

# Long Range Transportation Plan – Assistance *Population, Households, and Vehicle Projections*

## Methodology

### Data Acquisition

- United States Censuses Bureau (1960, 1970, 1980, 1990, 2000)
  - Categories: Population & Housing

**Population & Housing:** The US Census Bureau provided population and household data from each decennial census dating back to 1960. This data was needed to project the historic rate of change within each municipality for G/FLRPC forecasts.

- Census of Transportation Planning Package (2000)
  - Categories: Population by Transportation Analysis Zone (TAZ), Households by TAZ, and Vehicles by TAZ

**Population by Transportation Analysis Zone (TAZ):** The 2000 CTPP provided population data for each TAZ within the Transportation Management Area (TMA). This data was used as the starting point in projecting population by TAZ to the year 2040.

**Households by Transportation Analysis Zone (TAZ):** The 2000 CTPP provided household data for each TAZ within the Transportation Management Area (TMA). This data was used as the starting point in projecting households by TAZ to the year 2040.

**Vehicles by Transportation Analysis Zone (TAZ):** The 2000 CTPP provided vehicles per household data for each TAZ within the Transportation Management Area (TMA). This category was broken down into four groups: households with 0 vehicles, households with 1 vehicle, households with 2 vehicles, and households with 3 or more vehicles.

- G/FLRPC Regional Population Forecasts (2003)
  - Categories: Historical & Forecasted Population

**Population:** G/FLRPC Regional Population Forecasts provide historical data from the US Census Bureau back to 1960 and projected population out to the year 2040. These municipality projections were used to break down population by TAZ according to the 2000 CTPP.

## Data Analysis

Population and household projections were developed for each municipality within the Genesee-Finger Lake Region out to the year 2040 under UPWP Project #5230. To view the methodology used in this project, please see the attached sheet. These projections were used to help determine the population and household projections down to each Transportation Analysis Zone (TAZ) within the Transportation Management Area (TMA).

### ***Step 1:***

To project population for each TAZ, 2000 CTPP data was used as a starting point. Each municipality was broken down by their designated TAZ, with each TAZ having a population assigned to it according to the 2000 CTPP. The population for each TAZ was then divided by the total population of the designated municipality. This outcome was the percent share, given to each TAZ within the assigned municipality. This percent share was applied to the projected populations from the Regional Population Forecasts to determine population by TAZ. For example, The Town of Henrietta is broken down into 40 separate TAZ. TAZ #216 has a 2000 population of 2,595 and the total population of Henrietta in 2000 was 38,789. Divide the TAZ population of 2,595 by the total town population of 38,789 to get the percent share, which in this case, turns out to be 6.6%. This percent share is then applied to the projected years of the Regional Population Forecast. In 2010, the projected population in the Town of Henrietta is 40,477. 6.6% of 40,477 is 2,672. TAZ #216 will have a population of 2,672 in the year 2010. This procedure is calculated for each TAZ within the Town of Henrietta.

### ***Step 2:***

The method described in *Step 1* was the same method used in projecting household. 2000 CTPP household data was used to determine the percent share of each TAZ within a given municipality. As in *Step 1*, this percent share was then applied to the household projections of the Regional Population Forecasts. Person per household was projected by dividing the population by the number of households within each TAZ. In certain TAZ where a large number of group quarters population was known, that population was subtracted from the total population to get a more accurate person per household projection.

### ***Step 3:***

Vehicles per household were developed using 2000 CTPP data and the projected number of households. A percent share was given to each of the four categories (0 vehicles, 1 vehicle, 2 vehicles, 3 or more vehicles) for all TAZ within the given municipality based on the 2000 CTPP. This percent share was applied to the projected household data discussed in *Step 2*. For example, TAZ #216 in the Town of Henrietta has a total of 1,010 households, according to the 2000 CTPP. These are broken down into households with 0 vehicles, households with 1 vehicle, households with 2 vehicles, and households with 3 or more vehicles. TAZ #216 has 40, 290, 555, and 125 households respectively. Households with 0 vehicles was given a percent share of 3.9 because it contained only 40 of the 1,010 households. This percent share was then applied to the projected number households to determine the number of households with 0 vehicles in TAZ #216. This process was used for all four categories in every TAZ.

### ***Step 4:***

A zoning was used to verify the accuracy of the percent shares for each projected year by TAZ. This process was done using a GIS zoning layer developed by G/FLRPC to locate any restrictions effecting the projections. Minor adjustments were made where zoning districts needed qualitative modifications such as places where zoning doesn't allow for an increase in the projections.