### **APPENDIX C: Data Notes**

This appendix provides further information regarding data presented in the Plan's text, recognizing that in some places the text does not clearly discuss data sources, and that readers may benefit from further clarification of particular data sources. Every effort has been made to use the most timely, accurate, and reliable data available.

# **Census Data**

#### **U.S. Decennial Census**

The decennial census has been conducted every ten years since 1790. The most recent decennial census in 2010 was one of the shortest in history in part because data about housing, jobs, etc. that were previously collected in long-form questionnaires began being collected through the American Community Survey (ACS) and are no longer collected through the decennial census. The decennial census seeks to reach all U.S. households with its forms, and is therefore considered more accurate than the ACS with lower margins of error. Decennial census data do not separate out student and non-student populations.

### **American Community Survey**

The American Community Survey (ACS) is an annual demographic survey of the United States. It provides the detailed demographic, economic and housing data that was supplied by the Decennial Census Long Form prior to the 2010 Census. However, whereas the last long form, the Census 2000 Long Form, was sent to 18 million households in one year, the ACS is only sent to 3 million households per year and the data is gathered into:

- One-year estimates, which provide the most current data with the smallest sample size and are best for analyzing large populations.
- Three-year estimates, fall between the one- and five-year estimates in terms of sample size, reliability, and currency.
- Five-year estimates, which provide the largest sample size and are considered to provide the most reliable, although least current data. Due to the population size of many jurisdictions within Tompkins County, the most recent 2008-2012 estimates are used within this Plan.

This Plan primarily uses five-year estimates, as they are the estimates which cover all municipalities within Tompkins County, are the most reliable, and are best for analyzing areas with smaller populations. As with the decennial census, ACS data do not separate out student and non-student populations. Data from both the decennial census and ACS are available through the U.S. Census Bureau's American FactFinder (http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml).

# Data, By Chapter

#### Introduction

The chart entitled "Population Change Over Time" is based on the results of the decennial censuses published by the US Census Bureau. The chart entitled "Tompkins County Population Characteristics, 2010" and the data provided in the text entitled "County Demographic Profile" is based on results of the 2008-2012 ACS five-year estimates. Geographic data presented in the text is based on analysis of GIS data maintained by the County.

### The Economy

Information in this chapter on the makeup of the local economy draws heavily from the 2009 IMPLAN data set, the most recent data set purchased by Tompkins County Area Development (TCAD). IMPLAN data sets provide information regarding local economies drawn from a number of Federal government agency data sources. The chart in this section on employment and income characteristics draws from 2008-2012 ACS five-year estimates. A column in the chart for surrounding counties shows the unweighted average for many of the variables for the counties immediately bordering Tompkins County: Cayuga, Chemung, Cortland, Schuyler, Seneca and Tioga Counties. Data were not available to calculate weighted averages. Data in the chart titled "Tompkins County Labor Market and Job Growth Projections 2014-2024" are drawn from several sources, and this analysis was done initially by TCAD and the Workforce Investment Board in the Tompkins Workforce Strategy, published in 2010. The employment projections in the chart come from JobsEQ which is a proprietary economic data modeling and forecasting product purchased by TCAD from the private economic research firm Chmura Economics and Analytics. The chart visually conveys the impact of the Baby Boom cohort as it retires and as the smaller Generation X and Generation Y replace the Boomer generation.

### **Housing**

Unless otherwise indicated within the chapter or below, numerical statistics in this chapter are drawn from the 2008-2012 ACS five-year estimates, which does not allow separate analysis of student and non-student households. The New York Association of Realtors (<a href="http://www.nysar.com">http://www.nysar.com</a>) uses multiple listing systems throughout the state to provide state and local reports with key housing sale-related metrics, including the median home purchase prices mentioned in this chapter. In-commuter preferences were drawn from the 2006 Tompkins County/Cornell Employee Commuter Survey, available through the County's Planning Department (<a href="http://tompkinscountyny.gov/planning/housing-choices">http://tompkinscountyny.gov/planning/housing-choices</a>).

## **Transportation**

The pie chart, "Commute to Work (2013)," uses 2009-2013 five-year ACS data released as the Plan went to print. Numbers regarding commuters are drawn from the Census Transportation Planning Package (CTPP) 2010. The miles of roads, multi-use trails, designated bike routes, and marked bike lanes within Tompkins County were provided by the Ithaca-Tompkins County Transportation Council (ITCTC, <a href="http://www.tompkinscountyny.gov/itctc">http://www.tompkinscountyny.gov/itctc</a>), as were the number of bridges and the map of the "Proposed Complete Streets Network." The ITCTC's 2002 Sidewalk Inventory by intern Brian Varricchione, updated by windshield survey in 2009, provided the percentage of village and city streets with sidewalks. TCAT staff and Ithaca Tompkins Regional Airport staff provided data pertaining to TCAT and the Airport, respectively.

#### **Natural Resources**

The table, "Dedicated Open Space in Tompkins County 2004-2013" includes the range of major conservation landowners. The term "dedicated open space" is now used instead of "protected land" as many of these lands do not have formal protection mechanisms which restrict particular uses. For example, a range of uses are allowed on New York State Forestland that may not deem it "protected." The land noted in this chart includes ownership as indicated. Cornell University land includes that identified as Cornell Research Land, Cornell Natural Areas, State Agricultural Land Managed by Cornell, and Cornell Restricted Land. New York State land includes State Forest Land, State Marine Park, State Parks and Wildlife Management Areas. Finger Lakes Land Trust Land includes only land owned by the Land Trust, and does not include land where only easements are held. Agricultural Easements are those easements held by local governments on local privately owned farms predominately supported from the State's New York Farmland Protection program.

#### **Water Resources**

Geographic data presented in this chapter's text is based on analysis of GIS data maintained by Tompkins County.

## **Energy and Greenhouse Gas Emissions Section**

All energy and greenhouse gas emissions figures for the community are from the Tompkins County 2008 Community Greenhouse Gas Emissions Inventory, summarized in the Tompkins County Community Greenhouse Gas Emissions Report, 1998-2008, Tompkins County Planning Department, June 2010. All energy and greenhouse gas emissions figures for the Tompkins County government are from the Tompkins County 2008 Government Greenhouse Gas Emissions Inventory, summarized in the Tompkins County Community Government Greenhouse Gas Emissions, 1998-2008: A Report on the Local Action Plan, Tompkins County Planning Department, June 2010. Both reports are available at <a href="http://tompkinscountyny.gov/planning/energy-climate">http://tompkinscountyny.gov/planning/energy-climate</a>.

The pie chart, "NYSEG Electricity Grid Fuel Sources (2012)," uses New York State Electric and Gas Corporation (NYSEG) electric grid mix of fuel sources percentages from NYSEG's EnergyLines newsletter, dated November 2014 (<a href="http://www.nyseg.com">http://www.nyseg.com</a>). Information on the 306 MW Cayuga Power Plant is from correspondence with the Cayuga Power Plant Manager, fall 2014. Information on Cornell University's energy supply and demand is from correspondence with the University Facilities staff, summer 2014. Information on the Village of Groton's electricity supply is from the Village of Groton's website (<a href="http://www.grotonny.org/docs/ppa.pdf">http://www.grotonny.org/docs/ppa.pdf</a>) obtained in summer 2014.

The poll results referenced in the Changing Behavior section are from the 2014 Survey of Residential Electric Customer Interest in Value-Added Products and Services, a joint project of the Department of Public Service, NYSERDA and New York State Smart Grid Consortium, August 20, 2014 (<a href="http://nyssmartgrid.com/wp-content/uploads/2014-Survey-of-Residential-Electric-Customer-Interest-in-Value-Added-Products-and-Services.pdf">http://nyssmartgrid.com/wp-content/uploads/2014-Survey-of-Residential-Electric-Customer-Interest-in-Value-Added-Products-and-Services.pdf</a>). The map, "Potential Wind Areas" uses 2003 data from AWS Truewind LLC and Cornell University. Forest, brushland, and inactive agricultural land area numbers are taken from the 2012 Land Use Land Cover Analysis by the Tompkins County Planning Department. Information about solid waste is

from the Tompkins County Solid Waste Management Division's 2013 Annual Report (http://www.recycletompkins.org/data/ANNUAL\_REPORT\_2013.pdf).

### Adaptation

The bar chart, "Estimated Number of Days with Temperatures in Excess of 90°" summarizing the projected range in the number of days over 90 degrees is drawn from the 2014 ClimAID update. Specifically it utilizes the Extreme Event ranges (page 11 of the 2014 update report) Region 3- Elmira "Middle Range" scenarios.

### **Healthy Communities**

Except where otherwise noted within the text of this chapter, all data were drawn from ACS five-year estimates.

# **Development Patterns**

The chart entitled "Population and Housing in Villages and City" is based on the results of the decennial censuses between 1980 and 2010 published by the U.S. Census Bureau.