

# AMATS 2045 PLANNING DATA FORECAST



December 2020

AKRON METROPOLITAN AREA TRANSPORTATION STUDY  
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This report is the product of a study financed (in part) by the U.S. Department of Transportation's Federal Highway Administration, Federal Transit Administration and the Ohio Department of Transportation.

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Cooperative transportation planning by the Village, City and County governments of Portage and Summit Counties and the Chippewa and Milton Township areas of Wayne County; in conjunction with the U.S. Department of Transportation and the Ohio Department of Transportation.

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# Executive Summary

The Akron Metropolitan Area Transportation Study Planning Data Forecast is a useful tool to understand what the greater Akron area could possibly look like in 2045. The forecast is based on existing data and projects this data into the future based on current trends. While it is truly impossible to accurately predict the future, current trends can give us some expectation of what the future holds. The forecasting of planning variables provides insight to what needs our transportation system may require and it is a critical part of the long range planning process.

Greater Akron area's population is expected to grow by 2.4 percent between 2010 and 2045. Areas of population growth are anticipated in western Portage County and southern Summit County.

Employment is also expected to grow between now and 2045. Greater Akron area employment is forecasted to increase by 17 percent. High growth job sectors include healthcare, construction and transportation and warehousing.

## Introduction

One of the most fundamental steps in the regional transportation planning process is the collection, organization and analysis of existing planning-related data. Using this data, the Akron Metropolitan Area Transportation Study (AMATS) can determine where we have been (from a social-economic standpoint), the greater Akron region's current conditions, and perhaps most critical to any planning effort, in what direction we are heading.

Although the most commonly used data items (ex. population or employment data) are gathered and analyzed on an ongoing basis, a greatly expanded effort is undertaken in preparation for each upcoming long-range regional transportation plan. For this reason, the *AMATS 2045 Planning Data Forecast* has been completed as a necessary precursor to the upcoming long-range plan, *Transportation Outlook 2045*.

AMATS analyzes the base year of 2010 and the planning period year of 2045. 2010 data generally comes from either the most recent U.S. census or from American Community Survey (ACS) data. Using forecasting methodology, this 2010 data is forecasted out to the plan year of 2045. Projection methodologies vary depending on the nature of each variable and is described below.

The *AMATS 2045 Planning Data Forecast* projects a number of variables, each of which has a direct impact on local traffic and is therefore required for input into the regional traffic demand model. These variables include:

Population
Households
Population Under 18
Vehicles
Workers
Employment (25 categories)
School Enrollment (K-12)
University Enrollment
Group Quarters
Hotel Rooms
Median Household Income

The AMATS region is divided into 837 traffic analysis zones (traffic zones or TAZ). These traffic zones are used by the regional traffic demand model to generate traffic volumes and to determine where trips begin and end. The model requires that each of the variables be provided for each traffic zone – for the base year 2010 and plan year 2045.

The *AMATS 2045 Planning Data Forecast* places the over 30 planning variables into three categories: population-based, employment-based and stand-alone variables. For each variable, this report will explain the sources of the underlying data and the methodology used to generate 2045 forecasts. In Part IV of this report, the data representing each of the planning variables will be presented by subarea.

# Future Projections

Although AMATS makes its best attempt to project future data based on recent historic trends, there is no “crystal ball” to perfectly ascertain future growth. With a long, 25 year time horizon, even minor fluctuations in any given historic year can significantly affect the expected future outcome at the individual community level. Major fluctuations can *dramatically* alter the projected totals.

To smooth out these data fluctuations, as well as to resolve problems of redundancy (i.e. where census tracts or TAZs include portions of more than one municipality), AMATS has aggregated TAZ-level data - for every variable - into eight different subareas. These subareas reflect the shared growth characteristics of the political units within the same geographic area. In addition, data has been presented at the regional and county levels, as well as for three specific larger cities: Akron, Barberton and Cuyahoga Falls. The data from these three communities *is not* included in the subarea data. The following is a breakdown of the levels in which data has been presented for this analysis:

<b>Forecasting Levels Breakdown</b>	
<b>REGIONAL</b>	
AMATS Region	
<b>COUNTY</b>	
Summit County, Portage County	
<b>SELECT CITIES</b>	
Akron, Barberton, Cuyahoga Falls	
<b>SUBAREAS</b>	
<b>Northern Summit</b>	Boston Heights, Boston Township, Hudson, Macedonia, Northfield Village, Northfield Center Township, Sagamore Hills, Twinsburg, Twinsburg Township
<b>Central Summit</b>	Bath Township, Copley Township, Fairlawn, Munroe Falls, Silver Lake, Stow, Tallmadge
<b>Southern Summit</b>	Clinton, Coventry Township, Green, Lakemore, Mogadore, New Franklin, Norton, Springfield Township
<b>Northwest Portage</b>	Aurora, Mantua Village, Mantua Township, Shalersville Township, Streetsboro, Sugar Bush Knolls
<b>Northeast Portage</b>	Freedom Township, Garrettsville, Hiram Village, Hiram Township, Nelson Township, Windham Village, Windahm Township
<b>Southwest Portage</b>	Brimfield Township, Franklin Township, Kent, Mogadore (Portage), Randolph Township, Ravenna, Ravenna Township, Rootstown Township, Suffield Township, Tallmadge (Portage)
<b>Southeast Portage</b>	Atwater Township, Charlestown Township, Deerfield Township, Edinburg Township, Palmyra Township, Paris Township
<b>Northeast Wayne</b>	Chippewa Township, Doylestown, Milton Township, Norton (Wayne), Rittman

While performing the various data analyses required for the Planning Data Forecast, AMATS generally allows historic data points to paint the picture of what may be expected in 2045. AMATS solely uses these projections for planning purposes only and in no way does it impact current project selection or funding.

# Part I:

## Population-Based Variables

### Population

#### Data Sources

To analyze the AMATS region's population growth over the 25 year planning horizon, three primary data sources were used:

- Historic data gathered from the last two U.S. Census periods (2000 and 2010) for Portage County
- American Community Survey (ACS) 2011-2016 for Summit and Wayne Counties

#### Methodology

AMATS used a logarithmic mathematical model to project population in 2045. The logarithmic model fits the greater Akron region well, as the model shows more gradual change. AMATS used two different data sets for the projections based on best fit. In Portage County, AMATS used the actual census counts for the years 1960-2010. Typically ACS data has under represented Portage County's growth, which has been fairly linear over the past 50 years. In Summit and Wayne Counties where growth is slower, AMATS used the ACS data. The only exception is the City of Green, which used raw census counts due to its higher growth.

At the TAZ level population loss or gain was distributed based on the county control total and likely development patterns.

### Households

#### Data Sources

To project the number of households anticipated by 2045 in the AMATS region, three primary data sources were used:

- 2010 U.S. Census Data
- Ohio Development Services Cohort Projections Data 2045
- 2045 AMATS Population Projections

#### Methodology

According to the U.S. Census Bureau, a household is defined as a group of people who occupy a housing unit as their usual place of residence. The number of households within an area has a direct impact on local traffic volumes, and is therefore an important input into the regional traffic demand model.

At the County Level, AMATS used Census Householder Data by age for 2010, Ohio Development Services 2045 Population Cohorts and the AMATS 2045 Population Projections to project the number of households in 2045. Households were distributed to TAZs based 2010 household distribution and development trends throughout the region.

### Population Under 18

#### Data Sources

To forecast the population under the age of 18 expected by 2045 in the AMATS region, two primary data sources were used:

- 2010 U.S. Census
- Previously calculated 2045 population by TAZ figures, which were based on U.S. Census data

#### Methodology

The 2010 U.S. Census provided population in each TAZ that was under the age of 18 – a necessary input into the regional traffic demand model. Using the total 2010 population for each TAZ, the percentage of each TAZ's under 18 population was calculated. Assuming that the percentage of under 18 population would remain constant through 2045, the 2010 rate was multiplied by the previously calculated 2045 forecasted total population by TAZ to determine the 2045 under 18 population for each TAZ. The TAZ-level data was then aggregated into the appropriate subareas.

## Number of Vehicles

### Data Sources

To forecast the number of household-based (i.e. non-commercial) vehicles expected by 2045 in the AMATS region, two primary data sources were used:

- 2010 U.S Census
- Previously calculated 2045 number of households by TAZ figures, which were based on U.S. Census and CTPP data

### Methodology

U.S. Census data provided the raw numbers for the number of household-based vehicles by TAZ in 2010, which is an important input into the regional traffic demand model. For each TAZ, this number of vehicles was divided by the 2010 number of households (also using CTPP data) to determine a rate for the number of vehicles per household. It was assumed that the number of vehicles per household rate would remain constant through 2045, so the rate was multiplied by the previously calculated 2045 number of households by TAZ to derive an expected number of 2045 vehicles for each TAZ. Similar to all other variables, TAZ-level data was then aggregated into the appropriate subareas.

## Number of Workers

### Data Sources

To project the number of workers expected by 2045 in the AMATS region, two primary data sources were used:

- 2010 U.S Census
- Previously calculated 2010 and 2045 population by TAZ figures

### Methodology

The Census Bureau defines workers as people who reside within a community, are 16 years or older and who did any work for pay. Workers may be employed in a community other than the one in which they live. CTPP data provided the raw numbers of workers by TAZ in 2010. For each TAZ, the 2010 number of workers was divided by the 2010 total population of the TAZ to determine the percentage of the population within that TAZ that could be classified as “workers”. Assuming that this rate would hold steady through 2045, this 2010 rate of workers per TAZ was multiplied by the previously calculated 2045 population by TAZ to determine the number of workers in each TAZ in 2045. This TAZ-level data was then aggregated into the appropriate subareas.

# Part II: Employment-Based Variables

## Employment

### Data Sources

To analyze the AMATS region’s employment growth over the 25 year planning horizon, the following data sources were used:

- 2018 Quarterly Census of Employment and Wages (QCEW)
- Ohio Department of Jobs and Family Services Industry Employment Projection Report 2016-2026

### Methodology

As an input into the upcoming long-range regional transportation plan, AMATS has forecasted the region’s employment to the year 2045, using a base year of 2018. While 2018 is the most recent data set, AMATS still compares 2045 data to the 2010 base year employment in the attached tables.

The first step in the process was gathering recent historic employment data, by industry. Employment industry data is differentiated by its North American Industry Classification System (NAICS) code, as identified in the following table:

## NAICS Industry Codes

Code #	Industry Description
NAICS 11	Agriculture, Forestry and Hunting
NAICS 21	Mining
NAICS 22	Utilities
NAICS 23	Construction
NAICS 31-33	Manufacturing - Aggregated
NAICS 42	Wholesale Trade
NAICS 44-45	Retail Trade - Aggregated
NAICS 48-49	Transportation and Warehousing - Aggregated
NAICS 51	Information
NAICS 52	Finance and Insurance
NAICS 53	Real Estate and Rental and Leasing
NAICS 54	Professional Scientific and Technical Services
NAICS 55	Management of Companies and Enterprises
NAICS 56	Administrative Support, Waste Management and Remediation Services
NAICS 61	Education Services
NAICS 62	Health Care and Social Assistance
NAICS 71	Arts, Entertainment and Recreation
NAICS 72	Accommodation and Food Services
NAICS 81	Other Services (except Public Administration)
NAICS 92	Public Administration
NAICS 99	Other*

*\*Note – the source provided no data for the NAICS 99 “Other” category. The number of jobs within this industry code has typically been negligible in previous analyses*

To project future employment, AMATS used the Ohio Department of Jobs and Family Services employment projections from 2016 to 2026 to develop growth rates for NAICS job codes out to 2045. AMATS used its 2018 QCEW data to project to 2045. It was assumed that most employment centers would remain employment centers between 2010 and 2045. The employment growth assumed in the AMATS region was distributed to TAZs where NAICS employment was already located or distributed to zones where economic development was deemed likely.

# Part III: Stand-Alone Variables

## School Enrollment (K-12)

### Data Sources

The State of Ohio publishes comprehensive enrollment reports for both public and private schools. To forecast the number of students expected in 2045, the following sources were used:

- Ohio Department of Education 2010 public and non-public school enrollment reports
- U.S. Census Bureau – population under age 18 by community
- Various school and board of education websites for verification purposes

## Methodology

To begin the data forecasting process, 2010 enrollment data was gathered using reports published by the Ohio Department of Education. The street address for each school was determined and overlaid with the AMATS traffic zones in GIS to allocate enrolled students by TAZ.

Many school districts in the region are in the midst of closing, consolidating and/or constructing new school facilities. Research was completed to determine which schools were affected, and how best to re-allocate 2010 students to these new facilities.

Once 2010 data had been established for public schools, each school building's enrollment was multiplied its corresponding community's "under age 18" growth rate between 2010 and 2045. This resulted in a 2045 enrollment figure at the TAZ level. The TAZ level data was then aggregated and presented at the subarea level.

## Group Quarters

### Data Sources

To project the number of residents living in group quarters by 2045, the following data sources were used:

- 2010 U.S. Census
- Various institutional websites and reports for resident count and verification purposes

### Methodology

Group quarters include college dormitories, jails and similar detention centers, and nursing homes. 2010 data was not available at the TAZ level, so it had to be manually calculated. As a first step, ACS data was utilized to determine the number of people residing in group quarters, as of 2010, by census tract. Most census tracts contain multiple traffic zones, so the total number of residents within each tract needed apportioned to the traffic zones within that tract. To accomplish this, aerial photos and online mapping programs were used to identify all group quarters facilities, which were then overlaid in GIS to determine which TAZ the facility fell in. Using university student housing reports, inmate population reports and nursing home websites, the populations were distributed among the traffic zones. If a tract contained a group quarters population (usually very small ones) and no group quarters facility could be identified, the total census tract population was divided evenly among all traffic zones within the tract.

Since group quarters populations are not related to the surrounding local community (i.e. students, inmates and nursing home residents may come from anywhere), AMATS assumed that group quarters populations would remain the same for existing facilities. However, areas where new group quarters have been built in the region between 2010 and 2020 have been added.

## Hotel Rooms

### Data Sources

To forecast the number of hotel room available in the AMATS region by 2045, the following data sources were used:

- Various hotel and travel industry websites to identify hotels and their room inventories
- Press releases regarding planned and/or pending hotel construction

### Methodology

AMATS conducted research to identify every hotel in the region, as well as to determine the total number of rooms at each of these hotels – a required input into the regional traffic demand model. Once hotels and their addresses were identified, they were overlaid in GIS to determine which traffic zone housed each hotel. All hotels and room inventories existing as of 2010 were assumed to exist unchanged through 2045 (unless closed between 2010 and the 2020 update).

In addition to existing hotels, hotels that were under construction or in the planning phases were included in the 2045 totals.

Finally, AMATS added rooms (based on the average number of rooms in recently completed hotel projects) to certain high-growth traffic zones in which future hotel development seems likely. These areas include:

- Northern Summit
- Southern Summit
- Northwest Portage
- Southwest Portage



## Median Household Income

### Data Source

To determine the median household income by census tract, the following data source was used:

- 2010 U.S. Census

### Methodology

The 2010 median household income was determined for every census tract within the AMATS region, using data provided by the American Community Survey. This median household income was assumed to be consistent among every traffic zone within that census tract. For traffic zones that crossed into multiple census tracts, an average was calculated, and that average of median household incomes was assigned to that particular TAZ. In areas where new growth is anticipated median household income was increased assuming that new housing units would most likely increase the TAZ median household income.

# Part IV: Forecast Results

The following tables present the results of the various analyses conducted as part of the Planning Data Forecast process. All 35 variables have been forecasted for the AMATS region, at the county level, for three significant cities and eight subareas. Employment data has been summarized by NAICS code.

Each table includes 2010 base year data, as well as the data forecasted through the plan year of 2045. Although full details regarding data sources and methodology are available for each variable in the previous sections of this report, nearly all 2010 data has been collected from various sources and tools published by the U.S. Census Bureau. The State of Ohio provided important base year data as well.

Although data has been cross-checked for as much consistency as possible, certain situations prevent the perfect reconciliation of totals between different variables and/or subareas. Some of these situations include, but are not limited to:

- Rounding error
- Overlap between geographical boundaries (municipal/TAZ/census tract/etc.)
- The necessity of using different data sources within the same analysis due to data gaps or unavailability
- Internal efforts to smooth untenable forecasted totals

The following pages include a map illustrating the political units, subareas and traffic analysis zones that were considered as part of this analysis, as well as a presentation of the variables for each of these geographic areas.

## AMATS 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	722,788	739,885	2.4%
Households	292,444	299,340	2.4%
Population Under 18	161,858	165,342	2.2%
Vehicles	523,128	534,506	2.2%
Workers	343,133	344,603	0.4%

Employment				
NAICS 11	371	338	-8.9%	Agriculture, Forestry and Hunting
NAICS 21	426	473	11.0%	Mining
NAICS 22	1,815	1,545	-14.9%	Utilities
NAICS 23	10,305	15,124	46.8%	Construction
NAICS 31-33	38,432	32,048	-16.6%	Manufacturing - Aggregated
NAICS 42	15,671	16,674	6.4%	Wholesale Trade
NAICS 44-45	35,243	40,791	15.7%	Retail Trade - Aggregated
NAICS 48-49	10,617	14,087	32.7%	Transportation and Warehousing - Aggregated
NAICS 51	4,987	4,817	-3.4%	Information
NAICS 52	9,438	13,184	39.7%	Finance and Insurance
NAICS 53	3,191	3,498	9.6%	Real Estate and Rental and Leasing
NAICS 54	14,766	16,913	14.5%	Professional Scientific and Technical Services
NAICS 55	14,358	18,841	31.2%	Management of Companies and Enterprises
NAICS 56	16,785	20,374	21.4%	Administrative Support, Waste Management and Remediation
NAICS 61	29,860	29,801	-0.2%	Education Services
NAICS 62	50,443	77,007	52.7%	Health Care and Social Assistance
NAICS 71	4,149	5,976	44.0%	Arts, Entertainment and Recreation
NAICS 72	25,111	26,920	7.2%	Accommodation and Food Services
NAICS 81	9,793	10,154	3.7%	Other Services (except Public Administration)
NAICS 92	9,685	8,999	-7.1%	Public Administration
NAICS 99	98	7	-92.9%	Other
Total Employment	305,544	357,571	17.0%	

K-12 School Enrollment	111,906	114,668	2.5%
University Enrollment	56,186	46,526	-17.2%
Group Quarters	18,186	18,422	1.3%
Hotel Rooms	6,391	6,620	3.6%
Median Household Income	57,851	57,900	0.1%

## Summit County 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	541,781	542,799	0.2%
Households	222,781	223,374	0.3%
Population Under 18	123,575	123,462	-0.1%
Vehicles	390,395	386,964	-0.9%
Workers	256,808	254,646	-0.8%

Employment				
NAICS 11	86	47	-45.3%	Agriculture, Forestry and Hunting
NAICS 21	68	121	77.9%	Mining
NAICS 22	1,698	1,434	-15.5%	Utilities
NAICS 23	8,650	12,579	45.4%	Construction
NAICS 31-33	28,467	22,976	-19.3%	Manufacturing - Aggregated
NAICS 42	13,065	13,360	2.3%	Wholesale Trade
NAICS 44-45	29,146	32,727	12.3%	Retail Trade - Aggregated
NAICS 48-49	9,238	11,883	28.6%	Transportation and Warehousing - Aggregated
NAICS 51	4,563	4,270	-6.4%	Information
NAICS 52	8,662	12,370	42.8%	Finance and Insurance
NAICS 53	2,634	2,974	12.9%	Real Estate and Rental and Leasing
NAICS 54	13,387	15,076	12.6%	Professional Scientific and Technical Services
NAICS 55	13,527	17,919	32.5%	Management of Companies and Enterprises
NAICS 56	15,659	18,952	21.0%	Administrative Support, Waste Management and Remediation
NAICS 61	20,585	19,976	-3.0%	Education Services
NAICS 62	44,235	67,785	53.2%	Health Care and Social Assistance
NAICS 71	3,652	5,494	50.4%	Arts, Entertainment and Recreation
NAICS 72	20,338	21,242	4.4%	Accommodation and Food Services
NAICS 81	8,100	8,350	3.1%	Other Services (except Public Administration)
NAICS 92	7,760	7,229	-6.8%	Public Administration
NAICS 99	71	5	-93.0%	Other
Total Employment	253,591	296,769	17.0%	

K-12 School Enrollment	56,820	57,042	0.4%
University Enrollment	29,251	19,500	-33.3%
Group Quarters	9,967	10,084	1.2%
Hotel Rooms	5,056	5,135	1.6%
Median Household Income	53,964	54,000	0.1%

## Portage County 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	161,419	177,266	9.8%
Households	62,222	68,308	9.8%
Population Under 18	33,678	37,226	10.5%
Vehicles	118,930	133,551	12.3%
Workers	78,844	84,003	6.5%

Employment				
NAICS 11	143	140	-2.1%	Agriculture, Forestry and Hunting
NAICS 21	344	283	-17.7%	Mining
NAICS 22	96	96	0.0%	Utilities
NAICS 23	1,494	2,244	50.2%	Construction
NAICS 31-33	9,422	8,682	-7.9%	Manufacturing - Aggregated
NAICS 42	2,475	3,194	29.1%	Wholesale Trade
NAICS 44-45	5,756	7,696	33.7%	Retail Trade - Aggregated
NAICS 48-49	1,347	2,160	60.4%	Transportation and Warehousing - Aggregated
NAICS 51	385	526	36.6%	Information
NAICS 52	722	752	4.2%	Finance and Insurance
NAICS 53	538	508	-5.6%	Real Estate and Rental and Leasing
NAICS 54	1,313	1,751	33.4%	Professional Scientific and Technical Services
NAICS 55	831	922	11.0%	Management of Companies and Enterprises
NAICS 56	1,087	1,380	27.0%	Administrative Support, Waste Management and Remediation
NAICS 61	8,826	9,348	5.9%	Education Services
NAICS 62	5,728	8,457	47.6%	Health Care and Social Assistance
NAICS 71	470	432	-8.1%	Arts, Entertainment and Recreation
NAICS 72	4,645	5,533	19.1%	Accommodation and Food Services
NAICS 81	1,537	1,658	7.9%	Other Services (except Public Administration)
NAICS 92	1,840	1,687	-8.3%	Public Administration
NAICS 99	27	2	-92.6%	Other
Total Employment	49,026	57,451	17.2%	

K-12 School Enrollment	15,749	17,415	10.6%
University Enrollment	26,935	27,026	0.3%
Group Quarters	7,914	8,025	1.4%
Hotel Rooms	1,335	1,485	11.2%
Median Household Income	61,349	61,300	-0.1%

## Akron 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	202,443	199,153	-1.6%
Households	84,799	84,021	-0.9%
Population Under 18	46,211	45,177	-2.2%
Vehicles	140,505	136,963	-2.5%
Workers	90,746	88,386	-2.6%

Employment				
NAICS 11	9	6	-33.3%	Agriculture, Forestry and Hunting
NAICS 21	17	19	11.8%	Mining
NAICS 22	1,161	799	-31.2%	Utilities
NAICS 23	2,504	3,698	47.7%	Construction
NAICS 31-33	7,971	6,304	-20.9%	Manufacturing - Aggregated
NAICS 42	3,485	2,842	-18.5%	Wholesale Trade
NAICS 44-45	7,952	7,514	-5.5%	Retail Trade - Aggregated
NAICS 48-49	3,281	4,361	32.9%	Transportation and Warehousing - Aggregated
NAICS 51	2,319	1,925	-17.0%	Information
NAICS 52	2,106	2,922	38.7%	Finance and Insurance
NAICS 53	1,142	1,078	-5.6%	Real Estate and Rental and Leasing
NAICS 54	5,550	5,250	-5.4%	Professional Scientific and Technical Services
NAICS 55	9,150	11,331	23.8%	Management of Companies and Enterprises
NAICS 56	4,446	6,069	36.5%	Administrative Support, Waste Management and Remediation
NAICS 61	9,739	9,282	-4.7%	Education Services
NAICS 62	24,784	36,184	46.0%	Health Care and Social Assistance
NAICS 71	1,081	1,470	36.0%	Arts, Entertainment and Recreation
NAICS 72	5,256	5,401	2.8%	Accommodation and Food Services
NAICS 81	2,902	2,751	-5.2%	Other Services (except Public Administration)
NAICS 92	4,444	3,989	-10.2%	Public Administration
NAICS 99	17	0	-100.0%	Other
Total Employment	99,316	113,195	14.0%	

K-12 School Enrollment	17,573	17,198	-2.1%
University Enrollment	29,251	19,500	-33.3%
Group Quarters	6,199	6,214	0.2%
Hotel Rooms	441	658	49.2%
Median Household Income	32,298	32,300	0.0%

## Barberton 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	26,341	25,742	-2.3%
Households	11,000	10,730	-2.5%
Population Under 18	6,182	6,031	-2.4%
Vehicles	17,666	17,069	-3.4%
Workers	11,833	11,415	-3.5%

Employment				
NAICS 11	45	0	-100.0%	Agriculture, Forestry and Hunting
NAICS 21	0	0	0.0%	Mining
NAICS 22	0	0	0.0%	Utilities
NAICS 23	1,029	416	-59.6%	Construction
NAICS 31-33	3,221	1,663	-48.4%	Manufacturing - Aggregated
NAICS 42	233	367	57.5%	Wholesale Trade
NAICS 44-45	750	699	-6.8%	Retail Trade - Aggregated
NAICS 48-49	131	132	0.8%	Transportation and Warehousing - Aggregated
NAICS 51	42	53	26.2%	Information
NAICS 52	111	125	12.6%	Finance and Insurance
NAICS 53	48	11	-77.1%	Real Estate and Rental and Leasing
NAICS 54	99	112	13.1%	Professional Scientific and Technical Services
NAICS 55	74	156	110.8%	Management of Companies and Enterprises
NAICS 56	322	161	-50.0%	Administrative Support, Waste Management and Remediation
NAICS 61	708	653	-7.8%	Education Services
NAICS 62	2,236	2,714	21.4%	Health Care and Social Assistance
NAICS 71	40	20	-50.0%	Arts, Entertainment and Recreation
NAICS 72	647	569	-12.1%	Accommodation and Food Services
NAICS 81	409	453	10.8%	Other Services (except Public Administration)
NAICS 92	199	160	-19.6%	Public Administration
NAICS 99	0	0	0.0%	Other
Total Employment	10,344	8,464	-18.2%	

K-12 School Enrollment	2,102	2,049	-2.5%
University Enrollment	0	0	0.0%
Group Quarters	371	374	0.8%
Hotel Rooms	0	0	0.0%
Median Household Income	39,968	40,000	0.1%

## Cuyahoga Falls 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	50,021	49,941	-0.2%
Households	22,357	22,521	0.7%
Population Under 18	10,488	10,433	-0.5%
Vehicles	39,452	39,319	-0.3%
Workers	24,943	24,709	-0.9%

Employment				
NAICS 11	3	0	-100.0%	Agriculture, Forestry and Hunting
NAICS 21	3	0	-100.0%	Mining
NAICS 22	74	67	-9.5%	Utilities
NAICS 23	299	359	20.1%	Construction
NAICS 31-33	3,357	3,067	-8.6%	Manufacturing - Aggregated
NAICS 42	473	648	37.0%	Wholesale Trade
NAICS 44-45	2,600	2,986	14.8%	Retail Trade - Aggregated
NAICS 48-49	176	267	51.7%	Transportation and Warehousing - Aggregated
NAICS 51	201	146	-27.4%	Information
NAICS 52	342	391	14.3%	Finance and Insurance
NAICS 53	224	205	-8.5%	Real Estate and Rental and Leasing
NAICS 54	866	736	-15.0%	Professional Scientific and Technical Services
NAICS 55	532	895	68.2%	Management of Companies and Enterprises
NAICS 56	758	1,585	109.1%	Administrative Support, Waste Management and Remediation
NAICS 61	1,775	1,845	3.9%	Education Services
NAICS 62	2,599	5,289	103.5%	Health Care and Social Assistance
NAICS 71	278	381	37.1%	Arts, Entertainment and Recreation
NAICS 72	1,902	2,179	14.6%	Accommodation and Food Services
NAICS 81	746	689	-7.6%	Other Services (except Public Administration)
NAICS 92	568	513	-9.7%	Public Administration
NAICS 99	6	1	-83.3%	Other
Total Employment	17,782	22,249	25.1%	

K-12 School Enrollment	5,047	5,033	-0.3%
University Enrollment	0	0	0.0%
Group Quarters	527	534	1.3%
Hotel Rooms	318	318	0.0%
Median Household Income	52,802	52,800	0.0%

## Northern Summit 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	88,088	89,717	1.8%
Households	33,995	34,511	1.5%
Population Under 18	22,055	22,483	1.9%
Vehicles	68,209	68,555	0.5%
Workers	43,466	43,726	0.6%

Employment				
NAICS 11	10	14	40.0%	Agriculture, Forestry and Hunting
NAICS 21	34	33	-2.9%	Mining
NAICS 22	89	89	0.0%	Utilities
NAICS 23	1,826	3,079	68.6%	Construction
NAICS 31-33	6,946	5,882	-15.3%	Manufacturing - Aggregated
NAICS 42	5,687	5,873	3.3%	Wholesale Trade
NAICS 44-45	5,328	6,194	16.3%	Retail Trade - Aggregated
NAICS 48-49	2,834	3,589	26.6%	Transportation and Warehousing - Aggregated
NAICS 51	1,178	1,620	37.5%	Information
NAICS 52	3,199	5,022	57.0%	Finance and Insurance
NAICS 53	324	747	130.6%	Real Estate and Rental and Leasing
NAICS 54	2,440	2,505	2.7%	Professional Scientific and Technical Services
NAICS 55	1,503	2,499	66.3%	Management of Companies and Enterprises
NAICS 56	1,740	2,947	69.4%	Administrative Support, Waste Management and Remediation
NAICS 61	2,911	3,107	6.7%	Education Services
NAICS 62	3,540	6,058	71.1%	Health Care and Social Assistance
NAICS 71	1,364	2,607	91.1%	Arts, Entertainment and Recreation
NAICS 72	3,644	4,040	10.9%	Accommodation and Food Services
NAICS 81	1,332	1,880	41.1%	Other Services (except Public Administration)
NAICS 92	845	975	15.4%	Public Administration
NAICS 99	26	2	-92.3%	Other
Total Employment	46,800	58,762	25.6%	

K-12 School Enrollment	10,978	11,203	2.0%
University Enrollment	0	0	0.0%
Group Quarters	939	989	5.3%
Hotel Rooms	1,532	1,319	-13.9%
Median Household Income	94,631	94,350	-0.3%



## Central Summit 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	92,130	93,000	0.9%
Households	37,281	37,276	0.0%
Population Under 18	20,715	20,748	0.2%
Vehicles	69,285	68,549	-1.1%
Workers	44,537	44,385	-0.3%

Employment				
NAICS 11	7	11	57.1%	Agriculture, Forestry and Hunting
NAICS 21	9	7	-22.2%	Mining
NAICS 22	297	398	34.0%	Utilities
NAICS 23	1,267	2,070	63.4%	Construction
NAICS 31-33	2,619	2,426	-7.4%	Manufacturing - Aggregated
NAICS 42	1,502	1,780	18.5%	Wholesale Trade
NAICS 44-45	8,719	10,235	17.4%	Retail Trade - Aggregated
NAICS 48-49	739	1,163	57.4%	Transportation and Warehousing - Aggregated
NAICS 51	603	411	-31.8%	Information
NAICS 52	1,835	2,605	42.0%	Finance and Insurance
NAICS 53	549	544	-0.9%	Real Estate and Rental and Leasing
NAICS 54	2,965	4,440	49.7%	Professional Scientific and Technical Services
NAICS 55	920	1,333	44.9%	Management of Companies and Enterprises
NAICS 56	5,579	3,647	-34.6%	Administrative Support, Waste Management and Remediation
NAICS 61	3,028	2,726	-10.0%	Education Services
NAICS 62	8,066	12,318	52.7%	Health Care and Social Assistance
NAICS 71	658	751	14.1%	Arts, Entertainment and Recreation
NAICS 72	5,558	5,784	4.1%	Accommodation and Food Services
NAICS 81	1,722	1,386	-19.5%	Other Services (except Public Administration)
NAICS 92	750	703	-6.3%	Public Administration
NAICS 99	21	0	-100.0%	Other
Total Employment	47,413	54,738	15.4%	

K-12 School Enrollment	10,603	10,628	0.2%
University Enrollment	0	0	0.0%
Group Quarters	1,494	1,501	0.5%
Hotel Rooms	1,725	1,725	0.0%
Median Household Income	73,018	73,000	0.0%

## Southern Summit 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	82,758	85,246	3.0%
Households	33,349	34,315	2.9%
Population Under 18	17,924	18,590	3.7%
Vehicles	55,278	56,509	2.2%
Workers	41,283	42,025	1.8%

Employment				
NAICS 11	12	16	33.3%	Agriculture, Forestry and Hunting
NAICS 21	5	62	1140.0%	Mining
NAICS 22	77	81	5.2%	Utilities
NAICS 23	1,725	2,957	71.4%	Construction
NAICS 31-33	4,353	3,634	-16.5%	Manufacturing - Aggregated
NAICS 42	1,685	1,850	9.8%	Wholesale Trade
NAICS 44-45	3,797	5,099	34.3%	Retail Trade - Aggregated
NAICS 48-49	2,077	2,371	14.2%	Transportation and Warehousing - Aggregated
NAICS 51	220	115	-47.7%	Information
NAICS 52	1,069	1,305	22.1%	Finance and Insurance
NAICS 53	347	389	12.1%	Real Estate and Rental and Leasing
NAICS 54	1,467	2,033	38.6%	Professional Scientific and Technical Services
NAICS 55	1,348	1,705	26.5%	Management of Companies and Enterprises
NAICS 56	2,814	4,543	61.4%	Administrative Support, Waste Management and Remediation
NAICS 61	2,424	2,363	-2.5%	Education Services
NAICS 62	3,010	5,222	73.5%	Health Care and Social Assistance
NAICS 71	231	265	14.7%	Arts, Entertainment and Recreation
NAICS 72	3,331	3,269	-1.9%	Accommodation and Food Services
NAICS 81	989	1,191	20.4%	Other Services (except Public Administration)
NAICS 92	954	889	-6.8%	Public Administration
NAICS 99	1	2	100.0%	Other
Total Employment	31,936	39,361	23.2%	

K-12 School Enrollment	10,517	10,931	3.9%
University Enrollment	0	0	0.0%
Group Quarters	437	472	8.0%
Hotel Rooms	1,040	1,115	7.2%
Median Household Income	66,351	66,400	0.1%

## Northwest Portage 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	43,044	48,198	12.0%
Households	16,873	18,776	11.3%
Population Under 18	9,938	11,123	11.9%
Vehicles	32,412	36,817	13.6%
Workers	20,815	22,625	8.7%

Employment				
NAICS 11	23	45	95.7%	Agriculture, Forestry and Hunting
NAICS 21	52	64	23.1%	Mining
NAICS 22	17	18	5.9%	Utilities
NAICS 23	406	478	17.7%	Construction
NAICS 31-33	4,580	4,113	-10.2%	Manufacturing - Aggregated
NAICS 42	1,759	2,227	26.6%	Wholesale Trade
NAICS 44-45	2,486	2,972	19.5%	Retail Trade - Aggregated
NAICS 48-49	617	1,051	70.3%	Transportation and Warehousing - Aggregated
NAICS 51	27	249	822.2%	Information
NAICS 52	194	230	18.6%	Finance and Insurance
NAICS 53	256	158	-38.3%	Real Estate and Rental and Leasing
NAICS 54	567	898	58.4%	Professional Scientific and Technical Services
NAICS 55	83	75	-9.6%	Management of Companies and Enterprises
NAICS 56	441	713	61.7%	Administrative Support, Waste Management and Remediation
NAICS 61	1,243	1,209	-2.7%	Education Services
NAICS 62	1,470	2,553	73.7%	Health Care and Social Assistance
NAICS 71	220	201	-8.6%	Arts, Entertainment and Recreation
NAICS 72	1,500	1,726	15.1%	Accommodation and Food Services
NAICS 81	545	523	-4.0%	Other Services (except Public Administration)
NAICS 92	306	366	19.6%	Public Administration
NAICS 99	25	0	-100.0%	Other
Total Employment	16,817	19,869	18.1%	

K-12 School Enrollment	5,113	5,731	12.1%
University Enrollment	0	0	0.0%
Group Quarters	633	633	0.0%
Hotel Rooms	665	740	11.3%
Median Household Income	69,298	69,300	0.0%

## Northeast Portage 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	16,074	17,664	9.9%
Households	5,783	6,354	9.9%
Population Under 18	3,589	3,918	9.2%
Vehicles	11,267	12,759	13.2%
Workers	7,531	8,008	6.3%

Employment				
NAICS 11	47	38	-19.1%	Agriculture, Forestry and Hunting
NAICS 21	0	0	0.0%	Mining
NAICS 22	0	0	0.0%	Utilities
NAICS 23	53	158	198.1%	Construction
NAICS 31-33	464	419	-9.7%	Manufacturing - Aggregated
NAICS 42	37	10	-73.0%	Wholesale Trade
NAICS 44-45	288	334	16.0%	Retail Trade - Aggregated
NAICS 48-49	74	102	37.8%	Transportation and Warehousing - Aggregated
NAICS 51	66	49	-25.8%	Information
NAICS 52	32	35	9.4%	Finance and Insurance
NAICS 53	27	12	-55.6%	Real Estate and Rental and Leasing
NAICS 54	65	34	-47.7%	Professional Scientific and Technical Services
NAICS 55	0	0	0.0%	Management of Companies and Enterprises
NAICS 56	18	80	344.4%	Administrative Support, Waste Management and Remediation
NAICS 61	713	627	-12.1%	Education Services
NAICS 62	120	189	57.5%	Health Care and Social Assistance
NAICS 71	34	26	-23.5%	Arts, Entertainment and Recreation
NAICS 72	510	331	-35.1%	Accommodation and Food Services
NAICS 81	87	59	-32.2%	Other Services (except Public Administration)
NAICS 92	187	138	-26.2%	Public Administration
NAICS 99	0	0	0.0%	Other
Total Employment	2,822	2,641	-6.4%	

K-12 School Enrollment	1,499	1,637	9.2%
University Enrollment	1,259	1,259	0.0%
Group Quarters	828	828	0.0%
Hotel Rooms	12	12	0.0%
Median Household Income	58,530	58,500	-0.1%

## Southwest Portage 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	87,749	95,852	9.2%
Households	34,048	37,169	9.2%
Population Under 18	16,766	18,553	10.7%
Vehicles	64,862	72,358	11.6%
Workers	43,217	45,682	5.7%

Employment				
NAICS 11	52	47	-9.6%	Agriculture, Forestry and Hunting
NAICS 21	231	174	-24.7%	Mining
NAICS 22	79	78	-1.3%	Utilities
NAICS 23	845	1,407	66.5%	Construction
NAICS 31-33	4,318	4,074	-5.7%	Manufacturing - Aggregated
NAICS 42	575	872	51.7%	Wholesale Trade
NAICS 44-45	2,836	4,215	48.6%	Retail Trade - Aggregated
NAICS 48-49	477	877	83.9%	Transportation and Warehousing - Aggregated
NAICS 51	292	228	-21.9%	Information
NAICS 52	496	485	-2.2%	Finance and Insurance
NAICS 53	239	325	36.0%	Real Estate and Rental and Leasing
NAICS 54	655	816	24.6%	Professional Scientific and Technical Services
NAICS 55	748	847	13.2%	Management of Companies and Enterprises
NAICS 56	608	564	-7.2%	Administrative Support, Waste Management and Remediation
NAICS 61	6,542	7,110	8.7%	Education Services
NAICS 62	4,108	5,679	38.2%	Health Care and Social Assistance
NAICS 71	205	195	-4.9%	Arts, Entertainment and Recreation
NAICS 72	2,568	3,369	31.2%	Accommodation and Food Services
NAICS 81	878	1,064	21.2%	Other Services (except Public Administration)
NAICS 92	1,247	1,134	-9.1%	Public Administration
NAICS 99	0	2	0.0%	Other
Total Employment	27,999	33,562	19.9%	

K-12 School Enrollment	7,091	7,848	10.7%
University Enrollment	25,676	25,767	0.4%
Group Quarters	6,447	6,558	1.7%
Hotel Rooms	658	733	11.4%
Median Household Income	57,851	57,900	0.1%

## Southeast Portage 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	14,552	15,552	6.9%
Households	5,518	6,009	8.9%
Population Under 18	3,385	3,632	7.3%
Vehicles	10,389	11,617	11.8%
Workers	7,281	7,688	5.6%

Employment				
NAICS 11	21	10	-52.4%	Agriculture, Forestry and Hunting
NAICS 21	61	45	-26.2%	Mining
NAICS 22	0	0	0.0%	Utilities
NAICS 23	190	201	5.8%	Construction
NAICS 31-33	60	76	26.7%	Manufacturing - Aggregated
NAICS 42	104	85	-18.3%	Wholesale Trade
NAICS 44-45	146	175	19.9%	Retail Trade - Aggregated
NAICS 48-49	179	130	-27.4%	Transportation and Warehousing - Aggregated
NAICS 51	0	0	0.0%	Information
NAICS 52	0	2	0.0%	Finance and Insurance
NAICS 53	16	13	-18.8%	Real Estate and Rental and Leasing
NAICS 54	26	3	-88.5%	Professional Scientific and Technical Services
NAICS 55	0	0	0.0%	Management of Companies and Enterprises
NAICS 56	20	23	15.0%	Administrative Support, Waste Management and Remediation
NAICS 61	328	402	22.6%	Education Services
NAICS 62	30	36	20.0%	Health Care and Social Assistance
NAICS 71	11	10	-9.1%	Arts, Entertainment and Recreation
NAICS 72	67	107	59.7%	Accommodation and Food Services
NAICS 81	27	12	-55.6%	Other Services (except Public Administration)
NAICS 92	100	49	-51.0%	Public Administration
NAICS 99	2	0	-100.0%	Other
Total Employment	1,388	1,379	-0.6%	

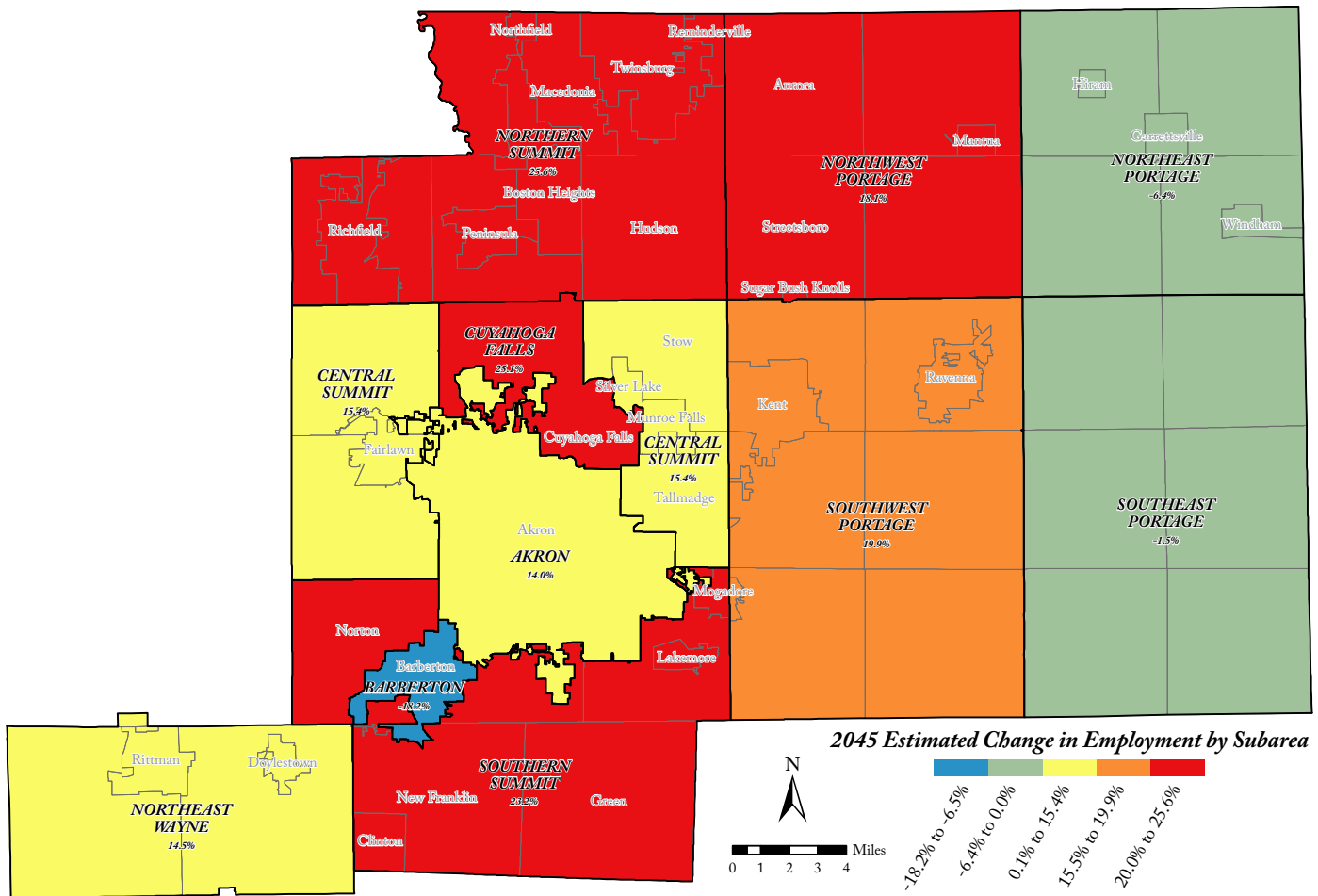
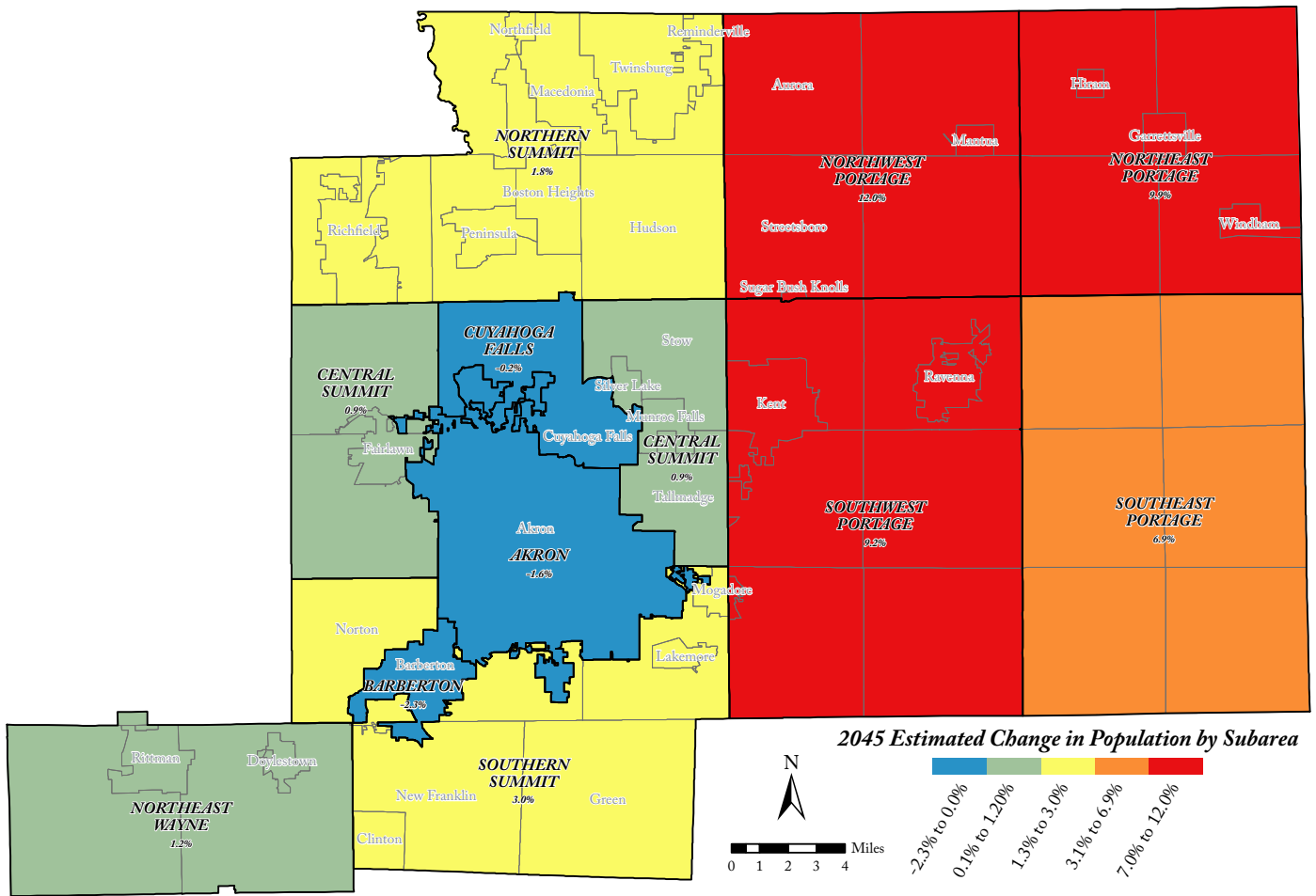
K-12 School Enrollment	2,046	2,199	7.5%
University Enrollment	0	0	0.0%
Group Quarters	6	6	0.0%
Hotel Rooms	0	0	0.0%
Median Household Income	64,636	59,300	-8.3%

## Northeast Wayne 2045 Forecast Characteristics

	BASE YEAR: 2010	PLAN YEAR: 2045	% CHANGE
Population	19,588	19,820	1.2%
Households	7,441	7,658	2.9%
Population Under 18	4,605	4,654	1.1%
Vehicles	13,803	13,991	1.4%
Workers	7,481	7,742	3.5%

Employment				
NAICS 11	142	151	6.3%	Agriculture, Forestry and Hunting
NAICS 21	14	69	392.9%	Mining
NAICS 22	21	15	-28.6%	Utilities
NAICS 23	161	301	87.0%	Construction
NAICS 31-33	543	390	-28.2%	Manufacturing - Aggregated
NAICS 42	131	120	-8.4%	Wholesale Trade
NAICS 44-45	341	368	7.9%	Retail Trade - Aggregated
NAICS 48-49	32	44	37.5%	Transportation and Warehousing - Aggregated
NAICS 51	39	21	-46.2%	Information
NAICS 52	54	62	14.8%	Finance and Insurance
NAICS 53	19	16	-15.8%	Real Estate and Rental and Leasing
NAICS 54	66	86	30.3%	Professional Scientific and Technical Services
NAICS 55	0	0	0.0%	Management of Companies and Enterprises
NAICS 56	39	42	7.7%	Administrative Support, Waste Management and Remediation
NAICS 61	449	477	6.2%	Education Services
NAICS 62	480	765	59.4%	Health Care and Social Assistance
NAICS 71	27	50	85.2%	Arts, Entertainment and Recreation
NAICS 72	128	145	13.3%	Accommodation and Food Services
NAICS 81	156	146	-6.4%	Other Services (except Public Administration)
NAICS 92	85	83	-2.4%	Public Administration
NAICS 99	0	0	0.0%	Other
Total Employment	2,927	3,351	14.5%	

K-12 School Enrollment	1,891	1,910	1.0%
University Enrollment	0	0	0.0%
Group Quarters	305	313	2.6%
Hotel Rooms	0	0	0.0%
Median Household Income	69,164	69,200	0.1%





# Conclusion

Understanding where current trends could be taking the AMATS region in the long-term future is an important part of the regional transportation planning process. The analyses contained within this report give us a glimpse into the potential future of the greater Akron region, in regards to many important transportation planning variables. Each of these variables has a varying degree of impact on the local transportation system. In addition to providing important planning insight, the massive amount of TAZ-level data generated during the Planning Data Forecast process will be input directly into the regional traffic demand model. Using this data, the model will be able to generate future traffic volumes, congestion and air quality data with the greatest possible accuracy.