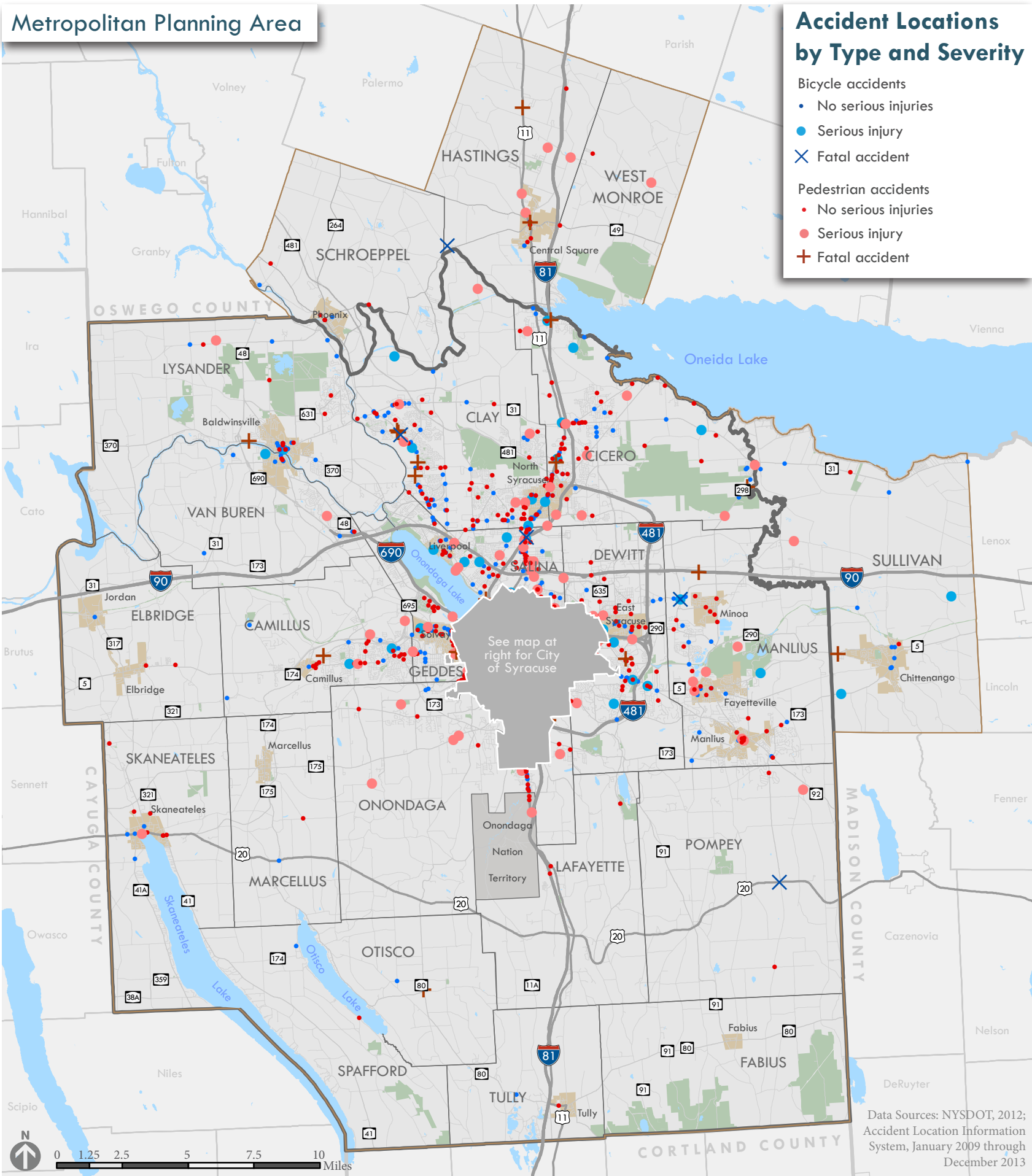


Accident rates indicate the number of accident events per million vehicle miles traveled and serve as a generalized measurement of accident frequency. Rates shown in the maps are for roadway segments greater than 0.10 miles in length where existing traffic volume data and accident information are available. Since traffic volume data are not available for most local roadways, accident rates could not be calculated for a majority of these roads. Approximately 30 percent of accidents over the 5 year period examined occurred on local roadways for which no traffic volume data is available, and, therefore, these accidents are not reflected in the accident rate maps and table shown here.

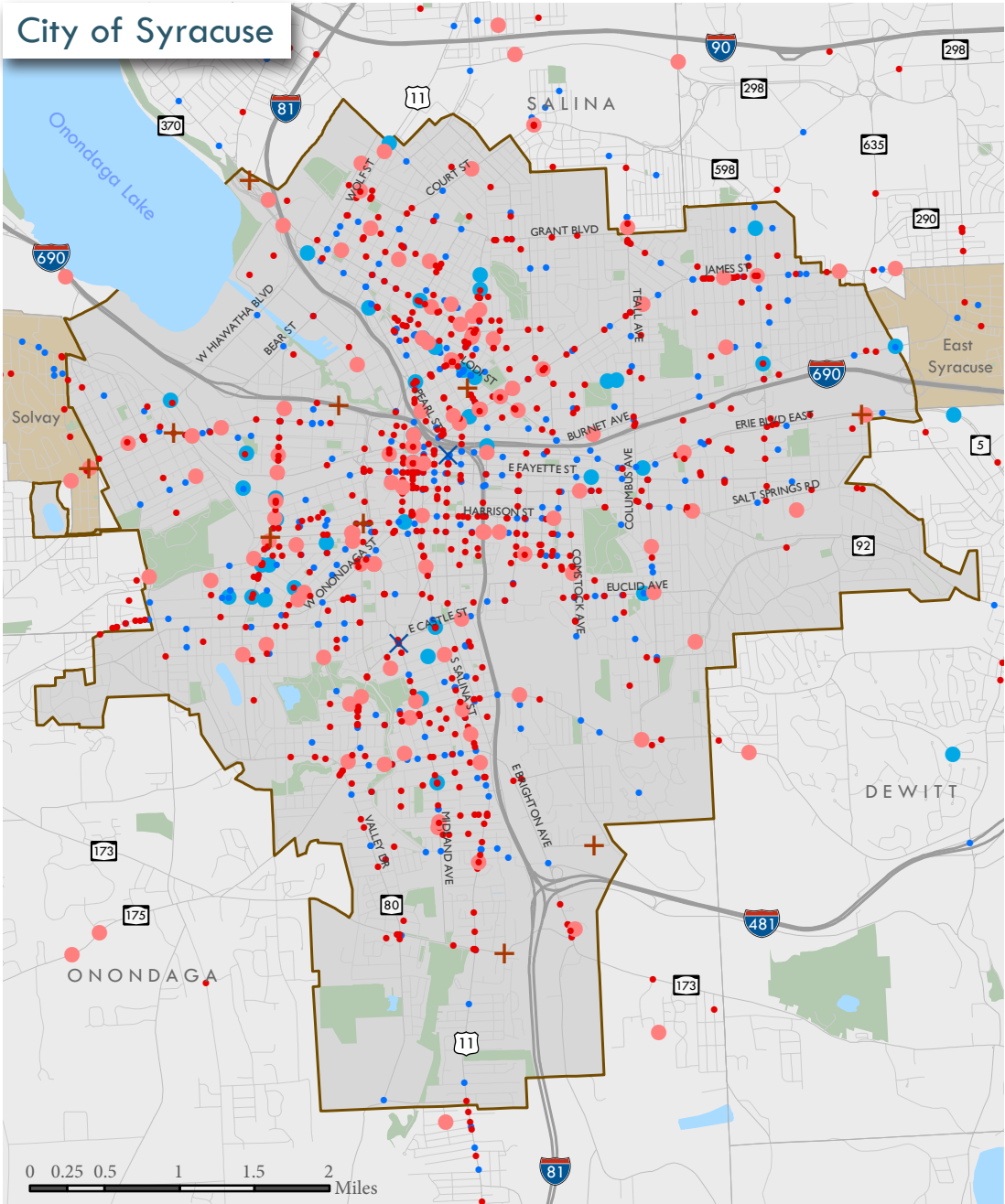
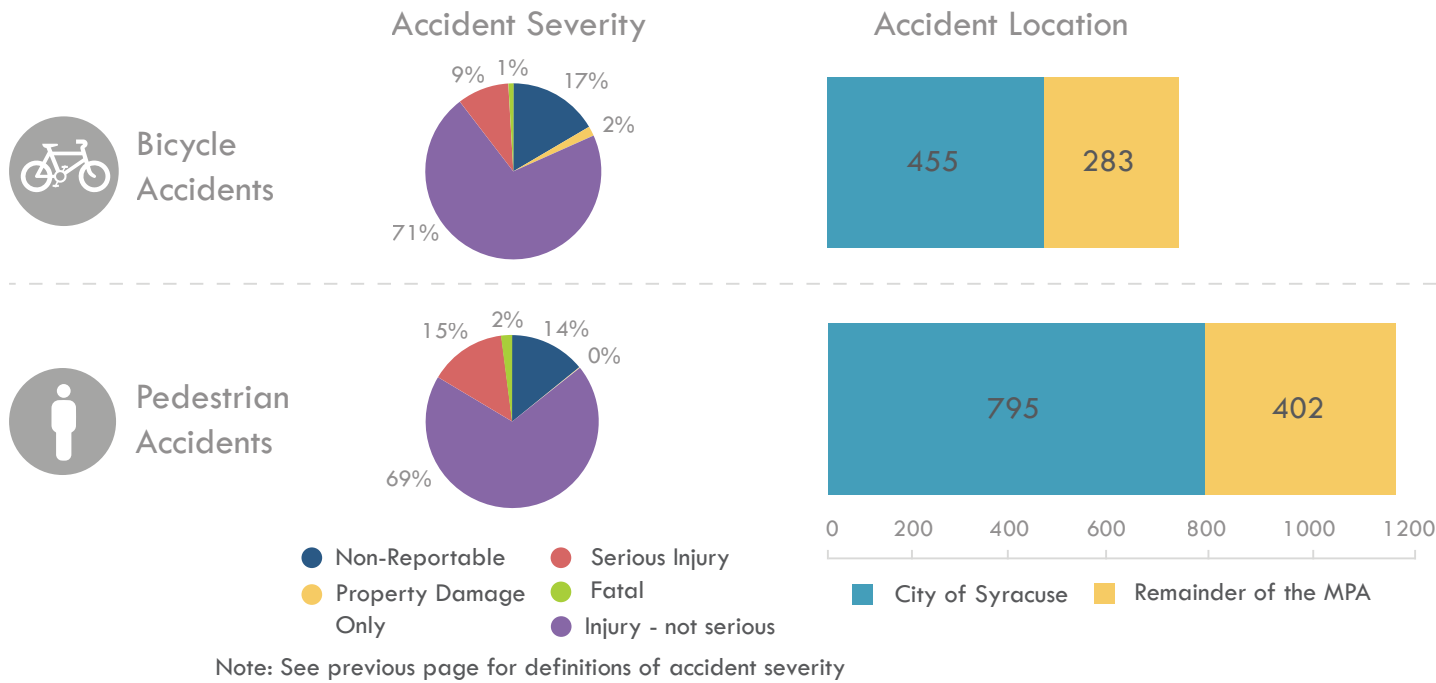
Accident rates on a specific road segment can be compared to the overall average accident rate for roadways of the same functional classification to determine where further investigation might be warranted. As shown in the table above, accident rates tend to be higher for urban roads than for rural roads. Interstate facilities have the lowest overall average accident rates.

Bicycle and Pedestrian Accidents

- From 2009 to 2013, 1.43% of accidents in the MPA involved pedestrians, and less than 1% involved bicyclists.
- The majority of bicycle and pedestrian accidents occurred in the City of Syracuse.
- There are higher percentages of serious injuries and fatalities associated with bicycle and pedestrian accidents than all accident types together.



Severity and Location of Bicycle and Pedestrian Accidents in the MPA



Of all the accidents that occur in the SMTC MPA, a small percentage involve a bicyclist or pedestrian. Between 2009 and 2013, 0.88 percent of accidents occurring in the MPA involved bicyclists, and 1.43 percent involved pedestrians.

Although bicycle and pedestrian accidents represent a small percentage of total accidents, they are disproportionately more likely to result in serious injuries or fatalities. Serious injuries and fatalities occurred in only 2.0 percent and 0.2 percent, respectively, of all accidents in the MPA. However for bicycle accidents, serious injuries and fatalities occur in 9 percent and 1 percent of bicycle accidents, respectively, while 15 percent of pedestrian accidents are serious injury accidents and 2 percent involve fatalities.

More than half (62 percent) of the bicycle accidents occurring in the MPA take place in the City of Syracuse. The same holds true for pedestrian accidents, of which 66 percent take place within city limits. This is primarily because there are more people walking and bicycling in the City of Syracuse than in the remainder of the MPA, which would lead to more of these types of accidents.



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U.S. Department of Transportation

- Federal Aviation Administration*
- Federal Highway Administration*
- Federal Transit Administration*

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- Department of Environmental Conservation
- Department of Transportation
- Thruway Authority
- Empire State Development

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- Legislature
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City of Syracuse

- Office of the Mayor
- Common Council
- Planning Commission

CNY Regional Transportation Authority (Centro)

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